

Project Manual
For

Pennies for Progress 3
Riverview Road (S-851) Improvements

February 8, 2023

County Management

David Hudspeth, County Manager
Michael Moore, Assistant County Manager
Kevin Madden, Assistant County Manager

County Council

District 1: Tom Audette
District 2: Allison Love
District 3: Tommy Adkins
District 4: William "Bump" Roddey
District 5: Christi Cox, Chairwoman
District 6: Watts Huckabee
District 7: Debi Cloninger

York County Engineering Reference No. 11149-012

Prepared for:

York County Engineering Department
PO Box 148
6 South Congress Street
York, South Carolina 29745
803-684-8571

Prepared by:

Campco Engineering, Inc.
156 Oakland Avenue
Rock Hill, SC 29730
803-327-7121

TABLE OF CONTENTS

DIVISION I	BID AND CONTRACT DOCUMENTS	NO. OF PAGES
<u>Section</u>	<u>Title</u>	
1	Invitation for Bids	2
2	Information to Bidders	15
3	Bid Proposal Documents	
	3A Bid Proposal Form and Schedule	15
	3B Bid Bond	3
4	Contract Documents	
	4A Agreement	4
	4B General Conditions	15
	4C Special Conditions	3
	4D Utilities Special Provisions/Conditions	1
	4E Performance and Indemnity Bond	3
	4F Payment Bond	4
	4G Notice of Award	1
	4H Notice to Proceed	1
	4I Non-Collusion Affidavit	1
	4J Certificate of Insurance	3
	4K Application for Payment	1
	4L Change Order Form	1
	4M Release and Waiver of Claim by Prime Contractor	1
DIVISION II	TECHNICAL SPECIFICATIONS	NO. OF PAGES
<u>Section</u>	<u>Title</u>	
1	SCDOT Technical Specifications Reference and Traffic Control Specifications Reference	1
2	Special Provisions	13
3	Traffic Control Special Provisions	8
4	Standard Water Specifications for the City of Rock Hill	58
5	Standard Sewer Specifications for the City of Rock Hill	84
6	Supplemental Specifications for the City of Rock Hill	
	33 01 30.16 Television Inspection of Pipes	7
	33 01 30.41 Cleaning of Pipes	5
	33 01 30.72 Water or Steam Cured-In-Place Pipe Lining	14
	33 01 30.81 Manhole Rehabilitation	13
	33 05 05 Excavated Point Repair	4
	33 05 23.13 Utility Horizontal Directional Drilling (HDD)	8
	33 05 32 Line Stops	3
DIVISION III	ATTACHMENTS	
<u>Section</u>	<u>Title</u>	
1	SCDOT Encroachment Permit – Water	2
2	SCDOT Encroachment Permit – Sewer	2
3	SCDHEC Stormwater Notice of Intent (NOI)	9
4	Geotechnical Engineering Report	121
5	Phase 1 Environmental Site Assessment	437
6	Waters of the US Permit (SAC-2019-01397)	27

END OF TABLE OF CONTENTS

DIVISION I

BID AND CONTRACT DOCUMENTS

DIVISION I - SECTION 1

INVITATION FOR BIDS



PROCUREMENT DEPARTMENT

Teria G. Sheffield
Procurement Director

SOLICITATION TYPE: Invitation for Bid **DATE:** 2/9/2023

ID Number: 2854 **Title:** Riverview Road (S851) Improvements

Due Date/Time: March 8, 2023 at 3:00 p.m.

LATE SUBMITTALS WILL NOT BE ACCEPTED

Opening Location:

Government Center Building
Room 3401
6 S. Congress St., York, SC 29745

Voluntary Pre-Solicitation Conference:

February 21, 2023 at 11:00 a.m.
Government Center Building
Room 3401
6 S. Congress St., York, SC 29745

Point of Contact: Bryant Cook, Procurement Manager
Email: procurement@yorkcountygov.com

Questions Deadline: No later than March 2, 2023 at 4:00 p.m.

Email: procurement@yorkcountygov.com

Tentative Date of Council Approval: March 20, 2023

DIVISION I - SECTION 2
INFORMATION TO BIDDERS

INFORMATION TO BIDDERS

1. PROJECT DESCRIPTION

1.1. The Work of this project consists of furnishing all labor, materials, equipment, tools, transportation, services and incidentals; and of performing all work necessary to complete all specified work in accordance with the Contract Documents prepared therefore and entitled **Riverview Road (S851) Improvements**. The work consists of widening Riverview Road (S-851) from two-lanes to three-lanes for approximately 1.0 mile from Eden Terrace (S-284) to Celanese Road (SC 161). The project will include installing curb and gutter, sidewalk, a closed drainage system, and replacing the existing water and sanitary sewer systems. The successful bidder will also be required to coordinate with the utility owners for utility relocation work including City of Rock Hill efforts to relocate overhead utilities to new underground systems, YCNGA gas line relocations, and any other impacted utilities within the project limits.

1.2. Completion time for the project will be **730 calendar days** as set forth in the Agreement.

2. DEFINED TERMS

2.1. Terms used in the Information to Bidders are defined and have the meanings assigned to them in the General Conditions.

3. COPIES OF BIDDING DOCUMENTS

3.1. Only complete sets of Bidding Documents will be issued and shall be used in preparing Bids. Neither the OWNER nor the ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

3.2. Complete sets of Bidding Documents may be obtained in the manner and at the location stated in the Invitation for Bids.

4. QUALIFICATIONS OF BIDDERS

4.1. Each Bid must contain evidence of the Bidder's qualifications to do business in the area where the project is located.

4.2. To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit, within five days of OWNER's request, a Statement of Qualifications providing written evidence as to the financial status; previous successful contractual and technical experience in similar work including references, description and volume of present commitments, evidence of possession of valid state, county, and local licenses; Certificates of Competency covering all operations and all areas of political jurisdiction involved in the work of this project; and such other data as may be requested by the OWNER.

4.3. Statement of Bidders Qualifications

If requested by the OWNER, Bidder must submit a Statement of Qualifications (the Qualifications) to include the following information. Bidder must provide all requested information in the Qualifications, and the data given must be clear and comprehensive. This statement shall be notarized and furnished to the OWNER, within five days of OWNER's request. If necessary, the Qualifications questions may be answered on separate, attached sheets. The Bidder may submit any additional information the Bidder desires.

4.3.1. Name of Bidder.

4.3.2. Name(s), address(es), & social security number(s) of company principal(s).

4.3.3. Permanent main office address.

4.3.4. When organized.

4.3.5. If a corporation or company, list the State where incorporated or registered, year incorporated or registered, and the location of the principal place of business.

4.3.6. How many years has your organization been engaged in the contracting business under your present firm or trade name?

4.3.7. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion).

4.3.8. Under what other and former names has your organization operated?

4.3.9. General character of work performed by your company.

4.3.10. Has your company ever failed to complete any work awarded to you?

4.3.11. Have you ever defaulted on a contract?

4.3.12. List the more important projects completed by your company in the last five (5) years, the approximate cost for each project, and the month and year completed.

4.3.13. List your major equipment available for this contract.

4.3.14. Experience in construction work similar in importance to this project.

4.3.15. Background and experience of the principal members of your organization, including officers.

4.3.16. Credit available: \$.

4.3.17. Give bank references: .

4.3.18. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the OWNER?

The following statement shall appear on the submitted Statement of Bidder Qualifications: "The undersigned hereby certifies that information furnished is true and accurate and further authorizes and requests all persons, firms, and corporations to furnish all information requested by the

OWNER to allow verification of the information requested in this Statement of Bidder's Qualifications."

5. DISQUALIFICATION OF BIDDERS

5.1. One Bid: Only one Bid from an individual firm, partnership, company, or corporation under the same or under different names will be considered. If OWNER believes that a Bidder submitted more than one Bid for the work involved, all Bids submitted by that Bidder will be rejected.

5.2. Collusion Among Bidders: If OWNER believes that collusion exists among the Bidders, the Bids of all participants in such collusion will be rejected, and no participants in such collusion will be considered in future Bids for the same work.

6. EXAMINATION OF SITE CONDITIONS

6.1. Each Bidder, by and through the submission of a Bid, agrees to have examined the site, the location of all proposed work, and is satisfied through personal knowledge and experience or professional advice as to the character and location of the site, surface and subsurface conditions, elevations, locations of underground utilities and structures, and any other conditions and obstructions affecting the work, the nature of any existing construction, and other physical characteristics of the job, in order that the prices which the Bidder bids include all costs required for satisfactory completion of the work, including the removal, relocation, or replacement of any objects or obstructions which may be encountered in doing the proposed work.

6.2. Reports and records of obstructions and subsurface investigations shown on the Drawings or included in the Bid Documents were made solely for design purposes. The OWNER and ENGINEER do not warrant, guarantee or represent that said data is accurate or complete with respect to actual subsurface conditions throughout the site. Therefore, the Bidder, by and through the submission of a Bid, affirms satisfaction in respect to such site conditions, and, should the Bidder be awarded the Contract, the Bidder agrees to make no claims against the OWNER or ENGINEER if, in carrying out the work, the Bidder finds that the actual conditions do not conform to those indicated. The OWNER will, upon request, provide each Bidder with reasonable access to the site to conduct such tests and investigations as each Bidder deems necessary for submission of a Bid. If a Bidder obtains such access, the Bidder shall restore the site to the condition existing prior to conducting said tests and investigations.

6.2.1. In reference to those reports of explorations and tests of subsurface conditions at the site which have been utilized by ENGINEER in preparation of the Contract Documents, Bidder may rely upon the accuracy of the technical data contained in such reports but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purpose of bidding or construction.

6.2.2. In reference to those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which has been utilized by ENGINEER in preparation of the Contract Documents, Bidder may rely upon the accuracy of the technical data contained in such drawings, but not upon the completeness for the purpose of bidding or construction.

Copies of such reports and drawings will be made available by OWNER to any Bidder upon request. Those reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which Bidder is entitled to rely as provided in Paragraphs 6.2.1 and 6.2.2 are incorporated into the Contract Documents by reference.

6.3. Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities or others, and OWNER does not assume responsibility for the accuracy or completeness thereof.

6.4. Should a Bidder find that any subsurface conditions, Underground Facilities or other physical conditions at or contiguous to the site is of such a nature as to require a change in the Contract Documents due to differing conditions, Bidder shall at once notify the ENGINEER in writing.

6.5. The land upon which the work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by OWNER in performing the Work are identified in the Bid Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by the successful Bidder. Easements for permanent structures or permanent changes in existing structures are to be obtained and/or paid for by OWNER unless otherwise provided in the Contract Documents.

7. EXAMINATION OF CONTRACT DOCUMENTS

7.1. Each Bidder shall carefully examine the Contract Documents and become thoroughly informed regarding any and all conditions and requirements that may in any manner affect cost, progress or performance of the Work to be performed under the Contract. Ignorance on the part of the Bidder will in no way relieve the Bidder of the obligations and responsibilities assumed under the Contract.

7.2. Should a Bidder find discrepancies, ambiguities, or omissions in the Bid Documents or Contract Documents or doubt as their meaning, the Bidder shall at once notify the ENGINEER in writing.

7.3. The Submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of Articles 6 and 7; without exception the Bid is premised upon performing and furnishing the Work required by the Contract Document; and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents; and the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

8. INTERPRETATIONS, CLARIFICATIONS AND ADDENDA

8.1. All questions about the meaning or intent of the Contract Documents or about the bid process must be written. No oral interpretations will be made to any Bidder as to the meaning of the Contract Documents or the bid process. Any inquiry or request for interpretation received five (5) or more days prior to the date fixed for opening of Bids will be given consideration unless otherwise specified on cover page. Any changes or interpretations will be made in writing in the

form of an addendum and, if issued, posted on the County's website www.yorkcountygov.com and notification will be sent by available means to all known prospective Bidders prior to the established bid opening date. Each Bidder shall acknowledge receipt of such addenda in the space provided on the Bid Form. In case any Bidder fails to acknowledge receipt of such addenda, submission of the bid constitutes acknowledgement of the receipt of all addenda. All addenda are a part of the Contract Documents and each Bidder will be bound by such addenda, whether or not received by the Bidder. It is the responsibility of each Bidder to verify that the Bidder has received all addenda issued before Bids are opened. Questions received less than five (5) Calendar days prior to the date for opening of Bids may not be answered unless otherwise specified on cover page. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will have no legal effect.

8.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.

8.3 Inquiries regarding interpretation or additional information concerning the County's requirements or stipulations concerning this request can be made via email as listed below.

8.4 Send questions regarding the project via the Q&A icon found through the link to the solicitation on the county website.

9. INTERPRETATION OF QUANTITIES

9.1. The quantities of work to be performed and materials to be furnished under unit price items, as given in the Bid Form, shall be considered as approximate only and will be used solely for the comparison of Bids received. The OWNER and/or ENGINEER do not expressly or by implication represent that the actual quantities involved will correspond exactly with the quantities on the Bid Form. The Bidder may not plead misunderstanding or deception because of such estimate or quantities or of the character, location or other conditions pertaining to the work. Payment to the CONTRACTOR under unit price items will be made only for the actual measured quantities of work performed and materials furnished in accordance with the Contract Documents, and it is understood that the quantities may be increased or decreased at the OWNER's option, as provided in the General Conditions, without in any way invalidating any of the unit or lump sum prices Bid.

10. ALTERNATES

10.1. When certain items of equipment or materials are specified or described as the product of a particular manufacturer - together with any required additional information such as model number, size or catalog number - only such specific items may be used in preparing the Bid, except as hereinafter provided.

10.2. A Bidder proposing to seek approval for the use of alternate, substitute, or "equal" items must do so in accordance with the provisions of Section 12 of the General Conditions and must determine that such proposed equipment is of comparable character and quality to that specified. The OWNER or the ENGINEER will not discuss, approve, or disapprove any alternate or substitution of equipment or materials before execution of the Contract. The cost of changes in

related work and additional drawings, which may be required to illustrate or define the alternate or substitute equipment and its relation to the other parts or portions of the work, shall be paid by the Bidder. Substitution of equipment or materials will cause no change in the Contract Time or in the amount of liquidated damages in the Contract Documents.

11. GOVERNING LAWS AND REGULATIONS

11.1. Upon award of a contract under this request the successful Bidder must comply with the laws of South Carolina including obtaining authorization or licensure to do business with this State if required.

11.2. Notwithstanding the fact that applicable statutes may exempt or exclude the successful Bidder from authorization or licensure requirements, by submission of this signed Bid, the Bidder agrees to be subject to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising under the Contract Documents and the performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.

11.3. The Bidder is required to be familiar with and shall be responsible for complying with all federal, State and local laws, ordinances, rules, and regulations that in any manner affect the work.

11.4. The bid prices shall include all sales, consumer, use, and other taxes required to be paid in accordance with the law of the place of the project.

12. PREPARATION OF BIDS

12.1. Signature of the Bidder: Each Bidder shall sign the Bid Form in the space provided for the signature. If the Bidder is an individual, the words "doing business as", or "Sole Owner" must appear beneath such signature. In the case of a partnership, the signature of at least one of the partners must follow the firm name and the words "Member of the Firm" should be written beneath such signature. If the Bidder is company, either a member or the managing member must sign the Bid on behalf of the company and provide evidence of the authority to sign the bid. If the Bidder is a corporation, the title of the officer signing the Bid on behalf of the corporation must be stated and evidence of the Bidders authority to sign the Bid must be submitted. Bids not signed may be automatically rejected.

12.2. The Bidder shall show valid South Carolina Contractor's License Number on the Bid Form. Failure to show this required information in the proper place may cause the Bid to be automatically rejected. All Bidders shall hold a valid and current South Carolina General Contractor's License, with the appropriate classifications and limitations to satisfy the proposed scope of work and bid amount.

12.3. Basis for Bidding: The price bid for each item shall be on a lump sum or unit price basis as specified in the Bid Form. The bid prices shall remain unchanged for the duration of the Contract and no claims for cost escalation during the progress of the work will be considered. All blanks on the Bid Form must be completed in black ink or typewritten.

12.4. Price Bid: The total price bid for the work shall be the aggregate of the lump sum prices bid and unit prices multiplied by the appropriate estimated quantities for the individual items and shall be stated in figures in the appropriate place on the Bid Form. In the event that there is a discrepancy on the Bid Form due to unit price extensions or additions, the corrected extensions and additions shall be used to determine the project bid amount. Written values (in words) shall supersede numerical values, when discrepancies exist.

13. SUBMISSION OF BIDS

13.1 Online submittal: Electronic submittals shall be uploaded in PDF format via the Getall portal which can be accessed at <https://www.yorkcountygov.com/217/Procurement> under Active Bids. To ensure that an electronic submittal is received by the due date and time, it is recommended that submittals are uploaded allowing sufficient time prior to deadline. An email confirmation of submittal will be received after clicking on the Confirm Bid button in the GetAll system. If confirmation email is not received, contact GetAll support at support@getall.com to confirm submittal was successful. The Offeror shall be responsible for confirming that submittal is received by the deadline. Any submittal received after the closing date and time deadline will not be considered.

For step by step instructions on how to submit a response select Help and then Quick Reference in the Getall portal:

13.2. Each bid shall be submitted on the Bid Form as furnished, together with a suitable bid security as herein described.

13.3. The Bid, accompanied by bid security, as described in Section 14, and other required documents, shall be submitted

13.4. If requested by the OWNER, Bidder shall submit, within five days of OWNER's request, a list of the names and addresses of the major subcontractors together with the services they will supply. These subcontractors will be subject to review as to their competency by the OWNER prior to award of Contract and shall be one of the considerations in determining the successful Bidder. After award of Contract, no change in subcontractors shall be made unless approved by the OWNER after a request for such a change, including the reasons therefore, has been submitted in writing by the CONTRACTOR.

13.5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION: The Bidder certifies, by submission of this document or acceptance of a contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any State, Federal department, or agency. It further agrees by submitting this qualification statement that it will include this clause without modification in all lower tier transactions, solicitations, Bids, contracts, and subcontracts. Where the Bidder or any lower tier participant is unable to certify to this statement, it shall attach an explanation to the Bid Form.

14. BID SECURITY

14.1. Each Bid must be accompanied by a cashier's check or Bid Bond made payable to the OWNER in an amount not less than five percent (5%) of the total amount of the Bid if the total amount of the bid exceeds \$30,000. Generally, the bid security of all Bidders, including the three (3) lowest responsible Bidders, will be returned within ten (10) days after the OWNER and the accepted Bidder have executed the written Contract and the accepted Bidder has filed acceptable Performance and Indemnity and Payment Bonds. Upon request and no earlier than thirty (30) days after the formal opening of bids, the County will return the bid security of any Bidder.

14.2. Attorneys in Fact who sign Bid Bonds shall file with such bonds a certified copy of their Power of Attorney to sign said Bonds.

14.3. Failure of the accepted Bidder to execute a Contract and file acceptable bonds within ten (10) days after a written Notice of Award has been given shall be just cause for the annulment of the award and the forfeiture of the bid security to the OWNER as liquidated damages for damages sustained by OWNER. Award may then be made to the next lowest responsible Bidder or all Bids may be rejected.

15. WITHDRAWAL OF BID

15.1. Any Bid may be withdrawn prior to the time scheduled in Invitation for Bids for the receipt thereof. A Bid may also be withdrawn within twenty-four (24) hours after the date of the receipt of the Bids, provided that the Bidder files a duly signed, written notice with OWNER and promptly there after demonstrates, to the reasonable satisfaction of OWNER, that there was a material and substantial mistake in the preparation of its Bid. The Bid security will be returned and the Bidder will be disqualified from further bidding on the work to be provided under the Contract Documents.

16. MODIFICATION OF BIDS

16.1. York County does not allow modification of bids after deadline for submittal.

17. RECEIPT AND OPENING OF BIDS

17.1. Bids will be received until the designated time and will be publicly opened and (unless non-responsive) read aloud at the appointed time and place stated in the Invitation for Bids. The person whose duty it is to open the Bids will decide when the specified time has arrived and no Bids received thereafter will be considered. No responsibility will be attached to anyone for the premature opening of a Bid not properly addressed and identified. Bidders or their authorized agents are invited to be present. An abstract of the amounts of the base Bids and major alternates (if any) will be available to Bidders after the opening of Bids.

18. DETERMINATION OF SUCCESSFUL BIDDER

18.1. For the purpose of award, the correct summation of the lump sum prices and/or of the products of the estimated quantities shown in the Bid and the unit prices will be considered the Bid. Until the final award of the Contract, the OWNER is not bound to accept the minimum Bid stated herein but reserves the right to reject any and all Bids and to waive technical errors and irregularities as may be deemed best for the interests of the OWNER. Bids containing modifications that are incomplete, unbalanced, conditional, and obscure; containing additions not requested or irregularities of any kind; not complying in every respect with the Information to Bidders and the Bid Documents, may be rejected at the option of the OWNER.

18.2. In evaluating Bids, OWNER will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, alternates (if any), unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

18.3. OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the qualifications to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.

18.4. The Bids of the three (3) lowest responsible Bidders will remain subject to acceptance for a maximum of one hundred twenty (120) days after the day of the Bid opening, but OWNER may, at its sole discretion, release any Bid and return the bid security prior to that date.

19. AWARD OF CONTRACT

19.1. The OWNER reserves the right to reject any or all Bids or any part of any Bid, to waive any informality in any Bid, or to re-advertise for all or part of the work contemplated. If Bids are found to be acceptable by the OWNER, written Notice of Award will be given to the lowest responsible Bidder of the acceptance of the Bid and of the award of the Contract.

19.2. If a Bidder to whom a Contract is awarded forfeits the bid security and the award of the Contract is annulled, the OWNER may either award the Contract to the next lowest responsible Bidder or re-advertise the work.

19.3. The Contract will be awarded to the lowest responsible Bidder complying with the applicable conditions of the Contract Documents.

19.4. The ability of a Bidder to obtain Performance and Indemnity and Payment Bonds shall not be regarded as the sole test of such Bidder's competence or responsibility.

19.5. The OWNER also reserves the right to reject the Bid of a Bidder who has previously failed to perform properly or to complete Contracts of a similar nature on time.

20. EXECUTION OF CONTRACT

20.1. The Bidder to whom a Contract is awarded will be required to return to the OWNER a minimum of three (3) executed counterparts of the prescribed Contract or Agreement together with the required Performance and Indemnity and Payment Bonds and the required Certificates of Insurance within ten (10) days from the date of Notice of Award. Within ten (10) days thereafter,

OWNER shall deliver one fully signed counterpart to CONTRACTOR. Each counterpart is to be accompanied by a complete set of Drawings with appropriate identification.

21. PERFORMANCE AND PAYMENT BONDS

21.1. Simultaneously with delivery of the executed Contract to the OWNER, a Bidder to whom a Contract has been awarded must deliver to the OWNER executed Performance and Indemnity and Payment Bonds on the prescribed forms each in an amount equal to one hundred percent (100%) of the total amount of the Contract Amount, as security for the faithful performance of the Contract and for the payment of all persons performing labor or furnishing materials in connection therewith. The Performance and Indemnity and Payment Bonds shall have as the surety thereon only such surety company or companies as are authorized to write bonds of such character and amount under the laws of the State of South Carolina and with a resident agent in the county in which the project is located. The Attorney in Fact or other officer who signs the Performance and Indemnity and Payment Bonds for a surety company must file with such bonds a certified copy of the Power of Attorney authorizing the Bidder to do so.

21.2. The Performance and Indemnity and Payment Bonds shall remain in force for two (2) year from the date of final payment of the Work as a protection to the OWNER against losses resulting from latent defects in materials or improper performance of work under the Contract, which may appear or be discovered during the one (1) year warranty period.

21.3. Qualification of Sureties shall be as described in the General Conditions.

22. GENERAL REQUIREMENTS

22.1 All Bidders including the employees of the Bidder must comply with all applicable Federal, State, and County laws pertaining to contracts entered into by governmental agencies, including non-discrimination employment. Contracts entered into on the basis of submitted Bid responses are revocable if contrary to law. Contracts for work resulting from this request will obligate the Bidder to not discriminate on the basis of race, color, creed, religion, handicap, or national origin in their employment practices.

23. TITLE VI OF CIVIL RIGHTS ACT OF 1964

23.1 Bidders shall comply with Title VI of the Civil Rights Act of 1964. York County strongly encourages the use of and involvement of Disadvantaged Business Enterprises (DBE) on this project.

24. CONFLICT OF INTEREST

24.1 The successful Bidder shall not knowingly employ, during the period of a contract, or any extensions to it, any professional personnel who are also in the employ of York County and who are providing services involving this request or services similar in nature to the scope of this request to the County. Furthermore, the Bidder shall not knowingly employ, during the period of

a contract or any extensions to it, any York County employee who has participated in the making of a contract until at least two years after the termination of employment of that individual with York County.

25. INDEMNIFICATION AND HOLD HARMLESS

25.1 The successful firm shall agree to protect, defend, indemnify, and forever hold harmless, the County, its agents, officers, and employees, from and against any and all claims, liabilities, damages, costs, actions, proceedings, of any nature whatsoever, however alleged or termed, or in any lawsuits, arising in any manner out of any action or failure to act, by the firm, its officers, agents, and employees, or relating to or arising out of the performance or failure to perform, by the firm, its officers, agents, and employees, any obligations arising under its agreement with the County, or any other type claim/lawsuit whatsoever, however alleged or termed, which may arise at any time as a result of or related to the provision of service(s) for the County by the successful firm, without regard to the source, nature, or validity of the claim/lawsuit. Losses, liabilities, expenses and claims for damages shall include, but not be limited to, civil and criminal fines and penalties, loss of use and/or services, claims for injury, damage, disability, property damage, or death, injury to real or personal property, and attorneys' fees, costs, and expenses incurred by the County or any of its agents, officers, and employees. The County shall not be precluded from receiving the benefits of any insurance the firm may carry which provides for indemnification for any loss or damage to property in the firm's custody and control, where such loss or destruction is to County property. The firm shall do nothing to prejudice the County's right to recover against third parties for any loss, destruction or damage to County property.

26. DRUG-FREE WORKPLACE

26.1 During the performance of this request, the firm agrees to provide a drug-free workplace for employees of that firm; post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the workplace and specify the actions that will be taken against employees for violations of such prohibition; and state in all solicitations or advertisements for employees placed by or on behalf of the firm that the firm maintains a drug-free workplace. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor/firm in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the request.

27. APPLICABILITY/JURISDICTION OF SOUTH CAROLINA LAW AND COURTS

27.1 Upon award of a contract under this request the person, partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful firm from requirements that it be authorized and/or licensed to do business in this State, by submission of

this signed Bid, the firm agrees to subject itself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.

28. CERTIFICATE OF INSURANCE

28.1 Once selected, the successful firm will be required to provide proof of insurance to include professional liability; workers compensation, employer's liability and general liability prior to commencing work.

29. ASSIGNMENT

29.1 No contract or its provisions may be assigned, sublet, or transferred without the written consent of the County.

30. OWNERSHIP OF MATERIAL

30.1 All Bids and supporting materials (including all data, material, and documentation) originated and prepared for York County pursuant to this SOLICITATION and including correspondences relating to this SOLICITATION shall, belong exclusively to York County.

31. PRIME RESPONSIBILITIES

31.1 The successful firm will be required to assume sole responsibility for the complete effort as required by this solicitation. York County will consider the successful firm to be the sole point of contact with regard to contractual matters.

32. SUBCONTRACTING

32.1 If any part of the work covered by this solicitation is to be subcontracted, the successful firm shall identify the subcontracting organization and the contractual arrangements made therewith. All subcontractors must be approved by York County. The successful firm will also furnish the corporate or company name.

33. RECORDS RETENTION AND RIGHT TO AUDIT

33.1 The County shall have the right to audit books and records of the successful firm as they pertain to this contract. Such books and records shall be maintained for a period of three (3) years from the date of final payment under the contract. The County may conduct, or have conducted, performance audits of the successful firm. The County may conduct, or have conducted, audits of specific requirements of this solicitation as determined necessary by the County. Pertaining to

all audits, successful firm shall make available to the County access to its computer files containing the history of contract performance and all other documents related to the audit. Additionally, any software used by the successful firm shall be made available for auditing purposes at no cost to the County.

34. PUBLIC ACCESS TO PROCUREMENT INFORMATION

34.1 Subject to the requirements of the Freedom of Information Act, commercial or financial information obtained in response to this SOLICITATION which is deemed privileged and confidential by the Bidder, will not be disclosed. Such privileged and confidential information should be clearly marked as such and includes information which if disclosed, might cause harm to the competitive position of the Bidder supplying the information. All Bidders, therefore, must visibly mark as "CONFIDENTIAL" each specific part of their Bid which such Bidders consider to contain proprietary or other privileged information. Additionally, all Bidders shall be solely responsible for identifying as exempt from the Freedom of Information Act and for visibly marking as "EXEMPT FROM FREEDOM OF INFORMATION ACT" each specific part of their Bid which Bidders deem to be so exempt and shall further be solely responsible for any consequences that might arise from the nondisclosure of any information that is subsequently determined not to have such an exemption. York County hereby disclaims any responsibility for not disclosing information identified by any Bidder as exempt from the Freedom of Information Act and further hereby disclaims any responsibility for any information which is disclosed as a result of Bidder's failure to visibly mark it as "CONFIDENTIAL" or to improperly mark it as "confidential". Bidder must identify specific parts of the Bid package as confidential. Failure to do so or to mark the entire Bid package as confidential may result in disclosure of that information.

35. NON-COLLUSION BIDDING CERTIFICATION AND DISQUALIFICATION

35.1 By submission of a bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid each party certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief.

35.2 The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other proposer or with any competitor.

35.3 Unless otherwise required by law, the prices which have been quoted in this bid have not knowingly been disclosed by the Bidder and will not knowingly be disclosed prior to the bid opening, directly or indirectly, to any other Bidder or to any competitor.

35.4 No attempt has been or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition

35.5 One Bid: Only one Bid from an individual firm, partnership, company, or corporation under the same or under different names will be considered. If OWNER believes that a Bidder submitted more than one Bid for the work involved, all Bids submitted by that Bidder will be rejected.

36. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION

36.1 The Bidder certifies, by submission of this document or acceptance of a contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any State, Federal department, or agency. It further agrees by submitting this qualification statement (if applicable) that it will include this clause without modification in all lower tier transactions, solicitations, Bids, contracts, and subcontracts. Where the Bidder or any lower tier participant is unable to certify to this statement, it must attach an explanation to this solicitation/bid.

37. CERTIFICATION REGARDING IMMIGRATION REFORM AND CONTROL

37.1 The Bidder certifies, by submission of this document or acceptance of a contract, that all Contractors are expected to comply with the Immigration and Reform Control Act of 1986 (IRCA), as may be amended from time to time. This Act, with certain limitations, requires the verification of the employment status of all individuals who were hired on or after November 6, 1986, by the Contractor as well as any subcontractor or sub-subcontractor. The usual method of verification is through the Employment Verification (I-9) Form. With the submission of this bid, the Contractor hereby certifies without exception that Contractor has complied with all federal and state laws relating to immigration and reform. Any misrepresentation in this regard or any employment of persons not authorized to work in the United States constitutes a material breach and, at the State's option, may subject the contract to termination and any applicable damages. The Contractor certifies that, should it be awarded a contract by the County, the Contractor will comply with all applicable federal and state laws, standards, orders and regulations affecting a person's participation and eligibility in any program or activity undertaken by the Contractor pursuant to this contract. The Contractor further certifies that it will remain in compliance throughout the term of the contract. At the County's request, the Contractor is expected to produce to the County any documentation or other such evidence to verify the Contractor's compliance with any provision, duty, certification, or the like under the contract. The Contractor agrees to include this Certification in contracts between itself and any subcontractors in connection with the services performed under this contract.

38. CHAIN OF COMMUNICATION

38.1 To ensure the integrity of the competitive process, a strict chain of communication shall apply to each Invitation for Bids, Request for Proposals, Request for Qualifications, or any other competitive solicitation during the period between publication of the solicitation and final award. Bidders or its agents may not communicate by any means, directly or indirectly, with York County public officials, employees, its agents, or representatives or any person not otherwise listed on this document, regarding any aspect of this procurement activity. All communications must be solely with the Procurement Officer. In the sole determination of the Procurement Officer and/or York County, violation of these restrictions may result in disqualification of your offer, suspension or debarment, and may constitute a violation of law.

39. PROHIBITION OF DONATIONS AND GRATUITIES

39.1 Bidders are restricted from making donations to any York County governmental entity with whom they have or seek to have a contract. The Bidder represents that an offer discloses any gifts made, directly or through an intermediary, by the Bidder or the Bidder's named subcontractors or subconsultants to or for the benefit of York County, its agents, or representatives during the period beginning eighteen months prior to the Opening Date. No Bidder, or any person, firm, or corporation employed by the Bidder in the performance of this request, may offer or give any gift, money or anything of value or any promise for future reward or compensation to any York County employee.

40. YORK COUNTY RESERVES THE RIGHT TO REJECT ANY AND/OR ALL BIDS AND TO WAIVE ANY AND ALL TECHNICALITIES

Signature, Title of CONTRACTOR

THIS SPACE IS INTENTIONALLY LEFT BLANK

DIVISION I - SECTION 3
BID PROPOSAL DOCUMENTS

DIVISION I - SECTION 3A
BID PROPOSAL FORM AND SCHEDULE

BID FORM

Riverview Road (S-851) Improvements

Submitted: _____, 20__

York County Government
6 South Congress Street
York, SC 29745

Sir or Madam:

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid, as principal or principals, is or are named herein and that no other person than herein mentioned has any interest in the Bid of the Contract to which the work pertains; that this Bid is made without connection or arrangement with any other person, company, or parties making a bid or proposal and that the Bid is in all respects fair and made in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the Work and, through personal knowledge and experience and/or subsurface investigations, has fully satisfied himself in regard to all conditions pertaining to such site and he assumes full responsibility therefore; that he has examined the Drawings and Specifications for the Work and from his own experience or from professional advice that the Drawings and Specifications are sufficient for the Work to be done; that he has examined the other Contract Documents and all addenda relating thereto, and that he has satisfied himself fully, relative to all matters and conditions with respect to the Work to which this Bid pertains.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with York County Government (OWNER) in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, transportation and labor and to perform all work necessary to complete the Work specified in the Bid and other Contract Documents.

The Bidder further proposes and agrees to commence substantial work on this project within 15 days of a Notice to Proceed and agrees that the Work will be completed and ready for final payment **within 730 days** of the Notice to Proceed.

The Bidder further agrees that the deductions for liquidated damages, as stated in the Agreement and General Conditions, constitute fixed, agreed, and liquidated damages to reimburse the OWNER for additional costs to the OWNER resulting from the Work not being completed within the time limit stated in the Contract Form. The liquidated damages shall be **\$1,400.00** for each consecutive calendar day thereafter.

The Bidder further agrees to execute a Contract and furnish satisfactory Performance and Indemnity and Payment Bonds, and the required Certificates of Insurance, within ten consecutive calendar days after receipt of Notice of Award of the Contract, and the undersigned agrees that in case of failure on his part to execute the said Contract and Performance and Indemnity and Payment Bonds within the ten (10) consecutive calendar days after the award of the Contract, the Bid guarantee accompanying his Bid and the money payable thereon shall be paid to the OWNER as liquidation of damages sustained by the OWNER; otherwise, the Bid guarantee shall be returned to the undersigned after the Contract is signed and the Performance and Indemnity and Payment Bonds are filed.

ACKNOWLEDGEMENT OF ADDENDA

Acknowledgement is hereby made of the following Addenda received since issuance of the Bid Documents:

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Company _____

Authorized Signature _____

Print Name _____

Email Address _____

(Please print clearly)

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

All work performed by the Contractor as essential to the completion of the intent of the Contract Documents shall be paid for in accordance with the Bid Schedule. No direct payment will be made for work performed which is not shown as a separate Bid Item. All costs shall be included in the various pay items in the Bid Schedule or an amount shown as Total Bid Amount for the work shown on the proposed project plans. The contractor certifies the following unit prices shall be utilized on the work. The unit prices shall also apply to any Extra Work necessary to complete the project, should modifications or variations occur in project quantities.

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
1031000	MOBILIZATION	LS	1		
1032010	BONDS AND INSURANCE	LS	1		
1050800	CONSTRUCTION STAKES, LINES AND GRADES	EA	1		
1052001	UTILITY STAKING	LS	1		
1071000	TRAFFIC CONTROL	LS	1		
1075001	LEVEL 3 EARTH-BORNE VIBRATION MONITORING	LS	1		
1080300	CPM PROGRESS SCHEDULE	LS	1		
1090200	AS-BUILT CONSTRUCTION PLANS	LS	1		
2011000	CLEARING & GRUBBING WITHIN RIGHT OF WAY	LS	1		
2021005	REMOVAL & DISPOSAL OF EXISTING CATCH BASIN	EA	10		
2021010	REMOVAL & DISPOSAL OF EXISTING DROP INLET	EA	10		
2021015	REMOVAL & DISPOSAL OF EXISTING MANHOLE	EA	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 1	LS	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 2	LS	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 3	LS	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 4	LS	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 5	LS	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 6	LS	1		
2022000	REMOVAL AND DISPOSAL ITEM NO. 7	LS	1		
2023000	REMOVAL & DISPOSAL OF EXISTING PAVEMENT	SY	450		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
2024100	REMOVAL & DISPOSAL OF EXISTING CURB	LF	850		
2025000	REMOVAL & DISPOSAL OF EXISTING ASPHALT PAVEMENT	SY	2,457		
2027000	REMOVAL & DISPOSAL OF EXISTING CONCRETE	CY	10		
2031000	UNCLASSIFIED EXCAVATION	CY	10,573		
2032000	ROCK EXCAVATION	CY	500		
2033000	BORROW EXCAVATION	CY	1,000		
2036020	GEOTEXTILE, SEPARATION	SY	2,000		
2036030	GEOTEXTILE STABILIZATION	SY	2,000		
2081001	FINE GRADING	SY	23,100		
2103000	FLOWABLE FILL	CY	30		
3050108	GRADED AGGREGATE BASE COURSE (8" UNIFORM)	SY	750		
3069900	MAINTENANCE STONE	TON	3,400		
3100310	HOT MIX ASPHALT BASE COURSE - TYPE A	TON	9,200		
4010005	PRIME COAT	GAL	220		
4011004	LIQUID ASPHALT BINDER PG64-22	TON	886		
4012060	FULL DEPTH ASPH. PAV. PATCHING 6"UNIF	SY	2,486		
4012100	FULL DEPTH ASPH. PAV. PATCHING 10"UNIF	SY	385		
4013175	MILLING EXISTING ASPHALT PAVEMENT 1.75"	SY	3,800		
4013990	MILLING EXISTING ASPHALT PAVEMENT (VARIABLE)	SY	330		
4020320	HOT MIX ASPHALT INTERMEDIATE COURSE TYPE B	TON	4,600		
4030320	HOT MIX ASPHALT SURFACE COURSE TYPE B	TON	2,960		
5021011	FULL DEPTH CONCRETE PAVEMENT PATCH - 8"	SY	400		
6021120	PERMANENT CONSTRUCTION SIGNS (GROUND MOUNTED)	SF	472		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
6021125	PERMANENT CONSTRUCTION SIGNS (BARRICADE MOUNTED)	SF	40		
6041200	BARRICADE - TYPE 3	LF	168		
6053110	TEMPORARY CONCRETE BARRIER	LF	80		
608100B	TYPE B - FLASHING LIGHT	EA	32		
6092100	TEMPORARY CLEAR PAVEMENT MARKERS MONO-DIR.- 4"X4"	EA	51		
6092150	TEMPORARY YELLOW PAVEMENT MARKERS MONO-DIR.- 4"X4"	EA	495		
6092155	TEMPORARY YELLOW PAVEMENT MARKERS BI-DIR.- 4"X4"	EA	812		
6250005	4" WHITE BROKEN LINES -(GAPS EXCLUDED)-FAST DRY PAINT	LF	1,403		
6250010	4" WHITE SOLID LINES (PVT. EDGE LINES)-FAST DRY PAINT	LF	45,479		
6250015	8"WHITE SOLID LINES(CROSSWALK&CHANNELIZATION)FAST DRY PAINT	LF	2,270		
6250025	24" WHITE SOLID LINES (STOP/DIAGONAL LINES)-FAST DRY PAINT	LF	694		
6250030	WHITE SINGLE ARROW (LEFT, STRAIGHT, RIGHT)-FAST DRY PAINT	EA	42		
6250035	WHITE WORD MESSAGE "ONLY"-FAST DRY PAINT	EA	21		
6250040	WHITE COMBINATION ARROW(STR.& RT.OR STR.& LT.)FAST DRY PAINT	EA	24		
6250105	4" YELLOW BROKEN LINES(GAPS EXC) - FAST DRY PAINT	LF	2,031		
6250110	4" YELLOW SOLID LINE (PVT.EDGE & NO PASSING ZONE)-FAST DRY PAINT	LF	67,319		
6271005	4" WHITE BROKEN LINES(GAPS EXCL.)THERMOPLASTIC- 90 MIL.	LF	535		
6271010	4" WHITE SOLID LINES (PVT. EDGE LINES) THERMO.- 90 MIL.	LF	373		
6271015	8" WHITE SOLID LINES THERMOPLASTIC - 125 MIL.	LF	990		
6271025	24" WHITE SOLID LINES (STOP/DIAG LINES)-THERMO.-125 MIL	LF	241		
6271030	WHITE SINGLE ARROWS (LT, STRGHT, RT) THERMO.-125 MIL.	EA	14		
6271035	WHITE WORD MESSAGE "ONLY" -THERMOPLASTIC - 125 MIL.	EA	7		
6271040	WHITE COMBINATION ARROWS(STR&RT.OR STR<)THERMO-125MIL	EA	4		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
6271064	4" YELLOW BROKEN LINES(GAPS EXC)THERMOPLASTIC - 90 MIL.	LF	1,669		
6271074	4" YELLOW SOLID LINES(PVT.EDGE LINES) THERMO-90 MIL.	LF	12,530		
6300005	PERMANENT CLEAR PAVEMENT MARKERS- MONO-DIR.- 4"X4"	EA	16		
6301005	PERMANENT YELLOW PAVEMENT MARKERS MONO-DIR.- 4"X 4" PERM. YEL.	EA	167		
6301100	PERMANENT YELLOW PAVEMENT MARKERS BI-DIR.- 4"X4"	EA	245		
6510105	FLAT SHEET, TYPE III, FIXED SZ. & MSG. SIGN	SF	106		
6510106	FLAT SHEET, TYPE III, SIZE DETERMINED BY MSG	SF	15		
6531210	U-SECTION POST FOR SIGN SUPPORTS - 3P	LF	265		
6531215	U-SECTION POST FOR SIGN BRACING - 2P	LF	10		
6750213	2.0" SCHEDULE 40 PVC CONDUIT	LF	1,500		
6750220	3.0" SCHEDULE 40 PVC CONDUIT	LF	140		
6750224	4.0" SCHEDULE 40 PVC CONDUIT	LF	1,710		
6750275	1.0" SCHEDULE 80 PVC CONDUIT	LF	50		
6750278	2.0" SCHEDULE 80 PVC CONDUIT	LF	460		
6760060	FURNISH & INSTALL 2" SCHEDULE 80 HDPE CONDUIT (TRENCHLESS)	LF	330		
6770413	NO.14 COPPER WIRE,1 CONDUCTOR FOR LOOP WIRE	LF	4,800		
6780495	SAWCUT FOR LOOP DETECTOR	LF	1,730		
6800518	13"X24"X18"D.ELEC.FLUSH UNDGRD.ENCLOSURE-(STR.POLY.CONC.)HD	EA	4		
6885992	TEMPORARY ADJUSTMENT OF TRAFFIC SIGNAL EQUIPMENT	LS	1		
7016185	STRAIGHT HEADWALL FOR 54" CIRCULAR PIPE - 1 LINE	EA	2		
7143615	15" SMOOTH WALL PIPE	LF	28		
7143618	18" SMOOTH WALL PIPE	LF	6,252		
7143624	24" SMOOTH WALL PIPE	LF	2,388		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
7143630	30" SMOOTH WALL PIPE	LF	296		
7143636	36" SMOOTH WALL PIPE	LF	160		
7143654	54" SMOOTH WALL PIPE	LF	544		
7149999	CLEAN EXISTING PIPE	LF	1,100		
7181005	CATCH BASIN - TYPE 1	EA	2		
7191050	CATCH BASIN - TYPE 1 SPECIAL	EA	2		
7191250	CATCH BASIN -TYPE 9 MH	EA	8		
7191605	CATCH BASIN - TYPE 16	EA	39		
7191625	CATCH BASIN - TYPE 17	EA	2		
7191650	CATCH BASIN -TYPE 18	EA	6		
7192020	DROP INLETS (24 X 36)	EA	3		
7192105	MANHOLE	EA	9		
7192205	24" X 24" JUNCTION BOX	EA	1		
7193110	PRECAST CONCRETE DRAINAGE BASE - 84" DIAMETER	EA	3		
7193152	PRECAST CONCRETE TRANSITION SECTION - FLAT SLAB (84" TO 48")	EA	3		
7196000	EXTRA DEPTH OF BOX	LF	79		
7197052	CONCRETE COLLAR FOR UP TO 24" PIPE	EA	2		
7203210	CONCRETE CURB AND GUTTER(2'-0") VERTICAL FACE	LF	12,008		
7204100	CONCRETE SIDEWALK (4" UNIFORM)	SY	5,300		
7204900	DETECTABLE WARNING SURFACE	SF	925		
7205000	CONCRETE DRIVEWAY (6" UNIFORM)	SY	775		
7206000	CONCRETE MEDIAN	SY	80		
7209000	PEDESTRIAN RAMP CONSTRUCTION	SY	1,850		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
8041020	RIP-RAP (CLASS B)	TON	275		
8042800	GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP(CLASS 2)	SY	160		
8048205	GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP(CLASS 2)TYPE B	SY	186		
8071000	RESET FENCE	LF	1,283		
8081000	MOVING ITEM NO. 1	LS	1		
8081000	MOVING ITEM NO. 2	LS	1		
8081000	MOVING ITEM NO. 3	LS	1		
8081000	MOVING ITEM NO. 4	LS	1		
8081000	MOVING ITEM NO. 5	LS	1		
8081000	MOVING ITEM NO. 6	LS	1		
8081000	MOVING ITEM NO. 7	LS	1		
8081000	MOVING ITEM NO. 8	LS	1		
8081000	MOVING ITEM NO. 9	LS	1		
8081000	MOVING ITEM NO. 10	LS	1		
8081000	MOVING ITEM NO. 11	LS	1		
8081000	MOVING ITEM NO. 12	LS	1		
8081000	MOVING ITEM NO. 13	LS	1		
8081000	MOVING ITEM NO. 14	LS	1		
8081000	MOVING ITEM NO. 15	LS	1		
8081000	MOVING ITEM NO. 16	LS	1		
8081000	MOVING ITEM NO. 17	LS	1		
8081000	MOVING ITEM NO. 18	LS	1		
8081000	MOVING ITEM NO. 19	LS	1		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
8081000	MOVING ITEM NO. 20	LS	1		
8081000	MOVING ITEM NO. 21	LS	1		
8081000	MOVING ITEM NO. 22	LS	1		
8081000	MOVING ITEM NO. 23	LS	1		
8081000	MOVING ITEM NO. 24	LS	1		
8081000	MOVING ITEM NO. 25	LS	1		
8081000	MOVING ITEM NO. 26	LS	1		
8081000	MOVING ITEM NO. 27	LS	1		
8081000	MOVING ITEM NO. 28	LS	1		
8091010	RIGHT OF WAY MARKER (REBAR AND CAP)	EA	65		
8091050	RIGHT OF WAY PLAT	LS	1		
8100100	PERMANENT COVER	ACRE	3		
8100200	TEMPORARY COVER	ACRE	5		
8101110	STRAW OR HAY MULCH WITH TACKIFIER	ACRE	2		
8104005	FERTILIZER (NITROGEN)	LB	300		
8104010	FERTILIZER (PHOSPHORIC ACID)	LB	300		
8104015	FERTILIZER (POTASH)	LB	300		
8105005	AGRICULTURAL GRANULAR LIME	LB	6,000		
8109050	SELECTIVE WATERING	GAL	54,300		
8109901	MOWING	ACRE	8		
8151110	TEMPORARY EROSION CONTROL BLANKET (ECB)	MSY	0.402		
8151203	HYDRAULIC EROSION CONTROL PRODUCT (HECP) - TYPE 3	ACRE	2		
8152006	INLET STRUCTURE FILTER - TYPE F (NON-WEIGHTED)	LF	64		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
8152007	SEDIMENT TUBES FOR DITCH CHECKS	LF	477		
8153000	SILT FENCE	LF	5,060		
8153090	REPLACE/REPAIR SILT FENCE	LF	506		
8154010	CLEANING SILT BASINS	CY	53		
8154050	REMOVAL OF SILT RETAINED BY SILT FENCE	LF	1,265		
8156200	CLEANING INLET STRUCTURE FILTERS	EA	160		
8156210	INLET STRUCTURE FILTER - TYPE B	EA	102		
8156211	INLET STRUCTURE FILTER - TYPE E (CATCH BASIN TYPE 1)	EA	9		
8156212	INLET STRUCTURE FILTER - TYPE E (CATCH BASIN TYPE 16)	EA	61		
8156214	INLET STRUCTURE FILTER - TYPE E (CATCH BASIN TYPE 18)	EA	6		
8156410	AGGREGATE NO.5 OR NO.57 FOR EROSION CONTROL	TON	30		
8156490	STABILIZED CONSTRUCTION ENTRANCE	SY	2,378		
W1	JUMPER CONNECTION, INSTALLED	EA	2		
W2	8" PC 350 D.I. WATER MAIN, INSTALLED	LF	3,504		
W3	8" PC 350 D.I. WATER MAIN W/FIELD LOK GASKETS, INSTALLED	LF	240		
W4	10" DR9 HDPE WATER MAIN BY DIRECTIONAL DRILLING "IN-SOIL", COMPLETE	LF	500		
W5	10" DR9 HDPE WATER MAIN BY DIRECTIONAL DRILLING "IN-ROCK", COMPLETE	LF	50		
W6	HDPE/D.I. ADAPTERS, INSTALLED	EA	4		
W7	F.H. ASSEMBLY OFF 8" WATER MAIN, INSTALLED	EA	12		
W8	8" GATE VALVE W/BOX, INSTALLED	EA	5		
W9	8" X 8" X 8" TEE W/BLOCKING, INSTALLED	EA	1		
W10	8" x 8" x 6" TEE W/BLOCKING, INSTALLED	EA	1		
W11	8" - 45° VERTICAL BEND W/BLOCKING, INSTALLED	EA	2		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
W12	12" x 12" x 8" TAPPING SLEEVE AND VALVE W/BOX, INSTALLED	EA	1		
W13	8" - 90° BEND W/BLOCKING, INSTALLED	EA	2		
W14	8" - 45° BEND W/BLOCKING, INSTALLED	EA	10		
W15	8" - 22.5° BEND W/BLOCKING, INSTALLED	EA	1		
W16	24" X 24" X 8" TAPPING SLEEVE AND VALVE W/BOX, INSTALLED	EA	1		
W17	6" PC350 D.I. WATER MAIN, INSTALLED	LF	64		
W18	6" GATE VALVE W/BOX, INSTALLED	EA	1		
W19	6" - 45° BEND W/BLOCKING, INSTALLED	EA	2		
W20	2" TYPE 'K' COPPER SERVICE LINE WITH SERVICE SADDLE CONNECTION AND 2" GATE VALVE WITH BOX, INSTALLED	EA	1		
W21	3/4" SERVICE CONNECTION, COMPLETE	EA	16		
W22	1" SERVICE CONNECTION, COMPLETE	EA	13		
W23	1.5" SERVICE CONNECTION, COMPLETE	EA	1		
W24	2" SERVICE CONNECTION, COMPLETE	EA	13		
W25	1" FIRE PROTECTION SERVICE LINE CONNECTION, COMPLETE	EA	1		
W26	4" FIRE PROTECTION SERVICE LINE CONNECTION, COMPLETE	EA	2		
W27	REMOVE EXISTING FIRE HYDRANT, COMPLETE	EA	7		
W28	ABANDON EXISTING WATER MAIN AND FILL W/FLOWABLE FILL, COMPLETE	CY	20		
W29	8" HYDRO STOPS WITH BLOCKING, INSTALLED	EA	2		
W30	8" MJ PLUG, INSTALLED	EA	3		
W31	8" WATER STUB-OUT, INSTALLED	EA	1		
W32	RELOCATE EXISTING FIRE HYDRANT CLEAR OF SIDEWALK, COMPLETE	EA	1		
W33	TRENCH ROCK EXCAVATION AND REMOVAL	CY	450		
W34	12" X 8" REDUCER, INSTALLED	EA	1		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
W35	REMOVE AND DISPOSE EXISTING AC WATERLINE. COMPLETE	LF	2,745		
S1	4' DIAMETER PRECAST MANHOLE, INSTALLED				
	A. 6'-8' DEEP	EA	3		
	B. 8'-10' DEEP	EA	3		
	C. 10'-12' DEEP	EA	2		
	D. 12'-14' DEEP	EA	1		
	E. 14'-16' DEEP	EA	1		
	F. 16'-18' DEEP	EA	3		
S2	4' DIAMETER PRECAST MANHOLE TO REPLACE EXISTING, INSTALLED				
	A. 6'-8' DEEP	EA	2		
S3	4' DIAMETER PRECAST DOGHOUSE MANHOLE, INSTALLED				
	A. 0'-6' DEEP	EA	1		
S4	4' SANITARY SEWER OUTSIDE VERTICAL DROP, INSTALLED	VF	10		
S5	REPLACE EXISTING 8" SANITARY SEWER PIPE WITH 8" PC350 D.I. SANITARY PIPE, INSTALLED				
	A. 0-6' DEEP	LF	26		
	B. 6'-8' DEEP	LF	50		
S6	8" PC350 D.I. SANITARY SEWER PIPE, INSTALLED				
	A. 6'-8' DEEP	LF	94		
	B. 8'-10' DEEP	LF	709		
	C. 10'-12' DEEP	LF	661		
	D. 12'-14' DEEP	LF	81		
	E. 14'-16' DEEP	LF	376		
	F. 16'-18' DEEP	LF	219		

**BID SCHEDULE
RIVERVIEW ROAD (S-851) IMPROVEMENTS**

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE (\$)	TOTAL AMOUNT (\$)
S7	12" PC350 D.I. SANITARY SEWER PIPE, INSTALLED				
	A. 6'-8' DEEP	LF	79		
S8	CONNECT 8" PC350 D.I. SANITARY SEWER PIPE INTO EXISTING MANHOLE, COMPLETE	EA	2		
S9	ABANDON EXISTING SANITARY SEWER LINE AND FILL WITH FLOWABLE FILL, COMPLETE	CY	25		
S10	ABANDON EXISTING MANHOLE IN ROADWAY, COMPLETE	EA	3		
S11	ABANDON EXISTING SANITARY SEWER FORCE MAIN AND FILL WITH FLOWABLE FILL, COMPLETE	CY	5		
S12	ABANDON EXISTING LIFT STATION, COMPLETE	LS	1		
S13	REMOVE EXISTING MANHOLE, COMPLETE	EA	1		
S14	NEW 6" SANITARY SEWER SERVICE WITH CLEANOUT, COMPLETE	EA	10		
S15	NEW 6" SANITARY SEWER SERVICE WITH CLEANOUT - EXTERNAL DROP, COMPLETE	EA	1		
S16	REMOVE AND REPLACE EXISTING SANITARY SEWER SERVICE WITH NEW SANITARY SEWER SERVICE WITH CLEANOUT, COMPLETE	EA	3		
S17	REMOVE AND REPLACE EXISTING SANITARY SEWER SERVICE WITH NEW SANITARY SEWER SERVICE AND CONNECT TO REHABILITATED SEWER LINE WITH SERVICE LATERAL SADDLE, COMPLETE	EA	18		
S18	RETAIN AND CIPPL EXISTING 8" VCP SANITARY SEWER LINE, COMPLETE	LF	1,676		
S19	RETAIN AND REHABILITATE EXISTING MANHOLE, COMPLETE	VF	75		
S20	ADJUST RETAINED MANHOLE TO FINISH GRADE AND REPLACE FRAME AND COVER, COMPLETE	EA	13		
S21	ADJUST EXISTING SANITARY SEWER MANHOLE TO MATCH SIDEWALK ELEVATION, COMPLETE	EA	2		
S22	8" FERNCO COUPLING FOR TEMPORARY SEWER PIPE CONNECTION, INSTALLED	EA	2		
S23	TRENCH ROCK EXCAVATION AND REMOVAL	CY	750		
S24	EXISTING SANITARY SEWER PIPE POINT REPAIR PRIOR TO REHABILITATION, COMPLETE	LF	40		
S25	PUMP AROUND FOR HIGH VOLUME SANITARY SEWER SERVICE LINE, COMPLETE	EA	12		
SP1	VIDEO INSPECTION	LS	1		
TOTAL BASE BID					

BID FORM

Riverview Road (S-851) Improvements

Base Bid List

(The base bid of this bid document shall include all costs to provide each line item described to the roads contained within this bid and as outlined in this bid document.)

Base Bid Subtotal \$ _____

10% for Allowance (Total Cost X 10%) \$ _____

Total Project Bid: \$ _____

Attached hereto is a cashier's check on the _____
Bank of _____
or Bid Bond for the sum _____ Dollars (_____), made
payable to _____ (Owner).

_____ L.S.
(Name of Bidder) (Affix Seal)

_____ L.S.
(Signature of Officer)

_____ L.S.
(Title of Officer)

Address:

P.O. Box _____ Street: _____

City: _____ State, Zip Code: _____

Telephone: _____ Fax: _____

Federal ID#: _____

Email address: _____

Contractor License type: _____ Contractor License number: _____

License status: _____ Expiration: _____

Classification: _____

The full names and residences of persons and firms interested in the foregoing bid, as principals, are as follows:

Name of the executive who will give personal attention to the work:

Attach list of subcontractors as required by Article 13.4 of Information to Bidders.

END OF SECTION

DIVISION I - SECTION 3B

BID BOND FORM

SAMPLE

BID BOND
(EXAMPLE FORMAT)

STATE OF SOUTH CAROLINA
COUNTY OF YORK

KNOW ALL MEN BY THESE PRESENTS, that _____
as Principal, and _____, as Surety, a
Corporation chartered and existing under the laws of the State of _____, with
its principal offices in the City of _____, and authorized to do business in the State of
South Carolina are held and firmly bound unto the OWNER, _____
_____ in the penal Sum of _____
_____ Dollars (\$_____) lawful money of the United States, for
the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors,
administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted to the
OWNER the accompanying bid, dated _____, **20__**, for:

Riverview Road (S-851) Improvements

NOW, THEREFORE,

- A. If said Bid shall be rejected, or
- B. If the principal shall not withdraw said Bid within twenty-four (24) hours after date of opening of the same, and shall within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the OWNER in accordance with the Bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and effect.
- C. In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such contract and give such bonds within the time specified, if the principal shall pay the OWNER the difference between the amount specified in said bid and the amount for which the OWNER may procure the required work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this ____ day of _____, A.D., 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

PRINCIPAL:

Name of Firm

Signature of Authorized Officer
(Affix Seal)

Title

Business Address

City State

WITNESS:

SURETY:

Corporate Surety

(Affix Attorney-in-Fact Seal)

Business Address

City State

Name of Local Insurance Agency

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the principal, was then _____ of said corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

(Corporate Secretary Seal)

STATE OF SOUTH CAROLINA
COUNTY OF YORK

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-in-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the Contractor named therein in favor of the OWNER, the _____.

Subscribed and sworn to before me this ____ day of _____, 20____, A.D.

(Attach Power of Attorney
to original Bid Bond)

Notary Public
State of South Carolina-at-Large

My Commission Expires: _____

END OF SECTION

DIVISION I - SECTION 4
CONTRACT DOCUMENTS

DIVISION I - SECTION 4A
AGREEMENT

AGREEMENT

THIS AGREEMENT, made and entered into this ____ day of _____, 20__ A.D., by and between the York County Government, party of the first part (hereinafter sometimes called the "OWNER"), and _____, party of the second part (hereinafter sometimes called the "CONTRACTOR").

WITNESSETH: That the parties hereto, for the consideration hereinafter set forth, mutually agree as follows:

1. SCOPE OF THE WORK

- 1.1. The CONTRACTOR shall furnish all labor, materials, equipment, machinery, tools, apparatus, and transportation and perform all of the Work shown on the Drawings and described in the Specifications entitled:

***Pennies for Progress Project
Riverview Road (S-851) Improvements***

as prepared by York County Engineering Department acting as, and in the Contract Documents entitled the ENGINEER, and shall do everything required by this Contract and the other Contract Documents.

2. THE CONTRACT SUM

- 2.1. The OWNER shall pay to the CONTRACTOR for the faithful performance of the Contract, in lawful money of the United States, and subject to addition and deductions as provided in the Contract Documents, a total sum as follows:

Based upon the prices shown in the Bid heretofore submitted to the OWNER by the CONTRACTOR, a copy of said Proposal being a part of these Contract Documents, the aggregate amount of this Contract (obtained from either the lump sum price, the application of unit prices to the quantities shown in the Bid, or the combination of both) being the sum of

(\$.00).

3. COMMENCEMENT AND COMPLETION OF WORK

- 3.1. The CONTRACTOR shall commence Work and the Contract Time will commence to run on the date fixed in the Notice to Proceed.
- 3.2. The CONTRACTOR shall prosecute the Work with faithfulness and diligence and shall be completed and ready for final payment within **730 calendar days** after commencement date fixed in the Notice to Proceed.

4. CONTRACTOR'S ACCEPTANCE OF CONDITIONS

- 4.1. The CONTRACTOR hereby agrees that, by virtue of submitting a completed Bid including his declarations therein of full satisfaction, knowledge and understanding of the Contract Documents, site conditions (surface and subsurface) and all other conditions affecting the Work, he assumes full responsibility for performance of the Work as required under this Contract. It is expressly agreed that under no circumstances, conditions or situations shall this Contract be more strongly construed against the OWNER than against the CONTRACTOR and his Surety.

4.2. It is understood and agreed that the passing, approval and/or acceptance of any part of the Work or material by the OWNER, ENGINEER, or by any agent or representative, as being in compliance with the terms of this Contract and/or of the Contract Documents, shall not operate as a waiver by the OWNER of strict compliance with the terms of this Contract, and/or the Contract Documents covering said Work; and the OWNER may require the CONTRACTOR and/or his surety to repair, replace, restore and/or make to comply strictly and in all things with this Contract and the Contract Documents any and all of said Work and/or materials which within a period of two years from and after the date of the acceptance of any such Work or material, are found to be defective or to fail in any way to comply with this Contract or with the Contract Documents. This provision shall not apply to materials or equipment normally expected to deteriorate or wear out and become subject to normal repair and replacement before their condition is discovered. Failure on the part of the CONTRACTOR and/or his Surety, immediately after notice to either, to repair or replace any such defective materials and workmanship shall entitle the OWNER, if it sees fit, to replace or repair the same and recover the reasonable cost of such replacement and/or repair from the CONTRACTOR and/or his surety, who shall in any event be jointly and severally liable to the OWNER for all damage, loss and expense caused to the OWNER by reason of the CONTRACTOR's breach of this Contract and/or his failure to comply strictly and in all things with this Contract.

5. LIQUIDATED DAMAGES

5.1. It is mutually agreed that time is of the essence of this Contract and should the CONTRACTOR fail to complete the work within the specified time, or any authorized extension thereof, there shall be deducted from the compensation otherwise to be paid to the CONTRACTOR, and the OWNER will retain the amount of *One Thousand, Four Hundred Dollars (\$1,400.00)* per calendar day as fixed, agreed, and liquidated damages for each calendar day elapsing beyond the specified time for substantial completion or any authorized extension thereof, which sum shall represent the actual damages which the OWNER will have sustained by failure of the CONTRACTOR to complete the work within the specified time. After substantial completion, if the CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, Contractor shall pay OWNER *One Thousand, Four Hundred Dollars (\$1,400.00)* per for each calendar day that expires after the date specified for Final Completion and readiness for final payment until the work is complete and ready for final payment. It being further agreed that said sum is not a penalty, but is the stipulated amount of damages sustained by the OWNER in the event of such default by the CONTRACTOR.

5.2. For the purposes of this Article, the day of final acceptance of the Work shall be considered a day of delay, and the scheduled day of completion of the work shall be considered a day scheduled for production.

6. PARTIAL AND FINAL PAYMENTS

6.1. In accordance with the provisions fully set forth in the General Conditions, and subject to additions and deductions as provided, the OWNER shall pay the CONTRACTOR as follows:

6.1.1. Within 30 days after receipt by the OWNER of the CONTRACTOR's request for partial payment, the OWNER shall make partial payments to the CONTRACTOR, on the basis of the estimate of Work as approved by the ENGINEER, for work performed during the preceding calendar month, less five percent (5%) of the amount of such estimate which is to be retained by the OWNER until all Work has been performed strictly in accordance with this Agreement and until such Work has been accepted by the OWNER.

6.1.2. Upon submission by the CONTRACTOR of evidence satisfactory to the OWNER that all payrolls, material bills and other costs incurred by the CONTRACTOR in connection with the construction of the Work have been paid in full, including all retainage to

subcontractors on the project, and also after all guarantees that may be required in the specifications have been furnished and are found acceptable by the OWNER, final payment on account of this Agreement shall be made within sixty (60) days after completion by the CONTRACTOR of all Work covered by this Agreement and acceptance of such Work by the OWNER.

6.1.3. Retainage will be released in full at Final Completion.

7. ADDITIONAL BOND

7.1. It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Performance and Payment Bonds hereto attached for its faithful performance, the OWNER shall deem the surety or sureties upon such bonds to be unsatisfactory, or if, for any reason, such bond(s) ceases to be adequate to cover the performance of the Work, the CONTRACTOR shall, at his expense, and within three days after the receipt of notice from the OWNER to do so, furnish an additional bond or bonds, in such form and amount, and with such sureties as shall be satisfactory to the OWNER. In such event, no further payment to the CONTRACTOR shall be deemed due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the OWNER.

8. CONTRACT DOCUMENTS

8.1. The Contract Documents, as stated in the Instructions to Bidders, including this Project Manual and General Conditions, and the accompanying Contract Drawings, shall form the Contract and are as fully a part of this Contract as if herein repeated.

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the day and date first above written in three (3) counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original Contract.*

York County Government
Owner

Contractor

By: _____

By: _____

[Corporate Seal]

[Corporate Seal]

Attest: _____

Attest: _____

Address for giving notices:

Address for giving notices:

License No. _____

Agent for service of process:

(*) In the event that the CONTRACTOR is a Corporation, a certificate of resolution of the Board of Directors of the Corporation, authorizing the officer who signs the Contract to do so in its behalf shall be completed and submitted with this form.

END OF SECTION

DIVISION I - SECTION 4B

GENERAL CONDITIONS

GENERAL CONDITIONS

1. DEFINITIONS

1.1. Whenever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

1.1.1. *Addendum* or *Addenda* - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Bidding Requirements or the Contract Documents.

1.1.2. *Agreement* - The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.1.3. *Application for Payment* - The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.1.4. *Bid* - The offer or proposal of the bidder on the prescribed Bid Form setting forth the prices for the Work to be performed.

1.1.5. *Bidder* - One who submits a Bid directly to OWNER, as distinct from sub-bidder, who submits a Bid to a Bidder.

1.1.6. *Bidding Documents* - The Invitation for Bids, Instruction to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.1.7. *Bonds* - Performance and Indemnity and Payment Bonds and other instruments of security.

1.1.8. *Change Order* - A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.1.9. *Contract Documents* - Executed Agreement, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, Bid Guarantee, Statement of Bidder's Qualifications, Performance and Indemnity Bond, Payment Bond, Certification of Insurance, General Conditions, Supplemental Conditions (if any), Special Conditions (if any), Technical Specifications, and Drawings (as listed in the Index of Drawings).

1.1.10. *Contract Price* - The moneys payable by OWNER for completion of the Work in accordance with the Contract Documents.

1.1.11. *Contract Times* - The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the work so that it is ready for final payment as evidenced by ENGINEER's written records.

1.1.12. *CONTRACTOR* - The person, firm, or corporation entering into Contract with the OWNER to construct and install the improvements embraced in this Contract.

1.1.13. *Defective* - An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or had been damaged prior to ENGINEER's recommendation or final payment.

1.1.14. *Drawings* - The construction drawings which graphically show the scope, extent, and character of the Work to be furnished and performed by the CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. These Drawings are listed in the Index of Drawings.

1.1.15. *ENGINEER* – The person, firm or corporation serving the OWNER with Engineering services, his successors, or any other person or persons, employed by said OWNER for the purpose of directing or having charge of the work embraced in this Contract.

1.1.16. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.1.17. *Liens* - Liens, charges, security interests or encumbrances upon project funds, real property or personal property.

1.1.18. *Local Government* - York County, South Carolina, within which the Project Areas are situated.

1.1.19. *Milestone* - A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.1.20. *Notice of Award* - The written notice by OWNER to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the agreement.

1.1.21. *Notice to Proceed* - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform, CONTRACTOR's obligations under the Contract Documents.

1.1.22. *OWNER* - The York County Government, which is authorized to undertake this Contract.

1.1.23. *Partial Utilization* - Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.1.24. *Project* - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.1.25. *Project Area* - The area within which are the specified limits of the improvements to be constructed in whole or in part under this Contract.

1.1.26. *Project Manual* – The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

1.1.27. *Resident Project Representative* – The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

1.1.28. *Samples* - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.1.29. *Site* – Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of the CONTRACTOR.

1.1.30. *Shop Drawings* - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.1.31. *Special Conditions* - The part of the Contract Documents that amends or supplements the Technical Specifications.

1.1.32. *Subcontractor* - An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.1.33. *Substantial Completion* - The Work (or specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certification of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.1.34. *Successful Bidder* - The lowest, qualified, responsible and responsive Bidder to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

1.1.35. *Supplier* - A manufacturer, fabricator, supplier, distributor, material man or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.1.36. *Supplemental Conditions* - The part of the Contract Documents that amends or supplements these General Conditions.

1.1.37. *Technical Specifications* - The part of the Contract Documents that describes, outlines, and stipulates: the quality of materials, equipment and systems to be furnished; the quality of workmanship required; and the methods to be used in carrying out the construction work to be performed under this Contract.

1.1.38. *Underground Facilities* - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.

1.1.39. *Unit Price Work* - Work to be paid for on the basis of unit prices.

1.1.40. *Work* - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing and incorporating materials and equipment into the construction, and furnishing, installing and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

1.2 Other technical terms not specifically defined within the Contract Documents shall have the meanings given in AIA Document "Glossary of Construction Industry Terms," current edition. Technical terms not defined as above and used to describe items of the Work, and which so applied have a well-known technical or trade meaning, shall be deemed to have such recognized meaning.

2. CONTRACTOR'S OBLIGATIONS

2.1. All work shall be done in strict accordance with the Contract Documents. Observations, construction reviews, tests, recommendations or approvals by the ENGINEER or persons other than the

CONTRACTOR, shall in no way relieve the CONTRACTOR of his obligations to complete all work in accordance with the Contract Documents. All work shall be done under the direct supervision of the CONTRACTOR. The CONTRACTOR shall be responsible for construction means, methods, techniques, and procedures, and for providing a safe place for the performance of the work by the CONTRACTOR, Subcontractors, suppliers, and their employees and for access, use, work, or occupancy by all authorized persons.

3. LANDS BY CONTRACTOR

3.1. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application, but specifically related to the use of the Site with which the CONTRACTOR must comply in performing work.

3.2. Any land and access thereto not specifically shown to be furnished by the OWNER that may be required for temporary construction facilities or for storage of materials and equipment shall be provided by the CONTRACTOR with no liability to the OWNER. The CONTRACTOR shall confine his apparatus and storage to such additional areas as he may provide at his expense.

3.3. The CONTRACTOR shall not enter upon private property for any purpose without obtaining permission, and he shall be responsible for the preservation of all public property, trees, monuments, structures and improvements, along and adjacent to the street and/or right-of-way, and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits, and other underground structures, and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

4. SURVEYS BY CONTRACTOR

4.1. Based upon the Construction Documents and any additional information provided by the OWNER, the CONTRACTOR shall develop and make all detailed surveys necessary for construction, including working points, lines and elevations.

5. PUBLIC UTILITIES

5.1. The elevation and location of all public utilities shown on the Drawings were taken from existing public records. It shall be the duty of the CONTRACTOR to make final and exact determination of the location and extent of all utilities and he will be liable for any expense resulting from damage to them.

6. SUPERINTENDENT

6.1. A qualified superintendent, who is acceptable to the OWNER, shall be maintained on the Work and shall give efficient supervision to the Work until its completion. The superintendent shall have full authority to act in behalf of the CONTRACTOR, and all instruction given to the superintendent shall be considered as given to the CONTRACTOR. It shall be the responsibility of this CONTRACTOR's superintendent to coordinate the Work of all the Subcontractors. The superintendent shall be present on the site at all times required to perform adequate supervision and coordination.

7. SUBCONTRACTORS

7.1. At the time set forth in the Contract Documents or when requested by the OWNER, the CONTRACTOR shall submit in writing for review of the OWNER the names of the Subcontractors proposed for the work. Subcontractors may not be changed except at the request or with the approval of the OWNER. The CONTRACTOR is responsible to the OWNER for the acts and deficiencies of his Subcontractors, and of their direct and indirect employees, to the same extent as he is responsible for the acts and deficiencies of his employees. The Contract Documents shall not be construed as creating any

contractual relation between any Subcontractor and the OWNER. The CONTRACTOR shall bind every Subcontractor by the terms of the Contract Documents.

8. ASSIGNMENTS

8.1. The CONTRACTOR shall not assign the whole or any part of this Contract or any moneys due or to become due hereunder without written consent of the OWNER. In case the CONTRACTOR assigns all or any part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the CONTRACTOR shall be subject to prior claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the work called for in this Contract.

9. MUTUAL RESPONSIBILITY OF CONTRACTORS

9.1. If through acts of neglect on the part of the CONTRACTOR, any other CONTRACTOR or any Subcontractor shall suffer loss or damage on the work, the CONTRACTOR agrees to settle with such other CONTRACTOR or Subcontractor by agreement or arbitration if such other CONTRACTOR or Subcontractor will so settle. If such other CONTRACTOR or Subcontractor shall assert any claim against the OWNER on account of any damage alleged to have been sustained, the OWNER shall notify the CONTRACTOR, who shall indemnify and save harmless the OWNER against any such claim.

10. ORAL AGREEMENTS

10.1. No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification.

11. MATERIALS, SERVICE AND FACILITIES

11.1. It is understood that except as otherwise specifically stated in the Contract Documents, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, gas, light, power, transportation, superintendence, taxes, insurance, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

11.2. Any work necessary to be performed after regular working hours, on Sundays or Legal Holidays, shall be performed without additional expense to the OWNER.

12. MATERIALS AND EQUIPMENT

The materials and equipment installed in the work shall meet the requirements of the Contract Documents and no materials or equipment shall be ordered until reviewed by the ENGINEER. The CONTRACTOR shall furnish all materials and equipment not otherwise specifically indicated or provided by the OWNER. The CONTRACTOR shall guarantee all materials and equipment he provides in accordance with Section 16 of these GENERAL CONDITIONS.

12.1. Substitutions: In order to establish standards of Quality, the ENGINEER has, in the detailed Specifications, referred to certain products by name and catalog number without consideration of possible substitute or "or equal" items. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design.

12.1.1. Whenever it is indicated in the Drawings or specified in the specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the CONTRACTOR, application for

such acceptance will not be considered by the ENGINEER until after the Effective Date of the agreement. The CONTRACTOR shall furnish the complete list of proposed desired substitutions, together with such engineering and catalog data as the ENGINEER may require. All proposals for substitutions shall be submitted in writing by the General Contractor and not by individual trades or material suppliers. The ENGINEER will review proposed substitutions and make his recommendations in writing within reasonable time.

12.1.2. The CONTRACTOR shall abide by the ENGINEER's recommendation when proposed substitute materials or items of equipment are not recommended for installation and shall furnish the specified material or item of equipment in such case.

12.2. Space Requirements: It shall be the responsibility of the CONTRACTOR to insure that materials and equipment to be furnished fit the space available. He shall make necessary field measurements to ascertain space requirements, including those for connections, and shall order such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the Contract Documents.

12.3. Arrangement: Where equipment requiring different arrangement of connections from those shown is approved, it shall be the responsibility of the CONTRACTOR to install the equipment to operate properly, and in harmony with the intent of the work required by such arrangement.

12.4. Unacceptable Materials and Equipment: Materials and equipment which do not conform to the requirements of the Contract Documents, or are not equal to samples reviewed by the ENGINEER, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, shall not be furnished nor installed.

12.5. Storage: Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground and/or they shall be placed under cover. Stored materials and equipment shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the property owner or leasee. Materials, equipment, construction machinery, fuel, and oils shall not be stored or parked within the drip-line of any trees in or adjacent to the project site or additional off-site easements and right-of-ways.

12.6. Manufacturer's Directions: Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer.

13. INSPECTION AND TESTING OF MATERIALS

13.1. Unless otherwise specifically provided for in the specifications, the inspection and testing of material and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories, or agencies approved by the OWNER. The cost of such inspection and testing shall be paid by the CONTRACTOR. The CONTRACTOR shall furnish evidence satisfactory to the OWNER that the material and finished articles have passed the required tests prior to the incorporation of such materials and finished articles in the work. The CONTRACTOR shall promptly segregate and remove rejected material and finished articles from the site of the work.

14. SAMPLES

14.1. All samples called for in the Specifications or required by the ENGINEER shall be furnished by the CONTRACTOR and shall be submitted to the ENGINEER for his review. Samples shall be furnished so as not to delay fabrication, allowing the ENGINEER reasonable time for the consideration of the samples submitted.

14.1.1. Samples for Tests: CONTRACTOR shall furnish such samples of material as may be required for examination and test. All samples of materials for tests shall be taken according to standard methods or as provided in the Contract Documents.

14.1.2. CONTRACTOR's Guaranty: All samples shall be submitted by the CONTRACTOR with a covering letter indicating that such samples are recommended by the CONTRACTOR for the service intended and that the CONTRACTOR's Guaranty will fully apply.

14.1.3. All materials, equipment and workmanship shall be in accordance with samples guaranteed by the CONTRACTOR and reviewed by the ENGINEER.

15. SHOP DRAWINGS

15.1. The CONTRACTOR shall provide shop drawings, setting schedules and such other drawings as may be necessary for the prosecution of the work in the shop and in the field as required by the Drawings, Specifications or the ENGINEER's instructions. Deviations from the Drawings and Specifications shall be called to the attention of the ENGINEER at the time of the first submission of shop drawings and other drawings for consideration. The ENGINEER's review of any drawings shall not release the CONTRACTOR from responsibility for such deviations. Shop drawings shall be submitted according to a schedule prepared jointly by the CONTRACTOR and the ENGINEER.

15.1.1. CONTRACTOR's Certification: When submitted for the ENGINEER's review, shop drawings shall bear the CONTRACTOR's certification that he has reviewed, checked and approved the shop drawings, that they are in harmony with the requirements of the Project and with the provisions of the Contract Documents, and that he has verified all field measurements and construction criteria, materials, catalog numbers and similar data. CONTRACTOR shall also certify that the work represented by the shop drawings is recommended by the CONTRACTOR and the CONTRACTOR's Guaranty will fully apply.

16. GUARANTY

16.1. The CONTRACTOR shall guarantee all materials and equipment furnished and work performed for a period of one years from the date of final payment of the work.

16.1.1. The Performance and Indemnity Bond shall remain in full force and effect during the guaranty period.

16.1.2. Correction of faulty work after final payment shall be as provided in Paragraph 41.

17. INSURANCE

17.1. The CONTRACTOR shall not commence any work until he obtains, at his own expense, all required insurance. Such insurance must have the approval of the OWNER as to the limit, form, and amount. The CONTRACTOR will not permit any Subcontractor to commence work on this project until such Subcontractor has complied with the same insurance requirements.

Types: The types of insurance the CONTRACTOR is required to obtain and maintain for the full period of the Contract will be: Workmen's Compensation Insurance, Automobile and Comprehensive General Liability Insurance as detailed in the following portions of this specification.

17.1.2. Evidence: As evidence of specified insurance coverage, the OWNER may, in lieu of actual policies, accept certificates issued by the insurance carrier showing such policies in force for the specified period. Each policy or certificate will bear an endorsement or statement waiving right of cancellation or reduction in coverage within ten days' notice in writing to be delivered by registered mail to the OWNER. Should any policy be cancelled before final payment by the OWNER to the CONTRACTOR and the CONTRACTOR fails immediately to procure other insurance as specified, the OWNER reserves the right to procure such insurance and to deduct the cost thereof from any sum due the CONTRACTOR under this Contract.

17.1.3. Adequacy of Performance: Any insurance bearing on adequacy of performance shall be maintained after completion of the project for the full guaranty period. Should such insurance be cancelled before the end of the guaranty period and the CONTRACTOR fails immediately to procure other insurance as specified, the OWNER reserves the right to procure such insurance and to charge the cost thereof to the CONTRACTOR.

17.1.4. Payment of Damages: Nothing contained in these insurance requirements is to be construed as limiting the extent of the CONTRACTOR's responsibility for payment of damages resulting from his operations under this Contract.

18. WORKMEN'S COMPENSATION INSURANCE

18.1. Before the Agreement between the OWNER and the CONTRACTOR is entered into, the CONTRACTOR shall submit written evidence that he and all Subcontractors have obtained, for the period of the Contract, full Workman's Compensation Insurance coverage for all persons whom they employ or may employ in carrying out the work under this Contract. This insurance shall be in strict accordance with the requirements and statutory limits of the most current and applicable South Carolina Workman's Compensation Insurance Laws.

19. COMPREHENSIVE GENERAL LIABILITY AND AUTOMOBILE INSURANCE

19.1. Before commencement of the work, the CONTRACTOR shall submit written evidence that he and all his Subcontractors have obtained for the period of the Contract, full Comprehensive General Liability Insurance and automobile coverage. This coverage shall provide for both bodily injury and property damage.

19.1.1. Comprehensive General Liability Insurance shall include coverage for bodily injury, sickness or disease, death, or property damage arising directly or indirectly out of or in connection with the performance of work under this Contract, and shall provide for a combined single limit of not less than one million (\$1,000,000) dollars for all damages arising out of bodily injury, sickness or disease, death, or property damage for each occurrence.

19.1.2. Automobile insurance shall include coverage for bodily injury and property damage arising directly or indirectly out of or in connection with the performance of work under this Contract, and shall provide for a combined single limit of not less than one million (\$1,000,000) dollars for all damages arising out of bodily injury or property damage for each occurrence.

19.1.3. Indemnity: Included in such insurance will be contractual coverage sufficiently broad to insure the provisions of Paragraph 20.

20. INDEMNITY

20.1. The CONTRACTOR shall hold harmless, indemnify and defend the OWNER, it's successors and assigns, the ENGINEER, their consultants, and each of their officers and employees and agents, from any and all liability claims, losses or damage arising or alleged to arise from the performance of the work described herein, but not including the sole negligence of the OWNER or the ENGINEER.

21. PATENTS AND ROYALTIES

21.1. If any design, device, material or process covered by letters, patent or copyright is used by the CONTRACTOR, he shall provide for such use by legal agreement with the OWNER of the patent or a duly authorized licensee of such OWNER, and shall save harmless the OWNER, and the ENGINEER, from any and all loss or expense on account thereof, including its use by the OWNER.

22. PERMITS

22.1. All permits and licenses necessary for the prosecution of the work shall be secured and paid for by the CONTRACTOR. This shall include all Business Licenses required by the Local Government.

23. LAWS TO BE OBSERVED

23.1. The CONTRACTOR shall give all notices and comply with all Federal, State and local laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the OWNER its successors and assigns, the ENGINEER, their consultants, and each of their officers and employees and agents against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

24. WARNING SIGNS AND BARRICADES

24.1. The CONTRACTOR shall provide adequate signs, barricades, red lights and watchmen and take all necessary precautions for the protection of the work and the safety of the public. All barricades and obstructions shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction and shall be placed and illuminated at night as to show in advance where construction, barricades, or detours exist.

25. PUBLIC CONVENIENCE

25.1. The CONTRACTOR shall at all times so conduct his work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property. No road or street shall be closed to the public except with permission of the proper authorities. Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to insure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches, which shall not be obstructed.

26. SAFETY

26.1. The CONTRACTOR shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property affected directly or indirectly by his operation during the performance of the work. This requirement will not be limited to normal working hours but will only apply continuously 24 hours per day until written acceptance of the work by the OWNER and shall not be limited to normal working hours.

26.2. The ENGINEER's construction reviews of the CONTRACTOR's performance is not intended to include review of the adequacy of the CONTRACTOR's safety measures in, on, or near the construction site.

27. NOTICE TO PROCEED

27.1. Following the execution of the Contract by the OWNER and the CONTRACTOR, written Notice to Proceed with the work shall be given by the OWNER to the CONTRACTOR. The CONTRACTOR shall begin and shall prosecute the work regularly and uninterruptedly thereafter (except as provided for herein) with such force as to secure the completion of the work within the Contract Time.

28. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

28.1. It is hereby understood and mutually agreed, by and between the CONTRACTOR and the OWNER, that the date of beginning and the time for completion as specified in the Contract of the work to

be done hereunder are ESSENTIAL CONDITIONS of this Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the Notice to Proceed.

28.2. The CONTRACTOR agrees that said work shall proceed regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

28.3. If said CONTRACTOR shall neglect, fail, or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this Contract, to pay to the OWNER the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the CONTRACTOR shall be in default after the time stipulated in the Contract for completing the work.

28.4. The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodical estimates.

28.5. It is further agreed that time is of the essence of each and every portion of this Contract and of the Specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract. PROVIDED, that the CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following:

28.5.1. Any preference, priority or allocation order duly issued by the Federal or State Government.

28.5.2. Unforeseeable cause beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, flood, epidemics, quarantine restrictions, strikes, freight embargoes and unusually severe weather; and

28.5.3. Any delays of Subcontractors or suppliers occasioned by any of the causes specified in subsection 28.5.1. and 28.5.2. of this article:

PROVIDED, FURTHER, that the CONTRACTOR shall, within 10 days from the beginning of such delay, unless the OWNER shall grant a further period of time prior to the date of final settlement of the contract, notify the OWNER, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the CONTRACTOR within a reasonable time of its decision in the matter, and grant such extension of time as the OWNER shall deem equitable and just.

29. CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES

29.1. Immediately after execution and delivery of the contract, and before the first partial payment is made, the CONTRACTOR shall deliver to the OWNER an estimated construction progress schedule in a form satisfactory to the OWNER, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents.

30. EXTENSION OF CONTRACT TIME

30.1. A delay beyond the CONTRACTOR's control occasioned by an Act of God, by act or omission on the part of the OWNER or by strikes, lockouts, fire, etc., may entitle the CONTRACTOR to any extension of time in which to complete the work as agreed by the OWNER, provided, however, that the CONTRACTOR shall immediately give written notice to the OWNER of the cause of such delay.

30.2. Act of God shall mean an earthquake, flood, cyclone, or other cataclysmic phenomenon. Storms of normal intensity for the locality shall not be construed as an Act of God and no reparation shall be made to the CONTRACTOR for damages to the work resulting there from.

31. EXTRA WORK

31.1. New and unforeseen items of work found to be necessary, and which cannot be covered by any item or combination of items for which there is a Contract price, shall be classed as Extra Work. It shall be the responsibility of the CONTRACTOR to identify necessary work items classed as Extra Work and for which no previous contract price has been arranged and advise the ENGINEER and the OWNER of the need for the aforesaid necessary Extra Work. The CONTRACTOR shall do such Extra Work and furnish such materials as may be required for the proper completion or construction of the whole work contemplated, upon written order from the OWNER as approved by the ENGINEER. In the absence of such written order, no claim for Extra Work shall be considered.

31.2. Extra Work shall be performed in accordance with these Contract Documents where applicable and work not covered by such shall be done in accordance with the best construction practice and in a workmanlike manner.

31.3. Extra Work required in an emergency to protect life and property shall be performed by the CONTRACTOR as required.

32. CLEANING UP

32.1. The CONTRACTOR shall at all times, keep the premises clean and shall remove from the OWNER's property, and from all public and private property, temporary structures, rubbish, waste materials resulting from his operation or caused by his employees, and all surplus materials, leaving the site smooth, clean and true to line and grade and in the same condition as existed prior to the work performed by the CONTRACTOR or his Subcontractors and as approved by the OWNER. Failure to maintain a clean project site or to complete clean-up of the project site at the completion of the work shall be cause for the OWNER to perform the necessary clean-up and the costs thereof shall be charged to the CONTRACTOR.

33. REQUEST FOR PAYMENT

33.1. The CONTRACTOR may submit to the OWNER periodically, but not more than once each month, a Request for Payment for work done and materials delivered to and stored on the site. The CONTRACTOR shall furnish the OWNER all reasonable information required for obtaining the necessary data relative to the progress and execution of the work. Payment for materials stored on the site will be conditioned upon evidence submitted to establish the OWNER's title to such materials. Each Request for Payment shall be computed on the basis of work completed on all items listed in the Detailed Breakdown of Contract (or on unit prices, as the case may be), less 10 percent to be retained until final completion and acceptance of the work and less previous payments.

34. ENGINEER'S ACTION ON REQUEST FOR PAYMENT

34.1. All CONTRACTOR's Requests for Payment shall be referred to the ENGINEER for his review and, within a reasonable period, the ENGINEER shall:

34.1.1. Recommend payment by the OWNER of the Request for Payment as submitted.

34.1.2. Recommend payment by the OWNER of such other amount as the ENGINEER shall consider as due the CONTRACTOR, informing the OWNER and the CONTRACTOR in writing of his reasons for recommending the amended amount.

34.1.3. Recommend to the OWNER that payment of the Request for Payment be withheld, informing the CONTRACTOR and the OWNER in writing of his reasons, for so recommending.

35. OWNER'S ACTION ON REQUEST FOR PAYMENT

35.1. Within thirty days after receipt of a Request for Payment from the CONTRACTOR, the OWNER shall:

35.1.1. Pay the Request for Payment as recommended by the ENGINEER.

35.1.2. Pay such other amount, in accordance with Paragraph 36, as he shall decide is due the CONTRACTOR, informing the CONTRACTOR and the ENGINEER in writing of this reasons for paying the amended amount.

35.1.3. Withhold payment in accordance with Paragraph 36, informing the CONTRACTOR and the ENGINEER of his reasons for withholding payment.

36. OWNER'S RIGHT TO WITHHOLD PAYMENT OF A REQUEST FOR PAYMENT

36.1. The OWNER may withhold payment, in whole or in part, of a Request for Payment to the extent necessary to protect himself from loss on account of any of the following:

36.1.1. Defective work.

36.1.2. Evidence indicating the probable filing of claims by other parties against the CONTRACTOR that may adversely affect the OWNER.

36.1.3. Failure of the CONTRACTOR to make payments due to Subcontractors, material suppliers, or employees.

36.1.4. Damage to another CONTRACTOR.

37. PAYMENT FOR EXTRA WORK

37.1. Written notice of claims for payment for Extra Work shall be given by the CONTRACTOR within ten days after receipt of instructions from the OWNER to proceed with the Extra Work and also before any work is commenced, except in emergency endangering life or property. No claim shall be valid unless so made. In all cases, the CONTRACTOR's itemized estimate sheets showing all labor and material shall be submitted to the OWNER. The OWNER's order for Extra Work shall specify any extension of the Contract Time and one of the following methods of payment:

37.1.1. Unit prices or combination of unit prices which formed the basis of the original Contract.

37.1.2. A lump sum based on the CONTRACTOR's estimate and accepted by the OWNER.

37.1.3. Actual cost plus 15 percent for overhead and profit. Actual costs are defined as follows:

37.1.3.1. Labor costs, including time of foreman while engaged directly upon extra work.

37.1.3.2. Labor insurance and taxes.

37.1.3.3. Materials and supplies actually used on the work.

37.1.3.4. Associated General Contractors of America standard rental rates on each piece of equipment having a value in excess of \$50.00. Equipment and tools of lesser value are considered "small tools" and, as such, are considered to be part of overhead.

38. ACCEPTANCE AND FINAL PAYMENT

38.1. When the CONTRACTOR has completed the work in accordance with the terms of the Contract Documents, he shall certify completion of the work to the OWNER and submit a final Request for Payment, which shall be the Contract Amount plus all approved additions, less all approved deductions and less previous payments made. The CONTRACTOR shall furnish evidence that he has fully paid all debts for labor, materials, and equipment incurred in connection with the work, and upon acceptance by the OWNER, the OWNER will release the CONTRACTOR except as to the conditions of the Performance and Indemnity Bond and the Labor and Material Payment Bond, any legal rights of the OWNER, required guaranties, and Correction of Faulty Work after Final Payment, and will pay the CONTRACTOR's final Request of Payment. The CONTRACTOR shall allow sufficient time between the time of completion of the work and approval of the final Request for Payment for the ENGINEER to assemble and check the necessary data.

38.1.1. Release of Liens: The CONTRACTOR shall deliver to the OWNER a complete release of all liens arising out of this Contract before the retained percentage or before the final Request for Payment is paid. If any liens remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the OWNER such amounts as the OWNER may have been compelled to pay in discharging such liens including all costs and a reasonable attorney's fees.

39. OWNER'S RIGHT TO TERMINATE AGREEMENT

39.1. The OWNER shall have the right to terminate his agreement with the CONTRACTOR after giving ten days' written notice of termination to the CONTRACTOR in the event of any default by the CONTRACTOR.

39.1.1 Default by CONTRACTOR: It shall be considered a default by the CONTRACTOR whenever he shall:

39.1.1.1. Declare bankruptcy, become insolvent, or assign his assets for the benefit of his creditors.

39.1.1.2. Disregard or violate provisions of the Contract Documents or fail to prosecute the work according to the agreed Schedule of Completion, including extensions thereof.

39.1.1.3. Fail to provide a qualified superintendent, competent workmen or Subcontractors, or proper materials, or fail to make prompt payment thereof.

39.1.2. Completion by the OWNER: In the event of termination of the Agreement by the OWNER because of default by the CONTRACTOR, the OWNER may take possession of the work and of all materials and equipment thereon and may finish the work by whatever method and means he may select.

40. TERMINATION OF CONTRACTOR'S RESPONSIBILITY

40.1. The Contract will be considered complete when all work has been finished and the project accepted in writing by the OWNER. The CONTRACTOR's responsibility shall then cease, except as set forth in his Performance and Indemnity Bond, as provided in Paragraph 16, Guaranty, and as provided in Paragraph 41, Correction of Faulty Work After Final Payment.

41 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

41.1. The making of the final payment by the OWNER to the CONTRACTOR shall not relieve the CONTRACTOR of responsibility for faulty materials or workmanship. The CONTRACTOR shall promptly replace any such defects, as determined by the ENGINEER, discovered within two years from the date of final payment of the work.

42. INSPECTION

42.1. The authorized representatives of the ENGINEER and OWNER shall be permitted to inspect all materials, workmanship, and other relevant project records and data. Materials and workmanship will be subject to the approval of the OWNER and/or his representative.

43. CORRECTION OF WORK

43.1. All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be, at all times and places, subject to the inspection of the ENGINEER who shall be the final judge of the quality and suitability of the work, materials, process of manufacturer, and methods of construction for the purposes for which they are used. Should they fail to meet his approval, they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the CONTRACTOR at his own expense. Rejected material shall immediately be removed from the site. If, in the opinion of the ENGINEER, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract hereunder shall be reduced by such amount as in the judgment of the ENGINEER shall be equitable.

44. SUBSURFACE CONDITIONS FOUND DIFFERENT

44.1. Should the CONTRACTOR encounter subsurface and/or latent conditions at the site materially differing from those shown on the Plans or indicated in the Specifications, he shall immediately give notice to the ENGINEER of such conditions before they are disturbed. The ENGINEER will thereupon promptly investigate the conditions, and if he finds and so determines that they materially differ from those shown on the Plans or indicated in the Specifications, he will at once make such changes in the Plans and/or Specifications, as he may find necessary. Any increase or decrease of cost resulting from such changes are to be adjusted in the manner provided in Paragraph 37 of the General Conditions.

45. CONTRACT SECURITY

45.1. The CONTRACTOR shall furnish a Performance Indemnity Bond and Payment Bond (forms attached) in an amount at least equal to 100% of the contract prices as security for the faithful performance of this Contract, as the security for the payment of all persons performing labor on the project under this Contract, and furnishing materials in connection with this Contract. The Performance and Indemnity Bond and the Payment Bond may be in one or in separate instruments in accordance with local law. Before final acceptance, each bond must be approved by the OWNER.

46. DISPUTE RESOLUTION

46.1 OWNER and CONTRACTOR agree to negotiate all disputes between them in good faith prior to exercising their rights under law.

46.2 Any claim, dispute or other matter in question arising from or related to this Agreement or the performance or breach thereof, which cannot be resolved through direct discussions between parties shall be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by either party, and only after both parties have completed the mediation process.

46.3 Through mediation, CONTRACTOR and OWNER shall endeavor to resolve claims, disputes, or other matters in question between them by mediation in an informal process in which a third-party mediator facilitates discussion between the parties. The parties may designate a mediator mutually agreeable to both CONTRACTOR and OWNER to conduct the mediation. If the parties are unable to agree upon a mediator, mediation shall be conducted in accordance with the mediation provision of the South Carolina Circuit Court Alternative Dispute Resolution Rules. The mediation shall be conducted in York County, South Carolina. A request for mediation shall be filed in writing with the other party to this Agreement, and legal or equitable proceedings shall be stayed pending mediation for a period of sixty (60) days from the date of the request for mediation is filed, unless stayed for a longer period of time by agreement of the parties or court order. The cost of a third-party mediator will be shared equally by the parties.

46.4 If the parties reach an agreement during the mediation process, they shall reduce the agreement to writing and sign it with their attorneys, if any. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

46.5 In any action or proceedings to enforce or interpret any provision of this Agreement, or where any provision herein is validity asserted as a defense, each Party shall bear its own attorney fees, costs, and expenses.

END OF SECTION

DIVISION I - SECTION 4C

SPECIAL CONDITIONS

SPECIAL CONDITIONS

1. All work performed by the Contractor shall be in accordance with the South Carolina Department of Transportation (SCDOT) 2007 Standard Specification for Highway Construction and SCDOT Traffic Signals Material Specifications (current edition), unless directed otherwise in the plans or by the Engineer. A full version of the 2007 Edition SCDOT Standard Specifications For Highway Construction may be viewed or downloaded on SCDOT's website at www.scdot.org (http://www.scdot.org/business/pdf/2007_full_specbook.pdf).
2. All work performed by the Contractor shall be constructed using the SCDOT'S Current Standard Drawings with all updates effective at the time of the letting, unless directed otherwise in the plans or by the Engineer. The Standard Drawings are available for download on SCDOT's website www.scdot.org at <http://www.scdot.org/business/standard-drawings.aspx>. All drawings that are updated are labeled with their effective letting date in red.
3. The Contractor's attention is called to Section 102.3 of the 2007 Standard Specifications for Highway Construction. No payment shall be due for quantity under-runs. Payment to the Contractor shall be made only for the actual quantities of work performed and accepted or materials furnished in accordance with the Contract.
4. This project includes removal and replacement of an underground storm sewer system located within permanent easement on Tracts 12 and 13. It is the Contractor's responsibility to coordinate with the property owner to establish a mobilization time and schedule for all work on these tracts. The Contractor shall provide adequate time for the property owner to schedule, relocate and store equipment, merchandise and/or materials from the permanent easement area to an alternate location. The Contractor shall complete the work in 30 calendar days to the owner's satisfaction. Should the work exceed 30 days, the Contractor shall compensate the property owner at a rate of \$10,000 per month for extended storage costs. York County will withhold an equal amount from the Contractor's monthly pay application(s) until the property owner is compensated.
5. The Contractor shall be liable and responsible for payment of fines assessed by any regulatory agency due to non-compliance with applicable permit requirements and/or regulations by the Contractor. In the event that County is fined due to non-compliance with permit requirements, the County will charge the Contractor the cost of the fine by deducting an equal amount from the next progress pay estimate.
6. In the Bid Proposal Form and Schedule, Division I-Section 3, contract items given a unique seven (7) digit Item Number shall be constructed in accordance with SCDOT Standard Specifications. The first three (3) digits correspond to sections of the SCDOT Standard Specifications. The remaining four (4) digits are for individual identification of each contract item. Contract items that are identified with Item Numbers beginning with S and W shall be constructed in accordance with specifications contained within this document.
7. Construction conditions requiring minor vertical adjustments (0-2 ft.) to existing water line valve boxes, sanitary sewer manholes, and other minor appurtenances shall be the responsibility of the Contractor. The costs for the adjustments shall be the Contractor's responsibility and shall be included in Bid Item, Mobilization. Other utilities requiring relocation or adjustment for construction activities will be the responsibility of the utility owner, except for City of Rock Hill water and sewer, which are included as part of this project.
8. Reconstruction of driveways and other special provisions on properties, included in the right-of-way acquisition, shall be coordinated with the Engineer. Contractor shall notify Engineer prior to construction of driveways.
9. The County will provide the South Carolina Department of Health and Environmental Control (DHEC) Notice of Intent (NOI) for the project. The Contractor's signature is required on several documents necessary for obtaining the permit including, but not limited to, the NOI application, weekly inspection reports and Co-Permittee Agreements. The Contractor shall cooperate with the County in providing

the required signatures. The Contractor shall be responsible for posting at the project site and keeping on file, permit approvals and other notices as required by permits for the project. The NOI also requires that on-site preconstruction conferences be held for the Prime Contractor and all subcontractors. The Contractor shall participate in these meetings as required by the NOI.

10. Testing shall be conducted by the Owner/Engineer in accordance with the procedures defined in the SCDOT Standard Specifications, and applicable Supplemental Specifications.
11. Commercial advertising signs (realtor signs) within the construction limits should be removed and left on adjacent property - Do not reinstall. No direct payment will be made for removing these signs as the work is considered incidental to the item of clearing and grubbing.
12. Mailboxes are to be relocated at the direction of the Engineer. No direct payment will be made for the relocation of mailboxes.
13. The removal or relocation of billboards is not the Contractor's responsibility.
14. Non-conforming signs that are not to be relocated shall be removed and placed on the property beyond the construction limits.
15. In the interest of closing out this project in a prompt and timely manner, the Contractor shall complete item 1090200 (as-built construction plans) within 30 days of the substantial completion or final acceptance of the project. The final pay request as required in Section 4.37 of the General Conditions shall be submitted within 120 calendar days of the County's final acceptance of the project.
16. Temporary lane closure shall be conducted in accordance with SCDOT standard details and as directed by the Engineer. The Contractor shall submit a lane closure plan to the Engineer seven (7) calendar days prior to a lane closure. The Contractor shall notify all agencies responsible for emergency services of the lane closure schedule seven (7) calendar days prior to closure.
17. Partial Payments – The following retainage will be withheld pending final completion and final payment. A percentage based on the amount of the contract completed, shall be retained on each estimate until payment of the final estimate. The retainage shall be 5 percent until the project is 75 percent complete, at which time the retainage will be reduced to 2.5 percent. However, when the Contractor has completed at least 99 percent of the work, the Owner may, at his discretion, further reduce the retainage to an amount which will be adequate to complete the remaining work plus any anticipated liquidated damage. The Contractor may be required to furnish consent of surety before the retained amount is reduced to less than 2.5 percent.
18. The Geotechnical Report included as part of this manual were prepared to assist the County in preparing the project design. The report has been included for general information and is not intended to be used to determine the nature of the unclassified materials on the project. The County, Campco Engineering, Inc., nor F&ME Consultants guarantee the accuracy or accept liability for information contained there-in. Any use of the geotechnical report shall be at the Contractor's own risk as it is the Contractor's responsibility to make his own investigations and determinations.
19. The Contractor shall develop and submit prior to beginning construction, a schedule of work which will allow construction of the project while maintaining vehicular access to all adjacent parcels during the construction period.
20. The Contractor shall be responsible for abandoning wells, septic tanks and drain fields in accordance with DHEC and other applicable requirements. Payment for all work associated with the abandonment removal and capping of wells and septic tanks and drain fields shall be included in the clearing and grubbing pay item.
21. A summary of the known utilities within the project limits of the project is included in Section 4D: Utilities Special Conditions. While the County has coordinated utility relocation work with the utilities prior to the

letting of this contract, it will be the successful low bidder's responsibility to coordinate the construction work with the utilities work during construction.

22. For this project, the following will be eligible for adjustments:

- A.C. Binder Adjustments for Liquid Asphalt Binder (PG 64-22)

Base date for adjustment will be determined at the Preconstruction meeting dependent on the bid date for this project.

23. Mobilization shall be paid in accordance with Section 103.11 of the SCDOT 2007 Standard Specifications for Highway Construction.

END OF SECTION

DIVISION I - SECTION 4D

UTILITIES SPECIAL PROVISIONS/CONDITIONS

**UTILITY SPECIAL PROVISIONS/CONDITIONS
COORDINATION OF RELOCATION WORK WITH HIGHWAY CONSTRUCTION**

**RIVERVIEW ROAD (S-851) IMPROVEMENTS, YORK COUNTY, SC
YORK COUNTY PROJECT – 11149-012 SCDOT PROJECT ID P029499**

The Contractor shall coordinate with the utility owners and the Engineers to accomplish the utility construction within the project schedule. Utility companies with utility service in the project limits are:

- AT&T Transmission – Communications
180 Monarch Road
Swansea, SC 29160
Ron Dukes
803-796-0884
rmdukes@att.net
- City of Rock Hill – Water/Sewer
757 S. Anderson Road
Rock Hill, SC 29730
Brent Deaton
803-326-3884
brent.deaton@cityofrockhill.com
- City of Rock Hill – Power
757 S. Anderson Road
Rock Hill, SC 29730
Mike Jolly
803-329-5510
mike.jolly@cityofrockhill.com
- City of Rock Hill – Communications/Traffic
757 S. Anderson Road
Rock Hill, SC 29730
Steven Varnadore
803-329-5529
steven.varnadore@cityofrockhill.com
- Comporium – Communications
471 Lakeshore Parkway
Rock Hill, SC 29730
Mark Whitfield
803-326-6268
mark.whitfield@comporium.com
- Duke Energy Transmission – Power
1900 N. Main Street
Mount Holly, NC 28120
Stephen Lord
704-812-2316
stephen.lord@duke-energy.com
- Level 4/TW Telecom – Communications
3770 Lucious Road
Columbia, SC 29210
Russ Wheat
803-239-1116
russ.wheat@level3.com
- York Electric Coop Distribution – Power
1385 Alexander Love Hwy
York, SC 29745
Wes Dover
803-628-5564
wes.dover@yorkelectric.net
- York County Natural Gas – Gas
979 West Main Street
Rock Hill, SC 29730
Eric Cellucci
803-323-5392
eric.cellucci@ycnga.com

DIVISION I - SECTION 4E
PERFORMANCE AND INDEMNITY BOND

PERFORMANCE AND INDEMNITY BOND

STATE OF SOUTH CAROLINA
COUNTY OF YORK

KNOW ALL MEN BY THESE PRESENTS that _____
_____ as Principal, hereinafter called Contractor, and _____
_____ as Surety, hereinafter
called Surety, are held and firmly bound unto the York County Government, as Obligee, hereinafter called
owner, in the amount of _____
_____ Dollars (\$ _____) for the payment whereof Contractor and Surety bind
themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, Contractor has by written agreement dated _____, 20____, entered
into a Contract with Owner for:

***Pennies for Progress Project
Riverview Road (S-851) Improvements***

in accordance with Drawings and Specifications prepared by York County Engineering Department,
ENGINEER, which Contract is by reference made a part hereof and is hereinafter referred to as the
Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if the
Principal shall in all respects promptly and faithfully perform and comply with the terms and conditions of
said Contract and his obligations thereunder and shall indemnify the OWNER and the ENGINEER and
save either or all of them harmless against and from all costs, expenses and damages arising from the
performance of said Contract or the repair of any work thereunder, then this obligation shall be void;
otherwise, this Bond shall remain in full force and effect, in accordance with the following terms and
conditions:

A. The Principal and Surety jointly and severally agree to pay the OWNER any difference
between the sum to which the said Principal would be entitled on the completion of the Contract, and that
sum which the OWNER may be obliged to pay for the completion of said work by Contract or otherwise,
and any damages, direct or indirect or consequential, which the said OWNER may sustain on account of
such work, or on account of the failure of said CONTRACTOR to properly and in all things, keep and
execute all of the provisions of said Contract.

B. And this Bond shall remain in full force and effect for a period of two (2) years from the
date of final payment of the project by the OWNER and shall provide that the CONTRACTOR guarantees
to repair or replace for said period of one (1) years all work performed and materials and equipment
furnished that were not performed or furnished according to the terms of the Contract, and shall make
good, defects thereof which have become apparent before the expiration of said period of two (2) years.
If any part of the project, in the judgment of the OWNER, for the reasons above stated needs to be
replaced, repaired or made good during that time, the OWNER shall so notify the CONTRACTOR in
writing. If the CONTRACTOR refuses or neglects to do such work within five (5) days from the date of
service of such Notice, the OWNER shall have the work done by others and the cost thereof shall be paid
by the CONTRACTOR or his Surety. After the one-year warranty period and after all warranty work has
been completed satisfactorily to the owner, the contractor may request that this bond be terminated.

C. And the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive Notice of any change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

D. The surety represents and warrants to the OWNER that they have a minimum Best's Key Rating Guide General Policyholder's Rating of "A-" and Financial Category of "Class VIII".

IN WITNESS WHEREOF, the above bounded parties executed this instrument under their several seals, this ____ day of _____ 20____, A.D., the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

PRINCIPAL:

Signature of Authorized Officer
(Affix Seal)

WITNESSES:

Title

Business Address

City State

SURETY:

WITNESS:

Corporate Surety

Attorney-in-Fact (Affix Seal)

Business Address

City State

Name of Local Insurance Agency

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Secretary

Corporate
Seal

STATE OF SOUTH CAROLINA

COUNTY OF YORK

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-in-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the Contractor named therein in favor of the _____.

Subscribed and sworn to before me this . day of _____, 20__ A.D.

(Attach Power of Attorney)

Notary Public
State of South Carolina-at-Large

My Commission Expires:

END OF SECTION

DIVISION I - SECTION 4F

PAYMENT BOND

PAYMENT BOND

STATE OF SOUTH CAROLINA
COUNTY OF YORK

KNOW ALL MEN BY THESE PRESENTS that _____
_____ as Principal, hereinafter called CONTRACTOR,
and _____ as Surety, hereinafter called
Surety, are held and firmly bound unto the York County Government, as Obligee, hereinafter
called OWNER, in the amount of _____
_____ Dollars(\$_____) for the
payment whereof CONTRACTOR and Surety bind themselves, their heirs, executors,
administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, CONTRACTOR has by written agreement dated _____, 20____, entered
into a Contract with OWNER for:

***Pennies for Progress Project
Riverview Road (S-851) Improvements***

in accordance with Drawings and Specifications prepared by York County Engineering
Department, ENGINEER, which Contract is by reference made a part hereof and is hereinafter
referred to as the Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if the
Principal shall promptly make payments to all claimants, as herein below defined, then this
obligation shall be void; otherwise, this Bond shall remain in full force and effect, subject to the
following terms and conditions:

- A. A claimant is defined as any person supplying the Principal with labor, material and
supplies, used directly or indirectly by the said Principal or any subcontractor in the
prosecution of the work provided for in said Contract.
- B. The above named Principal and Surety hereby jointly and severally agree with the
OWNER that every claimant as herein defined, who has not been paid in full before the
expiration of a period of ninety (90) days after performance of the labor or after complete
delivery of materials and supplies by such claimant, may sue on this Bond for the use of
such claimant, prosecute the suit to final judgment for such sum or sums as may be justly
due claimant, and have execution thereon. The OWNER shall not be liable for the
payment of any costs or expenses of any such suit.
- C. No suit or action shall be commenced hereunder by any claimant:
 - 1. Unless claimant, other than one having a direct contract with the Principal, shall
within forty-five (45) days after beginning to furnish labor, materials or supplies
for the prosecution of the work, furnish the Principal with a notice that he intends
to look to this bond for protection.
 - 2. Unless claimant, other than one having a direct contract with the Principal, shall
within ninety (90) days after such claimant's performance of the labor or complete

delivery of materials and supplies, deliver to the Principal written notice of the performance of such labor or delivery of such material and supplies and the nonpayment therefore.

3. After the expiration of one (1) year from the performance of the labor or completion of delivery of the materials and supplies; it being understood, however, that if any limitation embodied in this Bond is prohibited by any law controlling the construction hereof such limitations shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 4. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
- D. The Principal and the Surety jointly and severally, shall repay the OWNER any sum which the OWNER may be compelled to pay because of any lien for labor or materials furnished for any work included in or provided by said Contract.
- E. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration of or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications applicable thereto shall in any way affect its obligations on this Bond, and the Surety hereby waives notice of any such change, extension of time, alterations of or addition to the terms of the Contract, or to the work or to the Specifications.
- F. The Surety represents and warrants to the Owner that they have a minimum Best's Key Rating Guide General Policyholder's rating of " A - " and Financial Category of "Class VIII ".

IN WITNESS WHEREOF, the above bounded parties executed this instrument under their several seals, this ____ day of _____ 20____, A.D., the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS: (If Sole Ownership or Partnership, two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

PRINCIPAL:

Signature of Authorized Officer
(Affix Seal)

WITNESSES:

Title

Business Address

City

State

SURETY:

WITNESS:

Corporate Surety

Attorney-in-Fact
(Affix Seal)

Business Address

City

State

Name of Local Insurance Agency

CERTIFICATES AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

Secretary

Corporate
Seal

STATE OF SOUTH CAROLINA
COUNTY OF YORK

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-in-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the CONTRACTOR named therein in favor of the _____.

Subscribed and sworn to before me this ____ day of _____, 20____, A.D.

(Attach Power of Attorney)

Notary Public
State of South Carolina-at-Large
My Commission Expires: _____

END OF SECTION

DIVISION I - SECTION 4G

NOTICE OF AWARD

NOTICE OF AWARD

TO: _____

FROM: York County Engineering _____
PO Box 148 _____
York, SC 29745 _____

PROJECT TITLE: Pennies for Progress Project

PROJECT DESCRIPTION: *The proposed Riverview Road (S-851) Improvements Projects consists of widening Riverview Road (S-851) from two-lanes to three-lanes for approximately 1.0 mile from Eden Terrace (S-284) to Celanese Road (SC 161). The project will also include installing curb and gutter, sidewalk, a closed drainage system, and replacing the existing water and sanitary sewer systems.*

The Owner has considered the Bid submitted by you for the above described work in response to its Invitation for Bids dated _____ and Information for Bidders.

You are hereby notified that your Bid has been accepted for items in the amount of _____ (\$0.00).

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Payment Bond and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this ____ day of _____, 20__.

On behalf of the York County Council

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged

By: _____

Title: _____

This ____ day of _____, 20__

DIVISION I - SECTION 4H

NOTICE TO PROCEED

NOTICE TO PROCEED

Date: _____

To: _____

Project:

***Pennies for Progress Project
Riverview Road (S-851) Improvements***

You are hereby notified to commence work in accordance with the Agreement dated _____ on or before _____, and you are to complete the work within **730** consecutive calendar days thereafter. The date of completion of all work is therefore _____.

On behalf of the

YORK COUNTY GOVERNMENT

By: _____

Title: York County Engineer

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____, this the ____ day of _____, 20__.

By: _____

Title: _____

DIVISION I - SECTION 4I
NON-COLLUSION AFFIDAVIT

NON-COLLUSION AFFIDAVIT

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

- (1) He is _____ of _____, the Bidder
Title Company Name
 that has submitted the attached Bid;
- (2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
- (3) Such Bid is genuine and is not a sham Bid;
- (4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm, or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other bidder, or to secure through any collusion, conspiracy, conveyance or unlawful agreement any advantage against the OWNER or any person interested in the proposed contract;
- (5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed) _____

(Title)

Subscribed and sworn to before me

this ____ day of _____, 20____

(Title)

My commission expires _____

DIVISION I - SECTION 4J
CERTIFICATE OF INSURANCE

CERTIFICATE OF INSURANCE
(May also use applicable Accord form)

THIS IS TO CERTIFY THAT THE _____
Insurance Company

Address _____

Of _____

has issued policies of insurance, as described below and identified by a policy number, to the insured named below; and to certify that such policies are in full force and effect at this time. It is agreed that none of these policies will be cancelled or changed so as to affect the interest(s) of the York County Government (hereinafter sometimes called the OWNER) until thirty (30) days after written notice of such cancellation or change has been delivered to the ENGINEER.

Insured: _____

Address: _____

Status of Insured
_____ Corporation _____ Partnership _____ Individual

Insured: _____

Description of Work: _____

INSURANCE POLICIES IN FORCE

<u>Forms of Coverage</u>	<u>Policy Number</u>	<u>Expiration Date</u>
*Worker's Comp./Employers' Liability	_____	_____
**Comprehensive Auto Liability	_____	_____
***Excess Liability	_____	_____
Other (Please specify type)	_____	_____

POLICY INCLUDES COVERAGE FOR:	YES	NO
1. Additional Insured: OWNER and ENGINEER	_____	_____
2. *Liability under the United States Longshore-men's and Harbor Workers' Compensation Act.	_____	_____
3. **All owned, hired, or non-owned automotive equipment used in connection with work done for the Owner.	_____	_____
4. Contractual Liability	_____	_____
5. Damage caused by explosion, collapse or structural injury, and damage to underground utilities.	_____	_____
6. Products/Completed Operations	_____	_____
7. Owners and Contractors Protective Liability	_____	_____
8. Personal Injury Liability	_____	_____
9. ***Excess Liability applies excess of:		
(a) Employers' Liability	_____	_____
(b) Comprehensive General Liability	_____	_____
(c) Comprehensive Automobile Liability	_____	_____

<u>Types of Coverage</u>	<u>Forms of Coverage</u>	<u>Minimum Limits of Liability</u>	
Workers' Compensation	Bodily Injury	\$1,000,000	Statutory
Employers' Liability	Bodily Injury	\$ 500,000	Each Accident
	Disease	\$ 500,000	Each Person
	Disease	\$ 500,000	Policy Limit
Comprehensive Auto Liability	Combined Single Limit BI/PD	\$1,000,000	Each Accident
Comprehensive General Liability	Bodily Injury	\$1,000,000	Each Occurrence
		\$5,000,000	Aggregate

The Insurance Company hereby agrees to deliver, within ten (10) days, two (2) copies of the above policies to the Engineer when so requested.

NOTE: Entries on this certificate are limited to the Authorized Agent or Insurance Company Representative.

Date _____ (SEAL) _____
Insurance Company

Issued at _____
Authorized Representative

Insurance Agent or Company

- Send original and one copy to:

York County Engineering
Post Office Box 148
6 South Congress Street
York, South Carolina 29745

END OF SECTION

DIVISION I - SECTION 4K
APPLICATION FOR PAYMENT

APPLICATION FOR PAYMENT No. _____

Date: _____ Contractor: _____

Project: _____

Project Number: _____ For Period _____ To _____

Total value of work completed to date (see attached sheet) \$ _____

Total value of materials stored for project (see attached sheet) \$ _____

SUB TOTAL \$ _____

LESS _____ %RETAINED \$ _____

TOTAL \$ _____

LESS PREVIOUS PAYMENTS \$ _____

Other Changes, additions, or deductions (see attached sheet) \$ _____

TOTAL AMOUNT DUE THIS PAYMENT \$ _____

Previous Payments

1. _____ 4. _____ 7. _____ 10. _____

2. _____ 5. _____ 8. _____ 11. _____

3. _____ 6. _____ 9. _____ 12. _____

Submitted By:

I hereby certify to the best of the Contractor's knowledge, information and belief, the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, and that all amounts have been paid by the Contractor for Work which previous Applications for Payment were issued and payments received from the Owner, that current payment shown herein is now due.

Contractor: _____

Signed By: _____

Date: _____

Notarized: _____

(affix seal)

My Commission Expires: _____

Recommended By:

Architect/Engineer: _____ Date: _____

Certified Amount: \$ _____

The Certified amount is payable only to the Contractor named herein. Issuance, payment, and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

Accepted By:

Owner: _____ Date: _____

DIVISION I - SECTION 4L
CHANGE ORDER FORM

CONTRACT CHANGE ORDER

CHANGE ORDER NO: _____

PROJECT: _____

DATE OF ISSUANCE: _____

DESCRIPTION OF CHANGE: _____

CONTRACT AMOUNT		CONTRACT TIME (Calendar Days)	
Original	\$ _____	Original Durations	_____ Days
Previous Change Orders (Add/Deduct)	\$ _____	Previous Change Order (Add/Deduct)	_____ Days
This Change Order (Add/Deduct)	\$ _____	This Change Order (Add/Deduct)	_____ Days
Revised Contract Amount	\$ _____	Revised Contract Time	_____ Days
REVISED CONTRACT COMPLETION DATE IS: _____, 20__			

	OWNER	CONTRACTOR	ENGINEER
SIGNATURE			
PRINT NAME			
COMPANY			
DATE			

DIVISION I - SECTION 4M

**RELEASE AND WAIVER OF CLAIM BY PRIME
CONTRACTOR**

**RELEASE AND WAIVER OF CLAIM
BY PRIME CONTRACTOR**

Know all men by these presents that the undersigned, ____ of _____ 20__ first being duly sworn, states that all payrolls, materials bills, sales tax, privilege tax or license, old age benefits tax, state and federal unemployment insurance, and other liabilities incurred for use in the performance of the contract for the ***Pennies for Progress Project: Riverview Road (S-851) Improvements*** located in York County, South Carolina have been paid in full and waives any and all claims and releases York County Government (York County, South Carolina) from any rights or claims for debts due and owing by virtue of the furnishing of any material or supplies or any lien thereon.

(Name of Company)

By: _____

Its: _____

Sworn to before me
this ____ day of _____, 20____.

Notary Public for _____

My Commission expires: _____

DIVISION II
TECHNICAL SPECIFICATIONS

DIVISION II - SECTION 1

**SCDOT TECHNICAL SPECIFICATIONS REFERENCE
AND TRAFFIC CONTROL SPECIFICATIONS REFERENCE**

**RIVERVIEW ROAD (S-851) IMPROVEMENTS
ROCK HILL, SC**

SCDOT TECHNICAL SPECIFICATIONS REFERENCE

All workmanship and materials provided on this project shall conform with the requirements contained in the "South Carolina Department of Transportation Standard Specifications for Highway Construction, Edition of 2007", book of Standard Drawings for Road Construction, and all applicable Supplemental Specifications. The documents referenced are on file with the SCDOT and are available on the SCDOT website through the following links:

- SCDOT Standard Specifications
https://www.scdot.org/business/pdf/2007_full_specbook.pdf
- SCDOT Standard Drawings
<https://www.scdot.org/business/standard-drawings.aspx>
- SCDOT Supplemental Specifications
<https://www.scdot.org/business/road-supplemental-specs.aspx>
- SCDOT Supplemental Technical Specifications
<https://www.scdot.org/business/road-technical-specs.aspx>

The SCDOT Supplemental Specification for Fuel Adjustment dated December 1, 2009 will not apply to this project.

SCDOT TRAFFIC CONTROL SPECIFICATIONS REFERENCE

All workmanship and materials provided on this project shall conform with the requirements contained in the South Carolina Department of Transportation Standard Specifications for Highway Construction, Section 600, the SCDOT Encroachment Permit, the MUTCD, and all Traffic Control Device and Work Zone Traffic Control Documents listed below, in effect at the time of letting:

- SCDOT MUTCD
https://www.scdot.org/business/pdf/accessMgt/trafficEngineering/MUTCD_Source.pdf
- SCDOT Supplement to the MUTCD
<https://www.scdot.org/business/pdf/accessMgt/trafficEngineering/9-1-2013.pdf>
- Hourly Restrictions for Lane Closures
<https://www.scdot.org/business/pdf/accessMgt/trafficEngineering/PrimaryHourRestrictions.pdf>
- Workzone Safety Guidelines
https://www.scdot.org/business/pdf/accessMgt/trafficEngineering/WZS_Flipbook_112113-web.pdf
- Work Zone Traffic Control Training Guidelines for Contractors
<https://www.scdot.org/business/pdf/accessMgt/trafficEngineering/TrainingProvidersListing.pdf>

DIVISION II - SECTION 2

SPECIAL PROVISIONS

SPECIAL PROVISIONS

(1) DEFINITION AND TERMS

Subsection 101.3.12 of the SCDOT Standard Specifications shall be deleted and the following substituted:
101.3.12 Commission. – The Commission is defined as York County Manager.

Subsection 101.3.24 shall be deleted and the following substituted:
101.3.24 Department. - The Department is defined as the party of the first part of the contract, York County, South Carolina.

Subsection 101.3.27 shall be deleted and the following substituted:
101.3.27 Engineer. - The Engineer is defined as the County Engineer.

(2) MAINTENANCE STONE:

Maintenance Stone used on this project shall conform to the gradation requirements of Section 305, or to the gradation specified for Aggregate No. CR-14 in the Standard Specifications.

(3) SEGREGATION OF IN-PLACE HOT MIX ASPHALT:

Segregation is defined in this specification as areas of non-uniform distribution of coarse and fine aggregate particles in a compacted hot mix asphalt pavement. The Contractor shall conduct necessary production, storage, loading, placing, and handling procedures to prevent segregation. The Contractor is responsible for making plant modifications and/or providing auxiliary equipment necessary to prevent placement of a segregated hot mix asphalt mat.

ALL SEGREGATED HOT MIX ASPHALT COURSES SHALL BE CORRECTED BY THE CONTRACTOR:

- (1) Segregated hot mix asphalt courses that are not considered by the Department as riding courses shall be corrected by the Contractor in the following manner. Segregated areas will be removed and replaced for the full depth of the course and extend at least 10 feet on either side of the segregated areas for the full width of the paving lane.
- (2) Segregated hot mix asphalt riding courses shall be corrected by the Contractor in the following manner. These segregated areas will be removed and replaced for the full depth of the riding course and extended at least 300 feet on either side of the segregated areas.

All segregated areas in any hot mix asphalt course will be corrected by the Contractor at no additional expense to the Department. Roads with corrected segregated areas shall meet all compaction and rideability requirements.

THE DECISION OF THE ENGINEER SHALL BE FINAL.

(4) CLEANING EXISTING PIPE:

The plans for this project may provide for cleaning existing pipe. The contractor shall furnish all equipment, materials, and labor necessary to complete the work as directed by the Engineer.

Measurement for payment shall be the actual linear feet of existing pipe satisfactorily cleaned regardless of size.

The contract bid price per linear foot shall be full payment for the completed and accepted work.

(5) ADDITIONAL SURVEYING SERVICES:

Where requested by the property owner and directed by the Engineer the Contractor shall be responsible for re-establishing property monuments disturbed during construction on properties adjoining the project. Payment for this work shall be included in the pay item "Construction Stakes, Lines and Grades".

(6) AS-BUILT CONSTRUCTION PLANS:

The as-built construction plans shall be completed by field surveys and shall include as-built information for the closed drainage system and sanitary sewer. The price and payment shall be full compensation for all labor, materials, and equipment.

(7) JUMPER CONNECTION (W1)

This item is to be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to install the assembly complete, irrespective of bury, including blocking and bracing.

Piping for the jumper assembly shall be PVC pipe, or approved equal, in accordance with the City of Rock Hill Standard Water Specifications.

Work shall include removing jumper connection assembly when construction and testing of the entire water main is complete.

(8) D.I. WATER MAIN (W2, W3, W17)

These items will be measured for payment on the basis of horizontal lineal foot (LF) distances.

Payment for water main construction shall be full compensation for constructing water mains complete, in place, including trenching, dewatering, grading, furnishing and laying pipe, installing all required fittings & thrust blocking, backfilling with suitable material and consolidating backfill, hauling in suitable backfill material from off-site if sufficient suitable material is not available on-site, re-forming disturbed roadside ditches, cleaning up construction sites, testing, disinfecting, restoring and stabilizing surfaces, and related work.

Payment for water main construction shall include locating and protecting all existing above and below ground utilities or structures. The work shall include repairing, replacing, or relocating any utilities and appurtenances damaged during the construction operation.

Payment for water main construction shall include replacing mailboxes, paper boxes, fence posts and other obstructions removed to facilitate installation of the main. Such items are to be replaced in their preconstruction condition. Damaged items are to be replaced or repaired.

(9) HDPE WATER MAIN BY DIRECTIONAL DRILLING (W4, W5)

These items will be measured for payment on the basis of horizontal lineal foot (LF) distances.

Payment for water main construction shall be full compensation for constructing water mains by directional drilling complete, in place, including trenching, dewatering, grading, furnishing and laying pipe, installing all required fittings & thrust blocking, backfilling with suitable material and consolidating backfill, hauling in suitable backfill material from off-site if sufficient suitable material is not available on-site, re-forming disturbed roadside ditches, cleaning up construction sites, testing, disinfecting, restoring and stabilizing surfaces, and related work.

Payment for water main construction shall include locating and protecting all existing above and below ground utilities or structures. The work shall include repairing, replacing, or relocating any utilities and appurtenances damaged during the construction operation.

Payment for water main construction shall include replacing mailboxes, paper boxes, fence posts and other obstructions removed to facilitate installation of the main. Such items are to be replaced in their preconstruction condition. Damaged items are to be replaced or repaired.

(10) HDPE/D.I. ADAPTERS (W6)

HDPE/D.I. Adapters will be each (EA) measured for payment by actual count.

Payment for adapters is to be full compensation for providing all materials, equipment, and labor necessary to properly install according to manufacturer's specifications.

(11) FIRE HYDRANT ASSEMBLY (W7)

This item will be measured on an each (EA) basis.

Payment for fire hydrants and associated appurtenances will be full compensation for furnishing and properly installing fire hydrants complete, irrespective of bury, including tees, bends, gate valves with boxes, concrete valve protector rings if valves are installed outside of pavement, hydrant legs, standard fire hydrants, drainage stone, blocking, bracing and related work. All fire hydrants shall be installed at a height acceptable to the Owner to allow for proper use.

(12) GATE VALVE W/BOX (W8, W18)

Valves will each (EA) be measured for payment by actual count.

Payment for valves is to be full compensation for providing all materials, equipment, and labor necessary to properly install valves complete, irrespective of bury, including blocking, bracing, valve box and cover, valve box adjustment, concrete valve protector ring if valve is installed outside of pavement, cleaning up and restoring the work area and related work.

(13) DUCTILE IRON FITTINGS (W9, W10, W11, W13, W14, W15, W19, W30, W34)

Ductile Iron Fittings will be each (EA) measured for payment by actual count.

Payment for ductile iron fittings is to be full compensation for providing all materials, equipment, and labor necessary to properly install tees and bends and other fittings complete, irrespective of bury, including blocking and bracing.

Vertical bends with blocking have been included and will be installed only if required by field conditions as directed by the Engineer.

(14) INSTALL TAPPING SLEEVE AND VALVE (W12, W16)

This item will be measured on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to install a tapping sleeve and valve assembly on an existing water pipe. This work includes maintaining water service, excavating for the tie to the existing water main, installing and testing the tapping sleeve and valve, backfilling and compaction, and restoration of the work area.

(15) 2" TYPE 'K' COPPER SERVICE LINE WITH SERVICE SADDLE CONNECTION AND 2" GATE VALVE WITH BOX (W19)

This item will be measured for payment on a lump sum (LS) basis.

Payment for service line connection is to be full compensation for providing all materials, equipment, and labor necessary to properly connect the existing service line to the new water main complete, irrespective of bury, including blocking, bracing, gate valve with box and saddle, and cleaning up and restoring the work area and related work.

(16) SERVICE CONNECTION (W20, W21, W22, W23, W24)

Service line connection will each (EA) be measured for payment by actual count.

Payment for service line connections is to be full compensation for providing all materials, equipment, and labor necessary to properly connect the existing service line to the new water main complete, irrespective of

bury, including blocking, bracing, corporation stop and saddle, and cleaning up and restoring the work area and related work.

(17) FIRE PROTECTION SERVICE LINE CONNECTION (W25, W26)

Fire protection service line connection will each (EA) be measured for payment by actual count. Payment for service line connections is to be full compensation for providing all materials, equipment, and labor necessary to properly connect the existing service line to the new water main complete, irrespective of bury, including blocking, bracing, corporation stop and saddle, and cleaning up and restoring the work area and related work.

(18) REMOVE EXISTING FIRE HYDRANT (W27)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to remove the existing fire hydrant assembly and shall include cut and disposal of existing pavement and other subgrade requirements, demolition, and disposal of existing fire hydrant assembly, backfilling of excavation with flowable fill or select materials as required by road type, and pavement repair, where required.

(19) ABANDON EXISTING WATER MAIN AND FILL WITH FLOWABLE FILL (W28)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to cap the ends of the existing water line and to fill the existing water pipe with flowable fill.

(20) HYDRO STOP WITH BLOCKING (W29)

This item will be measured on an each (EA) basis.

Payment for Hydro Stops is to be full compensation for providing all materials, equipment, and labor necessary to properly install Hydro Stop complete, irrespective of bury, including blocking, and bracing, cleaning up and restoring the work area and related work.

(21) WATER STUB-OUT (W31)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to install a water main dead-end stub-out including MJ Plug, MJ retainer gland, concrete in-line reaction blocking, and all related work.

(22) RELOCATING EXISTING FIRE HYDRANT CLEAR OF SIDEWALK (W32)

This item will be measured for payment on a lump sum (LS) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to relocate the existing fire hydrant clear of the sidewalk complete, irrespective of bury, including hydrant legs, drainage stone, blocking, bracing, and related work. Fire hydrant shall be re-installed at a height acceptable to the Owner to allow for proper use.

(23) TRENCH ROCK EXCAVATION AND REMOVAL (W33)

This item will be measured for payment on the basis of cubic yards (CY) of rock excavated.

Rock excavation includes removal and disposal of materials and obstructions encountered that cannot be excavated with a late-model track-mounted hydraulic excavator, equivalent to Caterpillar Model N, 235D LC.

Typical of materials classified as rock are boulders 1 cu. yd. or more in volume, solid rock beds, rock ledges, and conglomerate deposits.

Payment for rock excavation will be made on the basis of rock cross-sections compiled by the Owner's Geotechnical Representative. Do not perform rock excavation work until material to be excavated has been classified and cross-sectioned by the Owner's Geotechnical Representative. Rock excavation and removal shall include removal and disposal of rock off-site and replacement with suitable backfill material.

Rock Payment lines are limited to the following:

In pipe trenches, 6 inches below invert elevation of pipe and 2 feet wider than inside diameter of pipe, but not less than 3 feet minimum trench width.

(24) REMOVE AND DISPOSE EXISTING AC WATERLINE (W35)

This item will be measured for payment on the basis of horizontal lineal foot (LF) distances.

This work shall be conducted by a company licensed in the State of South Carolina for asbestos abatement. The work shall not be initiated prior to procurement of an asbestos permit from SCDHEC. The Contractor is solely responsible for all work required to remove and dispose of the AC lines, including developing the permit application, permit fees, asbestos abatement licensing, labor, equipment, and materials. Payment for this item shall be full compensation for all permitting, labor, materials, equipment, and transportation to excavate, trench backfill, remove, and dispose of the existing AC waterlines according to federal, state, and local regulations.

(25) STD. 4' DIA. SANITARY SEWER CONCRETE MANHOLES (S1, S2)

These items will be measured for payment on an each (EA) basis.

Payment for sanitary sewer manholes shall be full compensation for all materials and labor for installing manholes, in place, including excavation, dewatering, bedding, backfilling and consolidating backfill, re-forming roadside ditches, cleaning up construction area, restoring and stabilizing surfaces, and related work.

Payment for sanitary sewer manhole installation shall include demolition and disposal of existing manhole in locations shown on plans.

Payment for sanitary sewer manhole installation shall include locating and protecting all existing above and below ground utilities or structures. The work shall include repairing, replacing, or relocating any utilities and appurtenances damaged during the construction operation.

(26) STD. 4' DIA. PRECAST DOGHOUSE SANITARY SEWER CONCRETE MANHOLE (S3)

These items will be measured for payment on an each (EA) basis.

Payment for sanitary sewer manholes shall be full compensation for all materials and labor for installing manholes, in place, including excavation, dewatering, bedding, backfilling and consolidating backfill, re-forming roadside ditches, cleaning up construction area, restoring and stabilizing surfaces, and related work.

Payment for sanitary sewer manhole installation shall include locating and protecting all existing above and below ground utilities or structures. The work shall include repairing, replacing, or relocating any utilities and appurtenances damaged during the construction operation.

(27) SANITARY SEWER OUTSIDE VERTICAL DROP (S4)

This item is to be measured for payment on a vertical foot (VF) installed basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the construction as shown in the plans and directed in the specifications.

(28) D.I. SANITARY SEWER PIPE (S5, S6, S7)

These items will be measured for payment on the basis of horizontal lineal foot (LF) distances.

Ductile iron pipe and fittings shall be class 350, coal tar epoxy lined.

Payment for sanitary sewer pipe shall be full compensation for all materials and labor to install pipe, in place, including excavation, dewatering, bedding, backfilling with suitable material and consolidating backfill, hauling in suitable backfill material from off-site if sufficient suitable material is not available on-site, cleaning up construction area, testing, restoring and stabilizing surfaces, and related work.

Payment for sanitary sewer pipe installation shall include demolition and disposal of existing sanitary sewer pipe in locations shown on plans and necessary pump arounds to maintain service. The work shall include quiet pumps, piping, generators, clean up and related work.

Quiet pumps shall meet the requirements of City of Rock Hill Wastewater Specifications Section III. E. 2.

Payment for sanitary sewer pipe installation shall include locating and protecting all existing above and below ground utilities or structures. The work shall include repairing, replacing, or relocating any utilities and appurtenances damage during the construction operation.

Payment for sanitary sewer pipe installation shall include replacing fencing, fence posts and other obstructions removed to facilitate installation. Such items shall be replaced in their preconstruction condition. Damaged items shall be replaced or repaired.

(29) CONNECTION TO EXISTING SANITARY SEWER MANHOLE (S8)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation as shown in the plans or as directed by the Owner's Representative.

(30) ABANDON EXISTING SANITARY SEWER LINE/SANITARY SEWER FORCE MAIN WITH FLOWABLE FILL (S9, S11)

These items will be measured for payment on the basis of cubic yards (CY) of flowable fill.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to cap the ends of existing sanitary sewer line/sanitary sewer force main and to fill the existing pipe with flowable fill.

(31) ABANDON EXISTING MANHOLE IN ROADWAY WITH FLOWABLE FILL (S10)

This item will be measured for payment on the basis of cubic yards (CY) of flowable fill.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to fill the existing manhole with flowable fill, removal and disposal of the existing manhole ring and asphalt pavement repair in accordance with the plans and details.

(32) ABANDON EXISTING LIFT STATION (S12)

This item will be measured for payment on a lump sum (LS) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to remove and dispose of the lift station and the lift station components as shown in the plans and in accordance with City of Rock Hill specifications and SCDHEC regulations.

(33) REMOVE EXISTING MANHOLE (S13)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to remove the existing manhole and shall include cut and disposal of existing pavement and other subgrade requirements, demolition and disposal of existing manhole, backfilling of excavation with flowable fill or select materials as required by road type, and pavement repair, where required.

(34) NEW 6" SANITARY SEWER SERVICE W/CLEAN-OUT, INSTALLED (S14)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation in locations identified during construction.

Payment for this item shall include cut and disposal of existing pavement and other subgrade requirements, demolition and disposal of existing sewer service pipe, backfilling of trench with flowable fill or select materials as required by road type, and pavement repair.

(35) NEW 6" SANITARY SEWER SERVICE W/CLEAN-OUT – EXTERNAL DROP (S15)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation in locations identified during construction.

Payment for this item shall include cut and disposal of existing pavement and other subgrade requirements, demolition and disposal of existing sewer service pipe, backfilling of trench with flowable fill or select materials as required by road type, and pavement repair.

(36) REMOVE AND REPLACE EXISTING SANITARY SEWER SERVICE WITH NEW SANITARY SEWER SERVICE W/CLEAN-OUT (S16)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation in locations identified during construction.

Payment for this item shall include cut and disposal of existing pavement and other subgrade requirements, demolition and disposal of existing sewer service pipe, backfilling of trench with flowable fill or select materials as required by road type, and pavement repair.

(37) REMOVE AND REPLACE EXISTING SANITARY SEWER SERVICE WITH NEW SANITARY SEWER SERVICE AND CONNECT TO REHABILITATED SEWER LINE WITH SERVICE LATERAL SADDLE (S17)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation in locations identified during construction.

Payment for this item shall include cut and disposal of existing pavement and other subgrade requirements, demolition and disposal of existing sewer service pipe, backfilling of trench with flowable fill or select materials as required by road type, and pavement repair.

(38) RETAIN AND CIPPL EXISTING 8" VCP SANITARY SEWER LINE (S18)

This item will be measured for payment on the basis of horizontal lineal foot (LF) distances.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to CIPPL the existing sanitary sewer pipe in place.

Payment for CIPPL the existing sanitary sewer pipe shall include cleaning the existing pipe, television inspection of existing pipe, identification of sanitary sewer service lines and necessary pump arounds to maintain service. The work shall include quiet pumps, generators, clean up and related work. Television inspections shall be performed in conformance with the requirements specified in Special Provision (52) Video Inspections.

Payment for sanitary sewer pipe installation shall include locating and protecting all existing above and below ground utilities or structures. The work shall include repairing, replacing, or relocating any utilities and appurtenances damaged during the construction operation.

Payment for sanitary sewer pipe installation shall include replacing fencing, fence posts and other obstructions removed to facilitate installation. Such items shall be replaced in their preconstruction condition. Damaged items shall be replaced or repaired.

(39) RETAIN AND REHABILITATE EXISTING MANHOLE (S19)

This item will be measured for payment on a vertical foot (VF) installed basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation as shown in the plans or as directed by the Owner's Representative.

(40) ADJUST RETAINED MANHOLE TO FINISH GRADE AND REPLACE FRAME AND COVER (S20)

This item will be measured for payment on an each (EA) basis.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to adjust the retained sanitary sewer manhole to match finished elevation including excavation, dewatering, backfilling and consolidating backfill, cleaning up construction area, restoring and stabilizing surfaces and related work.

Payment for this item shall include replacement and disposal of existing frame and cover.

(41) ADJUST EXISTING SANITARY SEWER MANHOLE TO MATCH SIDEWALK ELEVATION (S21)

These items will be measured for payment on an each (EA) basis.

Payment for sanitary sewer manholes shall be full compensation for all labor, materials, and equipment to adjust the existing sanitary sewer manhole to match sidewalk elevation including excavation, dewatering, backfilling and consolidating backfill, cleaning up construction area, restoring and stabilizing surfaces and related work.

(42) 8" FERNCO COUPLING FOR TEMPORARY SEWER PIPE CONNECTION (S22)

These items will be measured for payment on an each (EA) basis.

Payment for sanitary sewer manholes shall be full compensation for all labor, materials, and equipment to install the coupling complete, irrespective of buy, including blocking and bracing.

(43) TRENCH ROCK EXCAVATION AND REMOVAL (S23)

This item will be measured for payment on the basis of cubic yards (CY) of rock excavated.

Rock excavation includes removal and disposal of materials and obstructions encountered that cannot be excavated with a late-model track-mounted hydraulic excavator, equivalent to Caterpillar Model N, 235D LC.

Typical of materials classified as rock are boulders 1 cu. yd. or more in volume, solid rock beds, rock ledges, and conglomerate deposits.

Payment for rock excavation will be made on the basis of rock cross-sections compiled by the Owner's

Geotechnical Representative. Do not perform rock excavation work until material to be excavated has been classified and cross-sectioned by the Owner's Geotechnical Representative. Rock excavation and removal shall include removal and disposal of rock off-site and replacement with suitable backfill material.

Rock Payment lines are limited to the following:

In pipe trenches, 6 inches below invert elevation of pipe and 2 feet wider than inside diameter of pipe, but not less than 3 feet minimum trench width.

(44) EXISTING SANITARY SEWER PIPE POINT REPAIR PRIOR TO REHABILITATION (S24)

This item will be measured for payment on the basis of horizontal lineal foot (LF) distances.

Payment for this item shall be full compensation for all labor, materials, and equipment necessary to complete the installation in locations identified during construction.

Payment for this item shall include cut and disposal of existing pavement and other subgrade requirements, demolition and disposal of existing sewer service pipe, backfilling of trench with flowable fill or select materials as required by road type, and pavement repair.

(45) PUMP AROUND FOR HIGH VOLUME SANITARY SEWER SERVICE LINE (S25)

These items will be measured for payment on an each (EA) basis.

Payment for sanitary sewer manholes shall be full compensation for all labor, materials, equipment, clean up and related work necessary to maintain service during the replacement or rehabilitation of the sanitary pipe for high volume sanitary sewer service line as directed by the Engineer.

All pump arounds shall use quiet pumps conforming to City of Rock Hill Wastewater Specifications Section III. E. 2.

For estimating purposes, the following tracts are anticipated to need this pump around: Tracts 14, 16, 18, 19, 20, 21, 25, 26, 28, 31, 35 and 37.

(46) GEOTECHNICAL CONSIDERATIONS

The Contractor's attention is called to the geotechnical engineering report included in Division III, Section 4 of this manual. Geotechnical considerations for earthwork are provided in Section E of the report, citing potential for undercut needs in subgrade locations and for culvert foundations. Plan inclusion quantities are provided for undercut and for geogrid materials should the Engineer determine that undercutting is necessary.

(47) EMBANKMENT CONSTRUCTION

All roadway fill material shall meet or exceed the Borrow Excavation requirements of Section 203.2.1.8 of the SCDOT 2007 Standard Specifications for Highway Construction. Borrow shall be placed in accordance with Section 205 of the SCDOT 2007 Standard Specifications for Highway Construction.

Borrow placed on existing slopes shall be benched and compacted in accordance with Section 205.4.4 of the SCDOT 2007 Standard Specifications for Highway Construction. During construction of embankments, existing roadway asphalts on travel lanes shall be monitored for cracking due to embankment settlement. If cracking occurs, construction activities in the vicinity of the cracking shall be stopped. The geotechnical engineer shall be notified and shall provide a written procedure for repair of the cracking.

(48) BORROW MATERIALS

Provide borrow materials that meet or exceed the following requirements:

1. Provide borrow materials that meet or exceed the specifications outlined in SCDOT 2007 Standard Specifications for Highway Construction and having a minimum unit weight of 110 pcf.
2. All borrow materials shall have a minimum friction angle of 32 degrees and cohesion of 0 psf.

(49) ROCK EXCAVATION

The project geotechnical report indicates that saprolite (partially weathered rock), may be encountered at depths ranging from 5' to 15' below existing ground. Saprolite or other material that can be excavated will be paid as Unclassified Excavation. Excavation of rock encountered during roadway and storm drainage construction activities shall be measured and paid as Rock Excavation, as stipulated in Section 203.2.1.2 (Unclassified Excavation) and in Section 203.2.1.7 (Rock Excavation) of the 2007 Standard Specifications for Highway Construction.

Separate pay items are provided in the bid schedule for rock encountered during trench excavations for water and sewer utilities, and for rock encountered during directional drilling for water utility installation. Refer to the special provision pay item descriptions for water and sewer installation for information on classification, measurement, acceptance and payment for utility trench rock and directionally drilled rock.

(50) MUCK EXCAVATION

Excavation of unsuitable materials encountered during roadway and storm drainage construction activities shall be measured and paid as Unclassified Excavation, as stipulated in Section 203.2.1.2 (Unclassified Excavation) and in Section 203.2.1.3 (Muck Excavation) of the 2007 Standard Specifications for Highway Construction. No separate pay items are provided for muck or any other unsuitable materials encountered during roadway grading operations and drainage excavation processes.

Separate pay items are provided in the bid schedule for unsuitable materials encountered during trench excavations for water and sewer utilities. Refer to the special provision pay item descriptions for water and sewer installation for information on classification, measurement, acceptance, and payment for utility trench unsuitable material excavation.

(51) PAYMENT FOR MATERIAL – ON-HAND SECTION 109.8 (Payment For Material-on-Hand) of the SCDOT Standard specifications for highway construction shall be amended to include the following provisions:

Material Delivered on the Project

When so authorized by York County/SCDOT, partial payments will be made up to 95% of the delivered cost of materials on hand that are to be incorporated in the work, provided that such materials have been delivered on or in close proximity to the project and stored in an acceptable manner. Material payments will be allowed when 95% of the accumulated costs of unpaid invoices are equal to or greater than \$10,000, and materials have been inspected and approved by York County/SCDOT

Material Stored at Fabricator's Facilities or Contractor's Facilities

When so authorized by York County/SCDOT, partial payments will be made up to 95% of the invoiced cost, exclusive of delivery cost, for bulky materials requiring fabrication at an off site location that are durable in nature and represent a significant portion of the project cost, if it has been determined by York County/SCDOT, that the material cannot be reasonably stockpiled in the vicinity of the work. Material payments will be allowed when the materials have been inspected and approved by York County/SCDOT

Materials with Delayed Delivery to the Project

When so authorized by York County/SCDOT, partial payments will be made up to 95% of the invoiced cost of materials that have been ordered by the contractor but will be more than 45 days before being delivered to the project.

Required Documents

- (1) Written consent of surety to make such partial payments,

- (2) Bill of Sale from the Contractor to the County, and
- (3) Copy of invoice from material supplier verifying the cost of the material.

General Requirements

The partial payments will be made on the conditional basis that the material meets the requirements of the contract and will be incorporated into the project. The Contractor shall reimburse the County all partial payments for material paid, but not incorporated into the project.

Partial payments for materials on hand or already ordered but not yet delivered to the project will not constitute acceptance, and any faulty material will be rejected even though previous payment may have been made for same in the estimates.

Partial payment will not be made for fuel, supplies, form lumber, falsework, or used materials.

Partial payments will not be made on seed or any living or perishable plant materials except that when such materials have been planted or otherwise incorporated in the work. Payment may be made, not as materials, but as work done as part of a contract item for which a contract unit or lump sum price has been established.

Partial payments will not exceed 95% of the contract unit or lump sum prices for the work.

(52) VIDEO INSPECTIONS (SP1)

Video inspections shall be performed on all gravity storm and sanitary sewer installations, as specified in SCDOT SC-M-714, Section 33 01 30.16, Television Inspection of Pipes. The Contractor shall provide all record drawing information including video documentation to the Engineer prior to final approval. The video shall be turned over to the Owner upon completion of the pipe system construction activities. The video shall be in the format of current acceptable standards and provided on a digital video disc or storage device.

Payment for video inspections shall be made on a Lump Sum (LS) basis. Payment shall be full compensation for all labor, materials, and equipment necessary to provide the Owner with recorded video inspections of all gravity storm and sanitary sewers within the project limits.

(53) SECTION 107: MONITORING OF CONSTRUCTION-RELATED EARTHBORNE VIBRATIONS

DESCRIPTION:

The project construction will generate vibrations that will travel through the earth, which will subsequently be received or "sensed" by nearby structures. Specific procedures that will generate earthborne vibrations include (but are not limited to) the trenching, rock excavation, and embankment vibratory compaction. To mitigate the risk of vibration-related damage to nearby structures, this specification outlines the Contractor's responsibility for performing a program of pre-construction condition assessment and vibration monitoring during construction.

This specification is based, in part, on AASHTO R 8-96 (2004) *Standard Recommended Practice for Evaluation of Transportation-Related Earthborne Vibrations*. As discussed in AASHTO R 8-96 (2004), humans respond to a much broader range of vibration frequencies and intensities than structures. Intrusive vibration levels can annoy humans at much lower intensities than levels considered critical for structures. Thus, occupants of adjacent properties may perceive that the construction-induced vibrations may present risk to their structures. The recommended safe vibration limits are intended to mitigate the risk of structure damage, and more specifically, reduce the development of "threshold cracks" or cosmetic cracking. Such cracks may appear at lower vibration levels than the level at which architectural or minor structural damage would be expected to occur.

PRE-CONSTRUCTION CONDITION ASSESSMENT:

The Contractor shall retain a geotechnical engineering firm to perform a pre-construction condition assessment to document the conditions of nearby buildings and other sensitive nearby structures prior to the beginning of construction. The assessment shall be performed on all properties adjacent to the

project site. The assessment should include photographic documentation and installation of crack monitors on existing facade cracks that might propagate due to construction vibrations. All documentation of existing conditions and information concerning the type and location of crack monitors shall be presented to the Engineer in a report prior to construction.

CRACK MONITORING DURING CONSTRUCTION:

During initial activities of vibration producing construction, the Contractor shall perform periodic readings of the crack monitors that were installed during the pre-construction condition assessment. All readings shall be provided to the Engineer within 48 hours of taking the reading. Provided that the crack readings confirm that vibrations are not contributing to increasing the crack width, the crack monitors may be read once per week. More frequent readings may be directed by the Engineer during activities that are expected to have greater earthborn vibrations (e.g., pile driving). If the crack readings suggest that vibrations from the project site are contributing to crack width, then the Contractor shall immediately notify the Engineer and review those activities that are generating the earthborne vibrations. The Contractor and his or her geotechnical firm shall then submit a detailed plan for repair, perform the repair at no cost to the Department and develop and submit for review a revised construction plan to address the vibration problems and minimize further damage.

VIBRATION MONITORING DURING CONSTRUCTION:

A. Procedure - The Contractor shall monitor vibrations at the project at no less than three locations during vibratory construction activities. The locations shall be selected by the Contractor based on the location of the construction activities and their relative position to existing buildings. Prior to construction, a plan of the monitoring locations shall be submitted to the Engineer for acceptance. The vibration monitors shall be established at the site so that background vibrations may be determined prior to beginning vibration causing activities. The sensitivity range of the seismograph shall be selected so that the recording is initiated below the maximum allowable particle velocity shown in Figure 1 and extends above the highest expected intensity. Specific activities of the vibration source shall be indexed in time to allow correlation with the arrivals on the vibration

B. Project Vibration Criteria - The maximum allowable particle velocity is shown in Figure 1.

If the data from the monitors indicate that vibrations are exceeding the established criteria, then the Contractor shall immediately notify the Engineer and suspend those activities which are generating the earthborne vibrations, until the Contractor and his or her geotechnical firm have developed a revised construction plan to resolve the problem. The problem shall be resolved at no additional cost to the Department.

C. Instrumentation - The vibration monitors shall consist of digital seismographs that display the particle velocities and associated frequencies plotted against the criteria for this project (i.e., Figure 1). Each seismograph shall contain geophones with response capability in three mutually perpendicular axes or components: one vertical and two horizontal (radial and transverse). The frequency response of the geophones shall be linear from at least 4 Hz to more than 200 Hz. The sensitivity shall range from less than 0.02 in/sec to more than 5.0 in/sec. The BlastMate III by Instantel is one type of seismograph that is suitable for this project.

D. Calibration and Instrument Use - The Contractor shall field calibrate the vibration monitors before the start of each recording period. The transducer shall be positioned with the longitudinal axis toward the vibration source. Transducers must be adequately coupled with the ground. Operation of all vibration monitors shall be in accordance with the instrument manufacturer's instructions and recommendations. Vibration records shall be collected in waveform plot or strip chart plot. The peak vector sum of the particle velocity in longitudinal, transverse, and vertical planes shall be shown along with the respective dominant or principle frequencies. The highest recorded particle velocity (i.e., the vector sum of the three orthogonal directions), when indexed to a particle vibration event, shall be reported as the peak particle velocity. The recorded peak particle velocity shall be compared to criteria appropriate for the subject of concern.

E. Complaints - In the event of a complaint, the Contractor shall immediately contact the Engineer and review those construction activities that are inducing vibrations into the earth. The Contractor shall

prepare a report documenting all relevant data such as the time and date presented in the complaint, a description of the construction activities during the subject time/date, data from the monitoring instruments for the subject time/date, complaint information and a description (including photographs, if possible) of the alleged damage. The Contractor and his or her geotechnical firm shall then submit a detailed plan for repair, perform the repair at no cost to the Department and develop and submit for review a revised construction plan to address the vibration problems and minimize further damage and complaints.

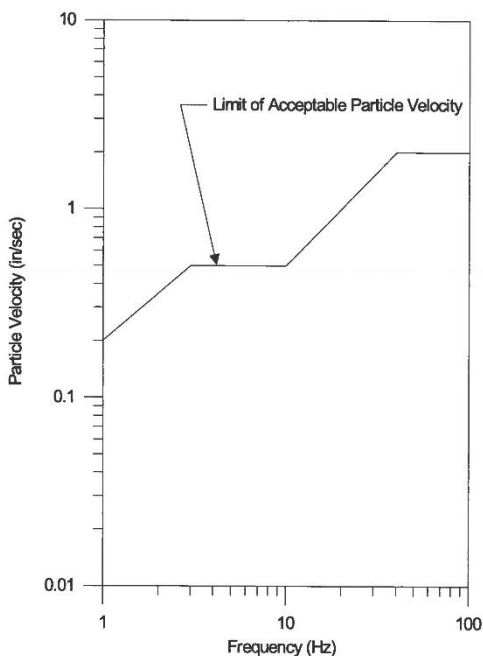
METHOD OF MEASUREMENT:

In addition to the pre-construction condition assessment report, the Contractor shall also provide monthly reports containing the results of the crack monitors and vibration monitors during those activities that generate earthborne vibrations, including (but not limited to) vibratory compaction, trenching and rock excavation. The reports shall document that the Contractor is providing the work described by this specification.

BASIS OF PAYMENT:

Payment shall be made in proportion with the percent of the project that is complete. Final payment of the remaining lump sum balance shall be made when vibration monitoring is complete as approved by the Engineer. Payments shall be made under:

Item No.	Pay Item	Pay Unit
1075001	LEVEL 3 – EARTH-BORNE VIBRATION MONITORING	Lump Sum



DIVISION II - SECTION 3
TRAFFIC CONTROL SPECIAL PROVISIONS

TRAFFIC CONTROL SPECIAL PROVISIONS

The Contractor shall execute the item of Traffic Control as required by the Standard Specifications, the plans, the Standard Drawings For Road Construction, these special provisions, all supplemental specifications, the MUTCD, and the Engineer. This is an amendment to the Standard Specifications to require the following:

GENERAL REGULATIONS –

These special provisions shall have priority to the plans and comply with the requirements of the MUTCD and the Standard Specifications. Revisions to the traffic control plan through modifications of the special provisions and the plans shall require approval by the ENGINEER. Final approval of any revisions to the traffic control plan shall be pending upon review by the County. Any deviation from the sequencing shown in the traffic control plans shall require approval by the Engineer.

Install and utilize trailer mounted changeable message signs for road closures as directed by the Engineer. These changeable message signs shall be placed six weeks prior to the road closure alerting motorists of the date the closure is to take place.

Install and utilize changeable message signs in all lane closures installed on high volume high-speed multilane roadways. Use of changeable message signs in lane closures installed on low volume low speed multilane roadways is optional unless otherwise directed by the plans and the Resident Engineer. Install and use a changeable message sign within a lane closure set-up as directed by the Standard Drawings For Road Construction. When a lane closure is not present for any time to exceed 24 hours, remove the changeable message sign from the roadway. Place the sign in a predetermined area on the project site, as approved by the Resident Engineer, where the sign is not visible to passing motorists. Utilize preprogrammed messages in accordance with the Standard Drawings for Road Construction when using the changeable message sign as part of the traffic control set-up for lane closures. Only those messages pertinent to the requirements of the traffic control situation and the traffic conditions are permitted for display on a changeable message sign at all times. At no time will the messages displayed on a changeable message sign duplicate the legends on the permanent construction signs.

During operation of changeable message signs, place the changeable message sign on the shoulder of the roadway no closer than 6 feet between the sign and the near edge of the adjacent travel lane. When the sign location is within 30' of the near edge of a travel lane open to traffic, supplement the sign location with no less than 5 portable plastic drums placed between the sign and the adjacent travel lane for delineation of the sign location. Install and maintain the drums no closer than 3 feet from the near edge of the adjacent travel lane. This requirement for delineation of the sign location shall apply during all times the sign location is within 30' of the near edge of a travel lane open to traffic, including times of operation and non-operation. Oversized cones are prohibited as a substitute for the portable plastic drums during this application.

All signs mounted on portable sign supports shall have a minimum mounting height of 5' from the ground to the bottom of the sign. All signs mounted on ground mounted u-channel posts shall have a minimum mounting height of 7' from the ground to the bottom of the sign.

When covering signs with opaque materials, the COUNTY prohibits attaching a covering material to the face of the sign with tape or a similar product or any method that will leave a residue on the retroreflective sheeting. Residue from tape or similar products, as well as many methods utilized to remove such residue, damages the effective reflectivity of the sign. Therefore, contact of tape or a similar product with the retroreflective sheeting will require replacement of the sign. Cost for replacement of a sign damaged by improper covering methods will be considered incidental to providing and maintaining the sign; no additional payment will be made.

Signs not illustrated on the typical traffic control standard drawings designated for permanent construction signs shall be considered temporary and shall be included in the lump sum price bid item for "Traffic Control" unless otherwise specified.

Temporary speed limit signs will not be measured for payment, but payment for all temporary speed limit sign materials, labor, equipment, tools and incidentals necessary to complete the work according to the plans shall be included within the lump sum payment for traffic control.

Install and maintain any necessary detour signing as specified by the typical traffic control standard drawings designated for detour signing, Part VI of the MUTCD, these Special Provisions, and the Engineer. **The lump sum price bid item for "Traffic Control" includes payment for installation and maintenance of the detour signing.**

The Contractor shall maintain the travel patterns as directed by the traffic control plans and shall execute construction schedules expeditiously. The Contractor shall provide the Resident Engineer with no less than a two-week prior notification of changes in traffic patterns.

During nighttime flagging operations, flaggers shall wear a safety vest and safety pants that comply with the requirements of ANSI / ISEA 107-2004 standard performance for Class 3 risk exposure or latest revisions and a fluorescent hard hat. The safety vest and the safety pants shall be retroreflectorized and the color of the background material of the safety vest and safety pants shall be fluorescent orange-red or fluorescent yellow-green.

During nighttime flagging operations, the Contractor shall illuminate each flagger station with any combination of portable lights, standard electric lights, existing street lights, etc., that will provide a minimum illumination level of 108 Lx or 10 fc.

During nighttime flagging operations, supplement the array of advance warning signs with a changeable message sign for each approach. These changeable message signs are not required during daytime flagging operations. Install the changeable message signs 500' in advance of the advance warning sign arrays. Messages should be "Flagger Ahead" and "Prepare To Stop".

During the paving operations, the length of roadway with an acceptable grade elevation difference less than or equal to 2" shall be restricted to 4 miles.

During the surface paving operations, the length of roadway with an acceptable grade elevation difference less than or equal to 1" shall be restricted to 4 miles.

CLOSURE RESTRICTIONS-

General Restrictions

The Department reserves the right to restrict the installation of lane closures, road closures, shoulder closures, ramp closures, pacing operations or any other operations that will impact the efficient flow of traffic or hinder normal traffic operations on the roads of the South Carolina state highway system during peak travel hours and/or days, holidays, holiday weekends, extended holiday periods, weekends, special events or any time traffic volumes are high. Lane closures on high volume highways during peak traffic periods or at any time traffic volumes exceed the numerical values determined to be acceptable by the Department are PROHIBITED. Lane closures on routes with high volume commuter traffic during peak traffic periods are PROHIBITED.

Special events are events generating excessive traffic as determined by the Department. Lane closures, road closures, shoulder closures, pacing operations or any other operations that would impact the efficient flow of traffic or hinder normal traffic operations during special events are PROHIBITED unless otherwise directed by the Engineer.

The Department reserves the right to suspend a lane closure, road closure, shoulder closure, pacing operation or any other operation if the RCE determines a delay or a resulting traffic backup is excessive. Observe and maintain all project specific time restrictions as specified by the Plans, the Specifications and the RCE. Install and remove lane closures, road closures, shoulder closures, pacing operations, or any other operation that would impact the efficient flow of traffic or hinder normal traffic operations within the time restrictions including all relative traffic control devices and signs. Coordinate work activities requiring lane closures, road closures, shoulder closures, pacing operations or any other operation in accordance with all restrictions.

Installation and maintenance of a lane closure is PROHIBITED when not actively engaged in work activities specific to the location of the lane closure unless otherwise specified and approved by the RCE. The length of the lane closure shall not exceed the length of roadway anticipated to be subjected to the proposed work activities within the work shift time frame or the maximum lane closure length specified within the contract unless otherwise specified and approved by the RCE. Also, a maximum lane closure length specified within a contract does not warrant installation of the specified lane closure length when the length of the lane closure necessary for conducting the work activity is less. The length and duration of each lane closure, within the contract specified parameters, shall require approval by the RCE prior to installation. The length and duration of each lane closure may be reduced by the RCE if the work zone impacts generated by a lane closure are deemed excessive or unnecessary.

The presence of temporary signs, portable sign supports, traffic control devices, trailer mounted equipment, truck mounted equipment, personnel, and vehicles relative to the installation or removal of a closure is PROHIBITED within the temporary clear zone during the prohibited hours.

Holiday Restrictions

The Department prohibits lane closures on interstate highways during holiday weekends and extended holiday periods as defined below unless otherwise directed by the Engineer. The Department's holiday lane closure restrictions for holidays that are observed on a Monday will include the weekend and are considered a holiday weekend unless otherwise established by these specifications. The Department defines the typical Monday holiday weekend as from 6:00 am of the Friday before the weekend until 6:00 a.m. of the Tuesday after the holiday. Lane closures, road closures, shoulder closures, pacing operations or any other operations that will impact the efficient flow of traffic or hinder normal traffic operations during these Monday holiday weekends as defined above are PROHIBITED unless otherwise directed by the Engineer.

Easter and Thanksgiving holidays are varied and extended holiday periods of a holiday weekend. Easter holidays are defined as from 12:00 noon of the Thursday before Easter until 6:00 p.m. of the Monday after Easter. Thanksgiving holidays are defined as from 12:00 noon of the Wednesday before Thanksgiving Day until 6:00 a.m. of the Monday after Thanksgiving Day. Lane closures, road closures, shoulder closures, pacing operations, or any other operations that will impact the efficient flow of traffic or hinder normal traffic operations during the Easter and Thanksgiving holidays as defined above are PROHIBITED unless otherwise directed by the Engineer.

Consider Independence Day (4th of July) an extended holiday period. This extended holiday period will vary from year to year depending upon the day of the week the 4th of July occurs. See the table below. Lane closures, road closures, shoulder closures, pacing operations or any other operations that will impact the efficient flow of traffic or hinder normal traffic operations during the Independence Day holiday as defined below are PROHIBITED unless otherwise directed by the Engineer.

INDEPENDENCE DAY (4TH OF JULY) HOLIDAY	
DAY OF WEEK	DURATION
MONDAY	6:00 AM FRIDAY, JULY 1 ST through 10:00 PM TUESDAY, JULY 5 TH
TUESDAY	6:00 AM MONDAY, JULY 3 RD through 10:00 PM WEDNESDAY JULY 5 TH
WEDNESDAY	6:00 AM TUESDAY, JULY 3 RD through 10:00 PM THURSDAY JULY 5 TH
THURSDAY	6:00 AM WEDNESDAY, JULY 3 RD through 10:00 PM FRIDAY JULY 5 TH
FRIDAY	6:00 AM THURSDAY, JULY 3 RD through 10:00 PM MONDAY JULY 7 TH
SATURDAY	6:00 AM THURSDAY, JULY 2 ND through 10:00 PM MONDAY JULY 5 TH
SUNDAY	6:00 AM FRIDAY, JULY 2 ND through 10:00 PM TUESDAY JULY 5 TH

Consider Christmas an extended holiday period. This extended holiday period will vary from year to year depending upon the day of the week Christmas Day occurs. See the table below. Lane closures, road closures, shoulder closures, pacing operations or any other operations that will impact the efficient flow of traffic or hinder normal traffic operations during the Christmas holiday as defined below are PROHIBITED unless otherwise directed by the Engineer.

CHRISTMAS HOLIDAY	
DAY OF WEEK	DURATION
MONDAY	6:00 AM FRIDAY, DECEMBER 22 ND through 10:00 PM WEDNESDAY JANUARY 3 RD
TUESDAY	6:00 AM FRIDAY, DECEMBER 21 ST through 10:00 PM THURSDAY JANUARY 3 RD
WEDNESDAY	6:00 AM FRIDAY, DECEMBER 20 TH through 10:00 PM FRIDAY JANUARY 3 RD
THURSDAY	6:00 AM TUESDAY, DECEMBER 23 RD through 10:00 PM SUNDAY JANUARY 4 TH
FRIDAY	6:00 AM WEDNESDAY, DECEMBER 23 RD through 10:00 PM SUNDAY JANUARY 3 RD
SATURDAY	6:00 AM THURSDAY, DECEMBER 23 RD through 10:00 PM MONDAY JANUARY 3 RD
SUNDAY	6:00 AM FRIDAY, DECEMBER 23 RD through 10:00 PM TUESDAY JANUARY 3 RD

Waiver of Restrictions

Waiver or modification of these restrictions or the established hourly lane closure prohibition hours shall require approval from either the Deputy Secretary of Engineering, the Chief Engineer for Operations, or the Chief Engineer for Project Delivery. When requesting such a waiver or modification of these restrictions, submit the request to the RCE no less than 30 calendar days prior to the day in question. The Department reserves the right to approve, deny, and/or rescind waivers at its discretion. The Department reserves the right to suspend a lane closure, road closure, shoulder closure, pacing operation or any other operation if the RCE determines a delay or a resulting traffic backup is excessive.

SHOULDER CLOSURE RESTRICTIONS -

The hourly restrictions for lane closures shall also apply to work activities conducted under a shoulder closure within 15’ of the near edge of an adjacent travel lane or a median area. The County reserves the right to suspend work conducted under a shoulder closure if any traffic backups develop and are deemed excessive by the Engineer. Maintain all shoulder closure restrictions as directed by the plans, these special provisions, and the Engineer.

On primary and secondary roadways, the County prohibits the Contractor from conducting work within 1’ or less of the near edge of an adjacent travel lane under a shoulder closure. All work that may require the presence of personnel, tools, equipment, materials, vehicles, etc., within 1’ of the near edge of an adjacent travel lane shall be conducted under a lane closure.

TYPICAL TRAFFIC CONTROL STANDARD DRAWINGS -

The typical traffic control standard drawings of the “Standard Drawings For Road Construction”, although compliant with the MUTCD, shall take precedence over the MUTCD. The typical traffic control standard drawings of the “Standard Drawings For Road Construction” shall apply to all projects let to contract.

Install the permanent construction signs as shown on the typical traffic control standard drawings designated for permanent construction signing.

SCHEME E 24 SQ. FT.	EB S-284 WB S-284 EB US 21 WB US 21 SB RIVERCHASE BLVD. EB AME LANE EB SC 161 WB SC 161 SB S-851	216 SQUARE FEET
TOTAL		216 SQUARE FEET

ADDENDUMS

(Addendums to the “2007 Standard Specifications for Highway Construction”)

(A) Trailer-Mounted Changeable Message Signs -

Sub-section 606.5 Measurement (paragraph 2) -

Trailer-mounted changeable message signs are included in the lump sum item for Traffic Control in accordance with **Subsections 107.12** and **601.5** of the “2007 Standard Specifications for Highway Construction”. No separate measurement will be made for trailer-mounted changeable message signs unless the contract includes a specific pay item for trailer-mounted changeable message signs.

The Contractor shall provide, install, operate, and maintain the trailer-mounted changeable message sign per traffic control set-up as directed by the Plans, the “Standard Drawings for Road Construction”, these Special Provisions, the Specifications, and the Engineer.

Sub-section 606.6 Payment (paragraph 2) -

In addition to **Subsections 107.12** and **601.6**, the payment for Traffic Control is full compensation for providing, installing, removing, relocating, operating, and maintaining trailer-mounted advance warning arrow panels and trailer-mounted changeable message signs as specified or directed and includes providing the units’ primary power source; repairing or replacing damaged or malfunctioning units within the specified time; providing traffic control necessary for installing, operating, and maintaining the units; and all other materials, labor, hardware, equipment, tools, supplies, transportation, incidentals, and any miscellaneous items necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other items of the Contract.

Sub-section 606.6 Payment (paragraph 3) -

Disregard this paragraph unless the Contract includes a specific pay item for trailer-mounted changeable message signs.

(B) Temporary Concrete Barrier –

Sub-section 605.2.3.2 Temporary Concrete Barrier (paragraph 6) -

Previously used temporary concrete barrier walls are subject to inspection and approval by the RCE before use. Ensure that previously used temporary concrete barrier walls are in good condition. Defects to a temporary concrete barrier wall that may disqualify a section of wall for use include gouges, cracks, chipped, or spalled areas. A defect that exposes reinforcing steel warrants immediate disqualification. A disqualification grade type defect shall consist of measurements in excess of 1 inch, entirely or partially within the boundaries of the end connection areas and the drainage slot areas as illustrated in the “Standard Drawings for Road Construction”, and/or in excess of 4 inches for all areas beyond the end connection areas. To warrant disqualification, these

measurements shall exceed the specified dimensions in all three directions, width, height, and depth. A defect that exceeds the specified dimensions in only one or two of the three directions does not warrant disqualification.

Temporary concrete barrier walls with defects less than 6 inches in all three directions, width, height, and depth that do not expose reinforcing steel may be repaired in accordance with the following requirements. Repair is prohibited on temporary concrete barrier walls with defects 6 inches or greater in all three directions, width, height, and depth.

For repair of temporary concrete barrier walls with defects less than 6 inches in all three directions, width, height, and depth that do not expose reinforcing steel, repair the defect with a premanufactured patching material specifically fabricated for patching structural concrete. The strength of the patch must meet or exceed the design strength of the class 3000 concrete of the temporary concrete barrier wall. Perform the repair procedures in accordance with all requirements and instructions from the manufacturer of the patch material. Use a bonding compound between the patch material and the concrete unless specifically stated by the manufacturer that a bonding compound is not required. If the manufacturer states that application of a bonding compound is optional, SCDOT requires application of a bonding compound compatible with the patch material. If cracking occurs within the patched area, remove the patch material completely and repeat the repair process. The Contractor shall submit documentation stating all repairs have been conducted in accordance with these requirements prior to installing any temporary concrete barrier walls with repairs. Utilization of temporary concrete barrier walls with repairs shall require approval by the RCE prior to installation.

The Contractor shall submit certification documents for the patch material utilized for repairs to the Engineer prior to placing temporary concrete barrier walls that have been repaired on the project site.

(C) Construction –

Sub-section 601.4.2 Construction Vehicles (paragraph 2) -

When working within the rights-of-way of access-controlled roadways such as Interstate highways, the Contractor's vehicles may only change direction of travel at interchanges. These vehicles are prohibited from crossing the roadway from right side to median or vice versa. Use a flagger to control the Contractor's vehicles when these vehicles attempt to enter the roadway from a closed lane or the median area. Ensure that the flagger does not stop traffic, cause traffic to change lanes, or affect traffic in any manner. The Contractor's vehicles may not disrupt the normal flow of traffic or enter the travel lane of the roadway until a sufficient gap is present.

The Contractor shall have flaggers available to control all construction vehicles entering or crossing the travel lanes of secondary and primary routes. The RCE shall determine the necessity of these flaggers for control of these construction vehicles. The RCE shall consider sight distance, vertical and horizontal curves of the roadway, prevailing speeds of traffic, frequency of construction vehicles entering or crossing the roadway, and other site conditions that may impact the safety of the workers and motorists when determining the necessity of these flaggers. Ensure that these flaggers do not stop traffic, cause traffic to change lanes, or affect traffic in any manner. The Contractor's vehicles may not disrupt the normal flow of traffic or enter the travel lane of the roadway until a sufficient gap is present.

(D) Category I Traffic Control Devices –

***** (Effective on all projects let to contract after May 1, 2010) *****

Sub-section 603.2.2 Oversized Traffic Cones (paragraph 6) -

Reflectorize each oversized traffic cone with 4 retroreflective bands: 2 orange and 2 white retroreflective bands. Alternate the orange and white retroreflective bands, with the top band always being orange. Make each retroreflective band not less than 6 inches wide. Utilize Type III – Microprismatic retroreflective sheeting for retroreflectorization on all projects let to contract after May 1, 2010 unless otherwise specified. Separate each retroreflective band with not more than a 2-inch non-reflectorized area. Do not splice the retroreflective sheeting to create the 6-inch retroreflective bands. Apply the retroreflective sheeting directly to the cone surface. Do not apply the retroreflective sheeting over a pre-existing layer of retroreflective sheeting.

Sub-section 603.2.3 Portable Plastic Drums (paragraph 3) -

Reflectorize each drum with Type III – Microprismatic retroreflective sheeting: 2 orange and 2 white retroreflective bands, 6 inches wide on all projects let to contract after May 1, 2010 unless otherwise specified. Alternate the orange and white retroreflective bands with the top band always being orange. Ensure that any non-reflectorized area between the orange and white retroreflective bands does not exceed 2 inches. Do not splice the retroreflective sheeting to create the 6-inch retroreflective bands. Apply the retroreflective sheeting directly to the drum surface. Do not apply the retroreflective sheeting over a pre-existing layer of retroreflective sheeting.

(E) Truck-Mounted Attenuator –

Sub-section 605.4.2.2 Truck-Mounted Attenuators (paragraph 6) -

Attach each truck-mounted attenuator to the rear of a truck with a minimum gross vehicular weight (GVM) of 15,000 pounds (actual weight). If the addition of supplemental weight to the vehicle as ballast is necessary, contain the material within a structure constructed of steel. Construct this steel structure to have a minimum of four sides and a bottom. A top is optional. Bolt this structure to the frame of the truck. Utilize a sufficient number of fasteners for attachment of the steel structure to the frame of the truck to ensure the structure will not part from the frame of the truck during an impact upon the attached truck mounted attenuator. Utilize either dry loose sand or steel reinforced concrete for ballast material within the steel structure to achieve the necessary weight. The ballast material shall remain contained within the confines of the steel structure and shall not protrude from the steel structure in any manner.

(F) Flagging Operations –

Sub-section 610.4.1.1 Flagging Operations (paragraph 1) -

Use a flagging operation to control the flow of traffic when two opposing directions of traffic must share a common travel lane. A flagging operation may be necessary during a lane closure on a two-lane two-way roadway, an intermittent ramp closure or an intermittent encroachment of equipment onto a portion of the roadway. Utilize flagging operations to direct traffic around work activities and maintain continuous traffic flow at reduced speeds when determined to be appropriate by the RCE. As stated above, flagging operations shall direct traffic around the work activities and maintain continuous traffic flow; therefore, stopped traffic shall not be required to stop for time durations greater than those listed below unless otherwise directed by the RCE.

LENGTH OF CLOSURE	MAXIMUM TIME DURATION FOR STOPPED TRAFFIC
1 MILE OR LESS	5 Minutes
1 TO 2 MILES	7.5 Minutes

If the work activities require traffic to be stopped for periods greater than 5 to 7 ½ minutes as stated above, consider alternate work methods, conducting work activities during times of lowest traffic volumes such as during the hours of darkness or complete road closure with detour installation.

(G) Category II Traffic Control Devices –

***** (Effective on all projects let to contract after May 1, 2012) *****

Sub-section 604.2.1 Type I and Type II Barricades (paragraph 3) -

Reflectorize these barricades with Type VIII or IX Prismatic retroreflective sheeting on all projects let to contract after May 1, 2012 unless otherwise specified. Ensure that the retroreflective sheeting has alternate orange and

white stripes sloping downward at a 45-degree angle in the direction of passing traffic. The stripes shall be 6 inches wide.

Sub-section 604.2.2 Type III Barricades (paragraph 3) -

Reflectorize these barricades with Type VIII or IX Prismatic retroreflective sheeting on all projects let to contract after May 1, 2012 unless otherwise specified. Ensure that the retroreflective sheeting has alternate orange and white stripes sloping downward at a 45-degree angle. Apply the sloping orange and white stripes in accordance with the requirements of the Plans, SCDOT Standard Drawings and the MUTCD. The stripes shall be 6 inches wide.

SCDOT STANDARD DRAWINGS 610-505-00 – EXTENDED ROAD CLOSURE FOR BRIDGE CONSTRUCTION AND 610-510-00 – EXTENDED ROAD CLOSURE OF EXISTING ROADWAY ALIGNMENT

For this project where SCDOT Standard Drawings 610-505-00 and 610-510-00 apply, bid items and quantities for Type III Barricades, Permanent Construction Signs (Ground Mounted), Permanent Construction Signs (Barricade Mounted), and Type “B” High Intensity Flashing Warning Lights shall be measured and paid for according to these standard drawings, SCDOT standard specifications, MUTCD, and according to the traffic control plans. All other barricades and signage shown in the traffic control plans shall be considered temporary, and shall be included in the lump sum price bid item for “Traffic Control” unless otherwise specified.

CONSTRUCTION STAGING

Construction staging information is provided in the construction plan set. Refer to sheets TC1 – TC32.

ROAD CLOSURES

1. The Contractor must give a minimum 35-day notice to the Department prior to each road closure.
2. Access to all driveways within the closure shall be continuously maintained.
3. Road closures shall be permitted for the following operations:
 - a. Replacement of a 54” culvert at approximate station 27+00 (south section detour)
 - b. Sanitary sewer construction between approximate stations 15+00 -20+00 (south section detour)
 - c. Sanitary sewer construction between approximate stations 47+00 – 56+00 (north section detour)
4. Road closures shall not exceed the following time limitations:
 - a. 54” culvert replacement – 7 days
 - b. South section sanitary sewer replacement – 21 days
 - c. North section sanitary sewer replacement – 42 days
5. Penalties will be enforced at \$3,000/day for every day (or part thereof) that the specified road closure time limits are exceeded.

LANE CLOSURES

1. Lane closures are prohibited on US 21 (Cherry Road) between the hours of 7-9 AM and 4-6 PM.
2. Penalties will be enforced at \$1,250/15 minutes during the first hour and \$5,000/hour for any hour (or part thereof) thereafter for violations of the lane closure restrictions.

DIVISION II - SECTION 4

**CITY OF ROCK HILL
STANDARD WATER SPECIFICATIONS**



STANDARD WATER SPECIFICATIONS

FOR THE
CITY OF ROCK HILL



June 2018



City of Rock Hill
Water/Sewer Utilities
P.O. Box 11706
Rock Hill, SC 29731-1706
803-329-5500





June 14, 2018

ROCK HILL CITY OF
PO BOX 11706
ROCK HILL SC 29731-1706

RE: Standard Specifications for Water System
ROCK HILL CITY OF
Approval Number SS-002145

This office has reviewed the water system specifications submitted to this office on 03/08/2018, revised on 6/14/2018 for consideration of becoming Standard Specifications. Based on our review this letter may serve as your approval of these Standard Specifications.

For further submittals of projects, please indicate on the application for permit to construct that your specifications have been approved as Standard Specifications and that no additional copies will be necessary.

If you have any questions, please call me at 803-898-1941.

Sincerely,

A handwritten signature in black ink, appearing to read "Maia P Milenkova".

Maia P Milenkova
Construction Permitting Section
Bureau of Water

STANDARD SPECIFICATIONS FOR WATER SYSTEM FACILITIES CONSTRUCTION

I.	Purpose and General Information	1
A.	Purpose & Application	1
B.	Scope of Work	1
C.	Order of Work	1
D.	Material Inspection	1
E.	Organization of Work and Notifications	1
F.	Lead-Free Requirements	2
G.	Specifications	2
H.	Abbreviations	2
II.	Material Specifications	4
A.	General	4
1.	Standards	4
B.	Asbestos Cement Pipe	4
C.	Ductile Iron Pipe and Fittings	5
1.	Pipe	5
2.	Quality Assurance	5
3.	Fittings	5
4.	Joints	5
5.	Markings and Weights	6
6.	Linings and Coating	6
7.	Certification	6
8.	Quality and Inspection	6
D.	Plastic Pipe and Fittings	6
1.	Pipe	6
2.	Fittings	7
3.	Joints	7
4.	Markings	7

E.	Water Service Pipe	7
1.	Copper Water Tube	7
2.	Pipe and Nipples	7
3.	Solder-Joint Fittings	7
4.	Threaded Fittings	8
5.	Flanges and Flanged Fittings	8
6.	Solder and Flux	8
F.	Hydrant Assemblies	8
1.	General	8
2.	Hydrant Leads	8
3.	Drainage	8
4.	Valve Opening	8
5.	Hose and Pumper Connection	8
6.	Connection to System	8
7.	Seat Rings	9
8.	Thrust Blocking	9
G.	Water Meters and Meter Boxes	9
1.	Meter Boxes	9
2.	Water Meters	9
3.	Back Flow Prevention Devices	9
H.	Valves, Blow-offs and Chambers	9
1.	Air relief valves	9
2.	Butterfly Valves	9
3.	Check Valves	11
4.	Resilient-Seat Gate Valves	11
5.	Valve Boxes	12
6.	Extension Stems	12
7.	Blow-off Assembly	12
8.	Chambers/Vaults/Pits/Manholes	13
I.	Connections	13
1.	Service Taps	13
2.	Service Saddles	13

3.	Corporation Stops	13
4.	Tapping Sleeves and Valves	13
J.	Repair/Tie-In Sleeves/Clamps	14
1.	Sleeves	14
2.	Repair Clamps	14
K.	Concrete Work	14
1.	General	14
2.	Cement	14
3.	Aggregate	14
4.	Water	15
5.	Mixing	15
6.	Central Mix Plant	15
7.	Job Site Mix	15
8.	Grouts	15
9.	Flowable Fill	15
10.	Thrust Blocking	15
11.	Concrete Cylinders	16
L.	Miscellaneous Steel	16
1.	Steel Pier Material	16
2.	Steel Encasement Pipe	16
3.	Structural Steel Tunnel Liner Plates	16
4.	Steel Reinforcing for Concrete	17
M.	Stone and Brick	17
1.	Brick	17
2.	Granular Bedding Material	17
3.	Rip Rap	17
4.	Silt Check Dam Material	17
5.	Stone Stabilization Material	17
N.	Defective Materials and Workmanship	17
III.	Construction Specifications	18
A.	Abandonment	18
1.	General	18

2.	Pipe	18
3.	Appurtenances	18
4.	Flowable Fill	18
5.	Backrouting	18
B.	Handling and Storage of Materials	18
1.	General	18
2.	Transportation of Materials and Equipment	18
3.	Handling	18
4.	Loading and Unloading	19
5.	Distributing	19
6.	Storage	19
C.	Water System Installation	19
1.	General	19
2.	Location and Grade	20
3.	Placement	21
4.	Reusing Pipe	21
5.	Detection of Mains	21
6.	Creek Crossings	21
D.	Pipe Installation	22
1.	Ductile Iron Pipe and Iron Fittings	22
2.	PVC Pipe and Iron Fittings	22
3.	Copper Pipe and Fittings	22
E.	Joint and Fitting Installation	23
1.	General	23
2.	Permissible Deflection of Joints	23
3.	Push-on Joint Pipe	23
4.	Mechanical Joint Pipe and Fittings	23
F.	Connections	23
1.	Connections to Existing Pipelines	23
2.	Service Connections	24
3.	Interconnections and Cross Connections	24
4.	Interruption of Service	25

5.	Jumper Connection	26
G.	Fire hydrant Assemblies	26
1.	Cover	26
2.	General Construction	26
H.	Valves And Valve Boxes	26
1.	Air Relief Valves (ARV)	27
2.	Resilient-Seat Gate Valves	27
3.	Valve Boxes	27
I.	Blocking/Restrains	27
1.	Blocking	27
2.	Valve Blocking	27
3.	Blocking/Restraint Fittings	27
J.	Cleaning, Flushing and Disinfection	28
1.	Cleaning	28
2.	Flushing	28
3.	Disinfection	28
K.	Proximity to Sewer Infrastructure	29
1.	General	29
2.	Parallel installation	29
3.	Crossings	29
4.	Special Conditions	30
5.	Force mains	30
6.	Sewer manholes	30
7.	Drain-fields and Spray-fields	30
L.	Protection of Other Utilities and Structures	30
M.	System Testing	31
1.	General	31
2.	Testing and Cleaning	32
3.	Temporary Bulkheads	32
4.	Test Pressure and Leakage	32
N.	General Construction	32
1.	Clearing & Grubbing	32

2.	Disposal	33
3.	Removal of Private or Public Facilities	33
O.	Construction Along Highways, Streets and Roadways	33
1.	General	33
2.	Protection of Traffic	33
3.	Closures	33
4.	Maintaining Highways, Streets, Roadways, and Driveways	33
5.	Construction Operations	33
6.	Removing Pavement	33
7.	Marking & Cutting	34
8.	Stripping	34
9.	Excavated Material	34
10.	Pavers or Curb	34
11.	Machine Pulling	34
12.	Drainage Structures	34
P.	Earthwork	34
1.	General	34
2.	Trench Excavation	35
3.	General Excavation	35
4.	Materials	36
5.	Shoring and Bracing	36
6.	Dewatering	36
7.	Backfill	36
8.	Compaction Consolidation Requirements	37
9.	Crushed Stone Stabilization And Bedding	37
10.	Shaping	37
Q.	Concrete Construction	37
1.	Placing of Concrete:	37
2.	Formwork	37
3.	Setting Forms	38
4.	Curing	38
5.	Removing Forms	38

6.	Finishing	38
7.	Testing	38
8.	Acceptance	39
9.	Blocking Installation	39
R.	Bores, Tunnels, and Casings	39
1.	Bore Pits (or Tunnel Pits)	39
2.	Sizing	39
3.	Installation	40
4.	Guaranteed Casing Installation	40
5.	Tunnels Using Steel Liner Plates	40
6.	Finish Work	43
S.	Blasting	43
T.	Erosion and Sediment Control	43
1.	General	43
2.	Temporary Erosion Control	44
3.	Construction in Streams and Impoundments	44
4.	Construction in Easements	44
5.	Limit of Progress	44
6.	Surface Stabilization	44
7.	Right to Correct	44
U.	Restoration of Disturbed Areas	44
1.	General	44
2.	Stabilization	45
3.	Appurtenances	45
4.	Refuse Burial	45
5.	Rip-Rap	45
6.	Jute Netting/Erosion Blanket	45
V.	Restoration of Existing Paved Surfaces	45
1.	General	45
2.	Replacement	46
3.	Restoration	46
4.	Damage to Adjacent Pavement	47

W. Record/As-Built Drawings	47
X. Warranty	48

I. Purpose and General Information

A. **PURPOSE & APPLICATION:** This document was created and assembled for use in planning, designing, and constructing potable water facilities which will be owned and operated by the City of Rock Hill. In addition to the information contained herein, rules and regulations set forth by the South Carolina Department of Health and Environmental Control (SCDHEC) and the US Environmental Protection Agency (EPA) apply to the permitting and construction of these facilities. This information applies to both existing and new facilities construction.

B. **SCOPE OF WORK:** All materials, labor, and equipment necessary for potable water construction and placing in operation water infrastructure and appurtenances within the City of Rock Hill water service territory or to be served by the City of Rock Hill shall be provided in accordance with the following specifications and City of Rock Hill Standard Details.

1. The work shall include all clearing, grubbing, trenching, shoring [in accordance with Occupational Safety & Health Administration (OSHA) regulations], dewatering, installing water infrastructure (i.e., valves, hydrants, piping and other appurtenances) shown and specified, backfilling and consolidating the backfill material, as well as other work as may be necessary to complete the work.

2. Construction Drawings shall be prepared under the direction of a Professional Engineer licensed to practice in the state of South Carolina.

3. The Contractor shall furnish all materials, equipment and labor required to construct the project as outlined in these specifications and Construction Drawings.

C. **ORDER OF WORK:** The Order of Work shall be determined by the Contractor, subject to approval by the City Engineer.

D. **MATERIAL INSPECTION:** All materials and workmanship shall be subject to inspection by the City Engineer or his or her designee and representatives of SCDHEC or SCDOT or any other entity having permitting authority over the project. Work and/or materials not conforming to these specifications or any applicable permit shall be corrected immediately. The Engineer shall have the right to label materials not meeting the specifications and/or the Contractor shall segregate said materials to distinguish them as such.

E. **ORGANIZATION OF WORK AND NOTIFICATIONS:**

1. The Contractor shall so organize his work that backfilling of open trenches and or excavations and associated cleanup of the construction site shall closely follow pipe laying operations and manhole construction. The City Engineer or his designee shall have the authority to determine if the contractor is negligent in complying with this provision. The City shall have the authority to stop work if needed to bring the site into a respectable level of maintenance.

2. All planned road closures shall be reported to the following entities a minimum of 72 hours prior to closing any street.

- a) The City of Rock Hill's Homeland Security Director's office at 803-326-3810; and

b) The York County Public Safety Communications office at 803-329-1110.

3. The Public Safety Communications office will notify the appropriate emergency services responders (i.e., EMS, Fire Department, etc.) of the planned road closure(s). Lane closures, where a minimum of one lane is left open to traffic, do not require notification to either office – City of Rock Hill’s Homeland Security Director’s office or York County’s Public Safety Communications office.

4. Traffic control, signage and barricades for road and lane closures and work inside the road rights-of-way shall be in accordance with applicable encroachment permits and the Federal Highway Administration’s (FHWA), Manual on Uniform Traffic Control Devices.

5. Failure on the part of the Contractor to comply with the above provisions in a reasonable manner, in the opinion of the Engineer, shall be sufficient cause for the Engineer to order a temporary shut-down of trenching and pipe laying operations until the provisions have been met.

6. Contractor shall notify each property owner affected by a planned interruption of existing services at least 72 hours prior to the loss of service. For emergency interruption of services, the Contractor shall notify the property owner as soon as practical

F. **LEAD-FREE REQUIREMENTS:** Lead-free pipes, plumbing fittings/fixtures, and solder/flux shall meet the Reduction of Lead in Drinking Water Act (P.L. 111-380). Any pipe, solder, or flux which is used in the installation or repair of any public water system, or used in any plumbing which provides water through connection to a public water system for human consumption, shall be lead-free. Lead-free for solder and flux means those containing not more than 0.2 percent lead. Lead-free for pipes and pipe fittings means those containing not more than 8.0 percent lead. Leaded joints necessary for the repair of CIP shall be exempt from the above lead-free requirements.

G. **SPECIFICATIONS:** Unless superseded or modified herein or in the Standard Details, all materials apparatus, supplies, methods of manufacture, or construction shall conform to the specifications contained herein and to AWWA specifications. All materials/products that contact potable water must be third party certified as meeting the specifications of ANSI/NSF Standard 61. National standards (ASTM, ANSI, AWWA, etc.) referenced herein shall be considered to be the latest revisions only.

H. ABBREVIATIONS

1. A list for reference purposes is as follows:

AASHTO	American Association of State Highway and Transportation Officials
AC	Asbestos cement
ACI	American Concrete Institute
AMS	Aerospace Material Specification
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ANSI	American National Standards Institute
ARV	Air release valve
AWS	American Welding Society
AWWA	American Water Works Association

BPD	Backflow Prevention Device
°C	Degrees Celsius
CIP	Cast iron pipe
DIP	Ductile iron pipe
EPA	US Environmental Protection Agency
°F	Degrees Fahrenheit
FHWA	Federal Highway Administration
FM	Factory Mutual
fps	Feet per second
gph	Gallons per hour
gpm	Gallons per minute
g/m ²	grams per square meter
ISO	International Organization for Standardization
LF	Linear feet
MJ	Mechanical joint
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
MUTCD	Manual on Uniform Traffic Control Devices
NFPA	National Fire Protection Association
NPT	National Pipe Thread
NSF	National Sanitation Foundation
NST	National Standard Thread
OSHA	Occupational Safety and Health Administration
ppm	Parts per million
psi	Pounds per square inch
psig	Pounds per square inch – gauge
PVC	Polyvinyl Chloride
SC811	South Carolina 811
SCDHEC	South Carolina Department of Health and Environmental Control
SCDOT	South Carolina Department of Transportation
SDR	Standard Dimension Ratio
SDWA	Safe Drinking Water Act
UL	Underwriters Laboratory
UNS	Unified Numbering System
USDOT	United States Department of Transportation

II. Material Specifications

A. GENERAL

1. **STANDARDS:** All material or products which come in contact with drinking water shall be third party certified as meeting the specifications of the NSF/ANSI Standard 61, "Drinking Water System Components – Health Effects". The certifying party shall be accredited by ANSI. Pipe, fittings, packing, jointing materials, valves and fire hydrants shall conform to AWWA Standards, Section C. In the absence of AWWA Standards, materials meeting applicable Product Standards and with prior approval from the Utilities Department may be selected.

2. **USED MATERIALS:** Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been thoroughly cleaned, restored, pressure and bacteriological tested practically to their original condition, unless otherwise stated in these specifications.

3. **GASKETS AND JOINTS:** Gaskets, O-rings, and other products used for material to the water system shall comply with the requirements of SCDHEC, and shall not be made of natural rubber or any other material which will support microbiological growth. Lubricants which will support microbiological growth shall not be used for slip-on joints. The use of vegetable shortening to lubricate joints is prohibited.

a) LINE SIZING:

(1) **Pressure** - The minimum pressure in all public water mains under conditions of maximum instantaneous demand shall be 25 psi at every customer's tap. At any tap when fire flows or flushing flows are provided in excess of maximum peak hourly flow, 20 psi will be acceptable.

(2) **Diameter** - The minimum size of water mains for providing fire protection and serving fire hydrants shall be six (6) inches in diameter. Larger size mains will be required if necessary to allow the withdrawal of the required fire flow while maintaining the minimum residual pressure specified in the State Primary Drinking Water Regulation.

4. **NO LINE EXTENSION** shall be made off an existing line when the existing line does not meet the minimum pressure and flow requirements.

5. DEAD ENDS:

a) Dead ends shall be minimized by looping of all mains whenever practical.

b) The lengths of small dead end lines shall not exceed the following:

2-inch diameter	1500 ft.
-----------------	----------

c) Conditions may warrant having less than the above maximum lengths in order to meet the minimum pressure requirements.

B. ASBESTOS CEMENT PIPE: Asbestos cement pipe shall not be used in potable water systems

except in the repair of existing asbestos cement lines.

c. DUCTILE IRON PIPE AND FITTINGS

1. PIPE: Ductile-iron pipe shall be centrifugally cast and shall conform to the requirements of AWWA C150/ANSI A21.50 and AWWA C151/ANSI A21.51. All ductile iron pipe shall be domestically manufactured in the United States. Push-on and restrained joint pipe shall have a minimum rated working pressure of 150 psi in accordance with AWWA. Pipe larger than 16 inches in diameter shall be as recommended by Engineer and approved by City Engineer; pipe 16 inches in diameter and smaller shall be a Pressure Class 350. Pipe shall have mechanical or push-on joints as outlined in ANSI A21.11 with laying lengths of at least 18 feet.

2. QUALITY ASSURANCE: Require submitted evidence that the ductile iron pipe and fitting manufacturer has a minimum of ten years' experience in material production of diameters noted on the Construction Drawings and specifications. All ductile iron pipe shall be manufactured in the United States. All pipe material suppliers shall be ISO registered or provide the services of an independent inspection agency. Prior to the start of manufacturing, any manufacturer not meeting the ISO registration requirements shall submit to the owner and owner's engineer the names of an independent inspection agency for approval. The independent inspection agency shall be responsible for sample monitoring of chemical and mechanical test, sample visual inspection of quality assurance tests performed on in-process pipe and fittings, and a sample visual and dimensional inspection of finished product for this project. A certified inspection report from the independent inspection agency of all witnessed tests shall be supplied to the owner or owner's engineers within ten (10) days of completion of pipe manufacturing. Chemical samples shall be taken from each ladle of iron and the manufacturers' chemical control limits shall be maintained for at least the following elements: carbon, sulfur, phosphorus, silicon, magnesium, chromium, manganese, tin, aluminum, cerium, copper, and lead. When chemical values fall outside the manufacturer's control limits, additional mechanical property tests shall be performed to assure minimum mechanical properties are met.

3. FITTINGS: Fittings shall be cast from ductile iron and shall conform to AWWA C110/ANSI A21.10 for Pressure Class 250 or AWWA C153 for Pressure Class 350 Compact Fittings. All fittings shall have standard mechanical joints or as shown. For sizes greater than 14-inches, fittings shall be full-bodied. All pipe joints and fittings (including glands and bolts) shall have a minimum working pressure rating as follows:

- a) 350 psi for 4-inch through 16-inch diameters
- b) 250 psi for greater than 16-inch diameters

4. JOINTS: Joints for DIP shall meet the following requirements:

- a) FLANGE JOINTS AND ACCESSORIES: Flanges for pipe, fittings, and valves shall be furnished in accordance with AWWA C115/ANSI A21.15 and shall be faced and drilled identical to ANSI B16.1, Class 125 flanges with full-face rubber gaskets 1/8" thickness. Bolts and nuts for flanges shall be in accordance with ANSI/AWWA Standards.
- b) MECHANICAL JOINTS AND ACCESSORIES: Bolts and gaskets for mechanical joint pipe and fittings shall be furnished by the pipe/fitting manufacturer and shall conform to

AWWA C111/ANSI A21.11

c) **PUSH-ON JOINT MATERIAL:** Gaskets for push-on pipe shall be furnished by the pipe manufacturer. Gaskets and gasket lubricant shall meet the requirements of AWWA C111/ANSI A21.11.

d) **RESTRAINED JOINTS:** Flexible restrained joints shall be supplied by the pipe manufacturer. Gaskets with vulcanized internal stainless steel locking segments may be used for 6-inch through 12-inch DIP, if approved by the City Engineer and not in lieu of concrete blocking. The following manufacturers are approved: U.S. Pipe and Field Lock Gasket. Only designs using a welded retainer ring on the spigot will be allowed for 16-inch and larger diameter pipe. Push-on or mechanical joint designs may be used for the pipe and associated fittings. The restrained joint shall be rated for a minimum 250 psi working pressure with a 2:1 safety factor. The following manufacturer's products are approved: American Lok Ring, American Lok Fast, Griffin Snap Lok, Griffin Bolt Lok, and U.S. Pipe TR Flex.

5. **MARKINGS AND WEIGHTS:** Markings and weights of pipe and fittings shall conform to the requirements of AWWA Specifications.

6. **LININGS AND COATING:** Pipe and fittings shall be cement-mortar lined in accordance with AWWA C104/ANSI A21.4. The interior cement lining shall be approved for contact with potable water. The pipe's interior and exterior is to be of bituminous coating with a minimum thickness of one mil.

a) **ZINC COATING:** Zinc-coated ductile iron pipe conforming to ISO 8179 standards may be installed as an alternative in corrosive soils and other special conditions as approved by the City Engineer. The exterior zinc coating shall be factory-installed using a thermal arc spray process. The zinc layer shall have a mass of 200 grams per square meter (g/m^2) of pipe surface area. A finish layer of bituminous coating shall be placed over the zinc in accordance with AWWA C104, and the pipe shall be marked with the word "zinc".

7. **CERTIFICATION:** The manufacturer of iron pipe and fittings shall be prepared to furnish both the City and the Contractor with certified reports stating that inspection and specified tests have been made and that the results thereof comply with the applicable ANSI Specifications.

8. **QUALITY AND INSPECTION:** Latitudes in workmanship and finish allowed by ASTM notwithstanding, all pipe shall have smooth exterior and interior surfaces; be first quality, be free from cracks, blisters and other imperfections, and be true to theoretical shapes and forms throughout each length. Pipe that does not conform will be so marked by the Engineer, and shall not be used in the work. On-the-job repairing of rejected pipe will not be permitted.

D. **PLASTIC PIPE AND FITTINGS**

1. **PIPE:** All plastic pressure pipes (sizes 4"-12") shall meet all requirements of AWWA C900 and be made from blue-pigmented virgin materials. Polyvinyl Chloride (PVC) water pipe shall be bell and spigot pipe, shall be in lengths not exceeding 20 feet laying lengths, and shall have minimum wall thickness conforming to SDR18 Class 150 dimensions. Pipe shall be NSF approved. Alternative plastic pipe (sizes 4"-12"), other than C900, shall meet all requirements of ASTM

D1785 (Sch. 40) or ASTM D2241 (SDR26 Class 160 and SDR21 Class 200), but its use shall be subject to the approval of the City Engineer. All plastic pipes (sizes 14"-48") shall also meet all requirements of AWWA C905. Use of plastic pipes 12" and larger shall be subject to the approval of the City Engineer. New mains shall be 6" diameter or larger unless otherwise approved by the City Engineer for a service on a cul-de-sac or other dead-end line. Thermoplastic pipe shall not be used above grade.

2. FITTINGS: PVC pressure pipe fittings for 6-, 8-, and 12- inch PVC pipe shall utilize Class 350 ductile-iron fittings in accordance with AWWA C110/ANSI A21.10 or AWWA C153 (Compact Fittings) up to 12" diameter pipe. Fittings shall be in accordance with ductile iron pipe requirements. Fittings for 2-inch PVC pipe shall be push-on joint PVC or threaded malleable iron. Malleable iron fittings shall be furnished with threaded PVC adapters to connect the fittings to the push-on joint pipe. Elastomeric joints for PVC adapters and PVC fittings with push-on joints shall conform to ASTM D3139. PVC adapters and fittings shall have a minimum pressure of 200 psi and shall, except for threaded area on adapters, have a SDR of 13.5.

3. JOINTS: All pipes shall have elastomeric joints with an integral belled gasket coupler. Rubber gaskets shall comply with the physical requirements specified in ASTM F477. Joints shall meet the requirements specified in ASTM D3139 for 2-inch pipe and to AWWA C900 and C111 for 6-inch, 8-inch and 12-inch pipe. The use of solvent-weld PVC pipe and fittings in water mains 4 inches and larger is prohibited. If the waterline pipe is required to be cased for any reason, the pipe shall be restrained joint ductile iron pipe.

4. MARKINGS: PVC pipe shall be marked at intervals of 5 feet or less with information regarding the Manufacturer's Name or Trade Mark, Plant Code, Date of Manufacture, Nominal Pipe Size, PVC Cell Classification and Legend, in accordance with AWWA C900, that will remain legible during normal handling, storage and installation and which have been applied in a manner that will not reduce the strength of or otherwise damage the pipe or coupling.

E. WATER SERVICE PIPE

1. COPPER WATER TUBE: Copper water tube shall conform to ASTM B88. Tubing located aboveground, in vaults and structures shall be Type K, drawn temper (hard). Buried tubing shall be Type K, annealed temper (soft), except 3-inch tube shall be Type K, drawn temper (hard). Continuous pipe run to be installed between water main and water meter, i.e. no joints in pipe.

2. PIPE AND NIPPLES: Pipe and short threaded nipples shall be brass conforming to ASTM B43 or copper conforming to ASTM B42, regular wall thickness, except that pipe and nipples of sizes 1-inch and smaller shall be extra strong. Threads shall conform to ASME B1.20.1, NPT.

3. SOLDER-JOINT FITTINGS

a) Use solder-joint fittings for working pressures of 300 psi or less.

b) Wrought copper solder-joint seamless fittings shall be designed for use with copper water tube and conform to ASTM B75 and ASME B16.22. Material shall be UNS C10200, C12000, or C12200.

c) Cast copper solder-joint pressure fittings shall be designed for use with copper

water tube and conform to ASME B16.18.

4. **THREADED FITTINGS:** Cast bronze threaded fittings shall be designed for use with brass or copper pipe and nipples and conform to ASME B16.15, Class 125 and 250. Use Class 125 fittings for working pressures of 200 psi or less. Use Class 250 fittings for working pressures greater than 200 psi, but less than 400 psi.
5. **FLANGES AND FLANGED FITTINGS:** Cast bronze pipe flanges and flanged fittings shall conform to ASME B16.24, Class 150 or Class 300. Use Class 150 flanged fittings for working pressures of 225 psi or less. Use Class 300 flanged fittings for working pressures greater than 225 psi, but less than 500 psi. Provide flat-faced flanges. Use solder-joint or threaded end companion flanges. Companion flanges with solder-joint or threaded end shall be limited to the pressure rating of the pipe connection and not the flanged joint.
6. **SOLDER AND FLUX:** Solder shall be 95/5 (95-percent tin and 5-percent antimony) conforming to ASTM B32, Alloy Grade Sb5 or silver solder conforming to AMS 4773C. Do not use lead or cored solder. Soldering flux shall comply with ASTM B813.

F. HYDRANT ASSEMBLIES

1. **GENERAL:** Hydrants shall be furnished as indicated on approved Construction Drawings and as specified herein. All fire hydrants shall meet the requirements of AWWA C502 at a minimum. Hydrants shall be compressive type, self-oiling, non-freezing, and provided with a safety flange and coupling (See Standard Detail). Post-type hydrants are not allowed. Where standard 6-inch diameter hydrants are proposed, the design flow shall not be less than 500 gpm over and above peak hourly flow. Hydrants shall be capable of a working pressure of 150 psi with a test pressure of 300 psi. Hydrants shall be painted silver by the manufacturer.
2. **HYDRANT LEADS:** The hydrant leads shall be a minimum of six (6) inches in diameter. Auxiliary gate valves shall be installed in all hydrant leads.
3. **DRAINAGE:** A gravel pocket or dry well shall be provided unless the natural soils will provide adequate drainage. Hydrant drains shall not be connected to or located within ten (10) feet of sanitary sewers.
4. **VALVE OPENING:** Valve opening shall be not less than 4 ½". Hydrants shall open by turning counter-clockwise.
5. **HOSE AND PUMPER CONNECTION:** Hose nozzles shall be two (2) in number and 2-½ inches in size. A 4-½ inch pumper connection with Storz connector shall be provided. Hose connections shall be threaded and locked in place, or breech-locked into the hydrant barrel. The operating nut shall be 1 ¼ inch and pentagon in shape. Any extensions required shall be as recommended and supplied by the manufacturer.
6. **CONNECTION TO SYSTEM:** Standard hydrants shall not be placed on systems using only hydro-pneumatic storage, unless standby power is provided and the pumping capacity from wells or ground storage exceeds the fire flow demand with the largest well or pump out of service. Standard hydrants shall not be connected to lines not designed to carry fire flows.

a) Shoe connection shall be 6 inch furnished with mechanical joint for connection to spigot of mechanical joint hydrant pipe lead.

7. SEAT RINGS: Seat rings shall be shaped and arranged as to be readily removable. Seat rings shall be bronze and shall screw into a bronze bushing in the shoe. An O-ring seal between the shoe and seat ring shall provide a watertight non-wearing, permanent seat between shoe and seat ring. This seal shall always come out with main valve removal.

8. THRUST BLOCKING: Thrust blocking should not block weep holes.

G. WATER METERS AND METER BOXES

1. METER BOXES: Meter boxes for service connections shall be located 5 feet from the center of the lots with 10-foot minimum separation from the sewer service. Meter boxes shall not be located in driveways or sidewalks. Meters shall be placed in landscaped areas on the property-owner side of any sidewalk and as shown in the Standard Details. Meter boxes shall be prominently marked in the field a by blue stake to prevent damage during or after construction operations. Meter boxes shall be installed with the service pipe at a depth of 9 inches below grade.

2. WATER METERS: The City of Rock Hill shall be responsible for purchasing all meters. The City shall install Badger or Hersey meters, unless otherwise contacted and approved by the City Engineer. Mueller System FM3 fire service meters may be used for customer services with fire loops. Load data sheets shall be submitted for review in order that the appropriately-sized commercial/industrial meter may be installed. Dedicated fire lines to buildings shall not be metered.

3. BACK FLOW PREVENTION DEVICES: Backflow Prevention Devices (BPD) shall be in accordance with the City's Cross-Connection Control Policy and in accordance with the SCDHEC Backflow Prevention Manual.

H. VALVES, BLOW-OFFS AND CHAMBERS

1. AIR RELIEF VALVES – Combination air relief valves (ARV) shall be provided in accordance with sound engineering practice at high points in water mains or along extended runs as required. Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. ARVs shall be furnished and installed as shown on approved Construction Drawings and as specified herein. The combination ARV shall have a cast iron body and stainless steel float. A $\frac{3}{4}$ " valve capable of 200 psi pressure shall be installed on the service line to the air valve in order to facilitate testing. Other internal parts shall be stainless steel or bronze. The combination ARV shall be in accordance with the Standard Details.

a) ARV PIPING - The open end of an air relief pipe from automatic valves or from a manually operated valve shall be extended to the top of the pit and provided with a screened downward facing elbow.

2. BUTTERFLY VALVES

a) **GENERAL:** Butterfly valves shall be furnished with valve operators and accessories as indicated on the approved Construction Drawings or as specified herein. Valves shall be furnished as manufactured by Mueller, or approved equal. All valves shall comply with AWWA C504, for tight-closing, rubber-seated valves. Butterfly valves shall be Class 150 designed for 16 fps maximum velocity unless otherwise shown. Valves shall be bubble-tight at rated pressures and shall be satisfactory for applications involving throttling service and/or frequent operation and for applications involving valve operation after long periods of inactivity. Valve discs shall rotate 90-degrees from full open position to the tight shut position. Wafer type valves are not acceptable. All valves in road shoulder shall have a concrete valve protector ring. (See Standard Detail)

b) **VALVE BODY:** Valve bodies shall be either of cast iron conforming to ASTM A126, Class B, or ASTM A48, Class 40, or ductile iron conforming to ASTM A536, Grade 65-45-12. The valve body shall have mechanical joint ends meeting the requirements of ANSI 21.11 with necessary nuts, bolts, glands and gaskets. Drilled and tapped holes are permitted where required at the body bearing trunnions. The body shall be designed to withstand the internal forces acting directly and forces resulting from the thrust of the operating mechanism. Trunnion boxes shall be located at diametrically opposite points in the valve body which shall be accurately bored to accept permanently self-lubricated shaft bearing bushings. The trunnion box at the operator end shall be furnished with an integral packing box and the other trunnion shall include a factory set two-way bronze thrust bearing and a cast iron thrust bearing cover.

c) **VALVE SHAFTS:** Valve shafts may consist of a one-piece unit or may be the “stub-shaft” type. Valve shafts shall be turned, ground and polished. Valve shafts shall be constructed of 18-8 Type 304 stainless steel conforming to ASTM A276. Shaft diameters shall meet requirements established by AWWA C504 or service required. Valve shafts shall be securely attached to the valve disc by means of taper pins. Taper pins shall be mechanically secured.

d) **VALVE DISC:** Valve discs 20 inches and smaller shall be constructed of alloy cast iron ASTM A436, Type 1 (Ni-Resist); ductile iron ASTM A536, Class 65-45-12; or cast iron ASTM A48. Valve discs 24 inches and larger shall be constructed of ductile iron ASTM A536, Class 65-45-12 or cast iron ASTM A48 with 18-8, Type 304, with stainless steel seating edges. The valve discs shall be designed to withstand bending and bearing loads resulting from the pressure load and operating forces. The faces of the discs shall be the pressure load and operating forces. The faces of the discs shall be smooth and free of external projections. All retaining or pinning hardware in contact with water shall be 316 stainless steel.

e) **VALVE SEATS:** Valve seats shall be natural rubber or Buna “N” rubber designed for tight shutoff in both directions with 150 psi upstream and 0 psi downstream pressure. Rubber seats in the valve body shall be retained by 18-8 Type 304 stainless steel mechanical means, or bonded, without retaining hardware in the flow stream. Rubber seats attached to the disc shall be retained with an 18-8 Type 304 stainless steel clamp ring and stainless steel bolting. Retaining ring cap screws shall pass through the rubber seat and be self-locking. Mating seat surfaces for resilient seats shall be 18-8 Type 304 stainless steel. Seats shall be a full 360-degrees without interruption. Valve seats shall be designed to permit removal and replacement in the field for valves 30 inches in diameter and larger.

f) VALVE BEARINGS: The valve shall be fitted with sleeve-type bearings. Bearings shall be corrosion resistant and self-lubricating. Bearing load shall not exceed 1/5 of the compressive strength of the bearing or shaft material. Bearing material must have coefficient of friction no greater than 0.25, which must be maintained regardless of wear.

g) VALVE OPERATORS: Valve operator shall conform to AWWA C504, and shall be equipped with adjustable mechanical stop-limiting devices to prevent over travel of the disc in the open and closed positions. All valves shall open counter-clockwise. The manual operator shall be the enclosed type, suitable for buried service, fully gasketed, grease packed or oil lubricated and designed to withstand submersion in water to 10 psi. The manual operator for valves size 20 inches and smaller shall be the traveling-nut type with threaded-steel reach-rods and bronze or ductile-iron nut with internal threads. The manual operator for valves size 24 inches and larger shall be the worm-gear type having a self-locking worm gear

h) VALVE TESTING: Performance, leakage and hydrostatic tests shall be conducted in strict accordance with AWWA C504. The manufacturer shall provide the City, upon request, with an "Affidavit of Compliance" as per AWWA C504 upon completion of manufacture.

i) EXTENSION STEMS: Extension stems for the butterfly valves shall be furnished and installed with position indicators.

3. CHECK VALVES: Check valves shall be iron body, bronze mounted, with outside lever and spring, and meet ANSI B16.1, Class 125 flanges and drilling. Iron body valves shall be fusion-bonded, epoxy coated and include 316 top cover bolts. Operating mechanism shall be by internal weight of linkage and spring, and shall be all bronze or stainless steel. Valves shall have rubber faced clapper and bronze seat. Valves shall have two tapped bosses on each side to permit installation of a metered bypass. Valves shall be UL listed/FM approved. Provisions for removing trapped air shall be made.

4. RESILIENT-SEAT GATE VALVES

a) GENERAL: Gate valves shall be furnished as indicated on the approved Construction Drawings and as specified herein.

(1) Gate valves shall be used for 6-, 8- and 12-inch diameter lines. Butterfly valves shall be used for all lines 16-inch diameter and larger.

(2) Metal seated gate valves shall meet all requirements for AWWA C500, but its use shall be subject to the approval of the City Engineer. Resilient-Seat Gate valves shall conform to AWWA C509 or C515, with "O" ring packing. Resilient seated gate valves shall be furnished with durable, opaque end-shields to prevent ultraviolet damage to the rubber discs. Valves shall be furnished as manufactured by Mueller or approved equal.

(3) Working pressure for valves shall be 200 psi.

(4) Gate valves shall embody the best class of workmanship and finish, and shall open and close freely and easily. With discs raised, each valve shall have a clear waterway of the full nominal diameter of the valve. If guides or guide lugs

are used, the design shall be such that corrosion in the guide area does not affect sealing. Resilient seats may be applied to the body or gate and shall seat against a corrosion-resistant surface. The surface may be either metallic or non-metallic. Resilient seats shall be bonded or mechanically attached to either the gate or valve body. The mating surface of the resilient seat shall be machined to a smooth, even finish.

(5) All stems shall be forged bronze stems.

(6) Valve ends shall have mechanical joints.

(7) Valve markers are required for water lines and valves not within road rights-of-way. All valves in road shoulder shall have a concrete valve protector ring.

b) **OPERATION:** All valves shall open counter-clockwise. A 2-inch square operating nut with an extension stem will be required for manual operation. The operating nut shall have an arrow cast, indicating the direction for opening the valve.

c) **JOINTING:** All valves shall be furnished with mechanical joints and necessary bolts, glands and gaskets unless otherwise shown on the approved Construction Drawings or specified herein.

d) **MARKINGS:** Each valve shall be plainly marked with the manufacturer's name or particular mark, the year of manufacture, the size of the valve, and designation indicating working pressure, all cast on the bonnet or body.

e) **PAINTING:** All surfaces of the valve shall be clean, dry and free from grease before painting. The interior and exterior valve surfaces except for disc, seating and finished portions shall receive two coats of asphalt varnish.

5. **VALVE BOXES:** The Contractor shall furnish and install valve boxes for butterfly and gate valves and by-pass valves. Valve boxes shall be heavy roadway type. The valve boxes shall be cast-iron, two-piece, slide-type with drop covers. The valve box cover shall have the word "WATER" cast into the cover. The bottom section of the box may be 6-inch diameter ductile iron pipe. The ductile iron pipe or valve box covers shall not be placed directly on the valve. The box must be placed on concrete blocks. Concrete valve rings shall be used on all valves not located in paved surfaces.

6. **EXTENSION STEMS:** In all locations where the valve operating nut is 4 feet or more beneath the ground surface, an extension stem for the valve to terminate at 1.5 feet beneath the ground surface.

7. **BLOW-OFF ASSEMBLY:** Blow-off assemblies for typical use shall be Kupferle Foundry TF-500, which fits in a standard 5 ¼-inch valve box. (See detail.) The orifice should be provided on the fixed piping, in the valve box. Blow-offs should not be directed toward roads or so that the water will flow into creeks, etc. At stream crossings, direct away from streams over ground.

a) Orifices should be sized as follows:

<u>Pipe Diameter</u>	<u>Minimum Flow Required</u>	<u>Orifice Size</u>
2 inch	25 gpm	0.75 inch
4 inch	100 gpm	1.5 inch
6 inch	220 gpm	2 inch
8 inch	400 gpm	2 inch
12 inch	882 gpm	2 inch
16 inch	1570 gpm	2 inch

8. CHAMBERS/VAULTS/PITS/MANHOLES - Chambers, vaults, pits or manholes containing valves, blow-off, meters, air release valves, or other such appurtenances to a water distribution system, shall not be connected directly to any storm drain or sanitary sewer.

a) Chambers, vaults, pits or manholes within rights-of-way shall be designed for AASHTO H-20 traffic loadings and may be adjusted using standard size clay or concrete brick.

I. CONNECTIONS

1. SERVICE TAPS: All service taps shall be made in accordance with the Standard Details using epoxy coated cast iron service saddles with double stainless steel straps, and ¾" Mueller #H-15000 series corporation stops or approved equal. The service line shall be Type "K" copper. Copper services shall conform to AWWA C800.

a) Fire/Domestic Service Piping: Domestic service piping can branch off dedicated fire line piping to avoid having two service taps to the main and two separate service lines in the public right-of-way or easement. Piping from the main to the vault or right-of-way or easement line is to be maintained by the City and must be constructed of ductile iron pipe. On-site piping may be PVC meeting applicable codes. No 3-inch piping is allowed on domestic line – must be either 2-inch (or smaller) Type K" copper or 4-inch (or larger) ductile iron pipe.

2. SERVICE SADDLES: All corporation stops for services or air releases on pipe, as well as ¾-inch and larger corporations installed on ductile iron pipe, shall be installed with service saddles having threads to acceptable AWWA standards. Service saddles shall be as shown on the Standard Details. Doubled banded complete stainless steel straps must be performed by the manufacturer to the specified outside diameters of the pipe.

3. CORPORATION STOPS: Corporation stops shall comply with AWWA C800 and shall be high pressure rated at 150 psi. All corporations installed on C900 PVC pipe, as well as ¾-inch and larger corporations installed on ductile iron pipe, shall require a tapping saddle/service clamp.

4. TAPPING SLEEVES AND VALVES: Tapping Sleeves and Valves for connection into existing pipelines shall be furnished and installed as indicated on approved Construction Drawings or as specified herein. Unless otherwise indicated, tapping sleeves shall be constructed of stainless steel and include stainless steel bolts, testing plug and stainless steel flange (ductile iron flange may be substituted). Prior approval by the Utility Department is needed before ductile iron mechanical joint sleeves may be used. All tapping sleeves shall be tested for leaks and approved by the City Engineer before the tap is made. The hydraulic pressure test shall be timed for a minimum of 5 minutes at 150 psi.

- a) MATERIALS: Tapping sleeve shall be stainless steel as indicated above or ductile iron, mechanical joint furnished complete with joint accessories, including split glands, split end gaskets, bolts, etc.
- b) BODY: Mechanical joint watermain fittings and accessories, 2-inch through 48-inch shall be produced of ductile iron in accordance with and meet AWWA C110/ANSI A21.10 and AWWA C111/ANSI A21.11. Ductile iron, mechanical joint fittings 3-inch through 24-inch shall be rated for 350 psi working pressure.
- c) OUTLET FLANGE: Carbon Steel per ASTM A36 in accordance with AWWA C207 and ASME B16.1 Class 125. Compatible with approved tapping valve. Recessed for tapping valve per MSS SP-60.
- d) FLANGED ENDS: Flanged ends shall meet the requirements of AWWA C115 or AWWA C207, depending on pipe material.
- e) FINISH: Finish shall be fusion bonded epoxy coating to an average 12 mil thickness. Fusion applied per AWWA C213. Coatings must be NSF-61 approved and conform to AWWA C104.
- f) TEST PLUG: A ¾ inch NPT carbon steel test plug with square head and fusion-bonded epoxy coating shall be used.

J. REPAIR/TIE-IN SLEEVES/CLAMPS

- 1. SLEEVES: Solid cast iron mechanical joint sleeves (long pattern) shall be used where indicated for tie-ins between new mains and existing mains and when replacing defective sections of pipe with new pipe.
- 2. REPAIR CLAMPS: Repair clamps or split sleeves will not be allowed on new construction. These may be used to repair existing mains if specifically directed by the Engineer.

K. CONCRETE WORK

- 1. GENERAL: Concrete of the respective classes for structures, bedding, blocking, headwalls, piers and other miscellaneous structures shall be as called for in the work to which they pertain.
- 2. CEMENT: Cement shall satisfy the requirements of ASTM C150, Type I or Type II.
- 3. AGGREGATE: Aggregate shall satisfy the requirements of ASTM C33.
 - a) COURSE AGGREGATE: Course aggregate shall be uniformly and evenly graded for each application in accordance with ACI Standard 318. Unless otherwise approved, aggregates shall be sound, crushed, angular granitic stone. Smooth or rounded stone (river rock) shall not be acceptable.
 - b) FINE AGGREGATE: Fine aggregate shall consist of natural sand, manufactured sand or a combination thereof, and shall be graded to meet the requirements of SCDOT

size number FA-10 and 67, as appropriate.

4. **WATER:** Water shall be fresh, clean and free from injurious amounts of oil, acid, alkali, and organic materials.

5. **MIXING:** Mixing shall be accomplished at a central mix plant unless prior approval is given by the Engineer for mixing on the job site.

6. **CENTRAL MIX PLANT:** Concrete supplied from a central mix plant shall have 28-day compressive strengths not less than those listed below.

- (1) Class "A" - 3,000 psi
- (2) Class "B" - 2,200 psi
- (3) Class "C" - 1,500 psi

7. **JOB SITE MIX:** Concrete mixed on the job site shall have 28-day compressive strengths as above and shall contain not less than the following quantities of cement per cubic yard.

- (1) Class "A" - 564 lbs. (6 bags)
- (2) Class "B" - 470 lbs. (5 bags)
- (3) Class "C" - 376 lbs. (4 bags)

8. **GROUTS:** All grouts shall be of a non-shrink nature (as may be achieved through additives or proportioning) and depending upon application, range from plastic to flowable cement water paste. Testing as specified above for concrete may be required for acceptance of grouts to include frequent checks for consistency by a time-of-flow measurement.

a) Expansion grouts shall be either Gilco premixed or Supreme non-metallic grout as manufactured by Gifford-Hill and Company, Inc. or Embeco 636 grout as manufactured by Master Builders, or approved equal.

b) Grouts shall be mixed (if applicable) and placed in accordance with the manufacturer's recommendations, for each specific application.

9. **FLOWABLE FILL:** Flowable fill shall be controlled, self-leveling, non-shrink, low-strength material consisting of a fluid mixture of cement, aggregate, water and with admixtures as necessary to provide workable properties. Long-term hardened strength shall be between 75 psi and 150 psi at 56 days as determined based on an average of three tests for the same placement.

a) Fly ash shall not be used in flowable fill adjacent to ductile iron pipe and fittings. Protect pipe and fittings by covering with polyethylene.

10. **THRUST BLOCKING:** All tees, bends, plugs and hydrants on lines 2-1/2 inches in diameter and larger shall be provided with reaction blocking, tie roads, or other approved method of restraint. Reaction blocking dimensions should be as shown on the Construction Drawings.

Dimensions will depend on field conditions.

11. **CONCRETE CYLINDERS:** Concrete cylinders for testing purposes shall be made in accordance with the procedure described in ASTM C31. Compression tests shall be made at the age of 7 days and 28 days by the testing laboratory as per ASTM C39. Testing shall be done by a laboratory approved by the Engineer. Each test shall consist of at least four (4) specimens; two (2) for field control and two (2) for laboratory control. One (1) initial test will be required and then one (1) test for each one hundred (100) yards thereafter.

L. MISCELLANEOUS STEEL

1. **STEEL PIER MATERIAL:** Steel piles, cross braces, cradles, etc., shall consist of structural steel shapes of the section required in the Construction Drawings based on the Engineer's design for the specific needs of the project and approved by the City Engineer. The steel shall conform to specifications for ASTM A36.

a) All bolts and nuts shall conform to ASTM A325 for 7/8-inch and ASTM A490 for 1-inch and larger.

b) The Contractor shall handle and store steel members above ground on platforms, skids or other supports. Members shall be free of dirt, grease, and other foreign material and protected against corrosion.

c) Coal tar epoxy coating Carboline Koppers No. 300M, Amercoat No. 78, Carboline Carbomastic No. 14, or approved equal shall be applied to all specified surfaces of the steel pier.

d) Welding Electrodes shall conform to the following:

(1) Shielded Metal-arc: AWS A5.1 or AWS 5.5, E70XX

(2) Submerged-arc: AWS A5.17, F70X-EXXX

(3) Gas Metal-arc: AWS A5.18, E70S-X or E70U-1

(4) Flux Cored-arc: AWS A5.20, E70T-X (except 2 and 3)

2. **STEEL ENCASEMENT PIPE:** Steel pipe shall be welded or seamless, smooth wall or spiral weld, consisting of Grade "B" steel as specified in ASTM A139. Encasement pipe must be approved by the appropriate controlling agency (i.e. SCDOT, railway corporation, etc.) and the City Engineer prior to ordering.

a) Minimum yield strength shall be 35,000 psi; and pipe thickness shall be as specified for each individual job.

b) All pipe shall be furnished with beveled ends prepared for field welding of circumferential joints. All burrs at pipe ends shall be removed.

3. **STRUCTURAL STEEL TUNNEL LINER PLATES:** The tunnel liner plates shall be either the four (4) flanged type (as approved for use within SCDOT rights-of-way) or the lap seam type (as

approved for use within railroad rights-of-way) and fabricated to permit assembly of a continuous steel support system as the tunnel is excavated as specified by the design Engineer. Tunnel liner plates shall be fabricated from hot rolled, carbon steel sheets or plates conforming to the specifications of ASTM A569 and must be approved by the appropriate controlling agency (i.e. SCDOT, railway corporation, etc.) and the City Engineer prior to ordering.

4. **STEEL REINFORCING FOR CONCRETE**

a) **BARS:** All reinforcement bars shall conform to ASTM A615. All bars shall be deformed and of structural grade 60. All splices shall be lapped 24 diameters unless otherwise noted.

b) **WIRE:** All reinforcement wire fabric shall conform to ASTM A185.

M. **STONE AND BRICK**

1. **BRICK:** All brick used to construct or adjust manholes, frames, vaults, or boxes shall be made from concrete, shall be solid only, and shall be of standard building size. All brick shall meet or exceed the compressive strength and water absorption properties as specified in ASTM C139.

2. **GRANULAR BEDDING MATERIAL:** All bedding material shall be angular, clean washed crushed stone graded in accordance with Size #67 in ASTM D448 or SCDOT Standard Size #67. Bedding material will be used only as instructed in the specifications and/or as specifically directed by the Engineer.

3. **RIP RAP:** All rip rap shall consist of clean, field stone or rough unhewn quarry stone, resistant to the action of air and water, varying in weight from 25 to 250 pounds with 60% weighing a minimum of 100 pounds each and no more than 5% weighing less than 50 pounds each (SCDOT Class 2 Rip Rap). Rip rap will be placed from a minimum of 4.0 feet below the toe of the bank to top of the bank in areas determined by field conditions. Rip rap thickness shall be 1-1/2 times the diameter of the largest stones used, or as directed by the Construction Drawings.

4. **SILT CHECK DAM MATERIAL:** Material shall be coarse angular, clean washed, crushed stone, gravel or rock, well-graded, and ranging in size from 2-inches to 6-inches, or SCDOT stone for erosion control, Class A.

5. **STONE STABILIZATION MATERIAL:** All stone stabilization material shall be angular, clean washed crushed stone graded in accordance with standard sizes #67 in ASTM D448 or SCDOT Standard Size #67. Stabilization material will be used only as instructed in the specifications and/or as specifically directed by the Engineer.

N. **DEFECTIVE MATERIALS AND WORKMANSHIP:** Any cracked or broken material, such as pipe, fittings, valves or hydrants, shall be removed and replaced with sound pieces, at the expense of the Contractor. Joints that leak shall be carefully remade. Remade joints and replaced material shall be retested under the same conditions of operation. If joints or materials are then found to be defective, they shall be remade and replaced until the line passes the required test.

III. CONSTRUCTION SPECIFICATIONS

A. ABANDONMENT

1. **GENERAL:** The following requirements shall apply for proposed abandonment of existing facilities, unless otherwise shown on the Construction Drawings or approved by the Engineer. All areas disturbed by abandonment will be restored.
2. **PIPE:** Piping to be abandoned-in-place shall be cut and plugged on the ends and completely filled with flowable fill as indicated on the Construction Drawings. If existing pipe to be abandoned is less than 8 inches in diameter and has less than 5-feet of cover, then the pipe shall be removed and the trench backfilled with suitable material, unless otherwise approved by the City Engineer.
3. **APPURTENANCES:** Valves, hydrants, meters, services, and other water main appurtenances to be abandoned shall be removed and the excavations backfilled with suitable material.
4. **FLOWABLE FILL:** Placement of flowable fill may be by grouting techniques in pipelines or other restricted areas, or as mass placement by chutes or tremie methods in unrestricted locations with open access.
5. **BACKGROUTING:** Backgrouting is secondary stage pressure grouting to ensure that voids have been filled within abandoned pipes. Backgrouting will only be required at critical locations indicated on the Construction Drawings or if there is evidence of incomplete flowable fill placements.

B. HANDLING AND STORAGE OF MATERIALS

1. **GENERAL:** The Contractor shall be responsible for the safe storage of materials furnished by or to him, and accepted by him, and intended for the Work, until they have been incorporated into the completed project. The interior of all pipe, valves and other accessories shall be kept free from dirt and foreign materials at all times. The City Inspector has the right to reject any and all material based on its storage and handling.
2. **TRANSPORTATION OF MATERIALS AND EQUIPMENT:** All materials furnished by the Contractor shall be delivered and distributed at the site by the Contractor or his material supplier. The Contractor and his Supplier are directed to contact the SCDOT to verify axle load limits on State-maintained roads (and bridges) which would be used for hauling of equipment and materials for the Project. The Contractor and his Suppliers shall do all that is necessary to satisfy the SCDOT requirements and will be responsible for any damage to said roads which may be attributed to this project.
3. **HANDLING:** Proper and suitable tools and equipment shall be used for the safe and convenient handling and laying of pipe. Pipe, fittings and other materials shall be carefully handled so as to prevent breakage and as to prevent damage to the interior lining and coatings on the pipe and fittings. Pipe shall not be unloaded by rolling or dropping off of trucks or cars, but shall be handled by carefully lifting and lowering into position, using approved slings or clamps

which shall be provided by the Contractor or material manufacturer for the purpose. Pipes and fittings shall be carefully examined for cracks, broken lining and other defects. No pipe or fitting shall be laid which is known to be defective. If any pipe or fitting is discovered to be cracked, broken or defective after being laid, it shall be removed and replaced with sound material at the expense of the Contractor. If any part of the coating or lining is damaged; the repair shall be made by the Contractor at his expense in a manner satisfactory to the Engineer. All pipe and fittings shall be thoroughly cleaned before being laid and shall be kept clean until accepted as completed work.

4. **LOADING AND UNLOADING:** Personnel and equipment for unloading, transporting, distributing and storing materials shall be furnished by the Contractor. The Contractor is responsible for the coordination of material deliveries and for providing appropriate staging and or lay-down areas. Ductile iron pipe and cast iron accessories shall be loaded and unloaded by lifting with hoists or skidding so as to avoid shock or damage. Other pipe and materials shall be loaded and unloaded with hoists and/or as recommended by the respective manufacturers. Under no circumstances shall such materials be dropped. Pipe handled on skidways shall not be skidded or rolled against pipe already on the ground.

5. **DISTRIBUTING:** Materials shall be distributed and placed so as to least interfere with traffic. The Contractor shall furnish and maintain proper warning signs and lights for the protection of traffic along highways, streets and roadways upon which material is distributed. No distributed materials shall be placed in drainage ditches.

a) In distributing the material at the site of the Work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench.

b) Contractor will string in advance no more than the amount of pipe and material that can be installed within four (4) weeks or less, as approved by the Engineer. All materials shall be placed in such a manner as not to hinder access, endanger or impede traffic, or create a public nuisance. Materials strung through residential areas (or any area with maintained lawns) shall be placed in such a manner as not to restrict normal maintenance of established lawns, and must either be installed within two (2) weeks or removed to an approved storage yard, as required by the Engineer.

6. **STORAGE:** All pipe, fittings and other materials that cannot be distributed safely along the route of the work shall be stored for subsequent use when needed. The Contractor shall make his own arrangements for the use of storage areas. Unless prior written consent from the owner of the proposed storage area is received by the City Engineer, the Contractor will be required to store all equipment and materials within the limits of the right-of-way, permanent easement, and temporary construction easement provided. The materials and equipment storage shall comply with all local and state ordinances throughout the construction period. Material and equipment may only be stored within road rights-of-way if approved by the controlling agency. PVC pipe shall not be exposed to direct sunlight for inordinate periods of time.

C. WATER SYSTEM INSTALLATION: The Contractor shall assemble, joint and lay all ductile iron pipe and fittings in accordance with the following:

1. **GENERAL:** Installation of all water lines and appurtenances shall be conducted in accordance with the requirements of AWWA Section C and/or manufacturer's recommended

installation procedures. All installation practices shall be in accordance with the State Primary Drinking Water Regulations unless as noted.

a) PIPE shall be laid in a workmanlike manner, true to line and grade. Any water pipe with less than 4 feet of cover to finished grade shall be ductile iron with a minimum cover of three feet. Additionally, any water pipe laid with 12 feet to 18 feet of cover shall be ductile iron. No water line shall be installed with more than 18 feet of cover. All pipe laid outside the road right-of-way shall be ductile iron. Pipe laid within the roadway may be PVC.

b) OVERNIGHT COVER: During construction all vault, hydrant or other ground openings shall be covered at the end of each day. For sidewalls, use wing-nut type plugs to secure openings. Trenches shall be covered or backfilled at the end of each working day.

c) CONTAMINATED AREAS: All water mains shall be located outside contaminated areas. Re-route line if possible. If the main must run through a contaminated site, the main material must protect the water system from being contaminated (e.g. Ductile Iron Pipe with chemical resistant gaskets).

d) EASEMENTS/RIGHTS-Of-Way: Pipe shall be installed in dedicated easements or public rights-of-way. The minimum easement width for water main shall be 20 feet; however, this may be increased to accommodate large-diameter pipe or burial greater than standard depth. See City Standard Details for additional information.

e) UTILITY CROSSINGS: All crossings with other utilities shall be made with ductile iron pipe.

2. LOCATION AND GRADE: The line and grade of the water main and appurtenances will be given by the Engineer. The location shall be in agreement with approved Construction Drawings. Any substantial deviation shall be subject to approval by the City Engineer.

a) The water main shall be laid and maintained to the required lines and grades with fittings, valves and hydrants at the required locations; spigots centered in bells; and all valves and hydrant stems plumb. Necessary lines, levels and grades will be given by the Engineer but the Contractor shall be responsible for accurately transferring such lines and grades to the work. This work by the Contractor shall be subject to frequent checking by the Engineer and City personnel.

b) All water mains shall be provided with a minimum forty-eight (48) inches of cover. Where this is not possible, pipe shall be ductile iron or other approved material and method approved by the Engineer, and, when necessary, insulated to prevent freezing. The Contractor may be required to vary the depth of pipe to achieve minimum clearance from existing utilities while maintaining the minimum cover specified, whether or not the existing pipelines, conduits, cables, mains, etc. are shown on the Construction Drawings. Water lines in excess of 12 feet of cover shall be ductile iron and shall be subject to approval by the City Engineer.

c) When the water line is constructed in the road right-of-way, it shall be in conformance with the City of Rock Hill Utility Location Plan and applicable encroachment

permits. All pipe laid outside the road right-of-way shall be ductile iron. In some cases depending on soil types and the presence of other utilities with cathodic protection, 16 mil polyethylene pipe wrap, or PVC pipe may be required for use. Metal water lines crossing or within 10 feet of utilities with cathodic protection shall be designed to protect the water line and shall be approved by the City Engineer.

d) Potable water lines shall not be laid less than 25 feet horizontally from any portion of a wastewater tile-field or spray-field, or shall be otherwise protected by an acceptable method approved by SCDHEC.

e) In general, alignment and gradient for pipe shall be straight; however, pipeline may be laid on a curve but must be within the limits of curvature as recommended by the pipe manufacturer, both horizontal and vertical.

f) Blow-offs shall not be directed toward creeks or other water bodies without proper precaution being taken to dechlorinate prior to discharge.

3. **PLACEMENT:** All pipe, fittings, valves and hydrants shall be carefully lowered into the trench piece by piece by means of a backhoe or other suitable means, in such a manner as to prevent damage to protective coatings and linings. Under no circumstance shall water main materials be dropped or dumped into the trench.

4. **REUSING PIPE:** Water mains that have been previously used for conveying potable water may be reused provided they meet applicable criteria from AWWA Section C, ANSI/NSF 61, and ASTM D1785 or D2241. The mains must be thoroughly cleaned and restored practically to their original condition.

5. **DETECTION OF MAINS:** All mains shall be detectable within three (3) feet with electronic locating equipment. Non-metallic pipes shall be installed with solid, UL-approved 14-gage (min) copper tracer wire running along the centerline of the pipe or other means of detection. Wire shall be brought up into the valve boxes and bare wire connected to a valve bolt. Warning tape shall be placed 1-foot over top of water mains.

6. **CREEK CROSSINGS:** Creek crossings and other applications may require a specialized section of pipe (e.g., long-span steel pipe with specialized joint restraint). Each such crossing shall be addressed on a case-by-case basis and approved by the City Engineer.

a) **ABOVE GRADE CROSSINGS:** For pipe crossing above creeks, streams and other bodies of water, pipe shall be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement.

b) **BELOW GRADE CROSSINGS:** For pipe crossing under creeks, streams and other bodies of water, a minimum of two feet (2') of cover shall be provided over the pipe. When crossing water courses that are greater than fifteen feet (15') in width, the pipe and material shall be designed appropriately, valves shall be located on both sides of crossing to isolate for testing and repair that are easily accessible and not subject to flooding, a blow-off shall be provided on the side opposite the supply service (directed away from creeks and over ground), and ductile iron pipe with mechanical joints shall be used for any lines being installed in rock.

D. PIPE INSTALLATION

1. DUCTILE IRON PIPE AND IRON FITTINGS

a) GENERAL: The Contractor shall assemble, joint and lay all pipe and fittings in accordance with AWWA C600.

b) CUTTING DUCTILE IRON: Whenever ductile iron pipe or special castings are required to be cut, the cutting shall be done by skilled workmen, using an abrasive wheel cutter. Use of oxyacetylene torch will not be permitted. Pipe that is cut in the field must be ground and beveled before assembly and cut to leave a smooth end at right angles to the axis of the pipe. The plain end shall be beveled; any sharp edges that might damage the gasket shall be removed by means of a file or power grinder.

2. PVC PIPE AND IRON FITTINGS

a) GENERAL: The Contractor shall assemble, joint and lay all pipe and fittings in accordance with AWWA C605.

b) CUTTING PVC PIPE: Whenever pipe or special castings are required to be cut, the cutting shall be done by skilled workmen, using an abrasive wheel cutter. Pipe that is cut in the field must be ground and beveled prior to assembly and cut to leave a smooth end at right angles to the axis of the pipe. The plain end shall be beveled; any sharp edges that might damage the gasket shall be removed by means of a file or power grinder.

3. COPPER PIPE AND FITTINGS

a) GENERAL: For copper pipe Install pipe and tube without springing, forcing or stressing the pipe, tube, or any connecting valves. Provide pipe hangers and supports for pipe and tube where installed aboveground, in vaults, and structures. Use soldered joints and fittings with copper water tube in buried and exposed service. Use threaded joints and fittings with brass or copper piping in buried and exposed service.

b) INSTALLATION

(1) Cut tubing square and remove burrs. Use a sizing ring on the ends of soft copper tubing and bring to true dimension and roundness.

(2) Joints shall be watertight. Remove foreign matter and dirt from inside the tubing and keep clean during and after laying.

(a) Clean surfaces to be soldered with fine emery cloth, cleaning pads, or special wire brushes. Make soldered joints in accordance with ASTM B828. Solder shall penetrate to the full depth of the cup in joints and fittings.

(b) Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to male pipe threads before mating threaded joint.

- (3) Bends in soft copper tubing shall be long sweep. Shape bends with shaping tools, without flattening, buckling, or thinning the tubing wall.

E. JOINT AND FITTING INSTALLATION

1. **GENERAL:** The location of bends, joints, and fittings indicated on the Construction Drawings are a guide. The Contractor will be required to furnish additional bends and fittings as needed to complete all installations.
2. **PERMISSIBLE DEFLECTION OF JOINTS:** Where ever it is necessary to deflect pressure pipe from a straight line, either in the vertical or horizontal plane, to avoid obstruction or plumb valve stems, or where long radius curves are permitted, the amount of deflection allowed shall not exceed that required for satisfactory sealing of the joint as recommended by the manufacturer, and shall be approved by the Engineer.
3. **PUSH-ON JOINT PIPE:** The gasket groove and bell socket shall be cleaned and lubricated, and the gasket inserted as specified by the pipe manufacturer. Sterile lubricant, as furnished or specified by the manufacturer shall be applied to the gasket and beveled spigot end of the pipe. The beveled spigot end of pipe shall be pushed straight into bell using either a bar, jack, lever, puller, or backhoe. A timber header will be placed between the jack or backhoe bucket and the pipe to prevent damage to the pipe. At no time will the joint be made by swinging the pipe. The pipe will be deflected, if required, after the joint is made.
4. **MECHANICAL JOINT PIPE AND FITTINGS:** All spigots shall be centrally located in the bell and adequate anchorage shall be provided where abrupt change in direction of dead ends occur. All pipe surfaces with which the rubber gasket seals come into contact will be brushed with a wire brush just prior to assembly in order to remove all loose rust or foreign material and to provide a clean surface of the installation of the gasket. The pipe surface with which the gasket comes into contact will be brushed with soapy water just prior to the installation of the gasket and the making up of the joint. When tightening bolts, the gland will be brought up toward the pipe flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket.

F. CONNECTIONS

1. **CONNECTIONS TO EXISTING PIPELINES:** Connections to existing pipelines shall be made with necessary fittings and valves as indicated on the approved Construction Drawings. The Contractor shall, before opening pipeline trenches, locate the various points of connections to be made into existing pipelines.
 - a) When a tapping sleeve and valve is installed, the coupon from the existing water main shall be submitted to the City. The coupon must be marked indicating the date and time of the tap and the location.
 - b) Only one (1) connection between the existing system and the new extension will be allowed until testing, chlorination, and successful sampling of the new extension is complete.
 - c) Contractor shall verify blocking at existing valves prior to making connections

and will be required to block, rod, or restrain existing and new pipe, fittings and valves as necessary.

d) Coordinate with the City Inspector to be present during exposure and tapping of the existing water main. Contact Inspector and Engineer a minimum of 48 hours prior to exposure.

2. SERVICE CONNECTIONS: Once service connections are approved and all fees paid to the City of Rock Hill, connections for water service can be made.

a) Service lines will be made perpendicular to the water main unless otherwise approved. All taps will be made substantially as shown on the Standard Details. Service connections shall be installed prior to pressure testing and sterilization of the main. Allowance for joints in service connection will be included when computing the allowable leakage. The contractor shall flush each connection after testing and sterilization is complete.

b) Service lines will be installed with a minimum depth of cover of 24 inches and a maximum depth of cover of 30 inches.

c) Multiple service taps shall have a minimum of 24 inches of separation between taps and shall be located on planes at least 12 inches offset.

d) Service connections to the main piping shall be made by using tapping saddles threaded to accept corporation stops.

e) Meter boxes and locations shall be as shown on the Standard Details. In areas with sidewalks or proposed sidewalks, the meter boxes are to be set outside the sidewalk area on the property-owner side of the sidewalk. Meter boxes shall not be set in driveway locations.

f) The location of the services will be identified by the letter "W" imprinted into the curb adjacent to the service. Where a service is moved or removed, the "W" will be removed from the curb or grouted over.

g) For services 3-inches and larger, the Contractor shall consult with the City Inspector to determine the location of meter vaults prior to the installation.

h) The City requires the property owner or developer to perform the tap to the main. There are no tap fees associated with this work. Contractors performing taps to the City's main(s) must contact the City's Planning and Development Services Engineer to schedule an inspection and witness pressure testing of the tapping sleeve and valve.

3. INTERCONNECTIONS AND CROSS CONNECTIONS

a) INTERCONNECTIONS: The approval of SCDHEC shall be obtained for interconnections between potable water supplies.

b) **CROSS CONNECTIONS:** There shall be no connection between the water distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contamination materials may be discharged or drawn into the system.

c) **DEVICES:** Backflow Prevention Devices (BPD) shall be installed in accordance with the SCDHEC Backflow Prevention Manual. All piping up to the inlet of the BPD must be suitable for potable water. The pipe must be AWWA or NSF approved. Black steel pipe cannot be used on the inlet side of the device.

(1) No by-passes shall be allowed, unless the bypass is equipped with an equal, approved BPD.

(2) High-hazard category cross-connections shall require an air gap separation or an approved reduced pressure principal (RPP) backflow preventer.

(3) RPP backflow prevention assemblies shall not be installed in any area location subject to possible flooding. This includes pits or vaults which are not provided with a gravity drain to the ground's surface that is capable of exceeding the discharge rate of the relief valve. Generally, if installed in a pit, the drain line shall be 2 times the size of the line entering the BPD. The drain cannot empty into any ditch or sewer, which could flood water back into the pit.

(4) Fire line sprinkler systems and dedicated fire lines, except those in the high-hazard category shall be protected by an approved double check valve assembly. Double Check Valve Assembly (DCVA) can be located in the building's mechanical/riser room or in a vault. If installed in a vault, the installation shall be in accordance with the City's Standard Detail.

d) **COOLING WATER:** Neither steam condensate nor cooling water from engine jackets or other heat exchange devices shall be returned to the potable water supply.

e) **WATER LOADING STATIONS:** To prevent contamination of the public supply, the following criteria shall be met:

(1) Air Gap - A device shall be installed on the fill line to provide an air break and prevent a submerged discharge line.

(2) Hose length - The fill hose and cross connection control device must be constructed so that when hanging freely it will terminate at least two (2) feet above the ground surface.

(3) Fill line terminus - The discharge end of the fill line must be unthreaded

4. **INTERRUPTION OF SERVICE:** Connections to existing pipelines shall be made only at such times and in such manner as will meet operating requirements. No cut shall be made in existing lines until the permission of the City Engineer has been obtained as to time and manner of making the cuts and connections. All existing valves shall be operated only by authorized representatives of the City. If connections to existing mains will necessitate an interruption of service, the Contractor will schedule the connection for a time that is most convenient to the affected customers as determined by the Engineer. Adequate notice will be provided to those customers

who will be put out of service by the connection. When such interruption of service is approved, the Contractor will have all required labor, material and equipment at the site before beginning any work and the service interruption will be kept to an absolute minimum.

5. JUMPER CONNECTION: Contractor shall use a jumper connection as shown in the Standard Details for the purpose of filling a newly constructed line with water to prepare it for testing and disinfection.

G. FIRE HYDRANT ASSEMBLIES

1. COVER: Hydrants shall have a 3-foot depth of cover over the leader pipe. However, if the hydrant is located so as to require additional cover, extension sections shall be furnished and installed.

2. GENERAL CONSTRUCTION

a) Hydrant assemblies shall be installed plumb and in accordance with the Standard Details at locations shown of the Construction Drawings and/or as directed by the Engineer.

b) The operating nut shall be totally sealed away from the hydrant barrel and all working parts shall be continuously and automatically lubricated from a large oil reservoir and packing gland. Drain mechanism shall be simple, positive, and automatic in operation.

c) The safety flange on barrel and safety coupling on valve stem shall operate to prevent damage to barrel and stem in case of a traffic accident. The construction of the flange and coupling shall be such as to permit rapid and inexpensive replacement. They shall be located above the ground line. The force of the impact of a traffic accident shall break the flange and spread the coupling. Hydrant shall be constructed as to permit facing nozzles in any direction at any time without digging up the hydrant or cutting off the water. This shall be accomplished by removing safety flange bolts and rotating the head.

d) All working parts, including the seat ring shall be removable and through the top without digging.

e) Hydrants shall be set to grade such that a wrench may turn the hose connection covers in any direction, at any time, without impacting the ground.

f) Each hydrant installation shall include a drainage bed of clean washed stone approximately 1 cubic foot in size at the "weep hole." Piping from the main to the hydrant shall be 6-inch (minimum size) DIP.

H. VALVES AND VALVE BOXES: Sufficient valves shall be provided on water mains so that customer inconvenience and sanitary hazards will be minimized during repairs. No valve is required at the right-of-way or easement line if a valve is provided at the main tap location. Valves located within a street shall be located outside the wheel travel paths. At intersections, valves shall be located on the side of the less traveled street.

1. **AIR RELIEF VALVES (ARV):** Air relief valves shall be installed at the high points shown on approved Construction Drawings on 12-inch and larger mains. The installation shall include the corporation stop, necessary piping, valve vault with manhole frame and cover and appurtenances. All valves shall be tested in accordance with AWWA Standards.
2. **RESILIENT-SEAT GATE VALVES:** Valves shall be for vertical installation only, with square operating nut and non-rising stem.
3. **VALVE BOXES**
 - a) A valve box conforming to the Standard Details shall be installed for every gate valve. The valve box shall not transmit shock or stress to the valve and shall be centered plumb over the operating nut, with the box cover flush with the surface of the pavement or other existing surface.
 - b) Where the box is not set in a paved surface, the top section shall be anchored by a concrete pad, set flush with the existing terrain. The top section will be grouted into the concrete pad. The location of valves will be identified by the letter "V" imprinted into the curb adjacent to the mainline or hydrant valve.

I. **BLOCKING/RESTRAINTS:**

1. **BLOCKING:** All tees, bends, plugs and hydrants on lines 2 ½ inches in diameter and larger shall be provided with reaction blocking, tie rods or other approved restraining methods to prevent movement.
2. **VALVE BLOCKING:** All end of line valves 12-inch and smaller installed on PVC or ductile iron water mains and all 12-inch valves installed along PVC water mains shall be securely wedge blocked with concrete bearing against, and cut into the excavated sides of the trench. Care shall be taken in forming and pouring the "wedge" blocking so the fitting joints will be accessible for repair and/or valve extraction.
3. **BLOCKING/RESTRAINT FITTINGS:** Thrust blocking or mechanical restraints must be specified for all plugs, caps, tees, and bends deflecting 11-1/4 degrees or greater on lines 2 ½ inches in diameter and larger, for all post hydrants on lines 3 inches in diameter and larger, and for all hydrants on lines 6 inches in diameter and larger. Blocking and/or restraints must be placed as shown on the Construction Drawings and/or as directed by the Engineer. Blocking shall consist, of ready mix concrete having a compressive strength of not less than 3,000 psi at 28 days.
 - a) Bagged mix concrete may be used for blocking, anchorage, concrete valve pads, etc. on water mains and valves 12-inch and smaller, when less than ½ yard is required.
 - b) Blocking shall be placed between solid ground and the fittings to be anchored. The area of bearing on the pipe and on the ground in each instance shall be that shown or directed by the Engineer. The blocking shall be placed that the pipe and fittings will be accessible for repair.
 - c) Restrained joints shall be installed where shown on the Construction Drawings, Standard Details, or when approved by the Engineer, and may be installed in lieu of

blocking. Installation shall be per manufacturer's recommendations, as shown on the Construction Drawings, special provisions, and/or as directed by the Engineer. Restrained joints will not be allowed on PVC pipe.

J. CLEANING, FLUSHING AND DISINFECTION

1. **CLEANING:** All dirt and foreign material must be cleaned from each joint of pipe or fitting while it is suspended, before it is lowered into the trench. The Contractor shall also, before the system is accepted, thoroughly clean all lines.

2. **FLUSHING:** The design shall provide for a readily accessible means of flushing all water lines at a minimum velocity of 2.5 fps. This does not apply to service lines.

a) Where dead-end lines occur they shall be provided with a fire hydrant if flow and pressure are sufficient, or a readily accessible blow-off valve in a box for flushing purposes, except for the following cases and also must have prior approval from the Engineer:

b) Lines 1-inch diameter and smaller will not require blow-offs. Lines 2 inches in diameter and shorter than 200 feet will not require a blow-off. However, a service connection shall be installed at the end of the line or another acceptable means of bleeding chlorine through the lines must be provided.

c) Blow-offs shall be sized to provide a minimum velocity of 2.5 feet per second in the line and maintain a residual pressure of 25 psi.

d) Design head loss calculations, including elevation changes shall show 25 psi minimum residual when instantaneous demand occurs or 20 psi minimum residual when either fire flow or flushing flow in excess of peak hourly flow occurs, whichever is greater.

e) Lines 10 inches and larger require flows in excess of 500 gpm to achieve a 2.5 fps scouring velocity. This would require a standard fire hydrant or other approved blow-off, for flushing which must be designed to provide at least 500 gpm in excess of peak hourly flow and a minimum residual pressure of 20 psi.

f) No flushing device shall be directly connected to any sewer.

3. DISINFECTION

a) **GENERAL:** All pipelines and appurtenances, both existing and newly constructed which have been exposed to contamination by reason of construction, shall be sterilized after testing and flushing of the lines has been completed. The Contractor shall notify the City before chlorination to ensure that precautions are taken to not allow the backflow of water into the existing system.

b) Disinfection of all new water mains shall be in accordance with AWWA C651 and ANSI/NSF Standard 60 for the disinfection of water mains.

c) A BPD shall be utilized to supply water from the City's water system to the new

water line extension. Lines shall be filled and flushed to clear the lines of any debris. Lines shall then be filled with fresh water containing 50 parts per million of chlorine and allowed to stand for a period of 24 hours. At the end of this 24 hour period, the treated water in all portions of the main must have a residual of not less than 10 ppm free chlorine, or the procedure must be repeated. Lines shall then be flushed slowly and uniformly at a controlled rate, at which time a sample shall be collected for bacteriological examination. No flushing device shall be directly connected to any sewer.

d) The Contractor shall collect a minimum of two (2) samples from each sampling site for total coliform analysis. The number of sites depends on the amount of new construction but must include all dead-end lines, be representative of the water in the newly constructed mains, and shall be collected a minimum of every 1,200 linear feet. Prior to sampling, the chlorine residual must be reduced to normal system residual levels or be non-detectable in those systems not chlorinating. These samples must be collected at least twenty-four (24) hours apart and must show the water line to be absent of total coliform bacteria. The chlorine residual must also be measured and reported. All samples must be analyzed by a State certified laboratory.

e) No line shall be placed into service without the consent of the City Engineer and SCDHEC.

K. PROXIMITY TO SEWER INFRASTRUCTURE

1. GENERAL: All installation practices shall be in accordance with Section R61-58.4D of the State Primary Drinking Water Regulations when installing water supply infrastructure in the vicinity of sanitary sewer.

2. PARALLEL INSTALLATION: Water mains shall be laid at least ten (10) feet horizontally from any existing or proposed sewer (gravity or force main). The distance shall be measured edge to edge. In cases where it is not practical to maintain a ten foot separation, any deviation shall be authorized by SCDHEC on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the water main closer to a sewer, provided that the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least eighteen (18) inches above the top of the sewer. If these condition are not able to be met or an alternative design is not feasible, the sewer pipe shall be replaced and the water line laid such that the distances between joints of water and sewer pipe is maximized and the sewer pipe shall be replaced with ductile iron pipe.

a) There shall be no physical connection(s) between a public or private potable water supply and a sanitary sewer collection system.

b) Sanitary sewer service lateral piping shall be installed no closer than 10 feet as measured horizontally from water service piping.

3. CROSSINGS: Water mains crossing sewers shall be laid to provide a minimum vertical separation of eighteen (18) inches between the outside of the water main and the outside of the sewer. This shall be the case whether the water main is either above or below the sewer line. Whenever possible, the water main shall be located above the sewer line. Where a new water main crosses a new sewer line, a full length of pipe shall be used for both the water main and sewer line and the crossing shall be arranged so that the joints of each line will be as far as possible

from the point of crossing and each other. Where a new water main crosses an existing sewer line, one full length of water pipe shall be located so both joints will be as far from the sewer line as possible. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer line to prevent damage to the water main.

4. SPECIAL CONDITIONS: When it is impossible to obtain the distances specified in R.61-58.4(D)(12)(a) and (b) SCDHEC may allow an alternative design. Any alternative design shall:

- a) Maximize the distances between the water main and sewer line and the joints of each;
- b) Use materials which meet the requirements R.61-58.4(D)(1) for the sewer line; and,
- c) Allow enough distance to make repairs to one of the lines without damaging the other.

5. FORCE MAINS: There shall be at least a ten (10) foot horizontal separation between water mains and sanitary sewer force mains. There shall be an eighteen (18) inch vertical separation at crossing as required in R.61-58.4(D).

6. SEWER MANHOLES: No water pipe shall pass through or come in contact with any part of a sewer manhole. Water lines may come in contact with storm sewers or catch basins if there is no other practical alternative, provided that ductile iron is used, no joints of the water line are within the storm sewer or catch basin and the joints are located as far as possible from the storm sewer or catch basin.

7. DRAIN-FIELDS AND SPRAY-FIELDS: Potable water lines shall not be laid less than twenty-five (25) feet horizontally from any portion of a waste-water tile-field or spray-field, or shall be otherwise protected by an acceptable method approved by SCDHEC.

L. PROTECTION OF OTHER UTILITIES AND STRUCTURES: Before beginning any excavation for installing water infrastructure, the Contractor shall locate or cause to have located any water, sewer, gas or other utilities as necessary to avoid conflicts. The Contractor shall excavate and expose existing underground utilities in advance of trenching operations to determine the precise location of the utilities or other underground obstructions shown on the Construction Drawings. Such location and excavations shall be at least 500 feet ahead of the construction, unless otherwise noted. Conflicts with existing utilities shall be reported to the Engineer and conflicting utility's owner for resolution. Changes to the alignment and/or grade of the water piping shall be submitted to the City Engineer for review and approval.

1. All utility owners will be notified prior to excavation as required by the 1985 Underground Damage Prevention Act. To aid in the location of existing utilities, Contractor shall contact the South Carolina Utility Protection Service (PUPS) by telephone or posting a utility location requires on the PUPS website. The following information is provided by PUPS.

- a) "South Carolina State Law requires the excavator, when planning any activity that results in the movement or removal of earth, rock, or other materials in or on the ground to contact South Carolina 811 and any non-member company with adequate information regarding the excavation.

b) At least 3 full working day notice at 11:59 pm (not including the day of the call) prior to digging, call SC 811 by dialing 811 or (888) 721-7877. A SC811 representative will record the location of the digging site and notify member companies of your intent to dig. Each member company will then send either one of their employees or a contract locator to your dig site to mark the location of their underground facilities lines.

c) Once the lines have been marked, you may begin carefully to dig, keeping in mind the 2 feet allowance on either side of the markings. [(a) if the diameter of the facility is known, the distance of one-half of the know diameter plus twenty-four inches on either side of the designated center line; (b) if the diameter of the facility is not marked, twenty-four inches on either side of the outside edge of the mark indicating a facility; or (c) for subaqueous facilities, a clearance of fifteen feet on either side of the indicated facility}. Not all utilities are members with SC811. If a utility is not named, please contact them directly.

d) Remember: Call 811, wait the required time, respect the marks, and dig with care!”

2. Prior to final acceptance by the City of the water utility being constructed, the developer/owner shall be responsible for the integrity of the utility and for locating the utility until final acceptance by the City. Final acceptance shall include written documentation, permits to operate, copies of record drawings, and other requirements so listed by the City.

3. Crossings:

a) Whenever a water main crosses under other utility lines (gas, telephone conduit, storm drain, etc.), there shall be 2-feet clearance between the top of the water and the bottom of the affected utility. Stone bedding shall be used from 6-inches below the water to 12-inches above the water from one foot outside the utility trench. If this clearance is not possible, the water line shall be ductile iron pipe 1-foot outside the utility trench, with a minimum length of 10 feet.

b) Whenever a water main crosses over other utility lines (gas, telephone conduit, storm drain, etc.), there shall be one foot clearance from the top of the utility to the bottom of the water for PVC water lines. If this clearance is not possible, the water line shall be ductile iron pipe from 1-foot outside the utility trench, with a minimum length of 10 feet.

4. The Contractor shall be solely responsible for the repair and payment of penalties for any damage made to existing utilities as a result of the work.

M. SYSTEM TESTING

1. GENERAL: All required testing of pipelines and valves shall be done under the direct supervision of the City Inspector and must be conducted in accordance with AWWA C600 and C605. Field testing shall not negate the requirements for material certifications as contained in these specifications unless otherwise directed by the Engineer. All testing and disinfection shall be completed prior to connection to any existing line. Contractor shall be responsible for providing all equipment, personnel, and ventilation necessary to comply with OSHA confined space regulations.

2. TESTING AND CLEANING: When a length of pipe is deemed adequate for testing, the line shall be filled and thoroughly exhausted of air and a leakage test made. The Contractor shall furnish all labor, materials and equipment for carrying out these tests. Wherever conditions will permit, pipelines shall be tested before the trench is backfilled. All joints then shall be examined during open trench test and all leaks entirely stopped. The Contractor shall furnish a test pump, a means for accurate measurement, of water introduced into a line during testing, and shall furnish and install corporation stops at all high points in the line and at the test pump location as required for exhausting the air.

3. TEMPORARY BULKHEADS: The Contractor shall furnish, install and remove all temporary bulkheads, flanges or plugs, to permit the required pressure tests, and shall furnish all equipment and labor to properly carry out such tests and to replace defective material. City Inspector shall be present during installation of bulkheads and during the removal of the bulkheads.

4. TEST PRESSURE AND LEAKAGE: The Contractor shall give the City Inspector a 48-hour notice before starting test. On completion of the line or sections of the lines, connections and appurtenances, the line shall be filled and hydrostatically tested. All air shall be released from the system prior to testing. Test pressure shall be 1.5 times the maximum working pressure in the system (i.e. 150 psig) and 150 psig minimum as measured at the lowest point of elevation of the section of line being tested. Testing time shall be a minimum two (2) hours. Leakage shall not exceed the allowable leakage shown AWWA C600 and C605 or calculated by the formula:

For Ductile Iron Pipe:

$$G = \{S * D * (P^{1.5})\} / 148,000$$

Where: L = allowable leakage, in gallons per hour
 S = length of pipe tested, in feet
 D = nominal diameter of pipe, in inches
 P = average test pressure (psig) = 150 psig

For PVC Pipe:

$$L = \{N * D * (P^{1/2})\} / 7,400$$

Where: L = allowable leakage, in gallons per hour
 N = # of joints of pipeline being tested
 D = nominal diameter of pipe, in inches
 P = average test pressure (psig) = 150 psig

Note: Add 0.0043 gph for each ¾-inch service and 0.0057 gph for each 1-inch service.

All visible leaks shall be repaired regardless of the amount of leakage, and test will be repeated until it passes.

N. GENERAL CONSTRUCTION

1. CLEARING & GRUBBING: The Contractor shall perform all clearing necessary for installation of the complete work. Clearing shall consist of removing all trees, stumps, roots, brush and debris in the way of the work. Temporary Construction easements shall be selectively cleared with specimen trees left standing.

2. **DISPOSAL:** All excess and waste material shall be legally disposed in a satisfactory manner. Burning shall be in accordance with City Fire Department regulations and SCDHEC Regulations. When burning is allowed, the Contractor shall obtain a Burning Permit from the office of the City Fire Chief prior to any burning operations.

3. **REMOVAL OF PRIVATE OR PUBLIC FACILITIES:** Any private or public facilities, including fences, mailboxes, etc., removed for construction purposes shall be promptly replaced of the same material in the same or better condition than prior to construction. Trees or shrubbery along highways, roadways and streets shall not be disturbed unless absolutely necessary. Tree removal is subject to the approval of the City Engineer. Planting such trees or shrubs that are to be removed and replaced may be heeled in and replanted. Heeling and replanting shall be done under the direction of an experienced nurseryman and City Forester.

o. CONSTRUCTION ALONG HIGHWAYS, STREETS AND ROADWAYS

1. **GENERAL:** The Contractor shall install pipelines and appurtenances along publicly owned and maintained highways, streets and roadways in accordance with all applicable encroachment permits and City and SCDOT regulations, with reference to construction operations and requirements, safety, traffic control, road maintenance and repair.

2. **PROTECTION OF TRAFFIC:** The Contractor shall provide suitable signs, barricades and lights for protection of traffic, in locations where traffic may be endangered by construction operations. All highway signs removed by reason of construction shall be replaced as soon as the conditions that necessitated such removal have been cleared. No highways, streets or roadways shall be closed without first obtaining permission from the proper authorities. Before any roadway is blocked, the Contractor shall notify the City Engineer's office.

3. **CLOSURES:** In general, not more than one block of a street or roadway shall be closed for construction at any one time. Before proceeding with trenching operations in a succeeding block, the preceding section shall be backfilled, cleaned completely and the street opened to traffic. All planned road closures shall be reported in accordance with these specifications prior to closing any street, or for unplanned roadway closings, as soon as possible after the roadway has been closed.

4. **MAINTAINING HIGHWAYS, STREETS, ROADWAYS, AND DRIVEWAYS:** The Contractor shall furnish adequate personnel and proper construction equipment, which shall be available for use at all times, for maintaining highways, streets and roadways upon which work is being performed. All such highways, streets and roadways shall be maintained in suitable condition for movement of traffic until completion and final acceptance of the work. For temporary drive closures, the contractor is to coordinate the closure(s) with applicable property owner(s). The Contractor shall immediately repair all driveways that are cut or damaged and shall maintain them in a suitable condition for use until completion and final acceptance of the work.

5. **CONSTRUCTION OPERATIONS:** The Contractor shall construct all work along roadways using the sequence of construction operations, as to least interfere with traffic.

6. **REMOVING PAVEMENT:** The Contractor shall remove pavement as necessary for installing the new piping and appurtenances and for making connections to existing pipelines. Care shall be taken by the Contractor to avoid damage to pavement adjoining pavement removal

areas. If damaged, the Contractor shall remove the damaged pavement and shall replace it with new pavement at his own expense.

a) There may be instances where the City requires additional pavement removal and repair based on the condition of the road. In these areas, the City will contract with and negotiate the price with the Contractor for the damaged pavement removal and associated repair work to be completed. Should a portion of this work be completed by City forces, the Contractor shall work with the City in coordinating the work as the applicable Encroachment Permit allows.

7. **MARKING & CUTTING:** Before removing any pavement, the pavement shall be marked for cuts neatly paralleling pipelines and existing street lines taking into consideration existing pavement conditions. Pavement shall be saw-cut prior to removal to form a clean transition edge. Asphalt pavement shall be broken along the marked cuts by use of a jackhammer or other suitable tool. Concrete pavement and asphalt pavement on concrete base shall be scored to a depth of approximately 2" below the surface of the concrete along the marked cuts. Scoring shall be done by use of a rotary saw, after which the pavement may be broken below the scoring by use of a jackhammer or other suitable tool.

8. **STRIPPING:** Where the pipeline is laid along road shoulders, all sod, topsoil and other materials suitable for shoulder restoration shall be stripped and stockpiled for replacement.

9. **EXCAVATED MATERIAL:** Excavated Material shall not be placed along highways, streets and roadways in such a manner as to obstruct traffic. No scattered excavated material shall be allowed to remain on the pavement. All such material shall be kept swept away.

10. **PAVERS OR CURB:** The Contractor shall remove and replace or tunnel or bore under any paver areas or concrete/stone curb encountered along the project route. In any case, protection of the pavers' and curb and gutter's supporting foundation is the responsibility of the Contractor.

11. **MACHINE PULLING:** No pavement shall be machine pulled until completely broken and separated along the marked cuts.

12. **DRAINAGE STRUCTURES:** All side ditches, culverts, cross drains and other drainage structures shall be kept clear of excavated material and be free to drain at all times.

P. **EARTHWORK**

1. **GENERAL:** The Contractor shall excavate, install piping and backfill and consolidate the trench backfill as quickly as possible to maintain safety within the construction site. Trenches shall not be opened any further ahead of pipe laying operations than is necessary for proper laying operations, and trenches shall be progressively backfilled and consolidated, and excess material removed immediately behind laying operations. Backfill material and material consolidation shall meet SCDOT specifications, but in no case shall the consolidation be less than 95% maximum dry density for each layer of soil material-in-place as determined by ASTM D698 (Standard Proctor) test procedures. The Contractor shall so organize his work that backfilling and cleanup shall closely follow pipe laying operations and construction.

a) Excavations within street rights-of-way shall be backfilled when left unattended

for more than 1 hour, unless otherwise approved by the controlling agency.

b) Excavations within water rights-of-way/easement shall be backfilled, fenced, or otherwise protected when left unattended for more than 1 hour.

2. **TRENCH EXCAVATION:** Trench excavation shall include the removal of material necessary for the installation of the piping infrastructure and associated fittings and structures. Excavated materials that are not suitable for backfill material shall be removed from and legally disposed offsite.

a) **DEPTH OF TRENCHES:** The minimum cover over the top of the pipe shall be 3 feet, unless otherwise directed by the City Engineer and/or shown on approved Construction Drawings. If the minimum cover is not achieved, the pipe shall be made of ductile iron and meet the requirements of these specifications. Where obstructions are encountered, minimum depth may be changed to avoid interference. Where necessary to increase the depth of cover to avoid interference with underground utilities, obstructions and utilities services, the Contractor shall furnish all construction equipment and shall perform all labor required for additional trench depth.

b) **LENGTH OF OPEN TRENCH:** A maximum trench of ± 100 LF shall be open in advance of the pipe laying than is necessary to expedite the work, unless prior approval is given by the Engineer. Ground conditions and/or location requirements shall govern the amount of trench open at any one time as determined by the Engineer.

c) **WIDTH OF TRENCHES:** Trenches shall be excavated sufficiently wider than the infrastructure to be installed to allow for personnel and the preparation of the infrastructure foundation, installation of infrastructure and associated bedding, and to properly consolidate the backfill material including the pipe support bedding located under the pipe's haunches. In any case, the width of the trench is not to be narrower than 24 inches plus the outside diameter of the pipe.

3. **GENERAL EXCAVATION**

a) **BELL HOLES:** The trench bottom shall be true and even with bell holes at each joint to provide the barrel of the pipe with soil and/or granular (as applicable) support for its full length. If stone bedding of sufficient depth is not provided, the Contractor shall over-excavate the locations where the pipe bells rest so the entire length of the pipe will be uniformly supported.

b) **EARTH EXCAVATION:** Earth excavation shall include all excavation of whatever substance encountered, except rock excavation, as further provided in these specifications. The area excavated shall be limited to no more than is necessary to allow the proper installation of the structure as determined by the Engineer, and the excavation shall be made to the lines, grades and elevations shown on the Construction Drawings. In locations where pipe is to be bedded in earth excavated trenches and no stone is used for bedding the pipe, the bottoms of such trenches shall be fine graded to allow for a firm and uniform bearing for the bottom of the pipe. Where any part of the trench has been excavated below the engineered grade for the pipe, the part excavated below such grade shall be backfilled with sand and compacted at the Contractor's expense.

c) **BORE PITS:** Bore pit excavations shall be controlled by the limits of the existing rights-of-way and shall not exceed these without prior written approval of the property owner. The excavation shall be made to the proper elevation, line and grade as required to install the casing pipe as shown on the Construction Drawings. The pit bottom shall be true and even with adequate stabilization to maintain proper elevation and grade on the boring rig for the duration of the bore.

d) **ROCK EXCAVATION IN TRENCHES AND PITS** includes removal and disposal of materials and obstructions encountered which cannot be excavated with a 1.0 cubic yard (heaped) capacity, 42 inch wide bucket on track-mounted power excavator equivalent to Caterpillar Model 215, rates as not less than 90 HP flywheel power and 30,000 lb drawbar pull. Rock excavation shall comprise solid rock in the original bed, or in well-defined ledges, the removal of which in the opinion of the City Engineer requires drilling, blasting, or the use of jackhammers or bull-points, and shall also include boulders or detached pieces of rock 8 cubic feet or more in content. Trenches in excess of 10 feet in width and pits in excess of 30 feet in either length or width are classified as open excavations. Rock removal shall extend to be a minimum of 6 inches vertically and 12 inches horizontally from the piping to be installed.

4. MATERIALS

a) Satisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups GW, GP, GM, SM, SW, GC, SC, CL, ML and SP.

b) Unsatisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups MH, CH, OL, OH, and PT.

5. **SHORING AND BRACING:** All shoring and bracing shall conform to all OSHA regulations. The specific type of shoring and bracing used shall be determined by the Contractor as to prevent caving of trench banks and to provide safe excavation.

6. **DEWATERING:** The Contractor shall at all times provide and maintain ample means and equipment with which to remove and properly dispose of any and all water entering the excavation or other parts of the work, and keep all excavation dry until such time as pipe laying and grading is completed and structures to be build therein are completed.

a) No water shall be allowed to rise around the pipe in unbackfilled trenches nor shall it be allowed to rise over masonry until the concrete or mortar has set (minimum 24 hours). All water pumped or drained from the Work shall be disposed in such a manner as to prevent siltation and erosion to adjacent property or other construction.

7. **BACKFILL:** All backfill shall be of non-plastic nature free from roots, vegetative matter, waste, construction material, rock larger than $\frac{3}{4}$ cubic foot, or other objectionable material. Backfill material shall be capable of being tamped by mechanical tamps using relatively low velocity and heavy blows. Material deemed by Engineer to be unsuitable for backfill purposes shall be removed from the job site before backfilling operations begin and replaced with satisfactory soil materials as approved by the Engineer or directed by the permitting agency.

a) Continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height

above the pipe to adequately support and protect the pipe. Stones, other than crushed bedding, shall not come in contact with the pipes and shall not be within 6-inches of the pipe.

8. **COMPACTION CONSOLIDATION REQUIREMENTS:** Compaction of the trench backfill is to conform to the more stringent requirements of the permit issuing authority and requirements herein. Contractor shall be responsible for ensuring the material is adequately compacted. Compaction shall be in accordance with the Standard Detail as determined by ASTM D698 (Standard Proctor) test procedures.

9. **CRUSHED STONE STABILIZATION AND BEDDING:** Crushed stone material shall conform to ASTM C33, as amended to date, gradation #67 (ASTM #67), varying in sizes 1/4" through 3/4". Stabilization and bedding material shall be placed in the trench and thoroughly compacted to grade by tamping. Compacted bedding material shall be carried up the sides of the pipe to the heights shown on the Standard Details.

a) Wherever the sub grade is by nature too soft or mucky, in the opinion of the City Engineer, for the proper installation of the pipe, the Contractor may be ordered to undercut the trench and backfill with crushed stone or gravel.

b) Crushed stone bedding material shall conform to ASTM C33, gradation #67 (ASTM #67), varying in sizes 1/4" through 3/4". Bedding material shall be placed in the trench and thoroughly compacted by tamping to the grade required for the particular location. Compacted bedding material shall be carried up the sides of the pipe to the heights necessary for the various classes of bedding.

10. **SHAPING:** The Contractor, immediately after completing backfilling operations shall re-shape any damaged cut and fill, slopes, side ditches and ditch lines, and shall replace topsoil, sod and any other materials removed from shoulders. When installing pipelines and appurtenances, the Contractor will be required to provide sufficient personnel and equipment so as to simultaneously carry out all of the above operations.

Q. CONCRETE CONSTRUCTION

1. **PLACING OF CONCRETE:** Placing of concrete shall be in daylight hours. Concrete mixed at a central plant shall be transported to the job site as per ASTM C94 and placed within 90 minutes of the dispatch time. Concrete shall be deposited in such a manner so as to prevent contamination by foreign material and segregation due to re-handling or flowing. Free fall shall not exceed 3-feet. Concrete when placed shall be compacted with mechanical, internal-vibrating equipment and/or with hand spading with a slicing rod. Temperature shall be above 35 degrees Fahrenheit and rising by 10:00 AM for the placement of concrete. Depositing shall cease when the descending air temperature in the shade falls below 40 degrees Fahrenheit. If the temperature drops below 35 degrees after concrete is placed the Contractor shall enclose, heat and protect the concrete or Contractor shall replace the concrete at his own expense. Earth fill shall not be placed on concrete until concrete has been allowed to set for 24 hours. Exposed concrete shall have 3/4" chamfered corners.

2. **FORMWORK:** Formwork, where required, shall be built to conform to the shape, lines and dimensions of the concrete work as shown. Forms may be made of wood, plywood, metal or any

other material approved by the Engineer. Forms shall be mortar tight, of materials strong enough to resist noticeable deflection or bulging between supports, and the interior dimensions of the forms shall be such that the finished concrete shall be of the form and dimensions shown on the Construction Drawings. The design of the forms shall take into account the effect of the vibration of the concrete as it is places and also the rate of speed at which the forms will be filled.

a) Mechanical vibrators of an approved type, and continuous spading and/or rodding of concrete shall be used to produce proper contact of concrete with forms and reinforcing steel in piers and with forms and pipe in monolithic inverts insuring a compact, dense, and impervious artificial stone of uniform texture.

3. SETTING FORMS: Forms shall be set to line and grade, and shall be braced, tied, and secured in a manner which will withstand placing of the concrete, and which will maintain shape and position. Forms shall be tight, and be substantially assembled to prevent bulging and the leaking of concrete. Joints shall be arranged vertically or horizontally. Temporary openings shall be arranged, where required, at the bottoms of wall forms and elsewhere, to facilitate cleaning and inspecting. Lumber used once in forms shall have nails removed and surfaces in contact with concrete work thoroughly cleaned before reuse. Wall sleeves, inserts, and openings required in concrete work shall be properly set in formwork. Chamfer strips shall be placed in forms for all exterior corners.

4. CURING: All concrete will be cured after placement according to the following procedures.

a) Forms will normally be left in place for the entire curing period. Exposed surfaces not covered by forms will be kept moist continuously for the entire seven day period or will be cured through use of an approved curing compound which will be applied after all surface water has disappeared.

b) All form marks exposed to view shall be rubbed off with a stone.

5. REMOVING FORMS: Under normal conditions, the time elapsing before the forms may be stripped shall not be less than the following:

- (1) Slabs 14 days
- (2) Piers 7 days
- (3) Walls 2 days

6. FINISHING: All exposed concrete work shall be kept wetted with water, and shall be rubbed with a carborundum stone of medium fineness, or other equally as good abrasive, to bring the surface to a smooth texture and to remove all form and other marks. The paste formed by the rubbing may be rubbed down by floating with a canvas, carpet-faced, or cork float, or may be rubbed down with dry burlap.

7. TESTING: The following test may be performed by the City to ensure the concrete quality.

a) Compressive Strength – Compressive strength testing shall be conducted in accordance with ASTM C31 and ASTM C39. Test cylinders which are formed in the field

will be left in the field until compression testing is completed.

- b) Slump – Slump testing shall be in accordance with ASTM C143.
- c) Air Content Test – The test for air content in the mixture will be in accordance with either ASTM C173 or ASTM C231.

8. **ACCEPTANCE:** Concrete shall be accepted on the basis of its meeting the requirements listed under the Material Specifications and Detail specification Section of this contract. The Inspector will accept no ready mix concrete without the plant dispatch ticket.

- a) The Engineer shall require any test as he deems necessary to insure that the concrete meets specifications. The Engineer may require the test to be performed by an independent testing laboratory at the Contractor’s expense.
- b) Segregated concrete and/or concrete containing foreign material will not be accepted.

9. **BLOCKING INSTALLATION:** Concrete blocking shall be formed and poured at the backs of fittings, including elbows, tees, fire hydrants and other fittings to the dimensions shown on approved detailed Construction Drawings. Unless otherwise noted, concrete shall be 3,000 psi with a four-inch (4”) slump. Blocking shall be poured against undisturbed earth. If existing soil conditions will not support concrete blocking, it is the Engineer’s responsibility to recommend proper restraining devices in order to prevent movement of the pipe. Concrete of the respective classes for thrust blocking, bedding, blocking, headwalls, piers and other miscellaneous structures shall be as called for in the work to which they pertain.

R. BORES, TUNNELS, AND CASINGS:

1. **BORE PITS (OR TUNNEL PITS):** Bore or tunnel pits shall be safed-up, shore, well-marked, lighted, and not left unattended except as approved by the controlling agency. Requirements of stabilization and dewatering of bore pits shall be as herein before specified. The angle of repose method (sloping pit walls) for creating a safe working area shall not be used.

2. **SIZING:** Carrier pipe shall be Restrained Joint DIP. Casing is to extend beyond the edge of pavement or control structure at least as far out as it is deep and clearance of 25 feet beyond the casing shall be granted for future removal of the carrier pipe. Spiders shall be used on all water lines installed within steel casing. The minimum size and thickness standards for casing pipe and tunnels for various sewer line sizes and types are as follows:

Carrier Pipe (inch diameter)	Casing Pipe (inches)	Thickness (inches)		Recommended * Tunnel (inches min.)
		DOT	RR	
8” DIP	18”	0.250”	0.312”	48”
10” DIP	20”	0.250”	0.344”	48”
12” DIP	24”	.0.250”	0.406”	48”
16” DIP	30”	0.312”	0.469”	48”
18” DIP	30”	0.312”	0.469”	48”
24” DIP	36”	0.375”	0.562”	48”
30” DIP	48”	0.500”	0.750”	60”

- Gauge to be determined by controlling agency and/or by depth of installation

3. **INSTALLATION:** Smooth wall or spiral weld steel pipe may be jacked through dry bores slightly larger than the pipe, bored progressively ahead of the leading edge of the advancing pipe as soil is mucked by the auger back through the pipe. As dry boring operation progresses, each new section of encasement pipe shall be butt welded to the section previously jacked into place. Continuous checks shall be made as to the elevation, grade and alignment of each successive section of encasement, as well as the tracks (rails) upon which the boring rig travels. Continuous checks shall be made as to the elevation, grade and alignment of each successive section of encasement, as well as the tracks (rails) upon which the boring rig travels.

a) Installation shall be such to prevent the formation of a waterway under the road or rail bed. If voids are encountered or occur outside the encasement pipe, grout holes shall be installed in the top section of the encasement pipe at ten (10) foot centers and the voids filled with 1:3 Portland cement grout at sufficient pressure to prevent settlement in the roadway/railway.

b) Boring operations shall be continuous to their completion, and unnecessary or prolonged stoppages shall not be allowed.

c) In the event an obstruction is encountered during the boring and jacking operations, the auger is to be withdrawn and the excess pipe is to be cut off, capped, and filled with 1:3 Portland cement grout at sufficient pressure to fill all voids before reapplying to the controlling agency for permission to open cut, bore at an alternative location, or install a tunnel.

d) Installation shall be to the limits specified by the controlling agency and/or as delineated in their encroachment permit issued. The controlling agency shall have full authority to require remedial measures and/or to stop all work if, in its opinion, said work will cause any damage to the roadway/railway section or endanger traffic. In all instances the controlling agencies reserve the right to sample, test, and approve all materials and methods used.

e) The Contractor shall notify the controlling agency through the Engineer and an acknowledgement shall be received a minimum of five (5) working days prior to beginning any work within the roadway or railway rights-of-way. If required, 24-hour notice will be given prior to completion.

4. **GUARANTEED CASING INSTALLATION:** The casing shall be installed by jacking, with simultaneous removal of spoil. The spoil removal shall not proceed more than 18-inches ahead of the casing. The diameter of the excavated hole shall be no larger than necessary to keep the casing moving freely and lubricant may be used to reduce the jacking forces. Casing sections shall be joined by butt weld.

a) After casing is jacked in place, 2-inch grout holes shall be used to pump a 1:3 Portland cement grout to fill the void outside the casing. Sufficient pressure should be applied to force grout out the adjacent grout hole. Grout holes shall be a maximum of 10 feet apart at the top of the casing.

5. **TUNNELS USING STEEL LINER PLATES:** All structural steel liner plates for tunnels shall

be formed to provide circumferential-flanged joints. Longitudinal joints may be flanged or offset lap seam type. All plates shall be punched for bolting on both the longitudinal and circumferential seams or joints. Bolt spacing in circumferential flanges shall be in accordance with the manufacturer's standard spacing and shall be multiples of the plate length so that plates having the same curvature shall be interchangeable to permit staggering of the longitudinal seam. Bolt spacing at flanged longitudinal seams shall be in accordance with the manufacture's standard spacing. For lapped longitudinal seams, bolt size and spacing shall be in accordance with the manufacturer's standard, but not less than that required to meet the longitudinal seam strength requirements of the design specifications. All liner plates for the full length of a specified tunnel shall be either the flange or the lapped seam type. The two types shall not be mixed in the same tunnel.

a) Liner plates shall be assembled in accordance with the manufacturer's instructions. Galvanized and coated plates shall be handled in such a manner as to prevent bruising, scaling, or breaking of the coating. Any plates that are damaged during the handling or placing shall be replaced, except that small areas with minor damage may be repaired to the satisfaction of the Engineer or his representative.

b) Galvanized surfaces shall be repaired by thoroughly wire brushing the damaged areas and removed all loose, cracked coating, after which the cleaned areas shall be painted with two (2) coats of zinc rich paint as approved and an acceptable bituminous coating restored.

c) When tunneling has proceeded in a distance sufficient for placing one section of the tunnel liner, that section of liner will be placed before excavating further. Excavation shall be controlled so that the space outside the liner plate shall be held to a minimum. All voids between the liner plate and tunnel wall shall be filled with 1:3 Portland cement grout, containing no more water than necessary, placed under sufficient pressure to fill all voids. Grout shall be placed through the grout holes provided in the top of the tunnel liner plates. Grout holes 2" in diameter shall be provided at no more than 4.5-foot center or every third ring of plates to permit grouting as the erection of the tunnel liner progresses. At no time will the grouting operations be further than 10 feet from the front end or head of the tunnel construction.

d) At the end of each day's operations, the voids outside installed liner plates shall be grouted whether 10-feet or less. Grout will be forced into each grout hole. If the grout from one hole should flow along the liner plates so as to plug the next holed, the plug shall be opened by punching through the grout so that each hole may be used for grouting. The grouting operation will be continued at each hole until all spaces outside the liner plates are filled and no grout will flow.

e) The tunnel shall be constructed to the limits, grade and alignment shown on the Construction Drawings. Excavation, without the use of jetting, shall be done in such a manner as to protect public and/or private property from damage. Prior to beginning any construction, the Contractor shall submit pit shoring and tunnel liner details for approval and no tunneling may begin prior to approval of these details by the appropriate controlling agency. After approval of tunnel liner and pit shoring details, a five (5) day notice to the Controlling Agency, through the Engineer shall be provided as previously specified.

f) No blasting will be done without prior written approval of the controlling agency

and then only in strict accordance with all Federal, State, and Local laws, ordinances, rules or regulations governing the storage and use of explosives. Where blasting is required, only small controlled charges or 40% dynamite or plastic explosives shall be used. The depths of the holes for these charges shall not exceed the depth necessary to clear an area sufficient to place one section of tunnel liner.

g) The charges for the initial series of blasts should be placed in the triangle method. The second series should be placed in the radial method a minimum distance from the desired diameter of the tunnel. The triangular charges shall be set to go off first, with the radial charges to go off following a short interval or using the time-lag method.

h) Where rock is encountered before approaching the shoulder or pavement, the first four series of charges will be used in determining the amount of controlled blasting to be used before beginning any blasting beneath the railway or shoulders or pavement of the highway as applicable. If rock is encountered after tunneling progresses beneath the pavement or railway, charges will initially be set at very low levels and increased in small increments until the proper amount of charged is determined. In no case will an overshoot be permitted. If a boulder is encountered and removed by blasting or by other methods, a bulkhead will be formed immediately after removal of the boulder and the area filled with grout before proceeding with the tunneling operations.

i) If there is any indication of a vertical split in the rock formation, or any indication of settlement of the roadway or railway fill, all operations shall be stopped and the controlling agency notified immediately. If the vertical split is not determined to be out too great a magnitude or too close to the rails/pavement, the split shall be filled with grout at a pressure specified by the controlling agency, allowed to set and tunneling operations may be continued.

j) If it is determined that the vertical split is too great of a magnitude or too close to the pavement or railway, the Controlling Agency shall determine the method to be used to correct the split. If settlement of the roadway or railway occurs, the Controlling Agency will advise the Owner and his Contractor of the proper steps to be taken to correct the settlement. If deemed necessary by the Controlling Agency, adequate warning devices (signs, flasher, etc.) accompanied by responsible flagmen shall be placed at a distance allowing any and all traffic time to stop safely before reaching the questionable area. At the option of the Controlling Agency, it may provide the necessary flagmen, warning devices, etc., at the Contractor's expense. Traffic shall be allowed over the questionable area, only as directed by the Controlling Agency.

k) The completed liner shall consist of a series of structural steel liner plates assembled with staggered longitudinal joints. Liner plates shall have been fabricated to fit the cross-section of the tunnel. All plates shall be connected by bolts on both longitudinal and circumferential seams or joints.

l) After tunneling operations have been completed, the Contractor will install the carrier pipe in a manner approved by the Engineer. Concrete fill (1:3 Portland cement grout) will then be placed after completing installation of the water pipe within the tunnel liner as directed by the Engineer and end enclosure walls installed as shown on the Construction Drawings or Standard Details. Ends of the tunnel liner will be sealed with an 8-inch masonry wall on the lower end and a 12-inch masonry wall on the higher end.

Weep holes will be provided on the downstream end for drainage.

6. **FINISH WORK:** Once the Contractor has installed the carrier pipe, complete and in-place, the Contractor shall then remove the vertical shoring for pits (if ground conditions allow), surplus spoils, and material from the site. The site shall then be returned to its original condition, seeded, mulched, or restored as specified and left in a neat and satisfactory condition. Shoring material shall be removed in such a manner so as to avoid collapse and to allow proper backfill. The backfill shall be placed in accordance with these Specifications or the requirements of the Controlling Agency

S. **BLASTING:** The Contractor shall not be allowed to blast within any rights-of-way maintained by any agency (SCDOT, railroad, gas, etc.) other than the City without specific approval of the controlling agency and only in accordance with their respective requirements.

1. Prior to commencing any blasting operations, the Contractor shall notify either the City Fire Department – Fire Prevention Section or the County Fire Administrator as applicable, and obtain blasting permits as required. The Contractor must furnish certification of Insurance specifically covering any and all obligations assumed pursuant to the use of explosives. All blasting supplies shall be stored in a place and manner approved by the City, State Fire Marshal and other entities having jurisdiction over blasting operations. In no case shall blasting caps or other igniters or exploders be kept in the vicinity of dynamite or where other explosives are stored.

2. Blasting operations shall be conducted in strict accordance with any and all decrees, rules, regulations, ordinances, and laws as may be imposed by any regulatory body and/or agency having jurisdiction over the Work relative to handling, transporting, use and storage of explosives. Blasting shall be done only by competent, sober, and experienced personnel whose activities shall be conducted in a workmanlike manner. Satisfactory information must be provided to the Engineer that the blaster meets or exceeds the qualifications enumerated in OSHA Regulations Part 1926, Subpart U, Section 1926.901 – Blaster Qualifications. All blasting supplies shall be stored in a place and manner approved by the City. In no case shall caps or other exploders be kept at the place where dynamite or other explosives are stored.

3. All rock, dirt and debris from blasting shall be contained within the excavation by use of weighted mats or undisturbed overburden. The Contractor's blaster shall be fully responsible for determining the method of containment and the weight, size and placement of material required to contain the charge he is using. Charges shall be sized such that no damage to houses, structures, roadways, etc., outside the limits of excavation will occur. Where there is a possibility of such damage, the charge will initially be set at a very low level and increased in small increments until the proper charge is determined. The Contractor shall be held responsible for any and all injury to persons or damage to public or private property. No blasting will be permitted adjacent to existing buildings and structures. Rock at those locations shall be removed with jackhammers and bull-points. A seismic survey and/or a pre-blast survey may be required.

T. **EROSION AND SEDIMENT CONTROL:**

1. **GENERAL:** Erosion and sediment control shall be conducted in accordance with the applicable Erosion and Sediment Control and or NPDES permit. It is the Contractor's responsibility for controlling soil erosion and sediment runoff. The Contractor is to utilize mulches, mattings and or other fabrics, silt fences and other filters, grasses, slope drains, and other erosion control

devices as necessary to control erosion and sediment runoff. Erosion control may include temporary work that must be removed upon achieving construction site surface stabilization.

2. **TEMPORARY EROSION CONTROL:** Temporary erosion control shall consist of planting temporary grass of a quick growing species such as millet, rye grass, or cereal grasses suitable to the area or other approved temporary means. When used, seed, fertilizer, mulch and periodic watering shall be applied in adequate quantities to assure a full, healthy ground cover over the entire disturbed area of construction operations. All materials shall be of first class quality and subject to approval by the governing erosion control authority. All disturbed areas along the pipeline, with exception to a construction access or haul road, shall be grassed as soon as possible after backfilling operations have been completed.

3. **CONSTRUCTION IN STREAMS AND IMPOUNDMENTS:** Unless otherwise approved by the City Engineer, construction operations in streams and impoundments shall be restricted to those areas which must be entered for the construction of temporary or permanent structures. As soon as conditions permit, streams and impoundments shall be promptly cleared of all falsework, piling which are to be removed, debris and other obstructions placed therein or caused by the construction operations. Frequent fording of live streams with construction equipment will not be permitted; therefore, temporary bridges or other structures shall be used wherever an appreciable number of stream crossings area necessary. Unless otherwise approved by the City Engineer, mechanized equipment shall not be operated in live streams except as may be required to construct channel changes and temporary or permanent structures, and to remove temporary structures.

4. **CONSTRUCTION IN EASEMENTS:** Erosion control measures shall be constructed such that they do not discharge onto water or sewer easements, but to the opposite sides of such easements to prevent future erosion of the easement.

5. **LIMIT OF PROGRESS:** The Engineer will limit the area of excavation commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding and other such pollution control measures current in accordance with an accepted schedule. Should seasonal limitations make such coordination unrealistic, special erosion control measures shall be taken immediately to the extent feasible and justified.

6. **SURFACE STABILIZATION: PERMANENT GROUND COVER:** Upon construction completion and upon achieving construction site surface stabilization, the Contractor is to establish a permanent ground cover over any remaining denuded areas, and the Contractor shall remove all temporary erosion and sediment control measures upon achieving a permanent ground cover or satisfactory surface stabilization.

7. **RIGHT TO CORRECT:** In the case of failure on the part of the Contractor to adequately control erosion, pollution, and/or Siltation, the City reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs will be charged to the Contractor.

U. RESTORATION OF DISTURBED AREAS

1. **GENERAL:** All surfaces (both public and private) within and adjacent to the construction operations shall be restored to a condition comparable to that existing prior to construction, or

as specified by the Engineer. All surplus materials shall be disposed in a manner acceptable to the Engineer, and the construction area shall be left in a neat condition, with special attention called to proper drainage, smoothness of surface, and general clean-up. No machinery or equipment shall be left or stored on the job site after the project is complete.

2. **STABILIZATION:** Unless otherwise specified, complete restoration is to include fertilizing, seeding, and mulching any and all areas disturbed during the construction within 30 working days following the initial ground disturbing activity.

3. **APPURTENANCES:** Water meters, valve boxes, drain pipes, and other structures encountered shall be reset or re-laid to match or clear surface grade and/or water main pipe grade as applicable.

4. **REFUSE BURIAL:** Timber, rock and other refuse may not be buried within the temporary or permanent water rights-of-way with the exception of rock smaller than $\frac{3}{4}$ cubic foot.

5. **RIP-RAP:** The Contractor shall place stone rip-rap as specified in those areas subject to severe water action, where directed by the Engineer. Placement of rip-rap as shown on the Construction Drawings shall be considered as a guide only, with final determination made at the time of construction by the Engineer.

a) Stone rip-rap will be placed as indicated on the Standard Details immediately following pipe installation and will be installed no steeper than a 2:1 slope, except when specifically approved by the engineer. Grading will be required as necessary to insure continuous even flow.

b) In locations where a creek bank is eroded near the water line, the Contractor will be required to place compacted fill material along the creek bank in order to maintain 3-feet of cover over the water line in all directions. This is to be done before the rip-rap is placed.

c) The rip-rap installation shall include all earthwork necessary to stabilize the creek bank and to provide cover for the water line.

6. **JUTE NETTING/EROSION BLANKET:** The Contractor shall install jute netting or erosion control blank in areas subject to high runoff velocities, areas subject to concentrated runoff, and on steep slopes as shown on the Construction Drawings or directed by the Engineer.

V. RESTORATION OF EXISTING PAVED SURFACES

1. **GENERAL:** All removal and restoration of pavement and road surfaces will be in accordance with the specifications approved by the City of Rock Hill Public Works Department or the South Carolina Department of Transportation, whichever applies.

a) All resorted bituminous and concrete pavements shall be placed to existing cross-section and ride quality. Restored pavement will in all instances be flush and level with existing pavement at the sawed edges, and at existing gutter lines where applicable, unless approved by the Engineer. When pavement repairs do not meet the above criteria or are not permitted in a workmanship manner as determined by the Engineer, the City

of Rock Hill Public Works or SCDOT, whichever applies, will remove and re-perform the restoration as specified at the Contractor's expense.

b) When cuts are to be made in street rights-of-way under maintenance by the City of Rock Hill Public Works Department, the Contractor shall contact the Public Works Director or his designated representative before each separate pavement cut is made and secure a permit.

2. **REPLACEMENT:** All areas of existing pavement shall be neatly removed with straight edges. The Contractor shall remove and replace pavement, which in the opinion of the Engineer has been cracked or displaced by the operations of the Contractor. Edges shall be sealed upon completion of the repair.

a) In all pavement cuts either the permanent pavement or a temporary pavement consisting of 1 to 1 ½ inches of black asphaltic concrete (later to be replaced permanently) will be placed immediately upon completion of the subgrade unless otherwise approved by the Engineer.

b) Unless otherwise approved or required, concrete pavement shall be removed to the nearest expansion or contraction joint. The Contractor shall contact the Public Works Director and/or SCDOT's District Engineer for determination of the limits of concrete replacement and location of joints. Work procedures shall be such to prevent damage to surrounding pavement.

c) Bituminous pavement shall be cut in a smooth and straight line. Sawing is required on asphaltic concrete. The width of the pavement left between the edge of the ditch and the existing edge of pavement or the front line of the gutter, shall be at least 2 feet. Residual strips of pavement less than 2 feet in width must be removed and replaced. Existing pavement shall be removed on each side of the trench for at least 12-inches beyond the top of trench.

3. **RESTORATION:** Restoration of the paved surface shall be in accordance with the following specifications:

a) **CONCRETE PAVEMENT:** The concrete used to restore pavement shall have a minimum 28-day compressive strength of 3000 psi. The concrete shall conform to the shape, grade, and finish of the existing pavement and will be 1-inch deeper than the original pavement, including base, but in no instance less than 6 inches.

b) **ASPHALT PAVEMENT:** All material above the sub-base level shall be hot-mix bituminous concrete conforming to the SCDOT Standard Specifications for Roads and Structures for both mix design and placement. The asphalt pavement as placed shall be 1-inch deeper than the original pavement, including base, but in no instance less than 6 inches within City-maintained roadways or eight inches in state-maintained roadways. The asphalt shall be placed in lifts not greater than 4 inches and shall not be hot-mix bituminous concrete binder, Type H. The last 2 inches in either instance shall be bituminous plant mix (Type C – surface course) suitable to the appropriate controlling agency. Type C asphalt pavement surfacing will be placed with paving machines and/or rollers of a size and type currently approved by the SCDDOT for use on resurfacing contracts.

(1) If bituminous surfacing overlays a concrete base, the Contractor, at the option of the Engineer, shall replace the concrete to its original thickness or to a level 2-inches below the finished surface. The Engineer may direct the Contractor to omit all concrete and to replace the pavement with bituminous materials.

(2) Tack coats shall be employed with each lift. Tack coats shall be placed on both horizontal and vertical surfaces (pavement cuts or faces of concrete gutters).

(3) Under normal conditions, asphalt binder will be placed in pavement cuts at the end of each workday. Following completion of pipeline construction along a continuous section of pavement, 1 to 2 inches shall be replaced weekly or within five days. During inclement weather, the Engineer may permit the use of temporary asphalt (cold Mix) to seal the trench until permanent asphalt can be placed.

(4) All pavement markings are to be restored.

4. **DAMAGE TO ADJACENT PAVEMENT:** The pavement adjacent to pipeline trenches must not be disturbed or damaged. If the adjacent pavement is disturbed or damaged, irrespective of cause, the Contractor shall remove the damaged pavement and shall replace with new pavement at his own expense

W. RECORD/AS-BUILT DRAWINGS: The Contractor is to keep a set of approved Construction Drawings on site to make notes to facilitate the preparation as-built/record drawing information for the sewer infrastructure being installed. Notes taken during construction shall include but is not limited to field changes to the horizontal alignment or grades of the infrastructure being installed, valves and meter service locations (station along water main), description, size and location (station and elevation(s)) of all underground tees and utility crossings encountered during the construction work, location of bedrock encountered and removed, and other pertinent information.

1. The Contractor shall supply a copy of the field noted drawings to the engineer, along with surveyed as-built/record drawings (signed and sealed by a South Carolina Licensed Surveyor). Surveyed as-built/record drawings shall include the location and elevations of all tees and vaults, locations of valves and meter boxes (station and offset) and calculated pipe grades. Stations and elevations of all utilities encountered during the water installation shall be incorporated in the drawings. If easements or rights-of-way were acquired for the project, a list shall be provided on the record drawings stating the tax identification number and deed book/page number of each recording. Engineer shall provide to City hard set (bond and Mylar) of as-built drawings and digital set (in .pdf and .dwg formats) prior to receiving final approval of the project.

2. Engineer shall prepare individual AutoCAD drawings of each valve in the project, with location and measurements from valve to two or more permanent monuments.

3. Engineer shall flow each hydrant and provide test results to the City. Hydrant flow test results shall include at a minimum, the date of the test, the tester's name, the hydrant location and plan reference number, the static pressure in psi, the residual pressure in psi, and the flow rate in gpm.

X. **WARRANTY:** The Work shall be free of defects in material and workmanship for a full year from the date of acceptance, which is defined as either the date of the signature by the City Engineer on the Final Plat or as referenced in correspondence by the City Engineering Division. If neither date can be identified, the date shall be the issuance date for the SCDHEC Permit to Operate.

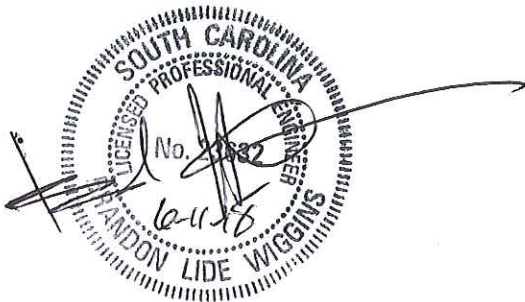
DIVISION II - SECTION 5

**CITY OF ROCK HILL
STANDARD SEWER SPECIFICATIONS**

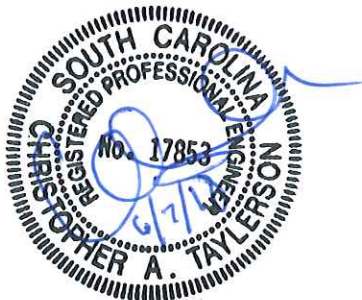


STANDARD SEWER SPECIFICATIONS

FOR THE
CITY OF ROCK HILL



June 2018



City of Rock Hill
Water/Sewer Utilities
P.O. Box 11706
Rock Hill, SC 29731-1706
803-329-5500





June 14, 2018

ROCK HILL CITY OF
PO BOX 11706
ROCK HILL SC 29731-1706

RE: Standard Specifications for Wastewater System
ROCK HILL CITY OF
Approval Number SS-002146

This office has reviewed the wastewater system specifications submitted to this office on 03/08/2018, revised on 6/14/2018 for consideration of becoming Standard Specifications. Based on our review this letter may serve as your approval of these Standard Specifications. The specifications have been approved for the following:

1. Gravity Sewers (PVC, DIP)
2. Force Mains (PVC, DIP)
3. Details (Standard Manhole, Drop Manhole, FM Tie-In)

Please be advised that these Standard Specifications are only approved for those items specifically listed above. Separate "Pump Station Specifications" must be submitted with each wastewater project that includes a pump station design.

For further submittals of projects, please indicate on the application for permit to construct that your specifications have been approved as Standard Specifications and that no additional copies will be necessary.

If you have any questions, please call me at 803-898-1941.

Sincerely,

Maia P Milenkova
Construction Permitting Section
Bureau of Water

STANDARD SPECIFICATIONS FOR SANITARY SEWER FACILITIES CONSTRUCTION

Table of Contents

I.	Purpose and General Information	1
A.	Purpose & Application	1
B.	Scope of Work	1
C.	Order of Work	1
D.	Material Inspection	1
E.	Organization of Work and Notifications	1
F.	Lead-Free Requirements	2
G.	Specifications	2
H.	Abbreviations	2
II.	Material Specifications	4
A.	General	4
1.	Quality and Inspection	4
A.	Ductile Iron Pipe and Fittings	4
1.	Pipe	4
2.	Quality Assurance	4
3.	Fittings	4
4.	Joints	4
5.	Markings and Weights	5
6.	Linings and Coatings	5
7.	Certification	5
8.	Quality and Inspection	5
B.	PVC Pipe for Gravity Sewer Applications	5
1.	Pipe	5
2.	Fittings	6
3.	Joints	6
4.	Markings	6
C.	Plastic Pipe for (Pressure) Force Main Applications	6
1.	Pipe	6
2.	Fittings	6
3.	Joints	6

4.	Markings.....	6
B.	Steel Pipe for Aerial Crossings	6
1.	Pipe	6
2.	Linings	7
3.	Coatings.....	8
C.	Vitrified Clay Pipe (VCP).....	8
1.	Existing VCP	8
D.	Sewer Lateral	8
1.	Pipe	8
2.	Fittings.....	8
E.	Couplings and Saddles	8
1.	Couplings.....	8
2.	Saddles	9
F.	Precast Concrete Manholes.....	9
1.	General.....	9
2.	Manhole Sizes	9
3.	Base Section	9
4.	Riser Sections	10
5.	Cone Section	10
6.	Slabs	10
7.	Doghouse Manhole	10
8.	Joints	10
9.	Drop Connections.....	10
10.	Inverts	10
11.	Steps.....	11
12.	Frames and Covers	11
13.	Brick.....	11
14.	Alteration to Manholes	11
15.	Field Adjustments	11
16.	Repaired and Patched Sections.....	11
17.	Testing.....	11
18.	Markings.....	11
19.	Linings	12
G.	Appurtenances	12
1.	Air Release and Air Vacuum Relief Valves.....	12
H.	Concrete Work.....	12

1.	General.....	13
2.	Cement.....	13
3.	Aggregate.....	13
4.	Water.....	13
5.	Mixing.....	13
6.	Central Mix Plant.....	13
7.	Job Site Mix.....	13
8.	Grouts.....	13
9.	Mortar.....	14
10.	Flowable Fill.....	14
11.	Concrete Cylinders.....	14
I.	Miscellaneous Steel.....	14
1.	Steel Pier Material.....	14
2.	Steel Encasement Pipe.....	15
3.	Structural Steel Tunnel Liner Plates.....	15
4.	Steel.....	15
5.	Steel Vent Pipe.....	16
6.	Steel Straps and Anchors.....	16
J.	Stone and Brick.....	16
1.	Brick.....	16
2.	Granular Bedding Material.....	16
3.	Rip Rap.....	16
4.	Silt Check Dam Material.....	17
5.	Stone Stabilization Material.....	17
K.	Ferrous Castings.....	17
1.	Special Castings.....	17
2.	Frames, Covers and Grates.....	17
L.	Defective Materials and Workmanship.....	17
III.	Construction Specifications.....	18
A.	Abandonment.....	18
1.	General.....	18
2.	Pipe.....	18
3.	Appurtenances.....	18
4.	Manholes.....	18
5.	Mains at Manhole which Remain in Service.....	18
6.	Exposed Pipe.....	18

7.	Backrouting	18
8.	Pump Stations	18
B.	Handling and Storage of Materials	19
1.	General	19
2.	Transportation of Materials and Equipment.....	19
3.	Handling	19
4.	Loading and Unloading.....	19
5.	Distributing.....	19
6.	Storage	20
C.	Sewer System Installation	20
1.	General.....	20
2.	Location and Grade	21
3.	Placement	21
4.	Detection of Mains.....	22
5.	Cutting Pipe.....	22
5.	Creek Crossings	22
D.	Sewer Service Installation.....	23
1.	General.....	23
2.	Service Lateral Elevation changes	23
E.	Connections.....	23
1.	Connections to Services	23
2.	Connections to Existing Sewers	23
F.	Cleanouts.....	24
1.	General.....	24
2.	Stoppers, Caps and Plugs	24
G.	Cleaning	24
H.	Proximity to Water Infrastructure	25
1.	General.....	25
2.	Parallel installation.....	25
3.	Crossings	25
4.	Special Conditions	25
5.	Force mains	26
6.	Sewer manholes.....	26
I.	Protection of Other Utilities and Structures.....	26
J.	Pre-Treatment Devices	27
K.	System Testing.....	27

1.	General.....	27
2.	Testing and Cleaning	27
3.	Temporary Bulkheads	27
4.	Infiltration Test.....	27
5.	Low-Pressure Air Test.....	28
6.	Manhole Leakage Tests	28
7.	Force Main Sewer Pipe Leakage Test.....	28
8.	Deflection Tests and Inspections	29
L.	General Construction	30
1.	Clearing & Grubbing.....	30
2.	Disposal	30
3.	Removal of Private or Public Facilities	30
M.	Construction Along Highways, Streets, and Roadways	30
1.	General.....	30
2.	Protection of Traffic	30
3.	Closures.....	30
4.	Maintaining Highways, Streets, Roadways, and Driveways.....	30
5.	Construction Operations.....	31
6.	Removing Pavement	31
7.	Marking and Cutting.....	31
8.	Stripping.....	31
9.	Excavated Material.....	31
10.	Pavers or Curb	31
11.	Machine Pulling.....	31
12.	Drainage Structures	31
N.	Earthwork	32
1.	General.....	32
2.	Trench Excavation	32
3.	General Excavation	32
4.	Materials	33
5.	Shoring and Bracing	33
6.	Dewatering.....	33
7.	Backfill	34
8.	Compaction Consolidation Requirements	34
9.	Crushed Stone Stabilization and Bedding	34
10.	Shaping.....	34

O.	Manhole Construction.....	35
1.	General.....	35
2.	Outside Drops	35
3.	Inside Drops	35
4.	Frames and Covers.....	35
5.	Steel Vent Pipes	36
P.	Concrete Construction.....	36
1.	Placing of Concrete	36
2.	Formwork.....	36
3.	Setting Forms	36
4.	Curing.....	37
5.	Removing Forms.....	37
6.	Finishing	37
7.	Testing.....	37
8.	Acceptance.....	37
9.	Blocking Installation	38
Q.	Bores, Tunnels, and Casings	38
1.	Bore Pits (or Tunnel Pits).....	38
2.	Sizing	38
3.	Installation	38
4.	Guaranteed Casing Installation	39
5.	Tunnels Using Steel Liner Plates.....	39
6.	Finish Work	41
R.	Blasting	41
S.	Erosion and Sediment Control.....	42
1.	General.....	42
2.	Temporary Erosion Control.....	42
3.	Construction in Streams and Impoundments	42
4.	Construction in Easements	43
5.	Limit of Progress.....	43
6.	Surface Stabilization – Permanent Ground Cover.....	43
7.	Right to Correct.....	43
T.	Restoration of Disturbed Areas	43
1.	General.....	43
2.	Stabilization.....	43
3.	Appurtenances	43

4.	Refuse Burial	43
5.	Rip-Rap	43
6.	Jute Netting/Erosion Blanket	44
U.	Restoration of Existing Paved Surfaces	44
1.	General.....	44
2.	Replacement	44
3.	Restoration.....	45
4.	Damage to Adjacent Pavement.....	45
V.	Record/As-Built Drawings.....	45
W.	Warranty.....	46
IV.	Sanitary Sewer Pump Stations.....	47
A.	Purpose.....	47
1.	General.....	47
2.	Objectives.....	47
3.	Requirements.....	47
B.	Design Requirements	47
1.	Applicable Regulations and Standards.....	47
2.	Design Engineer.....	48
3.	General.....	48
4.	Public Water.....	48
C.	Pre-Approval of Pump Station	48
D.	Pump Station Site	48
E.	Wet Well Capacity	49
1.	General.....	49
2.	Working Volume	49
3.	Storage Volume.....	50
4.	Top Slab.....	50
F.	Pump Station Control and Monitoring	50
G.	Hydrogen Sulfide and Odor Control	50
H.	Material Specifications	52
1.	Description	52
2.	System Description	52
3.	Performance Criteria.....	52
4.	Submittals	52
5.	Quality Assurance	54
6.	Manufacturer's Warranty	54

7.	Unitary Responsibility	55
8.	Pump Design	55
9.	Pump Construction	55
10.	Motor	56
11.	Impeller	56
12.	Electrical Control Components	56
13.	Auxiliary Power Transformer Controls and Accessories	58
I.	Low Pressure Sewer Systems (LPSS).....	68
1.	Location/Approval.....	68
2.	Design.....	68
3.	Materials and Installation for LPSS	69
J.	Installation and Approval Requirements.....	72
1.	Handling and Installation	72
2.	Testing.....	72
3.	Start-up	73

I. PURPOSE AND GENERAL INFORMATION

A. **PURPOSE & APPLICATION:** This document was created and assembled for use in planning, designing, and constructing sanitary sewer facilities which will be owned and operated by the City of Rock Hill. In addition to the information contained herein, rules and regulations set forth by the South Carolina Department of Health and Environmental Control (SCDHEC) and the US Environmental Protection Agency (EPA) apply to the permitting and construction of these facilities. This information applies to both existing and new facilities construction.

B. **SCOPE OF WORK:** All materials, labor, and equipment necessary for sewer construction and placing in operation sanitary sewer infrastructure and appurtenances within the City of Rock Hill sewer service territory or to be served by the City of Rock Hill shall be provided in accordance with the following specifications and City of Rock Hill Standard Details.

1. The work shall include all clearing, grubbing, trenching, shoring [in accordance with Occupational Safety & Health Administration (OSHA) regulations], dewatering, installing sanitary sewerage (i.e., foundations, manholes, piping and other appurtenances) shown and specified, backfilling and consolidating the backfill material, as well as other work as may be necessary to complete the work.

2. Construction Drawings shall be prepared under the direction of a Professional Engineer licensed to practice in the state of South Carolina.

3. The Contractor shall furnish all materials, equipment and labor required to construct the project as outlined in these specifications and Construction Drawings.

C. **ORDER OF WORK:** The Order of Work shall be determined by the Contractor, subject to approval by the City Engineer.

D. **MATERIAL INSPECTION:** All materials and workmanship shall be subject to inspection by the City Engineer or his or her designee and representatives of SCDHEC or SCDOT or any other entity having permitting authority over the project. Work and/or materials not conforming to these specifications or any applicable permit shall be corrected immediately. The Engineer shall have the right to label materials not meeting the specifications and/or the Contractor shall segregate said materials to distinguish them as such.

E. ORGANIZATION OF WORK AND NOTIFICATIONS

1. The Contractor shall so organize his work that backfilling of open trenches and or excavations and associated cleanup of the construction site shall closely follow pipe laying operations and manhole construction. The City Engineer or his designee shall have the authority to determine if the contractor is negligent in complying with this provision. The City shall have the authority to stop work if needed to bring the site into a respectable level of maintenance.

2. All planned road closures shall be reported to the following entities a minimum of 72 hours prior to closing any street.

a) The City of Rock Hill's Homeland Security Director's office at 803-326-3810; and

b) The York County Public Safety Communications office at 803-329-1110.

3. The Public Safety Communications office will notify the appropriate emergency services responders (i.e., EMS, Fire Department, etc.) of the planned road closure(s). Lane closures, where a minimum of one lane is left open to traffic, do not require notification to either office – City of Rock Hill’s Homeland Security Director’s office or York County’s Public Safety Communications office.

4. Traffic control, signage and barricades for road and lane closures and work inside the road rights-of-way shall be in accordance with applicable encroachment permits and the Federal Highway Administration’s (FHWA), Manual on Uniform Traffic Control Devices.

5. Failure on the part of the Contractor to comply with the above provisions in a reasonable manner, in the opinion of the Engineer, shall be sufficient cause for the Engineer to order a temporary shut-down of trenching and pipe laying operations until the provisions have been met.

6. Contractor shall notify each property owner affected by a planned interruption of existing services at least 72 hours prior to the loss of service. For emergency interruption of services, the Contractor shall notify the property owner as soon as practical.

F. **LEAD-FREE REQUIREMENTS:** Lead-free pipes, plumbing fittings/fixtures, and solder/flux shall contain less than 0.25 percent lead in accordance with the Reduction of Lead in Drinking Water Act (P.L. 111-380).

G. **SPECIFICATIONS:** Unless superseded or modified herein or in the Standard Details, all materials apparatus, supplies, methods of manufacture, or construction shall conform to the specifications contained herein and AWWA specifications. All materials/products that contact potable water must be third party certified as meeting the specifications of ANSI/NSF Standard 61. National standards (ASTM, ANSI, AWWA, etc.) referenced herein shall be considered to be the latest revisions only.

H. **ABBREVIATIONS**

1. A list for reference purposes is as follows:

AASHTO	American Association of State Highway and Transportation Officials
AC	Asbestos cement
ACI	American Concrete Institute
ASTM	American Society for Testing and Materials
ANSI	American National Standards Institute
ARV	Air release valve
AWS	American Welding Society
AWWA	American Water Works Association
BPD	Backflow Prevention Device
°C	Degrees Celsius
CIP	Cast iron pipe

DIP	Ductile iron pipe
EPA	US Environmental Protection Agency
°F	Degrees Fahrenheit
FHWA	Federal Highway Administration
FSE	Food Service Establishments
fps	Feet per second
gph	Gallons per hour
gpm	Gallons per minute
g/m ²	grams per square meter
GMP	Grease Management Program
ISO	International Organization for Standardization
LF	Linear feet
MJ	Mechanical joint
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
MUTCD	Manual on Uniform Traffic Control Devices
NFPA	National Fire Protection Association
NSF	National Sanitation Foundation
NST	National Standard Thread
OSHA	Occupational Safety and Health Administration
ppm	Parts per million
psi	Pounds per square inch
psig	Pounds per square inch – gauge
PVC	Polyvinyl Chloride
SC 811	South Carolina 811
SCDHEC	South Carolina Department of Health and Environmental Control
SCDOT	South Carolina Department of Transportation
SDR	Standard Dimension Ratio
SDWA	Safe Drinking Water Act
UL	Underwriters Laboratory
USDOT	United States Department of Transportation

II. MATERIAL SPECIFICATIONS

A. GENERAL

1. **QUALITY AND INSPECTION:** Latitudes in workmanship and finish allowed by ASTM notwithstanding, all pipe shall have smooth exterior and interior surfaces; be first quality, be free from cracks, blisters and other imperfections, and be true to theoretical shapes and forms throughout each length. Pipe that does not conform will be so marked by the Engineer, and shall not be used in the work. On-the-job repairing of rejected pipe will not be permitted.

A. DUCTILE IRON PIPE AND FITTINGS

1. **PIPE:** Ductile-iron pipe (mechanical properties) shall be centrifugally cast and shall be domestically manufactured in the United States. Push-on, and restrained joint pipe shall have a minimum rated working pressure of 150 psi in accordance to bury per AWWA. Pipe 16 inches in diameter or smaller shall be a minimum Pressure Class 350; pipe greater than 16 inches in diameter shall be as approved by the City Engineer. Pipe shall have mechanical or push-on joints as outlined in ANSI A21.11 with laying lengths of at least 18 feet.

a) Ductile iron pipe for gravity sewers shall meet the requirements of AWWA C150/ANSI A21.50 and AWWA C151/ANSI A21.51.

b) Ductile iron pipe for force mains shall meet ASTM A-377.

2. **QUALITY ASSURANCE:** Require submitted evidence that the ductile iron pipe and fitting manufacturer has a minimum of ten-years' experience in material production of diameters noted on the Construction Drawings and specifications. All ductile iron pipe shall be manufactured in the United States. All pipe material suppliers shall be ISO registered or provide the services of an independent inspection agency. Prior to the start of manufacturing, any manufacturer not meeting the ISO registration requirements shall submit to the owner and owner's engineer the names of an independent inspection agency for approval. The independent inspection agency shall be responsible for sample monitoring of chemical and mechanical test, sample visual inspection of quality assurance tests performed on in-process pipe and fittings, and a sample visual and dimensional inspection or finished product for this project. A certified inspection report from the independent inspection agency of all witnessed tests shall be supplied to the owner or owner's engineers within ten (10) days of completion of pipe manufacturing. Chemical samples shall be taken from each ladle of iron and the manufacturers' chemical control limits shall be maintained for at least the following elements: carbon, sulfur, phosphorus, silicon, magnesium, chromium, manganese, tin, aluminum, cerium, copper, and lead. When chemical values fall outside the manufacturer's control limits, additional mechanical property tests shall be performed to assure minimum mechanical properties are met.

3. **FITTINGS:** Fittings shall be cast from ductile iron and shall conform to AWWA C110 (ANSI A21.10) and/or AWWA C153. All fittings shall have standard mechanical joints or as shown. Mechanical joint fittings shall meet AWWA C111 (ANSI A21.11). Bolts and nuts for mechanical joint fittings shall be uncoated, high strength, low alloy steel meeting ASTM A242.

4. **JOINTS:** Flanges for pipe, fittings, and valves shall be furnished in accordance with AWWA C115 (ANSI 21.15) and shall be faced and drilled identical to Class 125 B16.1 flanges with full-face

rubber gaskets 1/8" thickness. Bolts and nuts for flanges shall be in accordance with ANSI/AWWA Standards for uncoated, high strength, low alloy steel meeting ASTM A242.

5. **MARKINGS AND WEIGHTS:** Markings and weights of pipe and fittings shall conform to the requirements of AWWA Specifications. -

6. **LININGS AND COATINGS:** Force main lining applications shall be at high points in the force main where air is expected to accumulate, at discharge points, and as indicated by the Engineer. Ductile iron pipe for use in wastewater applications (both gravity and pressure) shall contain one of the following linings in accordance with the manufacturer's recommended guidelines unless otherwise approved by the City Engineer.

a) Protecto 401 Ceramic Epoxy lining by Induron Coatings, Inc. of Birmingham, AL, or approved equal. Thickness:

(1) 40 mils (0.04-inches) nominal dry film thickness for interior of pipe and fittings

(2) 6 mils (0.006-inches) nominal, 10 mils (0.01-inches) maximum using Protecto 401 Joint Compound for the gasket area and spigot end up to 6 inches back from the end of the spigot end on the outside of the pipe.

b) Coal tar epoxy lined for gravity applications per AWWA C210.

c) Series 431 Perma-Shield PL, by Tnemec Company Inc., or approved equal, at a minimum dry-film thickness of 40 mils.

d) **ZINC COATING:** Zinc-coated ductile iron pipe conforming to ISO 8179 standards may be installed as an alternative in corrosive soils and other special conditions as approved by the City Engineer. The exterior zinc coating shall be factory-installed using a thermal arc spray process. The zinc layer shall have a mass of 200 grams per square meter (g/m²) of pipe surface area. A finish layer of bituminous coating shall be placed over the zinc in accordance with AWWA C104, and the pipe shall be marked with the word "zinc".

7. **CERTIFICATION:** The manufacturer of iron pipe and fittings shall be prepared to furnish both the City and the Contractor with certified reports stating that inspection and specified tests have been made and that the results thereof comply with the applicable ANSI Specifications.

8. **QUALITY AND INSPECTION:** Latitudes in workmanship and finish allowed by ASTM notwithstanding, all pipe shall have smooth exterior and interior surfaces; be first quality, be free from cracks, blisters, and other imperfections, and be true to theoretical shapes and forms throughout each length. Pipe that does not conform will be so marked by the Engineer, and shall not be used in the work. On-the-job repairing of rejected pipe will not be permitted

B. **PVC PIPE FOR GRAVITY SEWER APPLICATIONS**

1. **PIPE:** Polyvinyl Chloride (PVC) sewer pipe shall be bell and spigot pipe, shall be in lengths not exceeding 20 feet laying lengths, and shall have minimum wall thickness conforming to ASTM D3034 under the classification for SDR26 pipe.

- a) 2-inch to 4-inch: Sch. 40
- b) 8-inch to 15-inch: ASTM D3034
- c) 18-inch to 27-inch: ASTM F679

2. FITTINGS: PVC sewer pipe fittings for gravity systems shall be bell and spigot or bell and plain end and shall conform to the same cell classification requirements as defined above. Fittings shall be in accordance with ASTM F794, D3212, and/or D3034, as applicable with stiffness and wall thickness equal to or greater than the pipe. Adapters shall be provided to join different materials.

3. JOINTS: Joining shall be by rubber gaskets that conform in all respects to the physical requirements specified by ASTM F477 for low head applications. The lubricant used for assembly shall be as recommended by the manufacturer and shall have no detrimental effect on either the pipe or the rubber gasket.

4. MARKINGS: The pipe shall contain markings required by ASTM F794.

C. PLASTIC PIPE FOR (PRESSURE) FORCE MAIN APPLICATIONS

1. PIPE: All plastic pressure pipes (sizes 4" through 12") shall meet all requirements of AWWA Standard C900 and be made from green-pigmented virgin materials. Polyvinyl Chloride (PVC) sewer pipe shall be bell and spigot pipe, shall be in lengths not exceeding 20 feet laying lengths, and shall have minimum wall thickness conforming to SDR18 Class 150 dimensions. Pipe shall be NSF approved. Alternative plastic pipe (sizes 4"-12"), other than C900, shall meet all requirements of ASTM D1785 (Sch. 40) or ASTM D2241 (SDR26 Class 160 and SDR21 Class 200), but its use shall be subject to the approval of the City Engineer. All plastic pipes (sizes 16"-48") shall also meet all requirements of AWWA Standard C905, but its use shall be subject to the approval of the City Engineer. No new main shall be smaller than 4" diameter, unless designed for a low-pressure sewer system. Thermoplastic pipe shall not be used above grade.

2. FITTINGS: Fittings shall be in accordance with ASTM F794, D3212, and/or D3034, as applicable with stiffness and wall thickness equal to or greater than the pipe. Adapters shall be provided to join different materials.

3. JOINTS: Joints for PVC pipe shall be elastomeric-gasket type with a pressure rating not less than the pipe pressure rating meeting performance requirements of ASTM D3139. All PVC pipes shall have elastomeric joints with an integral belled, bell and spigot rubber gasketed joint. Each integral bell joint shall consist of a formed bell complete with a single rubber gasket. Gaskets shall conform to ASTM F477. Joints shall meet the requirements specified in ASTM D3212.

4. MARKINGS: The pipe shall contain markings required by ASTM D3034. All markings shall remain legible during normal handling, storage and installation, and will be applied in a manner that will not reduce the strength of or otherwise damage the pipe or coupling.

B. STEEL PIPE FOR AERIAL CROSSINGS

1. PIPE: High Strength steel pipe shall be welded or seamless, manufactured in accordance

with ASTM A53 for Welded Steel and Seamless Steel Pipe (1/8-inch to 26-inch inclusive) and/or ASTM A139 for Welded Straight-Seam Steel Pipe (4-inch to 92 inch inclusive).

a) All steel shall be Grade "B" only, with minimum yield strength of 35,000 psi. Thickness shall be 0.250-inch unless otherwise specified or shown on the Construction Drawings.

b) The pipe shall be produced in a single continuous length. Welding of two or more individual pieces together end to end shall not be permitted. Spiral-seam pipe shall not be permitted.

c) Pipe ends shall have tolerances within the limits required for approved couplings. Pipe shall also be furnished with plain right-angle ends with all burrs removed from the ends. Steel mechanical transition couplings shall be as follows:

(1) Steel Pipe to Steel Pipe:

(a) 30-inch and smaller pipe sizes shall have a center ring length of seven (7) inches.

(b) 36-inch and larger pipe sizes shall have a center ring length of ten (10) inches.

(c) Couplings shall be manufactured by Dresser Industries Style 38 Straight Coupling, or approved equal. Center ring, glands, bolts, and nuts shall receive one shop coat of primer.

(2) Steel Pipe to Ductile Iron Pipe:

(a) 8-inch and smaller pipe sizes shall have a center ring length of five (5) inches.

(b) 10-inch through 20-inch pipe sizes shall have a center ring length of seven (7) inches.

(c) 24-inch and larger pipe sizes shall have a center ring length of ten (10) inches.

(d) Couplings shall be as manufactured by Dresser Industries Style 62 Transition Coupling, or approved equal. Center ring, glands, bolts, and nuts shall receive one shop coat of primer.

(e) Couplings shall receive field applied protective coatings as specified for steel pipe.

2. LININGS: All steel pipe shall receive one (1) of the following shop applied linings on the inside of the pipe barrel:

a) Coal tar lining 3/32-inch minimum dry film thickness in accordance with AWWA 203.

b) Coal tar epoxy lining 24 mils minimum dry film thickness and shall be Carboline Koppers No. 300M, Amercoat No. 78, Carboline Carbomastic No. 14, or approved equal.

3. COATINGS: The outside of steel pipe and complete couplings shall receive one coat of Carboline Koppers 300M coal tar epoxy, 16 mils minimum dry film thickness or approved equal. The coal tar epoxy coat shall be shop applied to the pipe, and field applied to the couplings. Damage to exterior shop applied coatings shall be repaired with the same coating used by the manufacturer and applied as recommended by the manufacturer.

C. VITRIFIED CLAY PIPE (VCP): Vitrified clay pipe shall not be used in new wastewater system applications.

1. EXISTING VCP: If construction activities are conducted over top an existing VCP, then at a minimum that portion of existing VCP shall be replaced with ductile iron pipe. Replacement length shall be between the two closest adjacent manholes upstream and downstream of the impacted sewer, unless otherwise approved by the City Engineer.

D. SEWER LATERAL

1. PIPE: Sewer service piping shall be constructed of Schedule 40 PVC pipe in accordance with ASTM D2665 and ASTM D1785. Service piping shall be sized to accept flows from the structure being served, but in no case shall the size of the service be less than the following:

a) Residential service piping: Minimum 4-inch diameter piping

b) Commercial Service piping: Minimum 6-inch diameter piping

2. FITTINGS: Service branch connection for PVC pipe shall consist of a molded wye branch fitting with gasketed connections and shall be in accordance with ASTM D2466. Joining shall be through solvent cement in accordance with ASTM D2564. Sewer service lateral piping shall be installed perpendicular to the mainline when possible.

E. COUPLINGS AND SADDLES

1. COUPLINGS: Couplings used to join various types of 12-inch and smaller pipe shall be elastomeric PVC sleeve couplings with stainless steel compression bands and stainless steel shear rings as manufactured by Mission Clay Products, Fernco, Logan Clay Products or approved equal.

a) Couplings for 12-inch and smaller pipe may also be elastomeric PVC with internally molded rigid fiberglass insert and stainless steel bands as manufactured by DFW Plastics, or approved equal. The coupling shall provide a water and/or gas tight connection.

b) Couplings for 15-inch and larger pipe shall be submitted to the Engineer for approval.

c) Fernco couplings shall only be used on clay pipe or orangeburg pipe and when attaching to a different type material.

2. **SADDLES:** Saddles for lateral connections shall be ABS Plastic, PVC, elastomeric PVC, or approved equivalent. Saddles shall be connected to VCP using epoxy sealant. Saddles shall be Style "CB" Sewer Saddles by Romac Industries, or approved equal. The lateral shall be connected to the saddle with a compression gasket, solvent weld adapter, and/or stainless steel band, as applicable.

F. PRECAST CONCRETE MANHOLES

1. **GENERAL:** Manholes shall consist of precast reinforced concrete riser sections, top section and a base section manufactured in accordance with ASTM C478 and these specifications. Manholes are to be designed and constructed to withstand HS-20 vehicle live load ratings. Concrete shall have a minimum compressive strength of 4,000 psi when tested in accordance with ASTM C39. Steel reinforcement shall be as specified in ASTM C478, as amended to date. The wall thickness shall be designed for the approved depth of installation, but in no case shall the wall of all sections be less than five (5) inches.

2. **MANHOLE SIZES:** Manholes will be furnished with the following clear inside diameters according to the sewer main diameter, unless amended by the depth of invert, Construction Drawings or other project documents.

<u>Pipe Diameter</u>	<u>Manhole Diameter (min.)</u>
6" to 18" pipe	4'
21" to 24" pipe	5'
30" to 36" pipe	6'
48" to 54" pipe	7'
Larger than 54"	8' or as necessary to accommodate pipe

<u>Manhole Diameter</u>	<u>Invert Depth</u>
4' manhole minimum	Less than or equal to 20'
5' manhole minimum	Greater than 20'

3. **BASE SECTION:** Base sections for precast concrete manholes shall have a bottom poured monolithically with the walls. Base sections shall be furnished with inside diameters as required to accommodate the connecting piping. Base sections shall be furnished with a minimum height of 24 inches for pipes having a diameter of 12 inches or less, and a minimum height of 36 inches for pipes having a diameter greater than 12 inches. Minimum height for 5- or 6-foot diameter base sections shall be 48 inches regardless of pipe size. Base sections with 5- or 6-foot inside diameters shall be reduced to 4-foot inside diameter by means of an adapter ring or transition top. Base sections are to be design to resist buoyant forces to prevent the manhole from floating.

a) The openings in the base section for the accommodation of the pipe shall be cast into the base section and the pipe connection shall be facilitated by the use of a flexible watertight connector, conforming to ASTM C923 such as the Cast-A-Seal products manufactured by the Press-Seal Gasket Corporation and installed in accordance with the manufacturer's recommended installation guidelines.

b) Manholes shall be furnished with flexible water-tight boots for 15-inch and smaller pipe. The boots shall be cast in as integral parts of the base or installed in cored openings with stainless steel compression bands, and shall conform to ASTM C923. Manholes for 18-inch and larger pipe may be furnished with flexible boots, flexible seals, or concrete collars. The flexible seals shall be A-Lok or Contour Seal. Flexible connectors shall conform to ASTM C923. The concrete collars shall be according to the applicable Standard Detail.

4. RISER SECTIONS: The riser sections shall be furnished in a minimum of six inch (6") increments and shall match the base diameter. The gasket joint shall be thoroughly cleaned of all loose materials and brushed with an approved Epoxy to give a smooth surface free of any honeycomb.

5. CONE SECTION: The cone section for manholes shall be eccentric type with the vertical face installed over the manhole's effluent pipe. Cone sections can be eliminated and replaced with a flat top slab meeting SCDOT traffic ratings where elevations preclude the laying height of the cone section. Eccentric cones with bolt-down frame and cover shall have a minimum vertical height, as measured from the top of the cone to the bottom of the bell, of 32 inches. Eccentric cones without bolt-down frame and cover to be installed flush to finished grade may have a minimum vertical height of 24-inches. Transition cone sections may be provided for eccentric transition from a 60-inch riser to a 48-inch cone section to be placed directly beneath the 48-inch cone. The minimum access diameter of a manhole shall be 22-inches.

6. SLABS: Transition slabs may be placed a minimum of five (5) feet above the invert shelf for six (6) feet and larger diameter manholes where the slab will be buried. Flat top slabs may be used in six (6) feet and larger diameter manholes, unless the manhole is located within pavement or maintained lawn.

7. DOGHOUSE MANHOLE: Manholes to be placed over existing pipes shall be furnished with "doghouse" openings cast into the bottom section, allowing it to be set over the existing pipe. A concrete base and invert shall be poured around the bottom section, and the pipe according to the applicable Standard Detail.

8. JOINTS: Joints between manhole sections shall be manufactured in accordance with ASTM C443. Joints may be sealed with rubber gaskets in accordance with ASTM C443 or with butyl rubber sealants conforming to Federal specification SS-S-210A and AASHTO M198, Type B. An external mastic seal wrap shall be installed per the Standard Details and manufacturer's instructions.

9. DROP CONNECTIONS: Drop manholes are required where the invert differential is twenty-four inches (24") or more. Where drop connections are required, drop pipe shall not be smaller than 8-inches. Generally, drop pipe shall be one size smaller than the sewer that they serve. Openings in walls of precast concrete manholes for drop connections shall not be made at joints. Drop connection fittings and riser pipe shall be located on the outside of the manhole and encased in brick and mortar or formed Class "C" concrete. Drop connections for precast concrete manholes shall conform to the City's Standard Details. Slide inverts shall be installed on drop connections with drops less than two (2) feet. Drop connections shall be carefully backfilled to prevent dangerous side pressures. Interior drops shall only be installed where approved by the City Engineer.

10. INVERTS: Manhole inverts shall be carefully constructed with cement grout, Class "B" concrete, or cement mortar brickwork. Special care shall be taken to form the channel connecting the influent pipe invert(s) to the effluent pipe invert. Cement mortar shall be made of one (1) part cement

and two (2) parts clean sharp sand. Channels shall be properly formed, rounded, and troweled smooth to prevent turbulent flow through the manhole. Manhole inverts shall match the size of the associated influent and effluent pipes and have a smooth transformation between the two pipes on existing and proposed manholes.

11. **STEPS:** Manhole steps are to be copolymer polypropylene plastic covered 1/2 or 5/8 inch grade 60 reinforcing steel measuring a minimum of 11-3/8 inches in overall width and 9-1/16 inches overall depth and as manufactured by M.A. Industries, Inc. or equal. Steps are to resist a pullout force of over 1,500 pounds, and impact of up to 300 foot-pounds. Steps for precast concrete manholes shall be installed along a vertical centerline (centered over the effluent pipe), on approximately 14" to 16" centers.

12. **FRAMES AND COVERS:** Manhole frames and covers shall be secured to the manhole cone section and grouted in place to provide a waterproof seal. Frame and covers shall be as indicated in the Standard Details. Bolt-down watertight lids are to be used where it is anticipated that storm water runoff depth will exceed the rim elevation or on outfall lines located outside the road right-of-way. Manhole rim elevations shall be installed at an elevation two (s) foot above the anticipated 100-year flood water surface elevation, unless watertight covers are provided with approval of the City Engineer.

13. **BRICK:** Brick for manhole invert construction or grade adjustment shall be solid concrete brick. Brick for height adjustment shall not exceed 18 inches in height. Where manholes are installed in a street or other travel ways (i.e., driveways, parking lots, etc.), there shall be a minimum of two courses of brick used for adjusting the manhole rim elevation.

14. **ALTERATION TO MANHOLES:** In the event that a manhole has to be altered after delivery to job site, the Contractor may, with permission of the City Engineer, connect the pipe to the manhole with a Kor-n-seal slotted band style connector manufactured by Trelleborg Pipe Seals Milford, Inc., Kwik Seal Manhole Connector manufactured by the Press-Seal Gasket Corporation, or equal. Any remaining gaps between the pipe and manhole shall be filled with a non-shrink grout installed from the inside of the manhole.

15. **FIELD ADJUSTMENTS:** All final grade adjustment of manhole covers and frame assemblies shall be completed utilizing brick or concrete adjustment rings. The maximum height for field adjustment is 18"-24".

16. **REPAIRED AND PATCHED SECTIONS:** Repaired and patched sections will not be acceptable unless each individual section to be repaired or patched shall have first been inspected and approved by the Engineer. Repairs to and patching of "O"-ring grooves and shoulders will not be permitted.

17. **TESTING:** Absorption shall not exceed 9 percent when determined in accordance with ASTM C497, as required by the City Engineer.

18. **MARKINGS:** An inspection, by an independent testing laboratory approved by the Engineer, of the manufacturer's plant and product will be required to assure conformity of the precast manholes to these Specifications, and the minimum requirements of ASTM C478, as amended to date. Each section of precast concrete manhole shall clearly indicate the laboratory's configuration that it was accepted in accordance with applicable ASTM Specifications. Job site inspection shall be visual for shape, uniformity, and density.

19. LININGS: Manholes shall be lined in accordance with the following.

a) Conditions: Manholes meeting any of the following conditions, unless otherwise approved by the City Engineer, shall be lined:

- (1) Manholes receiving discharge from force main piping and adjacent manholes as directed by the City Engineer
- (2) Manholes located within FEMA 100-year flood plain
- (3) Manholes located within flood-prone areas as determined by the Rock Hill Stormwater Master Plan
- (4) Areas indicated by the design engineer

b) Installation: Installation of the linings shall be one of the following applications on clean surfaces in accordance to the manufacturer's instructions. For new manholes, lining shall be applied after all repairs have been made and manhole has been successfully vacuum tested. Additional surface preparation, cleaning or other work may be required as directed by the Engineer.

- (1) Manholes shall be lined with Spraywall urethane liner by Sprayroq Inc. or approved equal at a minimum dry-film thickness of 125 mils for the first 9 vertical feet of manhole depth and at 250 mils for manhole depths greater than 9 vertical feet.
- (2) Manholes shall be lined with Ultra-High Build Epoxy Coating System Raven 405 by Raven Lining Systems, or approved equal, at a minimum dry-film thickness of 125 mils.

G. APPURTENANCES

1. AIR RELEASE AND AIR VACUUM RELIEF VALVES – Combination air relief valves (ARV) shall be provided in accordance with sound engineering practice at high points in force mains. Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur. ARVs shall be furnished and installed as shown on approved Construction Drawings and as specified herein. The combination ARV shall have a cast iron body, and internal parts shall be stainless steel. The combination ARV shall be in accordance with the Standard Details.

a) ARV PIPING - The open end of an air relief pipe from an automatic valve or from a manually operated valve shall be extended to the top of the pit and provided with a screened downward facing elbow.

b) FORCE MAIN ALIGNMENT - The route of the force main shall be such that the number of air release and air vacuum valves is minimized.

H. CONCRETE WORK

1. GENERAL: Concrete of the respective classes for manhole bottoms, bedding, blocking, headwalls, piers and other miscellaneous structures shall be as called for in the work to which they pertain.
2. CEMENT: Cement shall satisfy the requirements of ASTM C150, Type I or Type II.
3. AGGREGATE: Aggregate shall satisfy the requirements of ASTM C33.
 - a) Course Aggregate: Course aggregate shall be uniformly and evenly graded for each application in accordance with ACI Standard 318. Unless otherwise approved, aggregates shall be sound, crushed, angular granitic stone. Smooth or rounded stone (river rock) shall not be acceptable.
 - c) Fine Aggregate: Fine aggregate shall consist of natural sand, manufactured sand or a combination thereof and shall be graded to meet the requirements of SCDOT size number FA-10 and 67, as appropriate.
4. WATER: Water shall be fresh, clean and free from injurious amounts of oil, acid, alkali, and organic materials.
5. MIXING: Mixing shall be accomplished at a central mix plant unless prior approval is given by the Engineer for mixing on the job site.
6. CENTRAL MIX PLANT: Concrete supplied from a central mix plant shall have 28-day compressive strengths not less than those listed below.
 - a) Class "A" 3,000 psi
 - b) Class "B" 2,200 psi
 - c) Class "C" 1,500 psi
7. JOB SITE MIX: Concrete mixed on the job site shall have 28-day compressive strengths as above and shall contain not less than the following quantities of cement per cubic yard.
 - a) Class "A" 564 lbs. (6 bags)
 - b) Class "B" 470 lbs. (5 bags)
 - c) Class "C" 376 lbs. (4 bags)
8. GROUTS: All grouts shall be of a non-shrink nature (as may be achieved through additives or proportioning) and depending upon application, range from plastic to flowable cement water paste. Testing as specified above for concrete may be required for acceptance of grouts to include frequent checks for consistency by a time-of-flow measurement.
 - a) Expansion grouts shall be either Gilco premixed or Supreme non-metallic grout as manufactured by Gifford-Hill and Company, Inc., Embeco 636 grout as manufactured by Master Builders, or approved equal.

b) Grouts shall be mixed (if applicable) and placed in accordance with the manufacturer's recommendations, for each specific application.

9. **MORTAR:** Mortar used in sanitary sewer manholes shall be hydraulic cement mortar in accordance with ASTM C398.

10. **FLOWABLE FILL:** Flowable fill shall be controlled, self-leveling, non-shrink, low-strength material consisting of a fluid mixture of cement, aggregate, water and with admixtures as necessary to provide workable properties. Placement of flowable fill may be by grouting techniques in pipelines or other restricted areas, or as mass placement by chutes or tremie methods in unrestricted locations with open access. Long-term hardened strength shall be between 75 psi and 150 psi at 56 days as determined based on an average of three tests for the same placement.

a) Fly ash shall not be used in flowable fill adjacent to ductile iron pipe and fittings. Protect pipe and fittings by covering with polyethylene.

11. **CONCRETE CYLINDERS:** Concrete cylinders for testing purposes shall be made in accordance with the procedure described in ASTM C31. Compression tests shall be made at the age of 7 days and 28 days by the testing laboratory as per ASTM C39. Testing shall be done by a laboratory approved by the Engineer. Each test shall consist of at least four (4) specimens; two (2) for field control and two (2) for laboratory control. One (1) initial test will be required and then one (1) test for each one hundred (100) yards thereafter.

I. MISCELLANEOUS STEEL

1. **STEEL PIER MATERIAL:** Steel piles, cross braces, cradles, etc., shall consist of structural steel shapes of the section required in the Construction Drawings. The steel shall conform to specifications for ASTM A36 – Carbon Structural Steel.

a) All bolts and nuts shall conform to ASTM A325 for 7/8-inch and ASTM A490 for 1-inch and larger.

b) The Contractor shall handle and store steel members above ground on platforms, skids or other supports. Members shall be free of dirt, grease, and other foreign material and protected against corrosion.

c) Coal tar epoxy coating Carboline Koppers No. 300M, Amercoat No. 78, Carboline Carbomastic No. 14, or approved equal shall be applied to all specified surfaces of the steel pier.

d) Welding Electrodes shall conform to the following:

(1) Shielded Metal-arc: AWS A5.1 or AWS 5.5, E70XX

(2) Submerged-arc: AWS A5.17, F70X-EXXX

(3) Gas Metal-arc: AWS A5.18, E70S-X or E70U-1

(4) Flux Cored-arc: AWS A5.20, E70T-X (except 2 and 3)

2. STEEL ENCASEMENT PIPE: Steel pipe shall be welded or seamless, smooth wall or spiral weld, consisting of Grade "B" steel as specified in ASTM A139. Encasement pipe must be approved by the appropriate controlling agency (i.e. SCDOT, railway corporation, etc.) and the City Engineer prior to ordering.

a) Minimum yield strength shall be 35,000 psi; and pipe thickness shall be as specified for each individual job.

b) All pipe shall be furnished with beveled ends prepared for field welding of circumferential joints. All burrs at pipe ends shall be removed.

3. STRUCTURAL STEEL TUNNEL LINER PLATES: The tunnel liner plates shall be either the four (4) flanged type (as approved for use within SCDOT rights-of-way) or the lap seam type (as approved for use within railroad rights-of-way) fabricated to permit assembly of a continuous steel support system as the tunnel is excavated. Tunnel liner plates shall be fabricated from hot rolled, carbon steel sheets or plates conforming to the specifications of ASTM A569 and must be approved by the appropriate controlling agency (i.e. SCDOT, railway corporation, etc.) and the City Engineer prior to ordering.

a) The tunnel liner shall be designed in accordance with the requirements of Division I, Section 15 and constructed to conform to Division II, Section 25 of the AASHTO Standard Specifications for Highways and Bridges.

b) Liner plates shall be galvanized in accordance with AASHTO M167 and fully bituminously coated in accordance with AASHTO M190. All hardware necessary to the tunneling operation shall be hot-dip galvanized in accordance with ASTM A153 prior to the bituminous coating application. Hardware shall conform to ASTM A307, Grade A.

c) The mechanical properties of the flat steel plate before cold forming used for the design of the tunnel liner shall be:

(1) Minimum tensile strength: 42,000 psi

(2) Minimum yield strength: 28,000 psi

(3) Elongation, 2-inches: 30 percent

d) The moment of inertia shall be 0.042 inches to the 4th power per inch of width for four flange 12 gauge liner plate.

4. STEEL FOR REINFORCING FOR CONCRETE

d) BARS: All reinforcement bars shall conform to ASTM A615. All bars shall be deformed and of structural grade 60. All splices shall be lapped 24 diameters unless otherwise noted.

e) WIRE: All reinforcement wire fabric shall conform to ASTM A185.

5. **STEEL VENT PIPE:** Unless otherwise specified, steel vent pipes shall be Schedule 40 five (5) inch diameter steel pipe, consisting of Grade "B" steel as specified in ASTM A139, with a minimum yield strength of 35,000 psi.

a) The steel pipe shall have an inside coal tar lining 3/32 inch minimum thickness in accordance with AWWA C203 or a coal tar epoxy lining conforming to that required for steel (aerial creek crossing) pipe.

b) Outside surface of pipe shall be sand or grit blasted to commercial standard and have one (1) coat of zinc chromate primer applied in accordance with Federal Specification TT-86A.

c) Pipe shall be furnished with two (2) evenly applied coats of rust inhibiting enamel paint, either Koppers Glamortex No. 501 Enamel (olive Green), Southern Coatings and Chemical Company Rustaloy No. 0537 Enamel (Garden Green), or approved equal.

6. **STEEL STRAPS AND ANCHORS:** Where stainless steel is identified in the Standard Details, pipes, bolts/anchors and/or straps shall conform to the requirements of ASTM A276. All other steel pipe and/or pier straps shall conform to the requirements of ASTM A36, with minimum yield strength of 36,000 psi.

a) Finished straps and anchors of carbon steel shall be galvanized in accordance with ASTM A153. The entire strap and all exposed surfaces of anchors and/or bolts (and nuts) shall be fully bituminously coated in accordance with AASHTO M190. Anchor bolts (non-head) shall conform to ASTM A36 with tension test to be made (as required on the bolt body or on the bar stock used for making the anchor bolts. Unless otherwise specified all other fasteners shall conform to ASTM A307 for carbon steel externally and internally threaded standard fasteners Grade A or B.

J. **STONE AND BRICK**

1. **BRICK:** All brick used to construct manhole inverts or adjust frames shall be made from concrete, shall be solid only and shall be of standard building size. All brick shall meet or exceed the compressive strength and water absorption properties as specified in ASTM C139. All manholes placed within the limits of roadway pavement and sidewalk shall use the minimum course of adjusting brick as indicated in the Standard Details.

2. **GRANULAR BEDDING MATERIAL:** All bedding material shall be angular, clean washed crushed stone graded in accordance with Size #67 in ASTM D448 for "Standard Sizes of Course Aggregate", or SCDOT Standard Size #67. Bedding material will be used only as instructed in the specifications and/or as specifically directed by the Engineer and be spaded around the pipe on both sides.

3. **RIP RAP:** All rip rap shall consist of clean, field stone or rough unhewn quarry stone, resistant to the action of air and water, varying in weight from 25 to 250 pounds with 60% weighing a minimum of 100 pounds each and no more than 5% weighing less than 50 pounds each (SCDOT Class 2 Rip Rap). Rip rap will be placed from a minimum of 4.0 feet below the toe of the bank to top of the bank in areas determined by field conditions. Rip rap thickness shall be 1-1/2 times the diameter of the largest stones used, or as directed by the Construction Drawings.

4. **SILT CHECK DAM MATERIAL:** Material shall be coarse angular, clean washed, crushed stone, gravel or rock, well-graded, and ranging in size from 2-inches to 6-inches, or SCDOT stone for erosion control, Class A.

5. **STONE STABILIZATION MATERIAL:** All stone stabilization material shall be angular, clean washed crushed stone graded in accordance with standard sizes #67 in ASTM D448 or SCDOT Standard Size #67. Stabilization material will be used only as instructed in the specifications and/or as specifically directed by the Engineer.

K. FERROUS CASTINGS

1. **SPECIAL CASTINGS:** All cast iron pipe fittings and special castings shall be furnished in weight, classes, and/or special thickness as specified elsewhere. The castings shall conform to ASTM A126 and shall be manufactured in domestic foundries. Coatings and linings, if applicable, shall be the same as specified for Ductile Iron Pipe.

2. **FRAMES, COVERS AND GRATES:** All manhole frames and covers shall conform to ASTM A48, Class 30 and shall conform to the Standard Details. Manufactured by domestic foundries preferred, but not required.

a) Manhole frames and covers shall be furnished with the common contract surfaces between frame and cover machines.

b) Where watertight frames and covers are specified, the water tight seal between frame and cover shall be accomplished by means of rubber gasket.

L. DEFECTIVE MATERIALS AND WORKMANSHIP: Any cracked or broken material, such as pipe, fittings, valves or hydrants, shall be removed and replaced with sound pieces, at the expense of the Contractor. Joints that leak shall be carefully remade. Remade joints and replaced material shall be retested under the same conditions of operation. If joints or materials are then found to be defective, they shall be remade and replaced until the line passes the required test.

III. CONSTRUCTION SPECIFICATIONS

A. ABANDONMENT

1. **GENERAL:** The following requirements shall apply for proposed abandonment of existing facilities, unless otherwise shown on the Construction Drawings or approved by the Engineer. All areas disturbed by abandonment shall be restored by the Contractor.
2. **PIPE:** Piping to be abandoned-in-place shall be cut and plugged on the ends and completely filled with flowable fill as indicated on the Construction Drawings. If existing pipe to be abandoned is less than 8 inches in diameter and has less than 5-feet of cover, then the pipe shall be removed and the trench backfilled with suitable material, unless otherwise approved by the City Engineer.
3. **APPURTENANCES:** Valves, meters, services, and other sewer main appurtenances to be abandoned shall be removed and the excavations backfilled with suitable material.
4. **MANHOLES:** Existing manholes which are to be abandoned will first have both influent and effluent lines plugged inside the manhole with watertight masonry. Weeps holes will be drilled into the base of the manhole, and the manhole will then be filled with non-compressible material (#67 stone or as approved) to a point three feet below the finished grade. The remainder of the manhole shall be broken down and removed. Then the excavation shall be filled to finished grade with suitable soil compacted in place.
5. **MAINS AT MANHOLE WHICH REMAIN IN SERVICE:** Abandoned mains at active manholes shall be completely disconnected from the manhole by cutting the pipe outside the manhole and then plugging the abandoned main and the manhole wall with watertight masonry. The invert shall then be rebuilt to conform to the Standard Details.
6. **EXPOSED PIPE:** Exposed sections of abandoned mains shall be removed to a point not less than 5-feet into the adjacent banks. The remaining ends of the pipe shall be plugged with watertight masonry. Concrete piers or collars in the creek channel shall be removed completely. Concrete piers or collars not located in the creek channel shall be removed to a point 3-feet below the finished grade. Steel piers shall be cut off 3-feet below finished grade.
7. **BACKGROUTING:** Backgrouting is a secondary stage pressure grouting to ensure that voids have been filled within abandoned pipes. Backgrouting will only be required at critical locations indicated on the Construction Drawings or if there is evidence of incomplete flowable fill placements.
8. **PUMP STATIONS:** For abandonment of existing pump stations, pumps, motors, controls, etc., shall be salvaged and transported by the Contractor to an area designated by the City Engineer or representative, unless otherwise directed. All influent and effluent pipes shall be plugged with watertight masonry. The pipe chamber and wetwell (if abandoned) will have holes drilled in the bottom, be filled with non-compressible material (#67 stone or as approved) to a point 3-feet below the finished grade. The remainder of the structure shall be broken down and removed. Then the excavation shall be filled to the finished grade with suitable soil compacted in place. All aboveground structures associated with the pump station, including fencing and the access road shall be removed and the area restored.

B. HANDLING AND STORAGE OF MATERIALS

1. **GENERAL:** The Contractor shall be responsible for the safe storage of materials furnished by or to him, and accepted by him, and intended for the Work, until they have been incorporated into the completed project. The interior of all pipe, manholes and other accessories shall be kept free from dirt and foreign materials at all times.
2. **TRANSPORTATION OF MATERIALS AND EQUIPMENT:** All materials furnished by the Contractor shall be delivered and distributed at the site by the Contractor or his material supplier. The Contractor and his Supplier are directed to contact the SCDOT to verify axle load limits on State-maintained roads (and bridges) which would be used for hauling of equipment and materials for the Project. The Contractor and his Suppliers shall do all that is necessary to satisfy the SCDOT requirements and will be responsible for any damage to said roads which may be attributed to this project.
3. **HANDLING:** Proper and suitable tools and equipment shall be used for the safe and convenient handling and laying of pipe. Pipe, fittings and other materials shall be carefully handled so as to prevent breakage and as to prevent damage to the interior lining and coatings on the pipe and fittings. Pipe shall not be unloaded by rolling or dropping off of trucks or cars, but shall be handled by carefully lifting and lowering into position, using approved slings or clamps which shall be provided by the Contractor or material manufacturer for the purpose. Pipes and fittings shall be carefully examined for cracks, broken lining and other defects. No pipe or fitting shall be laid which is known to be defective. If any pipe or fitting is discovered to be cracked, broken or defective after being laid, it shall be removed and replaced with sound material at the expense of the Contractor. If any part of the coating or lining is damaged; the repair shall be made by the Contractor at his expense in a manner satisfactory to the Engineer. All pipe and fittings shall be thoroughly cleaned before being laid and shall be kept clean until accepted as completed work.
4. **LOADING AND UNLOADING:** Personnel and equipment for unloading, transporting, distributing and storing materials shall be furnished by the Contractor. The contractor is responsible for the coordination of material deliveries and for providing appropriate staging and or lay-down areas. Ductile iron pipe and cast iron accessories shall be loaded and unloaded by lifting with hoists or skidding so as to avoid shock or damage. Concrete pipe, and precast manholes shall be loaded and unloaded with hoists and/or as recommended by the respective manufacturers. Under no circumstances shall such materials be dropped. Pipe handled on skidways shall not be skidded or rolled against pipe already on the ground.
5. **DISTRIBUTING:** Materials shall be distributed and placed so as to least interfere with traffic and not impair sight distances. The Contractor shall furnish and maintain proper warning signs and lights for the protection of traffic along highways, streets and roadways upon which material is distributed. No distributed materials shall be placed in drainage ditches.
 - a) In distributing the material at the site of the Work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench.
 - b) Contractor will string in advance no more than the amount of pipe and material that can be installed within four (4) weeks or less, as approved by the Engineer. All materials shall be placed in such a manner as not to hinder access, endanger or impede traffic or intersection sight distances, or create a public nuisance. Materials strung through residential areas (or

any area with maintained lawns) shall be placed in such a manner as not to restrict normal maintenance of established lawns, and must either be installed within two (2) weeks or removed to an approved storage yard, as required by the Engineer.

6. STORAGE: All pipe, fittings and other materials that cannot be distributed along the route of the work shall be stored for subsequent use when needed. The Contractor shall make his own arrangements for the use of storage areas. Unless prior written consent from the owner of the proposed storage area is received by the City Engineer, the Contractor will be required to store all equipment and materials within the limits of the right-of-way, permanent easement, and temporary construction easement provided. The materials and equipment storage shall comply with all local and state ordinances throughout the construction period. Material and equipment may only be stored within road rights-of-way if approved by the controlling agency. PVC pipe shall not be exposed to direct sunlight for inordinate periods of time.

C. SEWER SYSTEM INSTALLATION: The Contractor shall assemble, joint and lay all ductile iron and plastic pipe and fittings in accordance with the following:

1. GENERAL: Installation of all sewer lines and appurtenances shall be conducted in accordance with the requirements of AWWA Section C and/or manufacturer's recommended installation procedures.

a) PIPE shall be laid in a workmanlike manner, true to line and grade, with bell ends facing up-grade in the direction of laying with a uniform slope between manholes. There shall be no joints in the piping located closer than 10 feet from the exterior wall of the manhole structure. All sewer lines shall be installed in a manner that they intersect at manholes with angles of 90-degrees or greater (measured in plan view) between the in-coming pipe and the discharge pipe. Any sanitary sewer with less than 4 feet of cover to finished grade shall be ductile iron with a minimum cover of three feet. Additionally, any sewer laid with 10 feet to 18 feet of cover shall be ductile iron. No sewer line shall be installed with more than 18 feet of cover. All pipe laid outside the road right-of-way shall be ductile iron. Pipe laid within the roadway may be PVC.

b) TRANSITIONS between DI Pipe and PVC Pipe are allowed in some cases. However, no DI-PVC transitions shall be made within 10-feet of a manhole. DI-PVC transitions must be approved by City Engineer.

c) SANITARY SEWER GRADES shall not exceed 8% and waste velocities in the pipe shall not be designed to exceed 10 feet per second without written approval by the City Engineer. Standard 4-foot diameter manholes with a typical slide invert may be used for differences in grade of 2 feet and less. For elevation differences greater than 2 feet, an outside piping drop must be utilized. Inside piping drops shall only be allowed for tying into existing manholes, and they shall be approved by the City Engineer.

d) OVERNIGHT COVER: During construction all manhole openings shall be covered at the end of each day. For sidewalls, use wing-nut type plugs to secure openings. Trenches shall be covered or backfilled at the end of each working day.

e) CONTAMINATED AREAS: All sewer piping shall be located outside contaminated areas. Re-route line if possible. If the piping must run through a contaminated site, the

pipng material must protect the system from being contaminated (e.g. Ductile Iron Pipe with chemical resistant gaskets).

f) EASEMENTS/RIGHTS-Of-Way: Pipe shall be installed in dedicated easements or public rights-of-way. The minimum easement width for sewer main shall be 30 feet; however, this may be increased to accommodate large-diameter pipe or burial greater than standard depth. See City Standard Details for additional information.

g) UTILITY CROSSINGS: All crossings with other utilities shall be made with ductile iron pipe.

2. LOCATION AND GRADE: The horizontal alignment and grade of the sewer piping and the location of manholes and other structures and or appurtenances shall be determined by the Engineer. The location shall be in agreement with approved Construction Drawings. The grade line shown and specified relates to the invert of the pipe to be installed. Any substantial deviation shall be subject to approval by the City Engineer.

a) Alignment/lines, levels and grades shall be determined by the Engineer/Surveyor, but the Contractor shall be responsible for accurately transferring such alignment/lines and grades to the work. This work by the Contractor shall be subject to frequent checks by the Engineer and City personnel.

b) Each section of sewer pipe shall be laid to the appropriate line and grade, as designed and approved beginning at the downstream end and working in the upstream direction with the bell end laid upgrade. Non-conformance with this provision must be approved by the City Engineer.

c) Any sanitary sewer with less than 4' of cover to finished grade shall be constructed of ductile iron pipe, but shall have a minimum cover of three feet (3'). Additionally, any sewer laid with at least 12 feet of cover shall be ductile iron. No sewer piping shall be installed with less than 3 feet or more than 18 feet of cover unless approved by the City Engineer.

d) When the sewer line is constructed in the road right-of-way, it shall be in conformance with the City of Rock Hill Utility Location Plan and applicable encroachment permits. All pipe laid outside the road right-of-way shall be ductile iron. In some cases depending on soil types and the presence of other utilities with cathodic protection, 16 mil polyethylene pipe wrap, or PVC pipe may be required for use. Sewer lines crossing or within 10 feet of utilities with cathodic protection shall be designed to protect the sewer line and shall be approved by the City Engineer.

3. PLACEMENT: All pipe, fittings, valves, manholes, and appurtenances shall be carefully lowered into the trench piece by piece by means of a backhoe or other suitable means, in such a manner as to prevent damage to protective coatings and linings. Under no circumstance shall materials be dropped or dumped into the trench.

a) DUCTILE IRON PIPE: Ductile iron piping shall be installed in accordance with ANSI/AWWA C600 – Installation of Ductile Iron Water Mains and their Appurtenances.

b) PVC GRAVITY PIPE: PVC gravity sewer shall be installed in accordance with ASTM

D2321 – Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and other Gravity-flow Applications.

c) PVC FORCE MAIN (PRESSURE) INSTALLATION: PVC force mains shall be installed in accordance with ASTM D2774 – Standard Practice for Underground Installation of Thermoplastic Pressure Piping.

d) FORCE MAIN INSTALLATION: Design and construction of force mains shall be such that they satisfy a leakage test in accordance with specifications herein. Thrust blocking or mechanical restraints shall be provided at all changes in alignment greater than or equal to 11 ¼ - degrees. Automatic air relief valves shall be placed at high points in the force main sewer to prevent air locking. Blocking and/or restraints must be placed as shown on the Construction Drawings and/or as directed by the Engineer. Blocking shall consist of ready mix concrete having a compressive strength of not less than 3,000 psi.

4. DETECTION OF MAINS: All force mains shall be detectable within three (3) feet with electronic locating equipment. Non-metallic pipe shall be installed with solid, UL-approved 14-gage (min) copper tracer wire running along the centerline of the pipe or other means of detection. Warning tape shall be placed 1-foot over top of force main piping.

5. CUTTING PIPE: Whenever pipe or special castings are required to be cut, the cutting shall be done by skilled workmen, using an abrasive wheel cutter. Pipe that is cut in the field must be ground and beveled prior to assembly.

a) DUCTILE IRON: Use of oxyacetylene torch will not be permitted. The plain end shall be beveled, any sharp edges that might damage the gasket shall be removed by means of a file or power grinder.

b) PVC PIPE: The plain end shall be beveled, any sharp edges that might damage the gasket shall be removed by means of a file or power grinder.

5. CREEK CROSSINGS: Creek crossings and other applications may require a specialized section of pipe (e.g., long-span steel pipe with specialized joint restraint). Each such crossing shall be addressed on a case-by-case basis and approved by the City Engineer

a) ABOVE GRADE CROSSINGS: For pipe crossing above creeks, streams and other bodies of water, pipe shall be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement.

b) BELOW GRADE CROSSINGS: For pipe crossing under creeks, streams and other bodies of water, a minimum of two (2) feet of cover shall be provided over the pipe unless approved by City Engineer. If cover is less than two (2) feet, then carrier pipe shall be placed inside steel casing pipe. When crossing water courses that are greater than fifteen feet (15') in width, the pipe and material shall be designed appropriately, manholes shall be located on both sides of crossing to isolate for testing and repair that are easily accessible and not subject to flooding, and ductile iron pipe with mechanical joints shall be used for any lines being installed in rock.

c) WATER STOP: Install water stop per the Standard Details at the downstream

edge of wetland areas, creek crossings, and other bodies of water crossed by a sanitary sewer.

D. SEWER SERVICE INSTALLATION

1. GENERAL: All laterals except those serving lots adjacent to in-line manholes or upstream from dead-end manholes in cul-de-sacs shall be connected to the sewer main. Service line piping shall be laid with a minimum slope of 1/8-inch per foot for 6-inch diameter service piping and ¼-inch per foot for 4-inch diameter service piping. No service connections shall be located in the sewer piping closer than 10 feet from the exterior wall of the manhole structure (Refer to paragraph C.1.a. Sewer service piping shall extend to and be stubbed out at the applicable right-of-way, easement, or property line (or as otherwise directed or approved by the City Engineer) using a wye fitted with a plug and cleanout. An "S" shall be cut in the curb at the location where the lateral crosses under the curb.

2. SERVICE LATERAL ELEVATION CHANGES: In locations where the sanitary sewer main is at such a depth that a service lateral riser pipe is required to place the service piping at an appropriate elevation, service line piping shall be installed by benching the service line trench floor and installing riser in a vertical position against undisturbed earth. A cleanout shall be installed at all vertical riser locations, and bends shall be used to connect the riser to the house service lines.

E. CONNECTIONS

1. CONNECTIONS TO SERVICES
 - a) SERVICE LATERALS: The wye fitting connecting the service piping to the main shall be rotated so that the service line branch inclines upward at approximately 45 degrees above a horizontal line normal to main line piping. Service lines shall be laid on a straight line and grade from the service wye fitting to the applicable right-of-way, easement or property line (or as otherwise approved by the City Engineer). The service line piping must be located at a depth to receive wastewater from the lowest floor of the structure to be serviced, but in no event shall the service line piping invert be less than three and one-half feet (3-1/2 feet) below grade at the applicable right-of-way, easement or property line. All service piping is to be equipped with cleanouts.

 - b) CONNECTIONS TO EXISTING MANHOLES: At locations where new sewer piping is to be connected to existing manholes, the Contractor may temporarily block and/or divert wastewater flows to facilitate construction operations. The connection work shall consist of making the opening in the manhole wall, inserting the new pipe to the elevation shown, filling the space in the wall around the pipe with non-shrink grout, and constructing and remodeling manhole inverts. High-early strength cement shall be used for mortar in order that proper channels may be formed in manhole bottoms with a minimum interruption of service to the existing sewer. Any connection made to an existing sewer system shall be plugged until the City Engineer has authorized removal of plug so as to prevent inflow problems.

2. CONNECTIONS TO EXISTING SEWERS: At locations where new sewers are shown to be connected to existing sewers at a new manhole, the Contractor shall first expose the existing sewer and install a supporting timber beam with suitable straps around the pipe so as to bridge the excavation for the new manhole. The manhole shall then be constructed complete with invert and frame and cover. Under special conditions the Contractor may temporarily block and/or divert sewage

flows to facilitate construction operations. Actual physical connection of the sewers will be made at a later date, as directed.

a) If bypass pumping is required, an identical standby pump shall be onsite in the event of failure of the primary pump. If at any time during construction, effluent from the existing sewer is not fully contained by the bypass system, gravity service will be restored by a temporary tie to the new construction and work shall be suspended until the problem is resolved to the satisfaction of the Engineer. Quiet pumps (below 70 dBA at 30 feet) shall be used between the hours of 8 pm and 6 am. The Contractor shall be responsible for any fines levied as a result of failure of bypass pumping system. The Contractor will be required to verify his method of handling sewer flows during construction by pumping at peak flows for 1 hour as approved by the Engineer. Bypass system shall be supervised 24 hours a day, 7 days a week or a float and monitor system installed for the duration of the bypass pumping event.

b) All services 6-inches and greater for hotels and restaurants shall tie directly to a manhole.

F. CLEANOUTS

1. **GENERAL:** Cleanout piping shall be constructed of Schedule 40 PVC pipe and be equipped with a threaded cap to facilitate access.

a) **SPACING AND LOCATION:** All sanitary sewer services are to have a cleanout installed at the applicable right-of-way, easement or property, or as otherwise approved by the City Engineer. Cleanouts along the service line piping shall be spaced in accordance with Section 708 of the current edition of the International Plumbing Code, but in no case more than 100 feet apart for the portion of the service piping to be maintained by the City.

b) **CONSTRUCTION:** A cleanout stack constructed of minimum 4-inch diameter piping shall be extended vertically from the wye and terminate with a threaded plug a minimum of 18" above finished lot grade for undeveloped properties and flush or slightly above the ground for developed properties. The cleanout is to be installed to facilitate cleaning in the direction of flow of the pipe (i.e., toward the direction of the main line piping).

2. **STOPPERS, CAPS AND PLUGS:** All service connections shall be closed or terminated with factory manufactured pipe stopper, cap or plug secured in such a manner as to not leak under a maximum hydrostatic head of ten feet (10') or five (5) psi air pressure. Pipe stoppers, if used, shall be able to be removed without special tools, excessive force or breakage of the pipe bell.

G. **CLEANING:** The Contractor shall thoroughly clean all lines prior to placing the piping into operation, without discharging into the existing system.

1. All dirt and foreign material is to be cleaned from each joint of pipe or fitting before being lowered into the trench.

2. Temporary watertight plugs may be installed at any manhole that is incomplete, at the open end of the pipeline prior to leaving the job site daily, and elsewhere as dictated by good engineering and construction practices to prevent infiltration or the introduction of any foreign material into either

the existing or proposed sewer systems.

3. The Contractor will be responsible for the complete removal of all watertight plugs in the necessary sequence to allow testing and subsequent activation, all under the direction of the Engineer.

H. PROXIMITY TO WATER INFRASTRUCTURE

1. **GENERAL:** All installation practices shall be in accordance with Section R61-58.4D of the State Primary Drinking Water Regulations when installing sanitary sewer piping in the vicinity of a well, potable water main or other public water supply infrastructure.

2. **PARALLEL INSTALLATION:** Water mains shall be laid at least ten (10) feet horizontally from any existing or proposed sewer (gravity or force main). The distance shall be measured edge to edge. In cases where it is not practical to maintain a ten foot separation, any deviation shall be authorized by SCDHEC on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the water main closer to a sewer, provided that the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least eighteen (18) inches above the top of the sewer. If these condition are not able to be met or an alternative design is not feasible, the sewer pipe shall be replaced and the water line laid such that the distances between joints of water and sewer pipe is maximized and the sewer pipe shall be replaced with ductile iron.

a) There shall be no physical connection(s) between a public or private potable water supply system and a sanitary sewer collection system.

b) Sanitary sewer service lateral piping shall be installed no closer than 10 feet as measured horizontally from water service piping.

3. **CROSSINGS:** Water mains crossing sewers shall be laid to provide a minimum vertical separation of eighteen (18) inches between the outside of the water main and the outside of the sewer. This shall be the case whether the water main is either above or below the sewer line. Whenever possible, the water main shall be located above the sewer line. Where a new water main crosses a new sewer line, a full length of pipe shall be used for both the water main and sewer line and the crossing shall be arranged so that the joints of each line will be as far as possible from the point of crossing and each other. Where a new water main crosses an existing sewer line, one full length of water pipe shall be located so both joints will be as far from the sewer line as possible. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer line to prevent damage to the water main.

4. **SPECIAL CONDITIONS:** When it is impossible to obtain the distances specified in R.61-58.4(D)(12)(a) and (b) SCDHEC may allow an alternative design. Any alternative design shall:

a) Maximize the distances between the water main and sewer line and the joints of each;

b) Use materials which meet the requirements R.61-58.4(D)(1) for the sewer line; and,

c) Allow enough distance to make repairs to one of the lines without damaging the other.

5. FORCE MAINS: There shall be at least a ten (10) foot horizontal separation between water mains and sanitary sewer force mains. There shall be an eighteen (18) inch vertical separation at crossing as required in R.61-58.4(D).

6. SEWER MANHOLES: No water pipe shall pass through or come in contact with any part of a sewer manhole.

I. PROTECTION OF OTHER UTILITIES AND STRUCTURES: Before beginning any excavation for installing sanitary sewer infrastructure, the contractor shall locate or cause to have located any water, sewer, gas or other utilities as necessary to avoid conflicts. The Contractor shall excavate and expose existing underground utilities in advance of trenching operations to determine the precise location of the utilities or other underground obstructions shown on the Construction Drawings. Such location and excavation shall be at least 500 feet ahead of the construction, unless otherwise noted. Conflicts with existing utilities shall be reported to the Engineer and conflicting utility's owner for resolution. Changes to the alignment and or grade of the sanitary sewer piping shall be submitted to the City Engineer for review and approval.

1. All utility owners will be notified prior to excavation as required by the 1985 Underground Damage Prevention Act. To aid in the location of existing utilities, Contractor shall contact the South Carolina 811 (SC 811) by telephone or posting a utility location request on the PUPS website. The following information is provided by the SC 811.

a) "South Carolina State Law requires the excavator, when planning any activity that results in the movement or removal of earth, rock or other materials in or on the ground, to contact South Carolina 811 and any non-member company with adequate information regarding the excavation.

b) At least 3 full working day notice at 11:59 pm (not including the day of the call) prior to digging, call SC 811 by dialing 811 or (888) 721-7877. A SC811 representative will record the location of the digging site and notify member companies of your intent to dig. Each member company will then send either one of their employees or a contract locator to your dig site to mark the location of their underground facility lines.

c) Once the lines have been marked, you may begin carefully to dig, keeping in mind the 2 feet allowance on either side of the markings. [(a) if the diameter of the facility is known, the distance of one-half of the known diameter plus twenty-four inches on either side of the designated center line; (b) if the diameter of the facility is not marked, twenty-four inches on either side of the outside-edge of the mark indicating a facility; or (c) for subaqueous facilities, a clearance of fifteen feet on either side of the indicated facility]. Not all utilities are members with SC 811. If a utility is not named, please contact them directly.

d) Remember: call 811, wait the required time, respect the marks and dig with care!"

2. Prior to final acceptance by the City of the sewer utility being constructed, the developer/owner shall be responsible for the integrity of the utility and for locating the utility until final acceptance by the City. Final acceptance shall include written documentation, permits to operate, copies of record drawings, and other requirements so listed by the City.

3. Crossings:

a) Whenever a sewer main crosses under other utility lines (gas, telephone conduit, storm drain, etc.), there shall be 2-foot clearance between the top of the sewer and the bottom of the affected utility. Stone bedding shall be used from 6-inches below the sewer to 12-inches above the sewer from one foot outside the utility trench. If this clearance is not possible, the sewer line shall be ductile iron pipe 1-foot outside the utility trench, with a minimum length of 10 feet.

b) Whenever a sewer main crosses over other utility lines (gas, telephone conduit, storm drain, etc.), there shall be one foot clearance from the top of the utility to the bottom of the sewer for PVC sewer lines. If this clearance is not possible, the sewer line shall be ductile iron pipe from 1-foot outside the utility trench, with a minimum length of 10 feet.

4. The Contractor shall be solely responsible for the repair and payment of penalties for any damage made to existing utilities as a result of the work.

J. **PRE-TREATMENT DEVICES:** Pre-treatment devices, such as grease traps/grease interceptors may be required as determined by the Building Code and/or Pre-treatment Coordinator (See Standard Details). Such devices shall meet the current Building Code as adopted by the City of Rock Hill, be sized accordingly, and must have the written approval of the Building Official and the Pre-treatment Coordinator. Grease traps/interceptors are required at establishments such as food service establishments (FSE) and convenience stores involved in food preparation activities. Grease traps/grease interceptors are not serviced or maintained by the City of Rock Hill. Questions regarding the use of grease traps/interceptors should be directed to the City's Grease Management Program (GMP) official.

K. **SYSTEM TESTING**

1. **GENERAL:** All required testing of pipelines and valves shall be done under the direct supervision of the City Inspector and must be conducted in accordance with AWWA C600 and C605. Field testing shall not negate the requirements for material certifications as contained in these specifications unless otherwise directed by the Engineer. All testing and cleaning shall be completed prior to connection to any existing line. Contractor shall be responsible for providing all equipment, personnel, and ventilation necessary to comply with OSHA confined space regulations.

2. **TESTING AND CLEANING:** Before acceptance of any sewer or systems of sewers, lines shall be cleaned and tested in accordance with these Specifications. Where any obstruction is met, the Contractor will be required to clean the sewers by means of rods, swabs, or other instruments. Lines and manholes shall be clean before final inspection. Pipelines shall be straight and show a uniform grade between manholes. The Contractor shall be required to correct any variations that may be disclosed during the inspection.

3. **TEMPORARY BULKHEADS:** The Contractor shall furnish, install and remove all temporary bulkheads, flanges or plugs, to permit the required pressure tests, and shall furnish all equipment and labor to properly carry out such tests and to replace defective material. City Inspector shall be present during installation of bulkheads and during the removal of the bulkheads.

4. **INFILTRATION TEST:** Infiltration test is required when groundwater is above the top of pipe.

The infiltration shall not exceed 100 gallons per day per inch diameter per mile as measured for a reach of pipe the same diameter, up to one mile long. However, when excessive infiltration can be isolated to a particular section (manhole to manhole), the limit will be applied to that section. There shall be no visible points of infiltration. Any section (manhole to manhole) must be isolated and tested separately if so directed by the Engineer. Procedure for testing shall follow the procedure below.

- a) Step 1: Plug upper section of line.
- b) Step 2: Install suitable measuring device at lower end.
- c) Step 3: Measure the amount of water flowing through the outlet over a specified period of time.

5. **LOW-PRESSURE AIR TEST:** All gravity sewer piping shall be air tested in accordance with applicable portions of ASTM C828, ASTM C924 and ASTM F1417 or it shall be hydrostatic tested in accordance with ASTM E1003. Test pressure will be measured by gauges furnished and installed by the Contractor aboveground at the manhole opposite the air supply. Contractor shall furnish all other test equipment required. Prior to air testing, the section of sewer between manholes shall be thoroughly cleaned and wetted. Immediately after cleaning or while the pipe is water soaked, the sewer shall be tested with low-pressure air. At the Contractor's option sewers may be tested in lengths between manholes or in shorter sections using Air-Lock balls pulled through the line from manhole to manhole. Air shall be slowly supplied to the plugged sewer section until internal air pressure reaches approximately 4.0 psi. After the test pressure is achieved and stabilized (approximately 2 to 5 minutes), the pressure may be reduced to 3.5 psi before starting the tests. If a 1.0-psi drop does not occur within the test time, then the line has passed the test. If the pressure drops more than 1.0 psi during the test time, the line is presumed to have failed the test, and the Contractor will be required to locate the failure, make necessary repairs and retest the line. Minimum test time for various pipe sizes shall be in accordance with ASTM C828.

- a) **EQUIPMENT:** Required test equipment includes Air-Lock bails, braces, air hose, air source, timer, rotometer as applicable, cut-off valves, pressure reducing valve, 0-15 psi pressure gauge, 0-5 psi pressure gauge with gradations in 0.1 psi and accuracy of $\pm 2\%$.
- b) **TEST RECORDS:** The Contractor shall keep records of all tests made. Copy of such records will be given to the City Engineer. The Contractor is cautioned to observe proper safety precautions in performance of the air testing. It is imperative that plugs are properly secured and that care is exercised in their removal. Every precaution shall be taken to avoid the possibility of over pressurizing the sewer line.
- c) **REPAIRS:** All visible leaks shall be repaired regardless of whether air test is within allowable limits. No sewer will be accepted until leakage tests demonstrate compliance.

6. **MANHOLE LEAKAGE TESTS:** Manholes shall be tested by plugging the inlet and outlet pipes with airtight plugs and completing a vacuum air test. Manhole vacuum air testing shall be performed in accordance with ASTM C1244. The Engineer will select 25% of the manholes on the project to be tested. Manholes that fail the test shall be repaired as specified and retested until they pass. Manholes that show leaks and are repaired prior to testing shall be tested as specified.

7. **FORCE MAIN SEWER PIPE LEAKAGE TEST:** Pressure and leakage test must be conducted

in accordance with AWWA C600 for ductile iron material and AWWA C605 for PVC material. On completion of the line or sections of the lines, connection and appurtenances, the line shall be filled and hydrostatically tested. All leaks and any defective material shall be repaired or replaced to the satisfaction of the Engineer and the test repeated until the requirements of this specification are met. Any special equipment, pumps, etc., required to make the test shall be furnished and operated by the Contractor. The Contractor shall use great care to remove all air from each section under test. If openings are not available for the purpose of expelling air, the Contractor shall provide air release of sufficient size (as determined by the Engineer) in accordance with the Standard Details, at his expense.

a) The maximum length of pipe tested in one test shall be 5,000 feet, or as close to 5,000 feet as possible depending on valve spacing.

b) Test pressure shall be 1.5 times the maximum working pressure in the system (i.e. 120 psig) and 120 psig minimum as measured at the lowest point of elevation of the section of line being tested. Testing time shall be a minimum of two (2) hours. Leakage shall not exceed the allowable leakage shown in AWWA C600 and C605 or calculated by the formula:

For Ductile Iron Pipe:

$$G = \{S \cdot D \cdot (P^{1.5})\} / 148,000$$

- Where:
- L = allowable leakage, in gallons per hour
 - S = length of pipe tested, in feet
 - D = nominal diameter of pipe, in inches
 - P = average test pressure (psig) = 150 psig

For PVC Pipe:

$$L = \{N \cdot D \cdot (P^{1/2})\} / 7,400$$

- Where:
- L = allowable leakage, in gallons per hour
 - N = # of joints of pipeline being tested
 - D = nominal diameter of pipe, in inches
 - P = average test pressure (psig) = 150 psig

Note: Add 0.0043 gph for each ¾-inch service and 0.0057 gph for each 1-inch service.

All visible leaks shall be repaired regardless of the amount of leakage, and test will be repeated until it passes.

8. DEFLECTION TESTS AND INSPECTIONS: After backfilling trenches, all sewer pipes may be flashed and visually inspected for pipe alignment. Pipelines shall be straight and show uniform grade between manholes. Each run of pipe must present a full circle when viewed from one of the connected manholes. Any run of pipe that does not present a full circle indicates a deficiency in the alignment or failure of the pipe, and it shall be the responsibility of the contractor to correct the installation prior to placing the pipe in operation.

a) The Contractor must perform a Mandrel test on PVC main sewer line piping (excludes laterals) to test deflection a minimum of 30 days after the installation of the line has been completed. The initial diametric deflection shall not exceed five percent (5%) of the

base inside diameter as defined in ASTM D3034. Deflection test will be performed after the trench is no longer subject to construction traffic loading. The mandrel shall be provided by the Contractor and pulled through each section of pipe from manhole to manhole. The mandrel must slide freely through with only a nominal hand force applied. Any pipe that refuses the mandrel shall be removed and replaced. Such section shall be retested for deflection and infiltration after completion of backfill.

L. GENERAL CONSTRUCTION

1. **CLEARING & GRUBBING:** The Contractor shall perform all clearing necessary for installation of the complete work. Clearing shall consist of removing all trees, stumps, roots, brush and debris in the way of the work. Temporary Construction easements shall be selectively cleared with specimen trees left standing.
2. **DISPOSAL:** All excess and waste material shall be legally disposed in a satisfactory manner. Burning shall be in accordance with City Fire Department regulations and SCDHEC Regulations. When burning is allowed, the Contractor shall obtain a Burning Permit from the office of the City Fire Chief prior to any burning operations.
3. **REMOVAL OF PRIVATE OR PUBLIC FACILITIES:** Any private or public facilities, including fences, mailboxes, etc., removed for construction purposes shall be promptly replaced of the same material in the same or better condition than prior to construction. Trees or shrubbery along highways, roadways and streets shall not be disturbed unless absolutely necessary. Tree removal is subject to the approval of the City Engineer. Planting such trees or shrubs that are to be removed and replaced may be heeled in and replanted. Heeling and replanting shall be done under the direction of an experienced nurseryman and City Forester.

M. CONSTRUCTION ALONG HIGHWAYS, STREETS, AND ROADWAYS

1. **GENERAL:** The Contractor shall install pipelines and appurtenances along publicly owned and maintained highways, streets and roadways in accordance with all applicable encroachment permits and City and SCDOT regulations, with reference to construction operations and requirements, safety, traffic control, road maintenance, and repair.
2. **PROTECTION OF TRAFFIC:** The Contractor shall provide suitable signs, barricades and lights for protection of traffic, in locations where traffic may be endangered by construction operations. All highway signs removed by reason of construction shall be replaced as soon as the conditions that necessitated such removal have been cleared. No highways, streets or roadways shall be closed without first obtaining permission from the proper authorities. Before any roadway is blocked, the Contractor shall notify the City Engineer's office.
3. **CLOSURES:** In general, not more than one block of a street or roadway shall be closed for construction at any one time. Before proceeding with trenching operations in a succeeding block, the preceding section shall be backfilled, cleaned completely and the street opened to traffic. All planned road closures shall be reported in accordance with these specifications prior to closing any street, or for unplanned roadway closings, as soon as possible after the roadway has been closed.
4. **MAINTAINING HIGHWAYS, STREETS, ROADWAYS, AND DRIVEWAYS:** The Contractor

shall furnish adequate personnel and proper construction equipment, which shall be available for use at all times, for maintaining highways, streets, and roadways upon which work is being performed. All such highways, streets and roadways shall be maintained in suitable condition for movement of traffic until completion and final acceptance of the work. For temporary drive closures, the contractor is to coordinate the closure(s) with applicable property owner(s). The Contractor shall immediately repair all driveways that are cut or damaged and shall maintain them in a suitable condition for use until completion and final acceptance of the work.

5. **CONSTRUCTION OPERATIONS:** The Contractor shall construct all work along roadways using the sequence of construction operations, as to least interfere with traffic.

6. **REMOVING PAVEMENT:** The Contractor shall remove pavement as necessary for installing the new piping and appurtenances and for making connections to existing pipelines. Care shall be taken by the contractor to avoid damage to pavement adjoining pavement removal areas. If damaged, the Contractor shall remove the damaged pavement and shall replace it with new pavement at his own expense.

a) There may be instances where the City requests additional pavement removal and repair based on the condition of the road. In these areas, the City will contract with and negotiate the price with the Contractor for the damaged pavement removal and associated repair work to be completed. Should a portion of this work be completed by City forces, the contractor shall work with the City in coordinating the work as the applicable Encroachment Permit allows.

7. **MARKING AND CUTTING:** Before removing any pavement, the pavement shall be marked for cuts neatly paralleling pipelines and existing street lines taking into consideration existing pavement conditions. Pavement shall be saw-cut prior to removal to form a clean transition edge. Asphalt pavement shall be broken along the marked cuts by use of a jackhammer or other suitable tool. Concrete pavement and asphalt pavement on concrete base shall be scored to a depth of approximately 2" below the surface of the concrete along the marked cuts. Scoring shall be done by use of a rotary saw, after which the pavement may be broken below the scoring by use of a jackhammer or other suitable tool.

8. **STRIPPING:** Where the pipeline is laid along road shoulders, all sod, topsoil and other materials suitable for shoulder restoration shall be stripped and stockpiled for replacement.

9. **EXCAVATED MATERIAL:** Excavated material shall not be placed along highways, streets and roadways in such a manner as to obstruct traffic. No scattered excavated material shall be allowed to remain on the pavement. All such material shall be kept swept away.

10. **PAVERS OR CURB:** The Contractor shall remove and replace or tunnel or bore under any paver areas or concrete/stone curb encountered along the project route. In any case, protection of the pavers' and curb and gutter's supporting foundation is the responsibility of the Contractor.

11. **MACHINE PULLING:** No pavement shall be machine pulled until completely broken and separated along the marked cuts.

12. **DRAINAGE STRUCTURES:** All side ditches, culverts, cross drains and other drainage structures shall be kept clear of excavated material and be free to drain at all times.

N. EARTHWORK

1. GENERAL: The Contractor shall excavate, install piping and backfill and consolidate the trench backfill as quickly as possible to maintain safety within the construction site. Trenches shall not be opened any further ahead of pipe laying operations than is necessary for proper laying operations, and trenches shall be progressively backfilled and consolidated, and excess material removed immediately behind laying operations. Backfill material and material consolidation shall meet SCDOT specifications, but in no case shall the consolidation be less than 95% maximum dry density for each layer of soil material-in-place as determined by ASTM D698 (Standard Proctor) test procedures. The Contractor shall so organize his work that backfilling and cleanup shall closely follow pipe laying operations and manhole construction.

a) Excavations within street rights-of-way shall be backfilled when left unattended for more than 1 hour, unless otherwise approved by the controlling agency.

b) Excavations within sewer rights-of-way/easements shall be backfilled, fenced, or otherwise protected when left unattended for more than 1 hour.

c) Final grades of sewer rights-of-way/easements shall be smooth and at such grade that they can be navigated by vehicles and maintenance equipment. Horizontal and vertical grades of rights-of-way/easements shall be gentle and not exceed roadway standards.

2. TRENCH EXCAVATION: Trench excavation shall include the removal of material necessary for the installation of the piping infrastructure and associated fittings and structures. Excavated materials that are not suitable for backfill material shall be removed from and legally disposed offsite.

a) DEPTH OF TRENCHES: The minimum cover over the top of the pipe shall be 3 feet, unless otherwise directed by the City Engineer and/or shown on approved Construction Drawings. Where obstructions are encountered, minimum depth may be changed to avoid interference. Where necessary to increase the depth of cover to avoid interference with underground utilities, obstructions and utilities services, the Contractor shall furnish all construction equipment and shall perform all labor required for additional trench depth.

b) LENGTH OF OPEN TRENCH: A maximum trench of ± 100 LF shall be open in advance of the pipe laying than is necessary to expedite the work, unless prior approval is given by the Engineer. Ground conditions and/or location requirements shall govern the amount of trench open at any one time as determined by the Engineer.

c) WIDTH OF TRENCHES: Trenches shall be excavated sufficiently wider than the infrastructure to be installed to allow for personnel and the preparation of the infrastructure foundation, installation of infrastructure and associated bedding, and to properly consolidate the backfill material including the pipe support bedding located under the pipe's haunches. In any case, the width of the trench is not to be narrower than 24 inches plus the outside diameter of the pipe.

3. GENERAL EXCAVATION

a) **BELL HOLES:** The trench bottom shall be true and even with bell holes at each joint to provide the barrel of the pipe with soil and/or granular (as applicable) support for its full length. If stone bedding of sufficient depth is not provided, the Contractor shall over-excavate the locations where the pipe bells rest so the entire length of the pipe will be uniformly supported.

b) **EARTH EXCAVATION:** Earth excavation shall include all excavation of whatever substance encountered, except rock excavation, as further provided in these specifications. The area excavated shall be limited to no more than is necessary to allow the proper installation of the structure as determined by the Engineer, and the excavation shall be made to the lines, grades and elevations shown on the Construction Drawings. In locations where pipe is to be bedded in earth excavated trenches and no stone is used for bedding the pipe, the bottoms of such trenches shall be fine graded to allow for a firm and uniform bearing for the bottom of the pipe. Where any part of the trench has been excavated below the engineered grade for the pipe, the part excavated below such grade shall be backfilled with sand and compacted at the Contractor's expense.

c) **BORE PITS:** Bore pit excavations shall be controlled by the limits of the existing rights-of-way and shall not exceed these without prior written approval of the property owner. The excavation shall be made to the proper elevation, line and grade as required to install the casing pipe as shown on the Construction Drawings. The pit bottom shall be true and even with adequate stabilization to maintain proper elevation and grade on the boring rig for the duration of the bore.

d) **ROCK EXCAVATION IN TRENCHES AND PITS** includes removal and disposal of materials and obstructions encountered which cannot be excavated with a 1.0 cubic yard (heaped) capacity, 42 inch wide bucket on track-mounted power excavator equivalent to Caterpillar Model 215, rates as not less than 90 HP flywheel power and 30,000 lb drawbar pull. Rock excavation shall comprise solid rock in the original bed, or in well-defined ledges, the removal of which in the opinion of the City Engineer requires drilling, blasting, or the use of jackhammers or bull-points, and shall also include boulders or detached pieces of rock 8 cubic feet or more in content. Trenches in excess of 10 feet in width and pits in excess of 30 feet in either length or width are classified as open excavations. Rock removal shall extend to be a minimum of 6 inches vertically and 12 inches horizontally from the piping to be installed.

4. **MATERIALS:**

a) Satisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups GW, GP, GM, SM, SW, GC, SC, CL, ML and SP.

b) Unsatisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups MH, CH, OL, OH, and PT.

5. **SHORING AND BRACING:** All shoring and bracing shall conform to all OSHA regulations. The specific type of shoring and bracing used shall be determined by the Contractor as to prevent caving of trench banks and to provide safe excavation.

6. **DEWATERING:** The Contractor shall at all times provide and maintain ample means and

equipment with which to remove and properly dispose of any and all water entering the excavation or other parts of the work, and keep all excavation dry until such time as pipe laying and grading is completed and structures to be build therein are completed.

- a) No water shall be allowed to rise around the pipe in unbackfilled trenches nor shall it be allowed to rise over masonry until the concrete or mortar has set (minimum 24 hours). All water pumped or drained from the Work shall be disposed in such a manner as to prevent siltation and erosion to adjacent property or other construction.

7. **BACKFILL:** All backfill shall be of non-plastic nature free from roots, vegetative matter, waste, construction material, rock larger than $\frac{3}{4}$ cubic foot, or other objectionable material. Backfill material shall be capable of being tamped by mechanical tamps using relatively low velocity and heavy blows. Material deemed by Engineer to be unsuitable for backfill purposes shall be removed from the job site before backfilling operations begin and replaced with satisfactory soil materials as approved by the Engineer or directed by the permitting agency.

- a) Continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect he pipe. Stones, other than crushed bedding, shall not come in contact with the pipes and shall not be within 6-inches of the pipe.

8. **COMPACTION CONSOLIDATION REQUIREMENTS:** Compaction of the trench backfill is to conform to the more stringent requirements of the permit issuing authority and requirements herein. Contractor shall be responsible for testing the material for adequate compaction. Compaction shall be in accordance with the Standard Detail as determined by ASTM D698 (Standard Proctor) test procedures.

9. **CRUSHED STONE STABILIZATION AND BEDDING:** Crushed stone bedding material shall conform to ASTM C33, as amended to date, gradation #67 (ASTM #67), varying in sizes $\frac{1}{4}$ " through $\frac{3}{4}$ ". Stabilization and bedding material shall be placed in the trench and thoroughly compacted to grade by tamping. Compacted bedding material shall be carried up the sides of the pipe to the heights shown on the Construction Drawings.

- a) Wherever the sub grade is by nature too soft or mucky, in the opinion of the City Engineer, for the proper installation of the pipe, the Contractor may be ordered to undercut the trench and backfill with crushed stone or gravel.
- b) Crushed stone bedding material shall conform ASTM C33, gradation #67 (ASTM #67), varying in sizes $\frac{1}{4}$ " through $\frac{3}{4}$ ". Bedding material shall be placed in the trench and thoroughly compacted by tamping to the grade required for the particular location. Compacted bedding material shall be carried up the sides of the pipe to the heights necessary for the various classes of bedding.

10. **SHAPING:** Once backfilling operations are complete, the Contractor shall immediately re-shape the roadway shoulder area including any damaged cut and fill slopes and ditches, and he shall replace topsoil, sod and any other materials removed from shoulders. When installing pipelines and appurtenances, the Contractor will be required to provide sufficient personnel and equipment so as to simultaneously carry out all of the above operations in an appropriate timeframe.

O. MANHOLE CONSTRUCTION

1. **GENERAL:** For sewer manholes being installed in developed areas, the sewer manhole ring and covers (castings) are to be installed at an elevation at or slightly above the surrounding finished grade. Manholes within street rights-of-way or landscaped areas of a development shall have finished rim elevations flush with the pavement or adjacent finished grade. Frame and covers of manholes within streets shall be located outside the wheel travel paths. All manholes outside street rights-of-way in landscaped areas of a development shall be constructed to a height of 2 feet above the finished grade, unless otherwise indicated on the Construction Drawings. In undeveloped areas and cross-country sewer installations, the manhole ring and covers (castings) shall be installed at an elevation a minimum of 3 feet and a maximum of 4 feet above finished grade. In flood plain areas manhole rims shall be 1-foot above the 100-year flood elevation or vented.

a) The Contractor will do that which is necessary to stabilize the soil intended to support the structure. A stable condition shall only be judged only by the Engineer or his authorized representative. Under no circumstances will a precast base section be placed on unstable soil. Any cost incurred by the Contractor in stabilizing the area to support a manhole shall be considered incidental to the manhole construction.

b) Joining of precast sections will be done in accordance with the manufacturer's recommendation, with special attention called to the amount of force needed.

c) All backfill around structures shall be thoroughly tamped in layers a specified for placing backfill.

2. **OUTSIDE DROPS:** When design considerations dictate a large elevation change across a manhole, an outside drop shall be constructed in accordance with the Standard Details. Depending on the particular fittings used, elevation differences greater than 24 inches are required to accommodate an outside drop. Where there is not sufficient elevation difference to permit construction of an outside drop, the grade of the influent pipe shall be lowered such that the vertical separation of the influent and effluent pipe is 0.2 feet, as measured at the center to the manhole when the grades of both pipes are projected to that point. Outside drops shall not enter the cone section of precast manholes. The influent pipe of an outside drop manhole must be ductile iron pipe, a minimum of 18-feet long.

3. **INSIDE DROPS:** When connecting a proposed sewer main to an existing manhole at an elevation significantly higher than the existing invert elevation, and where safety consideration or working space limitations preclude building an outside drop, the connection may be made with an inside drop constructed in conformance with the Standard Details. Inside drops will be used only with the approval of the City Engineer and where shown on the Construction Drawings or specifically approved by the Engineer. They may not be used in lieu of outside drops shown on the Construction Drawings. Inside drops shall not enter the manhole in the cone section. Inside drops are not allowed on four-foot diameter manholes.

4. **FRAMES AND COVERS:** The frame shall be installed on the manhole with anchor bolts on all manholes that are not flush with the ground. The Contractor shall seal the frame to the manhole by installing a length of butyl rubber joint sealant to form a gasket between the frame and the manhole. The butyl rubber joint sealant shall have a one-inch cross-section, shall make two full circles when placed on the cone section, and shall be compressed by the frame with the anchor bolts. Butyl

rubber joint sealant shall be "Rubber Seal as manufactured by Ru Van, Inc. or approved equal. Cement mortar grouting of the frame shall be required. Brick may not be used to adjust rim elevations of above-grade manholes.

a) Manholes that are installed flush with pavement or grade shall have frames attached to the manhole with a bed of cement mortar grout. Standard-size brick shall be used to adjust the finished rim elevation of such manholes.

b) When the manhole rim elevations are greater than the finished grade and in flood plain or flood prone areas, bolt-down type, waterproof manhole covers shall be used.

5. **STEEL VENT PIPES:** Steel vent pipes shall be installed at appropriate locations to facilitate drawing and venting of the piping system, but should be located away from planned vertical (building) construction. Steel vent pipe shall be installed in accordance with the Standard Details. Shop drawings of strap on vents, mounting straps, and other anchor bolts will be subject to approval of the Engineer. Material shall be as specified in the Materials Specification section.

P. CONCRETE CONSTRUCTION

1. **PLACING OF CONCRETE:** Placing of concrete shall be in daylight hours. Concrete mixed at a central plant shall be transported to the job site as per ASTM C94 and placed within 90 minutes of the dispatch time. Concrete shall be deposited in such a manner so as to prevent contamination by foreign material and segregation due to re-handling or flowing. Free fall shall not exceed 3-feet. Concrete when placed shall be compacted with mechanical, internal-vibrating equipment and/or with hand spading with a slicing rod. Temperature shall be above 35 degrees Fahrenheit and rising by 10:00 AM for the placement of concrete. Depositing shall cease when the descending air temperature in the shade falls below 40 degrees Fahrenheit. If the temperature drops below 35 degrees after concrete is placed the Contractor shall enclose, heat and protect the concrete or Contractor shall replace the concrete at his own expense. Earth fill shall not be placed on concrete until concrete has been allowed to set for 24 hours. Exposed concrete shall have $\frac{3}{4}$ " chamfered corners.

2. **FORMWORK:** Formwork, where required, shall be built to conform to the shape, lines and dimensions of the concrete work as shown. Forms may be made of wood, plywood, metal or any other material approved by the Engineer. Forms shall be mortar tight, of materials strong enough to resist noticeable deflection or bulging between supports, and the interior dimensions of the forms shall be such that the finished concrete shall be of the form and dimensions shown on the Construction Drawings. The design of the forms shall take into account the effect of the vibration of the concrete as it is placed and also the rate of speed at which the forms will be filled.

a) Mechanical vibrators of an approved type, and continuous spading and/or rodding of concrete shall be used to produce proper contact of concrete with forms and reinforcing steel in piers and with forms and pipe in monolithic inverts insuring a compact, dense, and impervious artificial stone of uniform texture.

3. **SETTING FORMS:** Forms shall be set to line and grade, and shall be braced, tied, and secured in a manner which will withstand placing of the concrete, and which will maintain shape and position'. Forms shall be tight, and be substantially assembled to prevent bulging and the leaking of concrete. Joints shall be arranged vertically or horizontally. Temporary openings shall be arranged, where required, at the bottoms of wall forms and elsewhere, to facilitate cleaning and inspecting. Lumber

used once in forms shall have nails removed and surfaces in contact with concrete work thoroughly cleaned before reuse. Wall sleeves, inserts, and openings required in concrete work shall be properly set in formwork. Chamfer strips shall be placed in forms for all exterior corners.

4. CURING: All concrete will be cured after placement according to the following procedures.
 - a) Forms will normally be left in place for the entire curing period. Exposed surfaces not covered by forms will be kept moist continuously for the entire seven day period or will be cured through use of an approved curing compound which will be applied after all surface water has disappeared.
 - b) All form marks exposed to view shall be rubbed off with a stone.
5. REMOVING FORMS: Under normal conditions, the time elapsing before the forms may be stripped shall not be less than the following:
 - a) Slabs 14 days
 - b) Piers 7 days
 - c) Walls 2 days
6. FINISHING: All exposed concrete work shall be kept wetted with water, and shall be rubbed with a carborundum stone of medium fineness, or other equally as good abrasive, to bring the surface to a smooth texture and to remove all form and other marks. The paste formed by the rubbing may be rubbed down by floating with a canvas, carpet-faced, or cork float, or may be rubbed down with dry burlap.
7. TESTING: The following test may be performed by the City to ensure the concrete quality.
 - a) Compressive Strength – Compressive strength testing shall be conducted in accordance with ASTM C31 and ASTM C39. Test cylinders which are formed in the field will be left in the field until compression testing is completed.
 - b) Slump – Slump testing shall be in accordance with ASTM C143.
 - c) Air Content Test – The test for air content in the mixture will be in accordance with either ASTM C173 or ASTM C231.
8. ACCEPTANCE: Concrete shall be accepted on the basis of its meeting the requirements listed under the Material Specifications and Detail specification Section of this contract. The Inspector will accept no ready mix concrete without the plant dispatch ticket.
 - a) The Engineer shall require any test as he deems necessary to insure that the concrete meets specifications. The Engineer may require the test to be performed by an independent testing laboratory at the Contractor's expense.
 - b) Segregated concrete and/or concrete containing foreign material will not be accepted.

9. **BLOCKING INSTALLATION:** Concrete blocking shall be formed and poured at the backs of fittings, including elbows, tees, and other fittings to the dimensions shown on approved detailed Construction Drawings. Unless otherwise noted, concrete shall be 3,000 psi with a four-inch (4") slump. Blocking shall be poured against undisturbed earth. If existing soil conditions will not support concrete blocking, it is the Engineer's responsibility to recommend proper restraining devices in order to prevent movement of the pipe. Concrete of the respective classes for thrust blocking, bedding, blocking, headwalls, piers and other miscellaneous structures shall be as called for in the work to which they pertain.

Q. BORES, TUNNELS, AND CASINGS

1. **BORE PITS (OR TUNNEL PITS):** Bore or tunnel pits shall be safed-up, shore, well-marked, lighted, and not left unattended except as approved by the controlling agency. Requirements of stabilization and dewatering of bore pits shall be as herein before specified. The angle of repose method (sloping pit walls) for creating a safe working area shall not be used.

2. **SIZING:** Carrier pipe shall be DIP. Casing is to extend beyond the edge of pavement or control structure at least as far out as it is deep and a clearance of 25 feet beyond the casing shall be granted for future removal of the carrier pipe. Spiders shall be used on all gravity sewer lines installed within steel casing when the clearance between the bell of the carrier pipe and the top of the steel casing exceeds the allowable deflection of the carrier pipe. The minimum size and thickness standards for casing pipe and tunnels for various sewer line sizes and types are as follows:

Carrier Pipe (inch diameter)	Casing Pipe (inches)	Thickness (inches)		Recommended * Tunnel (inches min.)
		DOT	RR	
8" DIP	18"	0.250"	0.312"	48"
10" DIP	20"	0.250"	0.344"	48"
12" DIP	24"	.0.250"	0.406"	48"
16" DIP	30"	0.312"	0.469"	48"
18" DIP	30"	0.312"	0.469"	48"
24" DIP	36"	0.375"	0.562"	48"
30" DIP	48"	0.500"	0.750"	60"

- Gauge to be determined by controlling agency and/or by depth of installation

3. **INSTALLATION:** Smooth wall or spiral weld steel pipe may be jacked through dry bores slightly larger than the pipe, bored progressively ahead of the leading edge of the advancing pipe as soil is mucked by the auger back through the pipe. As dry boring operation progresses, each new section of encasement pipe shall be butt welded to the section previously jacked into place. Continuous checks shall be made as to the elevation, grade and alignment of each successive section of encasement, as well as the tracks (rails) upon which the boring rig travels.

a) Installation shall be such to prevent the formation of a waterway under the road or rail bed. If voids are encountered or occur outside the encasement pipe, grout holes shall be installed in the top section of the encasement pipe at ten (10) foot centers and the voids filled with 1:3 Portland cement grout at sufficient pressure to prevent settlement in the roadway/railway.

b) Boring operations shall be continuous to their completion, and unnecessary or

prolonged stoppages shall not be allowed.

c) In the event an obstruction is encountered during the boring and jacking operations, the auger is to be withdrawn and the excess pipe is to be cut off, capped, and filled with 1:3 Portland cement grout at sufficient pressure to fill all voids before reapplying to the controlling agency for permission to open cut, bore at an alternative location, or install a tunnel.

d) Installation shall be to the limits specified by the controlling agency and/or as delineated in their encroachment permit issued. The controlling agency shall have full authority to require remedial measures and/or to stop all work if, in its opinion, said work will cause any damage to the roadway/railway section or endanger traffic. In all instances the controlling agencies reserve the right to sample, test, and approve all materials and methods used.

e) The Contractor shall notify the controlling agency through the Engineer and an acknowledgement shall be received a minimum of five (5) working days prior to beginning any work within the roadway or railway rights-of-way. If required, 24-hour notice will be given prior to completion.

4. **GUARANTEED CASING INSTALLATION:** The casing shall be installed by jacking, with simultaneous removal of spoil. The spoil removal shall not proceed more than 18-inches ahead of the casing. The diameter of the excavated hole shall be no larger than necessary to keep the casing moving freely and lubricant may be used to reduce the jacking forces. Casing sections shall be joined by butt weld.

a) After casing is jacked in place, 20-inch grout holes shall be used to pump a 1:3 Portland cement grout to fill the void outside the casing. Sufficient pressure should be applied to force grout out the adjacent grout hole. Grout holes shall be a maximum of 10 feet apart at the top of the casing.

5. **TUNNELS USING STEEL LINER PLATES:** All structural steel liner plates for tunnels shall be formed to provide circumferential-flanged joints. Longitudinal joints may be flanged or offset lap seam type. All plates shall be punched for bolting on both the longitudinal and circumferential seams or joints. Bolt spacing in circumferential flanges shall be in accordance with the manufacturer's standard spacing and shall be multiples of the plate length so that plates having the same curvature shall be interchangeable to permit staggering of the longitudinal seam. Bolt spacing at flanged longitudinal seams shall be in accordance with the manufacturer's standard spacing. For lapped longitudinal seams, bolt size and spacing shall be in accordance with the manufacturer's standard, but not less than that required to meet the longitudinal seam strength requirements of the design specifications. All liner plates for the full length of a specified tunnel shall be either the flange or the lapped seam type. The two types shall not be mixed in the same tunnel.

a) Liner plates shall be assembled in accordance with the manufacturer's instructions. Galvanized and coated plates shall be handled in such a manner as to prevent bruising, scaling, or breaking of the coating. Any plates that are damaged during the handling or placing shall be replaced, except that small areas with minor damage may be repaired to the satisfaction of the Engineer or his representative.

b) Galvanized surfaces shall be repaired by thoroughly wire brushing the damaged

areas and removed all loose, cracked coating, after which the cleaned areas shall be painted with two (2) coats of zinc rich paint as approved and an acceptable bituminous coating restored.

c) When tunneling has proceeded in a distance sufficient for placing one section of the tunnel liner, that section of liner will be placed before excavating further. Excavation shall be controlled so that the space outside the liner plate shall be held to a minimum. All voids between the liner plate and tunnel wall shall be filled with 1:3 Portland cement grout, containing no more water than necessary, placed under sufficient pressure to fill all voids. Grout shall be placed through the grout holes provided in the top of the tunnel liner plates. Grout holes 2" in diameter shall be provided at no more than 4.5-foot center or every third ring of plates to permit grouting as the erection of the tunnel liner progresses. At no time will the grouting operations be further than 10 feet from the front end or head of the tunnel construction.

d) At the end of each day's operations, the voids outside installed liner plates shall be grouted whether 10-feet or less. Grout will be forced into each grout hole. If the grout from one hole should flow along the liner plates so as to plug the next hole, the plug shall be opened by punching through the grout so that each hole may be used for grouting. The grouting operation will be continued at each hole until all spaces outside the liner plates are filled and no grout will flow.

e) The tunnel shall be constructed to the limits, grade and alignment shown on the Construction Drawings. Excavation, without the use of jetting, shall be done in such a manner as to protect public and/or private property from damage. Prior to beginning any construction, the Contractor shall submit pit shoring and tunnel liner details for approval and no tunneling may begin prior to approval of these details by the appropriate controlling agency. After approval of tunnel liner and pit shoring details, a five (5) day notice to the Controlling Agency, through the Engineer shall be provided as previously specified.

f) No blasting will be done without prior written approval of the controlling agency and then only in strict accordance with all Federal, State, and Local laws, ordinances, rules or regulations governing the storage and use of explosives. Where blasting is required, only small controlled charges or 40% dynamite or plastic explosives shall be used. The depths of the holes for these charges shall not exceed the depth necessary to clear an area sufficient to place one section of tunnel liner.

g) The charges for the initial series of blasts should be placed in the triangle method. The second series should be placed in the radial method a minimum distance from the desired diameter of the tunnel. The triangular charges shall be set to go off first, with the radial charges to go off following a short interval or using the time-lag method.

h) Where rock is encountered before approaching the shoulder or pavement, the first four series of charges will be used in determining the amount of controlled blasting to be used before beginning any blasting beneath the railway or shoulders or pavement of the highway as applicable. If rock is encountered after tunneling progresses beneath the pavement or railway, charges will initially be set at very low levels and increased in small increments until the proper amount of charge is determined. In no case will an overshoot be permitted. If a boulder is encountered and removed by blasting or by other methods, a bulkhead will be formed immediately after removal of the boulder and the area filled with

grout before proceeding with the tunneling operations.

i) If there is any indication of a vertical split in the rock formation, or any indication of settlement of the roadway or railway fill, all operations shall be stopped and the controlling agency notified immediately. If the vertical split is not determined to be out too great a magnitude or too close to the rails/pavement, the split shall be filled with grout at a pressure specified by the controlling agency, allowed to set and tunneling operations may be continued.

j) If it is determined that the vertical split is too great of a magnitude or too close to the pavement or railway, the Controlling Agency shall determine the method to be used to correct the split. If settlement of the roadway or railway occurs, the Controlling Agency will advise the Owner and his Contractor of the proper steps to be taken to correct the settlement. If deemed necessary by the Controlling Agency, adequate warning devices (signs, flasher, etc.) accompanied by responsible flagmen shall be placed at a distance allowing any and all traffic time to stop safely before reaching the questionable area. At the option of the Controlling Agency, it may provide the necessary flagmen, warning devices, etc., at the Contractor's expense. Traffic shall be allowed over the questionable area, only as directed by the Controlling Agency.

k) The completed liner shall consist of a series of structural steel liner plates assembled with staggered longitudinal joints. Liner plates shall have been fabricated to fit the cross-section of the tunnel. All plates shall be connected by bolts on both longitudinal and circumferential seams or joints.

l) After tunneling operations have been completed, the Contractor will install the carrier pipe in a manner approved by the Engineer. Concrete fill (1:3 Portland Cement grout) will then be placed after completing installation of the sewer pipe within the tunnel liner as directed by the Engineer and end enclosure walls installed as shown on the Construction Drawings or Standard Details. Ends of the tunnel liner will be sealed with an 8-inch masonry wall on the lower end and a 12-inch masonry wall on the higher end. Weep holes will be provided on the downstream end for drainage.

6. **FINISH WORK:** Once the Contractor has installed the carrier pipe, complete and in-place, the Contractor shall then remove the vertical shoring for pits (if ground conditions allow), surplus spoils, and material from the site. The site shall then be returned to its original condition, seeded, mulched, or restored as specified and left in a neat and satisfactory condition. Shoring material shall be removed in such a manner so as to avoid collapse and to allow proper backfill. The backfill shall be placed in accordance with these Specifications or the requirements of the Controlling Agency.

R. **BLASTING:** The Contractor shall not be allowed to blast within any rights-of-way maintained by any agency (SCDOT, railroad, gas, etc.) other than the City without specific approval of the controlling agency and only in accordance with their respective requirements.

1. Prior to commencing any blasting operations, the Contractor shall notify either the City Fire Department – Fire Prevention Section or the County Fire Administrator as applicable, and obtain blasting permits as required. The Contractor must furnish Certification of Insurance specifically covering any and all obligations assumed pursuant to the use of explosives. All blasting supplies shall be stored in a place and manner approved by the City, State Fire Marshal and other entities having jurisdiction over blasting operations. All blasting supplies shall be stored in a place and manner

approved by the City. In no case shall blasting caps or other igniters or exploders be kept in the vicinity of dynamite or where other explosives are stored.

2. Blasting operations shall be conducted in strict accordance with any and all decrees, rules, regulations, ordinances, and laws as may be imposed by any regulatory body and/or agency having jurisdiction over the Work relative to handling, transporting, use and storage of explosives. Blasting shall be done only by competent, sober, and experience personnel whose activities shall be conducted in a workmanlike manner. Satisfactory information must be provided to the Engineer that the blaster meets or exceeds the qualifications enumerated in OSHA Regulations Part 1926, Subpart U, Section 1926.901 – Blaster Qualifications.

3. All rock, dirt and debris from blasting shall be contained within the excavation by use of weighted mats or undisturbed overburden. The Contractor's blaster shall be fully responsible for determining the method of containment and the weight, size and placement of material required to contain the charge he is using. Charges shall be sized such that no damage to houses, structures, roadways, etc., outside the limits of excavation will occur. Where there is a possibility of such damage, the charge will initially be set at a very low level and increased in small increments until the proper charge is determined. The Contractor shall be held responsible for any and all injury to persons or damage to public or private property. No blasting will be permitted adjacent to existing buildings and structures. Rock at those locations shall be removed with jackhammers and bull-points. A seismic survey and/or pre-blast survey may be required.

S. EROSION AND SEDIMENT CONTROL:

1. **GENERAL:** Erosion and sediment control shall be conducted in accordance with the applicable Erosion and Sediment Control and or NPDES permit. It is the Contractor's responsibility for controlling soil erosion and sediment runoff. The Contractor is to utilize mulches, matings and or other fabrics, silt fences and other filters, grasses, slope drains, and other erosion control devices as necessary to control erosion and sediment runoff. Erosion control may include temporary work that must be removed upon achieving construction site surface stabilization.

2. **TEMPORARY EROSION CONTROL:** Temporary erosion control shall consist of planting temporary grass of a quick growing species such as millet, rye grass, or cereal grasses suitable to the area or other approved temporary means. When used, seed, fertilizer, mulch and periodic watering shall be applied in adequate quantities to assure a full, healthy ground cover over the entire disturbed area of construction operations. All materials shall be of first class quality and subject to approval by the governing erosion control authority. All disturbed areas along the pipeline, with exception to a construction access or haul road, shall be grassed as soon as possible after backfilling operations have been completed.

3. **CONSTRUCTION IN STREAMS AND IMPOUNDMENTS:** Unless otherwise approved by the City Engineer, construction operations in streams and impoundments shall be restricted to those areas which must be entered for the construction of temporary or permanent structures. As soon as conditions permit, streams and impoundments shall be promptly cleared of all falsework, piling which are to be removed, debris and other obstructions placed therein or caused by the construction operations. Frequent fording of live streams with construction equipment will not be permitted; therefore, temporary bridges or other structures shall be used wherever an appreciable number of stream crossings are necessary. Unless otherwise approved by the City Engineer, mechanized equipment shall not be operated in live streams except as may be required to construct channel

changes and temporary or permanent structures, and to remove temporary structures.

4. **CONSTRUCTION IN EASEMENTS:** Erosion control measures shall be constructed such that they do not discharge onto water or sewer easements, but to the opposite sides of such easements to prevent future erosion of the easement.

5. **LIMIT OF PROGRESS:** The Engineer will limit the area of excavation commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding and other such pollution control measures current in accordance with an accepted schedule. Should seasonal limitations make such coordination unrealistic, special erosion control measures shall be taken immediately to the extent feasible and justified.

6. **SURFACE STABILIZATION – PERMANENT GROUND COVER:** Upon construction completion and upon achieving construction site surface stabilization, the Contractor is to establish a permanent ground cover over any remaining denuded areas, and the Contractor shall remove all temporary erosion and sediment control measures upon achieving a permanent ground cover or satisfactory surface stabilization.

7. **RIGHT TO CORRECT:** In the case of failure on the part of the Contractor to adequately control erosion, pollution, and/or Siltation, the City reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs will be charged to the Contractor.

T. RESTORATION OF DISTURBED AREAS

1. **GENERAL:** All surfaces (both public and private) within and adjacent to the construction operations shall be restored to a condition comparable to that existing prior to construction, or as specified by the Engineer. All surplus materials shall be disposed in a manner acceptable to the Engineer, and the construction area shall be left in a neat condition, with special attention called to proper drainage, smoothness of surface, and general clean-up. No machinery or equipment shall be left or stored on the job site after the project is complete.

2. **STABILIZATION:** Unless otherwise specified, complete restoration is to include fertilizing, seeding, and mulching any and all areas disturbed during the construction within 30 working days following the initial ground disturbing activity.

3. **APPURTENANCES:** Manholes, valve boxes, drain pipes, and other structures encountered shall be reset or re-laid to match or clear surface grade and/or sewer pipe grade as applicable.

4. **REFUSE BURIAL:** Timber, rock and other refuse may not be buried within the permanent sewer rights-of-way with the exception of rock smaller than $\frac{3}{4}$ cubic foot.

5. **RIP-RAP:** The Contractor shall place stone rip-rap as specified in those areas subject to severe water action, where directed by the Engineer. Placement of rip-rap as shown on the Construction Drawings shall be considered as a guide only, with final determination made at the time of construction by the Engineer.

a) Stone rip-rap will be placed as indicated on the Standard Details immediately

following pipe installation and will be installed no steeper than a 2:1 slope, except when specifically approved by the engineer. Grading will be required as necessary to insure continuous even flow.

b) In locations where a creek bank is eroded near the sewer line, the Contractor will be required to place compacted fill material along the creek bank in order to maintain 3-feet of cover over the sewer line in all directions. This is to be done before the rip-rap is placed.

c) The rip-rap installation shall include all earthwork necessary to stabilize the creek bank and to provide cover for the sewer line.

6. JUTE NETTING/EROSION BLANKET: The Contractor shall install jute netting or erosion control blank in areas subject to high runoff velocities, areas subject to concentrated runoff, and on steep slopes as shown on the Construction Drawings or directed by the Engineer.

U. RESTORATION OF EXISTING PAVED SURFACES:

1. GENERAL: All removal and restoration of pavement and road surfaces will be in accordance with the specifications approved by the City of Rock Hill Public Works Department or the South Carolina Department of Transportation, whichever applies.

a) All restored bituminous and concrete pavements shall be placed to existing cross-section and ride quality. Restored pavement will in all instances be flush and level with existing pavement at the sawed edges, and at existing gutter lines where applicable, unless approved by the Engineer. When pavement repairs do not meet the above criteria or are not permitted in a workmanship manner as determined by the Engineer, the City of Rock Hill Public Works or SCDOT, whichever applies, will remove and re-perform the restoration as specified at the Contractor's expense.

b) When cuts are to be made in street rights-of-way under maintenance by the City of Rock Hill Public Works Department, the Contractor shall contact the Public Works Director or his designated representative before each separate pavement cut is made and secure a permit.

2. REPLACEMENT: All areas of existing pavement shall be neatly removed with straight edges. The Contractor shall remove and replace pavement, which in the opinion of the Engineer has been cracked or displaced by the operations of the Contractor. Edges shall be sealed upon completion of the repair.

a) In all pavement cuts either the permanent pavement or a temporary pavement consisting of 1 to 1 ½ inches of black asphaltic concrete (later to be replaced permanently) will be placed immediately upon completion of the subgrade unless otherwise approved by the Engineer.

b) Unless otherwise approved or required, concrete pavement shall be removed to the nearest expansion or contraction joint. The Contractor shall contact the Public Works Director and/or SCDOT's District Engineer for determination of the limits of concrete replacement and location of joints. Work procedures shall be such to prevent damage to surrounding pavement.

c) Bituminous pavement shall be cut in a smooth and straight line. Sawing is required on asphaltic concrete. The width of the pavement left between the edge of the ditch and the existing edge of pavement or the front line of the gutter, shall be at least 2 feet. Residual strips of pavement less than 2 feet in width must be removed and replaced. Existing pavement shall be removed on each side of the trench for at least 12-inches beyond the top of trench.

3. RESTORATION: Restoration of the paved surface shall be in accordance with the following specifications:

a) CONCRETE PAVEMENT: The concrete used to restore pavement shall have a minimum 28-day compressive strength of 3000 psi. The concrete shall conform to the shape, grad, and finish of the existing pavement and will be 1-inch deeper than the original pavement, including base, but in no instance less than 6 inches.

b) ASPHALT PAVEMENT: All material above the sub-base level shall be hot-mix bituminous concrete conforming to the SCDOT Standard Specifications for Roads and Structures for both mix design and placement. The asphalt pavement as placed shall be 1-inch deeper than the original pavement, including base, but in no instance less than 6 inches within City-maintained roadways or eight inches in state-maintained roadways. The asphalt shall be placed in lifts not greater than 4 inches and shall not be hot-mix bituminous concrete binder, Type H. The last 2 inches in either instance shall be bituminous plant mix (Type C – surface course) suitable to the appropriate controlling agency. Type C asphalt pavement surfacing will be placed with paving machines and/or rollers of a size and type currently approved by the SCDDOT for use on resurfacing contracts.

(1) If bituminous surfacing overlays a concrete base, the Contractor, at the option of the Engineer, shall replace the concrete to its original thickness or to a level 2-inches below the finished surface. The Engineer may direct the Contractor to omit all concrete and to replace the pavement with bituminous materials.

(2) Tack coats shall be employed with each lift. Tack coats shall be placed on both horizontal and vertical surfaces (pavement cuts or faces of concrete gutters).

(3) Under normal conditions, asphalt binder will be placed in pavement cuts at the end of each workday. Following completion of pipeline construction along a continuous section of pavement, 1 to 2 inches shall be replaced weekly or within five days. During inclement weather, the Engineer may permit the use of temporary asphalt (cold Mix) to seal the trench until permanent asphalt can be placed.

(4) All pavement markings are to be restored.

4. DAMAGE TO ADJACENT PAVEMENT: The pavement adjacent to pipeline trenches must not be disturbed or damaged. If the adjacent pavement is disturbed or damaged, irrespective of cause, the Contractor shall remove the damaged pavement and shall replace with new pavement at his own expense

V. RECORD/AS-BUILT DRAWINGS: The Contractor is to keep a set of approved Construction Drawings on site to make notes to facilitate the preparation as-built/record drawing information for the sewer

infrastructure being installed. Notes taken during construction shall include but is not limited to field changes to the horizontal alignment or grades of the infrastructure being installed, sanitary sewer service locations (station along sewer main), description, size and location (station and elevation(s)) of all underground utility crossings encountered during the construction work, location of bedrock encountered and removed, and other pertinent information.

1. The Contractor shall supply a copy of the field noted drawings to the engineer, along with surveyed as-built/record drawings (signed and sealed by a South Carolina Licensed Surveyor). Surveyed as-built/record drawings shall include the location and elevations of all manholes (rim and invert elevations), locations of service lateral cleanouts (station and offset) and calculated pipe grades. Stations of all service lateral wyes and/or connections and station and elevation of all utilities encountered during the sewer installation shall be incorporated in the drawings. Engineer shall provide to City a hard set (bond and Mylar) of as-built drawings and digital set (in .pdf and .dwg formats) prior to receiving final approval of the project.
2. The Contractor is to provide video imagery from closed-circuit television (CCTV) inspection of the newly installed sanitary sewer infrastructure. The video is to be provided to the Engineer of Record for the project, who is to review it for abnormal or defective structures, infiltration, joint offsets, unacceptable slope conditions, and any other instances of unsatisfactory construction. Engineer of Record is to prepare a sealed letter report to the City stating that there are no abnormalities, deficiencies, or unsatisfactory conditions found in the new infrastructure.
3. The Builder shall field verify the sewer service locations relative to the finished floor elevations of the building prior to installing the service.
4. Prior to receiving a Certificate of Occupancy on a building, residence, structure, or portion thereof that contains a connection to the City's sewer system, the Plumber shall provide to the City Utilities Department video imagery of the newly installed sanitary sewer service infrastructure to the sewer main.
5. As-built/record documentation is required for pump stations and low pressure sewer system. Please see those sections for additional requirements.

W. WARRANTY: The Work shall be free of defects in material and workmanship for a two-year period from the date of acceptance, which is defined as either the date of signature by the City Engineer on the Final Plat or as referenced in correspondence by the City Engineering Division. If neither date can be identified, the date shall be the issuance date for the SCDHEC Permit to Operate.

IV. SANITARY SEWER PUMP STATIONS

A. PURPOSE:

1. **GENERAL:** These standards address the City's minimum requirements for operation and control of connecting pump stations and include guidelines for sizing new wet wells to accommodate the service conditions. Standards for hydrogen sulfide control for connecting pump stations are also included herein.
2. **OBJECTIVES:** The objectives of these supplemental standards are as follows:
 - a) Control connecting pump station operations to prevent simultaneous operation with the pump station upstream of the connection point.
 - b) Minimize number of connecting pumping stations
 - c) Minimize hydrogen sulfide formation in the City's collection system.
 - d) It is the City's intent to minimize the number of new sewage pump stations connecting to the City's wastewater system. Since it is required to coordinate pump station operations to mitigate the sewer system capacity deficit, the addition of numerous small pump station connections will complicate the City's proposed plan.
3. **REQUIREMENTS:** All materials, equipment, and labor for submersible pump station construction shall be furnished in accordance with these specifications and in accordance with the Construction Drawings prepared by a registered Professional Engineer licensed to practice in the state of South Carolina.

B. DESIGN REQUIREMENTS:

1. **APPLICABLE REGULATIONS AND STANDARDS:** The design and construction of sewage pump stations shall comply with all applicable City of Rock Hill and SCDHEC standards contained in Regulation 61-67.300. Related buildings and structures shall comply with the Building Officials Conference of America (BOCA) and permitting requirements of the City Planning and Development department. Other standards governing facilities, materials, and construction shall include, but not limited to the following:
 - a) American Society for Testing and Materials (ASTM)
 - b) American National Standards Institute (ANSI)
 - c) America Water Works Association (AWWA)
 - d) Factory Mutual (FM)
 - e) Hydraulic Institute Standards (HIS)
 - f) Institute of Electrical and Electronic Engineers (IEEE)
 - g) Joint Industrial Council (JIC)
 - h) National Electric Code (NEC)
 - i) National Electric Manufacturers Association (NEMA)
 - j) National Fire Protection Association (NFPA)
 - k) National Institute for Occupational Safety and Health (NIOSH)

- l) National Machine and Tool Builders Association (NMTBA)
- m) Occupational Safety and Health Administration (OSHA)
- n) Ten States Standards
- o) Underwriters' Laboratory (UL)

2. **DESIGN ENGINEER:** It is the responsibility of the design engineer to determine the applicability of the design standards and to integrate all applicable criteria and guidelines for sewage pump stations to be connected into the City sewer system.

3. **GENERAL:** Pumping systems shall be designed to serve the upstream basin service area and to achieve a minimum cleansing velocity of 2.5 fps and a maximum design velocity of 6 fps. Wetwells and force mains shall be constructed to serve the entire basin. Pumps may be sized for the development being served, with future developments being required to include the necessary upgrades for additional flows. Arc-flash study to be completed and appropriate labels placed on panels. Contractor to furnish permanent signage for confined space.

4. **PUBLIC WATER:** City water shall be installed at all pump stations. At a minimum, access to City water shall be through an on-site yard hydrant.

C. **PRE-APPROVAL OF PUMP STATION:**

1. To minimize the number of pump stations connecting to the City's collection system, the design engineer shall prepare an evaluation of wastewater collection options for existing and future developments in the vicinity of the proposed development. The evaluation shall consider:

- a) Adjacent drainage areas that can potentially be served by a new sewage pump station, including estimated flow projections and future pump station upgrades.
- b) Connection to an existing pump station, including additional force main length and necessary improvements to the pump station to accept additional flow.

2. Three (3) originals of the evaluation shall be submitted to the City Engineer for review at the preliminary design phase for the project and is required for pre-approval of new sewage pump stations.

3. Design flow for determining pumping station capacity shall be based on peak hourly flow in accordance with the SCDHEC regulations. Information for existing pump stations and possible future developments can be obtained from the City.

4. Additional design will be required to address provisions for emergency pumping for wet wells that are greater than 20 feet in depth. These additional provisions and any associated protocol shall be approved by the City Engineer prior to approval of the pump station use.

D. **PUMP STATION SITE:**

1. Site shall be designed such that pad and fenced area can accommodate a boom truck to remove the pumps from the wet well.

2. A minimum 60-foot by 60-foot fenced area with a 12-foot entrance gate shall be provided.
3. Access drive shall be paved.
4. An area around the fence shall be provided to meet screening requirements if adjacent to a residential development.

E. **WET WELL CAPACITY:**

1. **GENERAL:** The pumping station wet well shall be sized to accommodate the influent sewer and pump suction piping or pump submergence as recommended by the HIS. Since pumping shall be restricted when the upstream pump station pumps are running, additional storage capacity shall be provided to contain wastewater generated during the required pump-off time. Guidelines for determining the required working and storage volumes are given below.

2. **WORKING VOLUME:**

a) Required Working volume and preferred distances between sewer and control elevations shall be determined as follows:

(1) Working Volume (in gallons) = $TQ/4$; the volume between the elevations of the lead pump on and lead pump off.

(2) With T = Minimum time between motor starts or 7 minutes, whichever is greater; For pumps greater than 30 horsepower, minimum cycle shall be 12 minutes.

(3) Q = Ultimate design discharge rate of one pump (lead pump) in operation, gallons per minute (gpm)

b) Working volume shall allow no more than 3 or 4 pump cycles considering the minimum cycle time recommended by the pump manufacturer.

c) Filling rate shall not exceed 30 minutes at the design average flow rate, unless the facility is designed for storage as described in the following section.

d) Minimum inside width or diameter shall be 8 feet. Considerations shall include retention time and pipe/pump configuration and equipment access.

e) Minimum elevation difference between influent sewer and high water alarm shall be 18 inches.

f) Minimum elevation difference between control elevations shall be 6 inches.

g) Minimum elevation difference between Lead Pump On and bottom of wet well shall be as required for submergence of pumps or pump station.

(1) As a guideline for determining pump suction pipe submergence, provide 1-foot of submergence for each foot per second (fps) of velocity at the suction pipe

inlet. Maximum intake velocity shall not exceed 6 fps.

3. STORAGE VOLUME:

a) Storage volume shall be provided in the wet well for containment of wastewater generated during controlled pump-off periods or for emergency storage. Storage volumes shall be determined as described below.

b) Controlled Pump-Off Storage

(1) For pumping stations connecting to the City's collection system, sufficient storage volume shall be provided in the wet well between the pump-on and high water levels for containment of wastewater generated when the pump station upstream of the pump station's force main connection is operating (controlled pump-off storage). The volume shall be computed from the maximum pump-on time for the upstream pump station and the peak design flow to the pump station.

(2) Cycle times for the City's pump stations are extremely variable. However, it can be assumed that pump station pump-on time will generally be approximately 3 minutes to an estimated maximum of 10 minutes (subject to verification by the City). Therefore, storage shall be provided for 10 minutes (subject to verification by the City) of generated wastewater at the design peak flow rate. If emergency storage is provided, as described below, the emergency storage volume can be considered to meet the controlled pump-off storage requirement.

c) Emergency Storage

(1) In accordance with SCDHEC regulations, auxiliary power using either two separate power substation connections or an on-site standby generator shall be provided for sewage pump stations. For emergency storage, additional volume shall be computed for the projected flow from the community during the longest reported power outage in the last five (5) years, excluding power outage from a catastrophic storm. As a minimum, the City requires storage for a two-hour period.

4. TOP SLAB: The top slab elevation shall be at least 2-feet above the 100-year water surface elevation.

F. PUMP STATION CONTROL AND MONITORING:

1. All new pump stations in the City's sewer collection system shall install computerized supervisory control and data acquisition (SCADA) system equivalent and compatible to the system the City is using at the time of construction.

G. HYDROGEN SULFIDE AND ODOR CONTROL:

1. Control Measures shall be provided at pump stations to minimize the release of odorous gases and the effects of hydrogen sulfide (H₂S) on downstream infrastructure. Such measures are required for the following conditions:

- a) Condition 1 - For wet wells with a filling rate in excess of 20 minutes at average flow, including initial flows, it shall be assumed that there is potential for septicity and resulting odors.
- b) Condition 2 - For force mains with greater than two-hour detention time, it shall be assumed that H₂S will be produced at a level greater than 5 parts per million (ppm).
- c) Condition 3 - For pump stations receiving flow from intermediate pump stations or grinder pump systems, it shall be assumed that sufficient H₂S will be present in the incoming wastewater to cause corrosion and odors at the pump station.

2. It is the responsibility of the design professional to determine the conditions at the proposed pump station. Analyses shall be prepared and submitted for the City's review with the preliminary design submittal, and shall consider conditions ranging from initial operation to build-out.

3. The following control measures shall be provided at pump stations meeting the above conditions.

a) Condition 1

(1) Provide either continuous or intermittent mechanical ventilation of wet well. Air shall be forced into the wet well with a fan. Provide a timer for normal operation. Provide a limit switch to energize the fan whenever the entrance hatch is opened.

(2) The fan shall be sized to provide a minimum of 30 complete air changes per hour with continuous operation for worker safety. Timer operation of the fan shall allow a minimum of 2 complete air changes per hour.

(3) The fan shall be direct drive. If the fan is installed outdoors, the fan assembly and housing shall be of corrosion resistant and weather-proof construction.

(4) Exhaust from the wet well shall be passed through a biofilter before released to the atmosphere. The biofilter shall be composed of suitable organic media with embedded air distribution system and sized in accordance with the Standard Detail.

b) Condition 2

(1) Provide chemical dosing system. Equipment shall include chemical metering units, storage facilities, and related piping and controls to feed chemical solution into pump station wet well. Chemicals for H₂S control shall be approved by City Engineer.

(2) Dosing Rates shall be as specified by the manufacturer

c) Condition 3

(1) Provide mechanical ventilation and exhaust air treatment as described for

Condition 1 and chemical dosing as described for Condition 2.

4. Wet well structures shall be lined with Ultra-High Build Epoxy Coating System Raven 405 by Raven Lining Systems, or approved equal, at a minimum dry-film thickness of 125 mils, installed per the manufacturer's instructions.

H. MATERIAL SPECIFICATIONS:

1. **DESCRIPTION:** All materials, equipment, and labor for submersible pump station construction shall be furnished in accordance with these specifications and in accordance with the Construction Drawings prepared by a Registered Professional Engineer licensed to practice in the state of South Carolina.

2. **SYSTEM DESCRIPTION:**

a) Contractor shall furnish and install one electric submersible non-clog wastewater pump station. The station shall be complete with all equipment and appurtenances specified herein and approved by the City. See Standard Detail for typical layout.

b) Principle items of equipment shall include two electric submersible pumps (minimum) to be supplied with motor, close-coupled volute, ductile iron discharge elbow, guide bar brackets, power cable and accessories necessary for wet pit installation, on-site generator, monitoring and control equipment, and all other appurtenances as show on the Standard Details. All hardware, including anchors, bolts, etc., shall be 316 stainless steel.

c) All items associated with the pumps and tier installation and operation shall be provided by the pump manufacturer, unless specified elsewhere. Other items, such as the on-site generator, valves and piping, etc., may be supplied by others.

3. **PERFORMANCE CRITERIA:**

a) Pumps must be designed to handle raw, unscreened, domestic sanitary sewage. Each pump shall be selected to perform under operating conditions base on, but not limited to the following:

- (1) Capacity (gpm)
- (2) Total Dynamic Head (ft)
- (3) Total Discharge Head (ft)

b) Site power furnished to pump station shall be three phase, 60 hertz, 460 volts, four wire maintained within industry standards. Voltage tolerance shall be plus or minus 10 percent. Control voltage shall not exceed 132 volts.

4. **SUBMITTALS:**

a) Product Data

(1) Prior to fabrication, the project's contractor or developer's representative, shall submit 3 copies of the manufacturer's data for review and approval. Submittal shall include shop drawings, electrical ladder logic drawings, and support data as follows: catalog cut sheets reflecting characteristics for major items of equipment (including control panels), materials of construction, major dimensions, motor data, pump characteristic curves showing the design duty point capacity (gpm), head (ft), net positive suction head required (NPSHr), and hydraulic brake power (HBP). Electrical components used in the motor branch and liquid level control shall be fully described.

(2) Prior to fabrication, the project's contractor or developer's representative, shall submit 3 copies of the on-site generator manufacturer's data for review and approval.

(3) Prior to fabrication, the project's contractor or developer's representative, shall submit 3 copies of the SCADA system manufacturer's data for review and approval. The submittal data shall include, but not be limited to, the RTU Communication's Study.

b) Operation Maintenance Manuals

(1) Installation shall be in accordance with written instructions provided by the pump station equipment manufacturer(s). Comprehensive instructions supplied at time of shipment shall enable personnel to properly operate and maintain all equipment supplied. Content and instructions shall assume operating personnel are familiar with pumps, motors, piping and valves, but lack experience on exact equipment supplied. A minimum of three (3) printed copies and one (1) digital version of the manual shall be provided to the City.

(2) Documentation shall be specific to the pump station and collated in functional sections. Each section shall combine to form a complete system manual covering all aspects of equipment supplied by the station manufacturer. Support data for any equipment supplied by others, even if mounted or include in overall station design, shall be provided by those supplying the equipment. Instructions shall include the following as a minimum.

(a) Functional description of each major component, complete with operating instructions.

(b) Instructions for operating pumps and pump controls in all modes of operation.

(c) Calibration and adjustment of equipment for initial start-up, replacement of level control components or as required for routine maintenance.

(d) Support data for commercially available components not produced by the station manufacturer, but supplied in accordance with the specifications, shall be supported by literature from the prime manufacturer and incorporated as appendices.

(e) Electrical schematic diagram of the pump station circuits shall be in accordance with NMTBA and JIC standards. Schematics shall illustrate, to the extent of authorized repair, pump motor branch, control and alarm system circuits including interconnections. Wire numbers and legend symbols shall be shown. Schematic diagrams for individual components, not normally repairable by the station operator, need not be included. Details for such parts shall not be substituted for an overall system schematic. Partial schematics, block diagrams, and simplified schematics shall not be provided in lieu of an overall system diagram.

(f) Mechanical layout drawing of the pump station and components, prepared in accordance with good commercial practice, shall provide installation dimensions and location of all pumps, motors, valves and piping.

(3) Operation and maintenance instructions, which rely on vendor cut-sheets and literature, which include general configurations, or require operating personnel to selectively read portions of the manual shall not be acceptable. Operation and maintenance instructions must be specific to equipment supplied in accordance with these specifications.

5. QUALITY ASSURANCE:

a) Upon request from the engineer, the pump station equipment manufacturer(s) shall prove financial stability and ability to produce the station within the specified delivery schedules. Evidence of facilities, equipment and expertise shall demonstrate the manufacturer's commitment to long term customer service and product support.

b) The pumps shall be heavy-duty, electric submersible centrifugal non-clog units designed for handling raw, unscreened sewage and wastewater. The pumps shall be capable of pumping a 3.0" spherical solid.

c) The pumps provided shall be capable of operating in an ambient liquid temperature of 104 degrees F as specified by NEMA and FM.

d) The pump and motor unit shall be suitable for continuous operation at full nameplate load while the motor is completely submerged, partially submerged or totally non-submerged. The use of shower systems, secondary pumps or cooling fans to cool the motor is not acceptable.

e) The pump, mechanical seals and motor units provided under this specification shall be from the same manufacturer in order to achieve standardization of operation, maintenance, spare parts, manufacturer's service and warranty.

f) The manufacturer's technical representative shall inspect the completed installation, correct or supervise the correction of any defect or malfunction, and instruct operating personnel in the proper operation and maintenance of the equipment.

6. MANUFACTURER'S WARRANTY:

a) The pump station equipment manufacturer(s) shall warrant all equipment to be of quality construction, free of defects in material and workmanship. A written warranty shall include specific details described below:

(1) All equipment, apparatus, and parts furnished shall be warranted for one year, excepting only those items normally consumed in service, such as light bulbs, oils, grease, packing, gaskets, O-rings, etc. The pump manufacturer shall be solely responsible for warranty of the pumps and all its supplied components.

(2) The pump shaft seal shall be warranted for a minimum of four years from the date of shipment. Should the seal fail within the first year, the manufacturer shall furnish a new seal, without charge to the owner, F.O.B. factory. The warranty replacement cost for seals after the first year will be pro-rated as follows:

<u>Failure Within</u>	<u>Percent New Price</u>
2 years	75%
3 years	50%
4 years	25%

(3) Components failing to perform as specified by the engineer, or as represented by the manufacturer, or as proven defective in service during the warranty period, shall be replaced, repaired, or satisfactorily modified by the manufacturer without cost of parts or labor to owner.

b) The warranty provided by the developer to the City shall become effective upon the issuance of a Permit to Operate by SCDHEC.

7. UNITARY RESPONSIBILITY - In order to unify responsibility for proper operation of the pump station, it is the intent of these specifications that all system components associated with the pumps (pumps, motors, installation hardware and controls, etc.) be furnished by a single manufacturer (unitary source) approved by the City. The system must be of standard catalog design, totally warranted by the manufacturer. Under no circumstances will a system consisting of parts compiled and assembled by a manufacturer's representative or distributor be accepted.

8. PUMP DESIGN:

a) The pumps shall be automatically and firmly connected to the discharge connection, guided by no less than two guide bars extending from the top of the station to the discharge connection. There should be no need for personnel to enter the wet well.

b) Sealing of the pumping unit to the discharge connection shall be accomplished by a machine metal-to-metal watertight connection.

9. PUMP CONSTRUCTION:

a) Major pump components shall be of gray cast iron, ASTM A48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities.

b) All exposed nuts or bolts shall be ANSI type 304 stainless steel construction. All

metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

c) Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile or Viton rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of specific torque limit.

d) The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the body containing a strain relief function, separate from the function of sealing the cable.

10. MOTOR:

a) The pump motor shall be induction type with a squirrel-cage rotor, shell-type design, housed in an air filled, watertight chamber, NEMA B type.

b) The stator windings and stator leads shall be insulated with moisture resistant Class F insulation rated for 155 degrees C (311 degrees F). The stator shall be dipped and baked three times in Class F varnish and shall be heat-shrink fitted into the stator housing.

c) The motor shall be designed for continuous duty handling pumped media of 40 degrees C (104 degrees F) and capable of up to 15 evenly spaced starts per hour.

d) The motor and pump shall be designed and assembled by the same manufacturer.

e) The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

11. IMPELLER:

a) The impeller shall be of gray cast iron, Class 35B, dynamically balanced, double-shrouded non-clogging design having a long through-let without acute turns.

b) The impeller shall be capable of handling 3" spherical solids, fibrous materials, heavy sludge and other matter found in wastewater.

c) All impellers shall be coated with acrylic dispersion zinc phosphate primer.

12. ELECTRICAL CONTROL COMPONENTS:

a) Electrical control equipment shall be mounted within a NEMA 1 steel, dead-front type, control enclosure. Door shall be hinged and sealed with a neoprene gasket and equipped with captive closing hardware. Control components shall be mounted on a removable steel back panel secured to enclosure with collar studs. All control devices and instruments shall be mounted using threaded fastener, and shall be clearly labeled to indicate function.

b) Pump Station controls shall conform to third party safety certification. The enclosure and all components mounted on the subpanel or control cover shall conform to UL descriptions and procedures.

c) Motor branch components to be of highest industrial quality, secured to the sub-plate with machine screws and lockwashers. Mounting holes shall be drilled and tapped; Self-tapping screws shall not be used to mount any component.

d) A properly sized heavy-duty circuit breaker, with RMS interrupting rating of 14,000 amperes at 460 volts, shall be furnished for each pump motor. The circuit breakers must be sealed by the manufacturer after calibration to prevent tampering. An operating mechanism installed on each motor circuit breaker shall penetrate the control panel door. A pad-lockable operator handle shall be secured on the exterior surface. Interlocks must prevent opening the door until circuit breakers are in the "OFF" position.

e) An open-frame, across-the-line, MENA-rated magnetic starter with under-voltage release, and overload protection on all three phases, shall be furnished for each pump motor. Starters of NEMA size 1 and above shall allow addition of at least two auxiliary contacts. Starters rated "0", "00", or fractional sizes are not acceptable. Power contacts to be double-break type made of cadmium oxide silver. Coils to be epoxy molded for protection from moisture and corrosive atmospheres. Contacts and coils to be easily replaceable without removing the starter from its mounted position. Each starter shall have a metal mounting plate for durability. Overload relays to be block-type with melting alloy spindles, having visual trip indication with trip free operation. Pressing the overload-reset lever shall not actuate the control contact until after the overload spindle has reset. Resetting the overload reset lever will cause a snap-action control and not convertible to automatic reset. Trip settings shall be governed by the heater element only, and not by adjustable settings. Heater elements must provide NEMA Class 20 trip times, selected in accordance with actual motor nameplate data. An overload-reset pushbutton, mounted through the control panel door, shall permit resetting the overload relays without opening the control panel door.

f) The control panel shall be equipped with a secondary lightning arrestor to minimize damage to the pump motors and control from transient voltage surges. The arrestor shall utilize silicon-oxide varistors encapsulated in a non-conductive housing. The arrestor shall have a current rating of 60,000 amps, a Joule rating of 1500.

g) The control panel shall be equipped to monitor the incoming power and shut down the pump motors when required to protect the motor(s) from damage caused by phase reversal, phase loss, low voltage, and voltage unbalance. An integral time delay shall be provided to minimize nuisance trips. The motor(s) shall automatically restart when power conditions return to normal.

h) Control Circuits

(1) A normal-duty thermal-magnetic circuit breaker shall protect all control circuits by interrupting control power.

(2) Pump mode selector switches shall permit manual start or stop of each pump set individually, or permit automatic operation under control of the liquid level control system. Manual operation shall override all shutdown systems, except

the motor overload relays. Selector switches to be heavy-duty, oil-tight design with contacts rated NEMA A300 minimum.

(3) Pump alternator relay to be electro-mechanical industrial design. Relay contacts to be rated 10 amps minimum at 120 volts non-inductive. A switch shall permit the station operator to select automatic alteration of pumps, to select pump set number to be "lead" for each pumping cycle, or to select pump set number two to be "lead" pump for each pumping cycle.

(4) Six-digit elapsed time meter (non-reset type) shall be provided for each pump set to indicate total running time of each pump set in "hours" and "tenths of hours." A pilot light shall be wired in parallel to indicate that the motor is energized and should be running.

(5) A high pump temperature protection circuit shall override the level control and shutdown the pump motor(s) when required to protect the pump from excessive temperature. A thermostat shall be mounted on each pump casing and connected to a high pump temperature shutdown circuit. If casing temperature rises to a level sufficient to cause damage, the thermostat causes the pump shutdown circuit to interrupt power to the motor. A visible indicator located on the control panel door shall indicate motor stopped due to high pump temperature. The motor shall remain locked-out until the pump has cooled and circuit has been manually reset. Automatic reset of the circuit is not acceptable.

(6) A duplex ground fault receptacle providing 115 VAC, 60 Hz, single phase current, will be mounted on the side of the control enclosure. Receptacle circuit shall be protected by a 15 amp thermal-magnetic circuit breaker.

13. AUXILIARY POWER TRANSFORMER CONTROLS AND ACCESSORIES:

a) The pump station shall be equipped with a 3 KVA step-down transformer to supply 115 volt, AC, single-phase for the control and auxiliary equipment. The primary and secondary side of the transformer to be protected by a thermal magnetic circuit breaker sized to meet the power requirements of the transformer. An operating mechanism shall penetrate the control panel door, and a pad-lockable operator handle shall be secured on the exterior surface. Interlocks must prevent opening the door until circuit breakers are in "OFF" position.

b) All wiring, workmanship and schematic wiring diagrams shall comply with applicable standards and specifications of the NEC. All user serviceable wiring shall be type MTW or THW, 600 volts, color coded as follows:

- | | | |
|-----|--|--------|
| (1) | Line and Load Circuits, AC or DC power | Black |
| (2) | AC Control Circuit Less than Line Voltage | Red |
| (3) | DC Control Circuit | Blue |
| (4) | Interlock Control Circuit from external source | Yellow |
| (5) | Equipment Grounding Conductor | Green |
| (6) | Current Carrying Ground | White |
| (7) | How With Circuit Breaker Open | Orange |

c) Control circuit wiring inside the panel, with exception of internal wiring of individual component, shall be 16-gauge minimum, type MTW or THW, 600 volts. Power wiring to be 14-gauge minimum. Motor branch wiring shall be 10-gauge minimum. Motor branch and other power conductors shall not be loaded above 60 degrees C temperature rating, on circuits of 100 amps or less, nor above 75 degrees C on circuits over 100 amps. Wires must be clearly numbered at each end in conformance with applicable standards. All wire connectors in the control panel shall be ring tongue type with nylon-insulated shanks. All wires on the sub-plate shall be bundled and tied. All wires extending from components mounted on door shall terminate at a terminal block mounted on the back panel.

d) All wiring outside the panel shall be routed through conduit. Control wires connected to door mounted components must be tied and bundled in accordance with good commercial practice. Bundles shall be made flexible at the hinge side of the enclosure. Adequate length and flex shall allow the door to swing full open without undue stress abrasion. Bundles shall be held on each side of hinge by mechanical fastening devices. factory installed conduit shall conform to following requirements:

- (1) All conduit and fittings to be US listed.
- (2) Liquid-tight flexible metal conduit to be constructed of smooth, flexible galvanized steel core with smooth abrasion resistant, liquid tight polyvinyl chloride cover.
- (3) Conduit to be supported in accordance with articles 346, 347, and 350 of the NEC.
- (4) Conduit shall be sized according to the NEC.

e) Station manufacturer shall ground all electrical equipment inside the pump station to the control panel back plat. All paint must be removed from the ground-mounting surface before making final connections. The contractor shall provide an earth driven ground connection to the pump station at the main grounding lug in accordance with the NEC.

f) Permanent corrosion resistant name plate(s) shall be attached to the control and include the following information:

- (1) Equipment serial number
- (2) Supply voltage, phase and frequency
- (3) Current rating of the minimum main conductor
- (4) Electrical wiring diagram number
- (5) Motor horsepower and full load current
- (6) Motor overload heater element
- (7) Motor circuit breaker trip current rating

(8) Name and location of equipment manufacturer

g) Control components shall be permanently marked using the same identification keys shown on the electrical diagram. Labels shall be mounted adjacent to device being identified. Switches, indicators, and instruments mounted through the control panel door shall be labeled to indicate function, position, etc. Labels shall be mounted adjacent to, or above the device.

h) Liquid Level Monitoring Control

(1) The level monitoring and control system shall start and stop the pump motors in response to changes in wet wall level, as set forth herein.

(2) The level monitoring and control system shall be capable of operating as a conductivity probe-type system for liquid level control and with a float-ball system for high and low level alarms, as manufactured by ITT Flygt, DEVAR Inc., or manufacturer approved equal by the City.

(3) The level control system shall utilize the alternator relay to select first one pump set, then the second pump set, to run as lead pump for a pumping cycle. Alternation shall occur at the end of a pumping cycle.

(4) The level control system shall be provided with pump start and stop delays to prevent simultaneous motor starts and to reduce the potential of hydraulic surges during motor shutdown.

(5) The level control system shall utilize the conductivity probe-type system which shall continuously monitor the wet well level, permitting the operator to read wet well level at any time. Upon operator selection of automatic operation, conductivity probe-type system shall start the motor for one pump set when the liquid level in the wet well rises to the "lead pump start level". When the liquid is lowered to the "lead pump stop level", the conductivity probe-type system shall stop these pumps. These actions shall constitute one pumping cycle. Should the wet well level continue to rise, the conductivity probe-type system shall start the second pump set with the liquid reaches the "lag pump start level" so that all pumps are operating. These levels shall be adjustable as described below.

(6) The conductivity probe-type system shall include integral components to perform all pressure sensing, signal conditioning. EMI and RFI suppression. DC power supply and 120 volt outputs. Components shall be solid state, and shall be integrated with other components to perform as described below.

(7) The conductivity probe-type system shall be capable of operating on a supply voltage of 108 volts to 132 volts AC, 60 Hz, in an ambient temperature range of -10 degrees C (14 degrees F) through +55degrees C (131 degrees F). Control range shall be 0 to ----.0 feet of water with an overall repeat accuracy of ± 0.1 feet of water. Memory shall be retained using a non-volatile lithium battery back-up.

(8) The conductivity probe-type system shall consist of the following integral components, display, and output relays:

- (a) The conductivity probe-type system shall incorporate a digital back-lighted LCD panel display which, upon operator selection, shall indicate liquid level in the wet-well, and the preset start and stop level for both lead and lag pumps. The display shall include 20 0.19-inch high alphanumeric characters calibrated to read out directly in feet of water, accurate to within one-tenth foot (0.1 foot), with a full-scale indication of not less than 12 feet. The display shall be easily convertible to indicate English or metric units.
 - (b) Level adjustments shall be electronic comparator set points to control the levels at which the lead and lag pumps start and stop. Each of the level settings shall be adjustable and accessible to the operator without opening the cover panel. Controls shall be provided to permit the operator to read the selected levels on the display. Such adjustments shall not require hard wiring, the use of electronic test equipment, or artificial level simulation.
 - (c) An alarm silence pushbutton and relay shall be provided to permit maintenance personnel to de-energize the audible alarm device while corrective actions are underway. After silencing the alarm device, manual reset of the alarm condition shall clear the alarm silence relay automatically. The pushbutton shall be oil-tight design with contacts rated NEMA A300 minimum.
 - (d) Station manufacturer will supply on 1515-volt AC alarm light fixture with vapor-tight red globe, guard, conduit box, and mounting base. The design must prevent rain water from collecting in the gasketed area of the fixture, between the base and globe. The alarm light will be shipped loose for installation by the contractor.
 - (e) Station manufacturer will supply on 115-volt AC Weatherproof alarm horn with projector, conduit box, and mounting base. The design must prevent rain water from collecting in any part of the horn. The alarm horn will be shipped loose for installation by the contractor.
- (9) The level control system shall be provided with two (2) submersible switches to serve as high-level and low-level alarms. When tripped, the high-level float will initiate local and SCADA alarms and attempt to start both the lead and standby pumps. When tripped, the low-level float will initiate local and SCADA alarms and attempt to de-energize all pumps.
- (a) Switches shall have the ability to be wired as either NO or NC and provided with 100 feet of cable, unless otherwise specified by the design engineer.
 - (b) Switches shall be Flygt type ENM-10 582 8836, or approved equal
 - (c) Provide 4-float, T-type bracket with cord snubbers to mount to wall or wet well and hand switches. Bracket shall be constructed of 304 stainless steel and include 316 stainless steel mounting hardware.

i) Telemetry - Each pump station shall be supplied with a SCADA RTU. The work to be accomplished under this specification shall consist of furnishing the equipment necessary for modifying the existing automatic control and monitoring system. The equipment shall be designed, fabricated, programmed, tested, started-up, and warranted by a single supplier.

j) On-site Generator System

(1) General

(a) All pump stations shall have an automatic standby power generation system conforming to these specifications

(b) The system shall consist of a diesel-fueled standby generator in a weather proof enclosure complete with all equipment and accessories required to automatically supply power to the pump station during a utility power failure. The engine generator set shall start the two wastewater pumps in sequence and will run both simultaneously under full load. Simultaneous starting is not required.

(c)

(2) Engine

(a) Engine block material: cast iron

(b) Cylinder head material: cast iron

(c) Crankshaft material: Hardened steel

(d) Pistons: Aluminum alloy

(e) Valve seats: Replaceable

(f) Maximum rate RPM: 1800

(3) Engine Governor

(a) Type: Mechanical

(b) No-load to full load frequency regulation: 5.0%

(c) Steady state regulation: $\pm 0.33\%$

(d) Over-speed shutdown: Automatic solid state

(4) Engine Lubrication System

(a) Oil pump: Gear type

(b) Oil filter: Full-flow cartridge

- (c) Low-oil pressure shutdown: Automatic
- (5) Engine Cooling System
 - (a) Type of system: Pressurized, closed recovery
 - (b) High temperature shutdown: Automatic
 - (c) Low coolant level shutdown: Automatic
 - (d) Fan: Pusher type with guard
 - (e) Engine block heater: 1000 watts (min), 120 VAC, thermostatically controlled
 - (f) Coolant: Water/ethylene glycol (-34 degree protection)
- (6) Engine Fuel System
 - (a) Fuel: #2 Diesel
 - (b) Fuel filter: 5 micron
 - (c) Injection type: Direct
 - (d) Fuel pump: Mechanical, engine driven
 - (e) Fuel tank: Integral, UL listed, double -walled, steel fuel storage
 - (f) Fuel tank capacity: 24 hours (min.) @ rated load
 - (g) Fuel tank accessories: Fuel level indicator; low-fuel indicator switch (on at 20% capacity); Screened vent for double wall cavity; and Drain port
- (7) Engine Exhaust System
 - (a) Silencer: Critical
 - (b) Mounting: External with weather cap
 - (c) Connection: Flexible stainless steel pipe
- (8) Engine Combustion Air Intake
 - (a) Air cleaner: Replaceable dry cartridge
- (9) Engine Electrical
 - (a) Starter motor: 12 or 24 volt

- (b) Battery charge alternator: 30 amp (min)
 - (c) Crank limiter: Solid state
 - (d) Battery: 2-12 volt (series or parallel, as appropriate)
 - (e) Battery mounting: Rack inside enclosure
 - (f) Polarity: Negative ground
 - (g) Standby charger: 10 amp, automatic float
- (10) Generator
- (a) General Specifications
 - (i) Generator type: 4 pole, revolving field
 - (ii) Output: 12 lead, re-connectable
 - (iii) Stator: "Skewed" design
 - (iv) Housing: Drip-proof design, self-ventilated
 - (v) Rotor insulation: Class F
 - (vi) Stator insulation: Class F
 - (vii) Bearings: Sealed, pre-lubed
 - (viii) Engine coupling: Direct, flexible disc
 - (ix) Protection: Output circuit breaker (manual reset)
 - (b) Generator Excitation:
 - (i) Exciter type: Brushless
 - (ii) Protection: Manual circuit breaker
 - (c) Generator Regulation
 - (i) Type: Solid state
 - (ii) Regulation: $\pm 2\%$ steady state
 - (iii) Voltage adjustment: 5% manual rheostat
 - (d) Generator Set Controls on Control Panel
 - (i) Engine Gauges: Oil pressure; Coolant temperature; and Battery charging ammeter
 - (ii) Annunciator: Low oil-pressure shutdown; high temperature/low coolant level shutdown; Overcrank shutdown; Overspeed shutdown; and Low fuel
 - (iii) Engine hour meter: 99,999.0 hour
 - (iv) Remote engine hour meter located at transfer switch: 99,999.0 hour
 - (v) Engine control switch: Off/Manual/Automatic
 - (e) Generator Controls and Indicators

- (i) Gauges: AC frequency; Output voltage; and Output current
 - (ii) Gauge Selector switch: 3 position with "OFF"
 - (iii) Manual voltage adjustment: Rheostat, 5% adjustment range
 - (f) Alarm Output Contacts
 - (i) Generator Fail
 - (ii) Generator Operating
 - (iii) Low Fuel
 - (iv) Alarm output contacts are to be wired to the local monitoring
 - (g) Generator Set Enclosure Mounting
 - (i) Access panels: Lockable (keyed alike), hinged and removable
 - (ii) Hardware: Stainless steel
 - (iii) Finish: Baked enamel over zinc-coated steel
 - (iv) Mounting: Welded steel base with vibration insulators
 - (v) Mounting location: Top of fuel tank
- (11) Automatic Transfer Switch
- (a) The automatic transfer switch to be supplied as part of the standby power system shall meet all applicable requirements set forth by the NEC and OSHA. The transfer switch shall also conform to the requirements specified below:
 - (b) Enclosure Mounting type: Surface
 - (c) Enclosure type: NEMA 3R, lockable
 - (d) Electrical Ratings
 - (i) Operating voltage: Compatible with station voltage
 - (ii) Operating current: No less than main disconnect
 - (iii) Withstand and closing rating: 10,000 amps, RMS, Symm. (min)
 - (e) Transfer Switch
 - (i) Operating mechanism: Single solenoid
 - (ii) Holding mechanism: Mechanical
 - (iii) Interlock: Mechanical and electric
 - (iv) Contact material: Silver alloy
 - (v) Neutral delay: 0.1-10 seconds
 - (f) Timer Setting Ranges

- (i) Utility dropout: 70-95%
- (ii) Utility pick-up: 70-95%
- (iii) Utility interrupt delay: 0.1-10 seconds
- (iv) Engine minimum run: 5-30 minutes
- (v) Engine warm-up: 5-180 seconds
- (vi) Return to utility delay: 1-30 minutes
- (vii) Engine cool-down: 1-30 minutes
- (viii) Standby voltage: 70-90%
- (ix) Standby frequency: 80-90%
- (x) Exerciser: Once per week

(g) Operation Selectors:

- (i) Exercise: With/Without load
- (ii) Engine warm-up bypass: On/Off
- (iii) Neutral delay: On/Off
- (iv) Mode Selector: Manual test/Standby/Off

(12) Standby Power System Capacity - The standby power system shall be capable of providing continuous standby power for the wastewater pump station. The generator set shall be capable of starting the two pump motor leads sequentially with the full miscellaneous load applied, with no more than 30% dip. **The minimum acceptable generator set rating shall be 25 KW for any station.** The Contractor shall coordinate the starting requirements of the exact pumps being furnished on the project with the generator set supplier to insure that the generator set has adequate motor starting capability.

(13) Installation - The generator set shall be mounted and anchored to a reinforced concrete pad, located to provide adequate access for fueling and services. The exact dimension of the pad, conduit entries and anchor bolts shall be based on the manufacturer's shop drawings. The pad shall have outer dimensions 1-foot greater than the footprint of the base tank, to provide 6 inches of exposure on all sides. The minimum thickness of the pad shall be 12 inches, with a single mat of #6 rebar, 12-inches OCEW and located in the lower third of the concrete thickness. The weight of the mounting pad shall be equal to or greater than the weight of the generator set. All exposed edges shall be chamfered or rounded with an edging tool.

(14) Tests - The Contractor shall provide start-up and testing services utilizing personnel specifically authorized to perform such services by the standby power system manufacturer. The start-up services shall be scheduled with the City with no less than 3-days' notice. The start-up and testing service shall include a complete inspection of the installation, initial break-in of the engine, testing the system performance, and servicing the engine. The following tests shall be performed in the presence of the City or its representative:

- (a) Generator output voltage unloaded and loaded, each phase, based on 2-hour load bank test.
- (b) Voltage dip as loads are applied

- (c) Complete operating sequence (simulated utility power failure and restoration)
- (d) Pressure test engine cooling system for leaks
- (e) Test battery charging systems
- (f) Test operation of all safety systems
- (g) Upon completion of break-in and testing, the engine shall be serviced as follows:
 - (i) Change engine oil and filter
 - (ii) Verify anti-freeze protection (-34 degrees F)
 - (iii) Refill fuel tank (tank shall be left full)
 - (iv) Check belt tension
 - (v) Check battery connections and state of charge

(h) During this start-up period, City maintenance personnel shall be fully instructed in the proper maintenance of the standby power system.

(15) Manufacturer

(a) The generator set, controls, and transfer switch shall be furnished by a single supplier. The generator set and accessory equipment shall be supplied by Caterpillar/Olympian, Onan/Cummings, Kohler, or approved equal.

(b) The supplier shall be the authorized dealer of the engine-generator set manufacturer, and shall be fully qualified and authorized to provide service and parts for the engine and generator at any time during the day or night. Parts and service shall be available 24-hours per day, 7 days per week, from a location within a 100-mile radius of the location of the installed generator set.

(16) Shop Drawings - Prior to purchase of standby power generation equipment, the Contractor shall submit not less than four sets of data to the City for approval, including equipment data, accessories, sizing calculations, etc. as may be appropriate to determine compliance with these specifications.

(17) Operating Instructions - Six (6) complete copies of operating instructions and parts list shall be provided prior to acceptance of the unit. Parts list shall include schedule of type and quantity of parts recommended for stock.

(18) Spare Parts to be furnished

- (a) Engine fan & accessory drive belts: 1 set
- (b) Oil, fuel and air filters: 2 sets

(c) Spare indicator lamps and fuses: 2 sets

(d) Spare parts shall be boxed and labeled with the pumps station identification

(19) Warranty - The complete standby power generating system shall be warranted for one year after the acceptance of the sewer pump station by the City. The warranty shall cover all defects in equipment, parts, assembly and installation. The warranty shall be issued in writing by the supplier and delivered to the City.

I. LOW PRESSURE SEWER SYSTEMS (LPSS):

1. LOCATION/APPROVAL:

a) Low pressure sewer systems (LPSS) are permitted in the Rock Hill service territory when approved by the Director of Water and Sewer Utilities in areas adjacent to Lake Wylie/Catawba River or in areas where gravity service would involve numerous small lift stations.

2. DESIGN:

a) Developer shall have LPSS designed by a professional engineer licensed in the state of South Carolina.

b) In addition to Construction Drawings and specifications, the developer shall include a design memorandum detailing the design procedures used for the LPSS. The design memorandum shall include the following:

(1) Hydraulic calculations demonstrating that the total dynamic head (TDH) does not exceed 100 feet at any existing or potential grinder pump location.

(2) Profiles of all low pressure sewer lines demonstrating that the system will be under positive pressure at all times. Specifically, the discharge elevation shall be above all intervening high points.

(3) Calculations indicating determination of pressure main sizing. Initial pipe line sizing shall be based on providing a minimum of 3.0 fps velocity at a discharge calculated according to the following equation:

$$Q \text{ (in gpm)} = 15 + 0.5D$$

Where D = the number of dwelling units upstream of the reach under investigation.

(4) Calculation of final pipe size may be adjusted based on evidence from hydraulic calculations, provided that such calculations indicate that a minimum of 2.0 fps can be achieved in all lines with no more than 5% (or a minimum of 2 pumps operating simultaneously through the line under determination.

(5) Determination of Hazen-Williams coefficient. A Hazen-Williams coefficient, C, of 140 to 150 may be used, provided that if C=150, the nominal pipe

size only may be used, and an allowance for minor losses associated with fittings should be included in the hydraulic calculations.

(6) Calculation of Impeller Diameters for each pump. The impeller diameter of individual pumps in a system with varying pump elevations shall be sized such that full size impellers are used at pumps at the lowest elevations, and reduced size impellers are used at higher pumps, such that the TDH of any one pump is within 20% of all other pumps.

(7) Calculations of the maximum flow discharged from the LPSS with all pumps operating. This condition will be experienced upon restoration of power following a system-wide power outage. If the maximum flow calculated, included in other pressure sewers, exceeds the rated maximum pumping capacity of any downstream pump stations, the discharge shall be into a gravity sewer of sufficient diameter and length to provide 150 gallons of storage capacity per grinder pump within the gravity pipeline.

(8) Private LPSS shall connect to the City's sanitary sewer system at a stub from the property line side of the dual ball valve/check valve assembly according to the service connection Standard Details.

3. MATERIALS AND INSTALLATION FOR LPSS:

a) Unless superseded or modified by Special Provision, all materials, apparatus, supplies, methods of manufacture, or construction shall conform to the specifications for same contained in the City's Standard Specifications.

b) Pipes: Force main piping for LPSS shall be 6" diameter and smaller.

c) Valves – All valves on LPSS shall be plug or ball valves as specified below. Valve operation shall be open left.

(1) Plug Valves – All valves on low pressure sewer mains shall be eccentric plug valves as follows.

(a) Plug valves shall be non-lubricated, with a plug facing of a material specifically recommended by the valve manufacturer for the indicated service and shall have stainless steel permanently lubricated upper and lower plug stem bearings. Valve seats shall be nickel. Valves shall be designed with adjustable seals which are replaceable without removing the bonnet. The bearing and seal area shall be protected with grit seals. Area of port opening for all valves shall be no less than 81% of full pipe area.

(b) Valves that are 12" and smaller shall be rated at 175 psi. Valves that are 15 inches or larger shall be rated at 150 psi. Bi-directional shut-off is required.

(c) Plug valves shall be as manufactured by Dezurik Corporation, Milliken Valve Co., Keystone Valve, Pratt, or approved equal.

(i) Buried valves 4-inches and larger and other valves specifically indicated shall have mechanical joint ends conforming to ANSI A21.11.

(ii) Buried valves 3-inches and smaller shall have schedule 80 threaded ends and shall be connected to the pressure main by schedule 80 PVC threaded by socket adapters.

(d) Buried plug valves shall have 2-inch operating levers, and other miscellaneous items required for a complete installation shall be provided in accordance with the requirement and recommendations of the manufacturer.

(e) Extension stems, stem guides, operating levers, and other miscellaneous items required for a complete installation shall be provided in accordance with the requirements and recommendation of the manufacturer.

(f) Buried plug valves shall be provided with adjustable valve boxes. Valve boxes shall be cast iron conforming to ASTM A48, Class 30. Valve box castings shall be fully bituminous seal coated. Valve box shall be a Tyler 462A or approved equal.

(2) Thermoplastic ball valves – Thermoplastic ball valves shall be used at each service connection and shall be made of PVS Thermoplastic. The valves shall be furnished with Teflon seats and true union threaded ends. Thermoplastic ball valves shall be manufactured by Hayward, Incorporated or approved equal.

(3) Thermoplastic ball check valves – Thermoplastic ball check valves shall be used at each service connection and shall be made of PVC Thermoplastic. The valves shall be furnished with elastomeric seats and true union threaded ends. Thermoplastic ball check valves shall be as manufactured by Hayward, Incorporated or approved equal.

d) Service Boxes and Lids: All service connections and clean-outs shall be placed in an appropriately sized box in accordance with the Standard Details, and shall be as manufactured by Brooks Products Company (36 Series) or approved equal.

(1) Concrete boxes shall be made of concrete mix, 1-2-1 (one part cement, two parts granite screenings, and one part 3/8" granite stone). The meter boxes shall be concrete machine-made and tamped with pneumatic tamps to ensure the proper density. All concrete items shall be steam-cured 24 hours and yard-cured for two weeks.

(2) All service connection boxes shall be made of green plastic with the physical dimensions shown on the Standard Details, and constructed of standard thermoplastic materials using the structural foam approach, and shall be manufactured by Brooks Products Company (Series 1730). The plastic composition shall be uniform and substantially resistant to moderate acid attack, ultraviolet ray action, and weathering as may be encountered in outdoor application and semi-

buried service.

(3) Plastic lids shall be furnished with “snap lock” tabs, interchangeable with existing City of Rock Hill meter boxes, and imprinted with the words “Pressure Sewer” on the lid.

e) Installation of PVC low pressure pipe: PVC low pressure sewer main shall be installed substantially in accordance with ASTM D2321. The following exceptions shall be taken to the Standard:

(1) Installing Valves and Fittings: Valves and fittings shall be installed in the manner specified for cleaning, laying and jointing pipe. Valves shall be installed at locations shown on the Construction Drawings and/or as directed by the Engineer.

(a) Valve Boxes: A valve box shall be installed at every buried plug valve. The valve box shall not transmit shock or stress to the valve and shall be centered and plumb over the operating nut, with the box cover flush with the pavement or other existing surface. Where the box is not in pavement, the top section shall be anchored by and 18”x18”x6” concrete pad or an approved pre-cast pad, set flush with the existing terrain. The top section will be grouted into the precast concrete pad. The location of the valve will be identified by the letters “PSV” imprinted onto the curb adjacent to the pressure sewer valve.

(2) Alignment and Grade: Unless specifically approved by the Director of Water and Sewer Utilities, the curb must be in place and backfilled, and the area between curb and street right-of-way line graded smooth and to finished grade before the low pressure sewer mains are installed. The pressure sewer mains shall be installed on the opposite side of the road from the water main as shown in the Standard Details. The LPSS shall be laid and maintained at the required lines and grades with fittings and valves at the required locations, spigots centered in bells, and all valve stems plumb. After curb and gutter has been installed the location and depth of the pressure sewer main and valves, etc., will be checked for conformance to these Standard Specifications. Any deficiencies will be corrected to the satisfaction of the City prior to testing and activation of the mains.

(3) Depth of Pipe Installation. Unless otherwise indicated on the Construction Drawings or required by existing utility location, all pipes shall be installed at the depths indicated on the Standard Details. The Contractor is instructed to check Construction Drawings and blow-up views for additional requirements. The Contractor may be required to vary the depth of the pipe to achieve minimum clearance from existing utilities while maintaining the minimum cover specified whether or not the existing pipelines, conduits, cables, mains, etc., are shown on the Construction Drawings. PVC pressure sewer shall be installed with 12-inch clearance above other utilities or 18 inches below other utilities.

f) Testing: The water for testing purposes can be taken from the nearest available water main under the supervision of the City’s inspector and leakage will be measured by the City with a meter furnished by the City. If service connection or other openings are not available for the purposes of expelling air, the Contractor shall provide air release of sufficient

size (as determined by the Engineer) in accordance with the Standard Details. The test pressure will be 100 psi at the low point of the section under test.

(1) Allowable leakage will be determined by Table 6 in AWWA C600 or the formula $L=0.000083*S$, where S is the length of pipe under test and D is the pipe diameter. Add 0.0050 gal/hr for each 1-1/2 inch lateral.

(2) During the last stages of the test and without any reduction in pressure progressing from the end opposite the test pump, each mainline valve will be closed and pressure released to determine if the valve is holding pressure (minimum 10 minutes per valve closing).

g) 1.5-inch Service Connections: On 3-inch mains and smaller, the 1.5-inch laterals shall be connected to the street main with schedule 80 PVC solvent weld wyes. On 4-inch mains and larger, the 1.5-inch laterals shall be connected to the street main with a mechanical joint tee plugged and tapped for a threaded by solvent-weld schedule 80 PVC Adapter, The 1.5-inch service lateral shall be connected to the property line where a service connection meter box shall be installed. The service connection shall contain the following fittings in accordance with the Standard Details, 45-degree solvent weld elbow, solvent-weld nipple, solvent-weld by threaded adapter, two (2) true union threaded ball valves, threaded adapter, threaded 1.5"x1.5"x1.5" tee, threaded adapter, threaded nipple, true union ball check valve, threaded x solvent-weld nipple, 1.5"x1.25" solvent-weld reducing bushing. The top of the 1.5" tee shall have threaded 1.5"x0.75" reducing bushing and a brass 0.75 hose bib.

J. INSTALLATION AND APPROVAL REQUIREMENTS:

1. HANDLING AND INSTALLATION:

a) Contractor shall off-load equipment at installation site using equipment of sufficient size and design to prevent injury or damage.

b) Station manufacturer shall provide written instruction for proper handling.

c) Immediately after off-lading, Contractor shall inspect complete pump station and appurtenances for shipping damage or missing parts. Any damage or discrepancy shall be noted in a written claim with shipper prior to accepting delivery. Validate all station serial numbers and parts list with shipping documentation. Notify the manufacturer's representative of any unacceptable conditions noted with shipper.

d) Install, level, align and lubricate pump station as indicated on the Construction Drawings Installation must be in accordance with written instructions supplied by manufacturer at time of delivery.

e) Suction pipe connections shall be vacuum tight. Fasteners as all pipe connections must be tight. Install pipe with supports and thrust blocks to prevent strain and vibration on pump station piping. Install and secure all service lines (level control, air release valve or pump drain lines) as required in wet well.

2. TESTING:

a) Check motor and control data plates for compatibility to site voltage. Install and test the station ground prior to connecting line voltage to station control panel.

b) Prior to applying electrical power to any motors or control equipment, check all wiring for tight connection. Verify that protective devices (fuses and circuit breakers) conform to project design documents. Manually operate circuit breakers and switches to ensure operation without binding. Open all circuit breakers and disconnects before connecting utility power. Verify line voltage, phase sequence and ground before actual start-up.

c) After all anchor bolts, piping and control connections are installed, completely fill the grout dam in the pump station base with non-shrink grout.

d) Leak testing shall be conducted on all force main piping as described in these specifications for pipe installation. The water for testing purposes can be taken from the nearest available water main under the supervision of the City Inspector and leakage shall be measured by the City with a meter furnished by the City. If service connection or other openings are not available for expelling air, the Contractor shall provide air release of sufficient size (as determined by the Engineer) in accordance with the Standard Details. The pressure test shall be the greater of (1) 100 psi at the low point of the section under test, or (2) 1.5 time the working pressure at the low point of the section under test.

(1) Allowable leakage will be determined by Table 6 in AWWA C600 or the formula $L=0.000083*S$, where S is the length of pipe under test and D is the pipe diameter. Add 0.0050 gph for each 1-1/2 inch lateral.

(2) During the last stages of the test and without any reduction in pressure progressing from the end opposite the test pump, each mainline valve will be closed and pressure released to determine if the valve is holding pressure (minimum 10 minutes per valve closing).

e) Prior to acceptance by City, an operational test of all pumps, drives, and control systems shall be conducted to determine if the installed equipment meets the purpose and intent of the specifications. Tests shall demonstrate that all equipment is electrically, mechanically, structurally, and otherwise acceptable; it is safe and in optimum working condition and conforms to the specified operating characteristics.

f) After construction debris and foreign material has been removed from the wet well, Contractor shall supply clear water volume adequate to operate station through several pumping cycles. Observe and record operation of pumps, suction, and discharge gage readings, ampere draw, pump controls, and liquid level controls. Check calibration of all instrumentation equipment, test manual control devices, and automatic control systems. Be alert to any undue noise, vibration or other operational problems.

3. START-UP:

a) Coordinate station start-up with manufacturer's technical representative. The representative or factory service technician will inspect the completed installation. He will calibrate and adjust instrumentation, correct or supervise correction of defects or malfunctions and instruct operating personnel in proper operation and maintenance

procedures.

b) Prior to acceptance, inspect interior and exterior of pump station for dirt, splashed material or damaged paint. Clean or repair accordingly. Remove from the job site all tools, surplus materials, scrap and debris.

c) The pump station should be placed into service immediately. If operation is delayed, drain water from pumps and piping. Open motor circuit breakers and protect station controls and interior equipment from cold and moisture.

d) Prior to pumps station operation, contractor to provide weather durable sign with a 24-hour emergency phone number to be located on the structure of the pumping station. See standard detail.

e) A start-up report must be supplied to the City by the manufacturer's technical representative of the pump station start-up conditions.

f) Operation and maintenance manuals must be supplied to City by the Contractor.

DIVISION II - SECTION 6

SUPPLEMENTAL SPECIFICATIONS FOR THE CITY OF ROCK HILL

33 01 30.16	Television Inspection of Pipes
33 01 30.41	Cleaning of Pipes
33 01 30.72	Water or Steam Cured-In-Place Pipe Lining
33 01 30.81	Manhole Rehabilitation
33 05 05	Excavated Point Repair
33 05 23.13	Utility Horizontal Directional Drilling (HDD)
33 05 32	Line Stops

SECTION 33 01 30.16

TELEVISION INSPECTION OF PIPES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide all labor, materials, tools, equipment and incidentals as shown, specified, and required to perform television (TV) inspection of existing, new and rehabilitated piping including pipe mains and sewer lateral connections.

1.2 DEFINITIONS

- A. Pre-Construction Inspection: TV inspection of pipes to determine the location of construction, structural and O&M features and to ascertain that the condition of the pipe meets acceptable standards for the proposed rehabilitation.
- B. Post-Construction Inspection: TV inspection of repaired or rehabilitated pipe mains and lateral connections to determine the location of construction, structural and O&M features and to verify that all repairs have been performed.

1.3 REQUIREMENTS

- A. The CONTRACTOR shall be aware that this Contract requires work in active pipes and shall follow all federal, state and local requirements for safety in confined spaces.

1.4 RELATED SECTIONS

- A. Section 33 01 30.41, Cleaning of Pipes.
- B. Section 33 01 30.72, Water or Steam Cured-in-Place Pipe Lining.
- C. Section 33 05 05, Excavated Point Repair.
- D. Standard Sewer Specifications for the City of Rock Hill.

1.5 PERFORMANCE REQUIREMENTS

- A. Inspection shall be performed by a National Association of Sewer Service Companies (NASSCO) *Pipeline Assessment Certification Program* (PACP) certified operator and shall meet the coding and reporting standards and guidelines as set by PACP as referenced in Part 1. All report annotations, pipe conditions and pipe defects shall be identified properly using PACP codes as defined by PACP, and severity ratings shall be calculated according to PACP.
- B. Quality of inspection recording shall be acceptable to ENGINEER when viewed on a 25" 1920x1800 pixel computer monitor.

1.6 SUBMITTALS

- A. CCTV equipment, including make, model, age of video systems and tractors.

- B. Documentation that CCTV software is PACP v7.0 -certified. PACP-compliant software will not be accepted.
- C. Copies of PACP certificate for inspectors completing the work.
- D. Inspection deliverables.

1.7 REFERENCE STANDARDS

- A. NASSCO prepared *Pipeline Assessment and Certification Program, Version 7.0.0 Reference Manual*, May 2015, or newer. This manual includes a standard TV inspection form and pipe condition codes.

PART 2 - PRODUCTS

2.1 TELEVISION EQUIPMENT

- A. Closed Circuit TV Equipment: Select and use closed-circuit television equipment that will produce a color recording. The camera and video system components shall have the following properties:
 - 1. Equipped with footage counter accurate to two tenths of a foot that displays on the TV monitor the exact distance of the camera from the starting point of the recording.
 - 2. Lighting system that allows the features and condition of the pipe to be clearly seen. Lighting shall not cause shadows or loss of color within the field of view of the camera.
 - 3. Capable of operating in 100 percent humidity conditions.
 - 4. Capable of producing a minimum 470 lines of vertical resolution color video picture. Picture quality and definition shall be to the satisfaction of the ENGINEER.
- B. Mainline Pipe Inspection Camera: The pipe inspection camera and video components shall have the following additional properties:
 - 1. Capable of producing a video recording using a pan-and-tilt, radial viewing, pipe inspection camera that pans ± 275 degrees and rotates 360 degrees.
 - 2. Camera height adjustment so that the camera lens is always centered at one-half the inside diameter, or higher, in the pipe being televised.
 - 3. Include a reflector in front of the camera or additional light sources if necessary to provide acceptable video image quality.
 - 4. Where needed or where directed by ENGINEER, include a locating sonde on camera.
 - 5. Mainline Pipe TV Studio: TV studio is to be contained in an enclosed truck, trailer or van. Normal operation of all equipment, including the TV camera, monitor, and winches is to be from a control panel in the studio. Studio shall be equipped with color printer capable of producing site- printed inspection reports.
 - 6. Recording: All recordings shall be in digital format.
 - a. Image Capture – Digitized picture images shall be stored and be exportable as JPEG formats.
 - b. Video Capture - Full time live video and audio files shall be captured for each pipe segment inspected. The files shall be stored in industry standard Windows Media or MPEG-4 format on a USB 2.0 external hard drive and viewable on a personal computer that utilizes Windows Media Player, version 12. Alternate digital formats will not be accepted unless approved by the ENGINEER in advance of submittal. The video shall have a minimum resolution of 640 pixels (x) by 480 pixels (y) and an encoded frame rate of 29.97 frames per second. System shall perform an

automatic disk image/file naming structure to allow saved video/data sections to be saved to digital format. It shall have the capability of storing a minimum of 120 minutes of recording to the DVDR media. The video recording shall be free of electrical interference and shall produce a clear and stable image. The audio recording shall be sufficiently free of background and electrical noise as to produce an oral report that is clear and discernable. The digital recordings and inspection data shall be cross-referenced to allow instant access to any point of interest within the digital recording.

PART 3 - EXECUTION

3.1 TELEVISUAL INSPECTION

- A. Prior to TV inspection:
 - 1. Clean main lines, laterals and manholes in accordance with Section 33 01 30.41, Cleaning of Pipes. Re-clean any pipeline or manhole found to be insufficiently cleaned during the TV inspection process.
 - 2. Measure each pipe's internal diameter and confirm pipe material by conducting maned entry inspections. Measurement accuracy shall be $\pm 1/4$ inch.
 - 3. GPS locate the upstream and downstream manholes using a WAAS- enabled GPS device capable of sub-3-meter accuracy and record northing and easting in appropriate PACP header field.
 - 4. Measure rim to invert depth for the upstream and downstream manholes using a tape measure, rod, or other device acceptable to ENGINEER to an accuracy of $\pm 0.2'$.
- B. Perform Post-construction Inspections after the waiting period specified in applicable specifications.
- C. Televis the pipe segment to document the condition of the line. Notify the ENGINEER 48 hours in advance of any TV inspection so that the ENGINEER may observe inspection operations. Provide a color recording showing the completed work.
- D. For mainline sewer inspections, begin inspection recording on the above ground surface with the camera facing in the direction of the pipe to be inspected with the camera turned on and the header information entered. With the camera recording and on ground surface, first pan the area surrounding the manhole, then tilt lens downward into manhole such that all pipe penetrations into the manhole, including all tap or outside drop connections, are shown and recorded. If supported by the data collection software, show all penetrations in the PACP header sketch.
- E. Center camera in manhole invert as far from the mouth of the pipe to be inspected to the extent allowed by the channel geometry. For inspections from manholes, pan and record the entire circumference of the pipe penetration/manhole wall. Record all other pipe penetrations visible from this start position, including any penetrations that are between the channel and the rim.
- F. With camera rolling and recording, perform the distance counter preset. If a preset point on the CCTV cable is used to set the counter, back up the camera after setting the preset and rerecord the entry to the pipe.
- G. Pipeline inspection shall be from center of the starting manhole to the center of the ending

manhole. Measure distances along the pipe from the inside of manhole wall of the starting manhole to inside of manhole wall of the downstream manhole.

- H. Prior to recording the location of defects, construction features and service connections, remove slack in the cable of the television inspection camera to ensure metering device is designating proper footage. Check accuracy of the measurement meters daily by use of a walking meter, roll-a-tape, or other suitable device.
- I. Center the camera in the middle of the pipe unless flow characteristics dictate a higher mount point, as approved by the ENGINEER.
- J. Move the camera through the line (in the downstream direction whenever possible) at a uniform rate not to exceed 30 feet per minute. When examining defects and joints, provide as wide angle a view as possible to place the defect/joint in perspective and orientation. Do not zoom camera unless necessary to look passed obstructions. Do not pan and tilt camera while moving except to avoid obstructions or water.
- K. When infiltration or other defects are evident, stop camera movement and use pan and tilt to document pipe condition. Stop camera movement elsewhere when necessary to ensure proper documentation of the pipe's condition.
- L. Stop camera movement at every lateral connection. Center the camera so that the lighting and the pan and tilt view can be used to inspect as far into the lateral connection as possible. Pan the circumference of the tap, recording all defects found in the service connection. Where lateral flow is observed, observe flows from service connections for approximately two minutes to ascertain if the flow is sanitary or extraneous flow. The video recording may be paused during observation. Record results of the flow observed on video recording and inspection logs.
- M. Capture color still shots of video recordings for all defects encountered. Attempt to photograph the defect from both sides, using the full extent of the pan and tilt camera capabilities.
- N. Use manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the pipe conditions to move the camera through the pipe line.
- O. TV inspection recordings shall be continuous for each pipe segment. Any stoppage of recording shall be accompanied by a verbal statement as to reason recorded on the video.
- P. Adjust light levels, clean fouled or fogged lens, and allow vapor to dissipate from camera lights to produce acceptable recordings. All TV inspection recordings that do not meet the specified requirements shall be retelevised at no additional cost to the OWNER.
- Q. Check footage counter against 100' camera cable mark to record accuracy. Record footage counter versus actual counter as a Miscellaneous General Observation (MGO).

3.2 FLOW CONTROL

- A. Adequately control the flow in the section being televised. Plugging or bypassing, in accordance with Standard Sewer Specifications for the City of Rock Hill, of the flows may be used to accomplish this. Recordings made where the depths of wastewater flow shown below are exceeded will be rejected:
 - 1. For final post-construction, unless otherwise indicated or approved by ENGINEER,

excepting sags:

<u>Pipe Diameter (Inches)</u>	<u>Depth of Flow</u>
8-12	2"

- a. For sags whose length is less than 10x pipe diameter or 12' long, whichever is less, depth of flow may be up to 33% of pipe diameter. For sags whose length is more than 10x pipe diameter or 12' long, whichever is less, depth of flow may be up to 25% of pipe diameter.
2. For Post-Construction Inspection, unless otherwise indicated or approved by ENGINEER, excepting sags:

<u>Pipe Diameter (Inches)</u>	<u>Depth of Flow</u>
8-12	3"

- a. For sags whose length is less than 10x pipe diameter or 12' long, whichever is less, depth of flow may be up to 50% of pipe diameter. For sags whose length is more than 10x pipe diameter or 12' long, whichever is less, depth of flow may be up to 33% of pipe diameter.
3. Whenever flows in a pipe line are blocked, plugged, pumped, or bypassed, take sufficient precautions to protect the pipe lines from damage that might be inflicted by excess pipe surcharging. Further, take precautions to ensure that pipe flow control operations do not cause flooding or damage to public or private property being served by the pipes involved. No overflows are permitted. The CONTRACTOR is responsible for all damages.
4. CONTRACTOR is responsible for all damages to CONTRACTOR owned and operated equipment, OWNER facilities, and privately-owned facilities caused by malfunction of plugs, pumps or other CONTRACTOR equipment. In the event of a failure or malfunction of CONTRACTOR equipment, CONTRACTOR is responsible for all work necessary to restore facilities to pre-construction condition including but not limited to excavation and restoration of pipe lines and roadways required to retrieve malfunctioning or stuck cameras, plugs and hoses.
5. It is possible that portions of the pipe lines are bowed or bellied and thus the camera will be submerged. Wherever the camera encounters a submerged condition, or where the wastewater flow depth exceeds the maximum allowable, reduce the flow depth to an acceptable level by performing the survey TV inspection during minimum flow hours, or by pulling a camera with swab, high-velocity jet nozzle or another acceptable dewatering device. Recordings made while floating the camera are not acceptable unless approved by ENGINEER.

3.3 PASSAGE OF TV CAMERA

- A. If during TV inspection of a pipe segment the camera is unable to pass an obstruction even though flow is unobstructed, televise the pipe segment from the opposite direction to obtain a complete recording of the line. Measure the distance between the manholes (centerline to centerline) with a tape or wheel to accurately determine the total length of the manhole segment and document as MGO on inspection report.

3.4 INSPECTION DELIVERABLES

- A. Written Inspection Reports
 1. Provide electronic and, when requested by OWNER, printed PACP reports to clearly identify the location of each defect, or lateral connection, in relation to adjacent manholes, using a standard stationing system zeroed on the upstream manhole. Record

all information requested using proper and current NASSCO PACP/LACP defect codes. Color still shot electronic images of all structural or significant O&M defects encountered shall be included with each pipe segment. The reports shall include at least the minimum amount of information required by PACP, including required PACP header information fields, plus any information required by other specifications, plus the following PACP header fields.

Field Number	Field Name
5	Owner
6	Customer
10	Project
12	Time
14	Weather
16	Date Cleaned
17	Flow Control
18	Purpose of Survey
20	Inspection Technology Used
25	Pipe Segment Reference
35	Lining Method
36	Coating Method
37	Pipe Joint Length
38	Total Length
39	Length Surveyed
43	US MH Rim to Invert
44	US MH Rim to Grade
46	US MH Northing
47	US MH Easting
50	DS MH Rim to Invert
51	DS MH Rim to Grade
53	DS MH Northing
54	DS MH Easting
58	GPS Accuracy

B. Electronic Inspection Reports

1. Provide a NASSCO PACP v7.0 certified database listing all PACP required data fields for each pipe segment.
2. PDF of each paper copy of the PACP inspection report, with the file name matching the pipe segment identification code.
3. Provide one inspection per sewer main and one per lateral connection. If the conditions of the main or lateral connection do not permit inspection of the entire asset from one direction, provide a second inspection from the opposite end to the point the initial inspection was abandoned.
4. Each inspection record shall contain the video file associated with the inspection in the "Tape/ media number" PACP Header field. Provide only the video file name and extension this field. Do not provide file paths or drive letters.

C. Inspection Recordings

1. Provide digital inspection recordings for all inspections.
2. Recording shall be of a quality sufficient for ENGINEER to evaluate the condition of the pipe, locate the pipe service connections, and verify cleaning and joint testing. If

- ENGINEER determines that the quality is not sufficient, re-televised the pipe segment and provide a new recording and report at no additional compensation. Payment for televised inspection will not be made until ENGINEER approves the recordings and reports.
3. Camera distortions, inadequate lighting, dirty lens, or blurred/hazy picture will be cause for rejection.
 4. Pipe stationing not shown on the video or in a font style or color that is unreadable will be cause for rejection.
 5. TV Inspection recordings shall not be edited.
- D. Digital recordings: Electronic recording file must allow snap scrolling to allow easy and quick access of the entire recording.
1. Digital Recording file management:
 - a. File folders shall be organized by work type (e.g., Pre-Construction, Post-Construction, Lateral Connection Pre-Construction, Test and Seal Observations, etc.).
 - b. Provide one electronic video file of each inspection unless a reverse setup was required to complete the inspection. Multiple video files per inspection direction will be cause for rejection.
 - 1) File name format: Mainline videos:
 - a) Sequence Number underscore SegmentID underscore inspection direction underscore work type underscore deliverable type
a. 00612_125-326_Upstream_CIPPL_Post
- E. Maintain a master copy of all recordings and Inspection Reports for two years after delivery of reports and recordings.
- F. Label each hard drive with the following information:
CONTRACTOR's Name
Project Name
Contract Number
- G. Inspection deliverables for different types of inspections are defined below.
1. Physical Condition Inspection: One copy on a USB 2.0 external hard drive of PACP formatted database including, but not limited to, digital inspection recordings, and PACP reports (pdf).
 2. Pre-Construction Inspection: One copy on a USB 2.0 external hard drive of PACP formatted database including digital inspection recordings, defect call-out tables, defect snapshots, notes fields and asset condition reports, plus pdfs for all PACP paper reports.
 3. Post-construction Inspection: One copy on a 400mbs USB 2.0 external hard drive of the PACP formatted database including, but not limited to, digital inspection recordings, PACP reports (pdfs), and electronic images of defects.

+ + END OF SECTION + +

SECTION 33 01 30.41

CLEANING OF PIPES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide all labor, materials, tools, equipment and incidentals as shown, specified, and required to clean the pipelines and manholes.
- B. The cleaning Work required includes, but is not limited to, the following:
 - 1. Field locating all manholes along the pipe reaches to be cleaned.
 - 2. Normal cleaning of existing mains.
 - 3. Cutting of roots, grease, intruding sealing ring material and objects wedged in pipe joints from existing mains.
 - 4. Removal of debris from the mains.
 - 5. Pressure washing of manhole walls, rungs, channel and bench.
 - 6. Disposal of waste and sediment.
 - 7. Cleaning up as the Work progresses and after the completion of all Work activities.
 - 8. All other Work required for the complete and satisfactory cleaning of the pipelines and manholes.

1.2 RELATED SECTIONS

- A. Section 33 01 30.16, Television Inspection of Pipes.
- B. Section 33 01 30.72, Water or Steam Cured-in-Place Pipe Lining.
- C. Section 33 01 30.81, Manhole Rehabilitation.
- D. Section 33 05 05, Excavated Point Repair.
- E. Standard Sewer Specifications for the City of Rock Hill.

1.3 GENERAL PRECAUTIONS

- A. This Contract requires work in active sewers. Adhere to all federal, state and local requirements for safety in confined spaces.
- B. Take precautions to protect mains, laterals and manholes from damage that might be inflicted by the improper selection of the cleaning process or improper use of the equipment.
- C. When using hydraulically propelled devices, take precautions to ensure that the water pressure created does not cause damage or flooding to public or private property.
- D. Do not surcharge the sewer beyond the elevation that could cause overflow of sewage into area waterways, homes, or buildings or onto the ground.
- E. Restore or repair any facility, public or private, which is damaged by CONTRACTOR actions at no cost to OWNER.

1.4 SUBMITTALS

- A. Specifications of the pipe cleaning equipment, including performance data on pump, hose diameter and length, tank capacity, and intended nozzles, root cutters, and debris baskets to be used on the job. Provide a chart that shows hose length and diameter versus volume and pressure.
- B. Specifications on the equipment to be used to remove sediment and debris at the downstream manhole of each reach to be cleaned.
- C. Plan for storage, dewatering, transportation, and disposal of debris and sediment removed from the pipe lines.

1.5 QUALIFICATIONS

- A. CONTRACTOR shall have experience in the cleaning of pipes. Documentation of experience shall be furnished to the ENGINEER upon request.

PART 2 - PRODUCTS

2.1 MAINLINE PIPE CLEANING EQUIPMENT

- A. Pipe cleaning equipment shall consist of truck-mounted, high velocity hydro- cleaning equipment. The equipment shall be provided with a minimum of 500 feet of one-inch inner diameter high-pressure hose with a selection of high velocity nozzles and tools, including spinning nozzles for removing grease and fine root and root cutters for removing medium and heavy roots and hardened debris, as required for the cleaning operation. The various nozzles shall produce a scouring action from 10 to 45 degrees in all size pipes to be cleaned. Use nozzles matched to the pumps and the site-specific cleaning requirements. Mount all nozzles with skids. A tiger tail, boot, or downhole roller is required. A pressure gauge shall show operating pressure and a flow meter shall show flow rate. A table to translate shown pressures to delivery pressure shall accompany each cleaner unit.
- B. The pumps shall be capable of delivering a minimum 65 gpm at 1,600 psi at the nozzle head. A relief valve shall regulate pressure to the nozzle. The unit shall carry its own water tank, minimum of 1,000 gallons, auxiliary engines and pumps, and a hydraulically-driven hose reel with sufficient hose length to clean the entire length of the segment.
- C. All controls shall be located so that the equipment can be operated above ground.

2.2 MANHOLE CLEANING EQUIPMENT

- A. Provide a high velocity washing hose for cleaning of the walls, rungs, channel and bench of the manhole. The hose shall have an adjustable nozzle capable of producing flow from a fine spray to a solid stream. All controls shall be located so that the equipment can be operated above ground.
- B. The equipment shall meet the requirements of Section 33 01 30.81, Manhole Rehabilitation, when used for manhole preparation for rehabilitation work.

2.3 VACUUM EQUIPMENT

- A. Provide equipment capable of removing all sand, dirt, rocks, roots, and other debris from the pipe and manhole.
- B. Provide screens to prevent scoured debris from migrating downstream of the limits of the Work.

2.4 CUTTING EQUIPMENT

- A. Mainline Pipes: Provide equipment capable of mechanically removing roots, grease, and intruding seal material. Devices shall include a root saw, spring blade root cutter chuck, chaincutter, or approved equal.

2.5 FLUSHING/CLEANING WATER

- A. Provide all flushing water required for the cleaning of pipes in accordance with City of Rock Hill Requirements. Provide proof that all flushing water was acquired lawfully.

2.6 DEBRIS BASKETS

- A. Provide debris buckets with ¼" hole pattern or smaller sized to fit into the effluent manhole effluent pipe.

PART 3 - EXECUTION

3.1 MAINLINE PIPE CLEANING

- A. Thoroughly clean all pipeline reaches in order to permit an unrestricted inspection by closed circuit television. Particular emphasis shall be afforded to the removal of accumulated grease, roots, sand, rocks, sludge and other debris so that the video inspection will show clearly all portions of the pipe being inspected. Pressure at the nozzle shall be between 1200 psi and 1600 psi and flow rate shall be between 60 gpm and 80 gpm during cleaning operations in the pipe, unless otherwise approved by the ENGINEER. A lower pressure shall be used in areas known to be subject to backups through the laterals.
- B. Clean upstream reaches of pipes before the downstream reaches.
- C. Insert cleaning equipment into the downstream manhole of a given reach and pull the debris downstream. Reverse setups may be used if all debris is removed (i.e., no material is passed to the adjacent pipe segment).
- D. Clean pipe until clean enough for intended purpose or objective. Reduce pressures and increase pull back rates in consultation with ENGINEER when cleaning through holes, breaks, and partial collapses in pipe so as to effectively clean pipe but minimize further damage to pipe integrity.
- E. Rig winching equipment so as not to damage the existing pipeline or manholes.
- F. Continuously observe flow from cleaning operations. If any evidence of clean sand, dirt, or pipe bedding stone or of pipe fragments are observed, decrease jetting pressures, move nozzle away from likely source areas, and insert camera into pipe to observe pipe conditions

that might be contributing to these observations to minimize damage to pipe integrity caused by jetting operations. Alter cleaning pressures, pullback rates, and nozzles types to minimize potential for damage in consultation with ENGINEER.

- G. During cleaning, restrict the flow level in the pipe to a maximum of 30 percent of the pipe diameter. Take particular care to avoid flooding house connections during cleaning operations.
- H. Remove any blockages of lateral building connections resulting from the cleaning or other items of Work by cleaning of the building connection at no additional cost to the OWNER.

3.2 MANHOLE CLEANING

- A. Wash the wall, bench, channel and rungs of the manhole to remove accumulated debris, grease, sediment, and grit.

3.3 ROOT, GREASE, CORROSION SCALE, AND INTRUDING SEAL MATERIAL REMOVAL

- A. Remove all roots that could prevent the installation of a cured-in-place liner. Remove roots by suitable mechanical cutting devices or by hydraulic procedures such as with high-pressure jet cleaners. No roots of length greater than one and a half inches (1½-inch) shall remain following root removal procedures.
- B. Remove all grease and corrosion scale which could prevent the installation of a cured-in-place liner. Use suitable mechanical cutting devices to remove grease or scale.
- C. Remove objects wedged in pipe joints and intruding sealing ring material that interferes with the rehabilitation of pipe lines.

3.4 DEBRIS REMOVAL

- A. Insert debris baskets into manholes toward which jetted flow is pushed. Remove debris manually or using vacuums. Record volume of debris removed.
- B. Remove all bricks, rocks, debris, sludge, dirt, sand, grease, roots, and other materials from the pipe and manhole and collect and remove the resulting debris from the downstream manholes of the pipe sections being cleaned. Utilize control measures in downstream manholes as necessary to prevent debris, sludge and other materials from passing through manholes to a downstream pipe section not scheduled for cleaning by CONTRACTOR that same day.
- C. When removing materials from manholes, return the discharge and drainage liquid stream to the downstream pipe and discharge downstream for disposal. Under no circumstances shall sewage or solids be dumped onto the ground surface, street, stream, ditches, catch basins, or storm drains. All solids and semi-solids shall be placed in a watertight container so that no spillage or leakage will occur, covered to minimize odors, and disposed by the CONTRACTOR. The CONTRACTOR is responsible for all operations and costs associated with removal, transportation, and disposal of debris collected during the cleaning operations.
- D. Decant of debris tank is permitted only into segments of pipe that will then be immediately cleaned.

3.5 DISPOSAL

A. Coordinate disposal of sewer solids at City of Rock Hill's facilities with ENGINEER.

3.6 **FIELD QUALITY CONTROL**

A. Acceptance of pipeline cleaning shall be made upon the successful completion of the television inspection documenting that all required debris, roots, and grease are removed to the satisfaction of the ENGINEER. If television inspection shows debris, solids, sand, grease, or grit remaining in the line, re-clean and re-inspect the pipeline at no additional compensation.

++ END OF SECTION ++

SECTION 33 01 30.72

WATER OR STEAM CURED-IN-PLACE PIPE LINING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide all materials, equipment, labor and incidentals for the installation of cured-in-place pipe lining (CIPPL) within the sewer main.
- B. The sewer main CIPPL process shall consist of inserting a resin-impregnated flexible tube into an existing sewer, expanding the tube out against the sewer pipe, and curing the tube to form a pipe liner. Curing shall be accomplished by circulating heated water or steam to affect the desired cure throughout the tube extending full length from manhole to manhole.
- C. The CIPPL shall cure into a hard, impermeable liner pipe of the specified thickness and form a structurally sound liner pipe with a uniformly smooth interior.

1.2 REQUIREMENTS

- A. This Contract requires work in active sewers. Follow all federal, state and local requirements for safety in confined spaces.
- B. Conduct worker safety training within month year of start of work that includes reviewing the hazards associated with all equipment, materials, and work practices. Additional safety considerations including safely handling, mixing, and transporting of reagents should be provided by the liner manufacturer, and should include safe operating practices and procedures, appropriate personal protective equipment (PPE) for the various lining operations, and proper storage, transportation, mixing, and disposal of resins, additives, and their associated containers.

1.3 RELATED SECTIONS

- A. Section 33 01 30.16, Television Inspection of Pipes.
- B. Section 33 01 30.41, Cleaning of Pipes.
- C. Section 33 01 30.81, Manhole Rehabilitation.
- D. Section 33 05 05, Excavated Point Repair.
- E. Standard Sewer Specifications for the City of Rock Hill.

1.4 REFERENCES

- A. Standards referenced in this Section are listed below:
 - 1. ASTM D543 – Standard Practices for Evaluating the Resistance of Plastics to Chemical Agents.
 - 2. ASTM D578 – Standard Specification for Glass Fiber Strands.
 - 3. ASTM D790-07 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

4. ASTM D2990-01 - Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics.
5. ASTM D3567-97(2006) – Standard Practice for Determining Dimensions of “Fiberglass” (Glass-Fiber-Reinforced Thermosetting Resin) Pipe and Fittings.
6. ASTM D5813-04 – Standard Specification for Cured-In-Place Thermosetting Resin Sewer Pipe.
7. ASTM F1216-09 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin- Impregnated Tube.
8. ASTM F1743 –Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP).
9. ASTM F2019-03 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP).
10. DIN EN 761 – Glass Reinforced thermosetting plastics (GRP) pipes.
11. DIN EN 13566-4 – Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks.
12. ISO 178- Determination of Flexural Properties.
13. WRc Sewerage Rehabilitation Manual, Type II Design, 4th Edition, 2001.

1.5 QUALIFICATIONS

- A. For each method of installation and curing used on this project, CONTRACTOR shall have a history of at least 150,000 linear feet of CIPPL work in 8” to 15” sewers using a similar resin and flexible tube and using the specific method of installation and curing being used.
- B. For each method of installation and curing used on this project, the CIPPL Work shall be supervised by a foreman having previously supervised a minimum of 15,000 linear feet of CIPPL in 8” to 15” sewer using a similar resin and flexible tube and using the specific method of installation and curing proposed.
- C. The entity performing the wet-out of the CIPPL shall have been performing this type of work for a minimum of two years and previously wet-out at least 250,000 linear feet of 8” to 15” diameter CIPPL.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Care shall be taken in shipping, handling and storage to avoid damaging the liner. Extra care shall be taken during hot weather construction. Any liner damaged in shipment shall be replaced as directed by the OWNER at no additional cost to OWNER.
- B. While stored, the CIPPL shall be adequately supported and protected. CIPPL shall be stored in a manner as recommended by the manufacturer and as approved by the ENGINEER.

1.7 QUALITY CONTROL

- A. No change of material, design values, or procedures specified herein may be made during the course of the Work without the prior written approval of the ENGINEER.
- B. All liner to be installed under this Work may be inspected at the manufacturer plant(s) and wet-out facility for compliance with these Specifications by OWNER or ENGINEER. The CONTRACTOR shall require the wet-out facility’s cooperation in these inspections. The cost of inspection shall be the responsibility of the OWNER.

- C. At the time of manufacturing, inspect each lot of liner for defects. At the time of delivery, the liner shall be homogeneous throughout, uniform in color, free of cracks, holes, foreign materials, blisters, or deleterious faults.
- D. All test results shall be provided by an independent, certified ISO 17025 testing facility.

1.8 WARRANTY

- A. All lining work shall be fully guaranteed by the CONTRACTOR for a period of 5 years from the date of Final Acceptance unless otherwise stipulated in writing by the OWNER prior to the date of Conditional Acceptance. During this period, all defects discovered by the OWNER or ENGINEER shall be addressed by the CONTRACTOR in a satisfactory manner at no cost to the OWNER. The OWNER may conduct independent inspections, at its own expense, of the lining Work at any time prior to the completion of the guarantee period.

1.9 SUBMITTALS

- A. Cured-In-Place Pipe:
 - 1. Documentation of meeting experience requirements in Part 1. Include references with names and contact information.
 - 2. Summary table of CIPP material properties, including short-term flexural modulus of elasticity, 50-year flexural modulus of elasticity, short-term flexural strength (bending stress), 50-year flexural strength (bending stress), chemical resistance, and hardness. Certified test reports shall be submitted verifying each value as described below.
 - 3. Independent third party ISO 17025 accredited laboratory test reports identifying by name and demonstrating that the exact resin/liner combination to be used for this project meets the requirements for initial structural properties, including short-term flexural modulus of elasticity, short-term flexural strength (bending stress), and tensile strength, (performed in accordance with ASTM F1216, ASTM F2019, ASTM F1743, ASTM D790 and/or ISO 178 with wall thickness measured per DIN EN 13566-4), and chemical resistance (performed in accordance with ASTM F1216-Appendix X2 or ASTM D5813). If the architecture of the CIPP is such that the physical properties vary depending on the direction of testing (i.e., axial versus circumferential), submit test data on both directions in accordance with the test methods listed above in this paragraph.
 - 4. Independent third party accredited laboratory test reports identifying by name and demonstrating that the exact resin and liner to be used for this project has been tested for long-term flexural modulus of elasticity and long-term flexural strength (i.e. 10,000 hour minimum creep testing performed in accordance with ASTM D2990 or DIN EN 761 for design conditions applicable to this project). If the architecture of the CIPP is such that the physical properties vary depending on the direction of testing (i.e., axial versus circumferential), submit test data on both directions in accordance with the test methods listed above in this paragraph.
 - a. If the data submitted is not for the exact liner to be used on this project, submit a detailed description of the physical properties of both the liner used in the test and the liner to be used for this project to demonstrate that the two liners are comparable in terms of physical properties.
 - b. If performance test data for previously installed liners using the proposed resins are available from any source, submit these data as well as the test data for laboratory prepared samples.
 - c. Test shall be performed for a minimum of 10,000 hours under test conditions and loadings described below. Independent third party test data of the entire ASTM D-2990/DIN EN 761 data set are required as substantiation of the values used in design. The data points from 1,000 hours to 10,000 hours, (or longer, if these data are available), or such other time period as determined by the ENGINEER based on

the curve or slope of the plotted data, of the Long-term Flexural Modulus shall be extrapolated using a Microsoft Excel log-log scale linear regression analysis to determine the service life performance characteristics of the proposed liner.

- d. Testing shall be conducted at:
 - 1) Temperature: 21 to 25°C
 - 2) Relative humidity: 50% minimum
 - 3) Load: Load shall be equivalent to a load that is 25% of the yield stress as measured by ASTM D790 or ISO 178, or as approved by ENGINEER.
 5. The name of the liner and resin manufacturer, the location of the facility where each was manufactured, and a list of appurtenant materials and accessories to be furnished.
 6. The type and volume of catalysts and promoters added to the resin, the time of addition, the method of incorporation into the resin, and the quality control procedures required to ensure adequate dispersal and minimization of air entrainment.
 7. The Quality Control report for the wet-out facility that ensures proper materials and amounts are used in the resin impregnation process and in liner shipping and storage. At a minimum, the Quality Control report should include, for each CIPP segment, resin lot numbers, volumes of resin, catalyst, and enhancers, date of wet-out, and storage and transportation controls and quality assurance procedures. Include a checklist so that each critical step in the resin impregnation process is checked off and initialed.
 8. Installation and quality control plan, including:
 - a. Bypass pumping plans
 - b. Mainline sewer cleaning plan and cleanliness requirements
 - c. Liner shot plan and sequence
 - d. Liner installation standard procedures, including, but not limited to:
 - 1) Minimum and maximum allowable installation pressures and speeds
 - 2) Minimum and maximum allowable curing temperatures, pressures, and heatup, curing, and cooling durations and speeds
 - 3) Intermediate manhole exposed liner restraining method
 - 4) Temperature monitoring plan
 - 5) Odor controls procedures
 - 6) Plan to manage flow from laterals during lining.
 9. Individual liner lengths; transition locations; resin quantities; curing schedule for each liner, including heating, curing, and cool-down schedule; liner materials; thicknesses and layers; and inversion or spray application pressures (maximum and minimum) for each segment.
 10. Structural design calculations and specification data sheets listing all parameters used in the liner design and thickness calculations based on Appendix X1 of ASTM F1216 for each pipe segment with less than 10% ovality or based on the WRc Sewerage Rehabilitation Manual, Type II Design, Section 5.3.2.iii for non-round pipe or circular pipes with greater than 10% ovality. All calculations shall be prepared under and stamped by a Professional Engineer registered in the State of South Carolina.
- B. Field Sample Preparation Plan outlining detailed procedure for preparing samples, including resin preparation, mixing, wetout, insertion, curing, cooling, and post-sample examination to confirm representativeness.
- C. Material and method of installation for hydrophilic end seals and pre-liners.
- D. Contingency Plan, including methods and equipment to be used to repair unacceptable liner defects and for removing failed liners, and for availability and accessibility of backup equipment such as air compressors and lateral reinstatement cutters.
- E. Pre-Construction Inspection Deliverables and Post-construction Inspection Deliverables in accordance with Section 33 01 30.16, Television Inspection of Pipes.

- F. Quality control report for resin impregnation of each CIPPL showing information such as resin lot numbers, volumes of resin, and catalyst used. Include a checklist so that each critical step in the resin impregnation process is checked off and initialed.
- G. Curing log of CIPPL temperatures and pressures/water head at the upstream and downstream manholes during the curing process to document that proper temperatures, pressures and cure times have been achieved. Curing log shall list as a minimum the temperature of the hot water or steam, the temperature of external thermocouples, and pressures at least once every five minutes or as recommended by the resin and tube manufacturers, whichever is more frequent.
- H. Name and location of ISO 17025 testing laboratory to perform CIPP tests. Provide certification that each test shall be performed by a laboratory with an American Association for Laboratory Accreditation (A2LA) for the specific test to be performed.
- I. Performance Quality testing results.

PART 2 - PRODUCTS

2.1 DESIGN REQUIREMENTS

- A. The CIPPL lining shall be a resin-impregnated flexible tube which is inserted into the sewer to be rehabilitated and cured-in-place by an acceptable curing method. The tube may have a suitable polyurethane, polyethylene or PVC membrane coating for protection of the interior surface and to provide a uniform, smooth flow surface and may be removed after installation and curing is completed. The resin shall be a liquid thermosetting resin and shall be suitable for the design conditions as well as the curing process.
- B. Resin properties based on laboratory prepared samples
 - 1. 50-Year Flexural Strength (ASTM D790, D2990, or DIN EN 761): 2,500 psi minimum.
 - 2. 50-Year Flexural Modulus (ASTM D790, D2990, or DIN EN 761): 200,000 psi minimum, with no greater than a 55% reduction from initial (hour 0.02) strength.
- C. CIPPL Thickness:
 - 1. The required structural CIPPL wall thickness shall be determined using the following:
 - a. In accordance with WRC Sewerage Rehabilitation Manual, Type II Design, Section 5.3.2.iii for non-round pipe or circular pipes with greater than 10% ovality as indicated in the Lining Summary at the end of this Section.
 - b. A safety factor of 2.0.
 - c. A service life of 50 years under continuous service.
 - d. A modulus of soil reaction of 850 psi.
 - e. A soil density of 120 lbs/ft³.
 - f. A Poisson's ratio of 0.3.
 - g. An enhancement factor of 7.
 - h. A groundwater elevation over the pipe equivalent to surface grade unless otherwise noted in the Lining Summary at the end of this Section.
 - i. Ovality for each segment to be lined is noted in the Lining Summary at the end of this Section.
 - j. Live loads for each segment to be lined are noted in the Lining Summary at the end of this Section.
 - k. Soil depth for each segment to be lined is noted in the Lining Summary at the end of

this Section.

- I. In no case shall non-woven, unreinforced liners be thinner than 7.5 mm. In no case shall fiberglass reinforced liners be thinner than 3.5 mm.
- m. The long-term flexural modulus and long-term flexural strength used in the design shall be the values as rated for the specified service life and as submitted in Part 1.
 - 1) If performance test data for previously installed liners using the proposed resins are available, the long-term flexural modulus and long-term flexural strength values used in the design shall be the 30th percentile of the available data set.
 - 2) If these test results were generated from laboratory prepared samples, the long-term flexural modulus and long-term flexural strength values used in the design shall be 30% of the value indicated by the laboratory tested samples.
 - 3) If approved 10,000 hour data are not available, long-term flexural modulus and long-term flexural strength retention used for design thickness shall be 15% (85% reduction) of the short term strengths for non-woven liner and 50% for fiberglass reinforced liners.
 - 4) CONTRACTOR may elect to use weaker long-term flexural modulus and long-term flexural strength values than indicated in the submittal for these properties to account for differences in field prepared liners versus laboratory prepared liners, so long as other requirements regarding limits to thickness are not compromised.
2. The liner thickness of each pipe segment shall be determined by the CONTRACTOR and submitted per Part 1 of this Section.

2.2 INSTALLED CHARACTERISTICS

- A. Installed thickness of the CIPPL shall be as calculated in Part 2. CIPPL installations that result in thicknesses that exceed the design thickness by the greater of 2 mm or 15%, as certified by an independent testing laboratory in accordance with Part 3, may be considered non-compliant if, in the judgment of the ENGINEER, will impede O&M and future work. CIPPL with thicknesses less than 95% of design thickness shall be assessed for acceptance under Part 3.
- B. When cured, the liner shall form a continuous, hard, impermeable liner that is chemically resistant to chemicals found in domestic sewage per ASTM F1216, Appendix X2 and abrasion resistant.
- C. The liner shall be fabricated to a size that when cured will tightly fit the sewer being rehabilitated. Allowance for longitudinal and circumferential expansion shall be taken into account when sizing and installing the liner. Field verify all dimensions prior to delivery of the liner. The contact tolerance for pipe with a conic section (i.e., oval or round, but not arch pipe) is 2.0 mm; in cases where any space or gap between the outside surface of the liner and the inside surface of the existing pipe exceeds 2.0 mm as is visually evident or as determined using mandrel or laser profiling, if so specified, the liner fit shall be deemed deficient and corrective action shall be required. Where irregularities of the existing pipe exist such as offset joints, protrusions, bumps, and deformations, and the irregularities remain after the sewer has been prepared in accordance with the Contract Documents, exception to the contact tolerance shall be allowed in the irregularity zone. The exception shall not present an obstruction to sewage flow.
- D. The length of the liner shall be that deemed necessary by the CONTRACTOR to effectively carry out installation and seal the liner at the inlet and outlet of each manhole/structure as specified herein. Field verify all lengths prior to delivery of liner to the site.

2.3 FLEXIBLE TUBE

- A. The tube shall consist of one or more layers of flexible needled felt or an equivalent nonwoven or woven material, or a combination of nonwoven and woven materials, capable of carrying resin and withstanding installation pressures and curing temperatures. The tube shall be compatible with the resin system used. The material shall be able to fit irregular pipe sections and negotiate bends, if applicable. If the tube contains fiberglass, the fiberglass shall be corrosion resistant E-CR glass conforming to ASTM D578.
- B. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the CIPPL. No dry or unsaturated layers shall be evident.
- C. The wall color of the interior pipe surface of CIPPL after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.

2.4 RESIN

- A. The liquid thermosetting resin shall saturate the tube and produce a properly cured liner which is resistant to abrasion due to solids, grit, and sand.
- B. Polyester, vinyl ester, or epoxy resin and catalyst systems are acceptable. The resin must be able to cure in the presence of water or steam and the initiation temperature for cure should be less than 180°F (82.2°C). Resins created from recycled materials are not allowed.
- C. Resin enhancers are allowed and may be used by the CONTRACTOR. The maximum amount of enhancer allowed is 30 pounds enhancer per 100 pounds resin. Submit data verifying amount of enhancer and certify the limit of enhancer has not been exceeded.
- D. Resin enhancers shall utilize a suitable bond enhancing compound to increase the bond between resins and other materials. Submit certification that bond enhancing compound is suitable for use in aqueous environments.

2.5 HYDROPHILIC END SEALS

- A. Provide hydrophilic end seals at each end of the CIPPL to prevent water from migrating between the liner and host pipe into the manhole. Provide one of the following:
 - 1. Seamlessly molded neoprene end seal.
 - a. Product and Manufacturer: Insignia End Seal Sleeve as manufactured by LMK Technologies or equal.
 - 2. Hydrophilic bands that are 20 mm wide, 5 mm high, with a double bump on one side, and flat on the other side. Miter cut and glued to form circular bands.
 - a. Product and Manufacturer: Hydrotite Style RS-0520-3.5I or equal.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Review OWNER'S television inspection logs and conduct additional inspection of the pipes to plan rehabilitation work. Where shown on the Drawings or directed by ENGINEER,

perform dye testing or other acceptable method to verify active and inactive laterals. Do not reopen lateral taps that are inactive.

- B. Clean pipes prior to Pre-Construction Inspection, such that the pipes are free of roots, grease, sand, rocks, sludge, tuberculation (to a tolerance of 0.25 inches projection) and other debris. The work of pipe cleaning shall conform to the requirements of Section 33 01 30.41, Cleaning of Pipes.
- C. Inform ENGINEER in writing if any laterals shown on the Drawings as capped or inactive or not included in the Owner's television inspection logs show evidence of being active.
- D. For any tap encountered that is not shown on the Drawings, notify ENGINEER prior to lining the segment of main. ENGINEER may direct CONTRACTOR to perform dye testing of adjacent properties in order to determine if tap is active. If CONTRACTOR is directed to perform dye testing, notify ENGINEER of dye testing results prior to lining segment of main. Reinstate tap unless the tap is determined by the CONTRACTOR to be inactive.
- E. Remove intruding taps and seal material prior to Pre-Construction Inspection. Remove additional intruding taps and seal material identified during Pre- Construction Inspection prior to lining segment as directed by ENGINEER.
- F. Perform Pre-Construction Inspection in accordance with Section 33 01 30.16, Television Inspection of Pipes, except limit time recording flows from active taps to 10 seconds. Submit and obtain ENGINEER'S acceptance of Pre- Construction Inspection prior to wetting out liner. Inspect and confirm the inside diameter, alignment and condition of each segment to be lined. Use the data and information collected from this inspection to verify the size of the liner and refine the installation techniques. Size the liner so that fins and wrinkles are minimized while ensuring maximum practical contact with the host pipe. Measure and document the stationing of all active and inactive service connections prior to lining. If unknown physical conditions in the work area are uncovered during the investigation that materially differ from those ordinarily encountered, notify the ENGINEER.
- G. As required, provide for continuous flow around the section of pipe that is to be lined in conformance with the requirements of Standard Sewer Specifications for the City of Rock Hill. The pump and bypass lines shall be of adequate capacity and size to handle the flow of the sewers. The proposed bypassing system shall be reviewed in advance by the ENGINEER. The review of the bypassing system by the ENGINEER shall in no way relieve the CONTRACTOR of his responsibility and liability.
- H. Clear the line of obstructions such as solids or broken pipe that will prevent the insertion of the liner. If inspection reveals an obstruction that cannot be removed by the conventional cleaning equipment, make an excavation and repair the obstruction.
- I. Remove pockets of water from the pipe. If water pockets remain, install a preliner.
- J. In presence of ENGINEER, perform a pre-lining CCTV inspection immediately prior to CIPPL lining to demonstrate that the pipe is clean and free of roots, grease, sand, rocks, sludge, PACP Runners or Gushers, pockets of water, or structural impediments that would affect long-term viability of the pipe liner. Obtain ENGINEER's verbal approval of the acceptability of the existing pipe condition prior to installation of the CIPPL.
- K. Any lifts caused by water or bedding entering the pipe through defects during the insertion process shall be the responsibility of the CONTRACTOR to repair. CONTRACTOR is cautioned to understand the groundwater, soil, and host pipe conditions and plan his

techniques accordingly.

- L. See notification requirements under City of Rock Hill Standard Specifications for Sanitary Sewer Facilities Construction.

3.2 BYPASS PUMPING

- A. Maintain commercial and residential sewer service during the installation process. If necessary to properly complete the work, the CONTRACTOR may interrupt flow from services if such interruption is first coordinated with and allowed by the property owner(s). Contact the property owners in accordance with City of Rock Hill Standard Specifications for Sanitary Sewer Facilities Construction. Upon completion of the work, immediately reinstate all services and notify the property owner(s) that service is again available. The CONTRACTOR assumes all responsibility for notifying property owners of service interruptions. The CONTRACTOR also assumes all responsibility for blockages, back-ups, and damages caused to public and private property as a result of the interruption of service, whether caused by the CONTRACTOR'S or property owner's actions.
- B. Bypass pumping systems shall be in accordance with Standard Sewer Specifications for the City of Rock Hill.
- C. Bypass pump sewage from individual laterals, if needed.

3.3 CIPPL INSTALLATION PROCEDURES

- A. The insertion, inflation, and curing method shall be determined by CONTRACTOR.
- B. Maintain two working lateral reinstatement cutters at the job site at all times. Lining work shall not commence if the CONTRACTOR does not have the required number of working cutters on site. No additional time or compensation shall be awarded to the CONTRACTOR in the event that work is stopped due to the CONTRACTOR'S failure to comply with this requirement.
- C. Resin Impregnation (Wet Out): Designate a location where the flexible tube shall be impregnated with resin. Thoroughly saturate flexible tube prior to installation. For tubes with exposed resin faces, add five to ten percent excess resin to account for resin migration in pipe defects and joints and resin loss through the ends of the liner. Adjust roller gap setting so that the excess resin is uniformly distributed throughout the length of the liner. Wet-out logs shall provide documentation that the proper amount of resin was added. Tubes that have a coating between the inside surface of the host pipe and the exterior surface of the tube do not require excess resin. A catalyst system, or additive compatible with the resin and flexible tube, may be used as recommended by the manufacturer and with approval of the ENGINEER. Handle the resin- impregnated flexible tube to retard or prevent resin setting until it is ready for insertion.
- D. Insertion of Inverted Liners: Insert flexible tube through an existing access way. The liner material shall be inserted through a manhole by means and method required by the manufacturer, and shall be fully extended to the downstream manhole. Where practical, insert the tube such that the seam of the liner is positioned at the 12 o'clock position. Use only lubricants approved by the tube manufacturer. Follow the manufacturer's standards during the elevated curing temperature so as not to over stress the flexible tube and cause damage or failure of the liner prior to cure. Make allowance for circumferential stretching during inversion. Make allowances for longitudinal stretching during inversion. Do not utilize overlapped layers of felt in longitudinal seams that cause lumps in the final product. Extend

head end (A- side) and tail end (B-side) of the liner for taking samples as required in Part 3. If recirculation hoses are used during the curing process, extend the end of such hoses and liner beyond the end of the host pipe and into the downstream manhole.

- E. Insertion of Pull-in Liners: Insert, anchor, and install a slip-sheet on the bottom half of the pipe prior to liner insertion for the purpose of smoothing out and bridging any missing areas of the bottom of the existing host pipe, and ease of pulling, and protection of the outer film of liner during the pull-in process. Insert flexible tube through an existing access way. The liner material shall be inserted through a manhole by a winch capable of holding a constant tension and documenting the amount of tension used; the manufacturer's maximum pull in tension shall not be exceeded and liner shall be fully extended to the lower manhole. Use only lubricants approved by the tube manufacturer. Follow the manufacturer's standards during the elevated curing temperature so as not to over stress the flexible tube and cause damage or failure of the liner prior to cure. Make allowance for circumferential stretching during installation. Make allowances for longitudinal stretching during pull-in or inversion.
- F. Any lifts caused by water or bedding entering the pipe through defects during the insertion process shall be the responsibility of the CONTRACTOR to repair. CONTRACTOR is cautioned to understand the groundwater, soil, and host pipe conditions and plan his techniques accordingly.
- G. CIPPL restraint sleeves shall be approved for use at the insertion and receiving manholes only. Ensure that the sleeve system does not enter the host pipe. Sleeve restraint systems will not be allowed in intermediate manholes. Cover exposed CIPPL in intermediate manholes with cut PVC pipe and sandbags to prevent overstretching of the liner or insufficient curing.
- H. Insert continuous or properly trimmed hydrophilic seals at each manhole opening, centered within the intersection of the host pipe and the manhole wall. Trimmed seal edges (for Hydrotite seals) shall be butted up against each other at the crown of the pipe using a 45° miter cut. Seals with any gap between the ends shall not be accepted. For manholes with outside drops, install two hydrophilic seals, one approximately one inch inside the manhole wall and another approximately nine inches upstream of the outside drop and reinstate the drop opening through the CIPPL. If defects in the host pipe near the manhole are such that the end seal will not form a watertight seal between the liner and host pipe, apply hydraulic cement to the defects in the host pipe to provide a smooth surface to receive the end seal.
- I. The pressure head used during the installation process shall be sufficient to hold the liner tight to the pipe wall, produce dimples at all service connections and the two access manholes, and prevent wrinkles in the cured liner. The same pressure shall be great enough to prevent infiltration from entering the pipeline during the curing process. The pressure shall be maintained sufficiently long enough to allow pockets of water to exfiltrate through the host pipe and prevent lifts in the liner and resin washout. Monitor pressures during inversion and curing of the liner to determine compliance with minimum and maximum inflation pressures.
- J. Curing:
 - 1. Follow submitted cure schedule in curing of liner.
 - 2. After insertion is completed, apply a suitable recirculation system capable of delivering steam or water at various temperatures, and as required by the liner system manufacturer, uniformly throughout the section to achieve a consistent cure of the resin while allowing any moisture to migrate from the liner. Maintain the curing temperature/temperature rise rate or exposure times in accordance with the approved cure procedures. Prevent temperatures/temperature changes that could scald or bubble

- the liner. Scalded or blistered liner shall be rejected if, in the opinion of the ENGINEER, the performance of the liner is compromised.
3. Fit suitable monitors to any heat source to gauge the temperature of incoming and outgoing water or steam supply.
 4. Monitor temperatures through two thermocouples placed between the CIPPL and the invert of the host pipe at each manhole. Record temperature measurement every 5 minutes. Record temperature in Fahrenheit.
 5. Continue curing until the desired product is achieved.
 6. Provide for vapor tight connections in the downstream manhole such that no vapors enter downstream pipes. Alternatively and at no additional cost to the OWNER, provide styrene odor reducing agents, venting, and downstream plugs sufficient to prevent steam, styrene, or other odors from entering downstream buildings.
- K. Cool Down: Initiate a controlled cool-down to cool the hardened liner to a temperature below 110°F and in accordance with the approved cure procedures, but in no case less than 40 minutes. Take care in release of the pressure column so that a vacuum will not develop that could damage the newly installed liner. Do not discharge water in excess of 100°F into the sewer system.
- L. Finished Pipe: Provide a finished CIPPL that is continuous and free from visual defects such as foreign inclusions, dry spots, pinholes, delamination, lifts, blisters, cracks, or wrinkles at any location totaling more than 5% of host pipe inside diameter or 1/2", whichever is greater.
- M. Reopen all of the existing active service connections in each length of sewer immediately following installation of the liner. Reopen active service connections from inside the sewer by means of a remote controlled, CCTV assisted cutting device appropriate for the liner material and the rehabilitated sewer pipe. Each active service connection shall be cut completely open even with the tap opening and shall have smooth edges with no protruding material capable of hindering flow or catching and holding solids contained in the flow stream. If the service connection cannot be fully reopened due to time constraints, open each service connection to a minimum of 75% before the end of each working day. Partially opened service connections must be entirely opened by no later than the next working day. Capture and remove any solids produced from lateral reinstatement with any single dimension longer than 3 inches.
- N. Do not reopen capped or inactive lateral connections. Confirm the locations of all capped or inactive laterals during pre-construction CCTV inspections.

3.4 TRIMMING AT MANHOLES

- A. Delay final trimming and sealing of the liner at manholes according to Manufacturer's guidelines. Capture and remove any solids produced with any single dimension longer than 3 inches.
- B. Neatly and smoothly trim the finished ends of the liner to within two to four inches of host pipe end. Do not leave any rough edges that may catch debris. Do not leave any portion of CIPPL within the manhole channel.
- C. Provide a smooth transition between the existing manhole channel invert and the effluent liner using cementitious or other approved material to prevent settling of sediments or debris from catching on the liner.

3.5 POST-CONSTRUCTION INSPECTION OF COMPLETED WORK

- A. Conduct Post-Construction Inspection showing completed work in accordance with Section 33 01 30.16, Television Inspection of Pipes. Perform Post- Construction Inspection no sooner than 90 days and no later than 180 days after the completion of lining work. In segments with lateral lining work, Post- Construction Inspection shall be conducted after all lateral lining work is complete.
- B. Correct all defects discovered during the television inspection before Conditional Acceptance. After the defects are corrected, repeat the Post- Construction Inspection for that sewer line.

3.6 FINAL CLEANUP

- A. Upon completion of rehabilitation work and testing, clean and restore project area affected by the Work.

3.7 QUALITY CONTROL TESTS

- A. Material Sampling: Collect sufficient restrained pipe samples to perform the analyses specified below at frequencies specified in paragraph B. The sampling requirements specified assume the test methods listed in paragraph B shall be used. If reinforced liners are utilized whose architecture is such that the physical properties vary depending on the direction of testing (i.e., axial versus circumferential), the sampling requirements shall be modified accordingly at no additional cost to OWNER if alternate laboratory testing methods are required.
 - 1. Collect a restrained pipe sample by placing a section of PVC pipe on the B-Side end (opposite of insertion side) of the liner in the downstream manhole for steam cures and on the insertion end, A-Side of the liner in the insertion side manhole for water cures. Select PVC material and size to match the inside diameter of the pipe being lined as closely as practical. The length of PVC pipe shall be equal to the length of the two required samples plus 12 inches, minimum. Run the impregnated tube through the pipe and cure the CIPPL under restrained conditions in a manner that represents the conditions experienced during installation of the in-ground liners and in accordance with the Field Sample Preparation Plan submitted in Part 1.
 - 2. Cut two cylindrical samples from the center of the restrained pipe sample. Each sample shall be a minimum of 12 inches long or 25 times the CIPPL thickness, whichever is greater. In waterproof, indelible ink, label samples with the contract number, date of installation, street location, segment number(s), and specified thickness. Send one sample to independent third-party laboratory for testing. Hang the second sample from the top rung in the manhole at the downstream end of the liner. Hang sample in a secure manner by nylon rope, sling, or other non-abrasive method. In waterproof, indelible ink, label the sample in the manhole with "Do not remove before (specify date)". The date specified shall be two years after the date of liner installation unless otherwise directed by the ENGINEER. If there is no rung available in the manhole, hang sample in an upstream or downstream manhole and inform ENGINEER of sample storage location. CONTRACTOR may elect to take additional samples at no additional cost to the OWNER.
- B. Testing: The following tests at the following minimum frequencies shall be performed by the CONTRACTOR on CIPPL liners installed. The OWNER may elect to perform additional testing. The CONTRACTOR may elect to perform additional testing, at his discretion and cost, to improve the resolution of performance test characterization. All testing shall be performed by an independent, accredited ISO 17025 testing facility. Each test shall be

performed by a laboratory with an American Association for Laboratory Accreditation (A2LA) for the specific test to be performed.

1. Short-term Flexural (Bending) Properties – The initial tangent flexural modulus of elasticity and flexural yield strength measured in accordance with ASTM D790.
 - a. Frequency – 1 test per liner shot.
2. Thickness measured in accordance with ASTM D3567.
 - a. Frequency – 1 test per liner shot.

3.8 CIPPL ACCEPTANCE

- A. Acceptance of the CIPPL shall be based on the ENGINEER's evaluation of the resin impregnation quality control reports, CIPPL temperature curing logs, Post-construction Inspection video, laboratory test results for the installed pipe samples, which shall demonstrate:
 1. Compliance with the required physical strength properties and thickness.
 - a. For each pipe segment, the calculated required thickness of the liner based on the installed material properties shall be determined using the actual installed liner thickness and material properties as measured by the quality control tests required in Part 3 and appropriate applicable formula from ASTM F1216, Appendix X1. The measured short term flexural strength and short term flexural modulus of elasticity shall converted into long term flexural strength and long term flexural modulus of elasticity by using the percent retention value achieved by the representative long term flexural modulus of elasticity testing.
 2. There is no evidence of groundwater infiltration through the body of the liner or at the manhole ends. Leakage from annular space at tap cutouts is expected and shall not be considered actionable CIPPL leakage.
 3. All active service connections are open and clear.
 4. There is no evidence of excessive protrusions, wrinkles, splits, cracks, breaks, lifts, kinks, scalds, blisters, delaminations, crazing or other defects in the liner.
 5. Compliance with required length and diameter of liner.
 6. Achieving the minimum service life as determined by using the actual thickness and short term flexural modulus of elasticity as measured at each liner installation.
- B. If any defective CIPPL is discovered after it has been installed, it shall be removed and replaced with either a sound CIPPL or a new pipe at no additional cost to the OWNER. CONTRACTOR shall be responsible for costs of additional testing required to confirm compliance with these requirements. Obtain approval of the ENGINEER for method of repair, which may require field or workshop demonstration.
- C. For CIPPL with defects, if the CONTRACTOR elects to excavate and repair defects in the CIPPL, cut and remove the defective section of CIPPL plus the host pipe to a minimum of two feet beyond each end of the defective liner. Use SDR 26 PVC to replace the removed liner and host pipe. Align invert of point repair with invert of CIPPL. On either side of the proposed repair, carefully remove the host pipe from around the existing sound liner to expose a minimum of five inches of sound liner or as needed for repair coupling. Use couplings in accordance with Section 33 05 05 – Excavated Point Repair to connect the new PVC directly to the sound liner. Haunch all exposed liner and new PVC pipe to the springline with pipe bedding material in accordance with Standard Specifications for Sanitary Sewer Facilities Construction and the Details. Place AASHTO #8, #67, or #57 as approved by the ENGINEER a minimum of eight inches on either side of the pipe from springline of new PVC pipe to eight inches above the pipe. Complete repair, pipe installation, bedding, and backfill in accordance with City of Rock Hill Standard Specifications for Sanitary Sewer Facilities Construction and the Details .

- D. If the CONTRACTOR elects to repair defects in the CIPPL using trenchless methods, remove the defective sections of CIPPL for the full circumference to a minimum of six inches beyond each end of the defective liner or as approved by the ENGINEER. Install a cured-in-place point repair that matches or exceeds the short and long-term material properties of the existing liner and must have the appropriate thickness to withstand the criteria for that particular liner. A minimum of twelve inches of overlap is required on either end of the repair, with hydrophilic bands placed six inches from either end of the repair (i.e., centered on each overlap). Should the proposed cured-in-place point repair and hydrophilic end seals reduce the inside diameter of pipe to an unacceptable diameter, the OWNER retains the right to require alternative materials for the repair or to have the CONTRACTOR perform an excavated repair, at no additional cost to the OWNER.

+ + END OF SECTION + +

SECTION 33 01 30.81

MANHOLE REHABILITATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide all labor, materials, equipment, and incidentals necessary to rehabilitate manholes as described herein.
- B. The extent and type of Work is shown on the Drawings. Field verify all Work locations and all other adjacent and relevant utility locations or other pertinent site conditions prior to any work.

1.2 RELATED SECTIONS

- A. Standard Sewer Specifications for the City of Rock Hill.

1.3 REFERENCE STANDARDS

- A. Standards referenced in this Section for castings are listed below:
 - 1. ASTM A 48 - Standard Specification for Gray Iron Castings.
- B. Standards referenced in this Section for cement and masonry products are listed below:
 - 1. ASTM C 32 - Standard Specification for Sewer and Manhole Brick (Made from Clay or Shale).
 - 2. ASTM C 78 – Standard Test Method for Flexural Strength of Concrete (Third point loading).
 - 3. ASTM C 109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.
 - 4. ASTM C 139 - Standard Specification for Concrete Masonry Units for Construction of Catch Basins and Manholes.
 - 5. ASTM C 150 - Standard Specification for Portland Cement.
 - 6. ASTM C 293 - Test Method for Flexural Strength of Concrete (Center point loading).
 - 7. ASTM C 267 - Standard Test Methods for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacing and Polymer Concretes
 - 8. ASTM C 321 - Test Method for Bond Strength of Chemical-Resistant Mortars.
 - 9. ASTM C 478 - Standard Specification for Precast Reinforced Concrete Manhole Sections.
 - 10. ASTM C 596 - Test Method for Drying Shrinkage of Mortar Containing Hydraulic Cement.
 - 11. ASTM C 666 - Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
 - 12. ASTM C 469 - Standard Test Method for Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression.
 - 13. ASTM C952 – Standard Test Method for Bond Strength of Hydraulic Cement Mortars.
 - 14. ASTM C 1244 - Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill.
 - 15. International Concrete Repair Institute (ICRI) Technical Guidance 310.2.

- C. Standards referenced in this Section for resin-based products are listed below:
1. ASTM D578 – Standard Specification for Glass Fiber Strands.
 2. ASTM D 543, Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents.
 3. ASTM D 638, Standard Test Method for Tensile Properties of Plastics.
 4. ASTM D 695, Standard Test Method for Compressive Properties of Rigid Plastics.
 5. ASTM D 790, Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 6. ASTM D 903, Standard Test Method for Peeling or Stripping Strength of Adhesive Bonds.
 7. ASTM D 1004, Standard Test Method for Tear Resistance of Plastic Film and Sheeting.
 8. ASTM D 2240, Standard Test Method for Rubber Property- Durometer Hardness.
 9. ASTM D 2584, Standard Test Method for Ignition Loss of Cured Reinforced Resins.
 10. ASTM D 4414, Standard Practice for Measurement of Wet Film Thickness by Notched Gages.
 11. ASTM D 4541, Standard Test Method for Pull-off Strength of Coatings Using Portable Adhesion Testers – metal substrates.
 12. National Association of Corrosion ENGINEERs (NACE) SP0188-2006, Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates.
 13. ASTM D 790-07 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 14. ASTM D 2990-01 - Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics.
 15. ASTM D 3567 – Standard Practice for Determining Dimensions of “Fiberglass” (Glass-Fiber-Reinforced Thermosetting Resin) Pipe and Fittings.
 16. DIN EN 761 – Glass Reinforced thermosetting plastics (GRP) pipes.
 17. DIN EN 13566-4 – Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks.
 18. ISO 178 - Determination of Flexural Properties.
 19. ASTM G 62 – Standard Test Methods for Holiday Detection in Pipeline Coatings
 20. ASTM D 7234 – Test method for Pull-off Adhesion Strength of Coatings on Concrete using Portable Pull-off Adhesion Testers.
- D. Standards referenced in this Section for miscellaneous products are listed below:
1. ASTM C 882, Standard Test Method for Bond Strength of Epoxy-Resin Systems used with Concrete by Slant Shear.
 2. ASTM D 412, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
 3. ASTM D 624, Standard Test Method for Conventional Vulcanized Rubber and Thermoplastic elastomers.

1.4 QUALIFICATIONS

- A. CONTRACTOR shall be licensed and certified by the manufacturer of the lining system to be installed.
- B. CONTRACTOR shall have the following product-specific qualification requirements.
1. Non-reinforced Resin-based Liners
 - a. Completed lining of at least 30 manholes using the proposed products and application methods.
 - b. All Work must be supervised by a foreman responsible for rehabilitating a minimum of 20 manholes using the proposed manufacturer’s lining process.
 2. Injection Grouting
 - a. Completed injection grouting for at least 20 manholes using the proposed products

and application methods.

- b. All Work must be supervised by a foreman responsible for rehabilitating a minimum of 15 manholes using the proposed manufacturer's products and processes.

1.5 QUALITY CONTROL

- A. No change of material, design values, or procedures specified herein may be made during the course of the Work without the prior written approval of the ENGINEER.
- B. All laboratory test results shall be provided by an independent, accredited ISO 17025 testing facility.

1.6 WARRANTY

- A. All work shall be fully guaranteed by the CONTRACTOR for a period of 5 years from the date of Final Acceptance unless otherwise stipulated in writing by the OWNER prior to the date of Conditional Acceptance. During this period, all defects discovered by the OWNER or ENGINEER shall be addressed by the CONTRACTOR in a satisfactory manner at no cost to the OWNER. In addition to the Warranty Inspections specified under Part 3, the OWNER may conduct additional independent inspections, at its own expense, of the Work at any time prior to the completion of the guarantee period.

1.7 SUBMITTALS

- A. Field testing equipment and procedures for each type of material/process/product proposed:
 1. Concrete surface profile chips
 2. Vacuum testing
 3. Spark testing
 4. Adhesion testing
 5. Thickness testing
- B. Sewage bypass plans by individual location or type, as appropriate to the work.
- C. Manhole cleaning tools, nozzles, equipment operating pressure range, and chemicals
- D. Manufacturer information for all products CONTRACTOR proposes to utilize:
 1. Manufacturer warranty information
 2. Surface preparation instructions, with notes and rationale for proposed variances from requirements specified herein
 3. Application instructions
 4. Installation and quality control plan
- E. Concrete Related Products
 1. Concrete mixture – product data sheet, material properties
 2. Joint and crack sealant – product data sheet
 3. Precast concrete manufacture location and cut sheets for each component showing loading capacities, shape, reinforcement, anchor bolts, and dimensions
 4. Mortar – product data sheet, material properties
 5. Concrete and rubber grade rings/frame sealants – product data sheet
 6. Hydraulic cement – product data sheet, material properties
 7. Wall profiler – product data sheet, material properties, period to cessation of off-gassing
- F. Injection Grouting
 1. All grouts proposed by CONTRACTOR – product data sheet

2. Shrink control agent – product data sheet, rate added by gallon/pound of grout
3. Root control agent – product data sheet, rate added by gallon/pound of grout

G. Resin-based Liners:

1. Summary table of material properties, including short-term flexural modulus of elasticity, 50-year flexural modulus of elasticity, short-term flexural strength (bending stress), 50-year flexural strength (bending stress), chemical resistance, and hardness. Certified test reports shall be submitted verifying each value as described below.
2. Independent third party ISO 17025 accredited laboratory test reports demonstrating that the exact resin proposed to be used for this project meets the requirements for initial structural properties and chemical resistance.
3. Independent third party ISO 17025 accredited laboratory test reports demonstrating that the exact resin proposed to be used for this project has been tested for long-term flexural modulus of elasticity and long-term flexural strength (i.e. 10,000 hour minimum creep testing performed in accordance with ASTM D2990 or DIN EN 761 for design conditions applicable to this project). If the data submitted is not for the exact liner to be used on this project, submit a detailed description of the physical properties of both the liner used in the test and the liner to be used for this project to demonstrate that the two liners are comparable in terms of physical properties.
 - a. Test will be performed for a minimum of 10,000 hours under test conditions and loadings described below. Independent third party test data of the entire ASTM D-2990/DIN EN 761 data set are required as substantiation of the values used in design. The data points from 1,000 hours to 10,000 hours, or such other time period as determined by the ENGINEER based on the curve or slope of the plotted data, of the Long-term Flexural Modulus shall be extrapolated using a Microsoft Excel log-log scale linear regression analysis to determine the service life performance characteristics of the proposed liner.
 - b. Testing will be conducted at:
 - 1) Temperature: 21 to 25°C
 - 2) Relative humidity: 50% minimum
 - 3) Load shall be equivalent to a load that is 25% of the yield stress as measured by ASTM D790 or ISO 178, or as approved by ENGINEER.
4. The names of the resin manufacturers.
5. The type and volume of catalysts and promoters added to the resin, the time of addition, the method of incorporation into the resin, and the quality control procedures required to ensure adequate dispersal and minimization of air entrainment.
6. Structural design calculations and specification data sheets listing all parameters used in the liner/coating design and thickness calculations. All calculations shall be prepared under and stamped by a Professional ENGINEER registered in the State of South Carolina.
7. Quality control report for resin of each liner/coating showing information such as resin lot numbers, volumes of resin, and catalyst used. Include a checklist so that each critical step in the resin impregnation process is checked off and initialed.
8. Surface primer – make, model, application method, application rate
9. Surface profiler – make, model, application method, application rate
10. For spray-applied systems, application rates, maximum single layer built thickness, maximum built thicknesses, and curing durations and speeds.
11. Individual liner lengths; transition locations; resin quantities; curing schedule for each liner, including heating, curing, and cool-down schedule; curing time before holiday testing; liner materials; thicknesses and layers; and installation or spray application pressures (maximum and minimum) for each manhole/structure.
12. Sample collection and curing procedures.
13. Repair methods and equipment to be used to repair unacceptable liner/coating defects and for removing failed liner/coatings.

- H. Name and location of ISO 17025 testing laboratory to perform tests. Provide certification that each test shall be performed by a laboratory with an American Association for Laboratory Accreditation (A2LA) for the specific test to be performed.
- I. Post-construction and Testing Deliverables, including:
 - 1. Visual Inspections
 - 2. Vacuum test results
 - 3. Thickness test results
 - 4. Spark test results
 - 5. Adhesion test results
 - 6. Sample analysis test results
- J. Warranty Inspection Deliverables

1.8 REQUIREMENTS

- A. This Contract requires work in active sewers. Follow all federal, state and local requirements for safety in confined spaces.
- B. Conduct worker safety training within one month of start of work that includes reviewing the hazards associated with all equipment, materials, and work practices. Additional safety considerations including safely handling, mixing, and transporting of reagents should be provided by the liner manufacturer, and should include safe operating practices and procedures, appropriate personal protective equipment (PPE) for the various lining operations, and proper storage, transportation, mixing, and disposal of resins, additives, and their associated containers.

PART 2 - PRODUCTS

2.1 PRECAST MANHOLE CONES

- A. See Standard Sewer Specifications for City of Rock Hill.

2.2 GRADE RINGS AND SEALANTS

- A. See Standard Sewer Specifications for City of Rock Hill.

2.3 MASONRY MATERIALS

- A. See Standard Sewer Specifications for City of Rock Hill.

2.4 FRAMES AND COVERS

- A. See Standard Sewer Specifications for City of Rock Hill.

2.5 ANCHOR BOLTS

- A. Anchor bolts for bolting manhole frame to the manholes shall be ¾-inch diameter all-thread galvanized steel rods. Anchors for attaching frame to existing manholes shall be epoxy anchors or approved mechanical anchor. Anchor bolts shall extend a minimum of two-inches above the frame. Provide galvanized steel nuts.

2.6 CLEANING MATERIALS

- A. Water: Potable water.
- B. Cleaners: Detergent, bleach, and muriatic acid.

2.7 HYDRAULIC CEMENT

- A. Hydraulic cement shall be a dense, rapid setting, cementitious product specifically formulated for leak control in compressive applications. It shall have the following minimum physical properties:
 1. Comprehensive (ASTM C 109):.....600 psi, 6 hours;
2000 psi, 24 hours
 2. Shrinkage (ASTM C 596):.....<0.06%
 3. Bond Strength (ASTM C 321):.....40 psi, 1 hour;
80 psi, 24 hours
- B. The hydraulic cement shall require no additives, shall set in 45-90 seconds, and shall be dimensionally stable, freeze/thaw resistant and sulfate resistant.
- C. Product and Manufacturer
 1. Strong Seal Strong Plug, Strong Company.
 2. PermaCast Plug, APM.
 3. MainStay ML 10, Madewell.
 4. Quad-Plug, Quadex.
 5. Or equal.

2.8 PROFILING CEMENT MORTARS

- A. Cement mortar used to smooth substrate prior to application of top coats shall be chemically compatible with top coat materials. Profiler shall utilize appropriate bonding agents to prepare the substrate prior to application. It shall have the following minimum physical properties:
 1. Compressive Strength (ASTM C 109):.....3000 psi, 24 hours;
5000 psi, 28 days
 2. Bond Strength (ASTM C 882):.....1800 psi, 28 days
 3. Flexural Strength (ASTM C 293):.....850 psi, 28 days
- B. Product and Manufacturer
 1. Permacast-MS1000 UL by APM.
 2. Permacast-Patch, APM.
 3. Raven 705CA, Raven.
 4. Raven 755, Raven.
 5. Mainstay ML-72, Madewell.
 6. Sika Repair 223 with Sika Armatec 110 EpoCem primer by Sika.
 7. Or equal.

2.9 CORE DRILLED PIPE PENETRATION MECHANICAL SEAL

- A. Provide modular, mechanical seal, consisting of rubber links shaped to continuously fill the annular space between the pipe and wall opening. System shall be corrosion resistant and designed for use as a permanent seal in sanitary wastewater environments.

- B. Material Properties of Modular Seal Elements.
 - 1. Material: EPDM
 - 2. Hardness (ASTM D 2240): 50+/-5
 - 3. Elongation (ASTM D 412): 400%
- C. Bolts and Nuts shall be constructed of stainless steel (ANSI Type 316).
- D. Product and Manufacturer.
 - 1. Link-Seal Modular Seal Model S-316, Pipeline Seal and Insulator.
 - 2. Or equal.

2.10 MANHOLE INJECTION GROUT

- A. For low leakage sites with limited voids in backfill, use acrylamide, acrylic, or low viscosity urethane grout.
 - 1. Product and Manufacturer:
 - a. AV-100 Chemical Grout, Avanti (acrylamide).
 - b. AV-118 Duriflex, Avanti (acrylic).
 - c. AV-254 Gelseal, Avanti (low viscosity urethane).
 - d. AC-400, DeNeef.
 - e. Or equal.
- B. For pipe penetrations, use urethane grout.
 - 1. Product and Manufacturer:
 - a. AV-333 Injectaflex, Avanti.
 - b. Or equal.
- C. For root control, use dichlobenil as an additive to the grout in proportions as recommended by the manufacturer to prevent root growth.
 - 1. Product and Manufacturer:
 - a. AC-50W Root Inhibitor, Avanti.
 - b. Or equal.
- D. Shrink control agent - add a water-based emulsion with the grout to reduce shrinkage and improve strength of the grout providing the resultant cured material with both improved hydrostatic pressure resistance and flexibility. Add the agent in proportions as recommended by the manufacturer.
 - 1. Product and Manufacturer:
 - a. AV-257 Icoset, Avanti.
 - b. Or equal.

2.11 RESIN BASED LINERS – GENERAL DESIGN REQUIREMENTS

- A. Minimum material properties
 - 1. 50-Year Flexural Strength (ASTM D790, D2990, or DIN EN 761): 2,500 psi.
 - 2. 50-Year Flexural Modulus (ASTM D790, D2990, or DIN EN 761): 200,000 psi, with no greater than a 50% reduction from initial (hour 0.02) strength.
 - 3. Adhesion (ASTM D 7234): 350 psi or substrate failure
- B. Thickness: Individual liner thicknesses shall be determined by the CONTRACTOR and submitted per Part 1 of this Section. CONTRACTOR may elect to design and install multiple thickness liners for various diameters/configurations/depths within a given structure or install a uniform thickness within a given manhole based on the thickest required portion of the liner. The required minimum liner thicknesses shall be determined using the following:

1. For round configuration, use ASTM F1216, Appendix X1, formulas X1.1 and X1.2. For brick manholes, assume an ovality of 4%, and for precast concrete manholes, assume an ovality of 1% unless otherwise specified or shown.
 2. For benches and channels, submit calculations for thickness based on proposed groove spacing, with maximum groove spacing of 24 inches on center each way and minimum groove spacing of 6 inches on center each way.
 3. A safety factor of 1.
 4. A minimum service life of 50 years under continuous service.
 5. A Poisson's ratio of 0.3.
 6. An enhancement factor of 7.
 7. A groundwater elevation over the base equivalent to surface grade.
 8. In no case shall spray applied resin liners be less than 200 mils.
 9. The long-term flexural modulus and long-term flexural strength used in the design shall be the values as rated for the specified service life and as submitted in Part 1. CONTRACTOR may elect to use weaker long-term flexural modulus and long-term flexural strength values than indicated in the submittal for these properties to account for differences in field prepared liners versus laboratory prepared liners, so long as other requirements regarding limits to thickness are not compromised.
- C. When cured, the liner shall form a continuous, tight fitting, hard, impermeable liner that is chemically resistant to chemicals found in domestic sewage.
- D. The liner shall cover bench and invert, and meet the inverts and pipe penetrations of the influent and effluent sewers. Field verify all pertinent dimensions prior to construction.

2.12 RESIN-BASED SPRAY APPLIED POLYURETHANE LINER MATERIAL

- A. Liner material – A sprayable resin-based polyurethane material used to form a monolithic liner covering all interior manhole surfaces.
- B. Liner must have at least 5 years of successful performance in similar applications.
- C. Product and Manufacturer:
 1. Spraywall, by Sprayroq
 2. Or equal.

PART 3 - EXECUTION

3.1 GENERAL SEQUENCE OF WORK

- A. Perform applicable manhole rehabilitation work for a given manhole in the following generalized sequence:
 1. Remove existing steps and repair manhole.
 2. Reset frames and cover.
 3. Install CIPP end seals.
 4. Injection grout joints and penetrations.
 5. Prepare manhole to receive lining.
 6. Install wall profilers or other preparatory coatings required for lining systems.
 7. Install lining systems.

3.2 GENERAL PRODUCT HANDLING, MIXING AND STORAGE REQUIREMENTS

- A. Handle, formulate, and store all materials in conformance with the manufacturer's recommendations. The uncured resins, cements, grouts, etc. shall be delivered to the Site in unopened containers, with the date of manufacture clearly indicated.
- B. Mix and handle the materials, including their component parts in accordance with manufacturer's recommendations and to minimize hazard to personnel. Provide appropriate protective measures to ensure that the components and the chemicals produced in mixing are under the control of the CONTRACTOR at all times and are not available to unauthorized personnel or others.

3.3 GENERAL MANHOLE PREPARATION AND CLEANING

- A. Place plywood mats or sheeting over the existing flow channel and bench to prevent debris from falling into the sewer prior to any demolition work.
- B. Install flow through plugs or provide bypass pumping in active manholes where the channel is to be rehabilitated or repaired.
- C. Clean bench, channels, and interior walls of manholes with clean water to remove deleterious material, dirt, grease, and other debris.
- D. Trim protruding rubber grade rings flush with the chimney.
- E. Plug holes greater than 1" in diameter and greater than 1" in depth in manhole wall using hydraulic cement.

3.4 RESET/REPLACE FRAME AND COVER

- A. In roadway, sawcut pavement around the manhole. Sawcut area shall be sufficiently sized to permit removal of pavement, paving sub base, and backfill without undermining undisturbed pavement.
- B. Excavate and dispose of pavement, paving sub base and backfill. Sawcut additional pavement disturbed as a result of excavation activities.
- C. Remove existing frame and cover. Remove damaged concrete grade rings. Remove loose or broken brick/block and other loose material down to a competent layer of brick/block. Obtain ENGINEER approval prior to removing all or a portion of the cone section of manhole. Brick and grade rings in good repair may be cleaned and reused, where appropriate.
- D. Rebuild damaged manhole cone and chimney in accordance with Part 3.
- E. If frame and cover are to be replaced, dispose of existing frame and cover and provide a new frame and cover. If frame and cover are to be reset, reuse existing frame and cover.
- F. Backfill in accordance with the Details on the Drawings. If roadway is damaged beyond the limits of the area to be backfilled with concrete, restore damaged roadway.

3.5 CORE DRILLED PIPE PENETRATION MECHANICAL SEAL

- A. Inspect manhole wall penetration for spall, rough edges, protruding rebar, and aggregate.

Grind rough edges, protruding rebar, and aggregate to a competent surface satisfactory for receiving wall patch. Apply wall patch as defined in this Section to provide a smooth and circular shaped penetration.

- B. Center the pipe in manhole wall opening. Make sure the pipe will be adequately supported on both side of the seal so that the weight of the pipe is not supported by the mechanical seal.
- C. Size mechanical seal in accordance with manufacturer sizing charts. A soap- based detergent is permitted to aid installation.
- D. Install mechanical seal so that all bolt heads are facing the installer.
- E. Using a hand socket or offset wrench only, start tightening at 12 o'clock position. Do not tighten any bolt more than four turns at a time. Continue in a clockwise manner until links have been uniformly compressed.
- F. Make two or three more passes at four turns per bolt maximum; tighten all bolts clockwise until all sealing elements bulge around all pressure plates.

3.6 INJECTION GROUTING MANHOLE JOINTS, PIPE PENETRATIONS, CHANNELS, AND OTHER DEFECTS

- A. Clean manhole in accordance with Part 3.
- B. Use grout injection method to seal the manhole channel, base, wall joints, penetrating pipe joints, and other defects by injection grouting where required to stop leaks prior to application of other products. Modify gel time as appropriate for the conditions present.
- C. Minimum insertion points
 1. Wall joint grouting – Where active leakage is occurring, drill one or more holes at one foot below the leak. Pump grout into the holes until grout comes out of the defect. Where active leakage is not occurring, drill holes at 4, 8, and 12 o'clock positions one foot above the joint to be sealed and drill holes w at 2, 6, and 10 o'clock positions one foot below the joint to be sealed. Pump grout into the lower holes until grout comes out of the upper holes.
 2. Grout channel, base, and/or bench grouting - Drill one or more holes on lower side of the defect/leak. Pump grout into the grout sleeves until grout comes out of the defect.
 3. Penetrating pipe joint grouting - Drill sufficient injection holes and relief holes as needed to seal pipe penetration. Relief holes, if utilized, shall be near the crown of the pipe. Pump grout into lower drill holes until leaks are sealed and, if applicable, until grout comes out of the relief holes.
 4. Other manhole wall defect grouting - Perform injection grouting in a manner appropriate to seal the defect watertight. If leakage migrates to another defect, continue injection grouting under the direction of the ENGINEER additional locations until leaks are sealed. Includes work related to injection grout at steps, lifting holes, etc.
- D. Pump grout at controlled pressures that are in excess of groundwater pressures. Install additional holes and grout as necessary, for varying type and size of leaks encountered, types of soil, and types of voids being filled.
- E. Leaks that are determined to be too large to be effectively eliminated by the grout injection method, shall be plugged with hydraulic cement prior to initiating the injection of grout.

- F. Allow grout to cure overnight, after which each grouting site shall be inspected. If leaks are observed, drill new hole(s) and apply more grout as necessary to stop the leak. Repeat the process as necessary to stop the leaks.
- G. Repair all holes created by the grouting process with hydraulic cement.

3.7 GENERAL LINING PREPARATION

- A. Remove sufficient channel material to allow application of liner and retain a smooth and even sloped flow line from the influent pipes to the effluent pipe(s).
- B. Clean and prepare manhole in accordance with Part 3. Remove loose and protruding brick, mortar and concrete. Roughen surfaces to meet substrate requirements for materials to be adhered.
- C. Pack annular spaces between the manhole cone or chimney and the bottom of the manhole frame with hydraulic cement. Fill voids or gaps in the manhole chimney, cone, or barrel with hydraulic cement or wall patch. Do not apply hydraulic cement as surface coating.
- D. Stop leakage from pipe penetrations, wall defects, joints or other features or defects using chemical grout injection in accordance with Part 3 and to the extent required by the individual lining material requirements. Hydraulic cements or water stops may not be used except in defects allowing packing (>3/4" diameter); do not apply hydraulic cement as surface coating to stop leakage.
- E. Prepare all surfaces to be lined so that underlying masonry and concrete are structurally sound, free of poorly bonded material, and free of coatings or chemically degraded surfaces (gypsum or salts) that reduce adhesion of the liner. At a minimum, use either 5,000 psi water with spinning head or other suitable nozzle that applies the water stream at an oblique angle that allows cleaning and abrading of the concrete and masonry surfaces sufficient to remove all chemically compromised concrete/mortar without fracturing the concrete/masonry and, if desired, use detergent and/or hot water to remove grease completely from the surfaces, or use sand/bead blasting to prepare and profile the substrate surface.
- F. Install containment system for sand/beads if blasting.
- G. Unless the entire manhole surface, including the channel, bench, and chimney, was sand-blasted, spray apply a muriatic acid solution with pH between 4 and 5 onto the surfaces to be lined at a rate of 1 gallon of solution for every 15 square feet of surface to remove residual surface salts. Leave solution on surfaces for 1-3 minutes, then rinse with clean water to return surface to a neutral pH. Test surfaces with litmus paper at a rate of one test every 30 square feet. If pH at any location is lower than 8.5, re-rinse entire surface and repeat pH testing.
- H. Unless the entire manhole surface, including the channel, bench, and chimney, was sand-blasted, spray apply a 2% chlorine bleach solution (typically a 1 part bleach: 5 parts water) onto the surfaces to be lined at a minimum rate of 1 gallon of solution for every 10 square feet of surface to diminish bacteria residing on the surface. Leave solution on surfaces for at least 5 minutes, then rinse with clean water at a minimum rate of 3 gallons for every 10 square feet of surface area.

3.8 RESIN-BASED SPRAY LININGS

- A. Preparation

1. When approved for use by the lining manufacturer, factory blended, rapid setting, high early strength, fiber reinforced, non-shrink profiling mortars may be trowelled or pneumatically spray applied if specifically formulated to be suitable for topcoating with the specified lining product and allowed sufficient time to off-gas before topcoating.
2. Prepare substrate or profile layer so it has at ICRI CSP #4 profile or rougher.
3. Prime substrate with manufacturer recommended primer prior to lining.

B. Application

1. Do not apply liner when air or substrate temperature within the manhole is expected to fall below 40° F within 72 hours of placement. Ambient air and substrate temperature must be at least 45° F at the time of placement.
2. Do not apply liner when ambient air or substrate temperature exceeds 95° F.
3. Follow manufacturer recommendations for safe application of material.
4. Hold the installation equipment nozzle at the proper distance away from and as nearly perpendicular to the prepared sub-surface as the working conditions will permit to secure maximum material compaction with minimum rebound and no visible "sag".
5. Follow a sequence routine that fills corners, corbels, and overhangs with adequately compacted materials.
6. Immediately remove slough pockets and install replacement material.
7. Bring the installed materials to required thicknesses.
8. Line all surfaces from channel invert up to a minimum of two inches onto the manhole frame with liner. Provide a smooth tapered finish in flow channel to the influent and effluent pipes.
9. Sprinkle small amount of sand onto bench before final hardening to promote traction.
10. Cure liner in accordance with manufacturer recommendations. If a second layer of liner is required for any reason, follow manufacturer instructions for preparation of the liner surface to accept the additional liner material.
11. Do not allow wastewater to come in contact with the liner material until the liner has been tack-free and cool to the touch for at least 30 minutes.

C. Testing

1. Thickness: Verify the minimum liner thickness of the manhole liner in the presence of the ENGINEER before material has set up and between each layer. Measure thickness of liner once for every 25 square feet on walls; every 6 linear feet at all inside corners and bench-wall interface; every 12 square feet of overhang/roof. Repair all verification points using a manufacturer-approved material and method upon acceptance of the thickness tests. Submit all thickness readings in writing to the ENGINEER.
2. All lined manholes shall be free of visible leakage.
3. Holiday testing: After completing all other work to the manhole and allowing sufficient time to allow complete cure of all materials, test in the presence of the ENGINEER all resin-based spray and trowel applied lined manholes for leakage using high voltage holidays (voids) detection equipment. For 125 mils, test at 14,000 volts. For 250 mils, test at 20,000 volt. For 400 mils, test at 25,000 volts. For all other thicknesses, the test voltage shall be determined using the following formula: $\text{Voltage} = 1250 \times (\text{Mils})^{0.5}$. All detected holidays shall be marked and repaired in accordance with manufacturer's repair instructions.
4. Adhesion testing: Conduct adhesion testing in the presence of the ENGINEER on one or 20% of all rehabilitated structures, whichever is greater, on manholes selected by the ENGINEER, and at all liner repair sites. Conduct adhesion testing after the liner system has cured and in accordance with ASTM D7234. Affix three 20 mm dollies per manhole to the lined surface of the structure at liner locations selected by the ENGINEER. Adequately prepare the lining material and dollies to receive the adhesive. The adhesive used to attach the dollies to the liner shall be rapid setting with tensile strength in excess of the liner material and permitted to cure in accordance with adhesive manufacturer

recommendations. Utilize a scoring device to cut through the liner until the substrate is reached. The pull tests in each area shall meet 350 psi or shall include substrate adhered to the back of the dolly or no visual signs of liner in the test hole. Dollies at sites meeting the 350 psi requirement may be left in place. If any test fails, test two additional locations in the section of the failure. If any of retests fail, remove and replace all loosely adhere or un-adhered liner in the failed area. Submit to ENGINEER written verification of every adhesion test. Repair all test sites

5. Material performance testing sample preparation: For every 20 manholes lined, beginning with the first manhole/structure lined, prepare 4 12" x 12" liner samples at the design thickness specified using a sheet of burnished aluminum, clean smooth steel, or stainless steel laid flat using the same field equipment used to apply liner. Cure the sample under similar field conditions as dictated by the lining work. Label samples with the contract number, date of installation, CONTRACTOR name, material, street location, manhole number, and specified thickness. Send one sample to independent third-party laboratory for testing and deliver one sample to ENGINEER. Secure the third sample on the top step of the manhole. CONTRACTOR may retain the fourth sample or dispose of it at his discretion. In waterproof, indelible ink, label the sample in the manhole with "Do not remove before (specify date)". The date specified shall be two years after the date of liner installation unless otherwise directed by the ENGINEER. If more than one sample is collected and tested over the course of the Work, the average of the sample results will be considered representative of all the liners installed for that particular resin-fabric combination.
6. Material Testing: The following tests at the following minimum frequencies will be performed by the CONTRACTOR on liners sampled. The CONTRACTOR or OWNER may, at his discretion and cost, conduct additional testing to improve the resolution of performance test characterization. All testing shall be performed by an independent, accredited ISO 17025 testing facility with an American Association for Laboratory Accreditation (A2LA) for the specific test to be performed.
 - a. Short-term Flexural (Bending) Properties – The initial tangent flexural modulus of elasticity and flexural yield strength measured in accordance with ASTM D 790.
 - 1) Frequency – 1 test per sample.
 - b. Flexural Modulus of Elasticity measured in accordance with ASTM C790.
 - 1) Frequency – 1 test per sample.

3.9 INSPECTION AND REPAIR

- A. After manhole rehabilitation has been completed, visually inspect the manhole in the presence of ENGINEER. Check for cleanliness, soundness of repairs, and for elimination of leakage. Repair all defects.

3.10 CLEANUP

- A. Remove all debris from the manhole.
- B. If debris from CONTRACTOR'S work has entered the sewer pipe, clean the affected pipe(s) to the satisfaction of the ENGINEER and at no additional cost to the OWNER.

+ + END OF SECTION + +

SECTION 33 05 05

EXCAVATED POINT REPAIR

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Furnish all labor, materials, equipment, and incidentals as shown, specified, and required to install all buried piping, fittings, and specials and connect new pipe to existing pipe.

1.2 RELATED SECTIONS

- A. Section 33 01 30.16, Television Inspection of Pipes.
- B. Standard Sewer Specifications for the City of Rock Hill.

1.3 SUBMITTALS

- A. Shop Drawings: Submit for approval the following:
 - 1. Pipe reconnection details for joints, sewer laterals, cleanouts, and collection sewers including adapters and couplings.
 - 2. Manufacturer's literature and full product and installation details of piping, fittings, cleanout caps, joints, sealants and connections to existing piping and appurtenances.
- B. Post-Construction Inspection of all new pipe and fittings demonstrating all connections are free of leakage in accordance with Section 33 01 30.16, Television Inspection of Pipes.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Handle all pipe, fittings, appurtenances and accessories carefully with approved handling devices. Do not drop, roll or skid piping.
- B. Unload pipe, fittings and specials opposite to or as close to the place where they are to be installed as is practical to avoid unnecessary handling.
- C. Inspect delivered pipe for cracked, gouged, chipped, dented or other damaged material and immediately remove from Site.

1.5 JOB CONDITIONS AND GENERAL REQUIREMENTS

- A. Drawings show the general arrangement and extent of Work to be performed, but the exact location and arrangement of all piping shall be determined as the Work progresses to conform in the best possible manner with its surroundings.
- B. Drawings do not show all offsets, fittings, accessories, and details which may be required. Examine all of the Drawings and Specifications for conditions which may affect the installation of the work and arrange the work accordingly. Field adjustments shall be made as conditions dictate.

1.6 WARRANTY

- A. Correct any deficiencies found during the warranty period within 1 month. Deficiencies include trip hazards, sink holes, drainage and related issues.
- B. Warranty shall cover all piping, couplings, fittings and manhole connections.

PART 2 – PROJECTS

2.1 MATERIALS

- A. Maintain a supply of pipe fittings, adapters, and short lengths on hand to expedite connection of new pipe to existing manholes, mains and laterals.

2.2 SANITARY SEWER COUPLINGS

- A. For connection between new pipe and existing collection sewer, trunk line, or service.
 - 1. Type: Full-bodied steel coupling.
 - 2. Construction: Coupling consisting ASTM A53 center ring and ASTM A283 end rings. Gaskets shall be EPDM. Bridge and spacers shall be 304SS. Coating shall be fusion bonded epoxy. Nuts and bolts shall be 304SS. Couplings shall be specifically sized for the outside diameters of the pipes being coupled. For connecting two lateral pipes of differing diameter, provide eccentric couplings.
 - 3. Products and Manufacturers:
 - a. Krausz Hymax 2 Wide-Range.
 - b. Or equal.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION REQUIREMENTS

- A. Excavate trenches in accordance with Standard Sewer Specifications for the City of Rock Hill.
- B. Install piping as shown, specified, and as recommended by the manufacturer.
- C. If there is a conflict between manufacturer's recommendations and the Drawings or Specifications, request instructions from ENGINEER before proceeding.
- D. All trench excavations shall be reviewed by ENGINEER prior to laying pipe. Notify ENGINEER in advance of excavating, bedding, and pipe laying operations.
- E. Excavate trenches to the minimum width required to provide adequate working space. Do not undercut trench walls.
- F. All pipe, fittings, and accessories shall be free from defects in material and workmanship. Verify the compatibility of all pipe and fittings.
- G. Protect adjacent utilities.

3.2 PUSH-ON JOINTS

- A. Bevel all field-cut pipe, remove all burrs, and mark the correct insert depth from the pipe end.
 - 1. Clean the pipe end and the bell thoroughly before making the joint. Insert the O-ring gasket, making certain it is properly oriented.

3.3 BEDDING PIPE

- A. Make the excavation a sufficient distance below the grade line to allow for the placing of the sewer pipe and the supporting bedding if such bedding is shown. Should the trench be excavated to a depth greater than required, refill such excess excavation with the same fill material as specified for the overlying fill or bedding and compacted as required for such overlying fill or bedding.
- B. Remove all loose and unsuitable material from the trench bottom. Do not install pipe bedding until ENGINEER approves the trench bottom condition.
- C. Carefully and thoroughly compact all pipe bedding with hand-held pneumatic compactors.
- D. Do not lay pipe until the ENGINEER approves the bedding condition. If a conflict exists obtain clarification from ENGINEER before proceeding.
- E. Bed pipe as specified in Standard Sewer Specifications for the City of Rock Hill, and as shown on Drawings.

3.4 LAYING PIPE REQUIREMENTS

- A. Install and operate a dewatering system capable of maintaining the ground water level below the excavated trench bottom. Do not lay pipe in water. Maintain dry trench conditions until jointing is complete and backfilling is initiated. Protect and keep the interior of the pipe clean and free of debris. Sewer pipelines shall never be used as drains for removing water that has infiltrated into the trenches.
- B. Excavate around joints in bedding and lay pipe so that the barrel bears uniformly on the trench bottom. Excavate bell holes to prevent point loading of the bells.
- C. Apply lubricant to the pipe, bell, spigot, or gasket, or any combination thereof, as recommended by the manufacturer.
- D. Notify ENGINEER in advance of backfilling operations.
- E. Slice the bedding in the haunches of the pipe with a flattened shovel or other suitable tool and hand-tamp to ensure that the pipe is properly bedded.

3.5 CONNECTING EXISTING SEWERS

- A. When making connections to existing sewers, replace the existing pipes to the first competent joint or use a coupling on a cut piece of sound, existing pipe. Properly bed, haunch and compact this connection in accordance with the Drawings for the type and depth of pipe installed. Do not encase in concrete unless said connection occurs at a utility crossing.

3.6 BACKFILLING

- A. Conform to the applicable requirements in the Standard Sewer Specifications for the City of Rock Hill.

3.7 WORK AFFECTING EXISTING PIPING

- A. Location of Existing Piping:
 - 1. Locations of existing piping should be considered approximate.
 - 2. Determine the true location of existing piping to which connections are to be made, and location of other facilities which could be disturbed during excavation operations, or which may be affected by the Work in anyway.
- B. Do not take pipelines out of service unless approved by ENGINEER and OWNER.

3.8 EXCAVATED POINT REPAIR POST-CONSTRUCTION INSPECTION

- A. Provide a Post-Construction Inspection of all new pipe and fittings demonstrating all connections are free of leakage. For mainline sewer excavated point repairs, perform Post-Construction Inspection of the excavated repair prior to installation of CIPPL.

3.9 RESTORATION

- A. Provide restoration to match pre-construction conditions as nearly as practical and in accordance with City of Rock Hill Standard Detail R1-2.

++ END OF SECTION ++

SECTION 33 05 23.13

UTILITY HORIZONTAL DIRECTIONAL DRILLING (HDD)

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

1. Design, furnish and install the proposed piping alignment by horizontal directional drilling (HDD) construction methods, as shown on the drawings and in conformance with this specification. The work includes, but is not limited to, survey, design, excavation, dewatering, removal of all materials encountered in the horizontal directional drilling operations, disposal of all material not required in the work, testing, cleaning, restoration, and incidentals as shown on the drawings and as specified herein.
2. The HDD method shall consist of directing a string of small pipe, known as a drill string, along a pre-determined profile to drill a pilot hole, enlarge the pilot hole, and pull the pipe into place. In general, the process uses a machine to rotate, advance and retract the drill string; a cutterhead for drilling the pilot hole; a backreamer to enlarge the pilot hole to the required diameter; a pulling head and bearing swivel to pull the pipe into place; a drill string head locating and guidance system; and drilling fluid to provide lubrication, remove the cuttings and spoil and maintain the integrity of the hole. The operations are to be completed while simultaneously providing ground stabilization techniques. The method shall include provisions for preventing uncontrolled inflow of loose or saturated soils.
3. CONTRACTOR is responsible for completing any additional geotechnical/subsurface investigations required to establish the appropriate parameters (i.e., limiting pressures, setback distances, depth of cover, etc.) for completing the design of the alignment, as specified herein.
4. OWNER is responsible for obtaining the required general construction permits, easements and approvals, from the SCDOT or railroad agency. When pipe is installed in the State right-of-ways the entire installation shall be as required by SCDOT. Where pipe is installed in Railroad right-of-ways the entire installation shall be as required by the appropriate railroad agency.

B. Coordination:

1. Review installation procedures under other Sections and other contracts and coordinate with the Work that is related to this Section.
2. Be responsible for coordinating construction activities with the respective authorities.

C. Related Sections:

1. Standard Water Specifications for the City of Rock Hill.

1.2 QUALITY ASSURANCE

A. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.

1. ASTM F1962.
2. NUCA, HDD Installation Guidelines.

B. CONTRACTOR must demonstrate expertise in "trenchless" methods by providing a list of five (5) utility references for which similar work has been performed in the last two years. The

references should include a name and telephone number where contact can be made to verify the CONTRACTOR's capability. The CONTRACTOR must provide documentation showing successful completion of the projects used for reference. Conventional trenching experience will NOT be considered applicable.

- C. Have completed HDD pipe installations of 24-inch diameter and have successfully completed lengths of 400-feet, crossings of streams, railroads, or crossings of major state roads. Provide documentation in qualification submittal.
- D. All supervisory personnel must be adequately trained to operate the specific equipment to be used on the project and will have at least ten years of experience in HDD operations. CONTRACTOR will have to submit the names and resumes of all supervisory field personnel prior to the start of construction.
- E. Work being done within the South Carolina Department of Transportation's (SCDOT) right-of-way shall be done in accordance with the latest SCDOT Standard Specifications and Drawings.

1.3 SUBMITTALS

- A. ENGINEER will base the review of submitted details and data on the requirements of the completed Work, safety of the Work in regards to the public, potential for damage to public or private utilities and other existing structures and facilities, and the potential for unnecessary delay in the execution of the Work. Such review shall not be construed to relieve the CONTRACTOR in any way of his responsibilities under the contract.
- B. CONTRACTOR shall not receive the Notice to Proceed with field activities until the required drawings and submittals are reviewed and accepted by the ENGINEER.
- C. Prepare and submit to the ENGINEER and OWNER for review and approval the following:
 - 1. CONTRACTOR shall provide qualification evidence as noted in Article 1.2 Quality Assurance.
 - 2. Submit information on equipment and written procedure with working drawings describing in detail the proposed drilling method and the entire operation to be used. This shall include, but not be limited to, entry and exit pits; settlement pit; size, capacity and arrangement of drilling and pulling equipment; layout of pipe; details and spacing of pipe rollers; type of current head; method of monitoring and controlling line and grade; method of detection of surface movement; and layout of any proposed construction staging areas.
 - 3. Project Safety Plan.
 - 4. Construction drawings, Specifications, and Contingency plans shall be submitted on the following items:
 - a. Complete details of the site clearing, excavation, drainage, security, and equipment mobilization including, but not limited to, the methods, procedures and equipment arrangement to be used during the construction.
 - b. Complete details, drawings, and calculations signed and seal by an Engineer licensed in the state of South Carolina, of the significant factors and constraints associated with HDD installations.
 - c. Provide plan and profile of the proposed HDD alignments, indicating depth, angle of deflection, and radius of all pipe bends along the alignment.
 - d. Method of monitoring and controlling the specified line and grade of excavation including, but not limited to, the methods, procedures, reliability, and necessary ancillary equipment to be used during construction operations.
 - e. Complete details of the groundwater control, muck/spoils containment, dewatering,

- drying, and removal including, but not limited to, the methods, procedures, equipment, contingency plans and off-site disposal location.
 - f. Complete details of the piping capacities, storage, assembly, and installation including, but not limited to, the methods, procedures, and equipment to be used.
 - g. Submit a drilling fluid containment and disposal plan.
 - h. Submit drilling logs and a plot in plan and profile of the completed pilot hole for acceptance prior to reaming and pipe installation.
 - i. Submit a log and summary of stresses imposed on pipe during pulling.
 - j. Submit a log and summary of drilling fluid usage.
- D. Quality Control Methods: At least 10 days prior to the start of the HDD submit a description of the quality control methods proposed to be used during the operations to the ENGINEER. The submittal shall describe:
1. Procedures for controlling and checking line and grade.
 2. Field forms for establishing and checking line and grade.
- E. Safety: Procedures including, but not limited to, monitoring for gases encountered shall be submitted.
- F. Hazardous chemical list as well as all MSDS and technical data sheets.
- G. CONTRACTOR is required to bring to the attention of the ENGINEER any known discrepancies with actual HDD methods that the CONTRACTOR will be performing. This shall be stated, in writing, to ENGINEER no later than the pre-construction meeting.
- H. Record Drawings:
1. Submit record drawings prior to the time of Substantial Completion.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the site to ensure uninterrupted progress of the Work.
- B. Handle all pipe, fittings, specials and accessories carefully with approved handling devices. Handling devices shall include ropes, fabric, or rubber-protected slings and straps. Chains, cables, or hooks inserted into the pipe ends shall NOT be used. Two slings spread apart shall be used for lifting each length of pipe. Do not drop or roll material off trucks.
- C. Store pipes and fittings on heavy wood blocking or platforms so they are not in contact with the ground. Pipe supports shall be spaced suitably and of such widths as not to allow deformation of the pipe at the point of contact with the supports.
- D. Stacking of pipe shall be limited to a height that will not cause deformation of the bottom pipes under anticipated temperature conditions.
- E. All ends of stored piping shall be securely capped/plugged to prevent entry of soil, debris, and vermin.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. General
 1. The directional drilling equipment, as a minimum, shall consist of a directional drilling rig

of sufficient capacity to perform the bore(s) and pull-back of the pipe(s), a drilling fluid mixing & delivery system of sufficient capacity to successfully complete the crossing, a guidance system to accurately guide boring operations, and trained and competent personnel to operate the system. All equipment shall be in good, safe operating condition with sufficient supplies, materials and spare parts on hand to maintain the system in good working order for the duration of this project. All required equipment shall be included in the contingency plan as submitted per these specifications.

B. Drilling Rig

1. The directional drilling machine shall consist of a hydraulically powered system to rotate, push and pull drill pipe while delivering a pressurized fluid mixture to a drill head. The machine shall be anchored to withstand the pulling, pushing and rotating forces required to complete the project.
2. The drilling rig hydraulic system shall be of sufficient pressure and volume to power drilling operations. The hydraulic system shall be free from leaks.
3. The drilling rig shall have a system to monitor pull-back hydraulic pressure during pull-back operations.

C. Drill Head

1. The horizontal directional drilling equipment shall produce a stable fluid lined tunnel with the use of a steerable drill head and any subsequent pre-reaming heads.
2. The system must be able to control the depth and direction of the drilling operation.
3. Drill head shall contain all necessary cutters and fluid jets for the operation, and shall be of the appropriate design for the ground medium being drilled.

D. Drilling Fluid System

1. Drilling Fluid (Drilling Mud)
 - a. Drilling fluid shall be composed of clean water and the appropriate additive(s) for the fluid to be used. Water shall be from a clean source and shall meet the mixing requirements of the mixture manufacturer(s).
 - b. The water and additives shall be mixed thoroughly to assure the absence of any clumps or clods. No hazardous additives may be used.
 - c. Drilling fluid shall be maintained at a viscosity sufficient to suspend cuttings and maintain the integrity of bore wall(s).
 - d. Drilling fluid shall be disposed of off-site in accordance with local, state and federal requirements and/or permit conditions.
 - e. No additional chemicals or polymer surfactants shall be allowed to be added to the drilling fluid unless they have been submitted per this specification.
2. Mixing System
 - a. A drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid for the project.
 - b. The mixing system shall be able to ensure thorough mixing of the drilling fluid. The drilling fluid reservoir tank shall be sized for adequate storage of the fluid.
 - c. The mixing system shall continually agitate the drilling fluid during drilling operations.
3. Drilling Fluid Delivery And Recovery System
 - a. The drilling fluid pumping system shall have a minimum capacity to supply drilling fluid in accordance with the drilling equipment pull-back rating at a constant required pressure.
 - b. The delivery system shall have filters or other appropriate in-line equipment to prevent solids from being pumped into the drill pipe.
 - c. Used drilling fluid and drilling fluid spilled during drilling operations shall be contained and properly disposed of. The use of spill containment measures shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits and drilling fluid recycling system (if used) to prevent spills into the surrounding environment. Pumps,

vacuum truck(s), and/or storage of sufficient size shall be in place to contain excess drilling fluid.

- d. A closed-loop drilling fluid system and a drilling fluid cleaning system should be used to whatever extent practical, depending upon project size and conditions. Under no circumstances shall drilling fluid that has escaped containment be reused in the drilling system.

E. Drilling Control System

1. Calibration of the electronic detection and control system shall be verified prior to the start of the bore.
2. The drilling head shall be remotely steerable by means of an electronic or magnetic detection system. The drilling head location shall be monitored in three dimensions:
 - a. Offset from the baseline.
 - b. Distance along the baseline.
 - c. Depth of cover.
3. Point of rotation of the head shall also be monitored.
4. For gravity application and on-grade drilling, sonde/beacon or approved equipment applicable for grade increments of 1/10th of one percent shall be used.

F. Pipe Pull Heads

1. Pipe pull heads shall be utilized that employ a positive through-bolt design assuring a smooth wall against the pipe cross-section at all times.
2. Pipe pull heads shall be specifically designed for use with the various types of pipe, and shall be as recommended by the pipe supplier.

G. Pipe Rollers

1. Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe during handling and pullback operations.
2. A sufficient quantity of rollers and spacing, per the pipe supplier's guidelines shall be used to assure adequate support and excessive sagging of the product pipe.

2.2 MATERIALS

A. Piping:

1. Piping used for the conveyance of water shall refer to the Standard Water Specifications for the City of Rock Hill.

PART 3 - EXECUTION

3.1 INSTALLATION

A. CONTRACTOR shall:

1. Comply with the lawful requirements of the SCDOT, City of Rock Hill, public agencies, and owners of public utilities or other facilities respecting the safeguarding of structures and improvements that might be endangered by the HDD.
2. Comply with all local, state, and federal laws, rules, and regulations at all times to prevent pollution of the air, ground, and water.
3. Perform the HDD simultaneously and continuously until the pipe is in final position.
4. Be responsible for means and methods of HDD, and shall ensure the safety of the Work, the CONTRACTOR'S employees, the public, and adjacent property, whether public or private.
5. Maintain traffic flow at all times during the progress of the Work. Provide adequate signs,

- barricades, flag persons, lights and other control devices in accordance with the provisions and requirements of the SCDOT standards. No lanes of traffic shall be closed without prior approval.
6. Provide erosion and sediment control to minimize erosion and the transport of sediment beyond the limits of the work area.
 7. Anticipate that portions of the HDD will be below the groundwater table and dewatering will be required.
 8. Locate, mark and protect existing utilities and facilities in the work area.
 9. Request instructions from ENGINEER in writing, before proceeding, if there is a conflict between manufacturer's recommendations and the Drawings or Specifications.
 10. Be responsible for all testing, survey, and documentation of the pre/post construction site conditions, to provide as a basis of comparison for the post construction conditions to be evaluated.
 11. Provide all necessary adapters, specials and connection pieces required when connecting different types and sizes of pipe or connecting pipe made by different manufacturers.

B. HDD Operations:

1. Pilot Hole Bore:
 - a. Pilot hole shall be drilled along bore path. In the event that the pilot bore does deviate from the bore path, it may require contractor to pull-back and re-drill from the location along bore path before the deviation.
 - 1) For mains, pilot hole shall have a tolerance of +2 feet horizontal and vertical along bore path, but in no case shall depth of bury be less than the minimum specified.
 - 2) Determine and document cutterhead location every 25 feet.
 - b. The Contractor shall limit curvature in any direction to reduce force on the pipe during pull-back. The minimum radius of curvature shall be no less than that specified by the pipe supplier and as indicated on the drawings.
2. Reaming:
 - a. After successfully completing the pilot hole, the bore hole shall be reamed to a diameter which meets the requirements of the pipe being installed. The following table is offered as an estimated guide, to be verified by the installer based on best practices for the given installation:

Nominal Pipe Diameter	Bore Hole Diameter
< 8 inches	Pipe Dia. + 4 inches
8 inches to 24 inches	Pipe Dia. X 1.5
> 24 inches	Pipe Dia. + 12 inches

- b. Perform pre-reaming operations as necessary for proper pipe installation.
 - c. In the event of a drilling fluid fracture, returns loss or other loss of drilling fluid, the Contractor shall be responsible for restoring any damaged property to original condition and cleaning up the area in the vicinity of the damage or loss.
3. Pipe Pull-Back and Insertion:
 - a. Pipe shall be fused prior to insertion, if the site and conditions allow, into one continuous length.
 - b. Contractor shall handle the pipe in a manner that will not over-stress the pipe prior to insertion. Vertical and horizontal curves shall be limited so that the pipe does not bend past the pipe supplier's minimum allowable bend radius, buckle, or otherwise become damaged. Damaged portions of the pipe shall be removed and replaced.

- c. The pipe entry area shall be graded as needed to provide support for the pipe and to allow free movement into the bore hole.
 - 1) The pipe shall be guided into the bore hole to avoid deformation of, or damage to, the pipe.
 - 2) The pipe may be continuously or partially supported on rollers or other Owner and Engineer approved friction decreasing implement during joining and insertion, as long as the pipe is not over-stressed or critically abraded prior to, or during installation.
 - 3) A swivel shall be used between the reaming head and the pipe to minimize torsional stress on the pipe assembly.
- d. CONTRACTOR to monitor and control the pressure/force applied to ensure that pipe manufacturer's recommended limits are not exceeded.
- e. Once pull-back operations have commenced, the operation shall continue without interruption until the pipe is completely pulled through the bore hole.
- f. The pipe shall be installed in a manner that does not cause upheaval, settlement, cracking, or movement and distortion of surface features. Any damages caused by the Contractor's operations shall be corrected by the Contractor.
- 4. Slurry Removal and Disposal:
 - a. Contain excess drilling fluids at entry and exit points until recycled or removed from site. Provide recovery system to remove drilling spoils from access pits.
 - 1) Remove, transport and legally dispose of drilling spoils off site.
 - a) Do not discharge drilling spoils in sanitary sewers, storm sewers, or other drainage systems.
 - b) When drilling in suspected contaminated soil, test drilling fluid for contamination before disposal.
 - 2) When drilling fluid leaks to surface, immediately contain leak and barricade area from vehicular and pedestrian travel before resuming drilling operations.
 - 3) Complete cleanup of drilling fluid at end of each work day.

3.2 FIELD QUALITY CONTROL

- A. Furnish, operate and maintain instrumentation that will accurately locate the pilot hole, measure drilling fluid flow discharge rate and pressure, and measure stresses on pipe during installation.
- B. Engineer shall have access to instruments, gages, and readings at all times.
- C. Maintain drilling logs including dates, times and locations, soil condition, drilling data such as depth, angle and rate of penetration, and utility crossings.
- D. Monitor and record use of drilling fluid.
- E. Monitor and record stresses imposed on pipe during pulling.

3.3 TESTING OF PIPING

- A. General:
 - 1. Refer to City of Rock Hill Standard Utility Specifications for hydrostatic/pressure testing specifications.
 - 2. Prior to pullback, perform an allowable leakage test on the full length of pipe after all sections have been welded or fused.

3.4 CLEANING AND DISINFECTION

A. General:

1. Refer to City of Rock Hill Standard Utility Specifications for pipe cleaning, flushing, and disinfecting specifications.

++ END OF SECTION ++

SECTION 33 05 32

LINE STOPS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

1. Provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install line stops.
2. Extent of line stops is shown and shall be in accordance with City of Rock Hill Standard Utility Specifications and the Drawings.

B. Coordination:

1. Review installation procedures under this and other Sections and coordinate installation of items to be installed with or before line stop Work.

C. Related Sections:

1. Standard Water Specifications for the City of Rock Hill.

1.2 REFERENCES

A. Standards referenced in this Section are:

1. ASTM A148 – Standard Specifications for Steel Castings, High-Strength, for Structural Purposes.

1.3 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Shall have a minimum of five years experience producing line stops substantively similar to the materials specified, and shall be able to submit documentation of satisfactory service in at least five completed installations.
2. Installer:
 - a. Engage a single line fitting installer who shall be responsible for all line stop Work, and who shall employ only tradesmen with specific skills and experience in the type of Work required.
 - b. Installer shall have a minimum of five years experience installing line stops and fittings substantively similar to the materials specified and substantively similar to or larger than the scope of line stop Work on the Project, and shall be able to submit documentation of satisfactory experience in at least five completed installations.

B. Component Supply and Compatibility:

1. Obtain all materials included in this Section, regardless of component Supplier, from a single line stop Supplier. All line stops shall be furnished by the same manufacturer.
2. Line stop Supplier shall review and approve to prepare all Shop Drawings and other submittals for all materials furnished under this Section.
3. Materials shall be suitable for specified service conditions and shall be integrated into overall assembly by line stop Supplier.

1.4 SUBMITTALS

- A. Action Submittals: Submit the following:
 - 1. Shop Drawings:
 - a. Submit line stop layout Shop Drawings detailing dimensions and materials.
 - 2. Product Data:
 - a. Submit product data on line stops sufficient to demonstrate compliance with the Contract Documents.
- B. Informational Submittals: Submit the following:
 - 1. Certificates:
 - a. Submit manufacturer's certificate of compliance standards referenced in this Section.
 - 2. Source Quality Control Submittals:
 - a. When requested by ENGINEER, submit results of source quality control tests.
 - 3. Qualifications Statements:
 - a. Submit qualifications of manufacturer as noted in Article 1.3 Quality Assurance.
 - b. Submit qualifications of installer as noted in Article 1.3 Quality Assurance.
 - 4. Operation and maintenance manuals.
 - 5. Manufacturer's published installation instructions.
- C. Line Stop Plan: Contractor shall submit a complete line stop plan including, but not limited to, the following elements:
 - 1. Sequence and schedule of operation.
 - 2. Means and methods of installing line stop machine, sleeves, and valves including area needed for line stop machine, and method for supporting pipe during line stop installation.
 - 3. Identify necessary coordination with other elements of work.
 - 4. Other elements of operation for safe and complete installation of tapped system.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Refer to additional requirements as applicable in this Section.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General:
 - 1. Line stop materials shall be suitable for services intended. Refer to Standard Water Specifications for the City of Rock Hill.
 - 2. Comply with NSF 14.
 - 3. Line stops in contact with potable water or water that will be treated to become potable shall be listed in ANSI/NSF 61 as being suitable for contact with potable water, and shall comply with requirements of the authorities having jurisdiction at the Site.

2.2 LINE STOPS

- A. Manufacturers: Provide products of one of the following:
 - 1. Hydra-Stop.
 - 2. Or equal.

B. Materials:

1. Line stop materials shall be suitable for services intended. Refer to Standard Water Specifications for the City of Rock Hill and the Drawings for specific requirements.
2. Line stops in contact with potable water or water that will be treated to become potable shall be listed in ANSI/NSF 61 as being suitable for contact with potable water, and shall comply with requirements of the authorities having jurisdiction at the Site.
3. Tapping Sleeves: As specified in the Standard Water Specifications for the City of Rock Hill.
4. Flange: Steel construction.
5. Nozzle: Steel construction.
6. Completion Plug: Stress-relieved carbon steel weldment.
7. Blind Flange: Steel construction.
8. Bolts and Nuts: Type 304 stainless steel.

2.3 SOURCE QUALITY CONTROL

A. Shop Tests:

1. Line stop manufacturer shall maintain continuous quality control program.
2. Where applicable and when requested by ENGINEER, submit results of source quality control tests specified in reference standards.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect line stop and tapping sleeve materials for defects in material and workmanship. Verify compatibility of pipe, tapping sleeves, and line stops.
- B. Any line stops with cuts, punctures, or other damage on the interior or exterior shall be rejected and replaced.
- C. Any line stop with damaged ends, which would prevent proper sealing with the pipe, shall be rejected and replaced.

3.2 INSTALLATION

- A. Install line stop in accordance with manufacturer's instructions.
- B. Installation of line stop shall permit downstream line to be isolated for an extended period of time, sufficient for work to be accomplished (4 hours minimum).
- C. Line stop shall be installed such that tapping valve can be removed after completion of the work and removal of line stop.

++ END OF SECTION ++

DIVISION III
ATTACHMENTS

DIVISION III - SECTION 1

SCDOT ENCROACHMENT PERMIT – Water

**SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
Encroachment Permit**

Permit No : 254494

Permit Decision Date :
4/6/2022

Expiration Date : 4/6/2023

Extension Date : 4/30/2024

Type Permit : WATER

Location:

<u>District</u>	<u>Work County</u>	<u>Type</u>	<u>Route</u>	<u>Aux</u>	<u>Begin MP</u>	<u>End MP</u>
4	York, SC	S-	851	None	0.000	0.558
4	York, SC	US	21	None	12.520	12.595

Contact
Information

Applicant: CityofRockHill

Phone:

Contact: Ivan McCorkle

Address: 757 South Anderson
Road,

City: Rock Hill

State: SC

Zip: 29730

Comments

ALONG RIVERVIEW ROAD (S-851) BETWEEN EDEN TERRACE TO
THE SOUTH AND RIVERCHASE BLVD TO THE NORTH.

Special
Provisions:

0004 - SCDOT SHALL BE NOTIFIED WHEN WORK DEFINED IN THE PERMIT
STARTS AS WELL AS WHEN THE WORK IS COMPLETED. REFERENCE SHALL BE
MADE BY PERMIT NUMBER.

0101 - SHOULDER SOD DESTROYED BY THIS INSTALLATION TO BE REPLACED
FOR THE ENTIRE AREA. THE AREA SHALL BE RE-SHAPED AND ROLLED TO THE
CROSS SECTION EXISTING PRIOR TO THIS WORK.

0102 - BORE PITS SHALL BE CLOSED IMMEDIATELY AFTER INSTALLATION.

0103 - THE PROPOSED ENCROACHMENT SHALL BE TRENCHED TO A MINIMUM
DEPTH OF 42" BELOW THE CROSS SECTION AS ORIGINALLY CONSTRUCTED.

0107 - TRENCH TO BE PROPERLY BACK-FILLED AND THOROUGHLY TAMPED.
THE ENTIRE DISTURBED AREA SHALL BE RE-SHAPED AND DRESSED OUT IN A
WORKMANSHIP LIKE MANNER.

0112 - ALL WATER METERS, AIR VALVES, ELECTRIC TRANSFORMERS, CATV
CONNECTION BOXES, TELEPHONE PEDESTALS, AND/OR OTHER
UTILITY/SPLICE BOXES SHALL BE PLACED AT THE RIGHT-OF-WAY LINE.

0120 - RESTORATION OF PAVEMENT, SHOULDERS, DITCHES, ETC., TO BE PERFORMED AS SOON AS POSSIBLE AFTER CONSTRUCTION, OR SCHEDULED SO THAT THE CONSTRUCTION IS NO FURTHER THAN 2,000 L.F. AHEAD OF COMPLETE RESTORATION.

0123 - ALL WORK PERFORMED IN CONNECTION WITH THIS PERMIT SHALL CONFORM TO THE SCDOT "A POLICY FOR ACCOMODATING UTILITIES ON HIGHWAY RIGHT-OF-WAY" MOST CURRENT EDITION.

0125 - ALL CROSSLINE PIPES ARE TO BE LOCATED AND FLAGGED PRIOR TO BEGINNING OPERATION.

0209 - DISTURBED VEGETATION SHALL BE RESEEDED ACCORDING TO THE SPECIFICAION FOR HIGHWAY CONSTRUCTION.

0301 - THE DITCHES AND/OR SHOULDERS DISTURBED DURING THE INSTALLATION SHALL BE RE-ESTABLISHED TO PROPER GRADE, ORIGINAL CROSS SECTION, STABILIZED, AND ALL DRAIN PIPES CLEARED.

0302 - NO EXCAVATION SHALL BE LEFT OPEN ALONG HIGHWAY.

0306 - TRAFFIC CONTROL, LIGHTS, SIGNS AND FLAG-MEN WILL BE FURNISHED BY APPLICANT AND WILL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

0308 - WORK SHALL NOT BE PERFORMED DURING THE HOURS OF 7-9 AM OR 4-6 PM.

0310 - FIELD CHANGES, IF NECESSARY, MUST BE APPROVED IN WRITING BEFORE ACTUAL CONSTRUCTION OF PROPOSED CHANGES.

0311 - SEDIMENT AND EROSION CONTROL DEVICES SHALL BE USED TO MINIMIZE THE MOVEMENT OF SEDIMENT.

0312 - THE PERMITTEE SHALL HOLD THE DEPARTMENT HARMLESS FOR DAMAGES TO BOTH UPSTREAM AND DOWNSTREAM PROPERTIES.

0318 - THE APPLICANT SHALL BE RESPONSIBLE FOR IMMEDIATE REMOVAL OF SUCH TRAFFIC HAZARDS AS MUD, DEBRIS, LOOSE STONE, AND TRASH AS MAY BE WASHED OR SPILLED ON THE TRAVELED ROADWAY AS A RESULT OF THE PROPOSED WORK.

DIVISION III - SECTION 2

SCDOT ENCROACHMENT PERMIT – Sewer

**SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
Encroachment Permit**

Permit No : 254496

Permit Decision Date :
4/6/2022

Expiration Date : 4/6/2023

Extension Date : 4/30/2024

Type Permit :SEWER

Location:

<u>District</u>	<u>Work County</u>	<u>Type</u>	<u>Route</u>	<u>Aux</u>	<u>Begin MP</u>	<u>End MP</u>
4	York, SC	S-	851	None	0.000	0.558

Contact
Information

Applicant: CityofRockHill

Phone:

Contact: Ivan McCorkle

Address: 757 South Anderson
Road,

City: Rock Hill

State: SC

Zip: 29730

Comments

ALONG RIVERVIEW ROAD (S-851) BETWEEN EDEN TERRACE TO
THE SOUTH AND RIVERCHASE BLVD TO THE NORTH.

Special
Provisions:

0004 - SCDOT SHALL BE NOTIFIED WHEN WORK DEFINED IN THE PERMIT
STARTS AS WELL AS WHEN THE WORK IS COMPLETED. REFERENCE SHALL BE
MADE BY PERMIT NUMBER.

0101 - SHOULDER SOD DESTROYED BY THIS INSTALLATION TO BE REPLACED
FOR THE ENTIRE AREA. THE AREA SHALL BE RE-SHAPED AND ROLLED TO THE
CROSS SECTION EXISTING PRIOR TO THIS WORK.

0102 - BORE PITS SHALL BE CLOSED IMMEDIATELY AFTER INSTALLATION.

0103 - THE PROPOSED ENCROACHMENT SHALL BE TRENCHED TO A MINIMUM
DEPTH OF 42" BELOW THE CROSS SECTION AS ORIGINALLY CONSTRUCTED.

0104 - ALL VALVES AND MANHOLES SHALL CONFORM TO THE EXISTING
ELEVATION OF THE ROADWAY OR SHOULDER AND CONFORM TO THE
ACCEPTED STANDARD. THE VALVES WILL BE LOCATED OUT OF THE
PAVEMENT. THEY SHALL NOT BE PLACED IN A DITCH FLOW LINE.

0106 - MANHOLES SHALL CONFORM TO THE ELEVATION OF THE EXISTING
ROADWAY OR SHOULDER AND CONSTRUCTED IN ACCORDANCE WITH
ACCEPTED PRACTICES.

0107 - TRENCH TO BE PROPERLY BACK-FILLED AND THOROUGHLY TAMPED.
THE ENTIRE DISTURBED AREA SHALL BE RE-SHAPED AND DRESSED OUT IN A

WORKMANSHIP LIKE MANNER.

0120 - RESTORATION OF PAVEMENT, SHOULDERS, DITCHES, ETC., TO BE PERFORMED AS SOON AS POSSIBLE AFTER CONSTRUCTION, OR SCHEDULED SO THAT THE CONSTRUCTION IS NO FURTHER THAN 2,000 L.F. AHEAD OF COMPLETE RESTORATION.

0123 - ALL WORK PERFORMED IN CONNECTION WITH THIS PERMIT SHALL CONFORM TO THE SCDOT "A POLICY FOR ACCOMODATING UTILITIES ON HIGHWAY RIGHT-OF-WAY" MOST CURRENT EDITION.

0209 - DISTURBED VEGETATION SHALL BE RESEEDED ACCORDING TO THE SPECIFICAION FOR HIGHWAY CONSTRUCTION.

0301 - THE DITCHES AND/OR SHOULDERS DISTURBED DURING THE INSTALLATION SHALL BE RE-ESTABLISHED TO PROPER GRADE, ORIGINAL CROSS SECTION, STABILIZED, AND ALL DRAIN PIPES CLEARED.

0302 - NO EXCAVATION SHALL BE LEFT OPEN ALONG HIGHWAY.

0306 - TRAFFIC CONTROL, LIGHTS, SIGNS AND FLAG-MEN WILL BE FURNISHED BY APPLICANT AND WILL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

0308 - WORK SHALL NOT BE PERFORMED DURING THE HOURS OF 7-9 AM OR 4-6 PM.

0310 - FIELD CHANGES, IF NECESSARY, MUST BE APPROVED IN WRITING BEFORE ACTUAL CONSTRUCTION OF PROPOSED CHANGES.

0311 - SEDIMENT AND EROSION CONTROL DEVICES SHALL BE USED TO MINIMIZE THE MOVEMENT OF SEDIMENT.

0312 - THE PERMITTEE SHALL HOLD THE DEPARTMENT HARMLESS FOR DAMAGES TO BOTH UPSTREAM AND DOWNSTREAM PROPERTIES.

0318 - THE APPLICANT SHALL BE RESPONSIBLE FOR IMMEDIATE REMOVAL OF SUCH TRAFFIC HAZARDS AS MUD, DEBRIS, LOOSE STONE, AND TRASH AS MAY BE WASHED OR SPILLED ON THE TRAVELED ROADWAY AS A RESULT OF THE PROPOSED WORK.

DIVISION III - SECTION 3

SCDHEC STORMWATER NOTICE OF INTENT (NOI)



September 30, 2020

Patrick Hamilton
York County
6 South Congress Street
York, SC 29745

RE: Riverview Road (S-851) Improvements, York County
NPDES Coverage Number: SCR10Z6N2

Dear Patrick Hamilton:

The Department of Health and Environmental Control (Department or DHEC) has received approval of and the Notice of Intent for the above-referenced project from **CITY OF ROCK HILL**. Based on your submission of this documentation and in accordance with the NPDES General Permit for Stormwater Discharges from Construction Activities SCR100000 (CGP), this project has been granted coverage under the CGP on **September 30, 2020**. This project's general permit coverage number is **SCR10Z6N2**. The total disturbed area for this site is **7.5 acres**.

An as-built survey(s), signed and sealed by a S.C. Licensed Land Surveyor or Professional Engineer, should be submitted to **CITY OF ROCK HILL** for all detention structure(s) on this site. The survey(s) should show grades, contours, and depths for all structure(s) and should include the elevations and dimensions of all outlet structures, including but not limited to pipes, orifices, risers, weirs, and emergency spillways. A statement signed by the project's S.C. Registered Engineer indicating that the structure(s) was installed and is operating as shown on approved plans and in approved calculations is required. If the elevations or dimensions of the structures listed above do not match those used in the approved plans, provide a certification statement signed by the project's S.C. Registered Engineer indicating that the structure, as built, will function as shown in approved calculations. A new analysis of the structure (routing) may be necessary. The as-built survey and/ or analysis must be accepted by **CITY OF ROCK HILL** before a Notice of Termination (NOT) can be submitted to the Department.

The CGP can be downloaded at the following website: <http://www.scdhec.gov/Environment/docs/CGP-permit.pdf> or you may request a copy from us via email (stormwatercgp@dhec.sc.gov). You are responsible for ensuring your contractor(s) complies with the approved SWPPP and the minimum requirements of the CGP. Also, you are responsible for overall compliance with the Storm Water Management and Sediment Reduction Act of 1991 (1991 Act), SC Pollution Control Act, and the Federal Clean Water Act (CWA). Failure to comply with the approved SWPPP or applicable statutes and regulations may result in enforcement actions.

You must notify this DHEC EQC Regional Office prior to starting any land-disturbing activity. The address and telephone number of the EQC office are as follows:

Midlands EA Lancaster
2475 DHEC Road
Lancaster, SC 29720
803-285-7461

Inspections of this site must be performed by qualified personnel as described in Section 4.2.E of the CGP.

You should be aware that this approval is only applicable for the Stormwater Pollution Prevention Plan (SWPPP) that was submitted for this project. Any additional construction or land disturbing activity beyond the scope of the approved plans is not authorized. Any future work for this project not shown on the stamped, approved plans will require that you submit another site plan for review and approval. All major modifications require review and approval by **CITY OF ROCK HILL**; the Department must be notified in writing by **CITY OF ROCK HILL** of the approval of major modifications if the disturbed area changes. Minor modifications to the approved SWPPP may be made by the SWPPP preparer and do not require review and approval by the Department; these changes should be signed and dated by the SWPPP preparer. If you have a question about whether a modification is major or minor, contact the Stormwater Permitting Section at (843) 953-4300.

A copy of the stamped, approved SWPPP (including a copy the CGP, contractor certifications, inspection records, rainfall data, etc), NOI, and CGP coverage letter from DHEC must be retained and available at the construction site (or accessible within 30 minutes during normal business hours) from the date of commencement of construction activities to the date of final stabilization. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance at the construction site.

All contractors who will conduct land-disturbing activities at the site must complete a Contractor Certification Form. You are also responsible for listing all contractors in the SWPPP and for holding a pre-construction conference with each contractor before they can conduct land-disturbing activity at the site.

The Department may conduct periodic inspections of your site. Any violations found during these inspections may result in enforcement action.

This NPDES coverage should be terminated by the permittee when one of the conditions listed in Section 5.1 of the CGP has been met. You must submit a Notice of Termination (NOT) to cancel your NPDES coverage under the CGP. Please see section 5.1 of the CGP for additional information required to be submitted with the NOT.

You are responsible for obtaining any other federal, state, or local permit that may be required for this project. In particular, any permits through the U.S. Army Corps of Engineers for the placement of fill material in Waters of the United States. Please note we have not sent a copy of this letter to any county or city building official. You must send a copy of this letter to these agencies, if necessary.

If material excavated during construction activities leaves the site, a mine operating permit may be needed. You are responsible for contacting the Mining and Reclamation Section to determine if a mining permit is required for the site. The Mining and Reclamation Section can be reached at (803)898-1362 or via e-mail at AskMines@dhec.sc.gov.

Please see the enclosed "Guide to Board Review" document for information about the procedures for appealing this NPDES coverage.

If you have any questions or cannot access the referenced websites, please call me at 803-898-3973.

Sincerely,



Eve I Leitzsey
Stormwater Permitting Section

CC: Robert Walsh, Campco Engineering Inc
Midlands EA Lancaster

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of \$100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation or settlement discussions during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference. In matters pertaining to decisions under the South Carolina Mining Act, appeals should be made to the South Carolina Mining Council.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR) and the required filing fee of one hundred dollars (\$100) must be received by Clerk of the Board within fifteen (15) calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after 5:00 p.m.
2. RFRs shall be in writing and should include, at a minimum, the following information:
 - The grounds for amending, modifying, or rescinding the staff decision;
 - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
 - the relief requested;
 - a copy of the decision for which review is requested; and
 - mailing address, email address, if applicable, and phone number(s) at which the requestor can be contacted.
3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control
Attention: Clerk of the Board
2600 Bull Street
Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).
4. The filing fee may be paid by cash, check or credit card and must be received by the 15th day.
5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.
6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor. All personal and financial identifying information will be redacted from the RFR and accompanying documentation before the RFR is released to the Board, Department staff or the public.
7. If an RFR pertains to an emergency order, the Clerk will, upon receipt, immediately provide a copy of the RFR to all Board members. The Chairman, or in his or her absence, the Vice-Chairman shall based on the circumstances, decide whether to refer the RFR to the RFR Committee for expedited review or to decline in writing to schedule a Final Review Conference. If the Chairman or Vice-Chairman determines review by the RFR Committee is appropriate, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response and RFR Committee review will be provided on an expedited schedule defined by the Chairman or Vice-Chairman.
8. The Clerk will email the RFR to staff and Office of General Counsel and request a Department Response within eight (8) working days. Upon receipt of the Department Response, the Clerk will forward the RFR and Department Response to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within a twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by

regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. Contested case guidance will be included within the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

9. If the RFR is to be considered by the RFR Committee, the Clerk will notify the Presiding Member of the RFR Committee and the Chairman that further review is requested by the Board. RFR Committee meetings are open to the public and will be public noticed at least 24 hours in advance.
10. Following RFR Committee or Board consideration of the RFR, if it is determined no Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Conference. Contested case guidance will be included within the letter.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.
2. The Clerk will request Department staff provide the Administrative Record.
3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publically noticed and should:
 - include the place, date and time of the Conference;
 - state the presentation times allowed in the Conference;
 - state evidence may be presented at the Conference;
 - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
 - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.
4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. Final Review Conference and Decision

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:
 - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
 - Type of decision (permit, enforcement, etc.) and description of the program.
 - Parties
 - Description of facility/site
 - Applicable statutes and regulations
 - Decision and materials relied upon in the administrative record to support the staff decision.
 - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
 - Rebuttal by Department staff [15 minutes]
 - Rebuttal by Requestor(s) [10 minutes]

Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.
2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the Conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the Conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at the conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court or in matters pertaining to decisions under the South Carolina Mining Act, to request a hearing before the South Carolina Mining Council. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

Permit Application Center
Planning and Development Department
155 Johnston Street or P.O. Box 11706
Rock Hill, SC 29731-1706
Phone (803) 329-5590 Fax (803) 329-7228
www.cityofrockhill.com



EC Approved Plans Letter

Project: Riverview Road Improvements - Pennies Project
Riverview Road
Pennies Project

Stage: Civil Construction Plan

To: Robert Walsh
Campco Engineering Inc
156 Oakland Ave.
Rock Hill, SC 29730

RECEIVED

SEP 23 2020

STORMWATER & DAMS
PERMITTING DIVISION

The STORMWATER/EROSION CONTROL portion of your plans for the referenced project has been approved and your plans have been stamped. A copy of the application form and your check for \$125 has been forwarded to SCDHEC for NPDES coverage. Land disturbing activity cannot begin until coverage under the NPDES General Permit for Stormwater Discharges from Large and Small Construction Activities has been issued by SCDHEC. This permit will allow storm water discharges associated with construction activity to waters of the State of S.C. in accordance with provisions of the S.C. Pollution Control Act. Permits from other federal, state or local agencies may be required to comply with NPDES and other applicable laws. Please check with Development Services @ 803-329-5515 to ensure that you have all necessary permits for this project.

After the NOI has been received, you may call the Infrastructure Division @803-329-5515 to schedule a pre-construction meeting. The Pre Construction meeting can not be scheduled until all applicable water/sewer/roadway extension agreements have been completed and signed.

The Infrastructure Division must be notified at least forty-eight (48) hours prior to commencing any land disturbance. The grading permit must be posted at the job site prior to beginning land disturbance.

Your contractor will need to have a current state contractor's license and a city business license to secure the permit.

An approved set plans will be returned to the Contractor at the Pre Construction meeting and must be kept at the job site for the duration of the project.

Please contact us if you have any questions or if we can assist you in any way during this project.

Sincerely,

Permit Application Center
(803) 329-5590

RECEIVED

SEP 23 2020



NOTICE OF INTENT (NOI) For Coverage(s) of Primary Permittees Under South Carolina NPDES General Permit For Stormwater Discharges From Construction Activities SCR100000 (Maintain As Part of On-Site SWPPP)

For Official Use Only

File Number:
Permit Number: SCR10 2622
Submittal Package Complete:

Submission of this Notice of Intent constitutes notice that the Applicant identified in Section II intends to be authorized as a Primary Permittee in the state of South Carolina under NPDES General Permit SCR1000000. Fees required for review and NPDES coverage of each application type are as listed on page 2 of the Instructions.

SOUTH CAROLINA
DEPT OF HEALTH AND ENVIRONMENTAL CONTROL
ENVIRONMENTAL QUALITY CONTROL
STORMWATER PERMITTING SECTION
APPROVED - FOR CONSTRUCTION ONLY

DHEC PERMIT #: SCR102622
FILE #:
DATE ISSUED: 9-30-2020
BY: ENE [signature]

Date: 06/10/2019

Project/Site Name: RIVERVIEW ROAD (S-851) IMPROVEMENTS County: YORK

(Modification or Change of Information Only) Prior Approved NPDES Permit or File Number:

Do you want this project to be considered for the Expedited Review Program (ERP)? Yes or No (See Instructions)

I. Notice of Intent (NOI) Application Type(s)

- A. Project (Application/Review) Type(s) (Select ALL that apply):
New Project (Initial Notification) Ongoing Project: Permitted or Un-Permitted
Late Notification Low Impact Development (LID) or Project Design Above Regulatory Requirements
New Owner/Operator or Company Name Change (see Instructions, attach Form A (Transfer of Ownership))
Major Modification: (see Instructions, attach Form B (Major Modifications))
MS4 Project Review
Ocean and Coastal Resource Management (OCRM) Review
Change of Information/Other (Specify):

B. If Applicable, identify the entity designated as MS4 Reviewer and MS4 Operator (i.e., Lexington County, City of Greer, etc.): MS4 Reviewer YORK COUNTY MS4 Operator YORK COUNTY

II. Primary Permittee Information

Change of Information
Person or Company
If a Company, are you a Lending Institution or Government Entity?
Company EIN (if applicable): EIN: 57-6000418

- A. Primary Permittee Name: YORK COUNTY
Mailing Address: 6 SOUTH CONGRESS STREET City: YORK State: SC Zip: 29745
Phone: 803-818-5763 Fax: 803-684-8595 Email Address: patrick.hamilton@yorkcountygov.com
B. Contact /ODSA Name (if different from above OR if owner is a company): PATRICK HAMILTON, P.E.
Mailing Address: 6 SOUTH CONGRESS STREET City: YORK State: SC Zip: 29745
Phone: 803-818-5763 Fax: 803-684-8595 Email Address: patrick.hamilton@yorkcountygov.com
C. Property Owner Name (if different from above):
Mailing Address: City: State: Zip:
Phone: Fax: Email Address:

III. Comprehensive Stormwater Pollution Prevention Plan (C-SWPPP) Preparer Information

- A. C-SWPPP Preparer Name: ROBERT L WALSH, P.E.
B. Registered Professional Engineer Landscape Architect Tier B Land Surveyor S. C. Registration #: 14254
C. Company/Firm Name: CAMPCO ENGINEERING, INC S. C. COA #: C00802
Mailing Address: 156 OAKLAND AVENUE City: ROCK HILL State: SC Zip: 29730
Phone: 803-327-7121 Fax: 803-327-7343 Email Address: rwalsh@campecoengineering.com

IV. Project/Site Information

- A. Type of Construction Activity(ies) (Select ALL that apply):
Commercial Industrial Institutional Mass Grading Linear Utility/Infrastructure
Residential: Single-family Residential: Multi-family Multi-use (Commercial & Residential)
Site Preparation (No New Impervious Area) Other (Specify)
B. Site Address/Location (street address, nearest intersection, etc.) Riverview Rd between Eden Ter. & Celanese Rd
City/Town (if in limits): ROCK HILL Zip Code: 29730
Latitude: 34° 58' 20" N Longitude: - 80° 59' 19" W (Source): GPS Web Site: GOOGLE EARTH
Tax Map Number (s) (List all): SEE ATTACHED

- C. Is this site located on Indian Land? Yes No
- D. Proposed Start Date: 04/01/2020 Proposed Completion Date: 04/2022
- E. Disturbed Area (nearest tenth of an acre): 7.5 Total Area (acres): 9.5
- F. Modification Only: (nearest tenth of an acre): N/A Disturbed Area: Current (Approved) Area: N/A
Disturbed Area Change (Increase Only): N/A Total Disturbed Area (After Change): N/A
- G. Is this project part of a Larger Common Plan for Development or Sale (LCP)? Yes No
LCP/ Overall Development Name: _____ Check here if this is the First Phase.

Previous State Permit/File Number: _____ Previous NPDES Coverage Number: SCR10

- H. Any Flooding Problems exist downstream of or adjacent to this site? Yes No (If yes, provide detailed description of flooding problems and applicable floodway/flood zone information in the C-SWPPP).
- I. Active S.C. DHEC Warning Notice, Notice to Comply or Notice of Violation for this site or LCP? Yes No
- J. List Relevant State and Federal Environmental Permits or Approvals applied for or obtained for this site (e.g., RCRA, USACOE, Nationwide, etc.). If None, list None.
NONE
- K. Any Waiver(s)/Variances/Exceptions Requested for this Project? (If yes, identify below and include Waiver Request and Justifications in the C-SWPPP for each proposed request).

1. Small Construction Activity Waiver(s) From NPDES permitting (Section 1.4 & Appendix B)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, identify requested waiver: <input type="checkbox"/> Rainfall Erosivity Waiver <input type="checkbox"/> TMDL Waiver <input type="checkbox"/> Equivalent Analysis Waiver		
2. Detention Waiver (72-302(B))? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Other (Specify): _____	

V. Waterbody Information (Attach additional sheet(s) as needed) Change of Information

A. Receiving Waterbody(s) (RWB) Information (List the nearest and next nearest receiving waterbodies to which the sites stormwater discharges will drain. If stormwater discharges drain to multiple waterbodies, list all such waterbodies).

1. Name of Receiving Waterbodies (RWB)	2. Distance to RWB (feet)	3. Classification of RWB
a. Nearest: <u>MANCHESTER CREEK</u>	<u>8,600</u>	<u>FRESH WATER</u>
b. Next Nearest: <u>CATAWBA RIVER</u>	<u>11,400</u>	<u>FRESH WATER</u>
c. Coastal Zone ONLY: Coastal Receiving Water (CRW): _____		<u>Not Applicable</u>
d. Other Waterbodies: _____		

B. Waters of the U.S. / State Information (Attach additional sheet(s) as needed)

Waters of the U.S./ State	1. On the site?	2. Delineated/ Identified?	3. Impacts?	4. Amount of impacts
a. Jurisdictional wetlands	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	____ Ac
b. Non-jurisdictional wetlands	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	____ Ac
c. Other Water(s): <u>STREAMS</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	____ Ac <u>29</u> Feet
d. Coastal Zone ONLY: Direct Critical Area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	____ Ac ____ Feet

5. If yes for Impacts in B.3, describe each impact and activity, and list all permits (e.g., USACOE Nationwide Permit, DHEC General Permit) and certifications that have been applied for or obtained for each impact:
DHEC GENERAL PERMIT

C. S.C. Navigable Waters (SCNW) Information (Section 2.6.5) The Department will address any issues related to State Navigable Waters' Program under SC Regulation 19-450 during the review of the C-SWPPP for activities that will NOT require a 404 permit or a 401 certification. (Attach additional sheet(s) as needed).

1. Are S. C. Navigable Waters (SCNW) on the site: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
a. If no, do not complete this question. Proceed to Section D (Impaired Waterbodies).		
b. If yes, provide the name of S.C. Navigable Waters (SCNW) on the site: _____		
2. If yes for C.1, will construction activities cross over or occur in, under, or thru the SCNW? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe SCNW activities (e.g., road crossing, sub-aqueous utility line, temporary or permanent structures, etc.) and proceed to Section C.3: _____		
3. Identify permits providing coverage of SCNW activities proposed for your site. If NONE, list none.		
Permits/Certifications	Permit or Certification No.	Corresponding Covered SCNW Activity(ies)
a. DHEC General/ Other DHEC Permit		
b. USACOE 404 Permit or 401 Certification		
c. SCNW Permit If applied for or issued, identify Date applied for or issued: _____		<input type="checkbox"/> All Activities or <input type="checkbox"/> Some Activities (Describe): _____
d. If a SCNW Permit has NOT been applied for provide an additional plan sheet that shows plan and profile views (drawn to scale) of the SCNW and associated activities. Include a description of all proposed activities on this plan.		

D. Impaired Waterbodies Information (Attach additional sheet(s) as needed)

1. 303(d) Listed Impaired Waterbodies					
a. Name of Nearest DHEC Water Quality Monitoring Stations (WQMS)(s) that receives stormwater from your construction site and/or thru an MS4 and the Name of the Corresponding Waterbody?		b. Is this WQMS(s) listed on the most current 303(d) List? If No, proceed to Section 2 of this table. If Yes, complete items c thru f.	c. List the pollutant(s) identified as "CAUSES" of the impairment	d. Will any pollutants causing the impairment be present in your site's construction stormwater discharges?	e. If yes for d, list the "USE SUPPORT" impairment(s) affected by the pollutant(s) identified in c.
Nearest DHEC WQMS(s)	Corresponding Waterbody				
CW-221	Unnamed trib to Catawba	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	FC	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
f. If yes for d above, will use of the BMPs proposed for your project ensure the site's discharges will NOT contribute to or cause further WQS violations for the impairment(s) listed in c? <input type="checkbox"/> Yes <input type="checkbox"/> No (NOTE: If no for f, this site is NOT eligible for coverage under the CGP). See Instructions.					
2. TMDL Impaired Waterbodies					
a. Name of Nearest DHEC Water Quality Monitoring Stations (WQMS)(s) that receives stormwater from your construction site and/or thru an MS4?	b. Has a TMDL(s) been developed for this WQMS(s)? If No, identify as such below and proceed to Section VI. If Yes, complete items c thru f of this table.	c. If yes for b, what pollutants are listed as "CAUSES" or causing the impairment?	d. If yes for b, has the standard been "ATTAINED" or "Fully Supported" for the impairment(s)?	e. If no for d (Not Attained), will any pollutants causing the impairment be present in your site's construction stormwater discharges?	
CW-221	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	FC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
f. If yes for e above, are your discharges consistent with the assumptions and requirements of the TMDL(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No (NOTE: If no for f, this site is NOT eligible for coverage under the CGP). See Instructions.					

VI. Signatures and Certifications DO NOT SIGN IN BLACK INK! Read the Certifications below (in entirety). Provide date, printed name, and signatures below. If you are a New Owner/Operator, as Primary Permittee you must also sign and date the applicable Comprehensive SWPPP Acceptance & Compliance Agreement below.

C-SWPPP PREPARER: "One copy of the C-SWPPP, all specifications and supporting calculations, forms, and reports are herewith submitted and made a part of this application. I have placed my signature and seal on the design documents submitted signifying that I accept responsibility for the design of the system. Further, I certify to the best of my knowledge and belief that the design is consistent with the requirements of Title 48, Chapter 14 of the Code of Laws of SC, 1976 as amended, pursuant to Regulation 72-300 et seq. (if applicable), and in accordance with the terms and conditions of SCRI00000." (This should be the person identified in Section III).

ROBERT L WALSH, P.E.

Printed Name of C-SWPPP Preparer

Signature of C-SWPPP Preparer

14254

S. C. Registration #

PRIMARY PERMITEE: "I or I (on behalf of my company and its contractors and agents), as the case may be, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that DHEC enforcement actions may be taken if the terms and conditions of the C-SWPPP are not met and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"I or I (on behalf of my company and its contractors and agents), as the case may be, also hereby certify that all land-disturbing construction and associated activity pertaining to this site shall be accomplished pursuant to and in keeping with the terms and conditions of the approved plans and SCRI00000. I also certify that a responsible person will be assigned to the project for day-to-day control. I hereby grant authorization to the to S. C. Department of Health and Environmental Control (DHEC) and/or the local implementing agency the right of access to the site at all times for the purpose of on site inspections during the course of construction and to perform maintenance inspections following the completion of the land-disturbing activity." (See Section 122.22 of S.C. Reg. 61-9 for signatory authority information.) Having understood the above information, I am signing this certification as Primary Permittee to the aforementioned NPDES general permit."

PATRICK HAMILTON, P.E.

Printed Name of Primary Permittee

Signature of Primary Permittee

PROGRAM MGR, PENNIES FOR PROGRESS

Title/Position

Date Signed

7/2/19

DIVISION III - SECTION 4
GEOTECHNICAL ENGINEERING REPORT

September 27, 2016

Erin Pratt, PE
Campco Engineering, Inc.
156 Oakland Avenue
Rock Hill, SC 29730

Re: Riverview Road Improvements
Rock Hill, South Carolina
Proposal Number: G2014059
Project Number: G5607.00

Dear Mrs. Pratt:

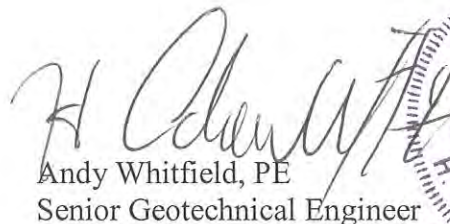
F&ME Consultants, Inc. (F&ME) is pleased to submit our geotechnical report for the Riverview Road widening project. The proposed project is the widening of Riverview Road between Eden Terrace and Celanese Road (SC-161) in Rock Hill, South Carolina. F&ME performed asphalt coring, Standard Penetration Test borings, bulk sampling of the existing embankment, bulk sampling of the pavement section to be utilized in cement modified recycled base design, and laboratory testing of selected soil and pavement section samples. Our report includes reporting requirements of Chapter 21 of the SCDOT Geotechnical Design Manual, borings logs, and results from our laboratory testing program.

It has been a pleasure working for you on this project and we appreciate the opportunity to be of service. Please notify us if there are any questions or if we may be of further assistance with the implementation of our recommendations.

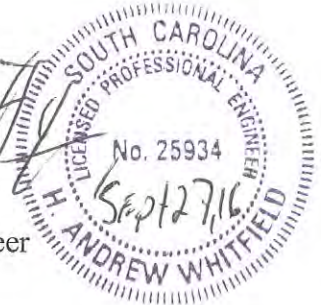
Sincerely,
F&ME



Brad Fischer, EIT
Geotechnical Staff Professional



Andy Whitfield, PE
Senior Geotechnical Engineer



GEOTECHNICAL • ENVIRONMENTAL • MATERIALS

TABLE OF CONTENTS

A. GENERAL PROJECT INFORMATION 3
B. GENERAL GEOLOGY 5
C. FIELD OPERATIONS 6
D. EMBANKMENTS 7
E. ROADWAY AND FOUNDATION RECOMMENDATIONS 8
F. LIMITATIONS OF REPORT 10

APPENDIX

APPENDIX A – Location Plans

Site Map (Figure 1)

Boring Location Plan (Figures 2A-2C)

APPENDIX B – SPT and Hand Auger Boring Logs

APPENDIX C – Laboratory Test Results

A. GENERAL PROJECT INFORMATION

A roadway geotechnical engineering exploration was performed for the proposed roadway widening of Riverview Road in Rock Hill, South Carolina. The exploration was authorized in a May 9, 2016 professional services agreement between Campco Engineering, Inc. (Campco) and F&ME.

The widening project encompasses approximately a one mile stretch of Riverview Road between Eden Terrace and Celanese Road (SC-161) in Rock Hill, South Carolina. A map of the project location is shown on the Site Location Plan (Figure 1) in the Appendix. F&ME understands proposed improvements to Riverview Road include widening to three (3) lanes between Eden Terrace and Celanese Road (SC-161). Additionally, a culvert replacement or culvert extension may be required around station 27+00 of the roadway widening project.

F&ME was informed that Campco wanted to explore options for cement modified recycled base (CMRB) after the pavement thickness results became available. F&ME collected four additional bulk samples from pavement sections and provided SCDOT reclamation (CMRB) design in general accordance with SCDOT test procedure SC-T-26.

The primary objective of this exploration was to gather information in order to provide geotechnical information for the proposed widening and pavement rehabilitation of Riverview Road in general accordance with Chapter 21 of the 2010 South Carolina Department of Transportation (SCDOT) Geotechnical Design Manual (GDM). The objectives were accomplished by executing the following:

1. We performed asphalt coring and advanced Standard Penetration Test (SPT) borings within the travel lanes of Riverview Road. We also performed SPT borings in the shoulder within the SCDOT right of way. The purpose of the coring and borings was to obtain information on existing pavement thickness, determine soil density and stratification, and collect soil samples for laboratory testing. Cores were conducted with a water-cooled, diamond-tipped coring barrel. Hollow stem auger drilling techniques were used during drilling operations.
2. We performed one (1) manual hand auger using the Dynamic Cone Penetration (DCP) method to explore subsurface conditions where a culvert extension may be required to accommodate the roadway widening.
3. We collected four (4) bulk samples of the existing pavement section that included asphalt, GABC, and subgrade soils to be used in CMRB design testing.
4. We obtained one (1) bulk soil sample from the roadway embankment.
5. We performed twenty-five (25) soil classification tests on twenty-four (24) split spoon soil samples and one (1) bulk sample, which included grain size distribution, Atterberg limits, and natural moisture content to determine physical characteristics of the soils encountered.
6. We performed one (1) standard proctor, one (1) triaxial shear test, and one (1) one-point California Bearing Ratio (CBR) test on the collected soil bulk sample from the embankment.
7. We performed one (1) electro-chemical series analysis on the collected bulk sample which included testing for pH, resistivity, and sulfate and chloride content.

Borings were performed at a frequency of at least every 500 linear feet of roadway. The following table summarizes the boring locations, bulk sample locations and total depth associated with each boring. A map of boring locations is shown on the Boring Location Plan in Appendix A (Figures 2a, b, and c).

Test Number	Test Hole Local	Station	Offset	Elevation (msl)	Depth (ft)
BS-1	Embankment	15+53	50'-R	626	5.0
SPT-1	Roadway	16+11	8'-R	627	10.0
CMRB-4	Roadway	19+60	5'-R	--	--
SPT-2	Roadway	20+11	7'-L	614	10.0
SPT-3	Roadway	24+91	7'-R	604	10.0
SPT-4.1	ROW	26+80	7'-R	600	10.0
SPT-4	Roadway	26+89	17'-R	601	4.0
HA-1	ROW	26+95	34'-L	597	1.0
SPT-5	Roadway	29+97	8'-L	606	10
SPT-6	Roadway	33+97	9'-L	619	6.8
CMRB-3	Roadway	34+12	5'-R	--	--
SPT-7	Roadway	34+85	10'-L	620	10.0
SPT-8	Roadway	35+98	18'-R	622	10.0
SPT-9	Roadway	39+45	9'-L	625	9.8
SPT-10	Roadway	43+96	17'-L	625	7.1
SPT-11	ROW	44+67	26'-L	624	9.9
SPT-12	ROW	44+28	31'-R	625	10.0
SPT-13	ROW	46+54	21'-L	624	9.0
SPT-14	ROW	46+78	30'-R	623	7.4
SPT-15	Roadway	46+98	21'-R	623	8.0
CMRB-2	Roadway	48+85	CL	--	--
SPT-16	Roadway	50+96	5'-L	625	7.6
CMRB-1	Roadway	55+50	5'-R	--	--
SPT-17	Roadway	55+72	7'-R	618	6.0
SPT-20	ROW	59+97	19'-R	608	10.0
SPT-18	ROW	60+07	24'-L	609	10.0
SPT-19	Roadway	60+52	7'-L	609	10.0
SPT-21	Roadway	64+76	3'-L	608	5.0
SPT-22	ROW	64+97	20'-R	608	10.0
SPT-23	ROW	65+69	48'-L	606	10.0

Laboratory testing was performed on specimens selected from SPT split-spoon samples and the soil bulk sample obtained from the embankment. CMRB samples were molded in the F&ME laboratory and unconfined compressive strength testing was performed. The laboratory results can be found in Appendix C of this report. The following table summarizes laboratory testing performed on collected soil and pavement samples.

Test Type	Quantity
Moisture Content Determination	25
Mechanical Grain Size Analysis	25
Atterberg Limits Determination	25
Standard Proctor	5
Triaxial Shear	1
California Bearing Ratio	1
Electro-Chemical Series	1
Compressive Strength of Cement Modified Recycled Base	21

B. GENERAL GEOLOGY

The Riverview Road (S-851) widening project is located in Rock Hill, York County, South Carolina. The site is situated in the Piedmont Physiographic Province of South Carolina where the topography consists of low undulating hills and waterways that are narrow with constricted floodplains. Near surface soils are generally disturbed, fine-grained, Brewback and Cecil soils as defined by the USGS Web Soil Survey. Pockets of coarse grained soils were encountered, but these are suspected to have been deposited by man rather than natural deposits. Decomposed rock (aka saprolite or partially weathered rock) was encountered in some of the borings. Typically, saprolite lies about five (5) to fifteen (15) feet below the ground surface in the area around the project site. The thickness of the saprolite is variable throughout the Piedmont and is made up of clays and accessory minerals derived from the weathering of the underlying rock. Saprolite is highly erodible if the vegetation is removed. The saprolite may be completely eroded in some areas exposing the crystalline rocks at the ground surface as well as along stream banks and in channels.

F&ME's exploration did not extend into and below the saprolite to bedrock. Regionally, the bedrock present within the Piedmont consists of several major allochthonous terranes. Each of these terranes consists of westward-transported stacked thrust sheets of varying thicknesses (Nelson and others, 1998). The roadway widening is located within the Charlotte Terrane. In general, the Charlotte Terrane is an extensive assemblage of heterogeneous ultramafic, mafic, and fragmental mafic rocks that include some variably sized igneous bodies. The type of rock(s) common to the Charlotte Terrane may include gabbro, diorite, amphibolite, ultramafic rocks, mafic dikes, and granitic bodies (Nelson and others, 1998). The Charlotte Terrane traverses the South Carolina Piedmont trending northwest to southeast across the State from the Georgia to

North Carolina state lines. In context of the study area, bordering the Charlotte Terrane to the north is the Kings Mountain Terrane and the associated Buzzards Roost shear zone with the Carolina Terrane (also known as the Carolina Slate Belt) bordering to the south.

C. FIELD OPERATIONS

From May 24, 2016 to June 14, 2016 asphalt cores and SPT borings were conducted in the travel lanes and SCDOT right of way of Riverview Road. Fourteen (14) asphalt cores and SPT borings were conducted in the travel lanes of Riverview Road and ten (10) SPT borings were conducted outside the travel lanes but within SCDOT right of way. Note that SPT 4 was partially drilled until auger refusal was encountered and an off-set boring labeled SPT 4.1 was conducted in the shoulder. In addition to the SPT borings, one (1) hand auger was performed near an existing culvert, and one (1) bulk sample was collected from the embankment at the intersection of Riverview Road and Eden Terrace. The purpose of the SPT borings and hand auger boring was to provide subsurface information. The purpose of the bulk sample was to determine soil strength parameters.

The twenty-four (24) SPT borings and one (1) hand auger were proposed to be advanced ten (10) feet below ground surface or auger refusal. Eleven (11) of the SPT borings and the hand auger boring were terminated short of the target depth due to auger refusal. Refusal depths ranged from approximately four (4) feet to nine (9) feet below ground surface for the SPT borings. The hand auger was only advanced one (1) foot below ground surface before reaching refusal. See Appendix B for the boring and hand auger logs.

Coring operations were performed along the roadway alignment to determine existing pavement and graded aggregate base coarse (GABC) thickness. Pavement and GABC thicknesses ranged from four (4) to nineteen (19) inches and zero (0) to eight (8) inches, respectively. The following table summarizes the existing pavement sections encountered during the subsurface exploration.

Boring Location	Pavement Thickness	GABC Thickness
SPT-1	5-1/4 inches	8 inches
SPT-2	4-1/2 inches	3 inches
SPT-3	4 inches	5 inches
SPT-4	5-1/2 inches	8 inches
SPT-5	11-1/4 inches	3 inches
SPT-6	5-1/4 inches	6 inches
SPT-7	6 inches	2 inches
SPT-9	9 inches	3 inches
SPT-10	10-1/4 inches	0 inches
SPT-15	7-1/2 inches	0 inches
SPT-16	6-1/2 inches	6 inches
SPT-17	6 inches	0 inches
SPT-19	9 inches	0 inches
SPT-21	19 inches	0 inches

Table 1 – Existing Pavement Thickness

Soils obtained from the existing embankment were generally classified as A-7 material with soils mainly classifying as clay (CL and CH), clayey sand (SC), and silt (ML) within the top five (5) feet of the existing embankment. Interspersed layers of coarser grained material with varying silt, clay, and gravel content were encountered throughout the borings. Coarse-grained soils such as sand (SP) and silty sand (SM) were common near the intersection of Riverview Road (S-851) and Celanese Road (SC-161). In Group A counties such as York County, soils must be classified A-1 through A-6 to be used as fill in the upper five (5) feet of roadway embankments. Material not classified as muck is suitable for fill material below five (5) feet as long as the material is stable when compacted to the specified density. Borings and lab data indicate that the majority of the existing embankment soil would not be allowed for use in the upper five (5) feet of embankment fill based on AASHTO soil classification.

F&ME returned to the site on August 10, 2016 to collect four (4) bulk samples of the pavement section that included asphalt, GABC, and subgrade soil for SCDOT reclamation (CMRB) design testing. Reclamation samples CMRB-1, CMRB-2, CMRB-3 and CMRB-4 were collected near stations 55+00, 49+00, 34+00, and 21+00, respectively.

Collected soil samples were examined and sealed in plastic bags for transportation to our laboratory for further examination and testing. The soils were visually classified in the field based upon the Unified Soil Classification System (USCS) with the ASTM Visual-Manual method.

Selected soil samples and pavement section samples were tested in a certified laboratory to determine applicable physical and engineering properties. The laboratory program included testing soil samples for moisture content, grain size distribution, and Atterberg limits. One (1) bulk sample was tested for Standard Proctor, California Bearing Ratio (CBR), and triaxial shear strength. SC-T-26 testing was performed on the four (4) pavement section samples for CMRB cement application recommendations.

The data sheets presenting results of the above described laboratory test programs are provided in Appendix C of this report.

D. EMBANKMENTS

Embankment soils generally did not meet requirements for reuse as structural embankment fill for York County (Group A), based on the SCDOT *Standard Specifications for Highway Construction* (Section 203.2.1.8) manual. Select fill that meets SCDOT *Standard Specifications for Highway Construction* (Section 203.2.1.8) manual for Group A counties will need to be used for embankment widening.

The existing roadway is relatively flat with typical embankments less than three (3) feet in height. According to the Bridge Design Memorandum DM0211, embankments with heights less than 3 feet and slopes of 2H:1V or flatter generally do not require stability analysis. As such, stability analyses were not performed for the new embankment widening.

E. ROADWAY AND FOUNDATION RECOMMENDATIONS

USCS soil classifications and CBR analysis indicates poor soils conditions for the widening of Riverview Road. The CBR value of 1.0 corresponds to a soil support value of one (1). Soil support values less than 3.0 indicate poor soil characteristics. The following table summarizes CBR analysis performed on the bulk sample collected from the site.

Soil Support Value (SSV) Summary Table			
Existing Roadway Subgrade			
CBR Test No.	Remolded Dry Density (%)	CBR Value @ 0.1"	Soil Support Value
BS-1	94.8	1.0	1.0

Despite poor existing soil conditions for the widening of Riverview Road, the fine-grained soils generally encountered are common in the Rock Hill area and pavements have been successfully constructed on these soils. Site preparation should begin by stripping topsoil and surface gravel to expose subgrade soils. Topsoil can be stockpiled and reused outside of the proposed pavement area. Gravel can be stockpiled and reused as structural fill if needed.

The exposed subgrade should be moisture conditioned and densified to at least ninety-five (95) percent of the Standard Proctor maximum dry unit weight. Moisture conditioning may include drying the in-place soil by windrowing or disking. If too dry, then moisture may need to be added to the soil from a water truck. In either case, the subgrade soil should fall within plus or minus three (3) percent of the optimum moisture content during compaction. The subgrade should be tested for moisture content and compaction by an SCDOT Earthwork, Drainage and Base technician working under the direction of a geotechnical engineer licensed in the state of South Carolina. Proofrolling of the subgrade should be performed at the time of compaction testing and proofrolling should be observed by the technician who performs the compaction testing. Proofrolling should be performed by the contractor with a loaded on-road, tandem-axle dump truck.

Any areas that pump or rut during proofrolling should be explored with test pits. If unstable subgrade is found to be wet of optimum then it can be dried and recompacted. If drying is impractical, then soft soils should be undercut and replaced with select fill. Medium to high plasticity soils may pump during proofrolling even if compacted to ninety-five (95) percent compaction. Soils that pump should be undercut and replaced with select fill. Select fill should be free of organic matter and consist of soils classified as A-1, A-2, A-3, A-4, A-5 and/or A-6. A-7 soil should not be imported to the site. The existing gravel scalped during site preparation can be reused as backfill provided it is carefully excavated and stockpiled to prevent mixing with soil.

Structural fill under roadways should be placed in successive lifts not to exceed eight (8) inches loose. Each lift should be compacted to at least ninety-five percent (95%) of the soil's Standard Proctor maximum, dry unit-weight. Backfill for new utility lines should also be placed in 8-inch

loose lifts and each lift compacted to at least ninety-five percent (95%) of the soil's Standard Proctor maximum, dry unit-weight before placing a subsequent lift.

On-site silts (A-6, ML) and clayey sands (A-2, SC) are satisfactory for use as fill under roadways. On-site fat Clays (A-7, CH) should not be reused as structural fill. Drying efforts may be needed prior to placing on-site soils even if not impacted directly by rain after excavation. Also, if on-site borrow soils are allowed to become wet after excavation, then drying efforts will be needed. Efforts to dry soils may include spreading soil out in thin lifts and/or continuous turning by disking. If on-site soils are dry of optimum moisture content, a water truck may be necessary to increase the water content of soils prior to placement.

If off-site borrow is imported for use as structural fill, then it should be select fill free of organics and deleterious material. Off-site borrow should meet one of the following AASHTO classifications: A-1, A-2, A-3, A-4, A-5 and/or A-6. A-7 soils should not be imported to the site for use as fill.

Fill and backfill should be placed within plus or minus three percent (3%) of the Standard Proctor optimum moisture content. Borrow soils that are more than three percent (3%) dry of optimum must have moisture added prior to compaction. Borrow soils that are more than three percent (3%) wet of optimum must be dried before compaction. Fill and backfill should be tested for compaction prior to the placement of subsequent lifts. Compaction testing should be performed by an SCDOT Earthwork, Drainage and Base technician working under the direction of a licensed South Carolina geotechnical engineer. Test frequency should be at least the frequency described in the SCDOT Construction Manual.

Groundwater was not encountered in any of the SPT borings or the hand auger boring. Dewatering operations will likely not be required for any trenches or excavations for utilities, replacement culverts, or culvert extensions. However, surface runoff through the culvert will need to be controlled during rain events and the site could contain perched water that was not encountered during our subsurface exploration. F&ME should be notified if perched groundwater is encountered during excavations in order to evaluate subsurface conditions at the location.

The SCDOT includes guidance for improving culvert foundation soil in SCDOT Supplemental Technical Specification SC-M-714 and Standard Drawings for Pipe Culverts 714-000. The hand auger performed near station 27+00 returned N-Values greater than 8 bpf. F&ME recommends culvert foundation stabilization in accordance with Table 714-202A of drawing 714-020-00 Standard Drawings for Pipe Culverts for the proposed culvert extension. However, F&ME was not provided invert elevations of the existing culvert or for the proposed culvert extension, if the extension is indeed required for the widening project. Additionally, auger refusal conditions were encountered at just one (1) foot below ground surface. If invert elevations of the culvert extensions are lower than 596 ft-MSL, then excavation of PWR or potentially riprap or other large obstructions like boulders may be required.

Eleven (11) of the twenty-four (24) borings and the hand auger boring that F&ME performed encountered refusal conditions in suspected PWR and/or bedrock at depths of less than ten (10)

feet. Utility excavation may be impacted by PWR and bedrock. Campco should use boring logs to help plan subsurface utility depth and include contingency for PWR and rock excavation should utility excavations encounter PWR and/or bedrock.

Cement Modified Recycled Base

F&ME was informed that Campco may want to incorporate a CMRB in the revitalization of the existing roadway. Campco stated that five (5) inches of the existing Riverview Road pavement section would be milled and a CMRB would be constructed from the remaining pavement section. Accordingly, F&ME prepared the collected pavement sections by removing the top five (5) inches of pavement from each sample material before preparing the test specimens. CMRB samples were prepared and tested in accordance with SC-T-26. The following table summarizes the compressive strength of the tested samples.

Sample ID	Cement Content	Average Compressive Strength (psi)
CMRB-1	3%	410
	6%	605
	9%	960
CMRB-2	3%	530
	6%	740
	9%	1125
CMRB-3	3%	175
	6%	265
	9%	365
CMRB-4	3%	192
	6%	320
	9%	375

Typically, the asphalt pavement becomes thicker moving from the southern portion of the widening project at the intersection with Eden Terrace to the northern segment of the project at the intersection of Celanese Road. Consequently, CMRB-3 and CMRB-4 reported lower compressive strengths than CMRB-1 and CMRB-2. Based on laboratory test results for the CMRB samples, F&ME recommends a minimum application rate of fifty-five (55) pounds per square yard for an eight (8) inch thick CMRB section and at seventy (70) pounds per square yard for a ten (10) inch thick CMRB section. The CMRB should be constructed according to section 306 of the SCDOT 2007 *Standard Specifications for Highway Construction*.

F. LIMITATIONS OF REPORT

This final report has been prepared in general accordance with the GDM and F&ME’s defined scope of work. The conclusions and recommendations contained herein are based upon

applicable standards in this geographic area at the time this report was prepared. No other warranty, expressed or implied, is made.

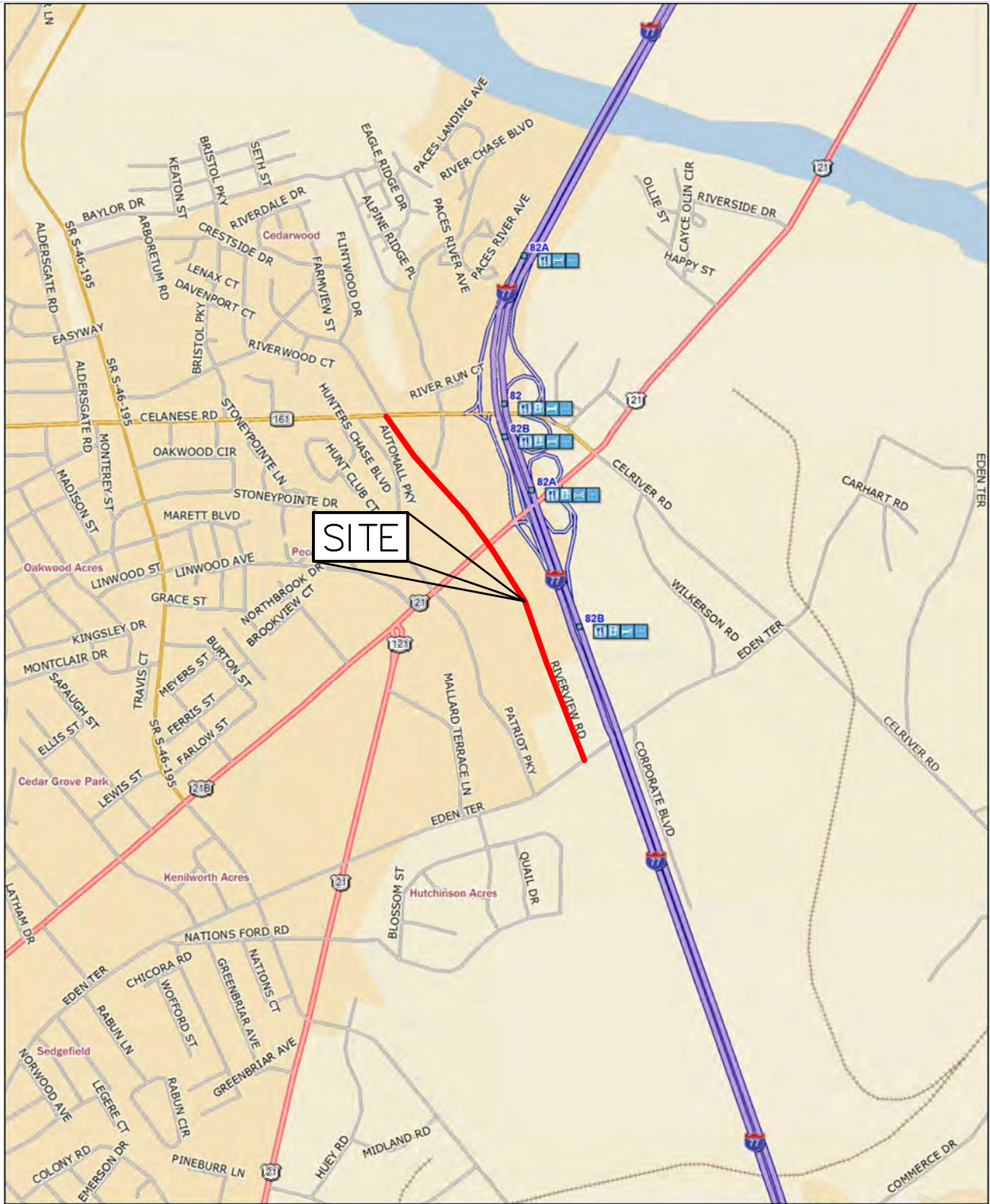
This report does not include pavement thicknesses to be utilized in final pavement design. Pavement section thickness will be determined by Campco and construction documents will be created by Campco. F&ME has provided Campco CMRB design recommendations and a soil support value (SSV) to be used in final pavement design. F&ME assumes that *SCDOT 2007 Standard Specifications for Highway Construction*, *SCDOT Supplemental Specifications*, and *SCDOT Supplemental Technical Specifications* will govern construction of the project.

F&ME's CMRB cement application rate recommendation assumes that the cement used to construct the CMRB section will be Type I/II cement manufactured in South Carolina. If another cement source is selected, then a trial mix should be conducted from a sample adjacent to location CMRB #3 to confirm that at least 300 psi compressive strength will be achieved.

The analyses and recommendations submitted herein are based, in part, upon the data obtained from the subsurface exploration and publicly reported geology at the site. The nature and extent of variations between the borings and reported geology will not become evident until construction begins. F&ME reserves the right to modify our recommendations in the event that variations exist that cause our recommendations to be flawed.

APPENDIX A

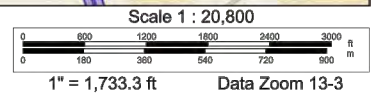
Location Plans



Data use subject to license.

© DeLorme, DeLorme Street Atlas USA® 2009.

www.delorme.com



Scale 1 : 20,800

F&ME
CONSULTANTS
GEOTECHNICAL – ENVIRONMENTAL – MATERIALS
COLUMBIA, SOUTH CAROLINA

RIVERVIEW ROAD IMPROVEMENTS
ROCK HILL, SC

SITE LOCATION PLAN

4			
3			
2			
1			
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9/19/2016	GROUP -- --
R/W		DATE	

SCALE = AS NOTED




F&ME JOB NO. G5607
FIGURE 1



Boring Data							
Test Designation	Northing	Easting	Latitude	Longitude	Boring Depth	Station	Offset
BS-1	1139423.480	2004671.750	34.964844	-80.984409	5'	15+53	50 ft - R
SPT-1	1139462.430	2004612.390	34.964951	-80.984607	10'	16+11	8 ft - R
CMRB-4	1139788.696	2004485.695	34.965847	-80.985030	-	19+60	5 ft - R
SPT-2	1139831.780	2004457.040	34.965965	-80.985125	10'	20+11	7 ft - L
SPT-3	1140285.570	2004301.260	34.967212	-80.985645	10'	24+91	7 ft - R
SPT-4.1	1140462.520	2004233.950	34.967698	-80.985870	10'	26+80	7 ft - R
SPT-4	1140474.710	2004240.150	34.967732	-80.985849	4'	26+89	17 ft - R
HA-1	1140461.780	2000490.200	34.967696	-80.986016	1'	26+95	34 ft - L
SPT-5	1140753.820	2004107.700	34.968499	-80.986291	10'	29+97	8 ft - L

MATCHLINE (SEE FIGURE 2-B)

LEGEND:

-  SOIL TEST BORING LOCATION
-  BULK SAMPLE LOCATION
-  CEMENT MODIFIED RECYCLED BASE TEST LOCATION



4			
3			
2			
1			
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG. CTC		DATE 9/19/2016	GROUP - - -
R/W		DATE	

F&ME
CONSULTANTS
GEOTECHNICAL - ENVIRONMENTAL - MATERIALS
COLUMBIA, SOUTH CAROLINA

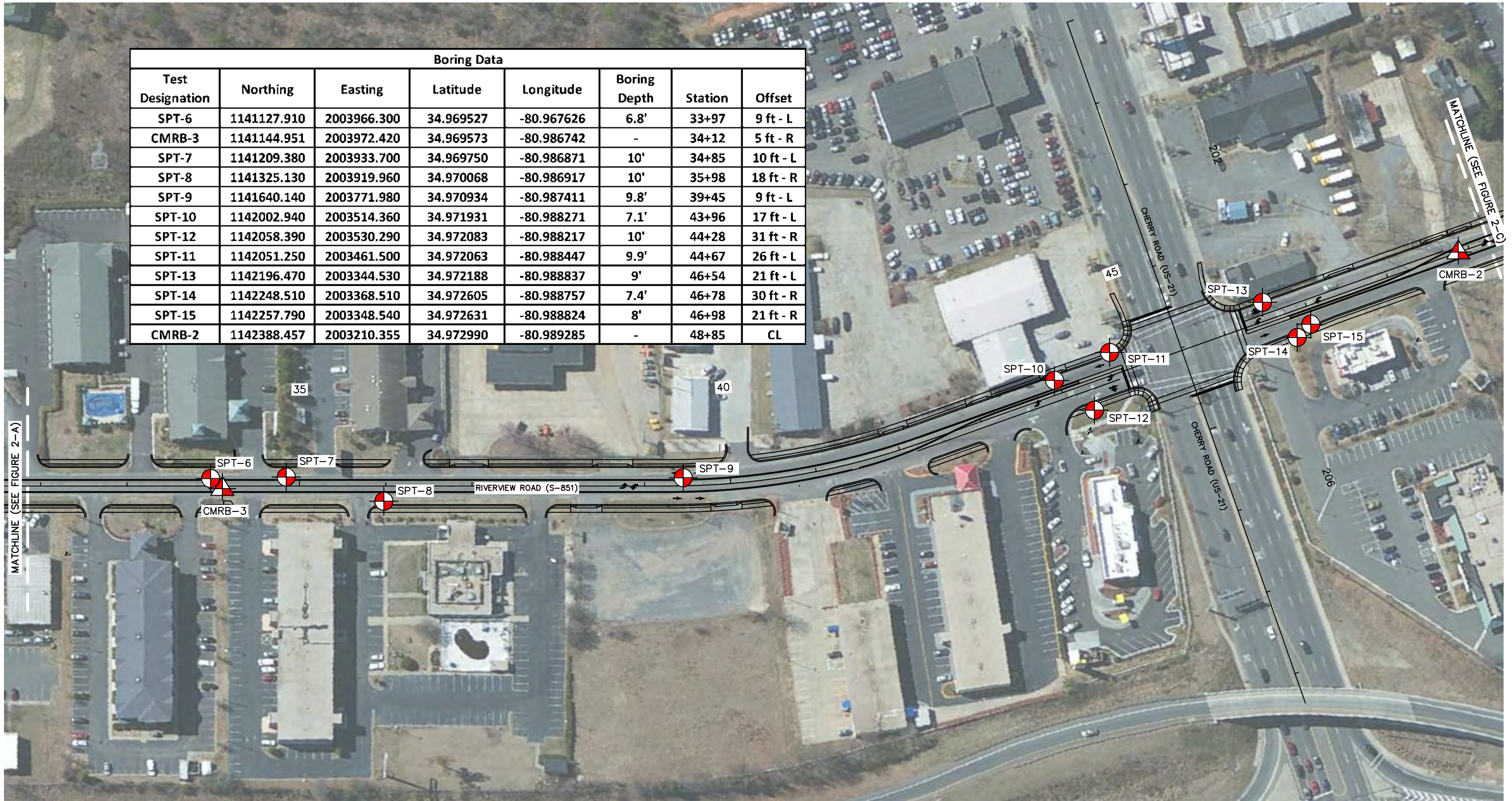
RIVERVIEW ROAD IMPROVEMENTS
ROCK HILL, SC

SOIL TEST BORING LOCATION PLAN

SCALE = NTS

F&ME JOB NO. G5607
FIGURE 2-A




Boring Data							
Test Designation	Northing	Easting	Latitude	Longitude	Boring Depth	Station	Offset
SPT-6	1141127.910	2003966.300	34.969527	-80.967626	6.8'	33+97	9 ft - L
CMRB-3	1141144.951	2003972.420	34.969573	-80.986742	-	34+12	5 ft - R
SPT-7	1141209.380	2003933.700	34.969750	-80.986871	10'	34+85	10 ft - L
SPT-8	1141325.130	2003919.960	34.970068	-80.986917	10'	35+98	18 ft - R
SPT-9	1141640.140	2003771.980	34.970934	-80.987411	9.8'	39+45	9 ft - L
SPT-10	1142002.940	2003514.360	34.971931	-80.988271	7.1'	43+96	17 ft - L
SPT-12	1142058.390	2003530.290	34.972083	-80.988217	10'	44+28	31 ft - R
SPT-11	1142051.250	2003461.500	34.972063	-80.988447	9.9'	44+67	26 ft - L
SPT-13	1142196.470	2003344.530	34.972188	-80.988837	9'	46+54	21 ft - L
SPT-14	1142248.510	2003368.510	34.972605	-80.988757	7.4'	46+78	30 ft - R
SPT-15	1142257.790	2003348.540	34.972631	-80.988824	8'	46+98	21 ft - R
CMRB-2	1142388.457	2003210.355	34.972990	-80.989285	-	48+85	CL



MATCHLINE (SEE FIGURE 2-A)

MATCHLINE (SEE FIGURE 2-C)

LEGEND:

-  SOIL TEST BORING LOCATION
-  BULK SAMPLE LOCATION
-  CEMENT MODIFIED RECYCLED BASE TEST LOCATION



4			
3			
2			
1			
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG.	CTC	DATE 9/2/2016	GROUP - - -
R/W		DATE	

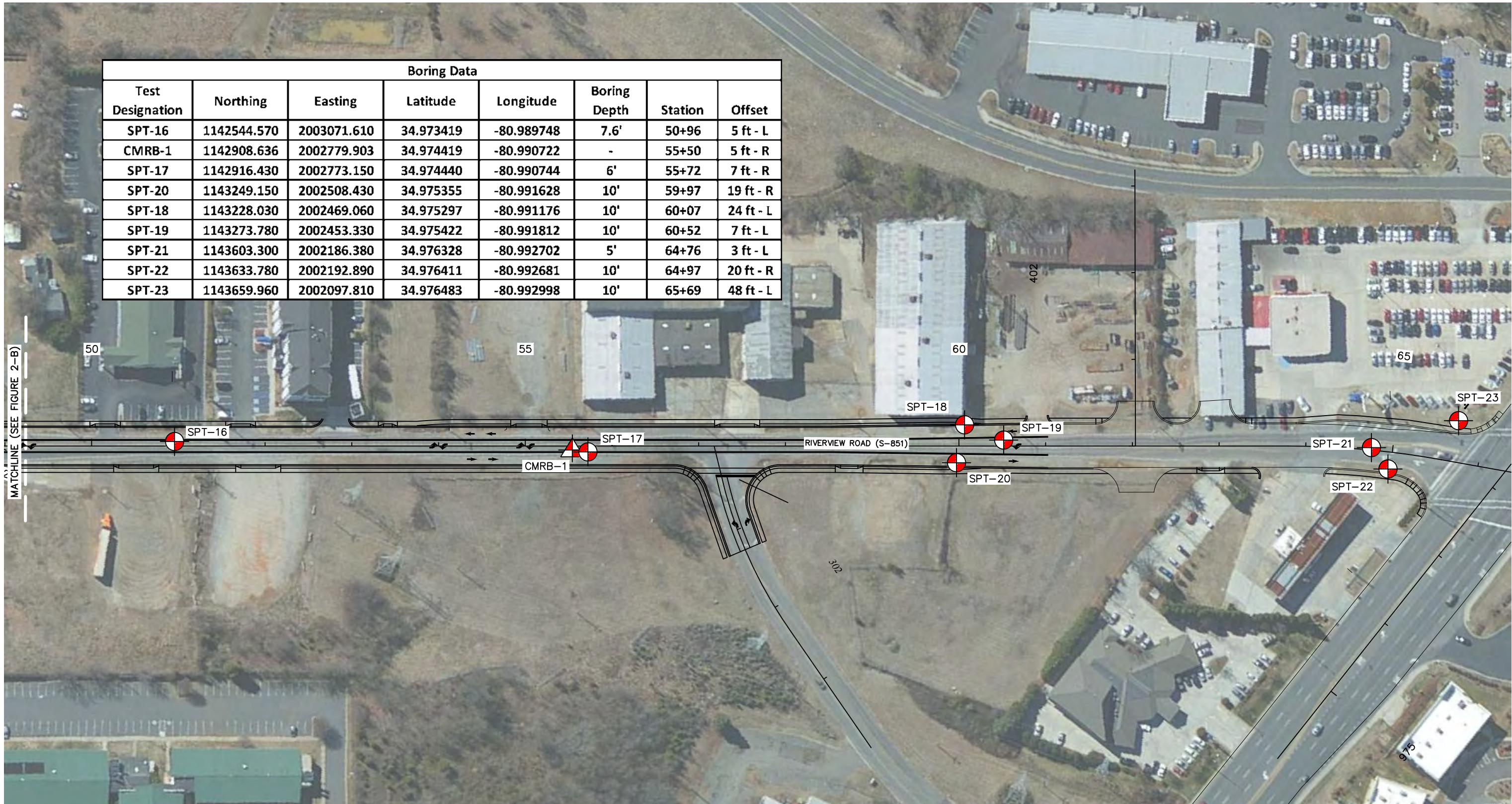
F&ME
CONSULTANTS
GEOTECHNICAL - ENVIRONMENTAL - MATERIALS
COLUMBIA, SOUTH CAROLINA

RIVERVIEW ROAD IMPROVEMENTS
ROCK HILL, SC

SOIL TEST BORING LOCATION PLAN




SCALE = NTS F&ME JOB NO. G5607
FIGURE 2-B

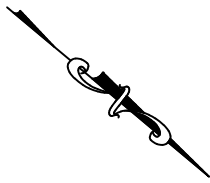
Boring Data							
Test Designation	Northing	Easting	Latitude	Longitude	Boring Depth	Station	Offset
SPT-16	1142544.570	2003071.610	34.973419	-80.989748	7.6'	50+96	5 ft - L
CMRB-1	1142908.636	2002779.903	34.974419	-80.990722	-	55+50	5 ft - R
SPT-17	1142916.430	2002773.150	34.974440	-80.990744	6'	55+72	7 ft - R
SPT-20	1143249.150	2002508.430	34.975355	-80.991628	10'	59+97	19 ft - R
SPT-18	1143228.030	2002469.060	34.975297	-80.991176	10'	60+07	24 ft - L
SPT-19	1143273.780	2002453.330	34.975422	-80.991812	10'	60+52	7 ft - L
SPT-21	1143603.300	2002186.380	34.976328	-80.992702	5'	64+76	3 ft - L
SPT-22	1143633.780	2002192.890	34.976411	-80.992681	10'	64+97	20 ft - R
SPT-23	1143659.960	2002097.810	34.976483	-80.992998	10'	65+69	48 ft - L



MATCHLINE (SEE FIGURE 2-B)

LEGEND:

-  SOIL TEST BORING LOCATION
-  BULK SAMPLE LOCATION
-  CEMENT MODIFIED RECYCLED BASE TEST LOCATION



4			
3			
2			
1			
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
TOPO.		DATE	
DWG. CTC		DATE 9/2/2016	GROUP - -
R/W		DATE	

F&ME
CONSULTANTS
GEOTECHNICAL - ENVIRONMENTAL - MATERIALS
COLUMBIA, SOUTH CAROLINA

RIVERVIEW ROAD IMPROVEMENTS
ROCK HILL, SC

SOIL TEST BORING LOCATION PLAN

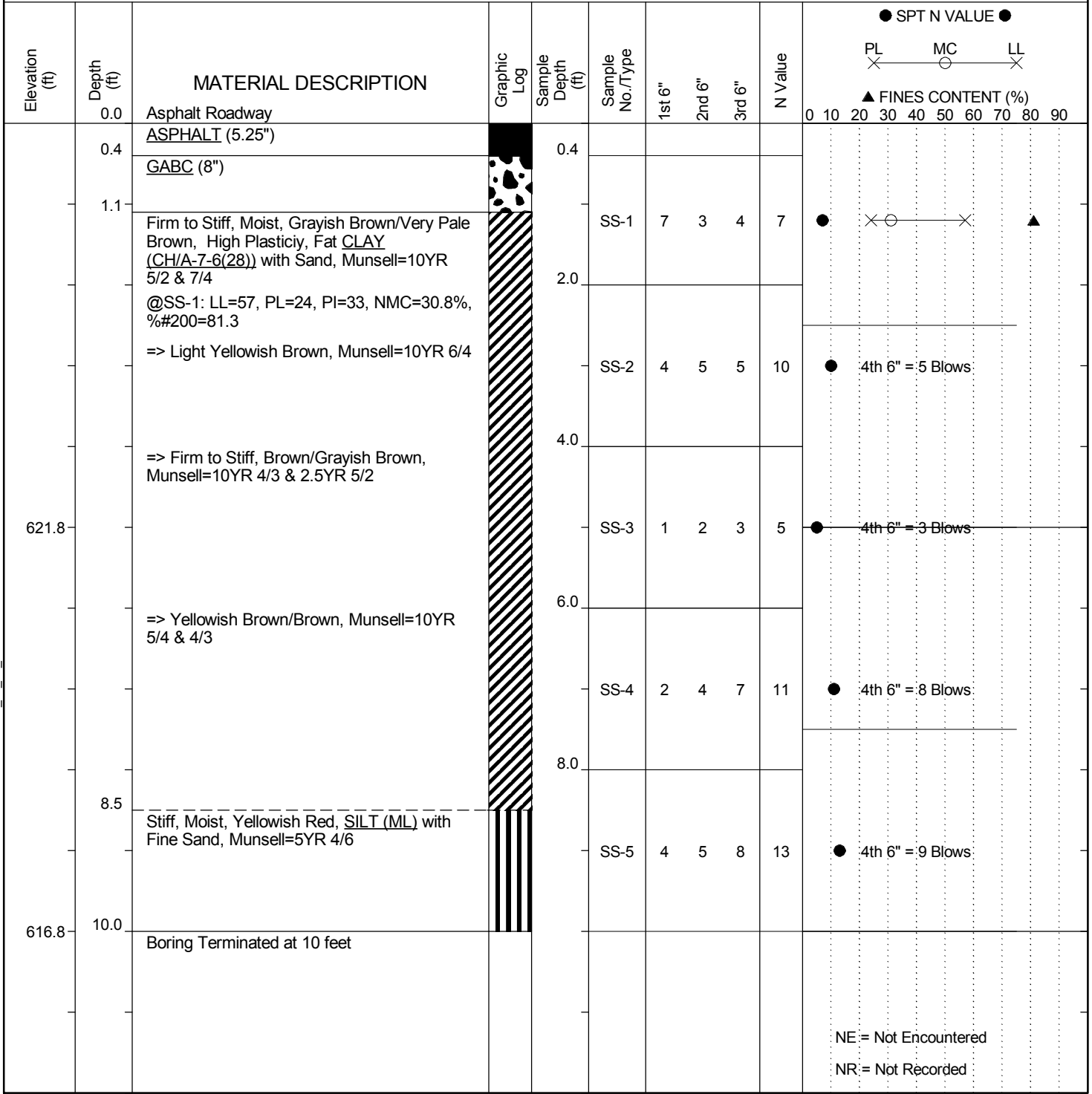
SCALE = NTS F&ME JOB NO. G5607
FIGURE 2-C

APPENDIX B

SPT and Hand Auger Boring Logs

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-1
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: A. Abernethy	Boring Location: 15+65	Offset: 11' - R
Alignment: Mainline	Date Started: 5/24/2016	Date Completed: 5/24/2016
Elev.: 627 ft	Latitude: 34.9649507	Longitude: 80.9846071
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00			County: York			Boring No.: SPT-2		
Site Description: Riverview Road Improvements						Route: S-851		
Eng./Geo.: A. Abernethy		Boring Location: 20+11		Offset: 7' - L		Alignment: Mainline		
Elev.: 614 ft		Latitude: 34.9659654		Longitude: 80.9851254		Date Started: 5/24/2016		
Total Depth: 10 ft		Soil Depth: 10 ft		Core Depth: 0 ft		Date Completed: 5/24/2016		
Bore Hole Diameter (in): 6		Sampler Configuration			Liner Required: Y (N)		Liner Used: Y (N)	
Drill Machine: CME 45B		Drill Method: HSA		Hammer Type: Automatic		Energy Ratio: 90%		
Core Size: N/A		Driller: L. Guempel		Groundwater: TOB NE		24HR		NR

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample No./Type	1st 6"	2nd 6"	3rd 6"	N Value	SPT N VALUE ●	PL X MC O LL X	▲ FINES CONTENT (%)
	0.0	Asphalt Roadway										
	0.4	ASPHALT (4.5")		0.4								
	0.6	GABC (3")										
		Very Stiff to Stiff, Moist, Gray/Light Yellowish Brown, Low Plasticity, SILT (ML/A-7-5(9)) with Sand, Munsell=10YR 6/1 & 6/4			SS-1	15	10	10	20	●		
		=> Brown/Gray, Munsell=7.5YR 5/3 & 6/1		2.0								
		@SS-2: LL=44, PL=33, PI=11, NMC=32.8%, % #200=71.2			SS-2	7	8	8	16	●	⊗ 4th 6" = 8 Blows	
		=> Firm		4.0								
609.1					SS-3	2	3	5	8	●	4th 6" = 6 Blows	
				6.0								
					SS-4	2	2	4	6	●	4th 6" = 4 Blows	
				8.0								
		=> Stiff			SS-5	2	4	5	9	●	4th 6" = 7 Blows	
604.1	10.0	Boring Terminated at 10 feet										

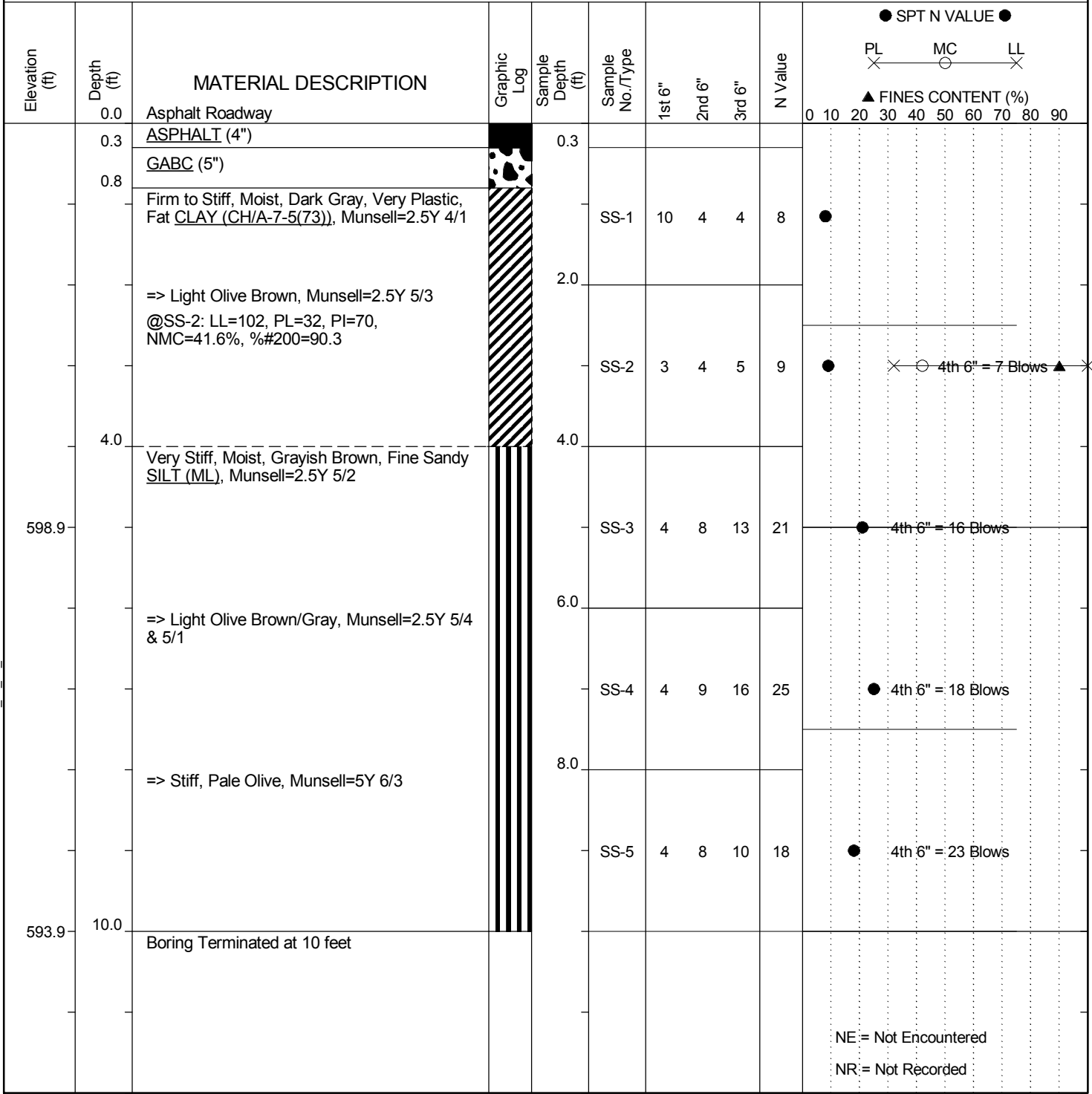
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-3
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: A. Abernethy	Boring Location: 24+91	Offset: 7' - R
Alignment: Mainline	Date Started: 5/24/2016	Date Completed: 5/24/2016
Elev.: 604 ft	Latitude: 34.9672122	Longitude: 80.9851254
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



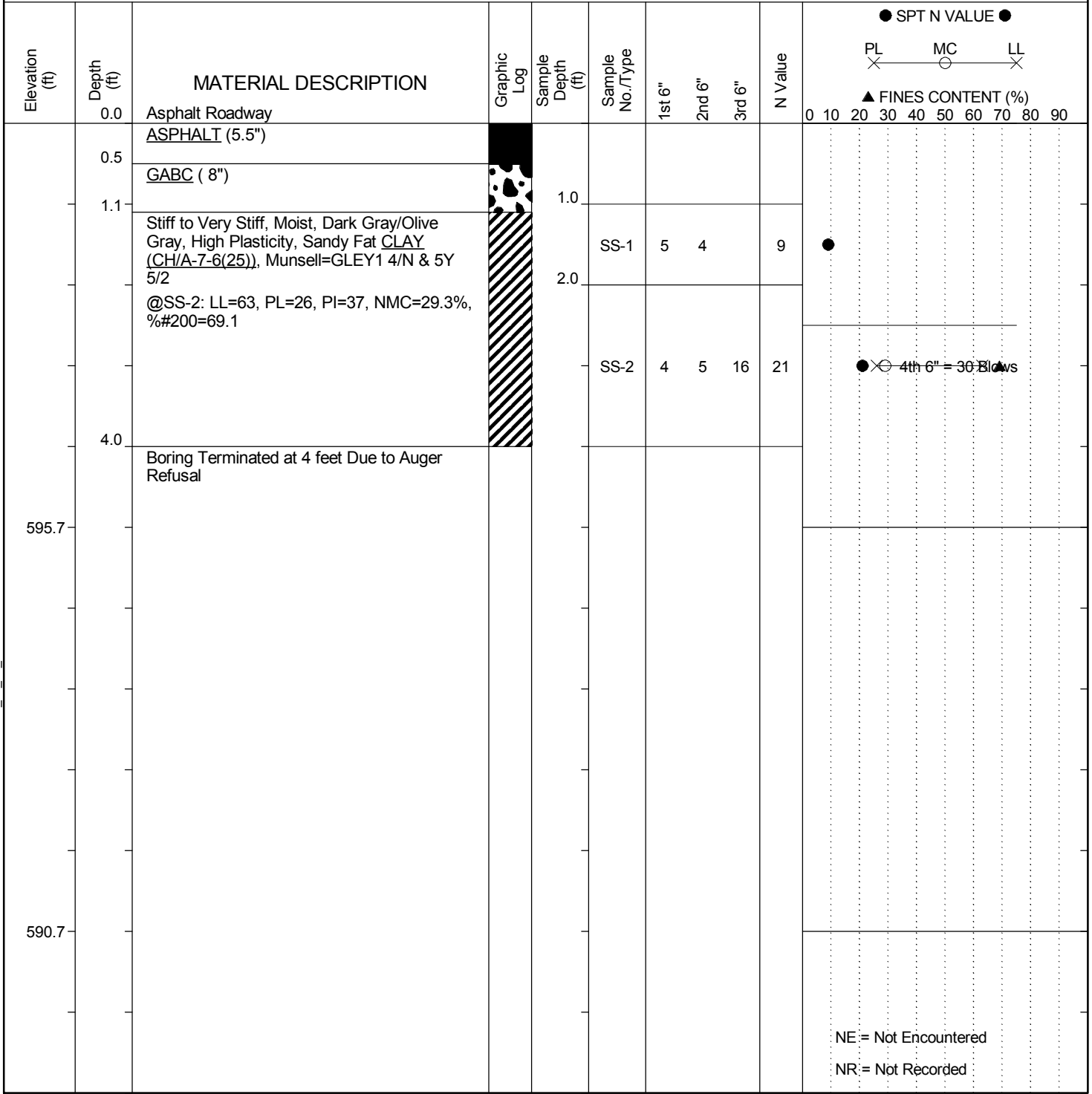
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-4
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: A. Abernethy	Boring Location: 26+89	Offset: 17' - R
Alignment: Mainline	Date Started: 5/24/2016	Date Completed: 5/24/2016
Elev.: 601 ft	Latitude: 34.9676983	Longitude: 80.9858696
Total Depth: 4 ft	Soil Depth: 4 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



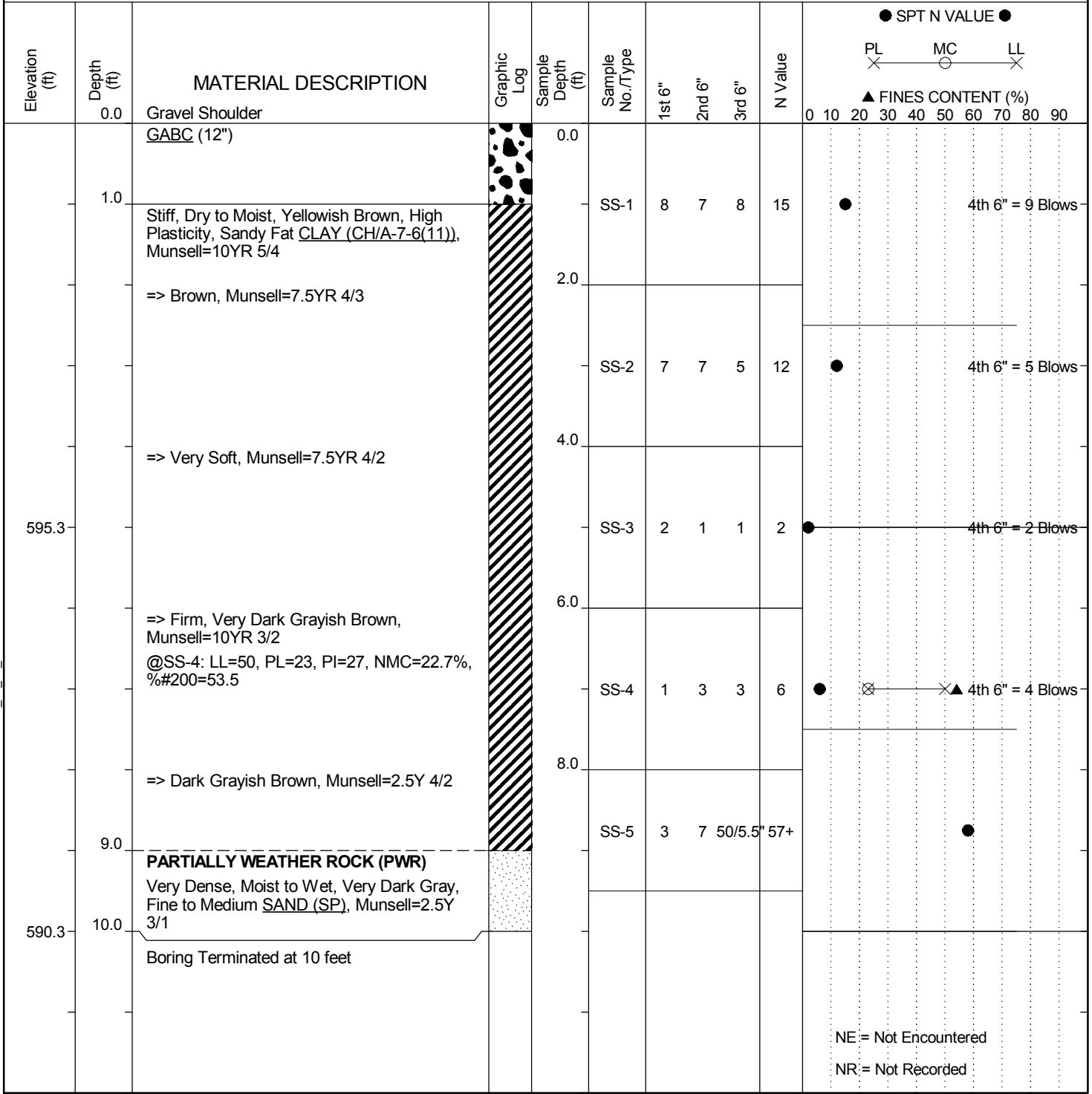
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-4.1
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 26+80	Offset: 7' - R
Alignment: Mainline	Elev.: 600 ft	Latitude: 34.9677318
Longitude: 80.9858489	Date Started: 6/14/2016	
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Date Completed: 6/14/2016	Bore Hole Diameter (in): 6	Sampler Configuration
Liner Required: Y (N)	Liner Used: Y (N)	
Drill Machine: CME 45B	Drill Method: HSA	Hammer Type: Automatic
Energy Ratio: 90%	Core Size: N/A	Driller: L. Guempel
Groundwater: TOB	NE	24HR NR



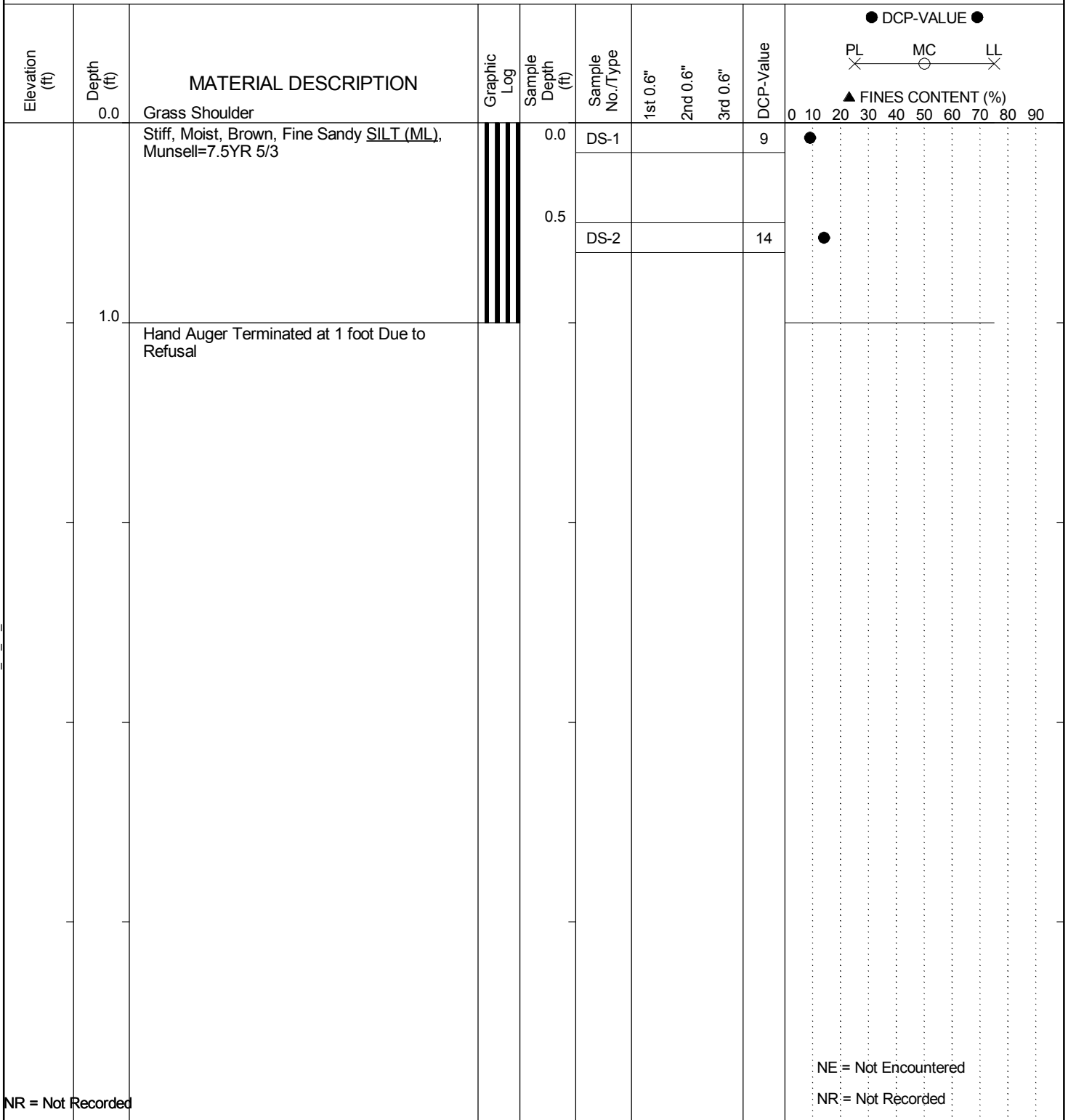
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Manual Auger Log

Project ID: G5607.00	County: York	Boring No.: HA-1
Site Description: Riverview Road Improvements		Route: S-851
Driller: L. Guempel	Boring Location: 26+95	Offset: 34' - L
Alignment: Mainline		
Elev.: 596.6 ft	Latitude: 34.9676963	Longitude: 80.9860156
Date Started: 6/14/2016		
Total Depth: 1 ft	Groundwater: TOB	NE 24 hr NR
Date Completed: 6/14/2016		
Dynamic Cone Penetrometer Test Procedure: Sowers and Hedges (1966)		

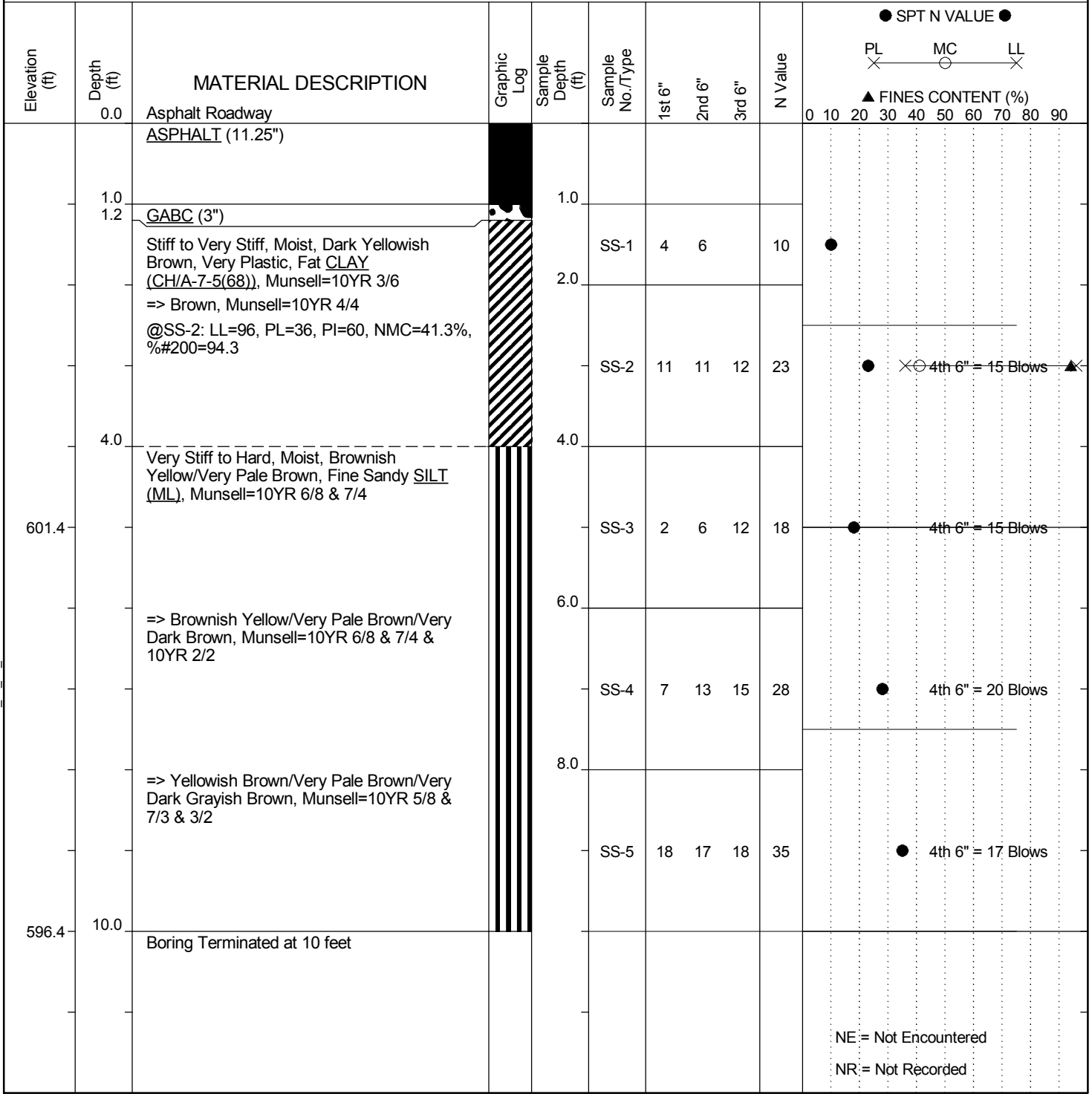


LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	DCP - Dynamic Cone Penetrometer	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-5
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 29+97	Offset: 8' - L
Alignment: Mainline	Elev.: 606 ft	Latitude: 34.9684987
Longitude: 80.9862908	Date Started: 5/26/2016	
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Date Completed: 5/26/2016	Bore Hole Diameter (in): 6	Sampler Configuration
Liner Required: Y (N)	Liner Used: Y (N)	
Drill Machine: CME 45B	Drill Method: HSA	Hammer Type: Automatic
Energy Ratio: 90%	Core Size: N/A	Driller: L. Guempel
Groundwater: TOB	NE	24HR NR



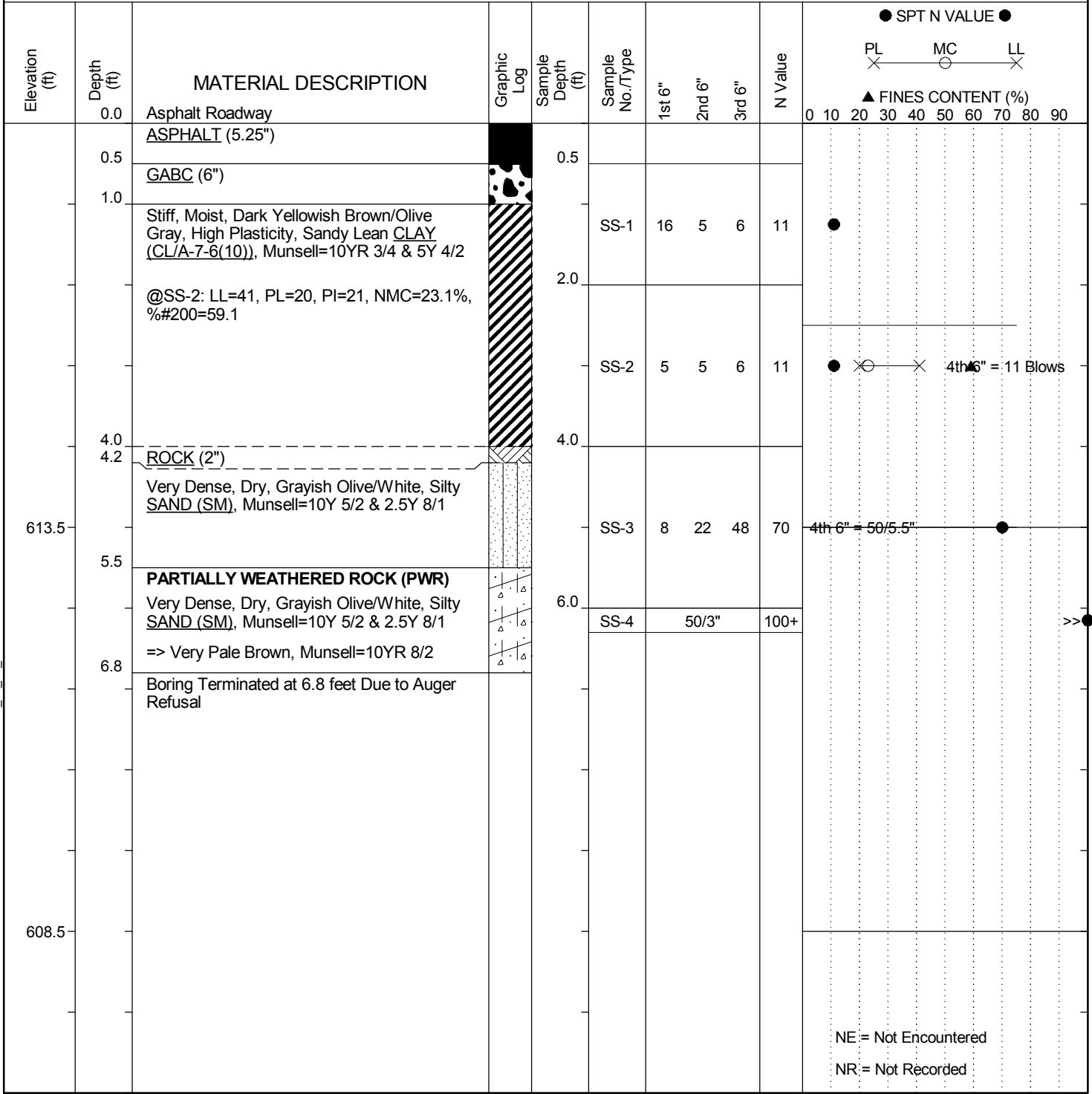
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-6
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 33+97	Offset: 9' - L
Alignment: Mainline	Date Started: 5/26/2016	Date Completed: 5/26/2016
Elev.: 619 ft	Latitude: 34.9695265	Longitude: 80.9867626
Total Depth: 6.8 ft	Soil Depth: 6.8 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



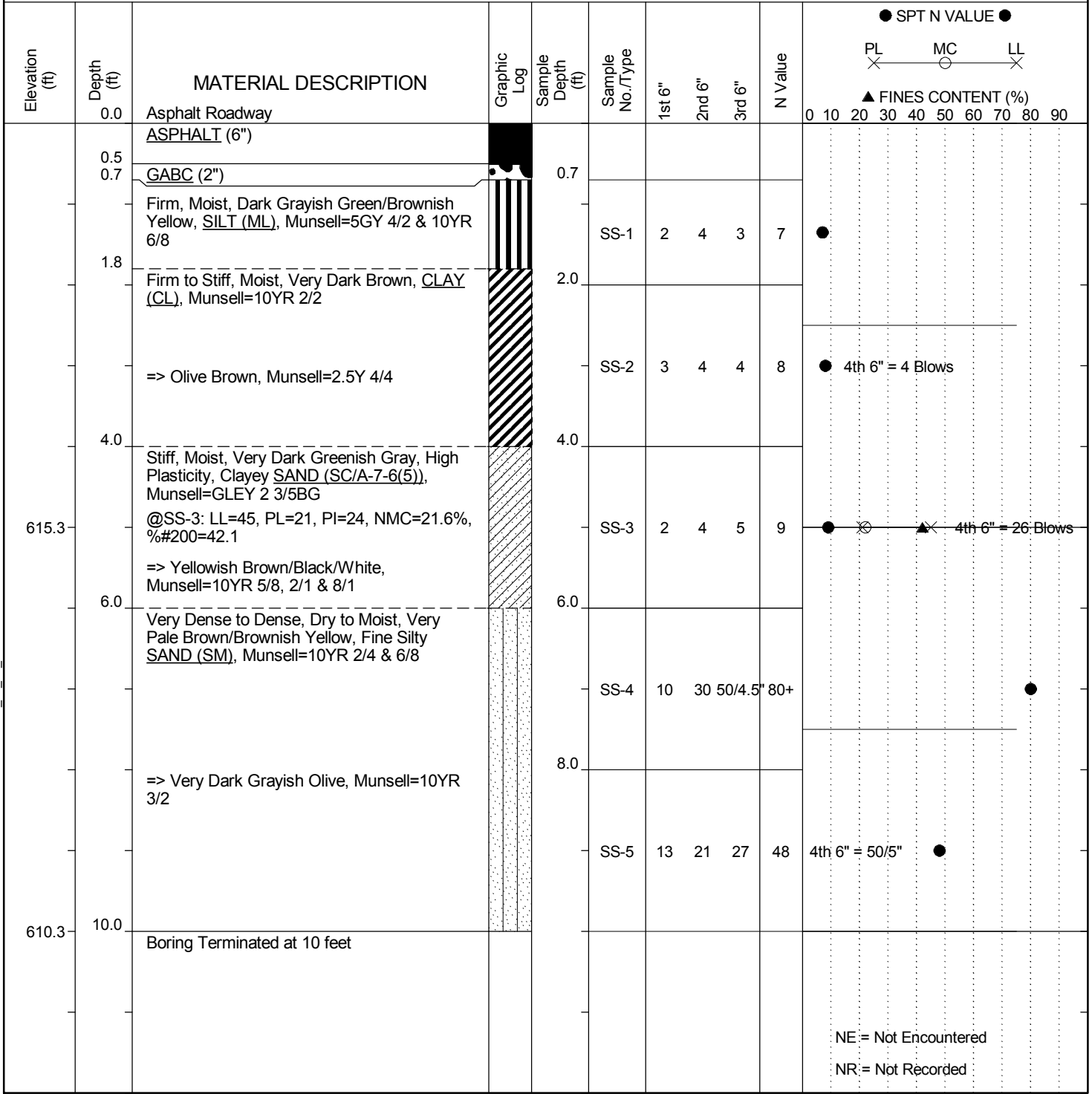
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-7
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 34+85	Offset: 10' - L
Alignment: Mainline	Date Started: 5/26/2016	Date Completed: 5/26/2016
Elev.: 620 ft	Latitude: 34.9697503	Longitude: 80.9868714
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



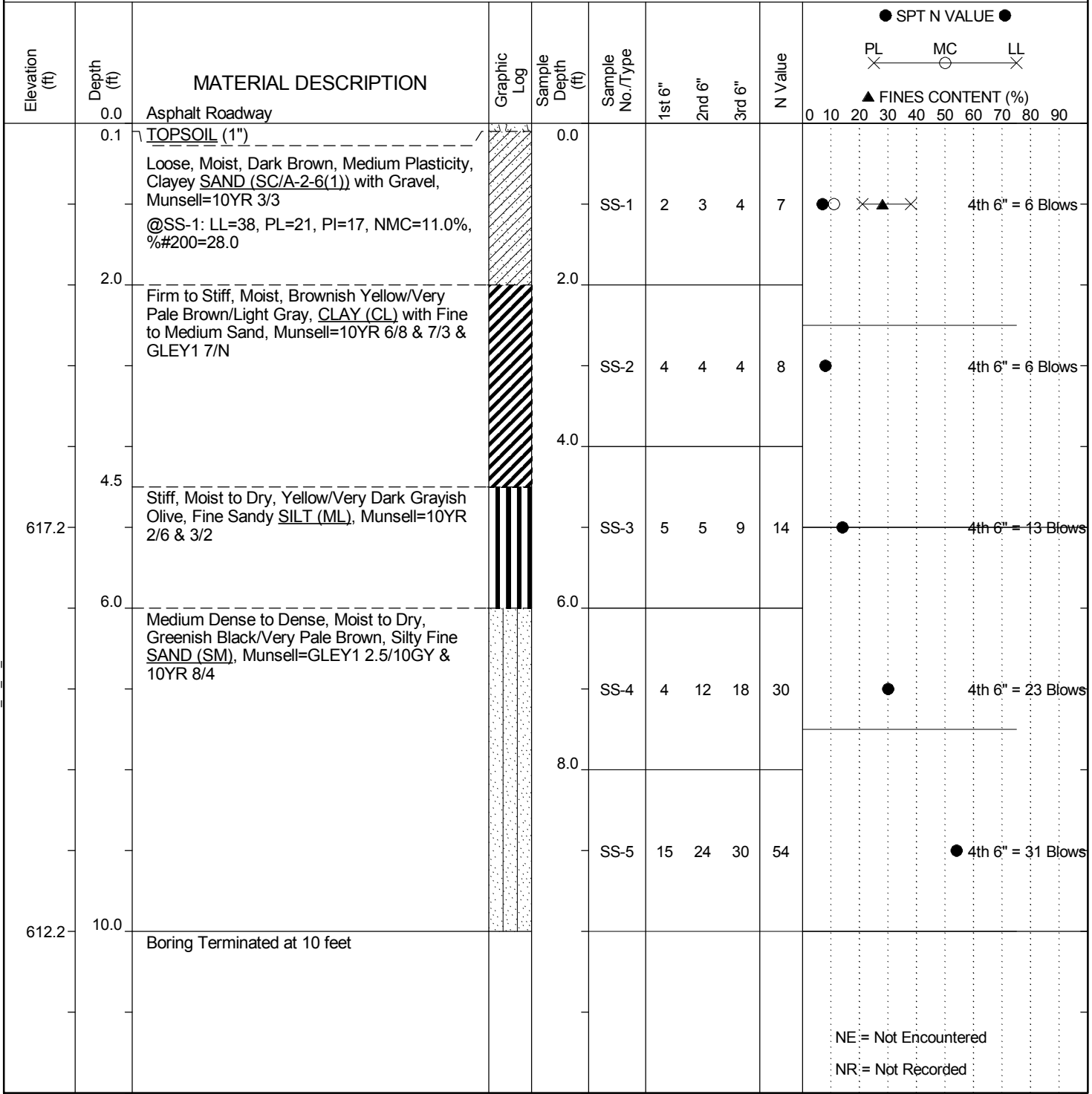
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-8
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 35+98	Offset: 18' - R
Alignment: Mainline	Date Started: 5/26/2016	Date Completed: 5/26/2016
Elev.: 622 ft	Latitude: 34.9700683	Longitude: 80.9869172
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



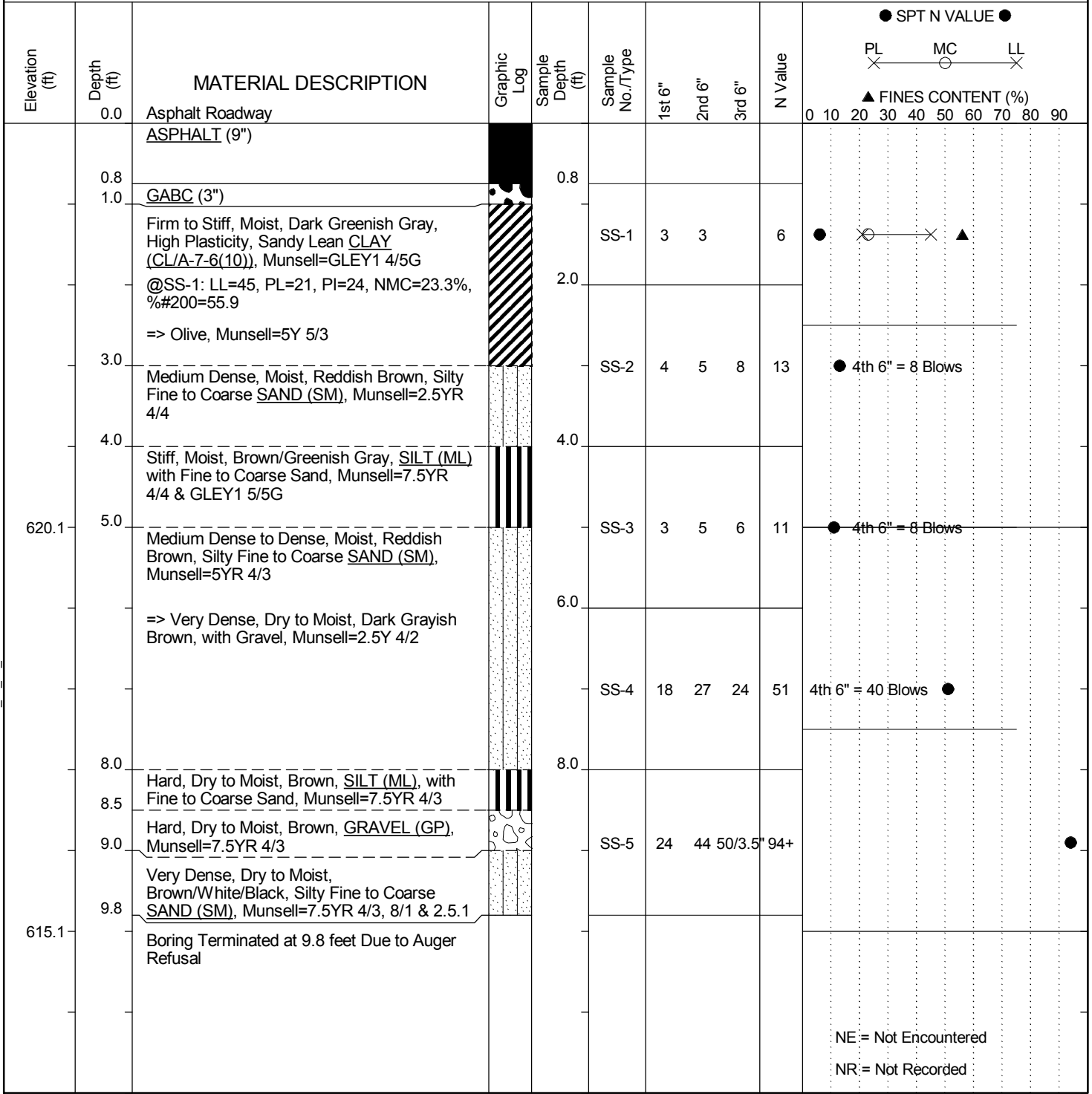
LEGEND

SAMPLER TYPE SS - Split Spoon UD - Undisturbed Sample AWG - Rock Core, 1-1/8"		DRILLING METHOD HSA - Hollow Stem Auger CFA - Continuous Flight Augers DC - Driving Casing	
NQ - Rock Core, 1-7/8" CU - Cuttings CT - Continuous Tube		RW - Rotary Wash RC - Rock Core	

SC.DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-9
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: C. Piercy	Boring Location: 39+45	Offset: 9' - L
Alignment: Mainline	Date Started: 5/31/2016	Date Completed: 5/31/2016
Elev.: 625 ft	Latitude: 34.9709338	Longitude: 80.9874109
Total Depth: 8 ft	Soil Depth: 8 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB NE	24HR: NR



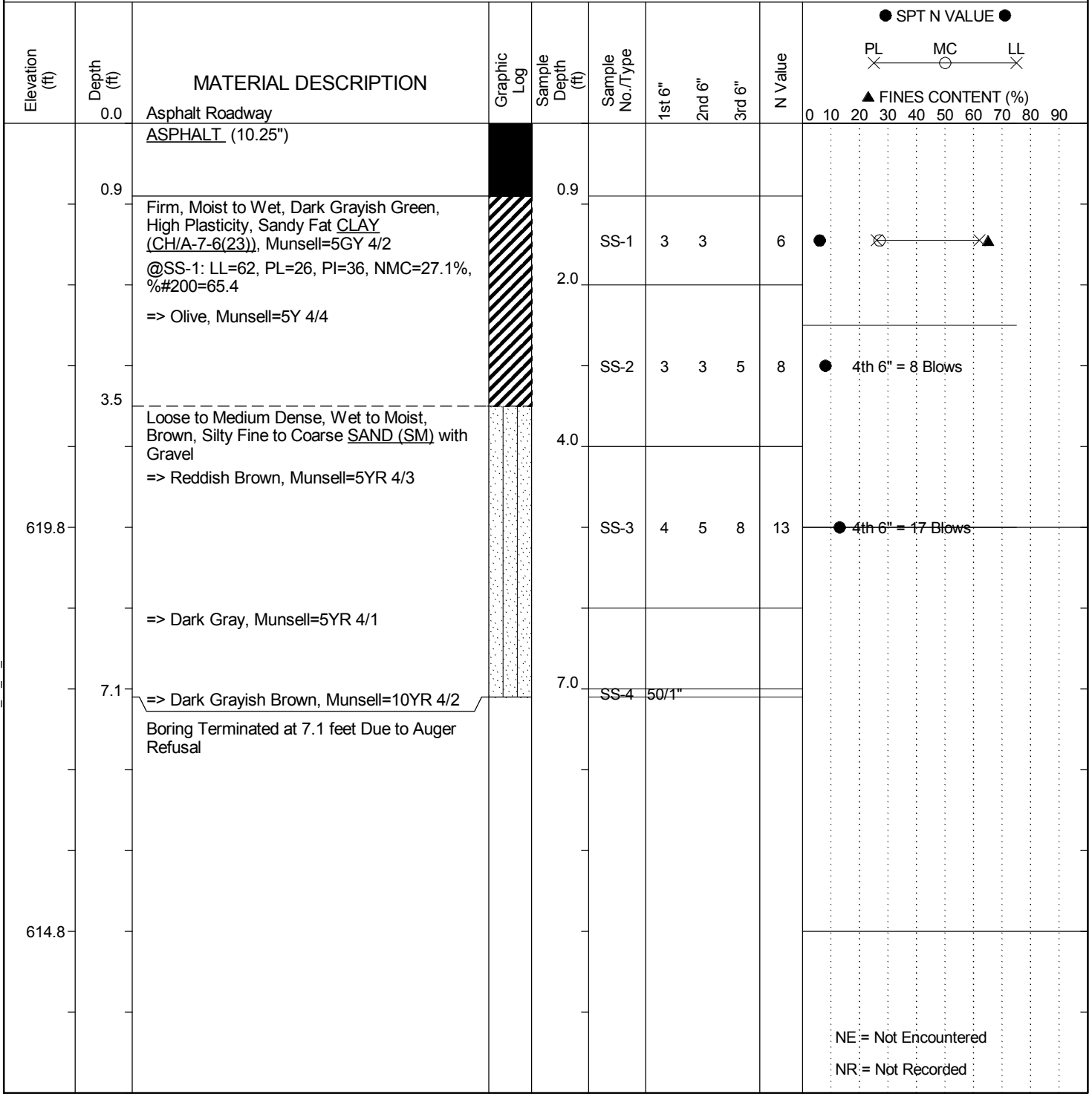
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-10
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: C. Piercy	Boring Location: 43+96	Offset: 17' - L
Alignment: Mainline	Date Started: 5/31/2016	Date Completed: 5/31/2016
Elev.: 625 ft	Latitude: 34.9719306	Longitude: 80.9882706
Total Depth: 7.1 ft	Soil Depth: 7.1 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration:	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



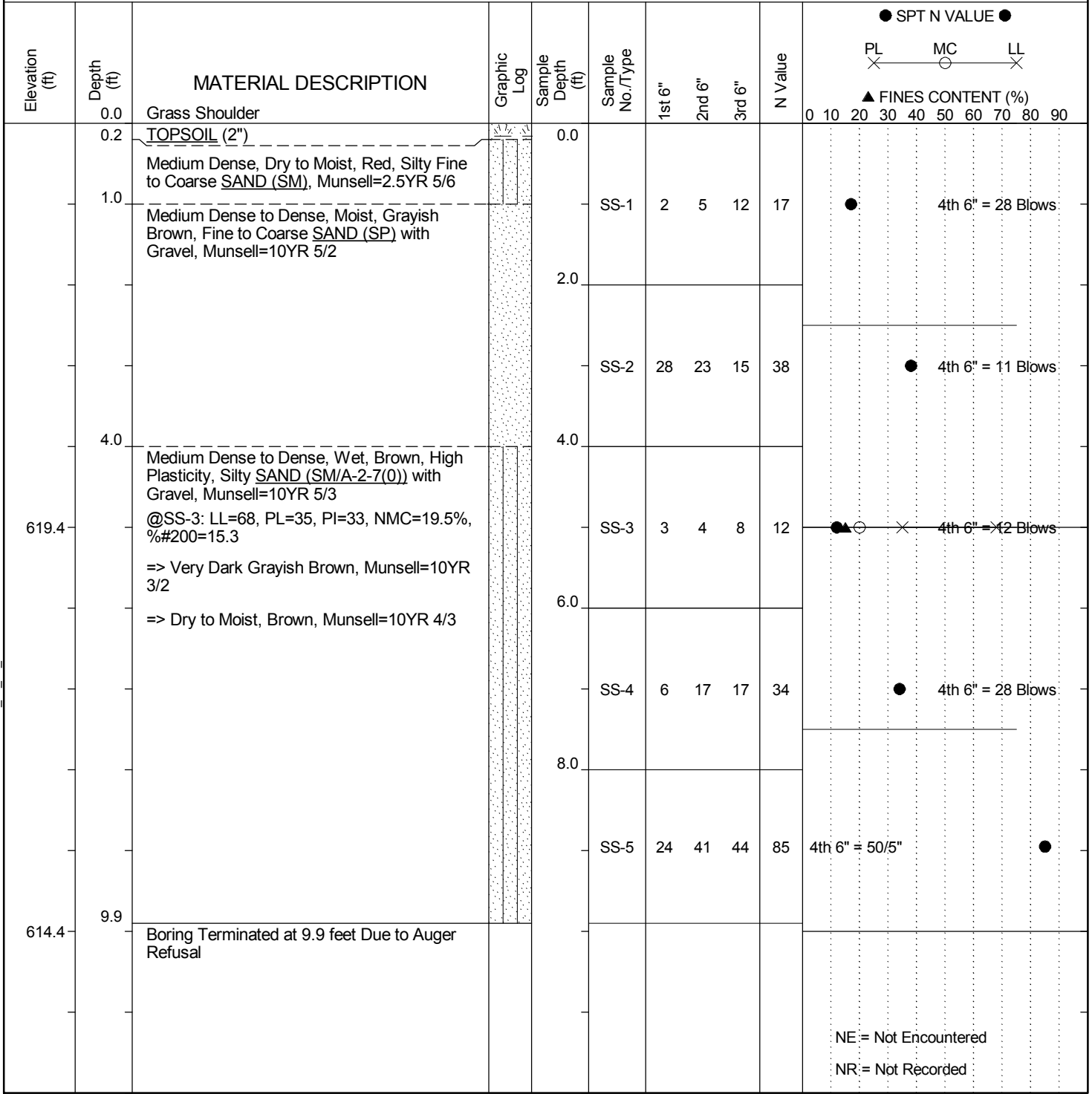
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00			County: York			Boring No.: SPT-11		
Site Description: Riverview Road Improvements						Route: S-851		
Eng./Geo.: C. Piercy		Boring Location: 44+67		Offset: 26' - L		Alignment: Mainline		
Elev.: 624 ft		Latitude: 34.9720633		Longitude: 80.988447		Date Started: 5/31/2016		
Total Depth: 9.9 ft		Soil Depth: 9.9 ft		Core Depth: 0 ft		Date Completed: 5/31/2016		
Bore Hole Diameter (in): 6		Sampler Configuration			Liner Required: Y (N)		Liner Used: Y (N)	
Drill Machine: CME 45B		Drill Method: HSA		Hammer Type: Automatic		Energy Ratio: 90%		
Core Size: N/A		Driller: L. Guempel		Groundwater: TOB NE		24HR		NR



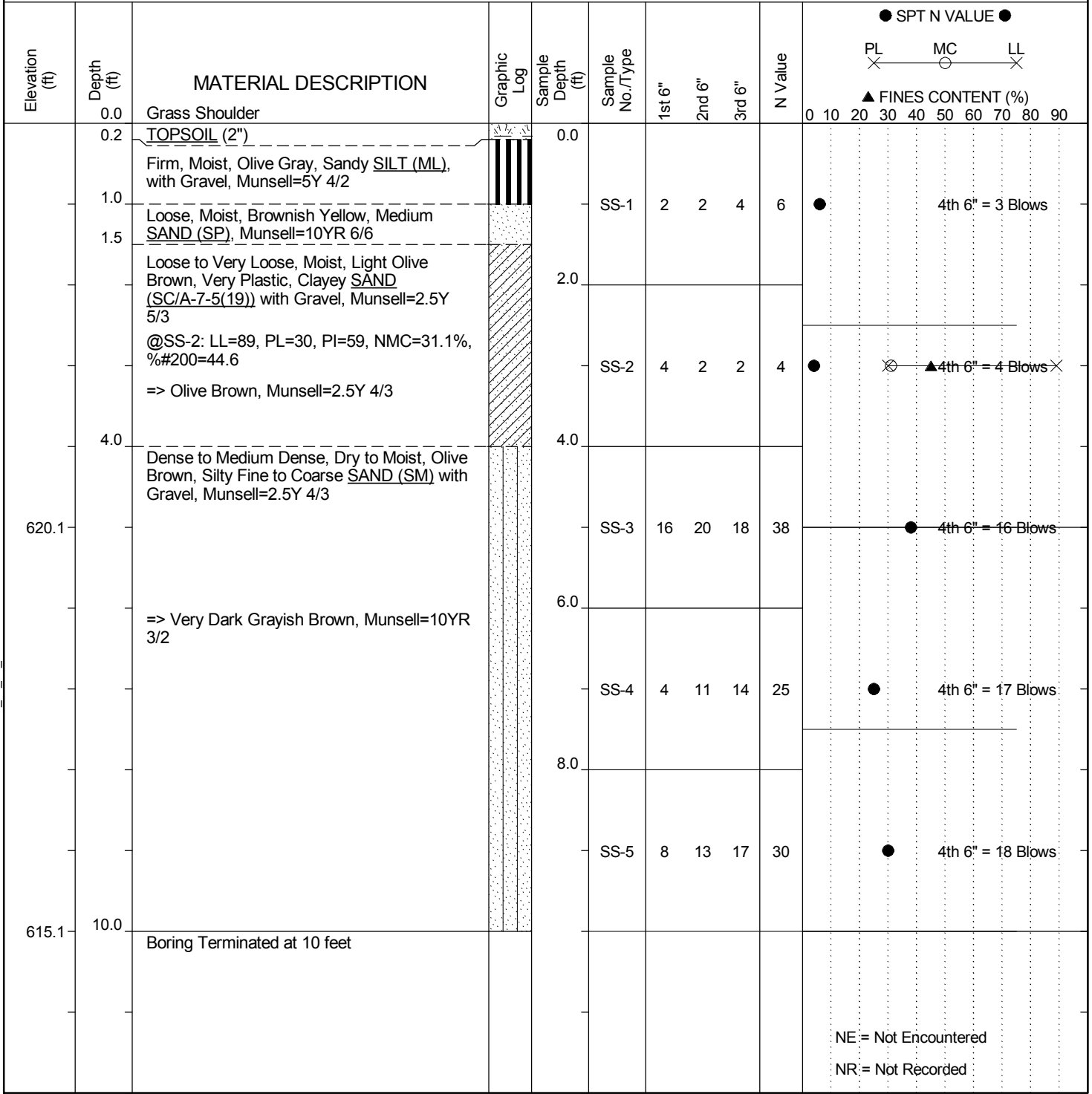
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-12
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: C. Piercy	Boring Location: 44+28	Offset: 31' - R
Alignment: Mainline	Date Started: 5/31/2016	Date Completed: 5/31/2016
Elev.: 625 ft	Latitude: 34.9720829	Longitude: 80.9882174
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



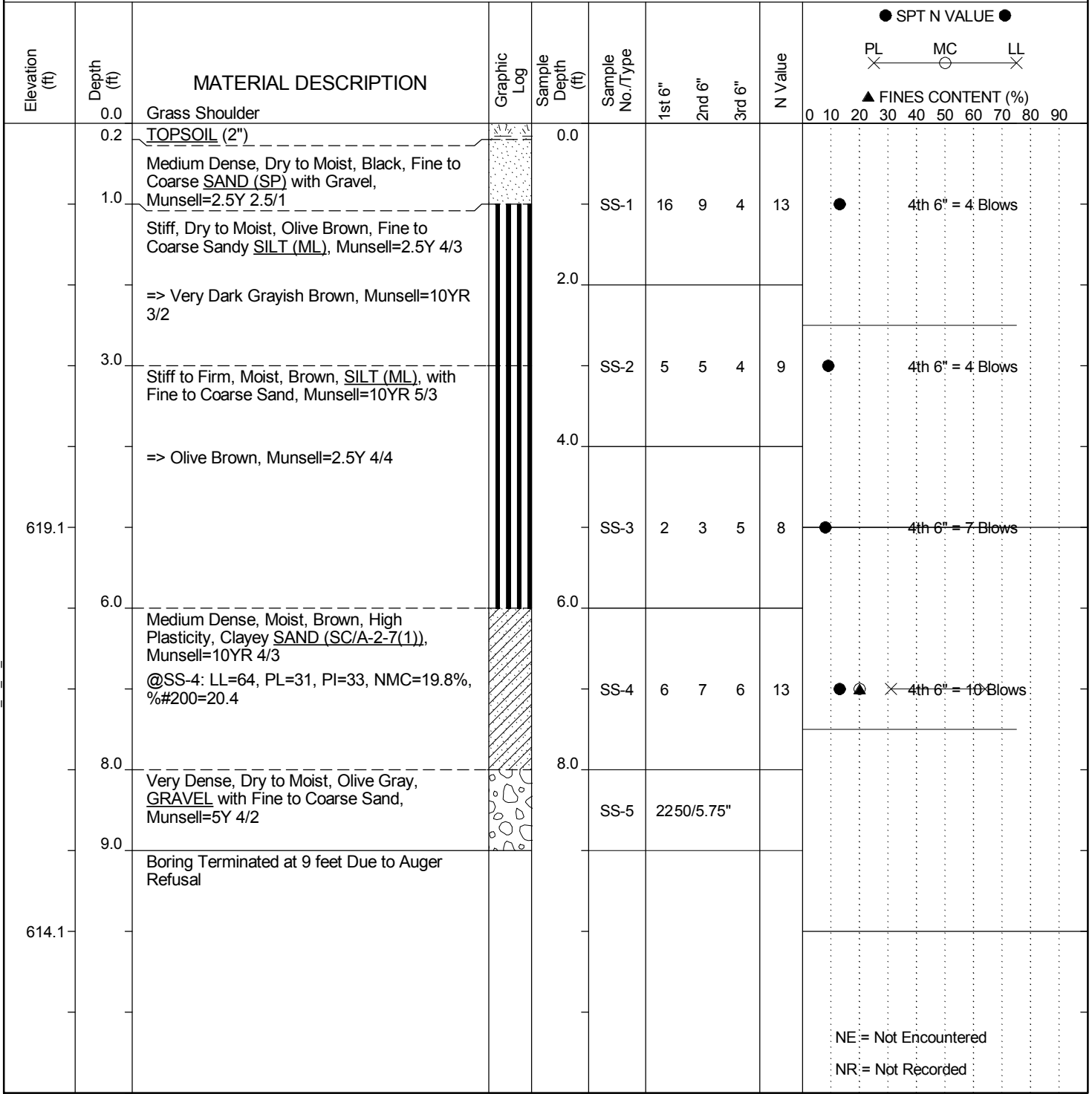
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-13
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: C. Piercy	Boring Location: 46+54	Offset: 21' - L Alignment: Mainline
Elev.: 624 ft	Latitude: 34.9721876	Longitude: 80.9888374 Date Started: 5/31/2016
Total Depth: 9 ft	Soil Depth: 9 ft	Core Depth: 0 ft Date Completed: 5/31/2016
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: HSA	Hammer Type: Automatic Energy Ratio: 90%
Core Size: N/A	Driller: L. Guempel	Groundwater: TOB NE 24HR: NR



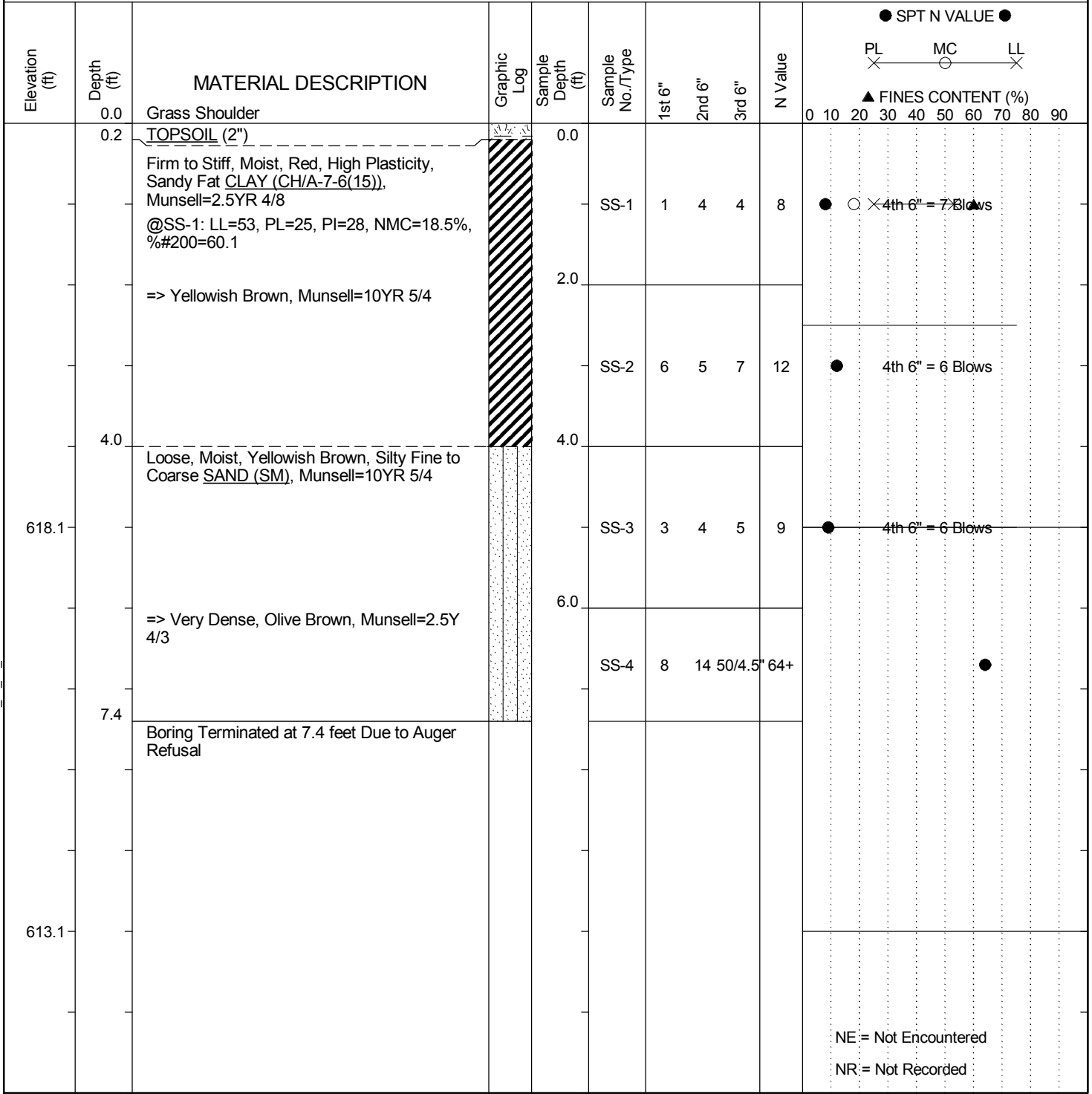
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC.DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00		County: York		Boring No.: SPT-14	
Site Description: Riverview Road Improvements			Route: S-851		
Eng./Geo.: C. Piercy		Boring Location: 46+78		Offset: 30' - R	Alignment: Mainline
Elev.: 623 ft	Latitude: 34.9726053	Longitude: 80.9887573	Date Started: 5/31/2016		
Total Depth: 7.4 ft	Soil Depth: 7.4 ft	Core Depth: 0 ft	Date Completed: 5/31/2016		
Bore Hole Diameter (in): 6		Sampler Configuration		Liner Required: Y (N)	Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: HSA		Hammer Type: Automatic	Energy Ratio: 90%	
Core Size: N/A	Driller: L. Guempel	Groundwater: TOB	NE	24HR	NR



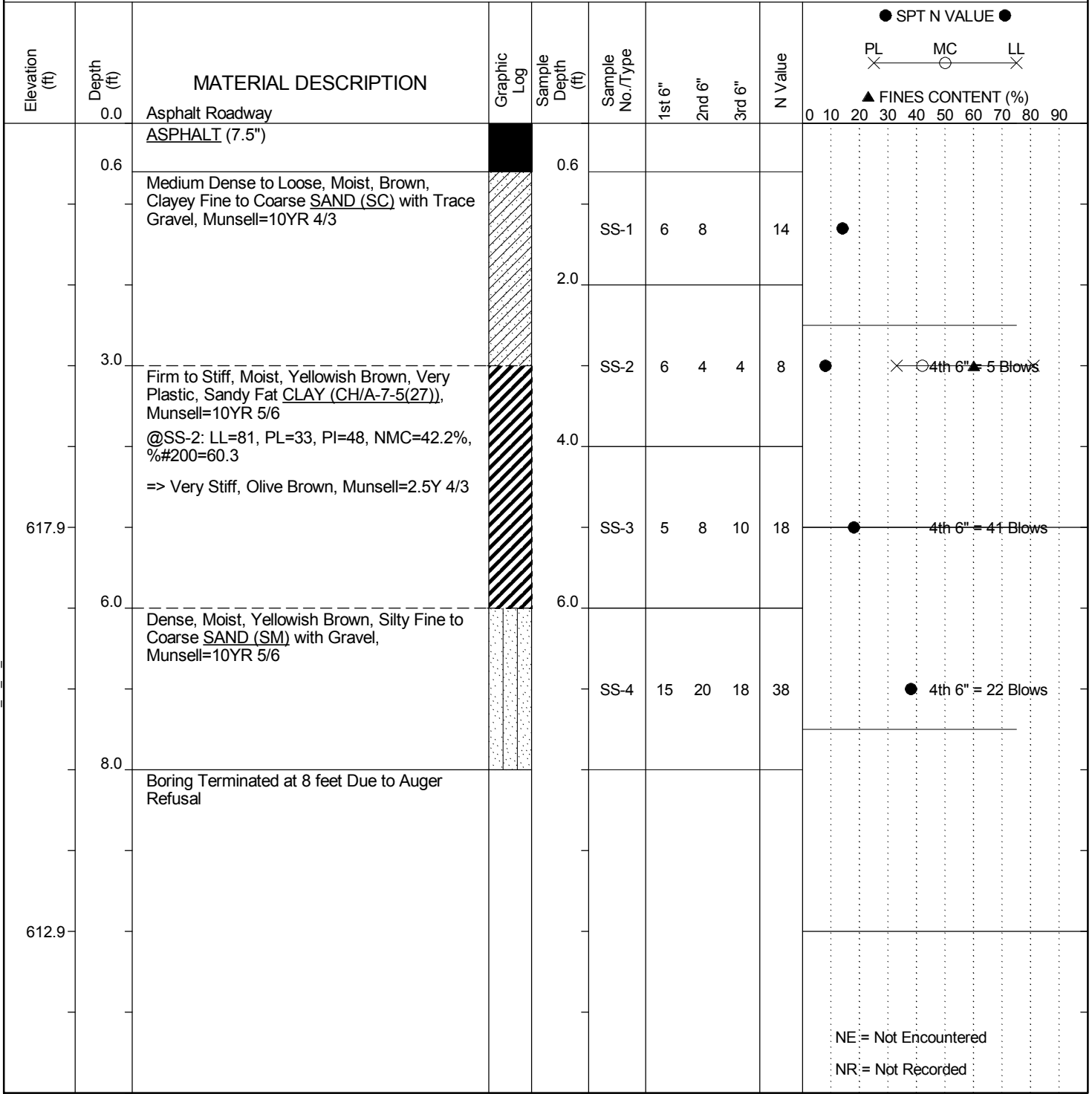
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-15
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: C. Piercy	Boring Location: 46+98	Offset: 21' - R Alignment: Mainline
Elev.: 623 ft	Latitude: 34.9726308	Longitude: 80.9888239 Date Started: 5/31/2016
Total Depth: 8 ft	Soil Depth: 8 ft	Core Depth: 0 ft Date Completed: 5/31/2016
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N) Liner Used: Y (N)
Drill Machine: CME 45B	Drill Method: HSA	Hammer Type: Automatic Energy Ratio: 90%
Core Size: N/A	Driller: L. Guempel	Groundwater: TOB NE 24HR: NR



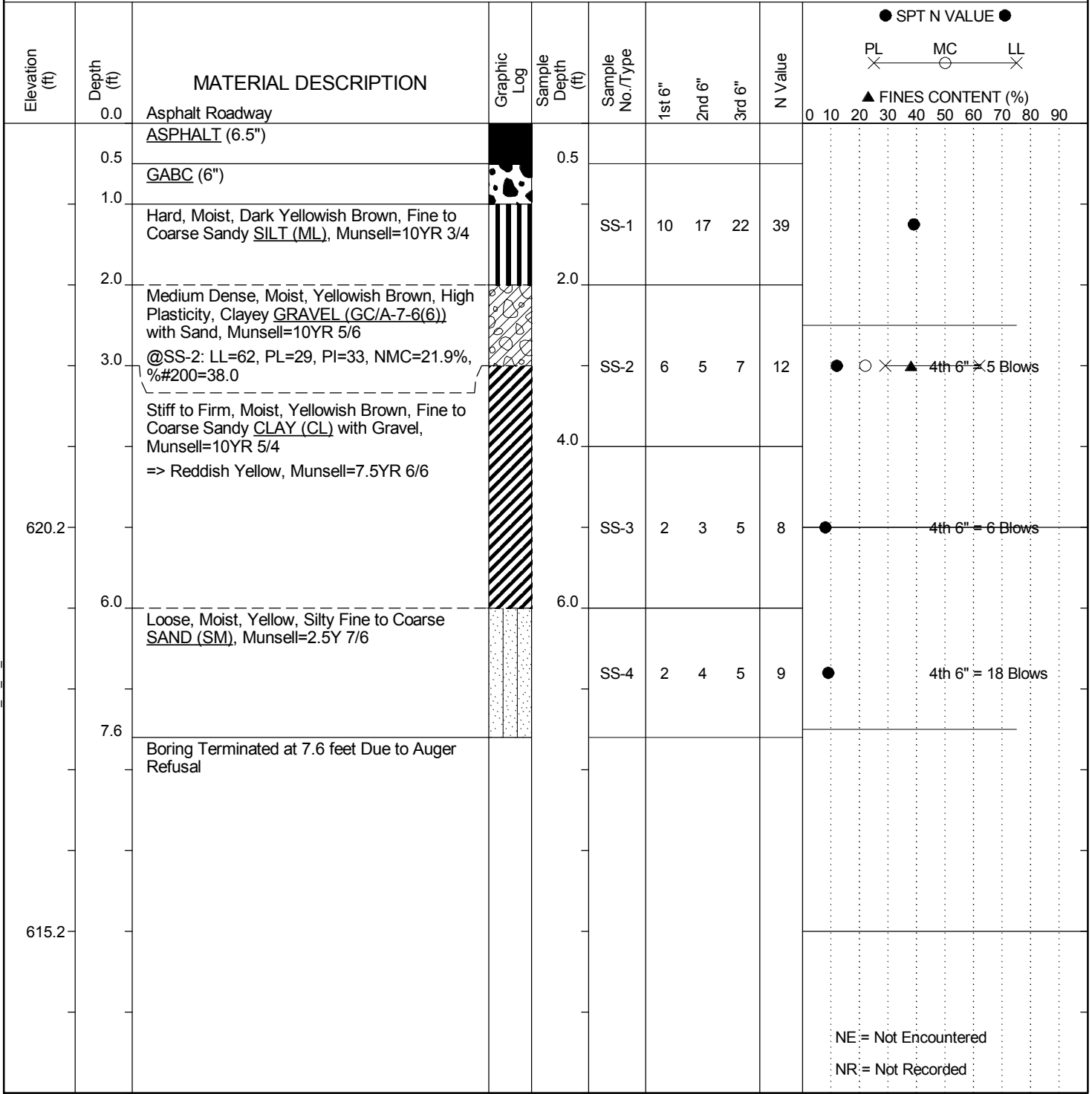
LEGEND

SAMPLER TYPE SS - Split Spoon NQ - Rock Core, 1-7/8" UD - Undisturbed Sample CU - Cuttings AWG - Rock Core, 1-1/8" CT - Continuous Tube		DRILLING METHOD HSA - Hollow Stem Auger RW - Rotary Wash CFA - Continuous Flight Augers RC - Rock Core DC - Driving Casing	
--	--	--	--

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-16
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 50+96	Offset: 5' - L
Alignment: Mainline	Date Started: 6/13/2016	Date Completed: 6/13/2016
Elev.: 625 ft	Latitude: 34.9734187	Longitude: 80.9897481
Total Depth: 7.6 ft	Soil Depth: 7.6 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



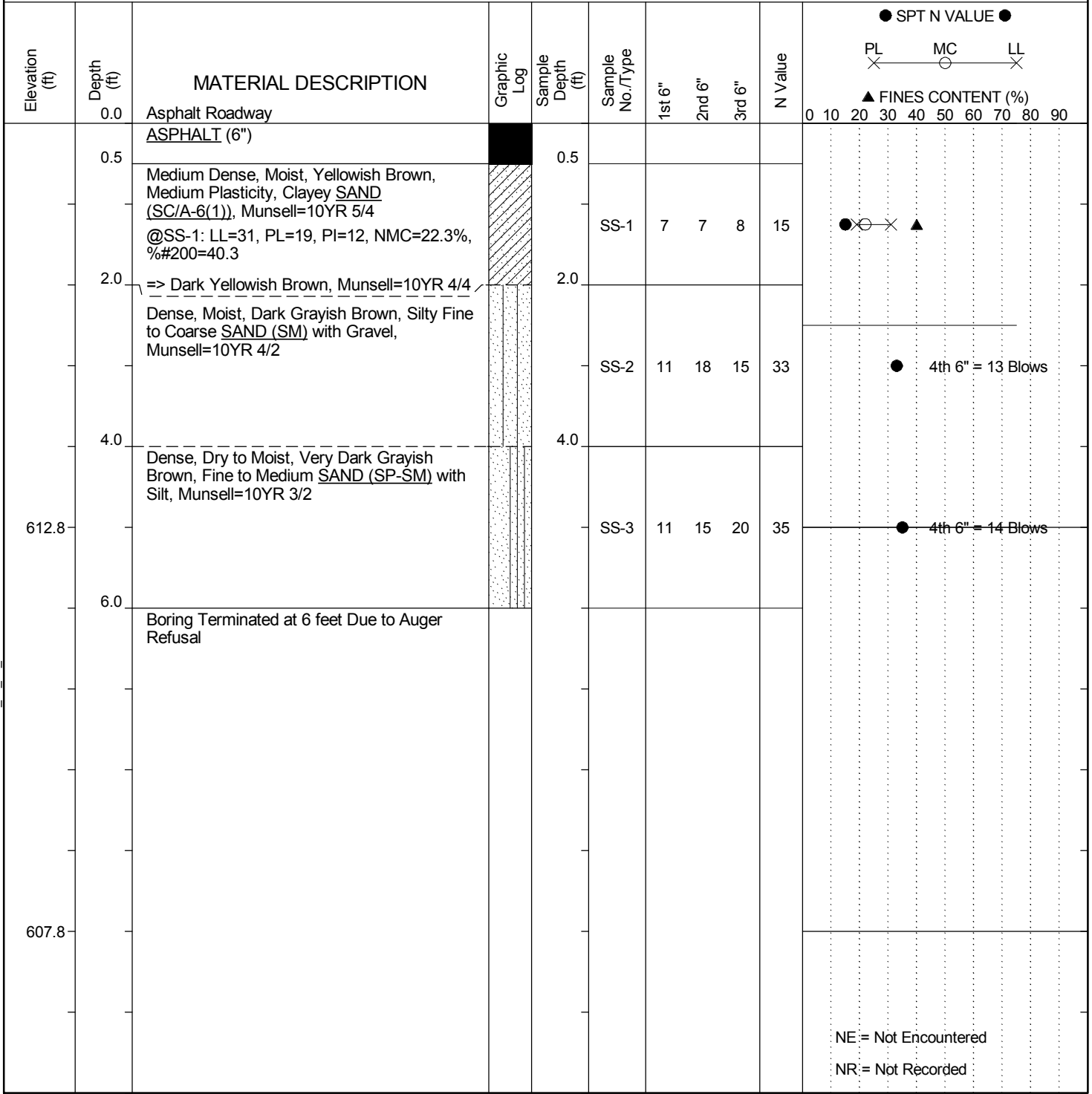
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00			County: York			Boring No.: SPT-17		
Site Description: Riverview Road Improvements						Route: S-851		
Eng./Geo.: M. Touchberry		Boring Location: 55+72		Offset: 7' - R		Alignment: Mainline		
Elev.: 618 ft		Latitude: 34.9744404		Longitude: 80.9907442		Date Started: 6/13/2016		
Total Depth: 6 ft		Soil Depth: 6 ft		Core Depth: 0 ft		Date Completed: 6/13/2016		
Bore Hole Diameter (in): 6		Sampler Configuration			Liner Required: Y (N)		Liner Used: Y (N)	
Drill Machine: CME 45B		Drill Method: HSA		Hammer Type: Automatic		Energy Ratio: 90%		
Core Size: N/A		Driller: L. Guempel		Groundwater: TOB NE		24HR		NR



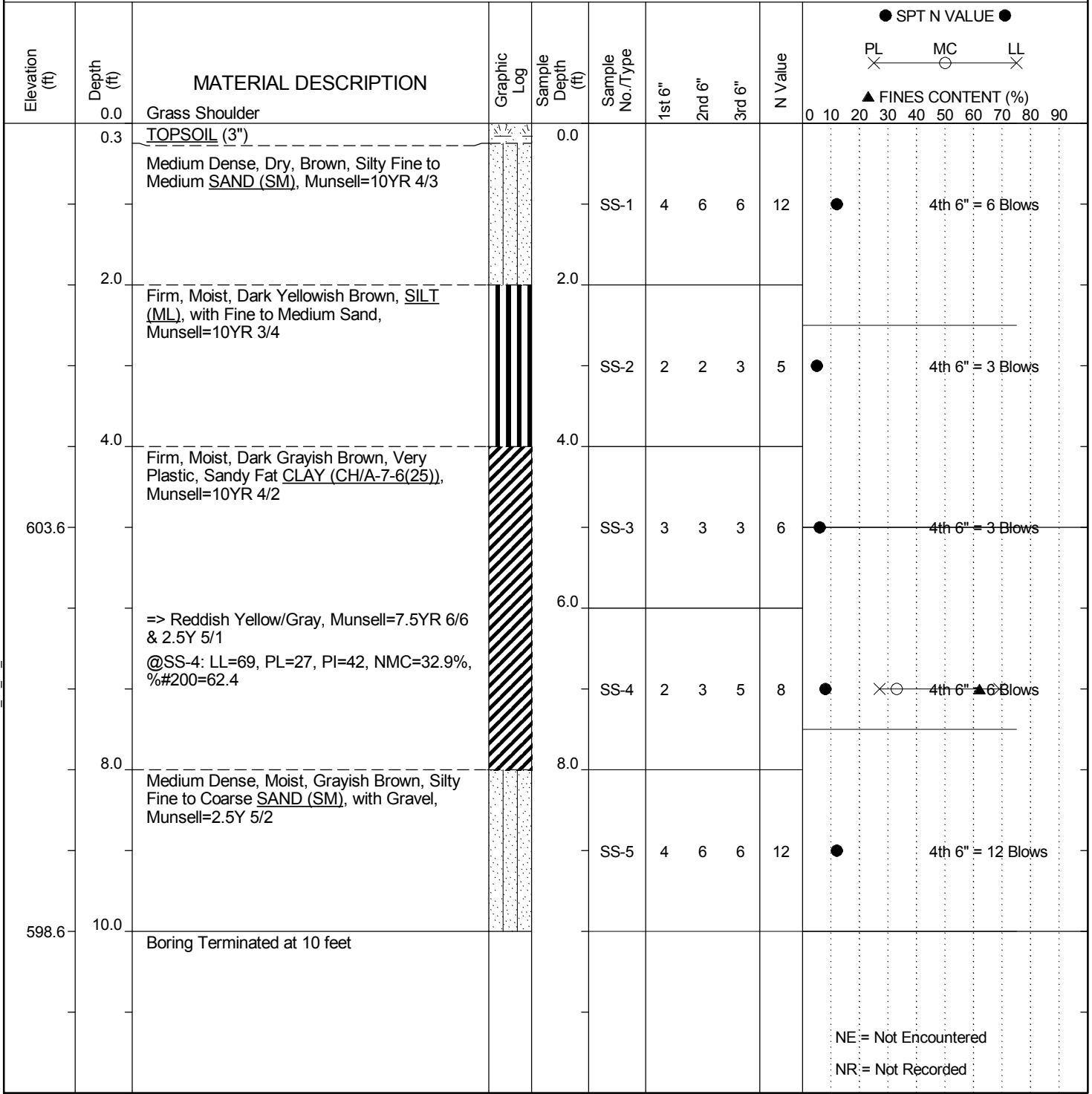
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-18
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 60+07	Offset: 24' - L
Alignment: Mainline	Date Started: 6/13/2016	Date Completed: 6/13/2016
Elev.: 609 ft	Latitude: 34.9752965	Longitude: 80.9911759
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



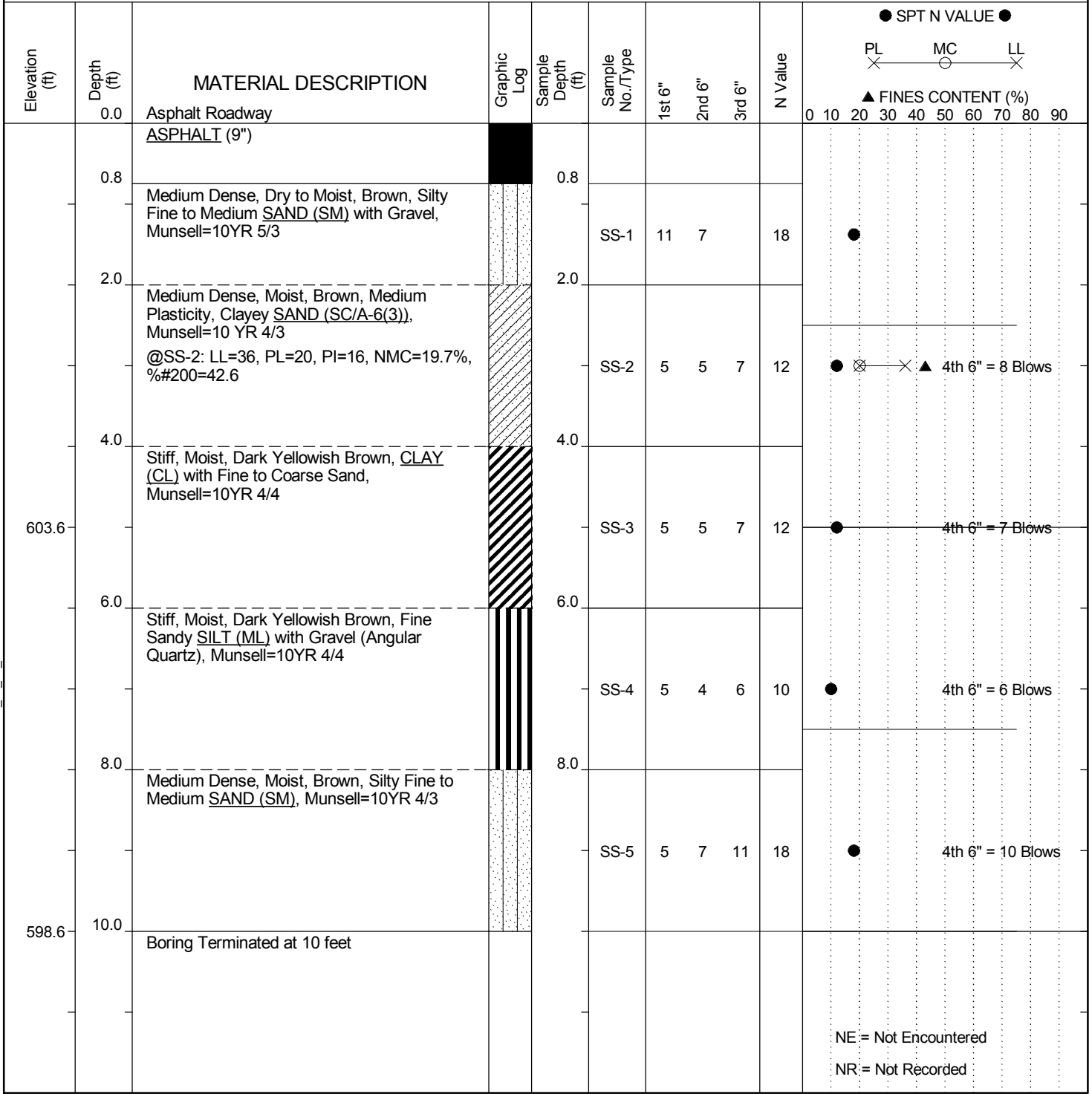
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SCDOT - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-19
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 60+52	Offset: 7' - L
Alignment: Mainline	Date Started: 6/13/2016	Date Completed: 6/13/2016
Elev.: 609 ft	Latitude: 34.9754222	Longitude: 80.9918115
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



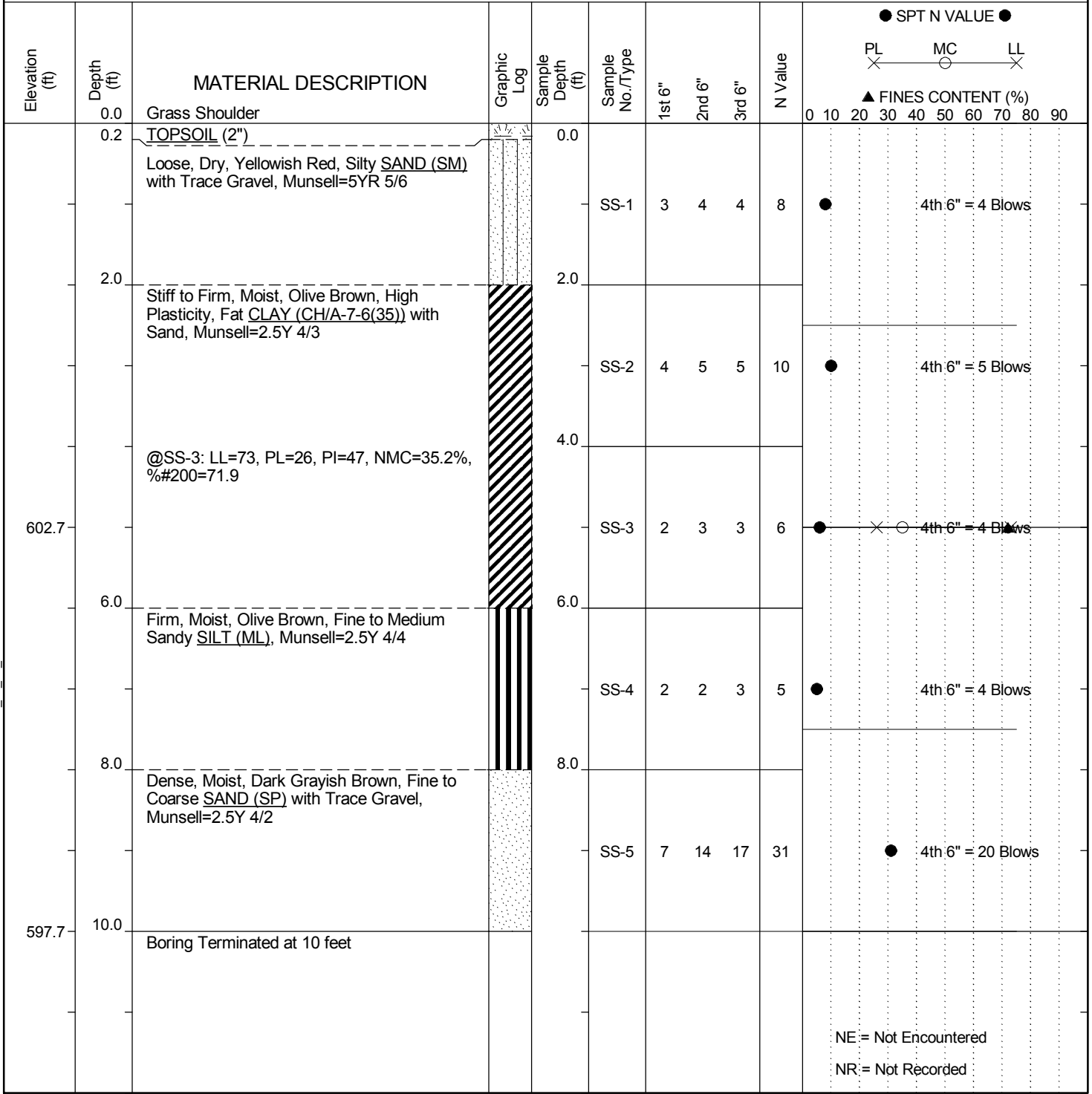
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-20
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 59+97	Offset: 19' - R
Alignment: Mainline	Date Started: 6/13/2016	Date Completed: 6/13/2016
Elev.: 608 ft	Latitude: 34.9753545	Longitude: 80.9916276
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



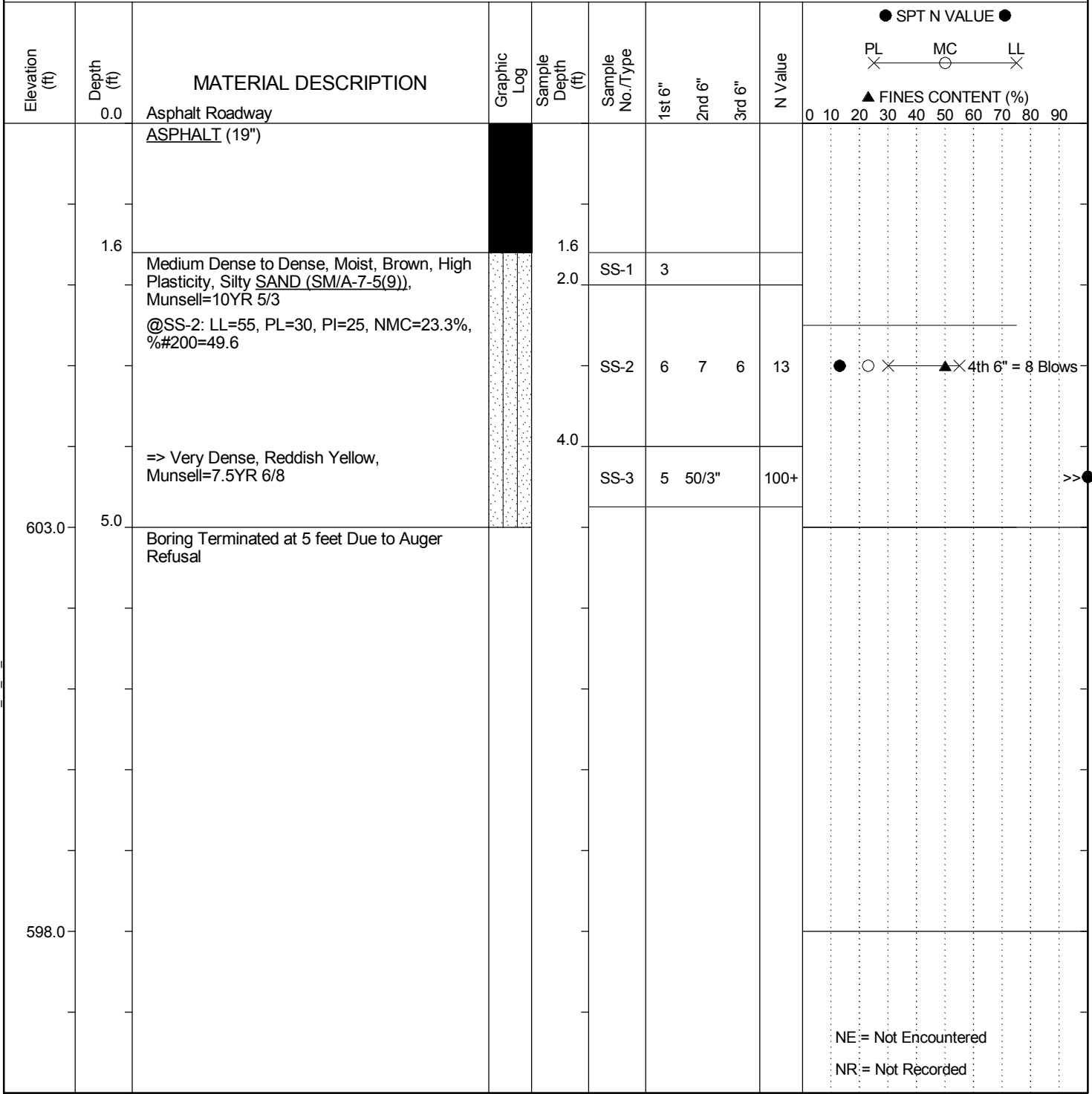
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-21
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 64+76	Offset: 3' - L
Alignment: Mainline	Date Started: 6/14/2016	Date Completed: 6/14/2016
Elev.: 608 ft	Latitude: 34.9763275	Longitude: 80.9927024
Total Depth: 5 ft	Soil Depth: 5 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Core Size: N/A
Driller: L. Guempel	Groundwater: TOB	24HR: NR



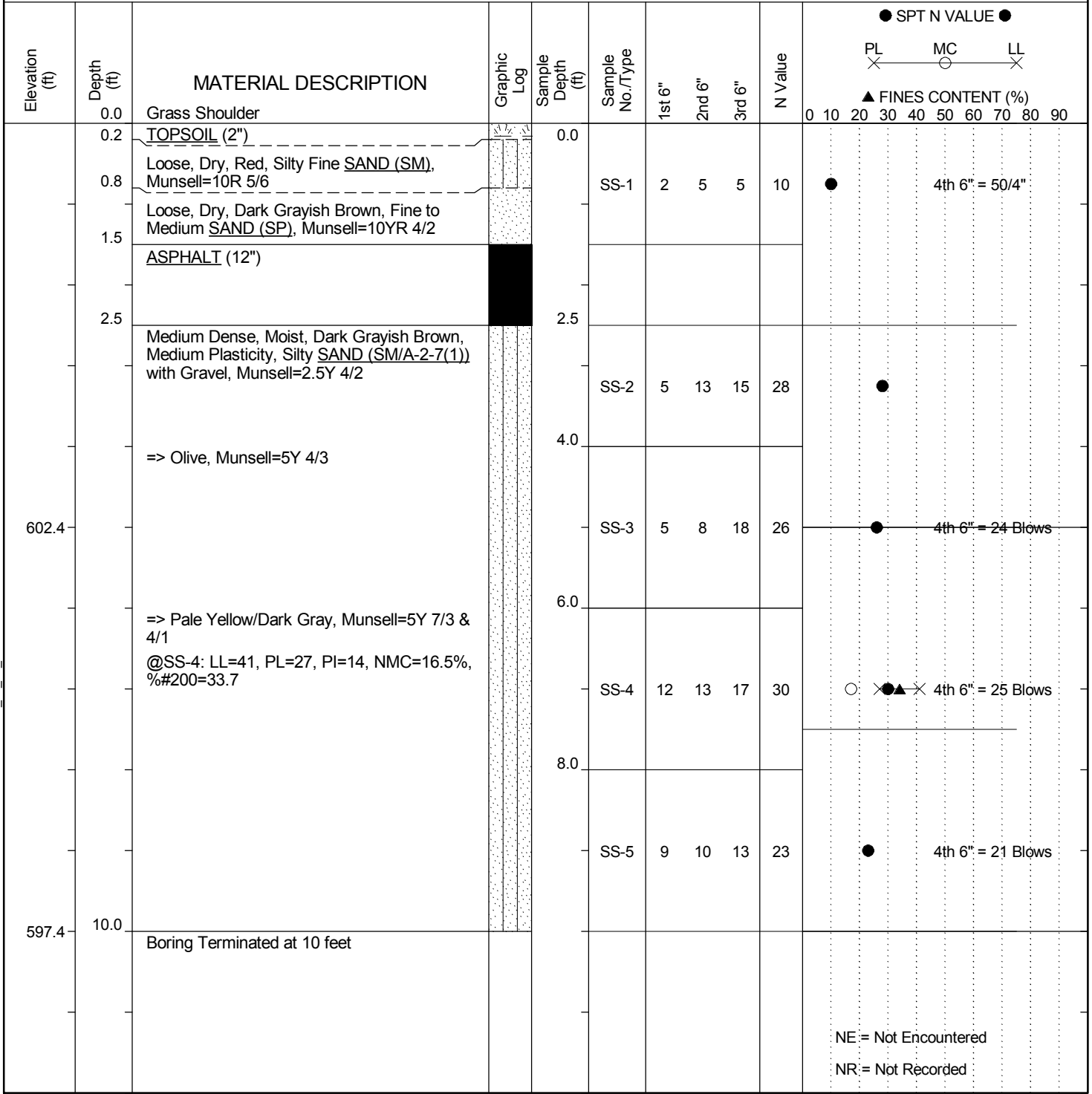
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-22
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 64+97	Offset: 20' - R
Alignment: Mainline	Date Started: 6/13/2016	Date Completed: 6/13/2016
Elev.: 607 ft	Latitude: 34.9764113	Longitude: 80.9926807
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



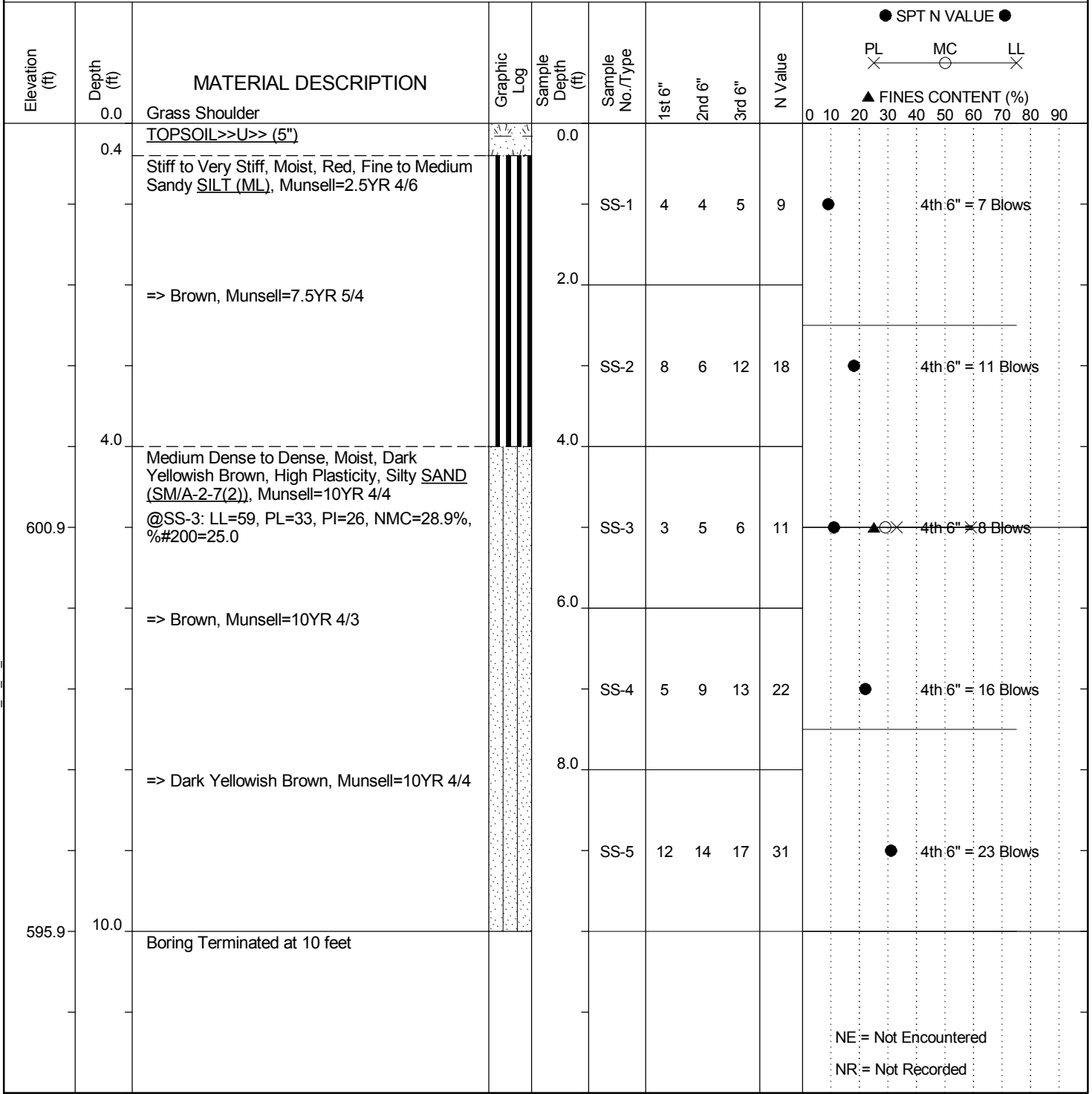
LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

SCDOT Soil Test Log

Project ID: G5607.00	County: York	Boring No.: SPT-23
Site Description: Riverview Road Improvements		Route: S-851
Eng./Geo.: M. Touchberry	Boring Location: 65+69	Offset: 48' - L
Alignment: Mainline	Date Started: 6/14/2015	Date Completed: 6/14/2015
Elev.: 606 ft	Latitude: 34.9764832	Longitude: 80.992998
Total Depth: 10 ft	Soil Depth: 10 ft	Core Depth: 0 ft
Bore Hole Diameter (in): 6	Sampler Configuration	Liner Required: Y (N)
Liner Used: Y (N)	Drill Machine: CME 45B	Drill Method: HSA
Hammer Type: Automatic	Energy Ratio: 90%	Groundwater: TOB NE
Core Size: N/A	Driller: L. Guempel	24HR: NR



LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
UD - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	

SC_DOT_G5607 - RIVERVIEW ROAD IMPROVEMENTS.GPJ SCDOT DATA TEMPLATE_12_30_2014.GDT 9/26/16

APPENDIX C

Laboratory Test Results



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	06/24/16
Depth :	---	Test Id:	266188
		Tested By:	twh
		Checked By:	MCM

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
SPT-1	- - -	1.3-2.0 ft	Moist, yellowish brown clay with sand	30.8
SPT-2	- - -	2.0-4.0 ft	Moist, yellowish brown silt with sand	32.8
SPT-3	- - -	2.0-4.0 ft	Moist, olive brown clay	41.6
SPT-4	- - -	2.0-4.0 ft	Moist, dark grayish brown sandy clay	29.3
SPT-4.1	- - -	6.0-8.0 ft	Moist, dark brown sandy clay	22.7
SPT-5	- - -	2.0-4.0 ft	Moist, yellowish red clay	41.3
SPT-6	- - -	2.0-4.0 ft	Moist, yellowish brown sandy clay	23.1
SPT-7	- - -	4.0-6.0 ft	Moist, olive brown clayey sand	21.6
SPT-8	- - -	0.0-2.0 ft	Moist, dark grayish yellow clayey sand with gravel	11.0
SPT-9	- - -	0.0-2.0 ft	Moist, olive gray sandy clay	23.3

Notes: Temperature of Drying : 110° Celsius



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	06/24/16
Depth :	---	Test Id:	266198
		Tested By:	twh
		Checked By:	MCM

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
SPT-10	- - -	0.0-2.0 ft	Moist, olive sandy clay	27.1
SPT-11	- - -	4.0-6.0 ft	Moist, very dark grayish brown silty sand with gravel	19.5
SPT-12	- - -	2.0-4.0 ft	Moist, very dark brown clayey sand with gravel	31.1
SPT-13	- - -	6.0-8.0 ft	Moist, dark brown clayey sand	19.8
SPT-14	- - -	0.0-2.0 ft	Moist, red sandy clay	18.5
SPT-15	- - -	2.0-4.0 ft	Moist, dark yellowish brown sandy clay	42.2
SPT-16	- - -	2.0-4.0 ft	Moist, dark yellowish brown clayey gravel with sand	21.9
SPT-17	- - -	0.0-2.0 ft	Moist, olive brown clayey sand	22.3
SPT-18	- - -	6.0-8.0 ft	Moist, dark yellowish brown sandy clay	32.9
SPT-19	- - -	2.0-4.0 ft	Moist, dark brown clayey sand	19.7

Notes: Temperature of Drying : 110° Celsius



Client:	F&ME Consultants	Project No:	GTX-304915
Project:	Riverview Road Improvements		
Location:	---	Sample Type:	---
Boring ID:	---	Tested By:	twh
Sample ID:	---	Test Date:	06/24/16
Depth :	---	Checked By:	MCM
		Test Id:	266202

Moisture Content of Soil and Rock - ASTM D2216

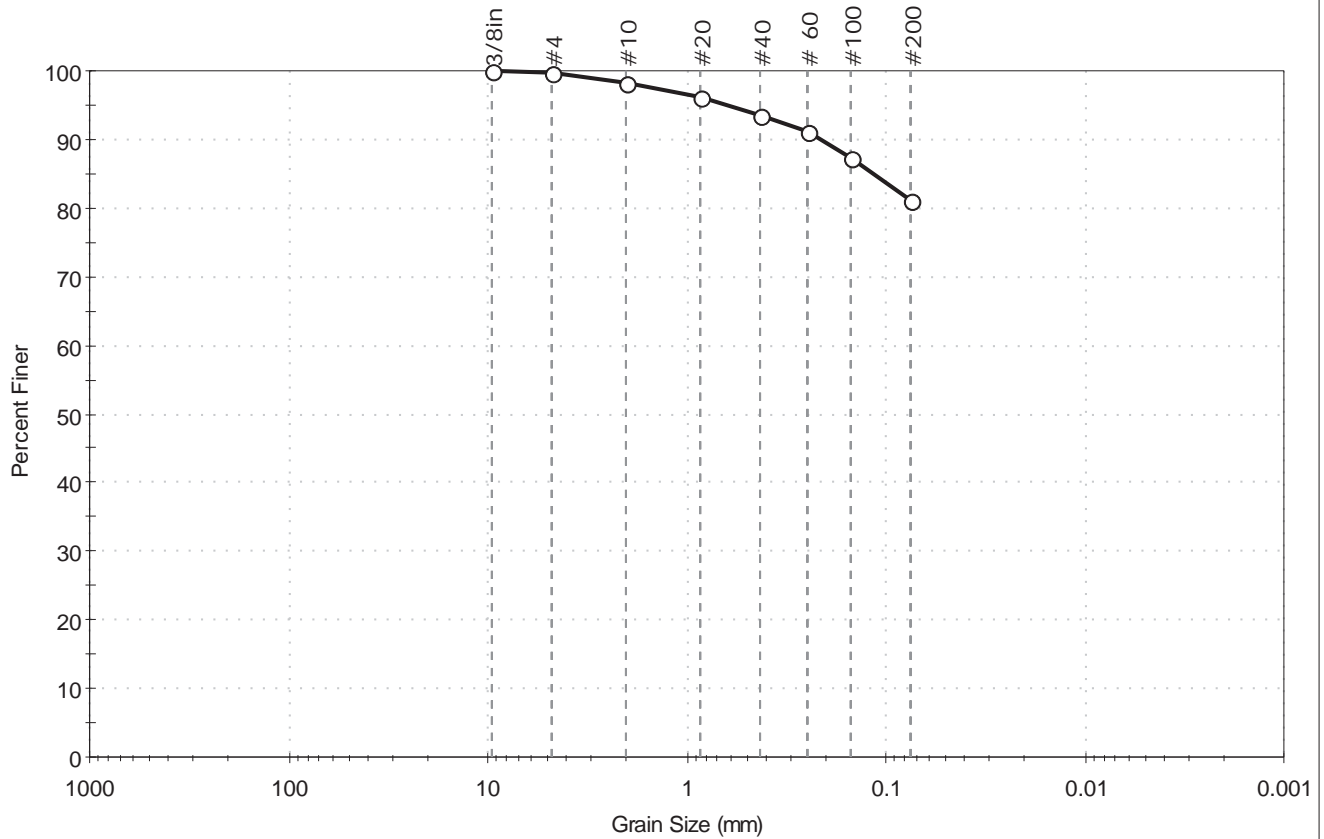
Boring ID	Sample ID	Depth	Description	Moisture Content, %
SPT-20	- - -	4.0-6.0 ft	Moist, very dark grayish brown clay with sand	35.2
SPT-21	- - -	2.0-4.0 ft	Moist, olive brown silty sand	23.3
SPT-22	- - -	6.0-8.0 ft	Moist, olive gray silty sand with gravel	16.5
SPT-23	- - -	4.0-6.0 ft	Moist, olive brown silty sand	28.9

Notes: Temperature of Drying : 110° Celsius



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-1	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	1.3-2.0 ft	Test Id:	266204
Test Comment:	---		
Visual Description:	Moist, yellowish brown clay with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.3	18.4	81.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	100		
#10	2.00	98		
#20	0.85	96		
#40	0.42	94		
#60	0.25	91		
#100	0.15	87		
#200	0.075	81		

<u>Coefficients</u>	
D ₈₅ = 0.1146 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

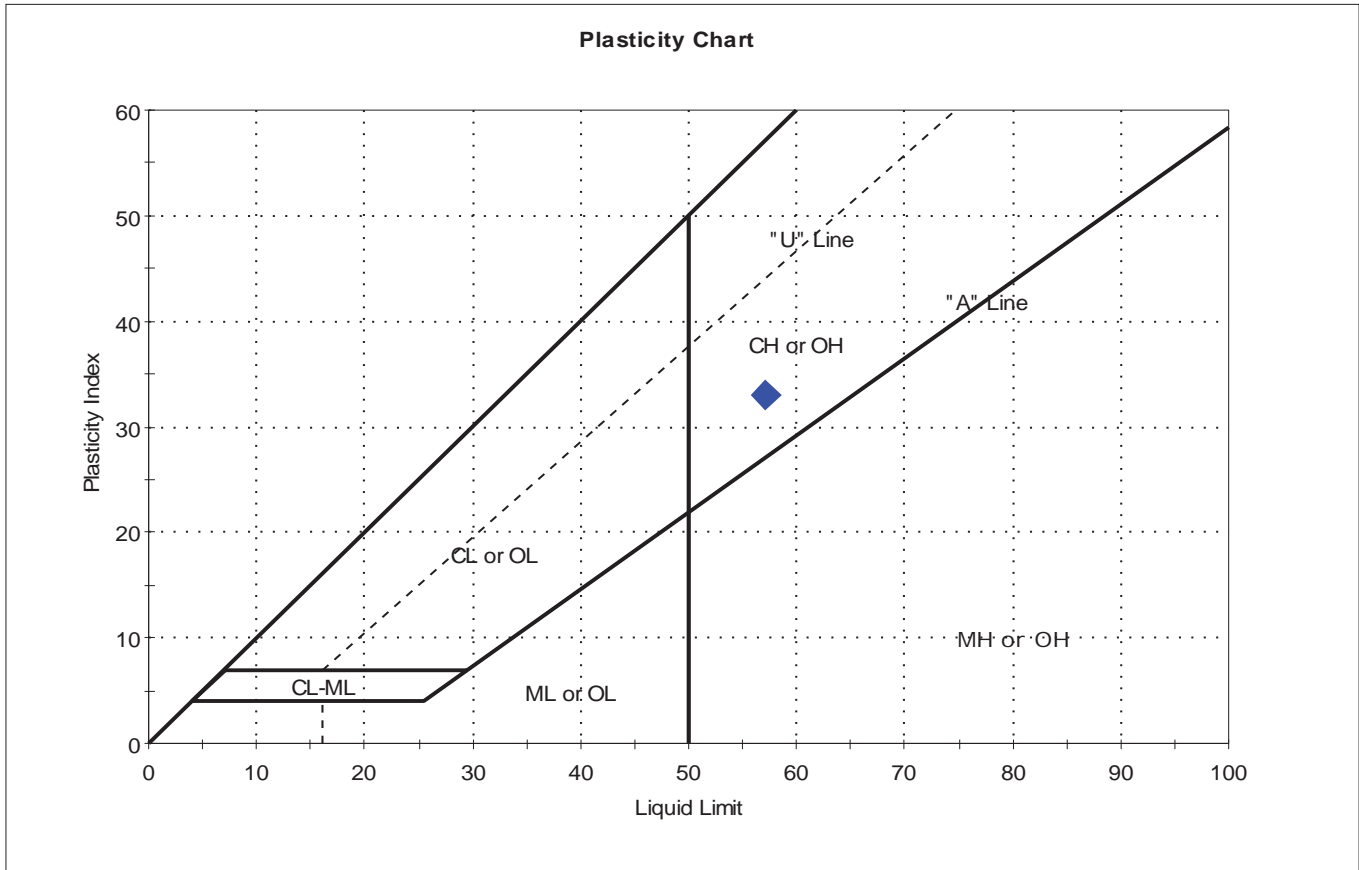
<u>Classification</u>	
<u>ASTM</u>	Fat clay with sand (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (28))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements				
Location:	---		Sample Type:	bag	
Boring ID:	SPT-1	Tested By:	twh		
Sample ID:	---	Test Date:	06/28/16	Checked By: MCM	
Depth :	1.3-2.0 ft	Test Id:	266229		
Test Comment:	---				
Visual Description:	Moist, yellowish brown clay with sand				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



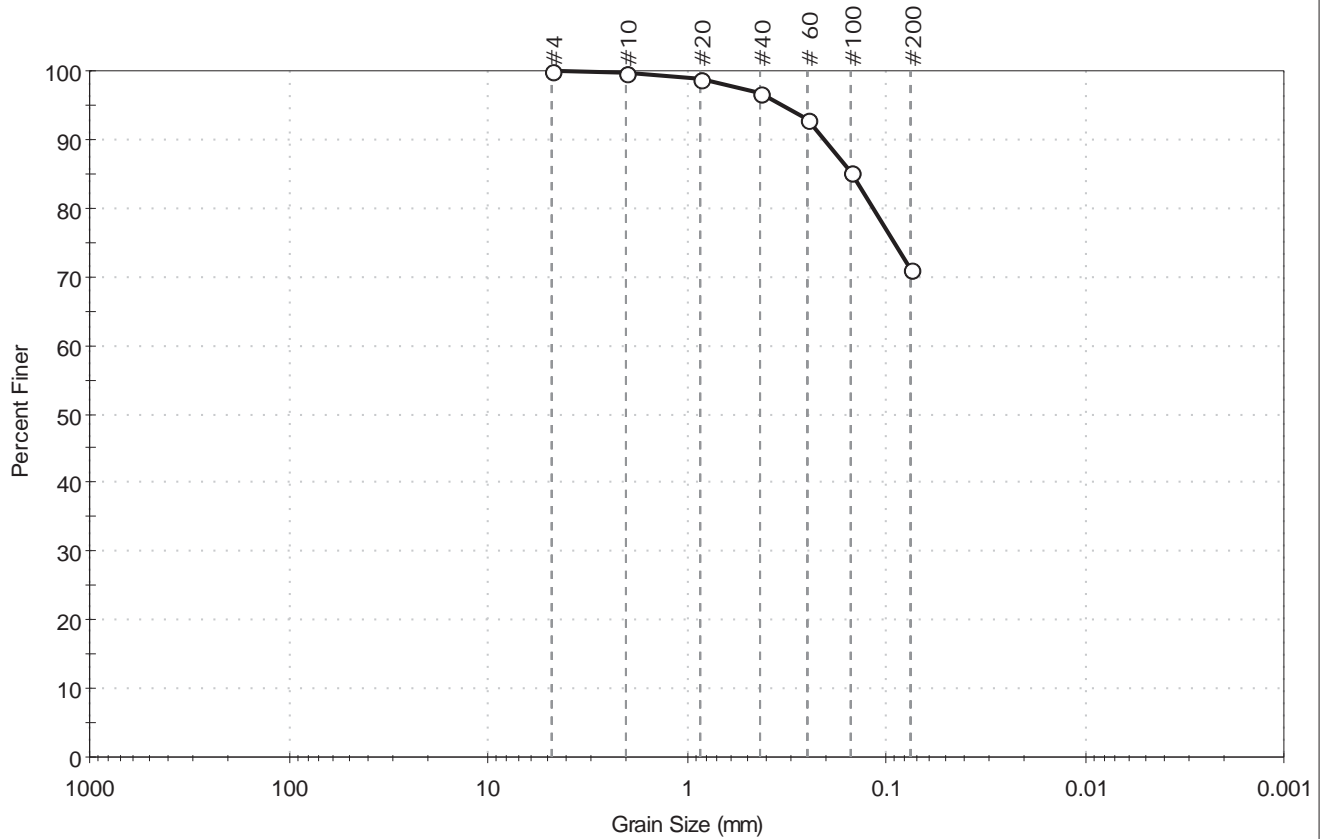
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-1	1.3-2.0 ft	31	57	24	33	0.2	Fat clay with sand (CH)

Sample Prepared using the WET method
 6% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-2	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Test Id:	266205
Tested By:	twh		
Checked By:	MCM		
Test Comment:	---		
Visual Description:	Moist, yellowish brown silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	28.8	71.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.425	97		
#60	0.25	93		
#100	0.15	85		
#200	0.075	71		

<u>Coefficients</u>	
D ₈₅ = 0.1489 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

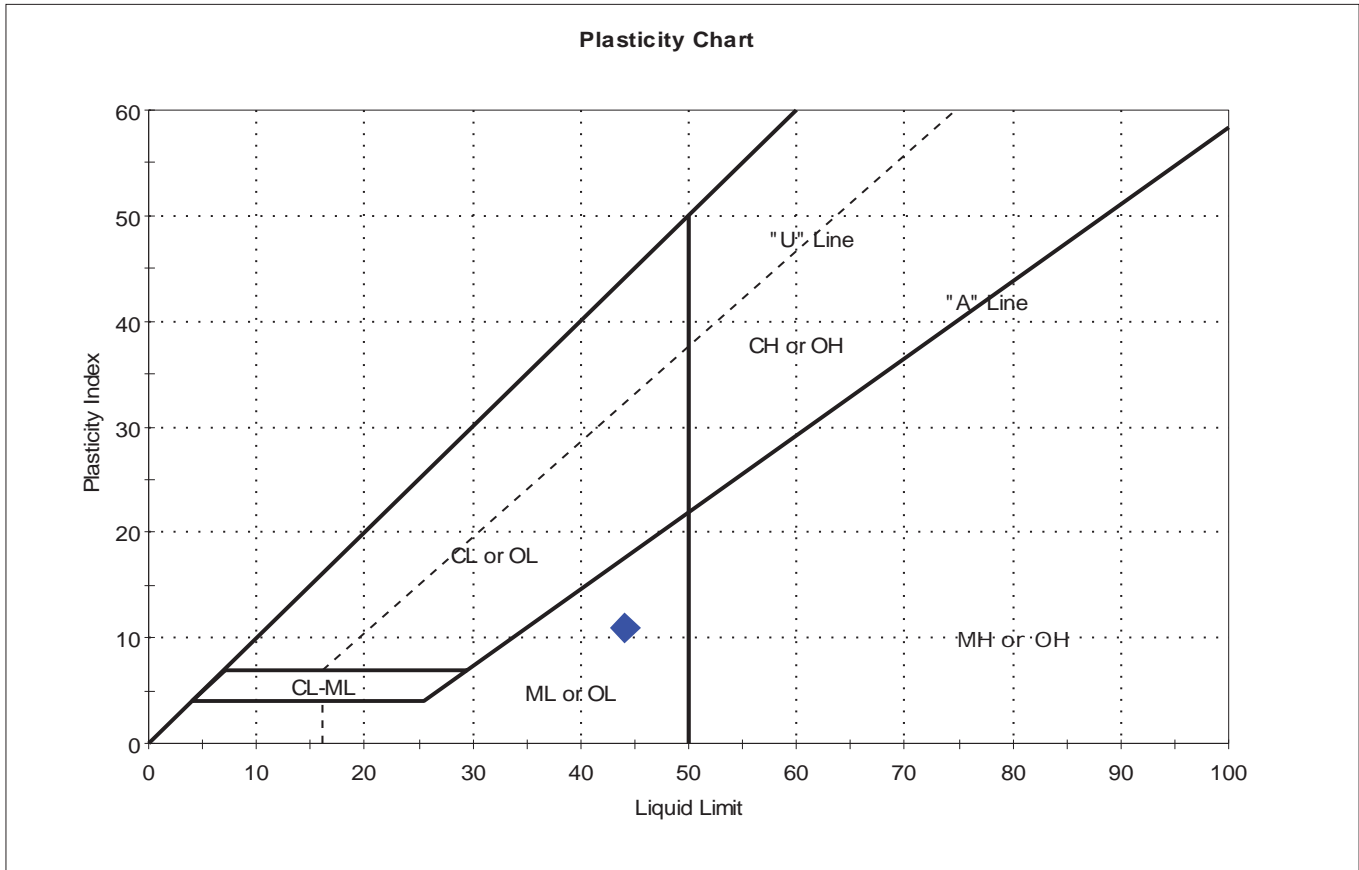
<u>Classification</u>	
<u>ASTM</u>	Silt with sand (ML)
<u>AASHTO</u>	Clayey Soils (A-7-5 (9))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-2	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth :	2.0-4.0 ft	Test Id:	266230
Test Comment:	---		
Visual Description:	Moist, yellowish brown silt with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



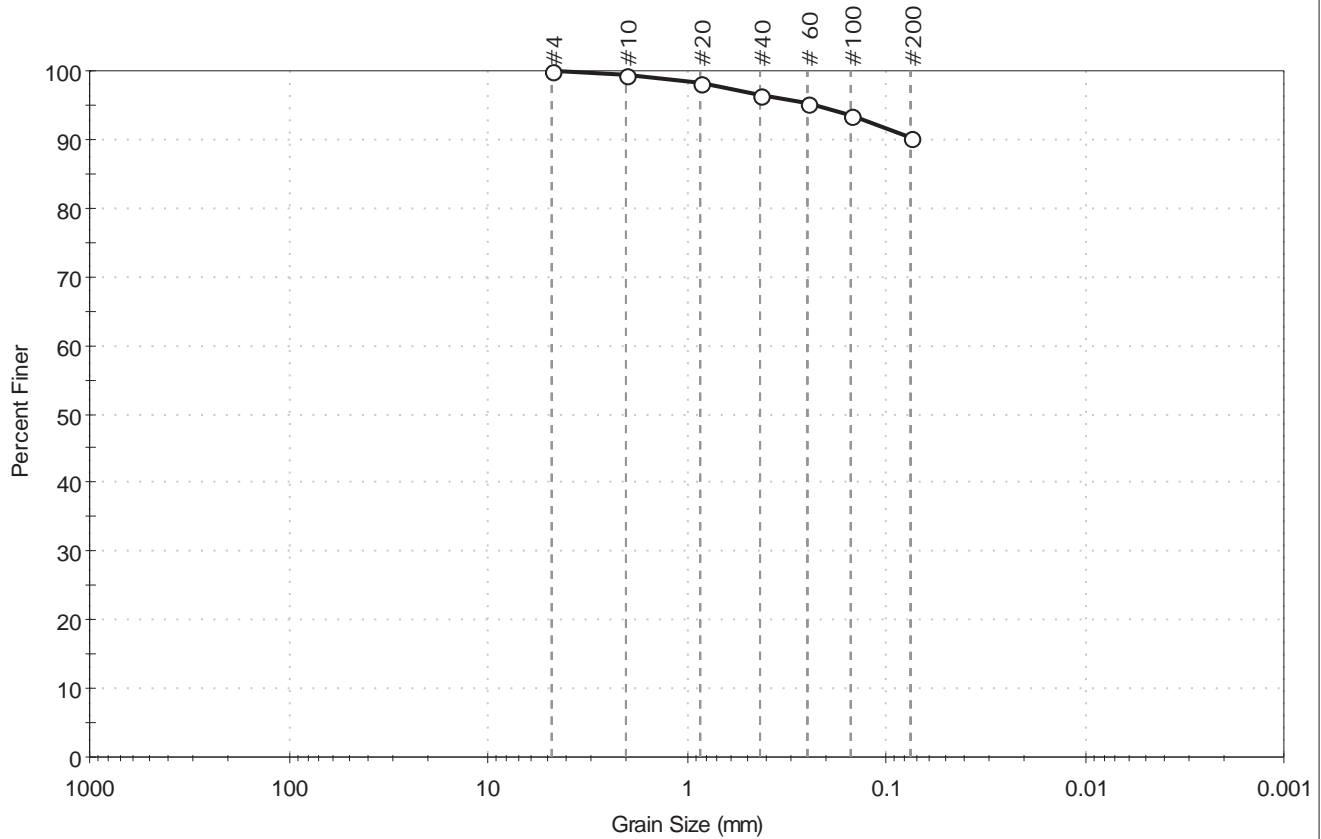
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-2	2.0-4.0 ft	33	44	33	11	0	Silt with sand (ML)

Sample Prepared using the WET method
 3% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: LOW



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-3	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Test Id:	266206
Test Comment:	---		
Visual Description:	Moist, olive brown clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	9.7	90.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	98		
#40	0.42	97		
#60	0.25	95		
#100	0.15	94		
#200	0.075	90		

<u>Coefficients</u>	
D ₈₅ = N/A	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

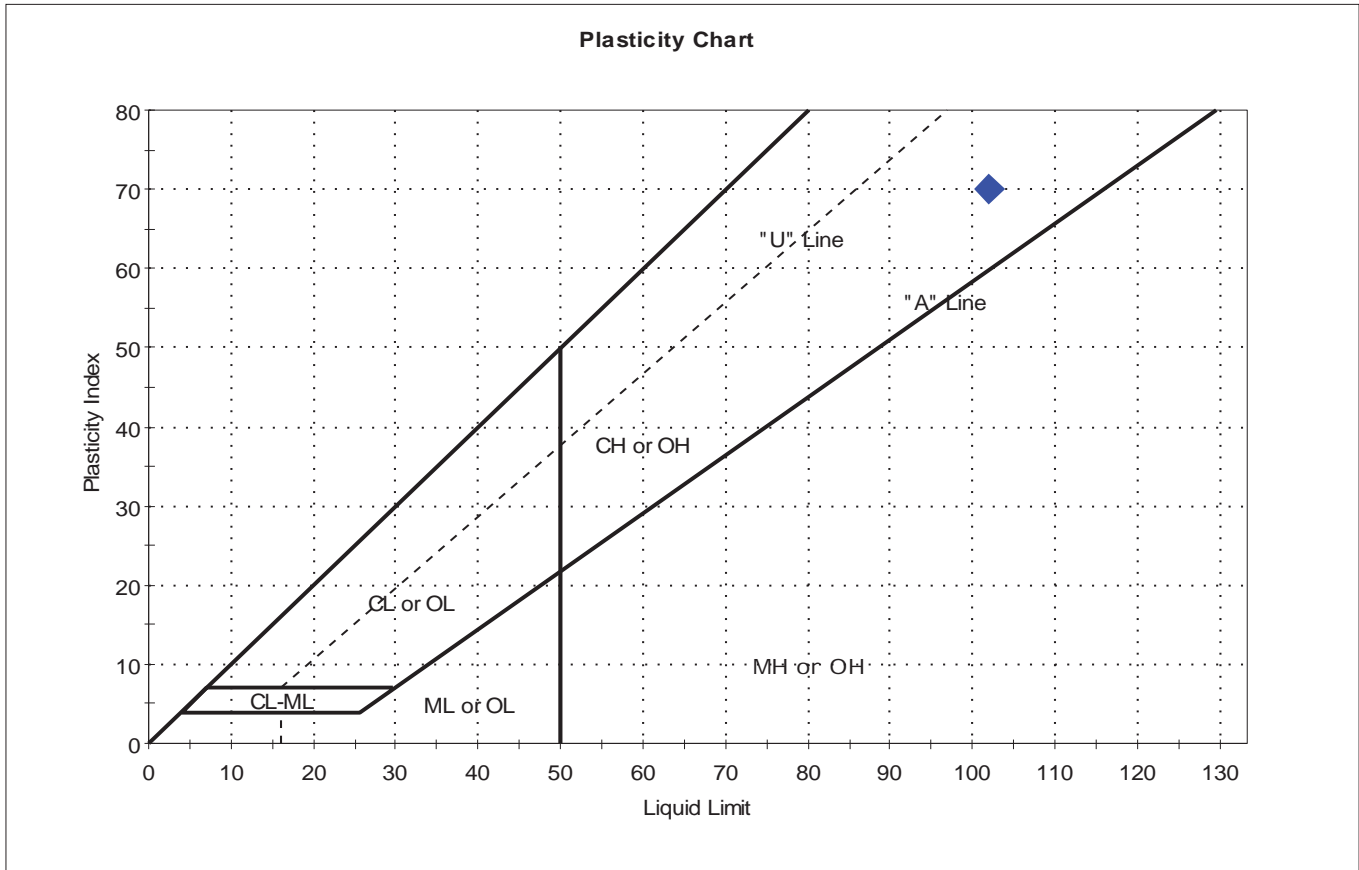
<u>Classification</u>	
<u>ASTM</u>	Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (73))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---



Client:	F&ME Consultants		Project No:	GTX-304915
Project:	Riverview Road Improvements			
Location:	---		Tested By:	twh
Boring ID:	SPT-3	Sample Type:	bag	Checked By:
Sample ID:	---	Test Date:	06/30/16	MCM
Depth :	2.0-4.0 ft	Test Id:	266231	
Test Comment:	---			
Visual Description:	Moist, olive brown clay			
Sample Comment:	---			

Atterberg Limits - ASTM D4318



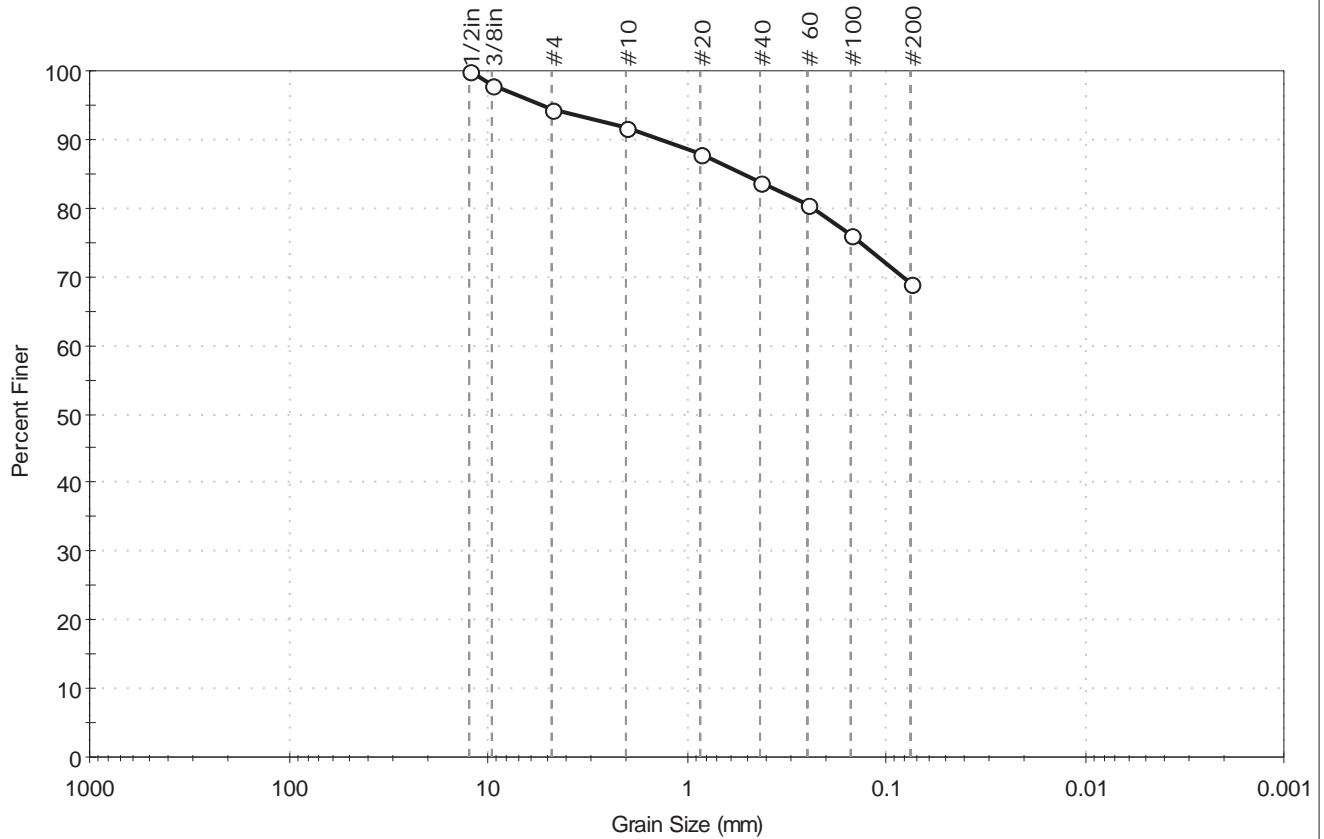
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-3	2.0-4.0 ft	42	102	32	70	0.1	Fat clay (CH)

Sample Prepared using the WET method
 3% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-4	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Test Id:	266207
Tested By:	twh		
Checked By:	MCM		
Test Comment:	---		
Visual Description:	Moist, dark grayish brown sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	5.6	25.3	69.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2in	12.50	100		
3/8in	9.50	98		
#4	4.75	94		
#10	2.00	92		
#20	0.85	88		
#40	0.42	84		
#60	0.25	81		
#100	0.15	76		
#200	0.075	69		

<u>Coefficients</u>	
D ₈₅ = 0.5252 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

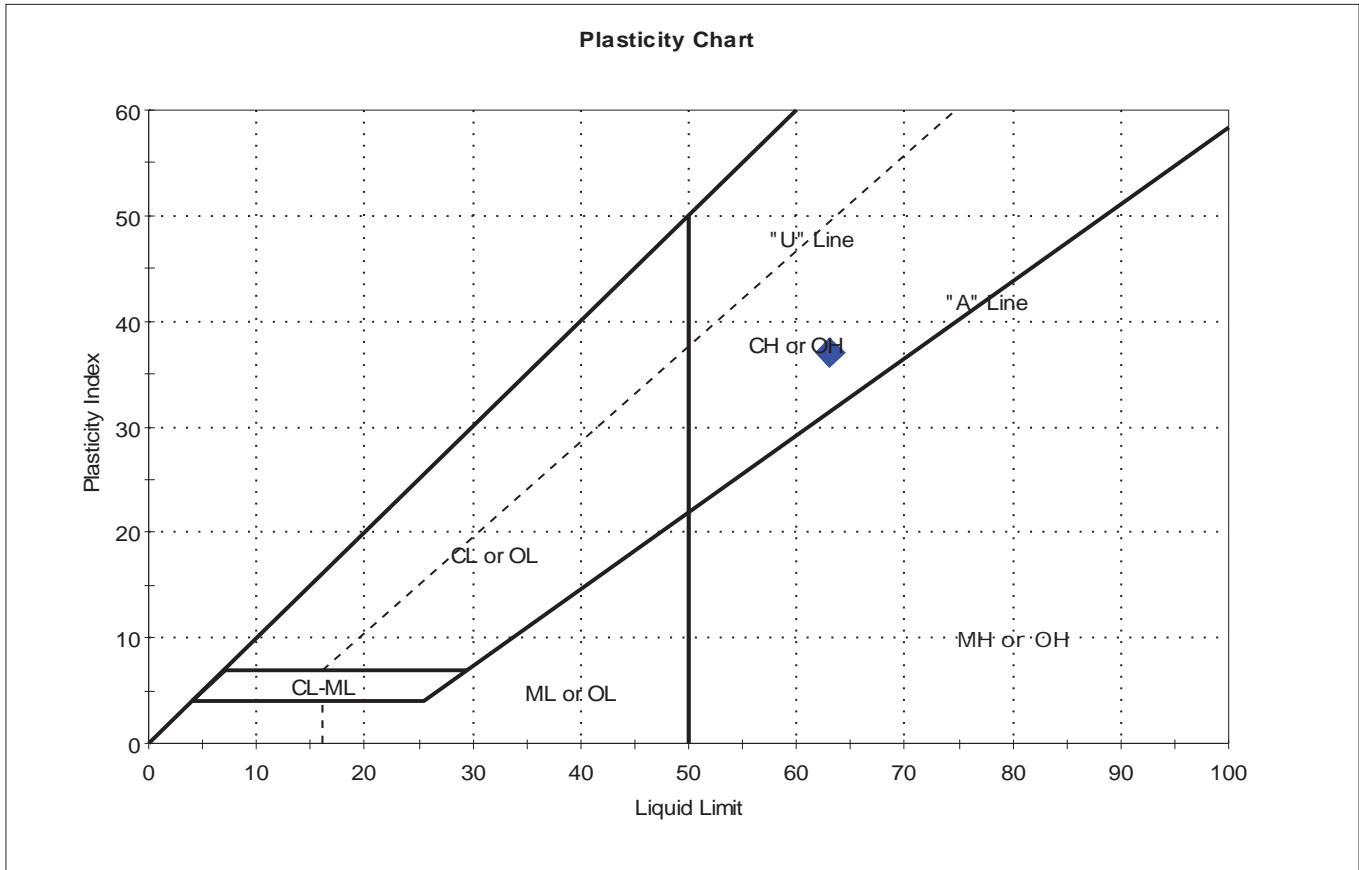
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (25))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	ANGULAR
Sand/Gravel Hardness :	HARD



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements				
Location:	---		Sample Type:	bag	
Boring ID:	SPT-4	Tested By:	twh		
Sample ID:	---	Test Date:	06/30/16	Checked By: MCM	
Depth:	2.0-4.0 ft	Test Id:	266232		
Test Comment:	---				
Visual Description:	Moist, dark grayish brown sandy clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



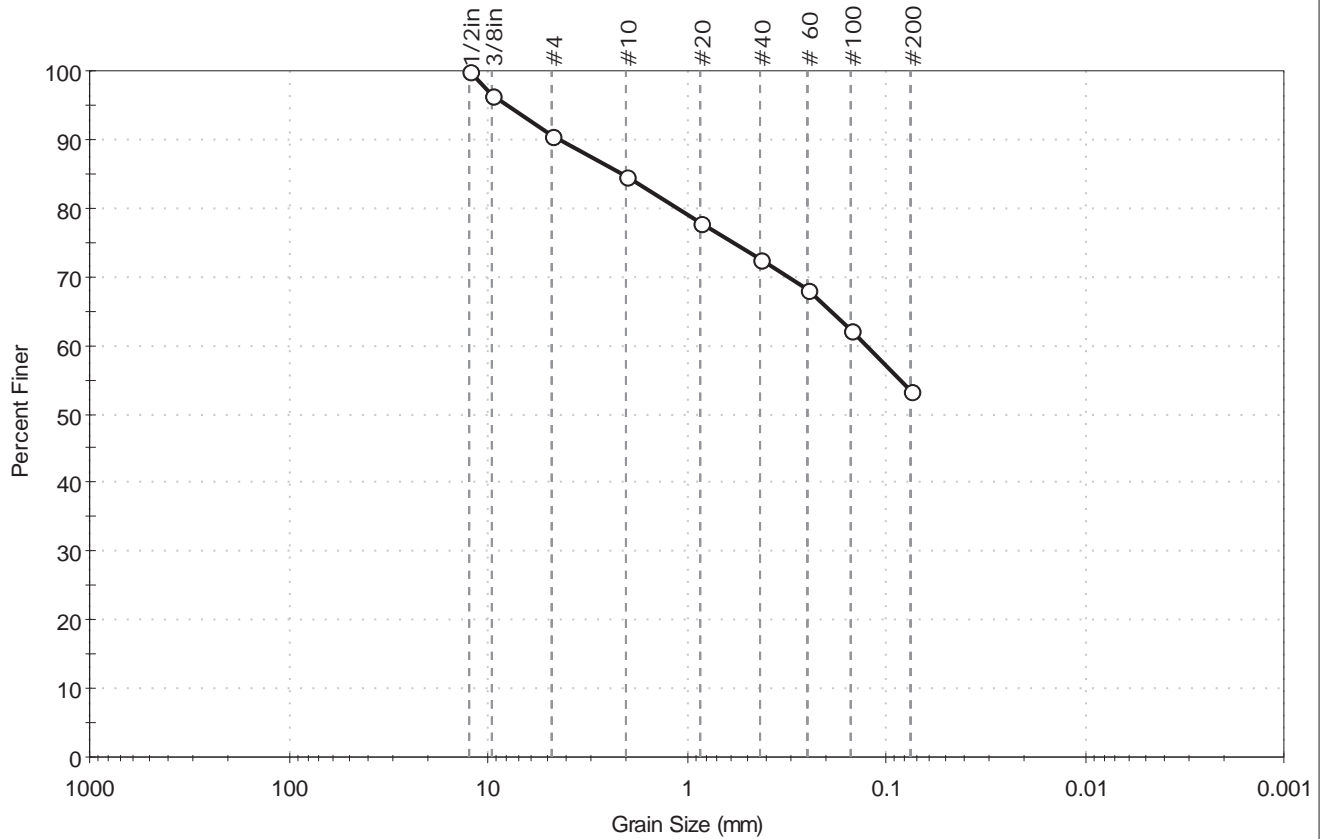
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-4	2.0-4.0 ft	29	63	26	37	0.1	Sandy Fat clay (CH)

Sample Prepared using the WET method
 16% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-4.1	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	6.0-8.0 ft	Test Id:	266208
Tested By:	twh		
Checked By:	MCM		
Test Comment:	---		
Visual Description:	Moist, dark brown sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	9.6	36.9	53.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2in	12.50	100		
3/8in	9.50	96		
#4	4.75	90		
#10	2.00	85		
#20	0.85	78		
#40	0.42	73		
#60	0.25	68		
#100	0.15	62		
#200	0.075	54		

<u>Coefficients</u>	
D ₈₅ = 2.1145 mm	D ₃₀ = N/A
D ₆₀ = 0.1254 mm	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

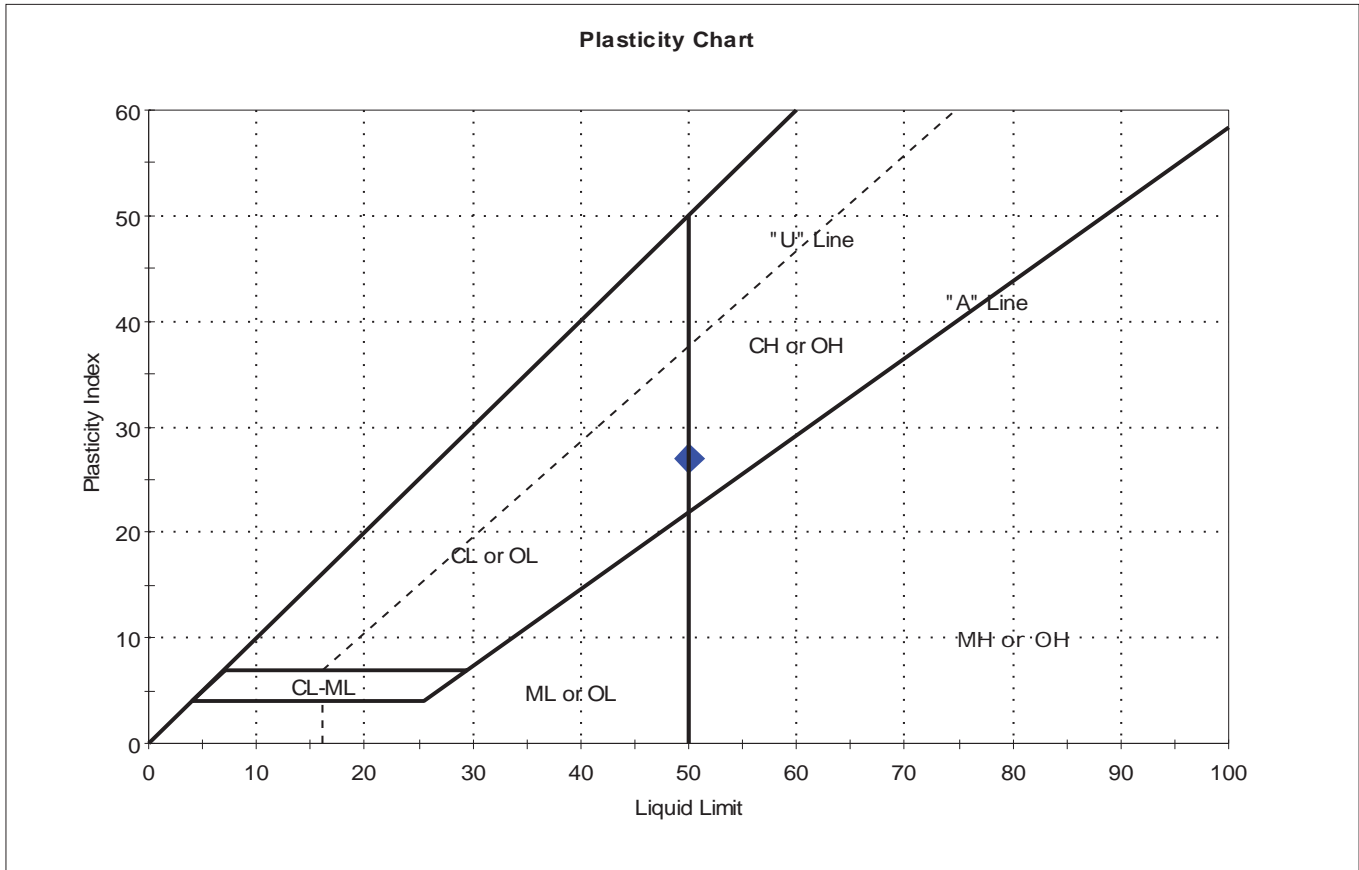
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (11))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-4.1	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	6.0-8.0 ft	Checked By:	MCM
		Test Id:	266233
Test Comment:	---		
Visual Description:	Moist, dark brown sandy clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



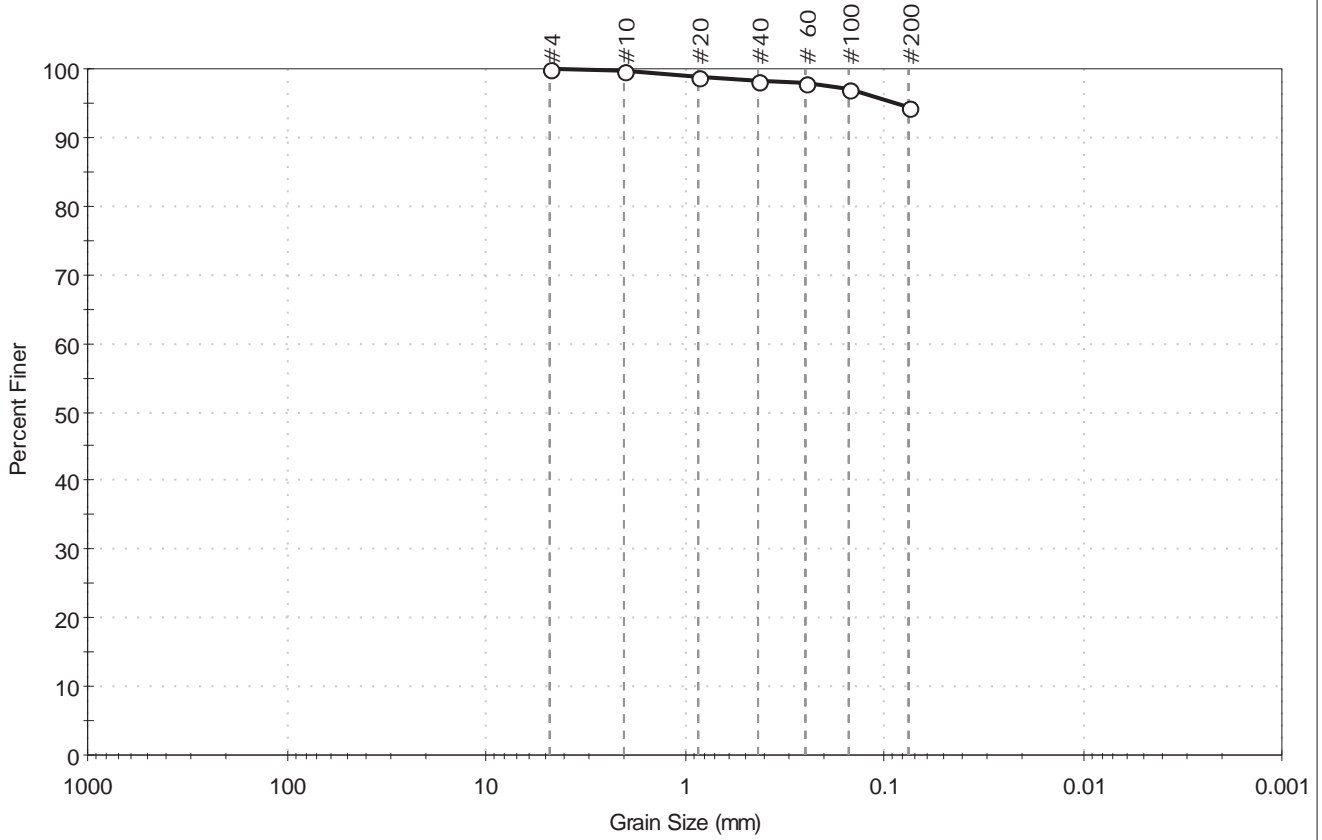
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-4	6.0-8.0 ft	23	50	23	27	0	Sandy Fat clay (CH)

Sample Prepared using the WET method
 27% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants	Project No:	GTX-304915
Project:	Riverview Road Improvements		
Location:	---	Tested By:	twh
Boring ID:	SPT-5	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266209
Test Comment:	---		
Visual Description:	Moist, yellowish red clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	5.7	94.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	98		
#60	0.25	98		
#100	0.15	97		
#200	0.075	94		

<u>Coefficients</u>	
D ₈₅ = N/A	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

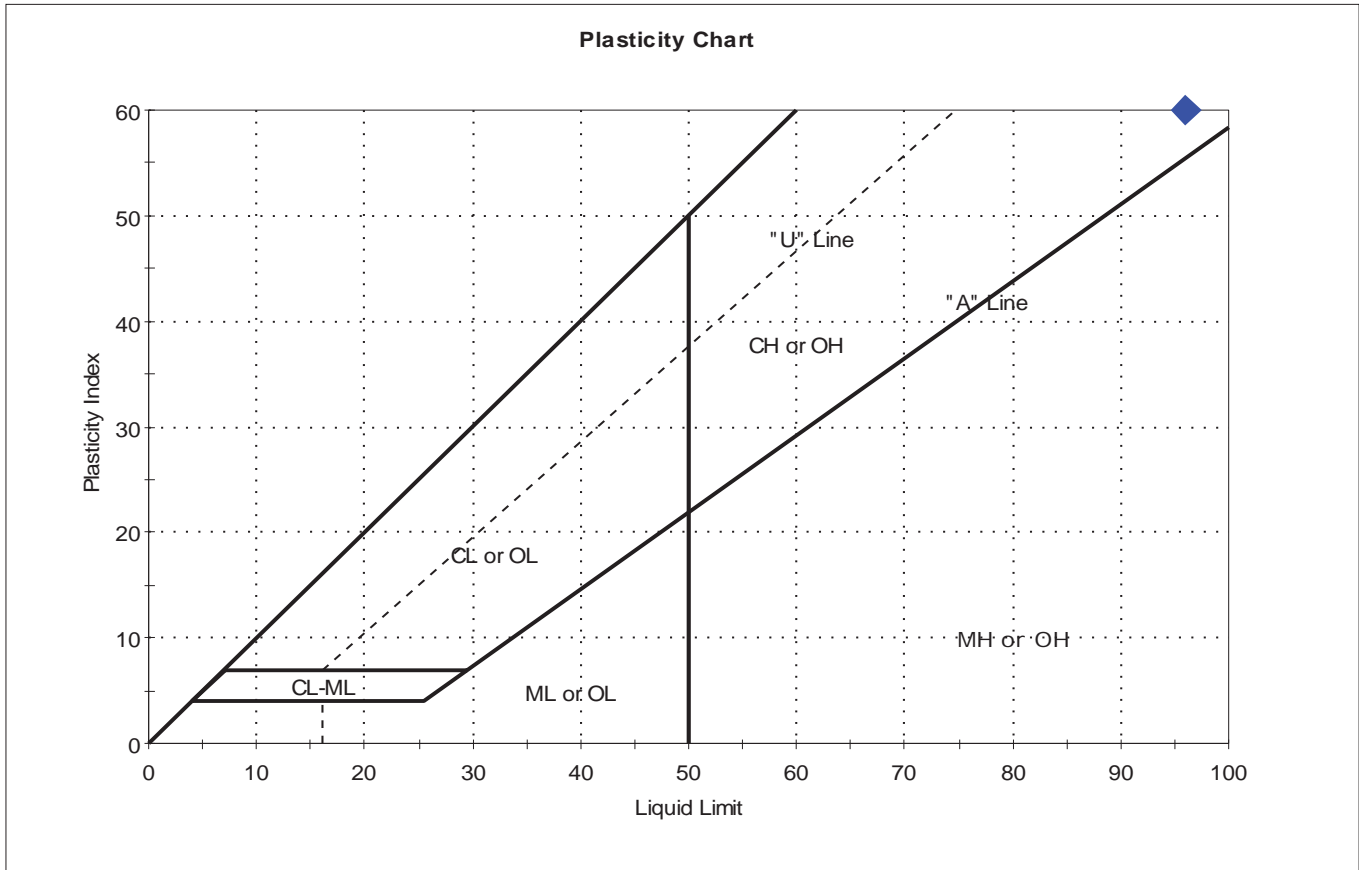
<u>Classification</u>	
<u>ASTM</u>	Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (68))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements		Tested By:	twh	
Location:	---	Sample Type:	bag	Checked By:	MCM
Boring ID:	SPT-5	Test Date:	06/30/16	Test Id:	266234
Sample ID:	---				
Depth :	2.0-4.0 ft				
Test Comment:	---				
Visual Description:	Moist, yellowish red clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



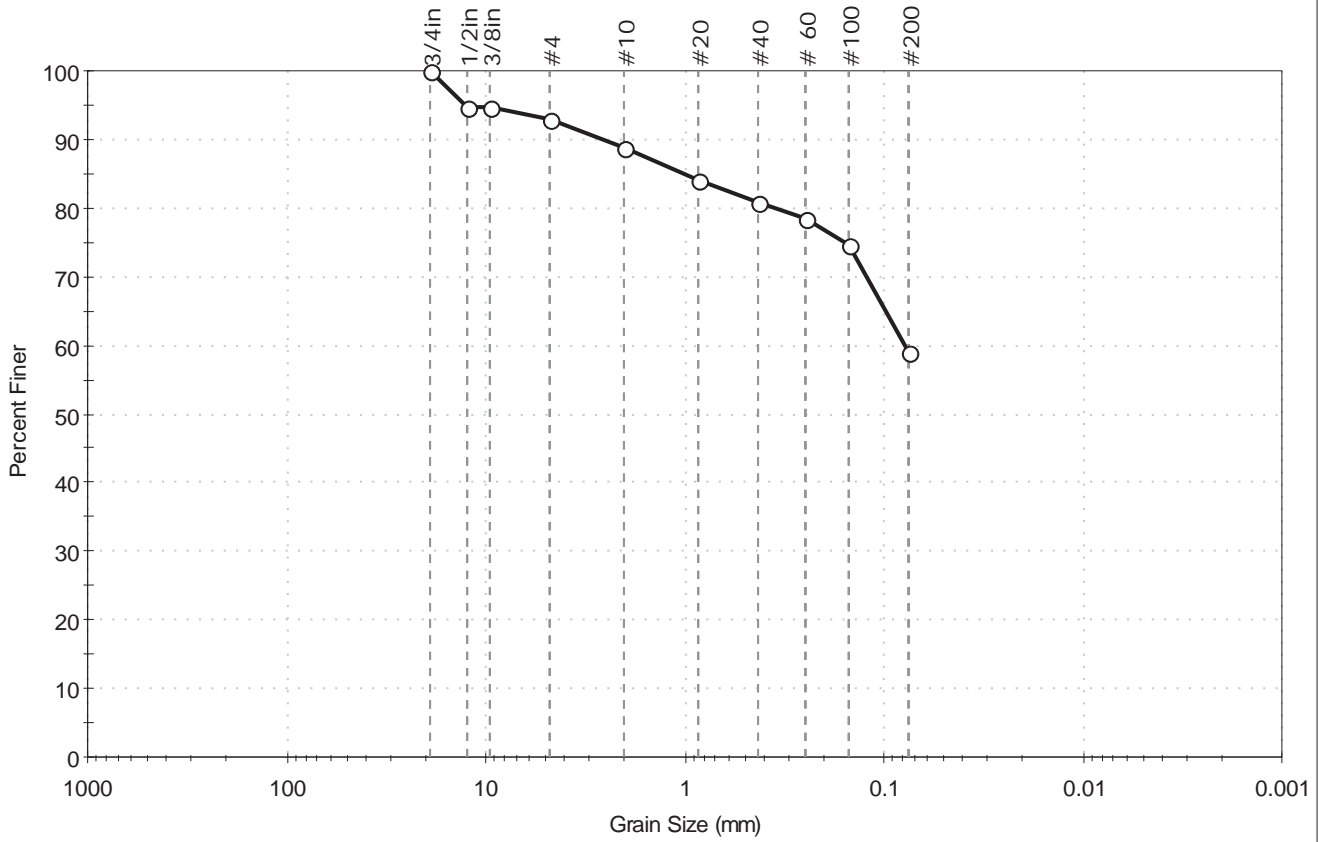
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-5	2.0-4.0 ft	41	96	36	60	0.1	Fat clay (CH)

Sample Prepared using the WET method
 2% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-6	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth :	2.0-4.0 ft	Test Id:	266210
Test Comment:	---		
Visual Description:	Moist, yellowish brown sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	7.0	33.9	59.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4in	19.00	100		
1/2in	12.50	95		
3/8in	9.50	95		
#4	4.75	93		
#10	2.00	89		
#20	0.85	84		
#40	0.42	81		
#60	0.25	79		
#100	0.15	75		
#200	0.075	59		

<u>Coefficients</u>	
D ₈₅ = 1.0068 mm	D ₃₀ = N/A
D ₆₀ = 0.0784 mm	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

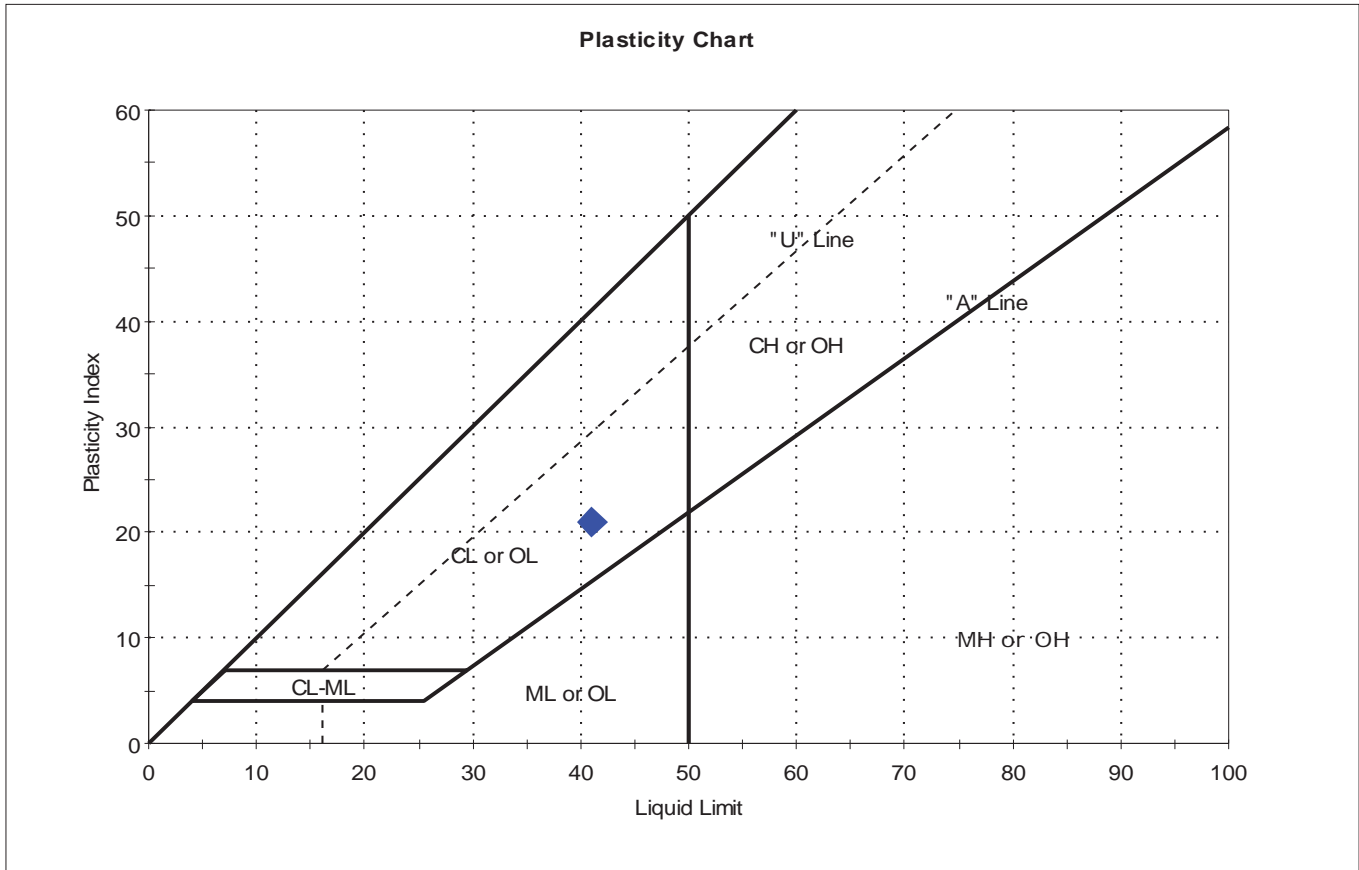
<u>Classification</u>	
<u>ASTM</u>	Sandy Lean clay (CL)
<u>AASHTO</u>	Clayey Soils (A-7-6 (10))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants	Project No:	GTX-304915
Project:	Riverview Road Improvements	Tested By:	twh
Location:	---	Checked By:	MCM
Boring ID:	SPT-6	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	2.0-4.0 ft	Test Id:	266235
Test Comment:	---		
Visual Description:	Moist, yellowish brown sandy clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



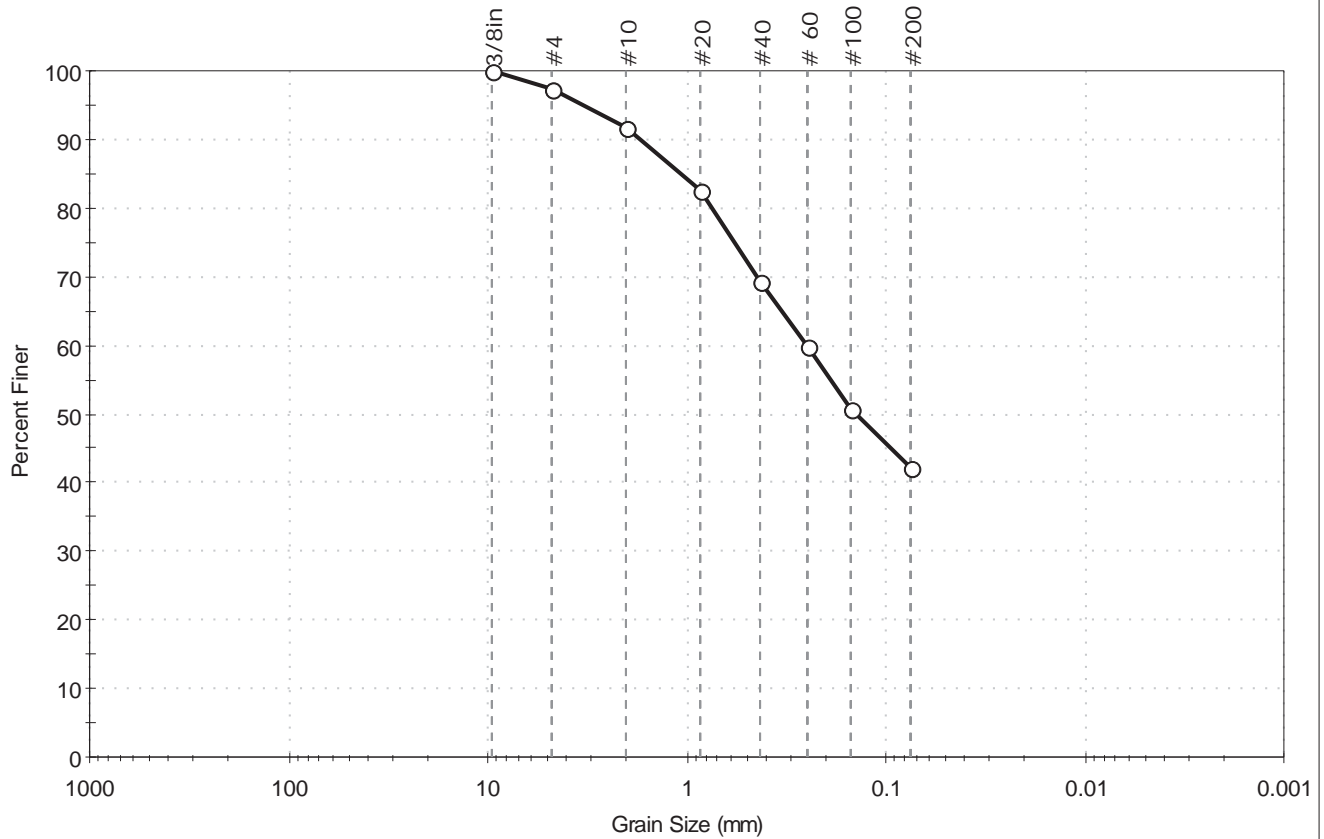
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-6	2.0-4.0 ft	23	41	20	21	0.1	Sandy Lean clay (CL)

Sample Prepared using the WET method
 19% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-7	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	4.0-6.0 ft	Test Id:	266211
Test Comment:	---		
Visual Description:	Moist, olive brown clayey sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	2.7	55.2	42.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	97		
#10	2.00	92		
#20	0.85	83		
#40	0.42	69		
#60	0.25	60		
#100	0.15	51		
#200	0.075	42		

<u>Coefficients</u>	
D ₈₅ = 1.0666 mm	D ₃₀ = N/A
D ₆₀ = 0.2532 mm	D ₁₅ = N/A
D ₅₀ = 0.1404 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

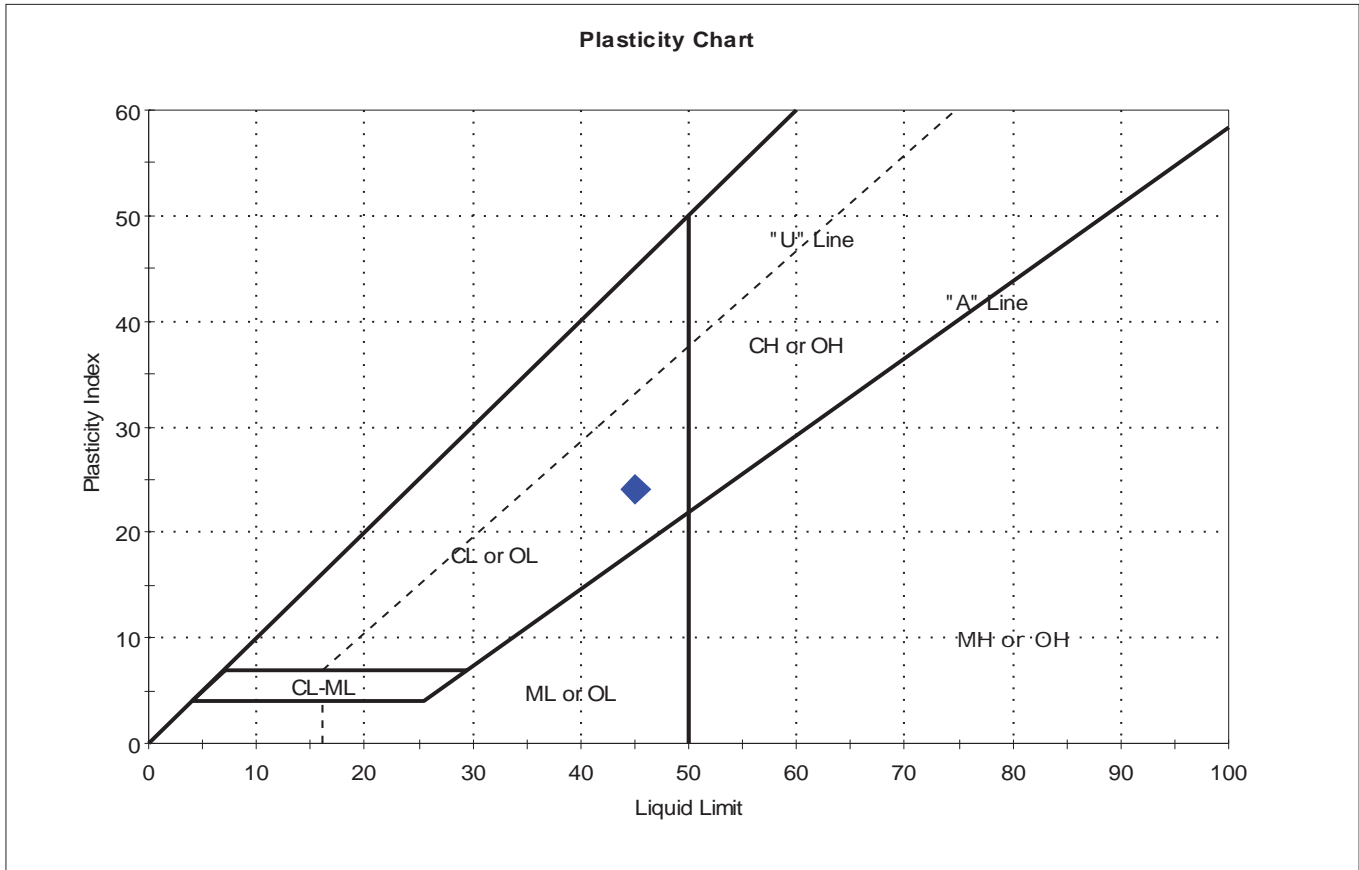
<u>Classification</u>	
<u>ASTM</u>	Clayey sand (SC)
<u>AASHTO</u>	Clayey Soils (A-7-6 (5))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		Project No:	GTX-304915
Project:	Riverview Road Improvements			
Location:	---		Tested By:	twh
Boring ID:	SPT-7	Sample Type:	bag	Checked By:
Sample ID:	---	Test Date:	06/30/16	MCM
Depth :	4.0-6.0 ft	Test Id:	266236	
Test Comment:	---			
Visual Description:	Moist, olive brown clayey sand			
Sample Comment:	---			

Atterberg Limits - ASTM D4318



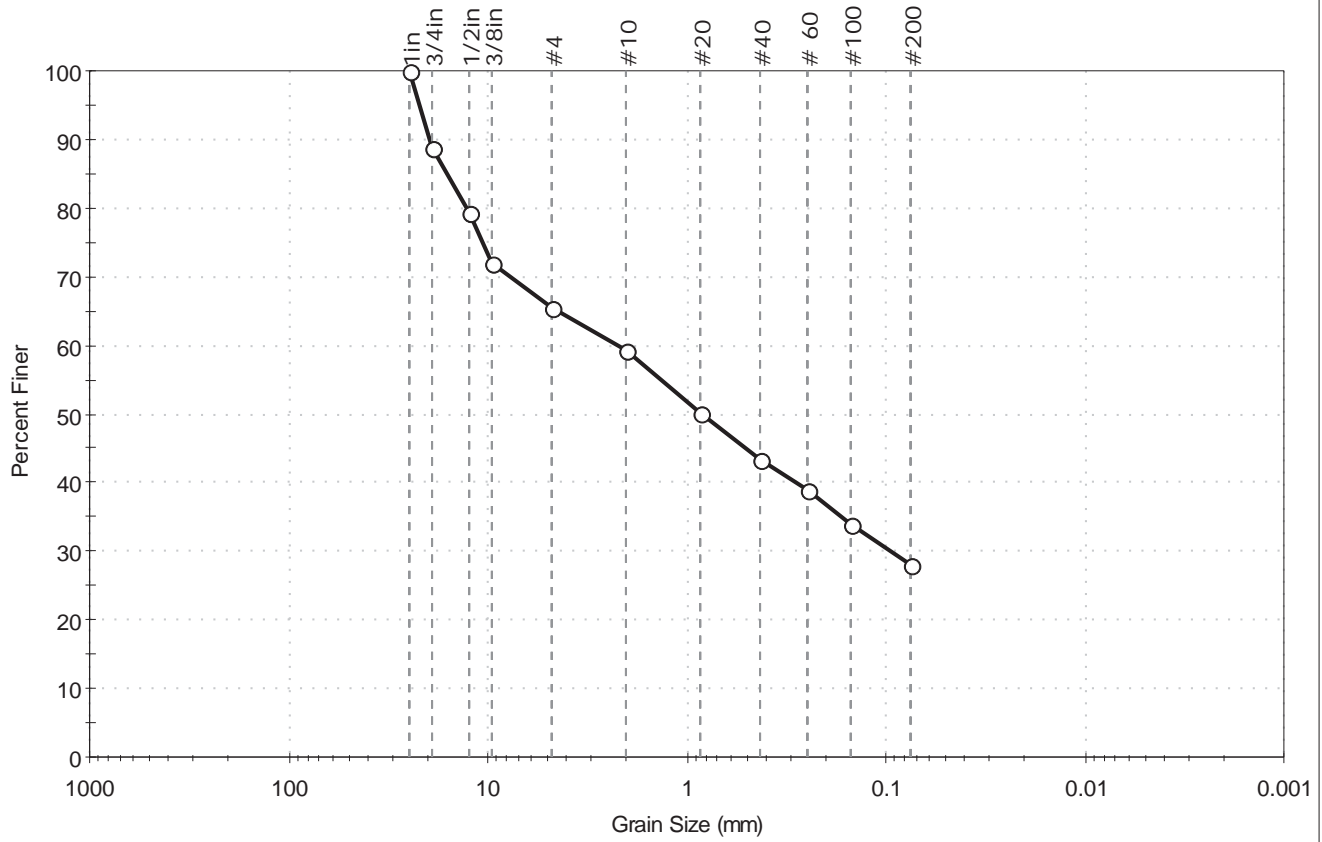
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-7	4.0-6.0 ft	22	45	21	24	0	Clayey sand (SC)

Sample Prepared using the WET method
 31% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-8	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	0.0-2.0 ft	Checked By:	MCM
		Test Id:	266212
Test Comment:	---		
Visual Description:	Moist, dark grayish yellow clayey sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	34.4	37.6	28.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1in	25.00	100		
3/4in	19.00	89		
1/2in	12.50	79		
3/8in	9.50	72		
#4	4.75	66		
#10	2.00	59		
#20	0.85	50		
#40	0.42	43		
#60	0.25	39		
#100	0.15	34		
#200	0.075	28		

<u>Coefficients</u>	
D ₈₅ = 16.0789 mm	D ₃₀ = 0.0945 mm
D ₆₀ = 2.2311 mm	D ₁₅ = N/A
D ₅₀ = 0.8325 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

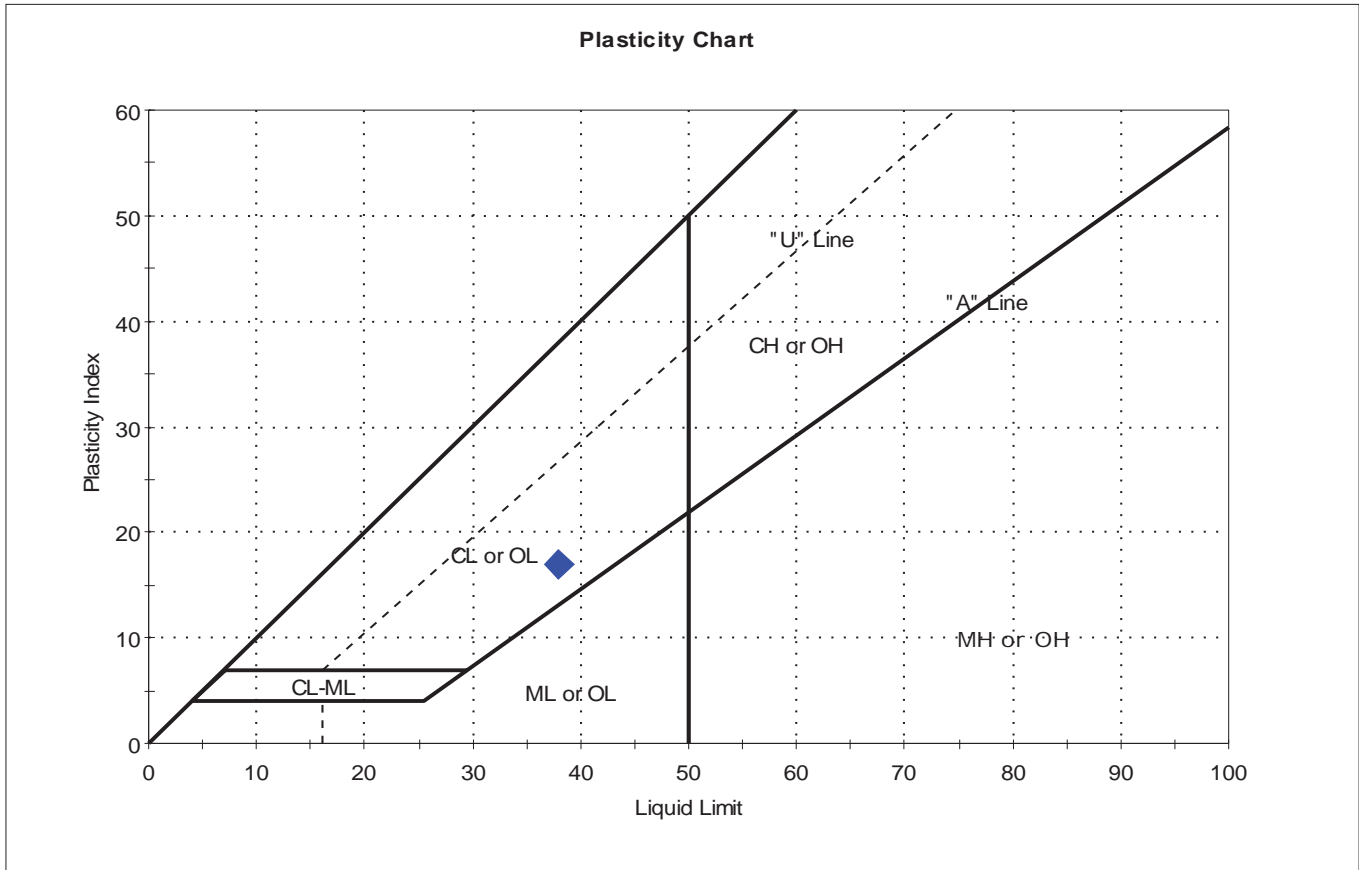
<u>Classification</u>	
<u>ASTM</u>	Clayey sand with gravel (SC)
<u>AASHTO</u>	Clayey Gravel and Sand (A-2-6 (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements				
Location:	---		Tested By:	twh	
Boring ID:	SPT-8	Sample Type:	bag	Checked By:	MCM
Sample ID:	---	Test Date:	06/30/16	Test Id:	266237
Depth :	0.0-2.0 ft				
Test Comment:	---				
Visual Description:	Moist, dark grayish yellow clayey sand with gravel				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



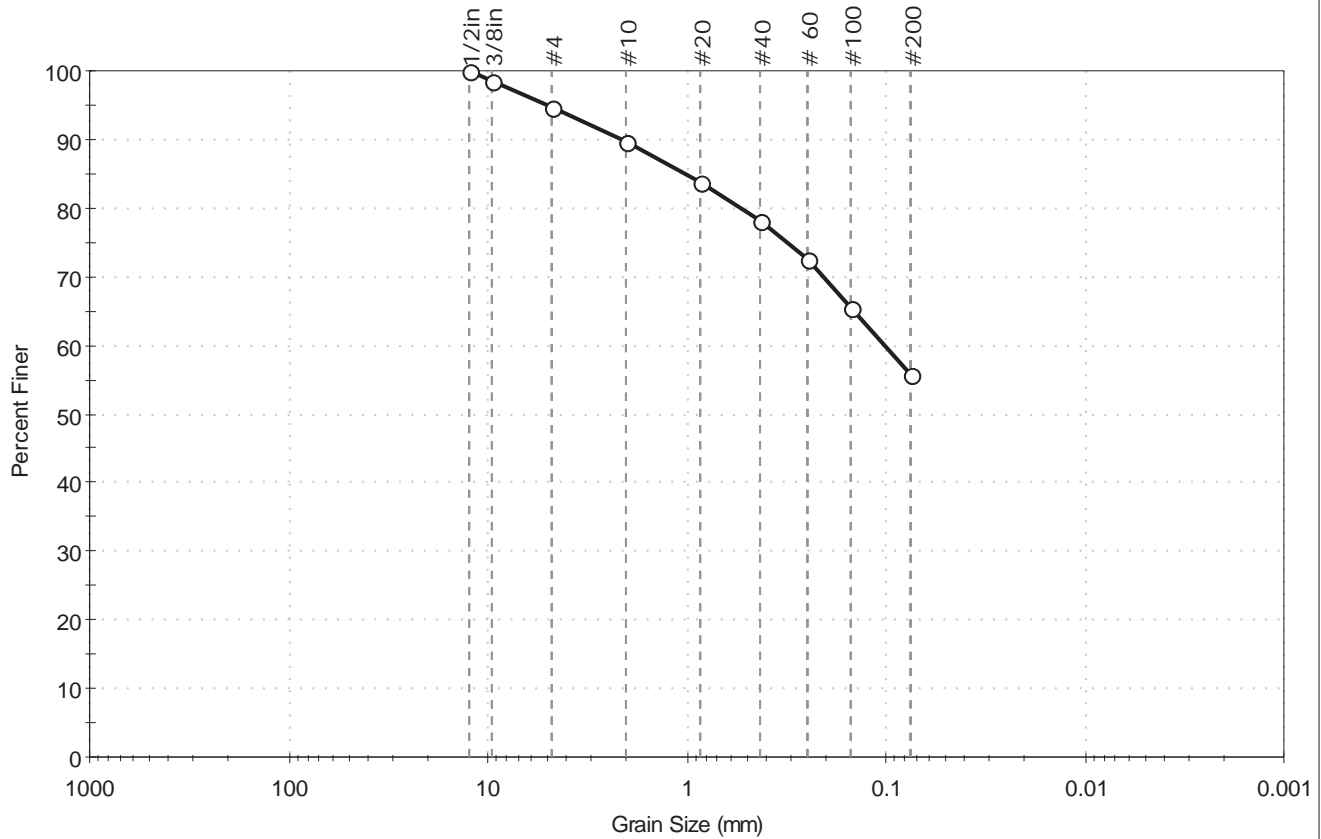
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-8	0.0-2.0 ft	11	38	21	17	-0.6	Clayey sand with gravel (SC)

Sample Prepared using the WET method
 57% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-9	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	0.0-2.0 ft	Test Id:	266213
Test Comment:	---		
Visual Description:	Moist, olive gray sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	5.4	38.7	55.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2in	12.50	100		
3/8in	9.50	98		
#4	4.75	95		
#10	2.00	90		
#20	0.85	84		
#40	0.42	78		
#60	0.25	72		
#100	0.15	66		
#200	0.075	56		

<u>Coefficients</u>	
D ₈₅ = 1.0289 mm	D ₃₀ = N/A
D ₆₀ = 0.1007 mm	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

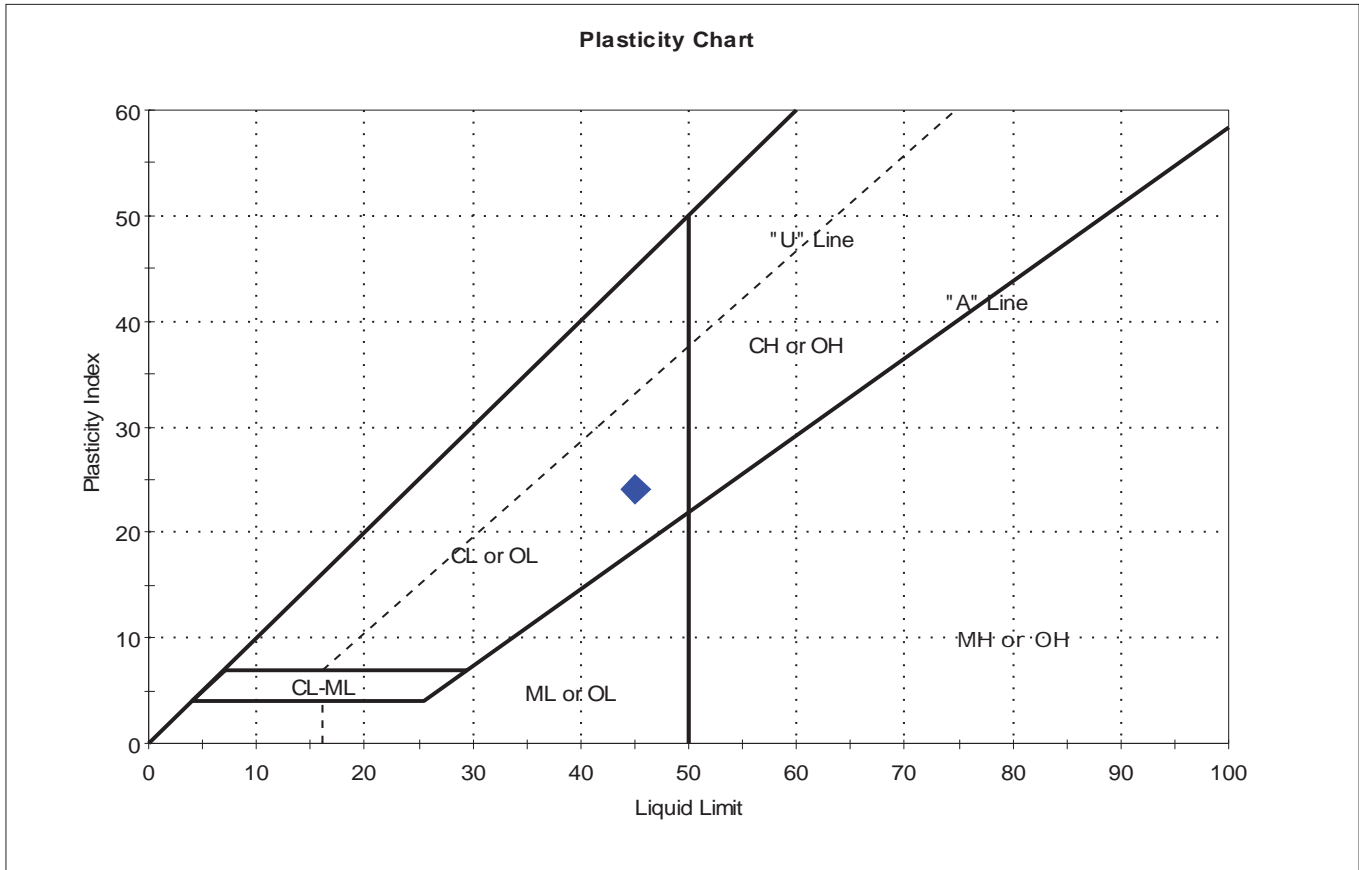
<u>Classification</u>	
<u>ASTM</u>	Sandy Lean clay (CL)
<u>AASHTO</u>	Clayey Soils (A-7-6 (10))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-9	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	0.0-2.0 ft	Checked By:	MCM
		Test Id:	266238
Test Comment:	---		
Visual Description:	Moist, olive gray sandy clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



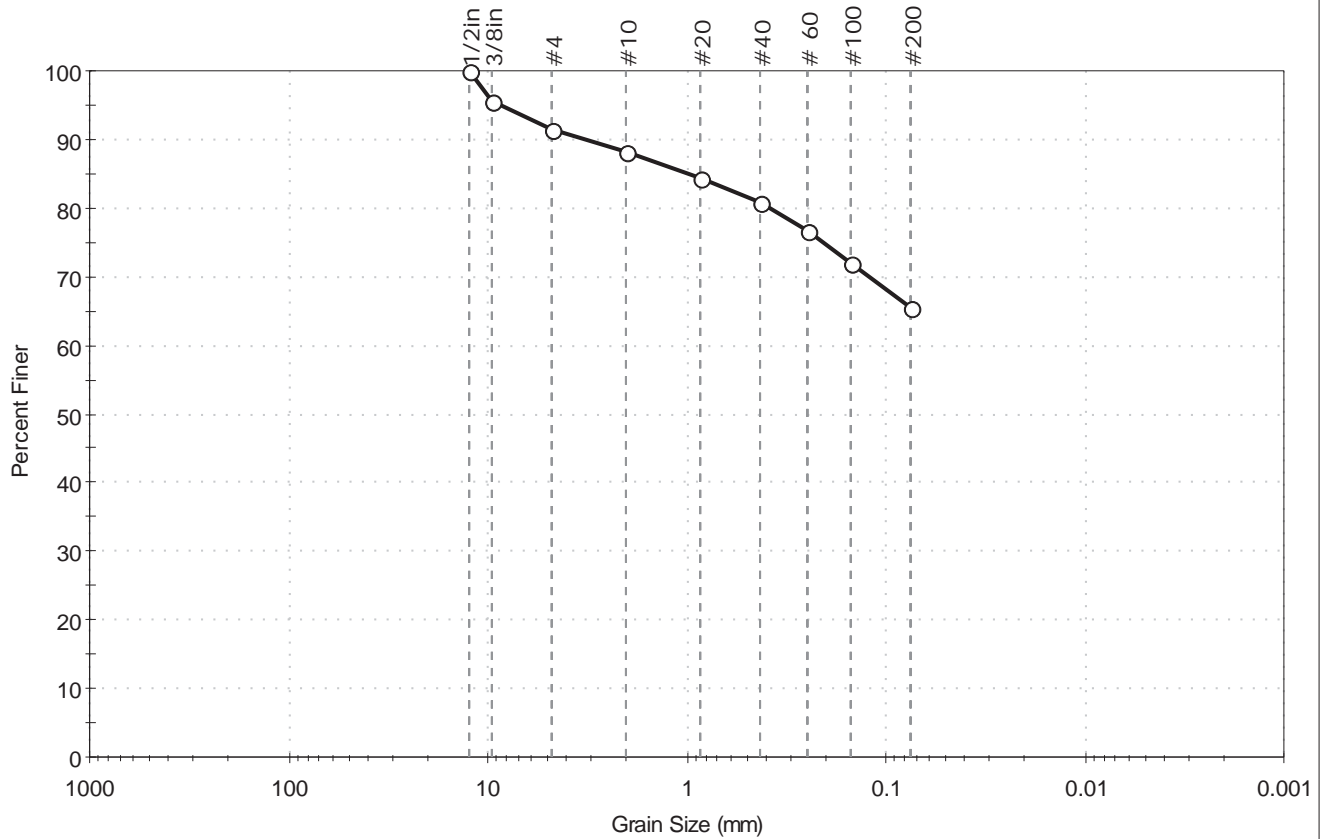
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-9	0.0-2.0 ft	23	45	21	24	0.1	Sandy Lean clay (CL)

Sample Prepared using the WET method
 22% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-10	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	0.0-2.0 ft	Test Id:	266214
Test Comment:	---		
Visual Description:	Moist, olive sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	8.4	26.2	65.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2in	12.50	100		
3/8in	9.50	95		
#4	4.75	92		
#10	2.00	88		
#20	0.85	84		
#40	0.42	81		
#60	0.25	77		
#100	0.15	72		
#200	0.075	65		

<u>Coefficients</u>	
D ₈₅ = 0.9554 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

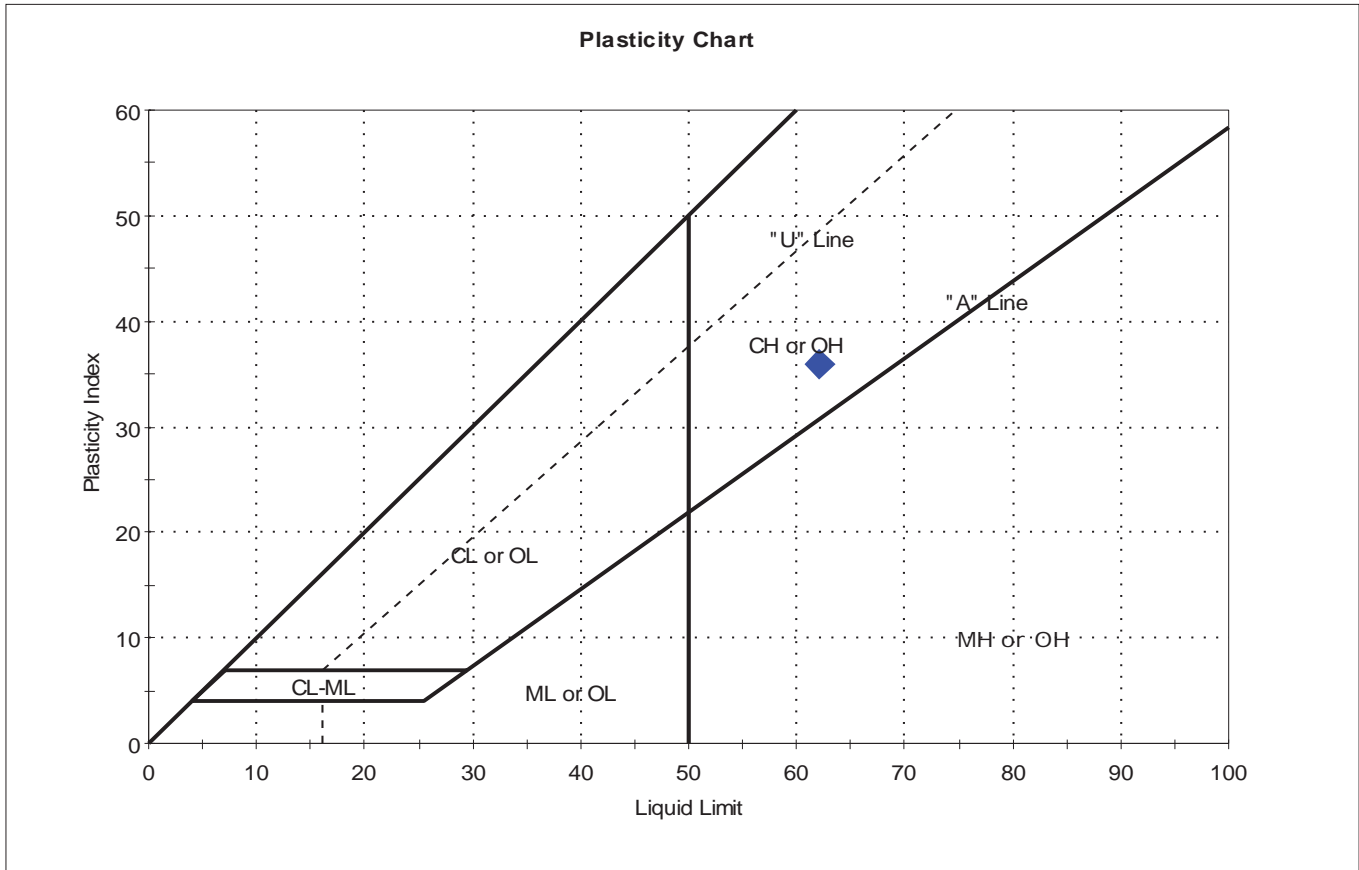
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (23))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements		Tested By:	twh	
Location:	---	Sample Type:	bag	Checked By:	MCM
Boring ID:	SPT-10	Test Date:	06/30/16	Test Id:	266239
Sample ID:	---				
Depth :	0.0-2.0 ft				
Test Comment:	---				
Visual Description:	Moist, olive sandy clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



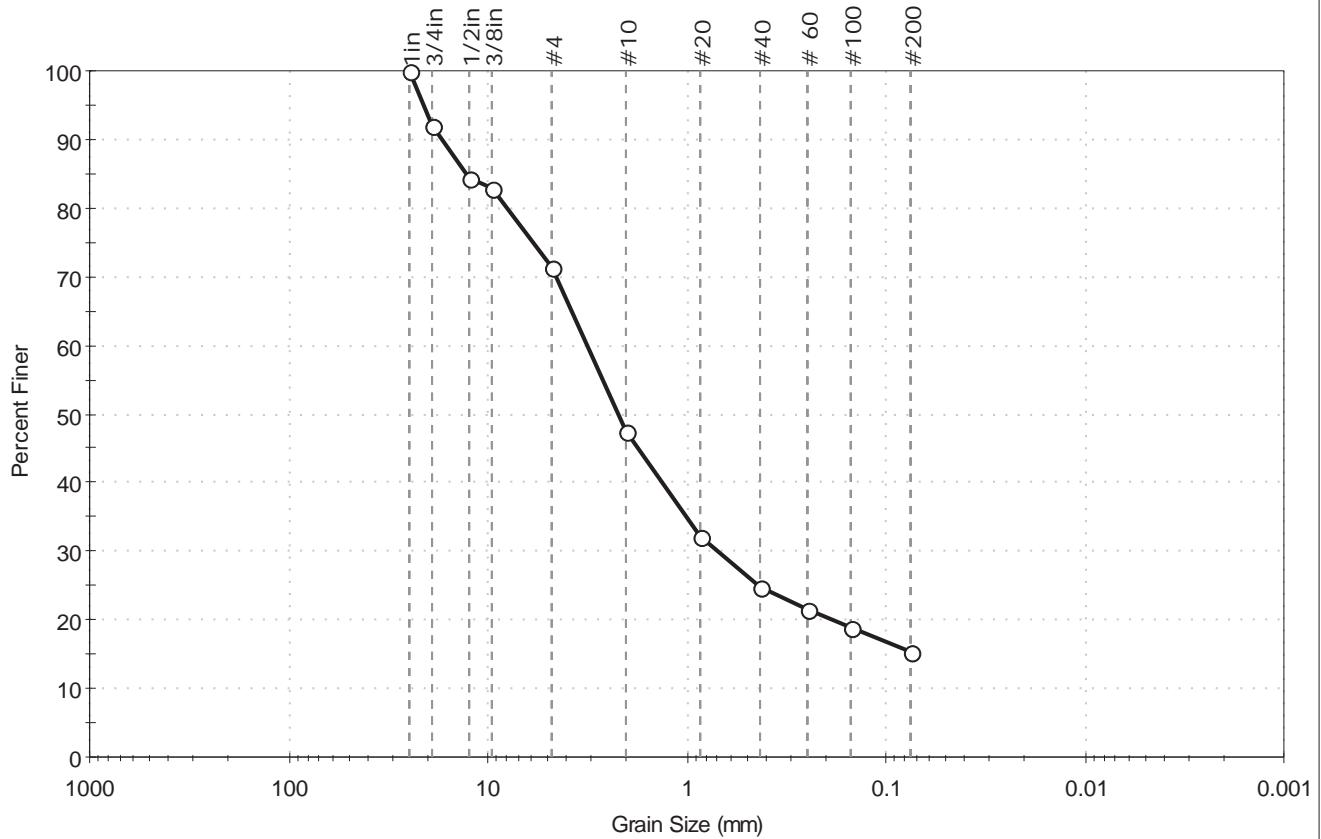
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-10	0.0-2.0 ft	27	62	26	36	0	Sandy Fat clay (CH)

Sample Prepared using the WET method
 19% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-11	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	4.0-6.0 ft	Checked By:	MCM
		Test Id:	266215
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	28.6	56.1	15.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1in	25.00	100		
3/4in	19.00	92		
1/2in	12.50	84		
3/8in	9.50	83		
#4	4.75	71		
#10	2.00	48		
#20	0.85	32		
#40	0.42	25		
#60	0.25	22		
#100	0.15	19		
#200	0.075	15		

<u>Coefficients</u>	
D ₈₅ = 12.9321 mm	D ₃₀ = 0.6943 mm
D ₆₀ = 3.1397 mm	D ₁₅ = N/A
D ₅₀ = 2.1808 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

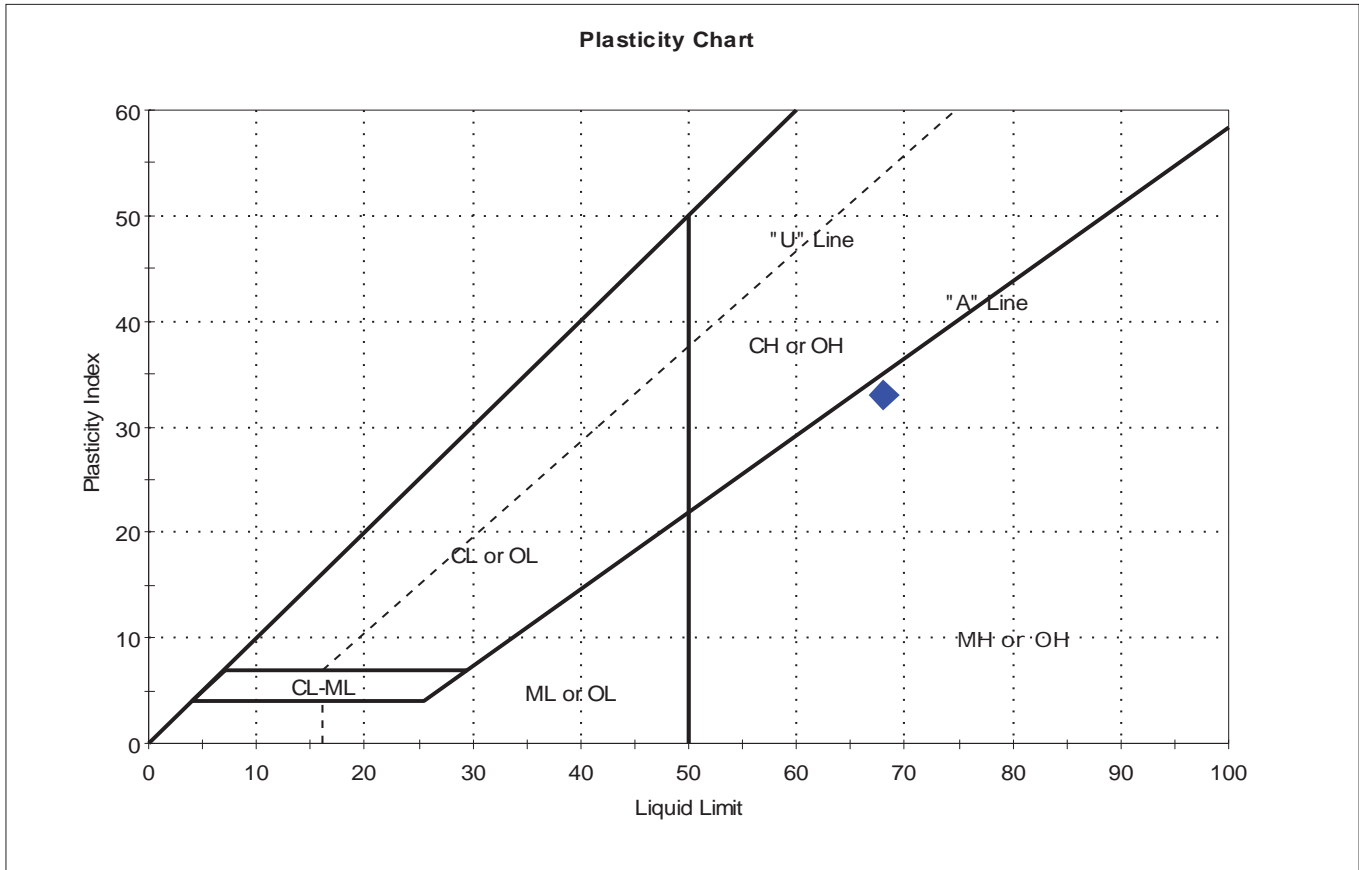
<u>Classification</u>	
<u>ASTM</u>	Silty sand with gravel (SM)
<u>AASHTO</u>	Clayey Gravel and Sand (A-2-7 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-11	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	4.0-6.0 ft	Checked By:	MCM
		Test Id:	266240
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown silty sand with gravel		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



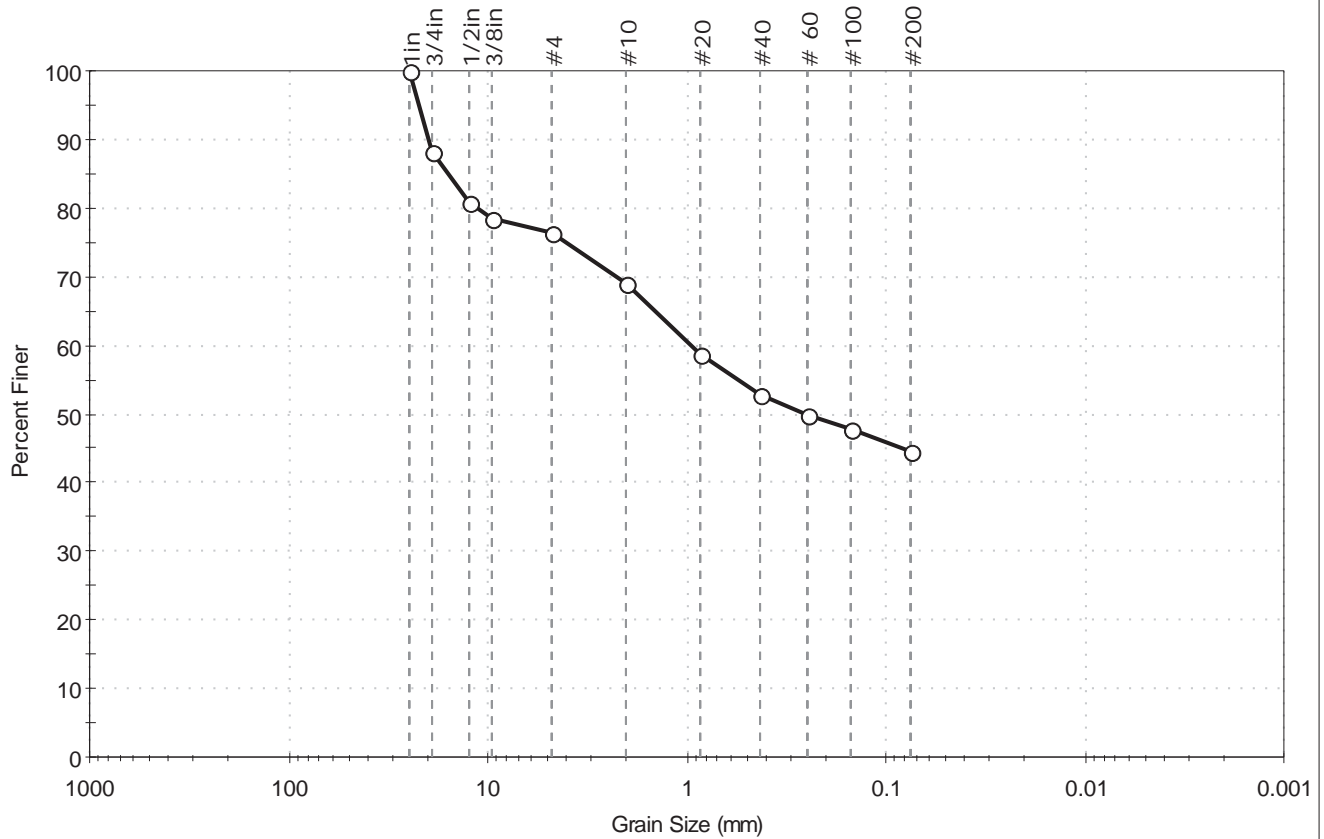
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-11	4.0-6.0 ft	20	68	35	33	-0.5	Silty sand with gravel (SM)

Sample Prepared using the WET method
 75% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-12	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266216
Test Comment:	---		
Visual Description:	Moist, very dark brown clayey sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	23.6	31.8	44.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1in	25.00	100		
3/4in	19.00	88		
1/2in	12.50	81		
3/8in	9.50	79		
#4	4.75	76		
#10	2.00	69		
#20	0.85	59		
#40	0.42	53		
#60	0.25	50		
#100	0.15	48		
#200	0.075	45		

<u>Coefficients</u>	
D ₈₅ = 15.8427 mm	D ₃₀ = N/A
D ₆₀ = 0.9524 mm	D ₁₅ = N/A
D ₅₀ = 0.2582 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

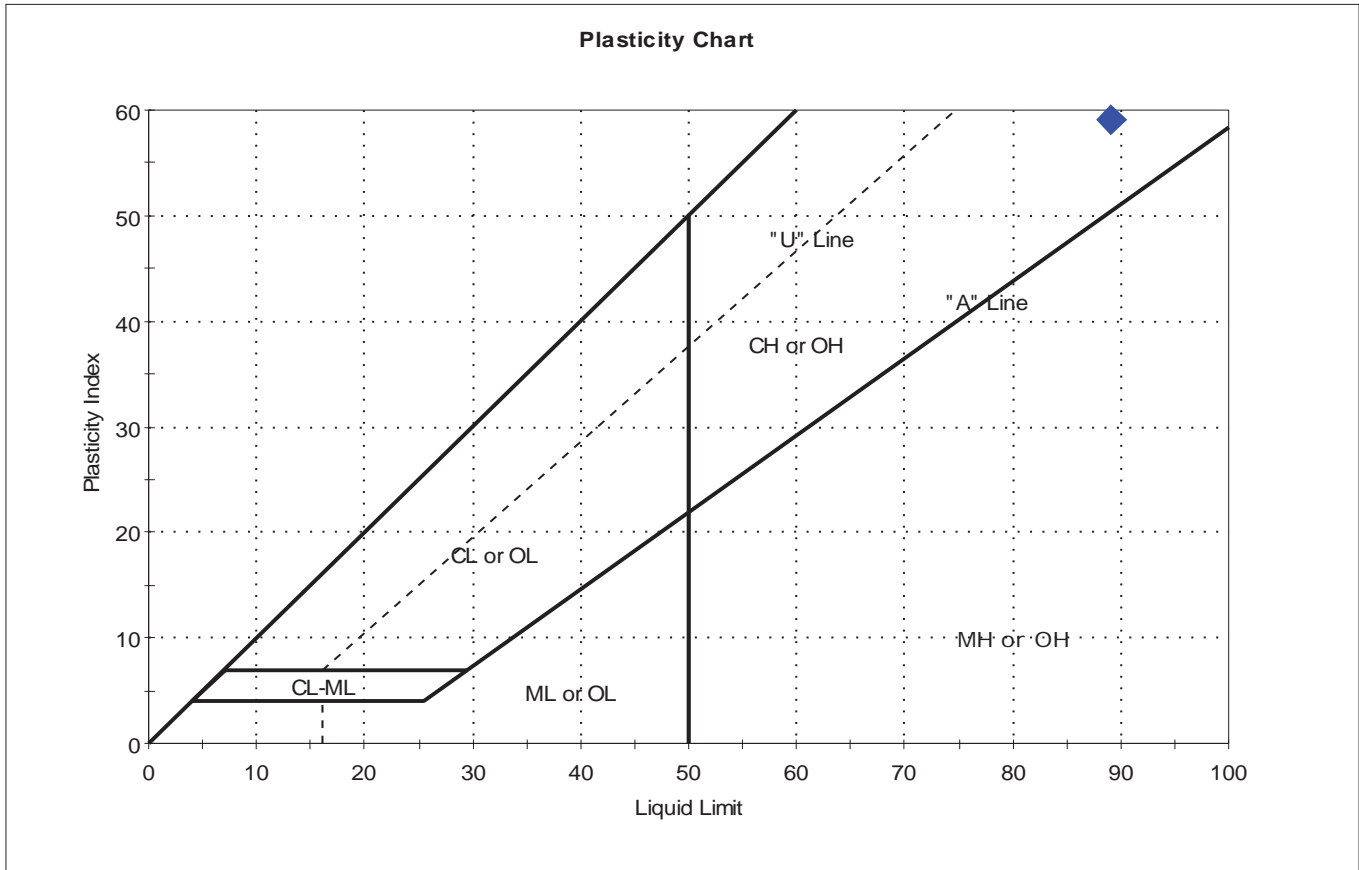
<u>Classification</u>	
<u>ASTM</u>	Clayey sand with gravel (SC)
<u>AASHTO</u>	Clayey Soils (A-7-5 (19))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-12	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266241
Test Comment:	---		
Visual Description:	Moist, very dark brown clayey sand with gravel		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



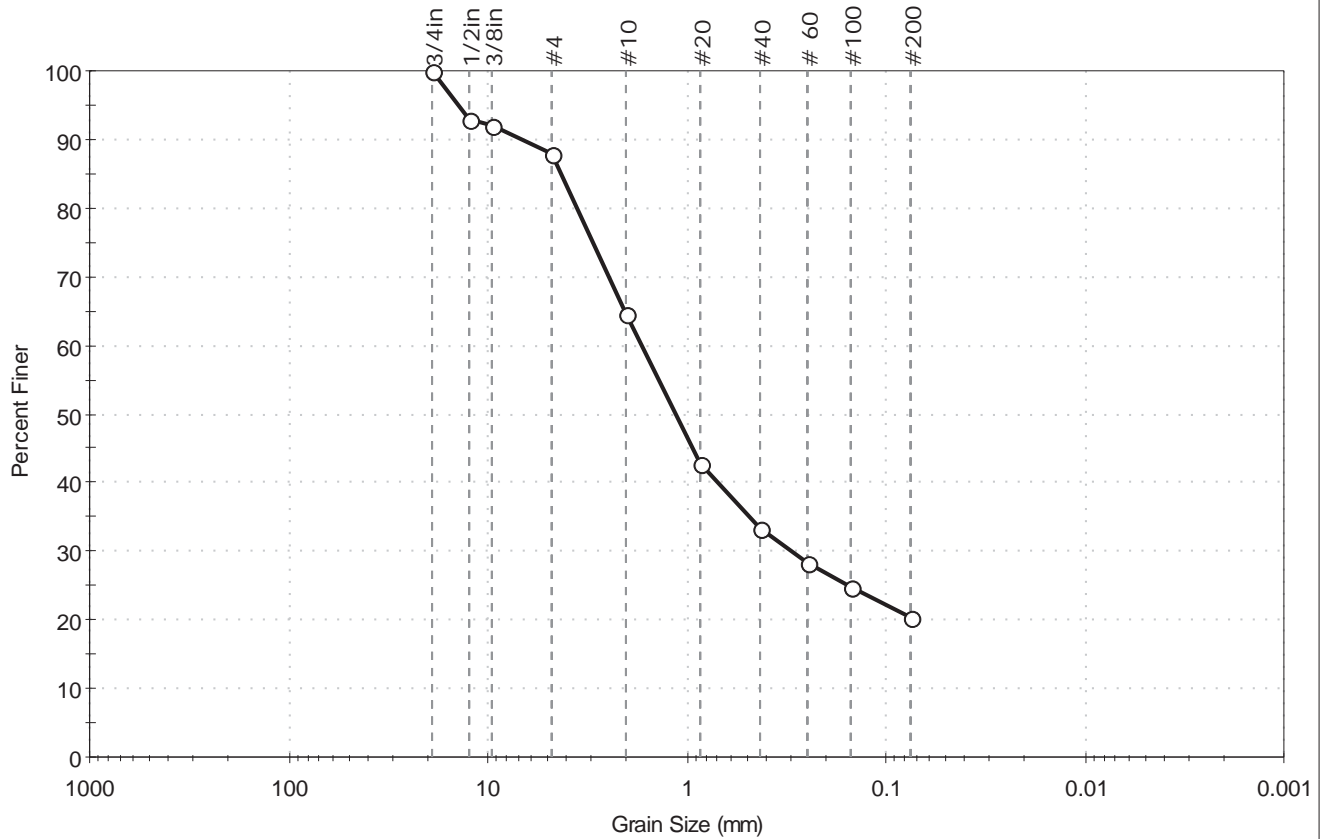
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-12	2.0-4.0 ft	31	89	30	59	0	Clayey sand with gravel (SC)

Sample Prepared using the WET method
 47% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-13	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	6.0-8.0 ft	Checked By:	MCM
		Test Id:	266217
Test Comment:	---		
Visual Description:	Moist, dark brown clayey sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	12.2	67.4	20.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4in	19.00	100		
1/2in	12.50	93		
3/8in	9.50	92		
#4	4.75	88		
#10	2.00	65		
#20	0.85	43		
#40	0.425	33		
#60	0.25	28		
#100	0.15	25		
#200	0.075	20		

<u>Coefficients</u>	
D ₈₅ = 4.2806 mm	D ₃₀ = 0.2955 mm
D ₆₀ = 1.6627 mm	D ₁₅ = N/A
D ₅₀ = 1.1256 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

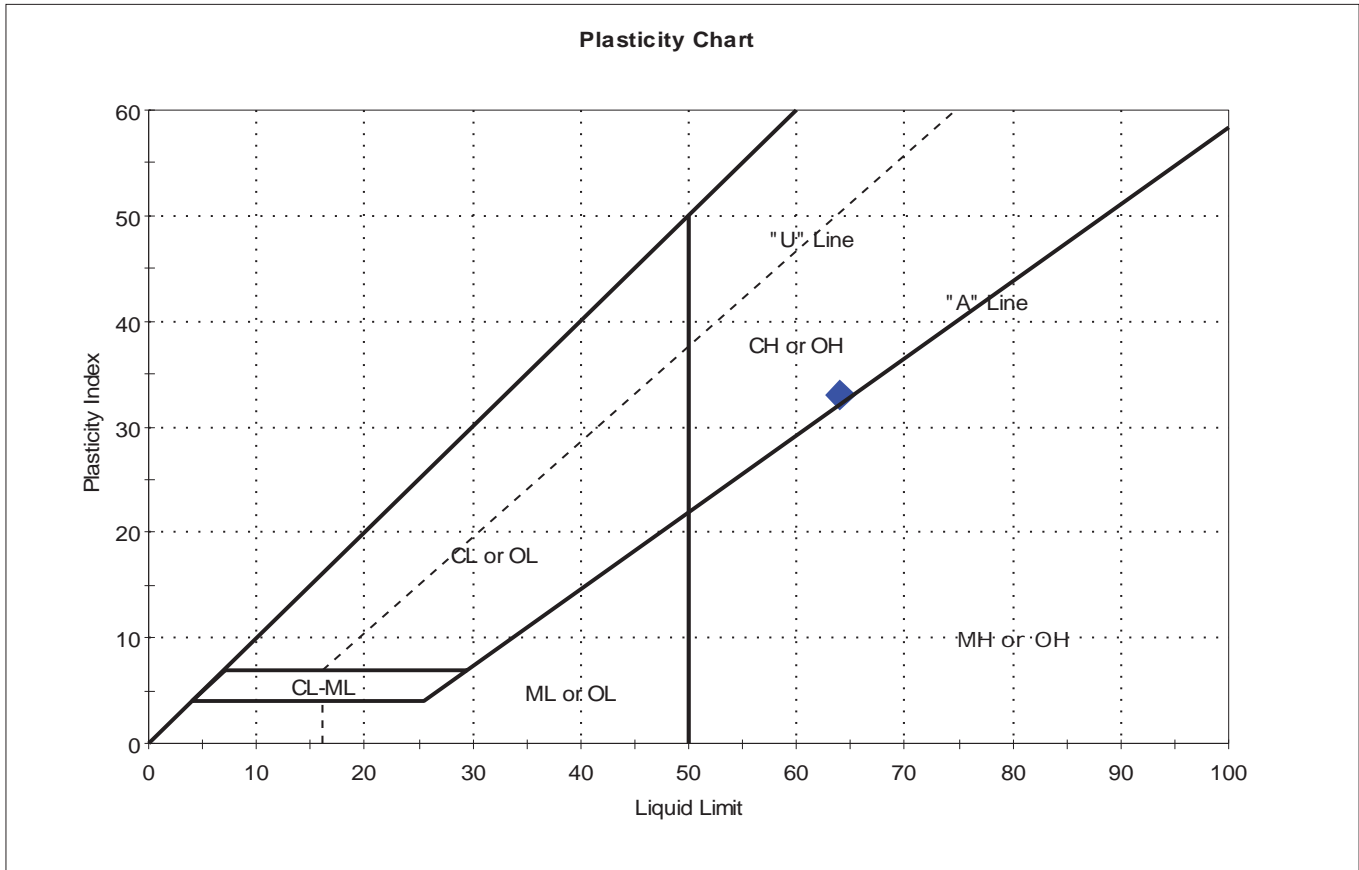
<u>Classification</u>	
<u>ASTM</u>	Clayey sand (SC)
<u>AASHTO</u>	Clayey Gravel and Sand (A-2-7 (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements		Tested By:	twh	
Location:	---	Sample Type:	bag	Checked By:	MCM
Boring ID:	SPT-13	Test Date:	06/30/16	Test Id:	266242
Sample ID:	---				
Depth :	6.0-8.0 ft				
Test Comment:	---				
Visual Description:	Moist, dark brown clayey sand				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



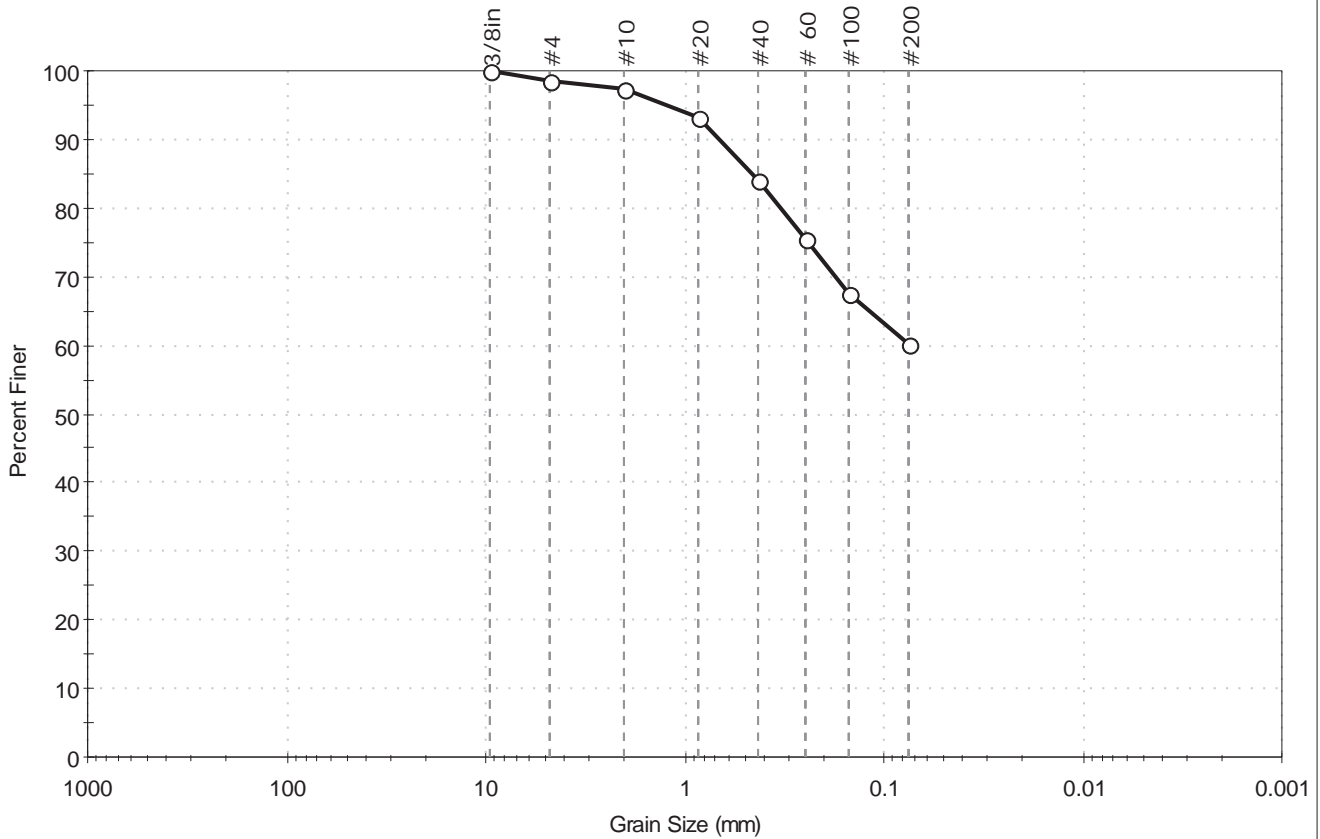
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-13	6.0-8.0 ft	20	64	31	33	-0.3	Clayey sand (SC)

Sample Prepared using the WET method
 67% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-14	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	0.0-2.0 ft	Test Id:	266218
Test Comment:	---		
Visual Description:	Moist, red sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	1.5	38.4	60.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	98		
#10	2.00	97		
#20	0.85	93		
#40	0.42	84		
#60	0.25	76		
#100	0.15	68		
#200	0.075	60		

<u>Coefficients</u>	
D ₈₅ = 0.4582 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

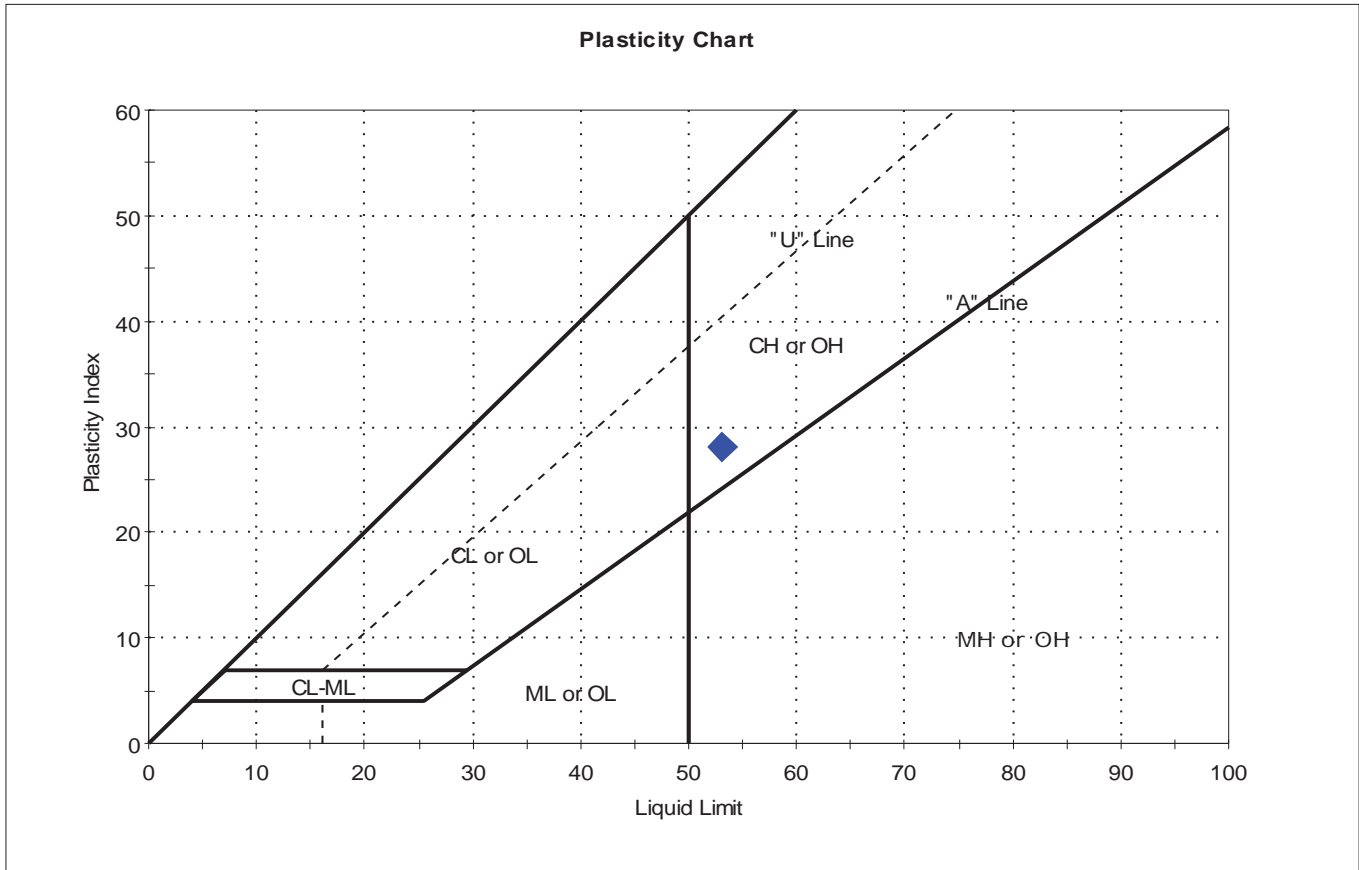
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (15))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-14	Sample Type:	bag
Sample ID:	---	Test Date:	06/27/16
Depth :	0.0-2.0 ft	Checked By:	MCM
		Test Id:	266243
Test Comment:	---		
Visual Description:	Moist, red sandy clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



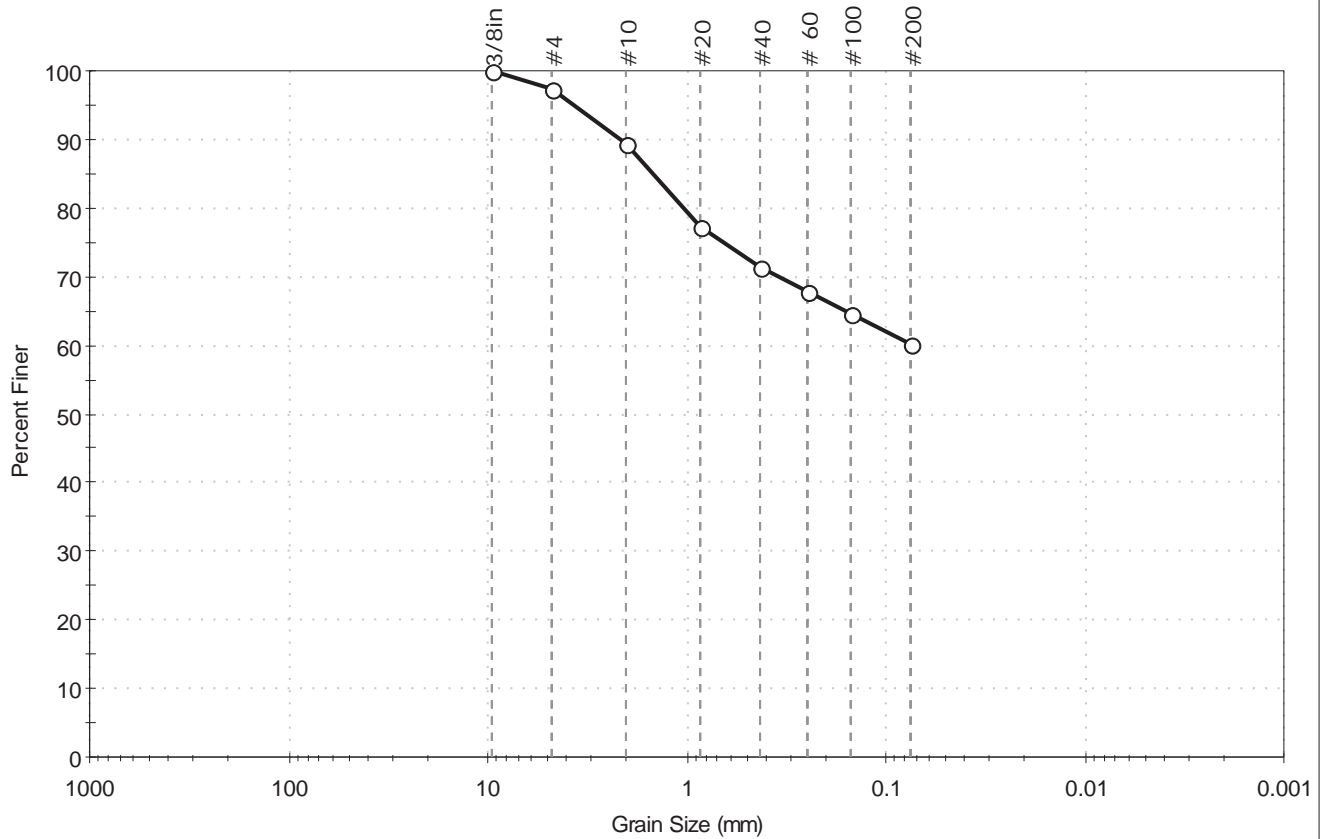
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-14	0.0-2.0 ft	18	53	25	28	-0.2	Sandy Fat clay (CH)

Sample Prepared using the WET method
 16% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-15	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Test Id:	266219
Test Comment:	---		
Visual Description:	Moist, dark yellowish brown sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	2.7	37.0	60.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	97		
#10	2.00	89		
#20	0.85	77		
#40	0.42	71		
#60	0.25	68		
#100	0.15	65		
#200	0.075	60		

<u>Coefficients</u>	
D ₈₅ = 1.4661 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

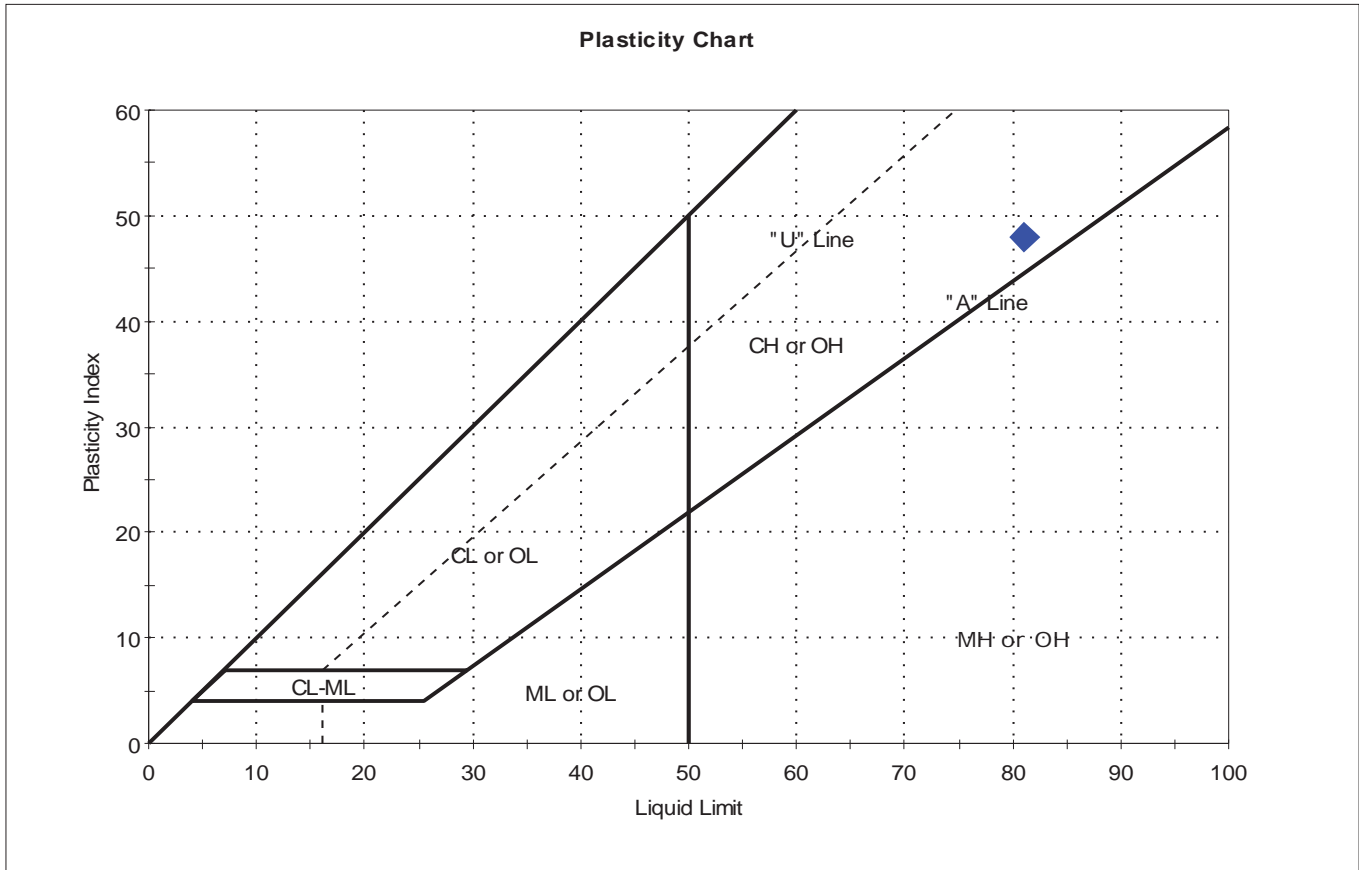
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-5 (27))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements		Tested By:	twh	
Location:	---	Sample Type:	bag	Checked By:	MCM
Boring ID:	SPT-15	Test Date:	06/24/16	Test Id:	266244
Sample ID:	---				
Depth :	2.0-4.0 ft				
Test Comment:	---				
Visual Description:	Moist, dark yellowish brown sandy clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



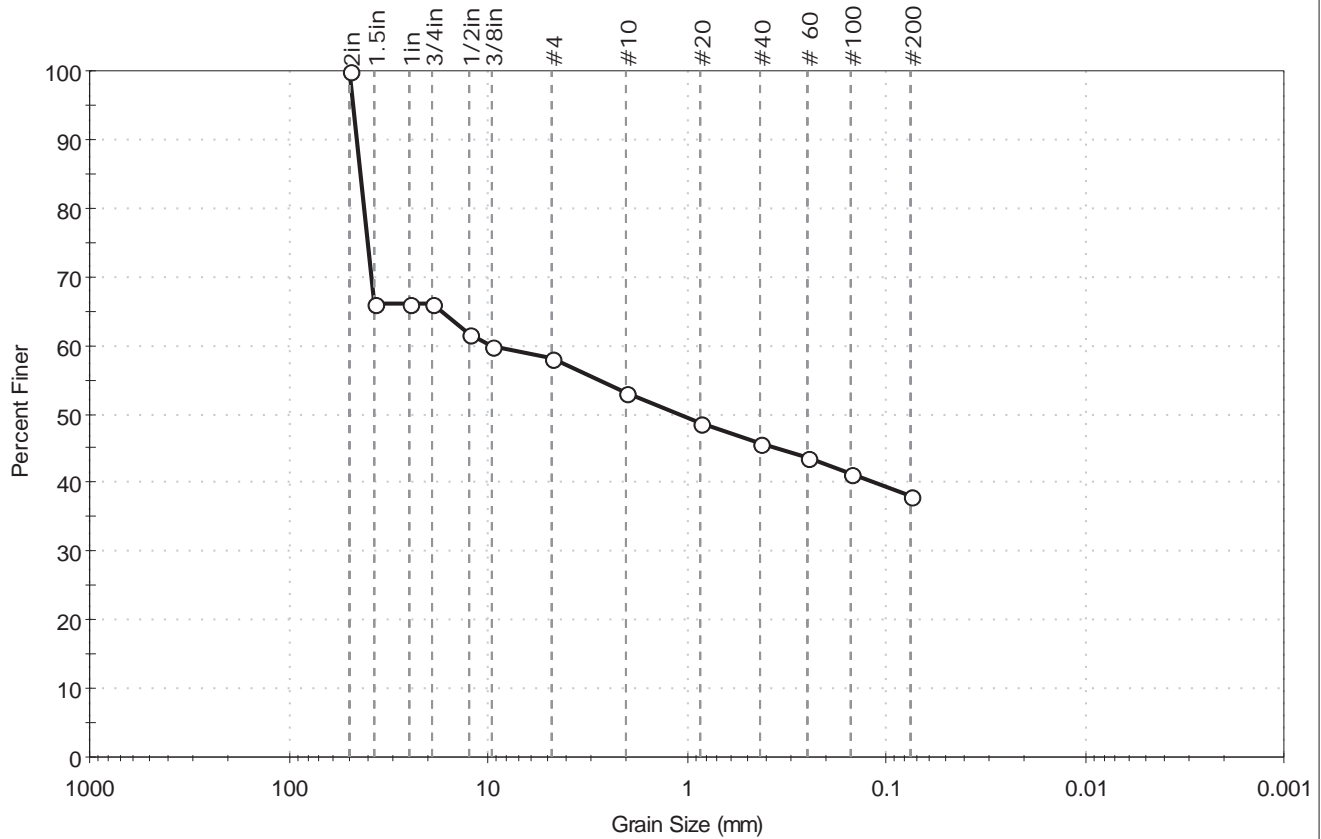
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-15	2.0-4.0 ft	42	81	33	48	0.2	Sandy Fat clay (CH)

Sample Prepared using the WET method
 29% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-16	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266220
Test Comment:	---		
Visual Description:	Moist, dark yellowish brown clayey gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	41.9	20.1	38.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
2in	50.00	100		
1.5in	37.50	66		
1in	25.00	66		
3/4in	19.00	66		
1/2in	12.50	62		
3/8in	9.50	60		
#4	4.75	58		
#10	2.00	53		
#20	0.85	49		
#40	0.42	46		
#60	0.25	44		
#100	0.15	41		
#200	0.075	38		

<u>Coefficients</u>	
D ₈₅ = 44.0414 mm	D ₃₀ = N/A
D ₆₀ = 9.4350 mm	D ₁₅ = N/A
D ₅₀ = 1.0798 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

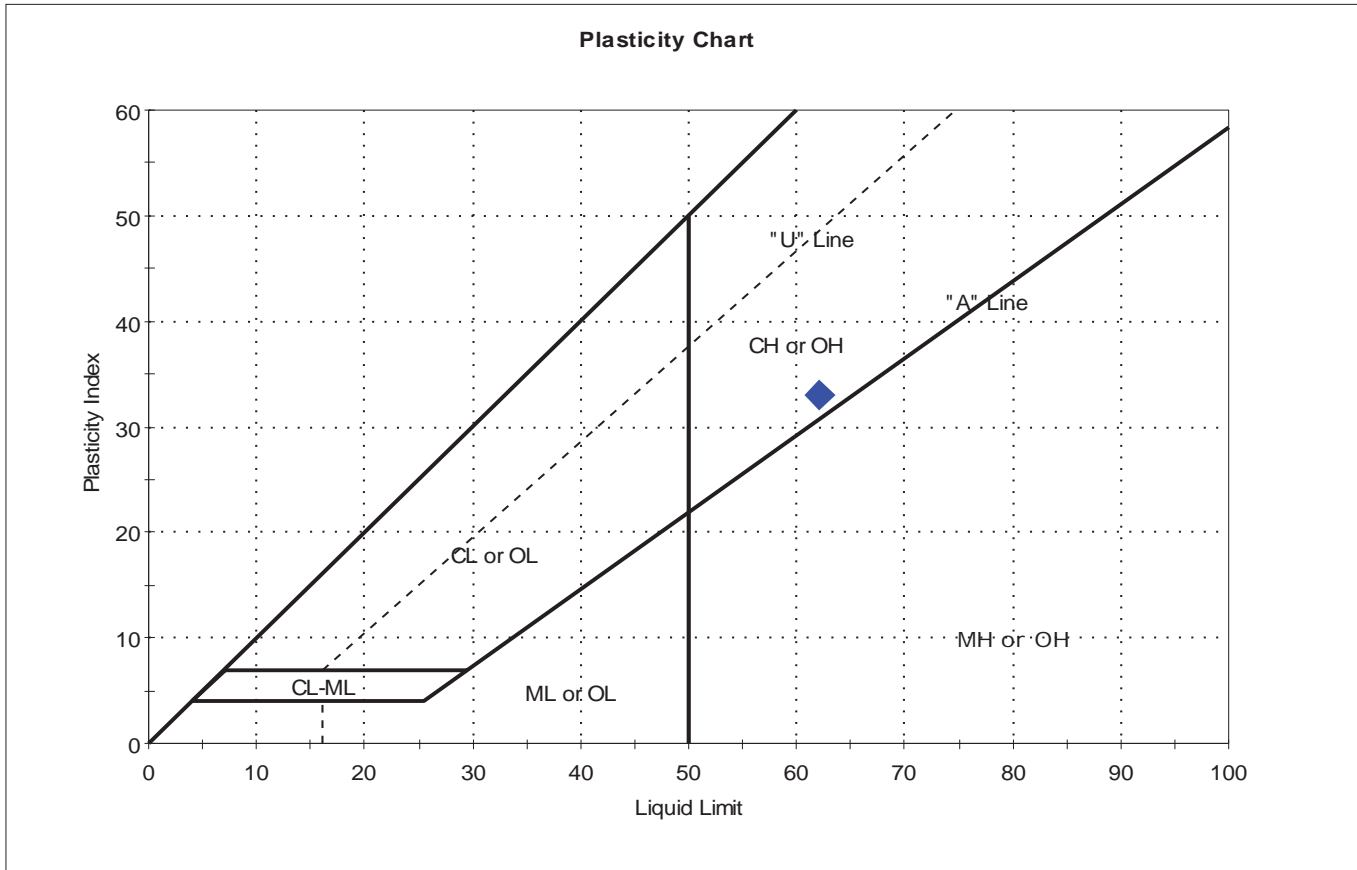
<u>Classification</u>	
<u>ASTM</u>	Clayey gravel with sand (GC)
<u>AASHTO</u>	Clayey Soils (A-7-6 (6))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	ANGULAR
Sand/Gravel Hardness :	HARD



Client:	F&ME Consultants	Project No:	GTX-304915
Project:	Riverview Road Improvements	Tested By:	twh
Location:	---	Checked By:	MCM
Boring ID:	SPT-16	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth :	2.0-4.0 ft	Test Id:	266245
Test Comment:	---		
Visual Description:	Moist, dark yellowish brown clayey gravel with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



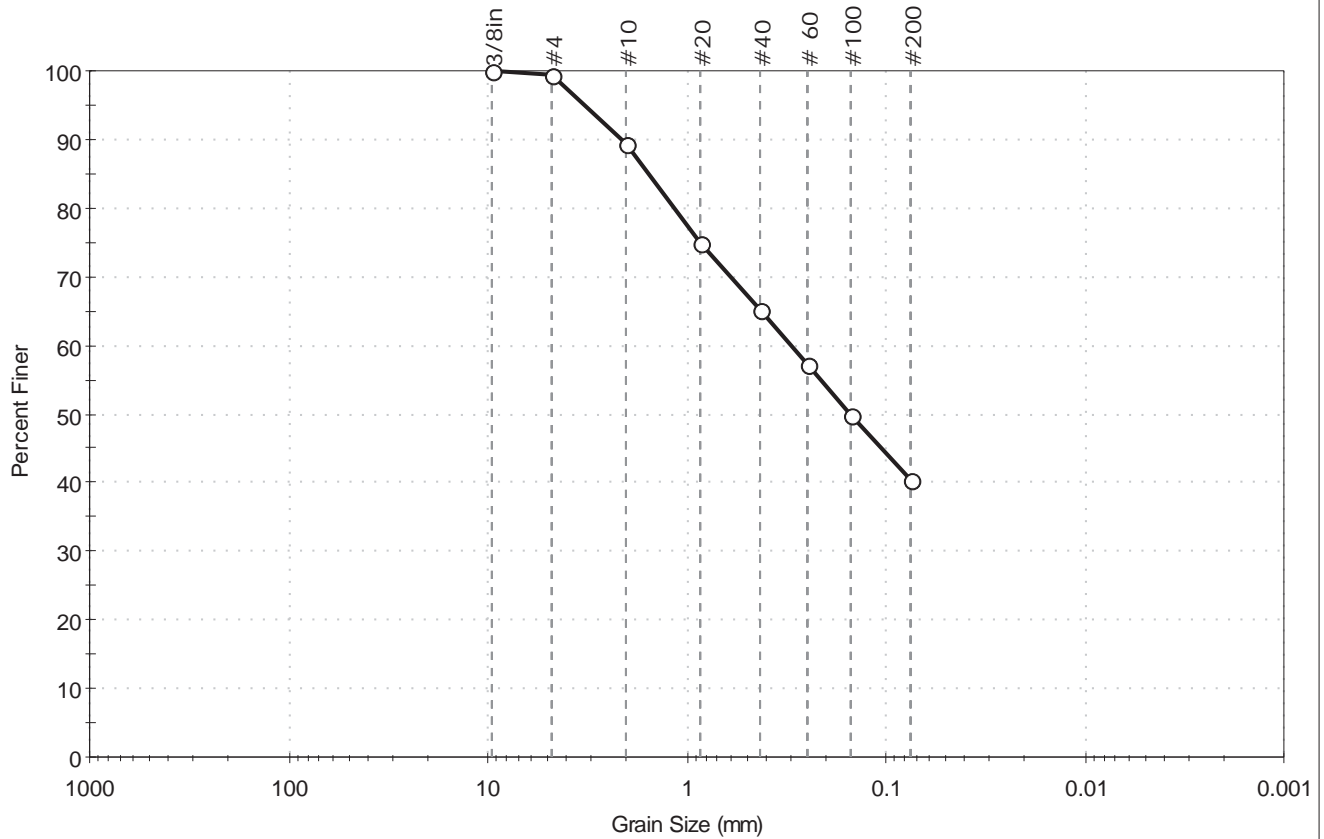
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-16	2.0-4.0 ft	22	62	29	33	-0.2	Clayey gravel with sand (GC)

Sample Prepared using the WET method
 54% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-17	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth :	0.0-2.0 ft	Test Id:	266221
Test Comment:	---		
Visual Description:	Moist, olive brown clayey sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.6	59.1	40.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	99		
#10	2.00	90		
#20	0.85	75		
#40	0.42	65		
#60	0.25	57		
#100	0.15	50		
#200	0.075	40		

<u>Coefficients</u>	
D ₈₅ = 1.5340 mm	D ₃₀ = N/A
D ₆₀ = 0.3009 mm	D ₁₅ = N/A
D ₅₀ = 0.1521 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

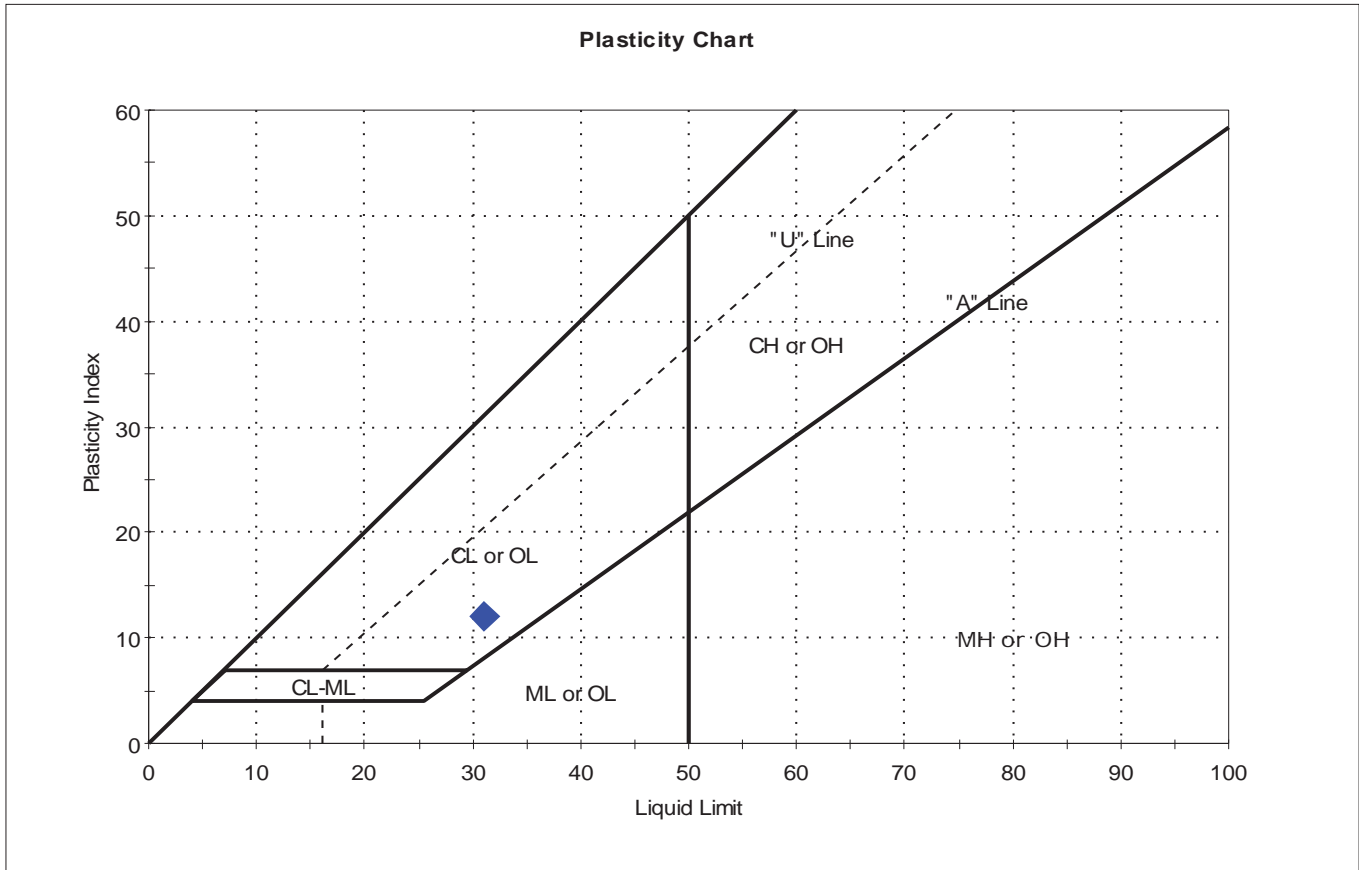
<u>Classification</u>	
<u>ASTM</u>	Clayey sand (SC)
<u>AASHTO</u>	Clayey Soils (A-6 (1))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	



Client:	F&ME Consultants	Project No:	GTX-304915
Project:	Riverview Road Improvements	Tested By:	twh
Location:	---	Checked By:	MCM
Boring ID:	SPT-17	Sample Type:	bag
Sample ID:	---	Test Date:	06/28/16
Depth :	0.0-2.0 ft	Test Id:	266246
Test Comment:	---		
Visual Description:	Moist, olive brown clayey sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



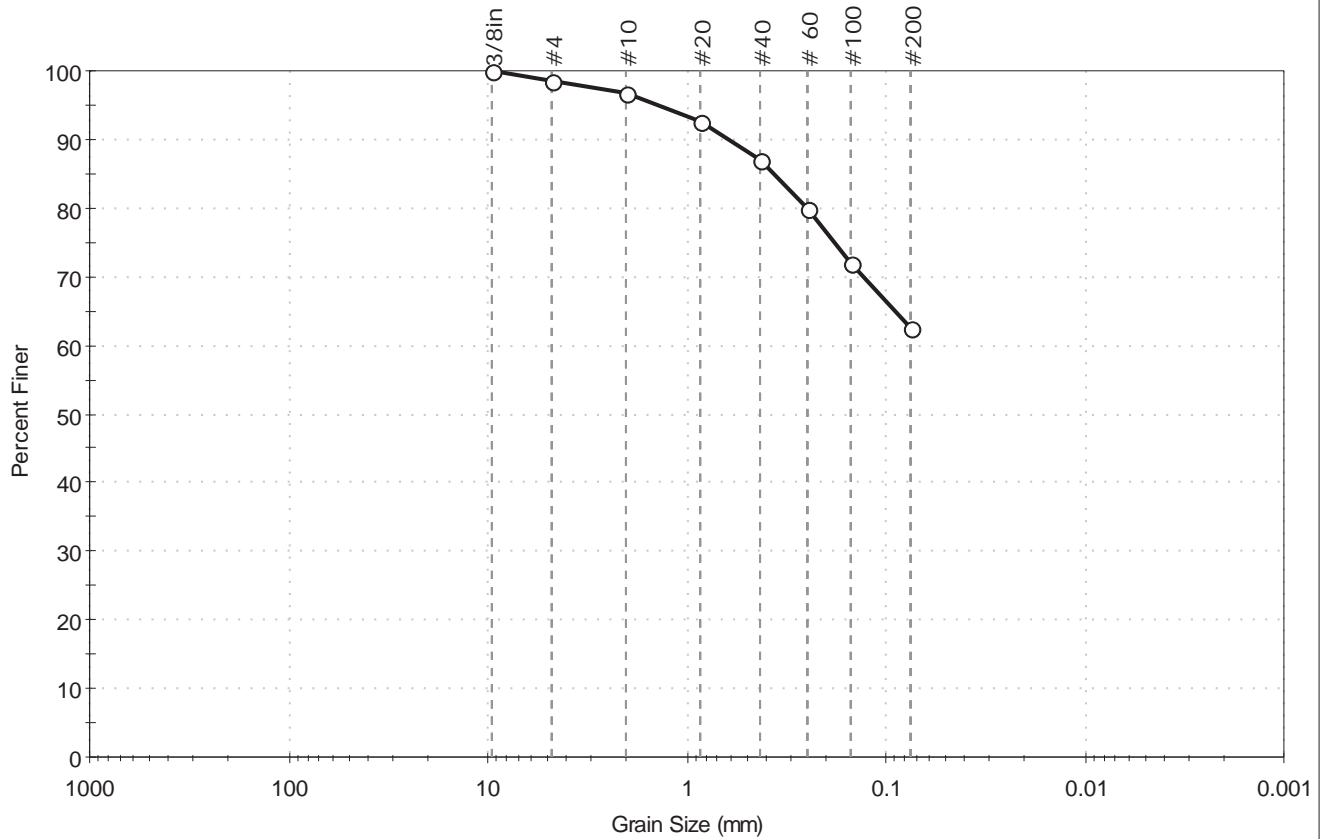
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-17	0.0-2.0 ft	22	31	19	12	0.3	Clayey sand (SC)

Sample Prepared using the WET method
 35% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-18	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth :	6.0-8.0 ft	Test Id:	266222
Test Comment:	---		
Visual Description:	Moist, dark yellowish brown sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	1.5	36.1	62.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	98		
#10	2.00	97		
#20	0.85	93		
#40	0.42	87		
#60	0.25	80		
#100	0.15	72		
#200	0.075	62		

<u>Coefficients</u>	
D ₈₅ = 0.3634 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

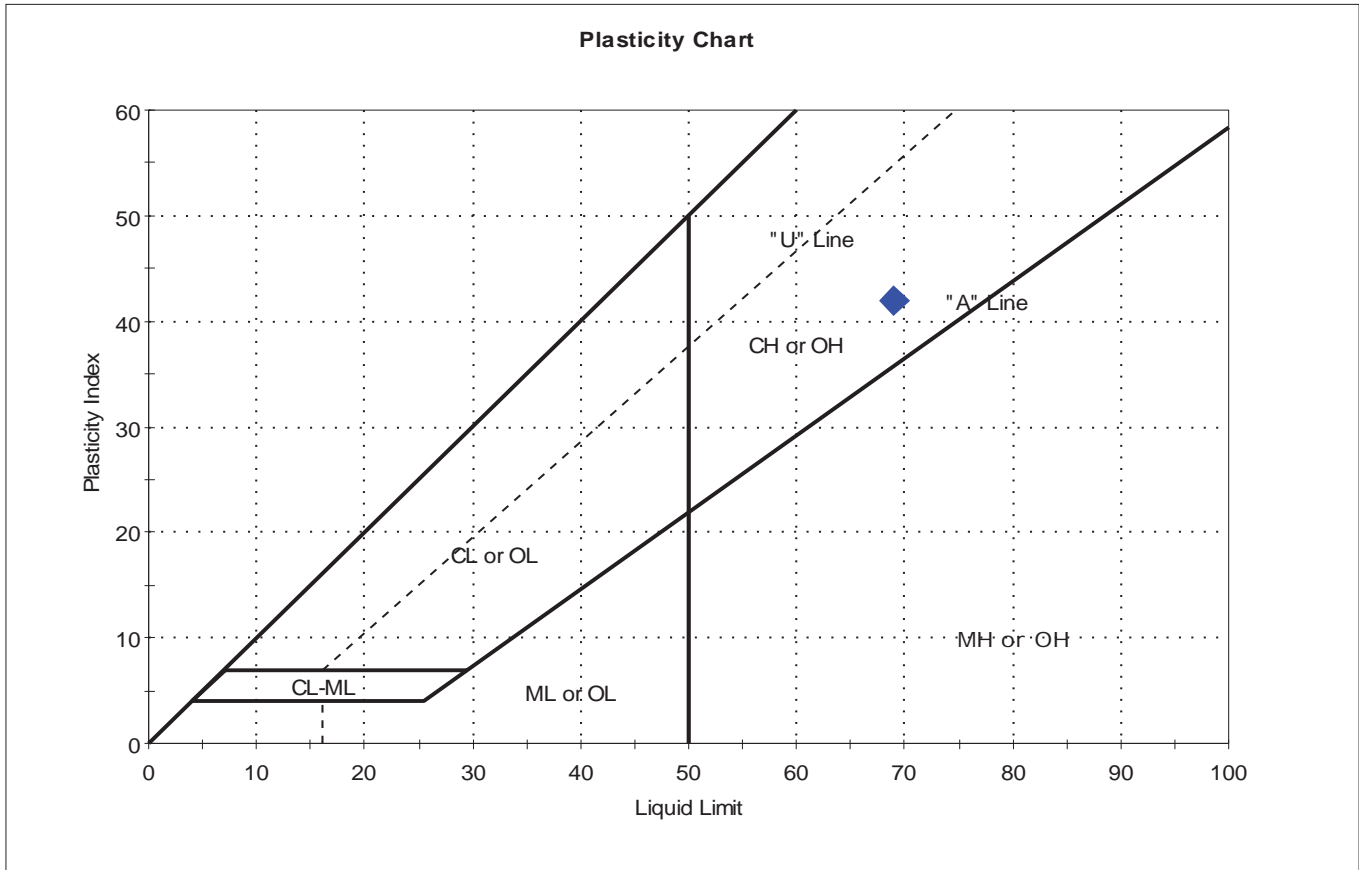
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (25))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements		Tested By:	twh	
Location:	---	Sample Type:	bag	Checked By:	MCM
Boring ID:	SPT-18	Test Date:	06/30/16	Test Id:	266247
Sample ID:	---				
Depth :	6.0-8.0 ft				
Test Comment:	---				
Visual Description:	Moist, dark yellowish brown sandy clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



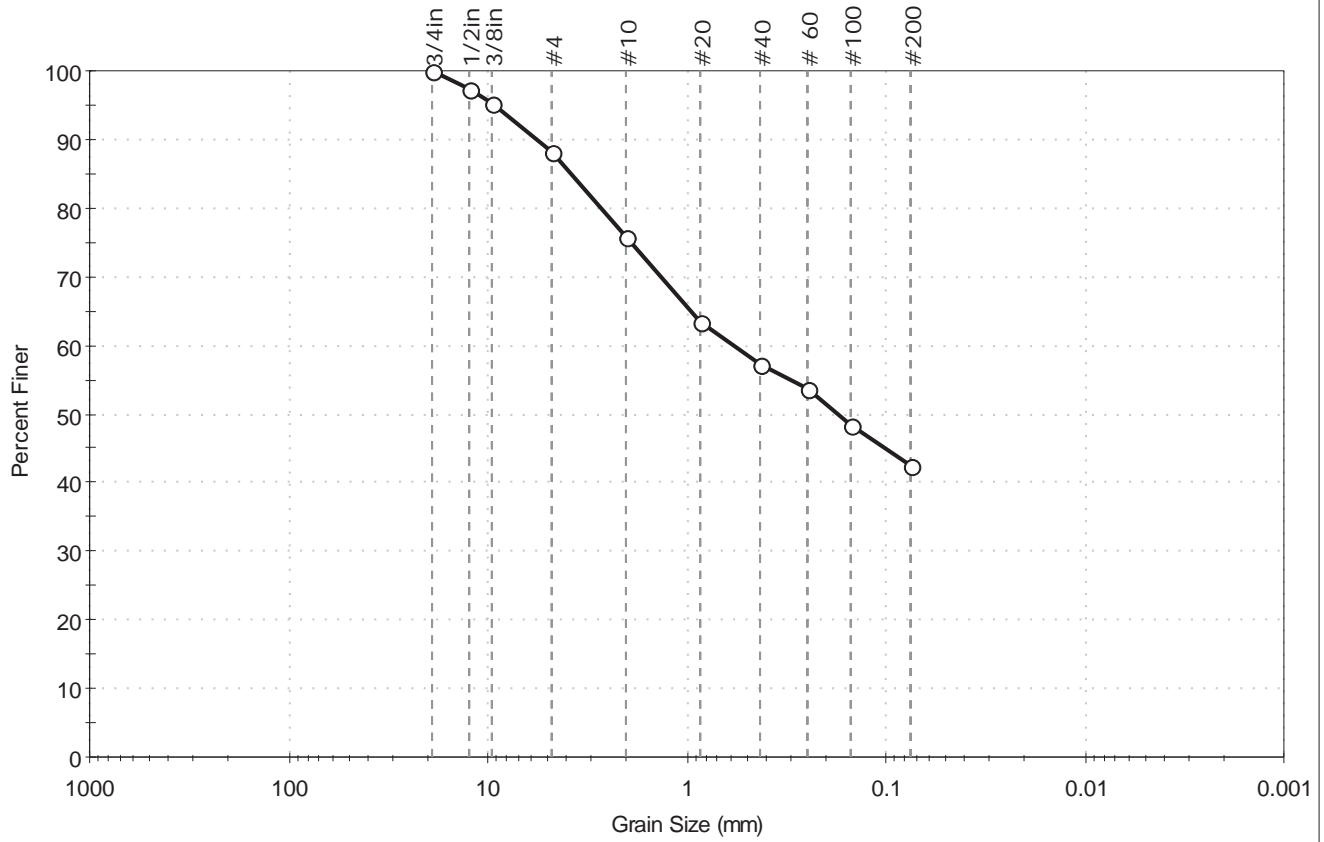
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-18	6.0-8.0 ft	33	69	27	42	0.1	Sandy Fat clay (CH)

Sample Prepared using the WET method
 13% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-19	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266223
Test Comment:	---		
Visual Description:	Moist, dark brown clayey sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	11.8	45.6	42.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4in	19.00	100		
1/2in	12.50	97		
3/8in	9.50	95		
#4	4.75	88		
#10	2.00	76		
#20	0.85	63		
#40	0.425	57		
#60	0.25	54		
#100	0.15	48		
#200	0.075	43		

<u>Coefficients</u>	
D ₈₅ = 3.7918 mm	D ₃₀ = N/A
D ₆₀ = 0.5840 mm	D ₁₅ = N/A
D ₅₀ = 0.1761 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

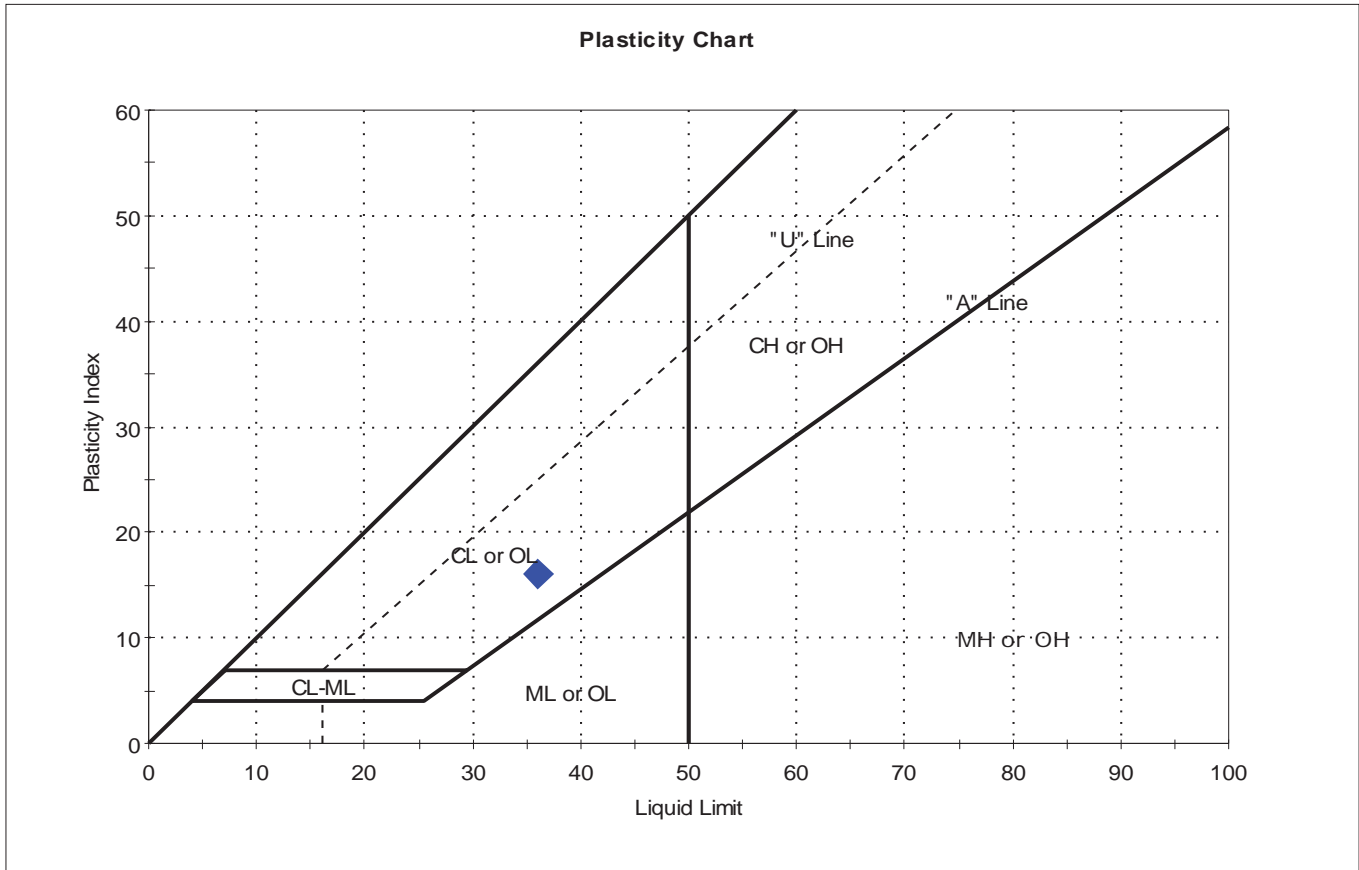
<u>Classification</u>	
<u>ASTM</u>	Clayey sand (SC)
<u>AASHTO</u>	Clayey Soils (A-6 (3))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-19	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266248
Test Comment:	---		
Visual Description:	Moist, dark brown clayey sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



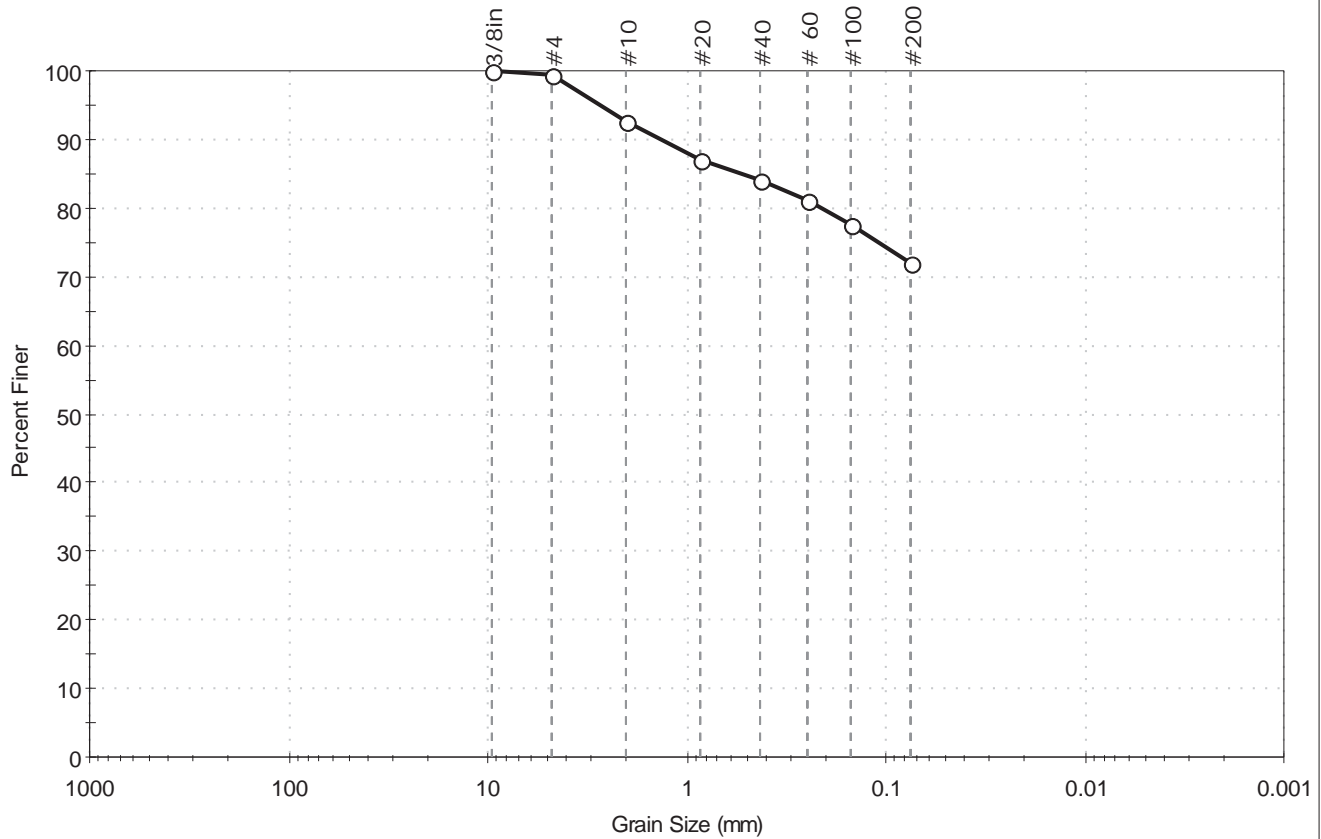
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-19	2.0-4.0 ft	20	36	20	16	0	Clayey sand (SC)

Sample Prepared using the WET method
 43% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-20	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	4.0-6.0 ft	Test Id:	266224
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown clay with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.7	27.4	71.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	99		
#10	2.00	93		
#20	0.85	87		
#40	0.42	84		
#60	0.25	81		
#100	0.15	78		
#200	0.075	72		

<u>Coefficients</u>	
D ₈₅ = 0.5169 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

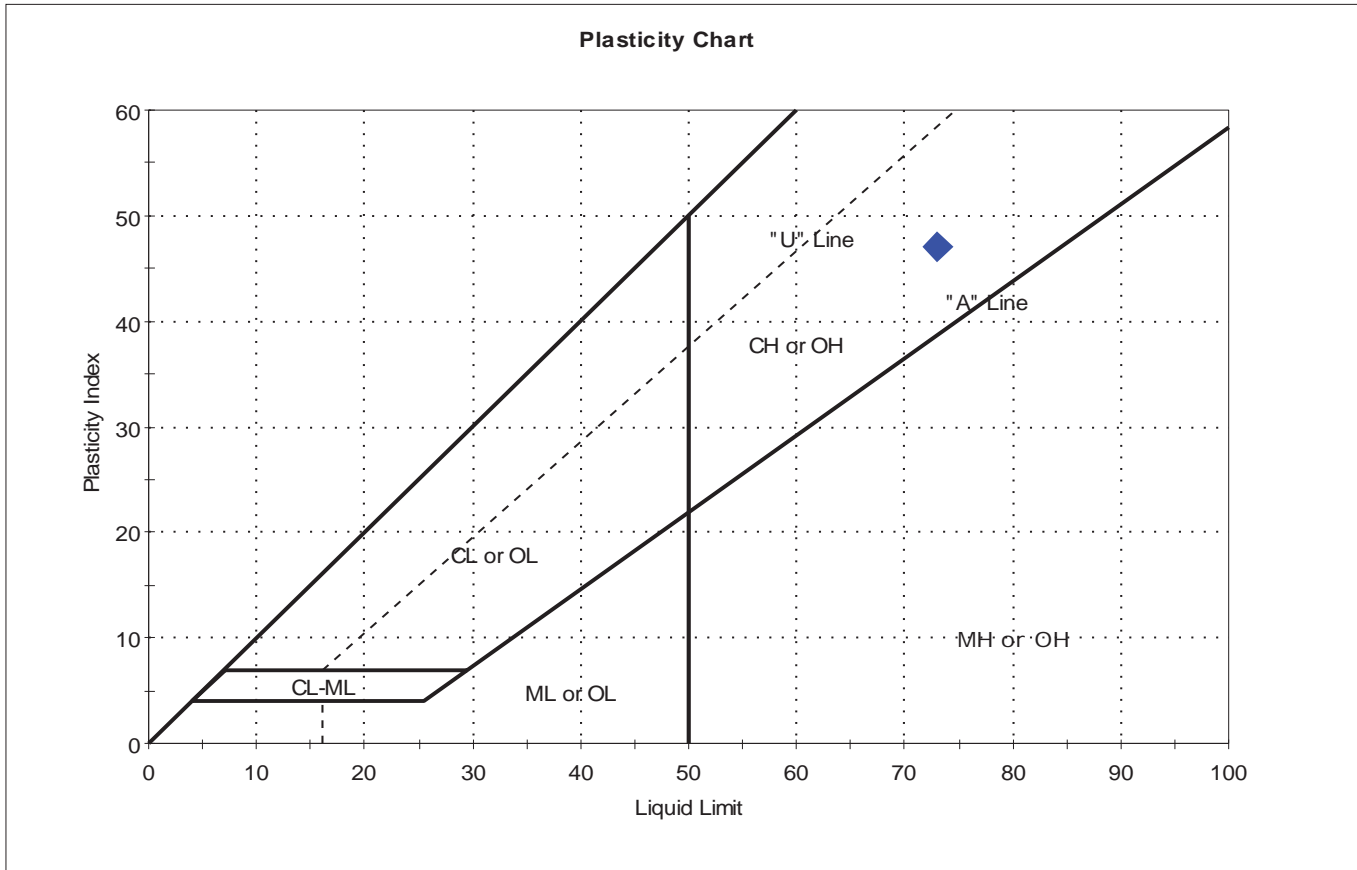
<u>Classification</u>	
<u>ASTM</u>	Fat clay with sand (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (35))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-20	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	4.0-6.0 ft	Checked By:	MCM
		Test Id:	266249
Test Comment:	---		
Visual Description:	Moist, very dark grayish brown clay with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



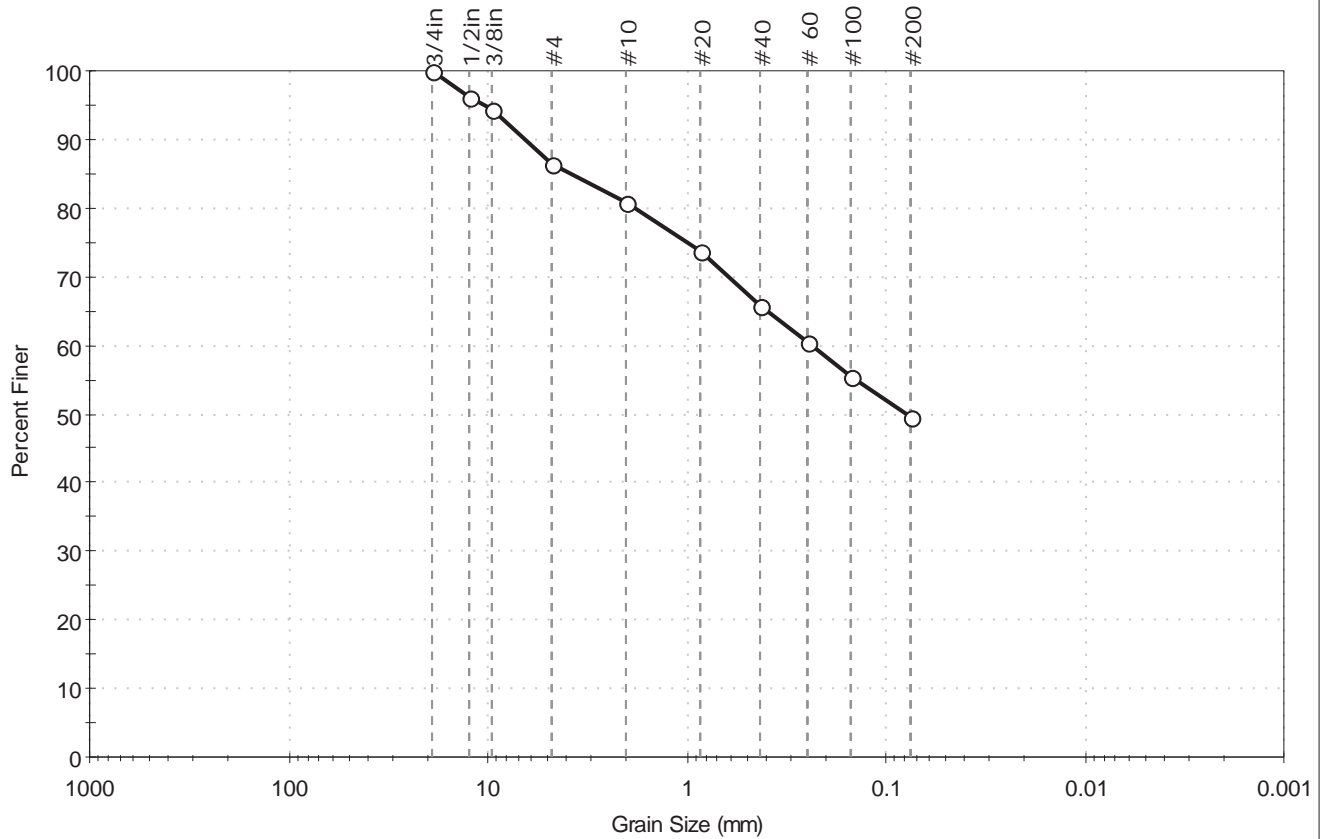
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-20	4.0-6.0 ft	35	73	26	47	0.2	Fat clay with sand (CH)

Sample Prepared using the WET method
 16% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: HIGH



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-31	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	2.0-4.0 ft	Test Id:	266225
Test Comment:	---		
Visual Description:	Moist, olive brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	13.6	36.8	49.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4in	19.00	100		
1/2in	12.50	96		
3/8in	9.50	95		
#4	4.75	86		
#10	2.00	81		
#20	0.85	74		
#40	0.42	66		
#60	0.25	60		
#100	0.15	56		
#200	0.075	50		

<u>Coefficients</u>	
D ₈₅ = 3.8572 mm	D ₃₀ = N/A
D ₆₀ = 0.2384 mm	D ₁₅ = N/A
D ₅₀ = 0.0787 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

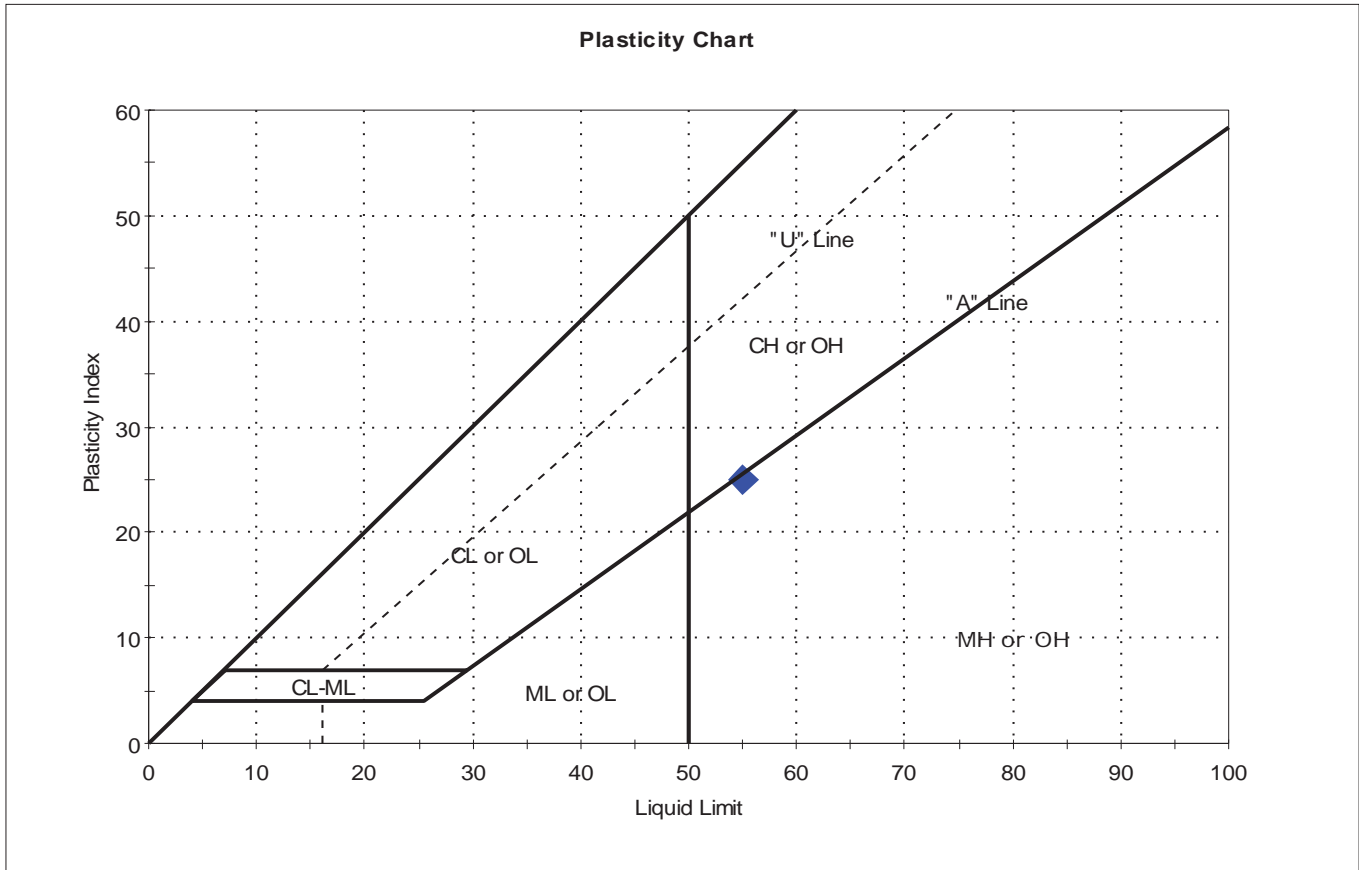
<u>Classification</u>	
<u>ASTM</u>	Silty sand (SM)
<u>AASHTO</u>	Clayey Soils (A-7-5 (9))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-21	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	2.0-4.0 ft	Checked By:	MCM
		Test Id:	266250
Test Comment:	---		
Visual Description:	Moist, olive brown silty sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



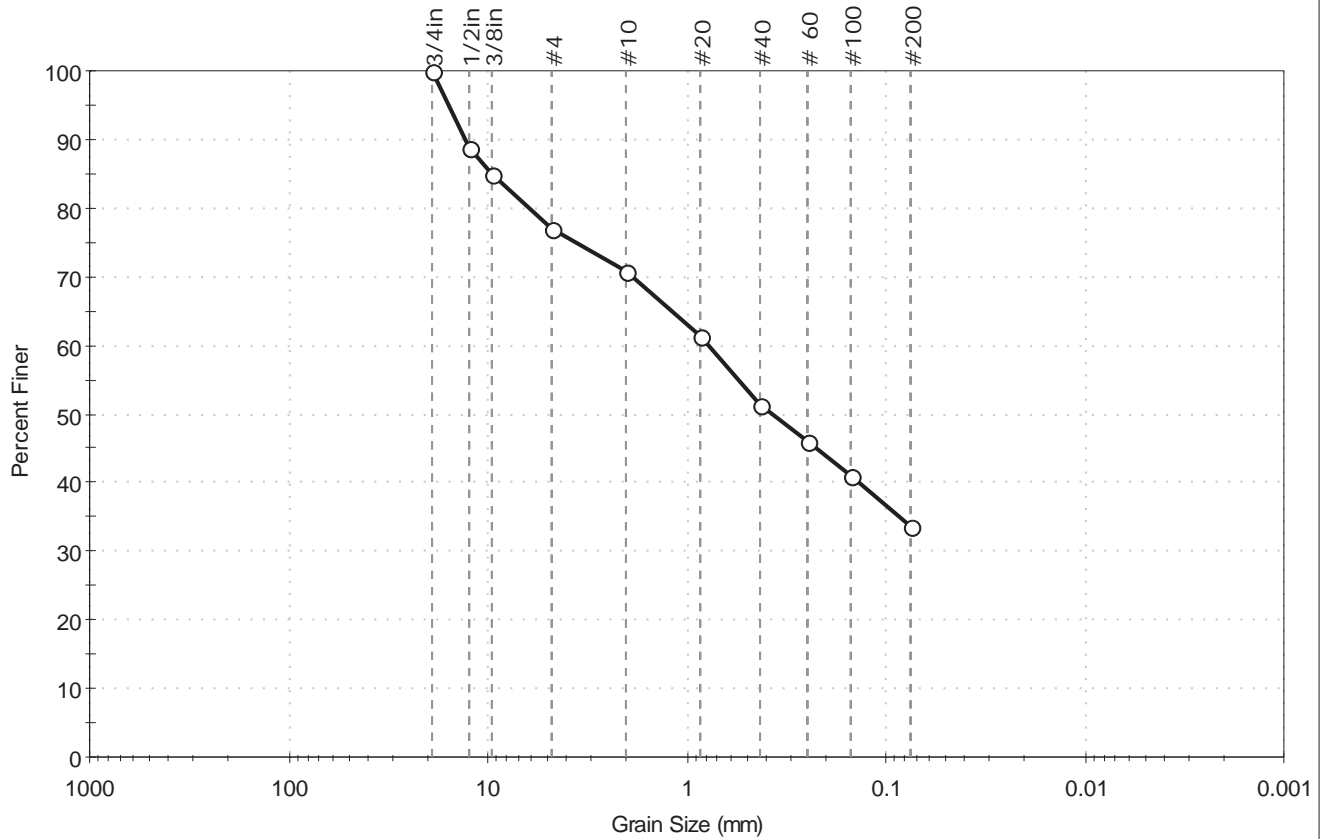
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-21	2.0-4.0 ft	23	55	30	25	-0.3	Silty sand (SM)

Sample Prepared using the WET method
 34% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-22	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	6.0-8.0 ft	Test Id:	266226
Tested By:	twh		
Checked By:	MCM		
Test Comment:	---		
Visual Description:	Moist, olive gray silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	23.1	43.2	33.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4in	19.00	100		
1/2in	12.50	89		
3/8in	9.50	85		
#4	4.75	77		
#10	2.00	71		
#20	0.85	61		
#40	0.42	51		
#60	0.25	46		
#100	0.15	41		
#200	0.075	34		

<u>Coefficients</u>	
D ₈₅ = 9.4482 mm	D ₃₀ = N/A
D ₆₀ = 0.7734 mm	D ₁₅ = N/A
D ₅₀ = 0.3706 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

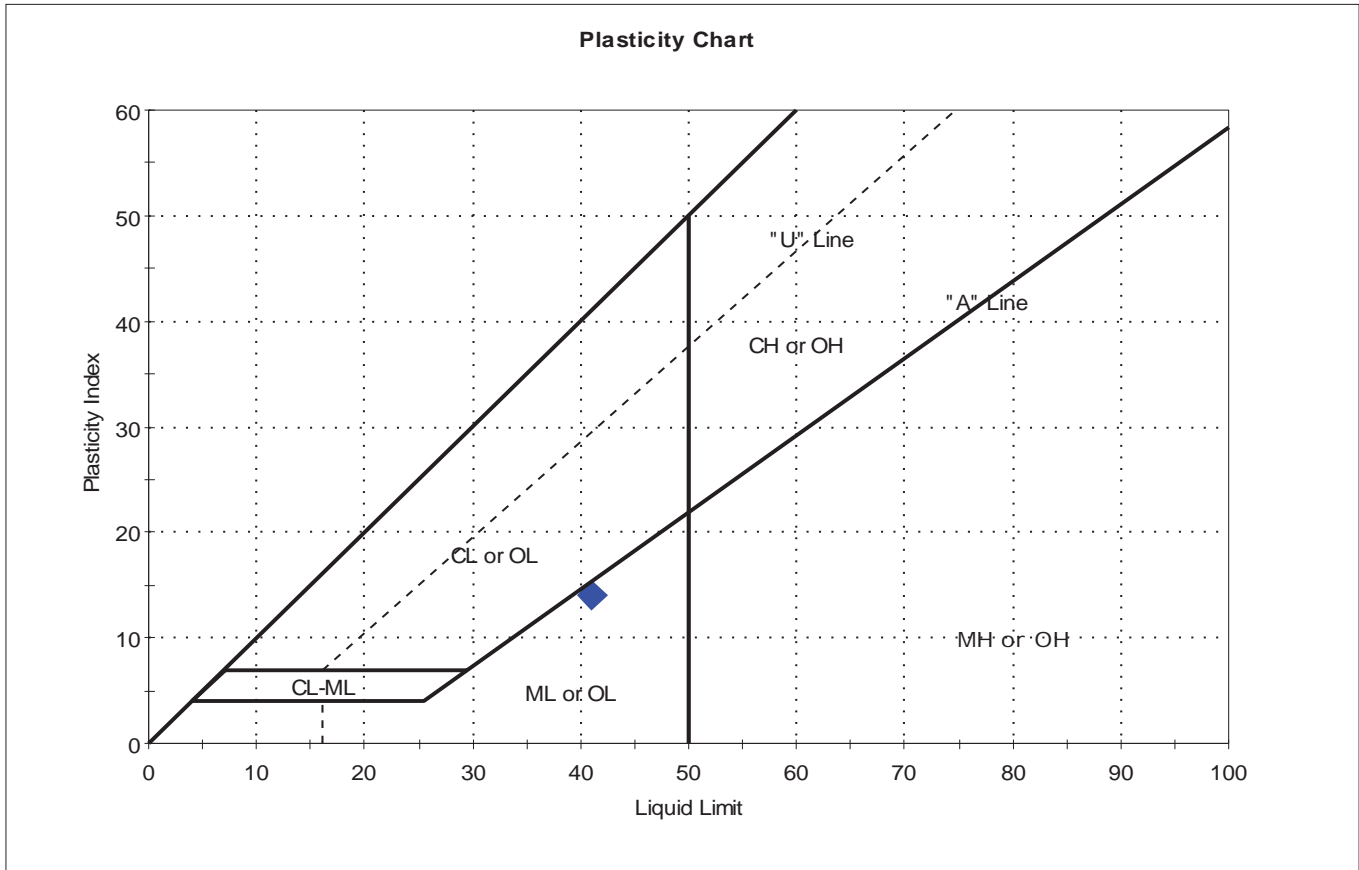
<u>Classification</u>	
<u>ASTM</u>	Silty sand with gravel (SM)
<u>AASHTO</u>	Clayey Gravel and Sand (A-2-7 (1))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-22	Sample Type:	bag
Sample ID:	---	Test Date:	06/30/16
Depth:	6.0-8.0 ft	Checked By:	MCM
		Test Id:	266251
Test Comment:	---		
Visual Description:	Moist, olive gray silty sand with gravel		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



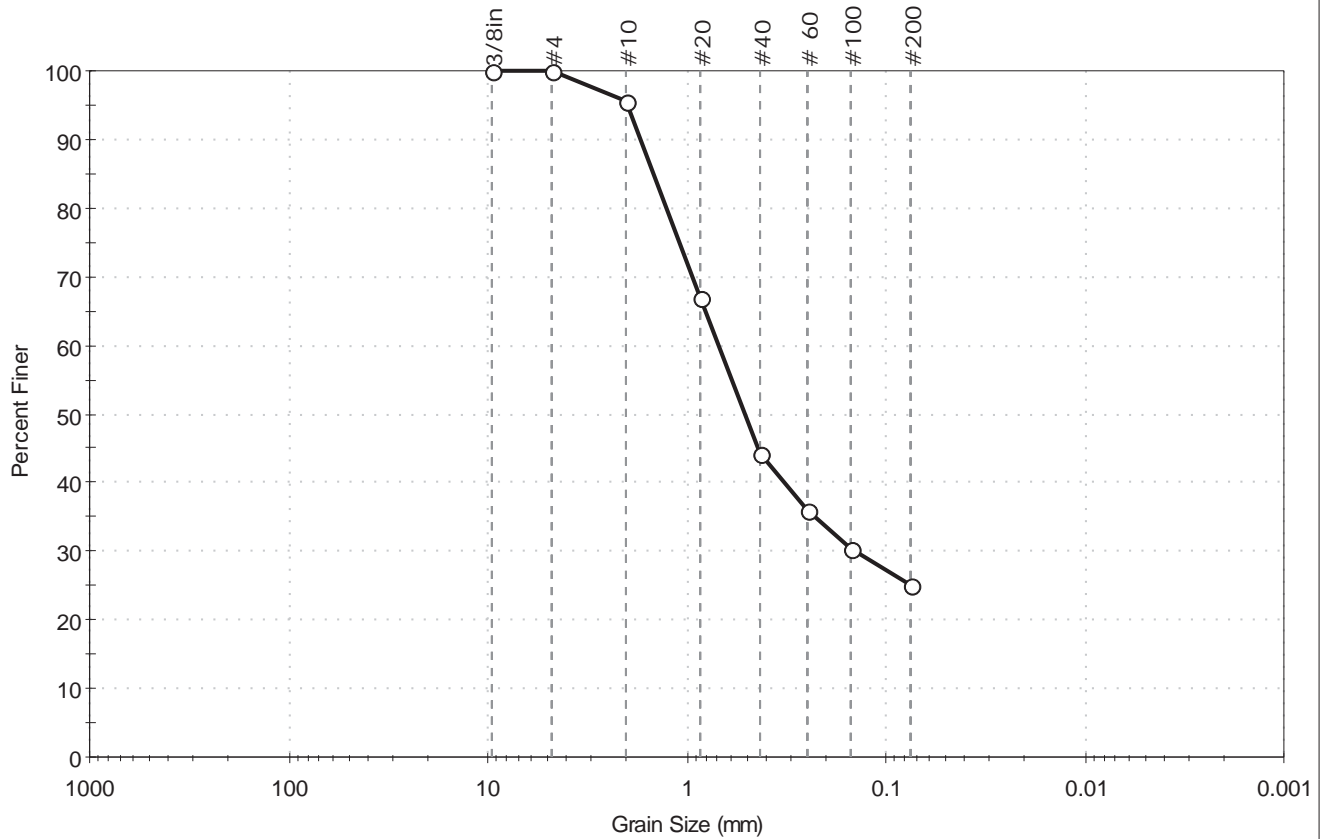
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-22	6.0-8.0 ft	17	41	27	14	-0.7	Silty sand with gravel (SM)

Sample Prepared using the WET method
 49% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	SPT-23	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth:	4.0-6.0 ft	Test Id:	266227
Tested By:	twh		
Checked By:	MCM		
Test Comment:	---		
Visual Description:	Moist, olive brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.1	74.9	25.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8in	9.50	100		
#4	4.75	100		
#10	2.00	96		
#20	0.85	67		
#40	0.42	44		
#60	0.25	36		
#100	0.15	30		
#200	0.075	25		

<u>Coefficients</u>	
D ₈₅ = 1.4573 mm	D ₃₀ = 0.1440 mm
D ₆₀ = 0.6854 mm	D ₁₅ = N/A
D ₅₀ = 0.5055 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

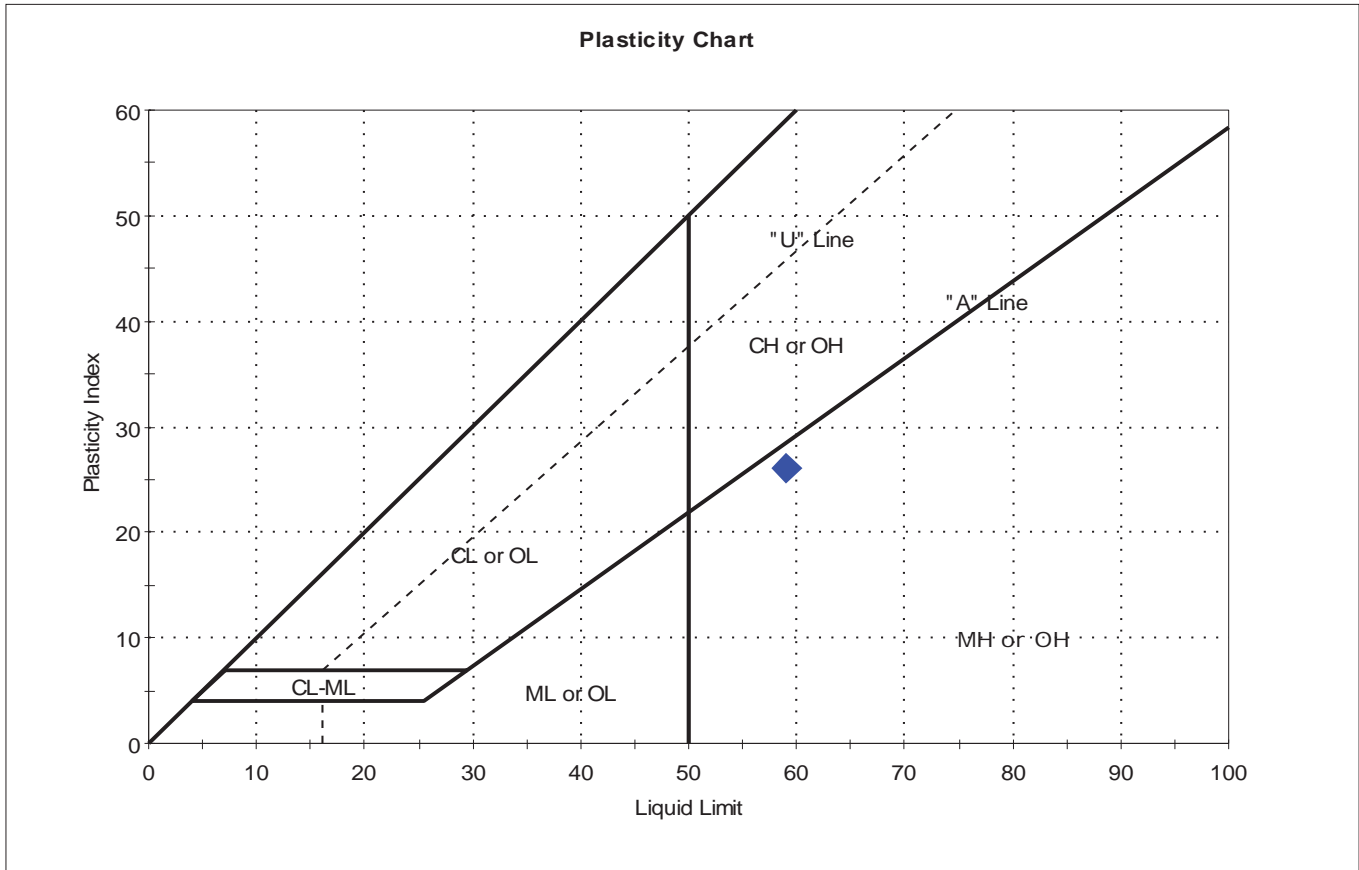
<u>Classification</u>	
<u>ASTM</u>	Silty sand (SM)
<u>AASHTO</u>	Clayey Gravel and Sand (A-2-7 (2))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements		Tested By:	twh	
Location:	---	Sample Type:	bag	Checked By:	MCM
Boring ID:	SPT-23	Test Date:	06/30/16	Test Id:	266252
Sample ID:	---				
Depth :	4.0-6.0 ft				
Test Comment:	---				
Visual Description:	Moist, olive brown silty sand				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



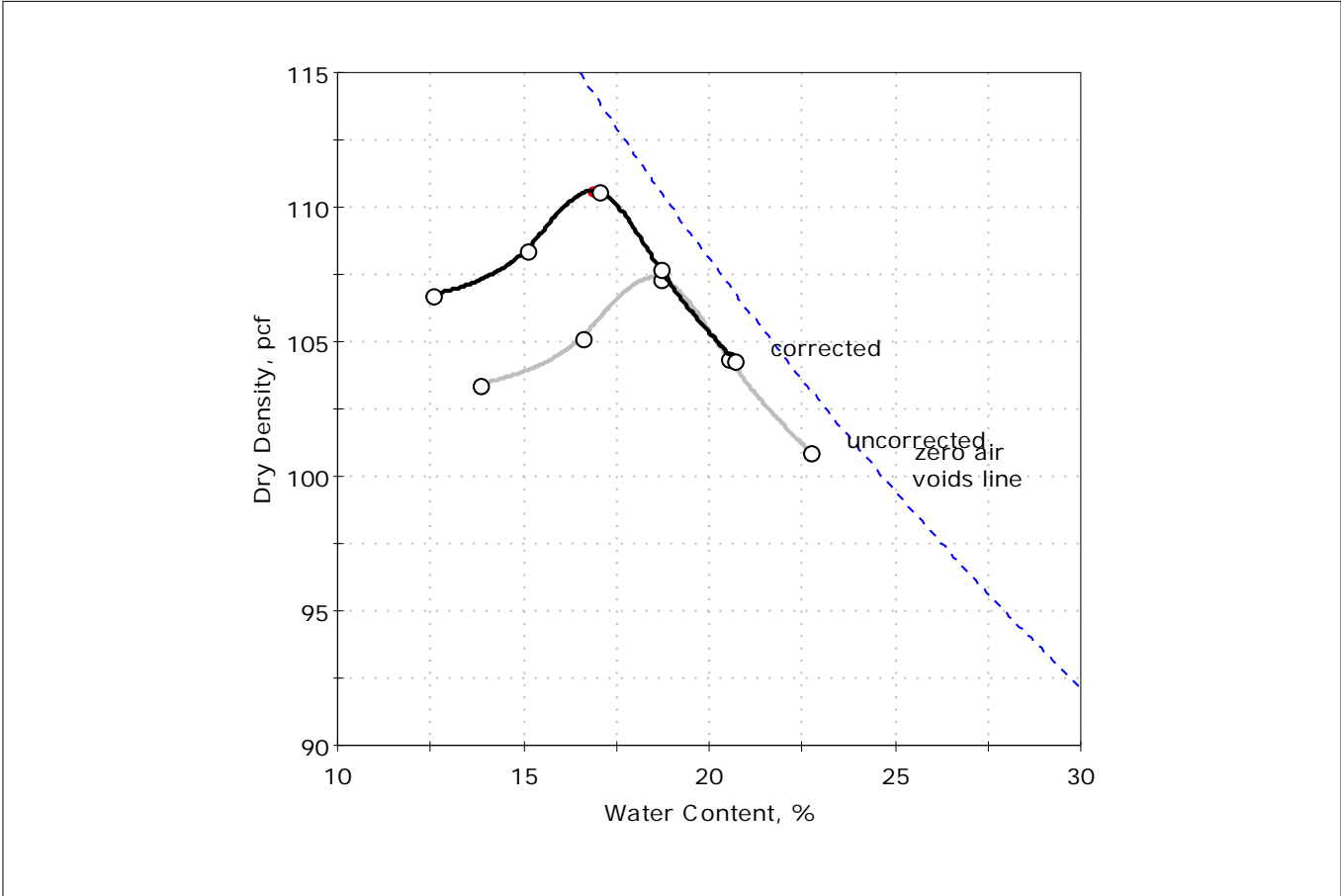
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	SPT-23	4.0-6.0 ft	29	59	33	26	-0.2	Silty sand (SM)

Sample Prepared using the WET method
 56% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		Project No:	GTX-304915	
Project:	Riverview Road Improvements				
Location:	---		Tested By:	twh	
Boring ID:	BS-1	Sample Type:	bag	Checked By:	MCM
Sample ID:	---	Test Date:	06/30/16	Test Id:	266254
Depth :	0-5.0 ft				
Test Comment:	---				
Visual Description:	Moist, dark brown sandy clay				
Sample Comment:	---				

Compaction Report - ASTM D698



Data Points	Point 1	Point 2	Point 3	Point 4	Point 5
Dry density, pcf	103.4	105.1	107.4	104.4	100.9
Moisture Content, %	13.8	16.5	18.7	20.5	22.7

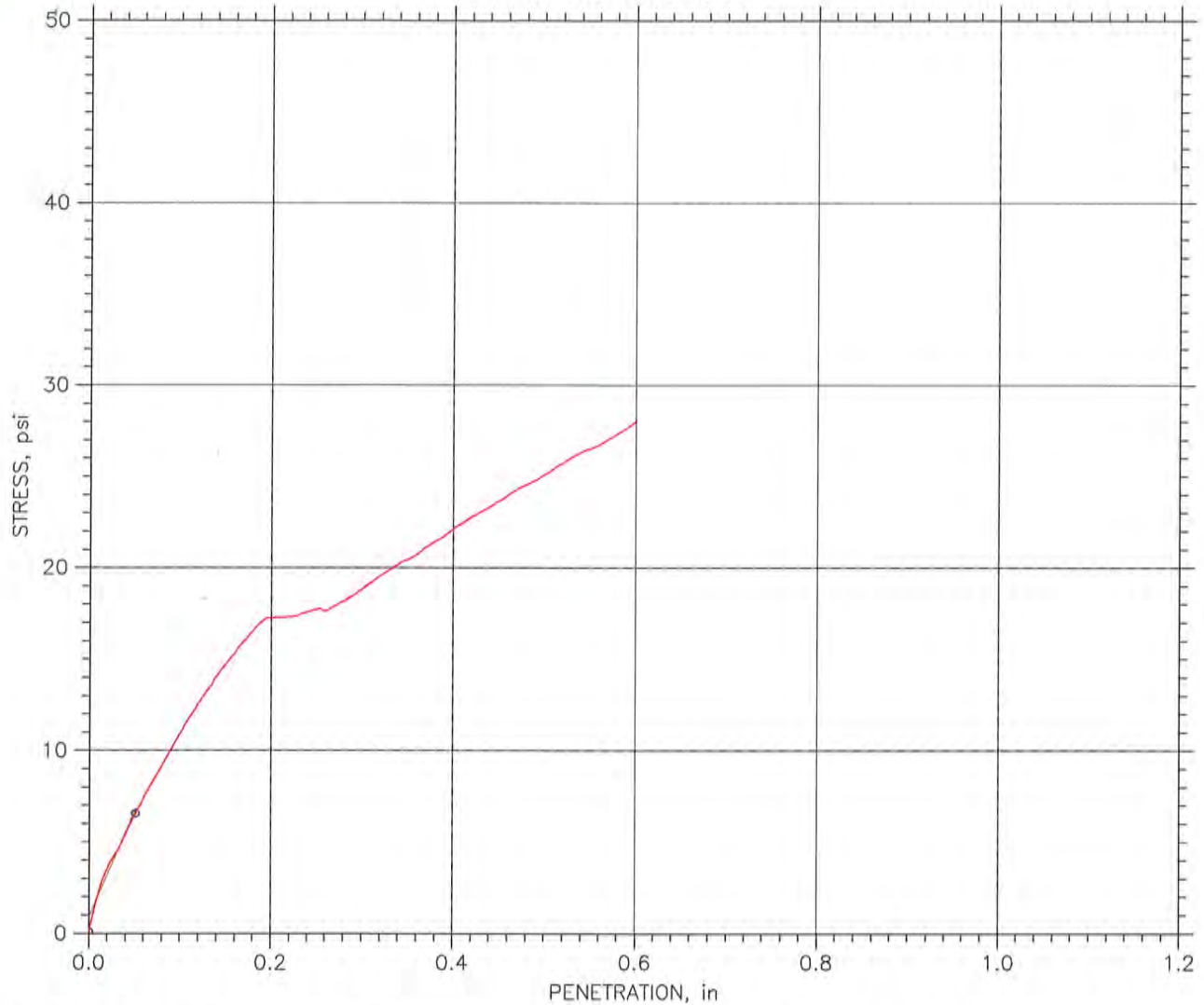
Method : C
 Preparation : WET
 As received Moisture : 15 %
 Rammer : Manual
 Zero voids line based on assumed specific gravity of 2.65

Maximum Dry Density= 107.4 pcf
 Optimum Moisture= 18.5 %

Oversize Correction (8.9% > 3/4 inch Sieve)
 Corrected Maximum Dry Density= 110.6 pcf
 Corrected Optimum Moisture= 16.9 %
 Assumed Average Bulk Specific Gravity = 2.55

CALIFORNIA BEARING RATIO TEST REPORT

by ASTM D1883



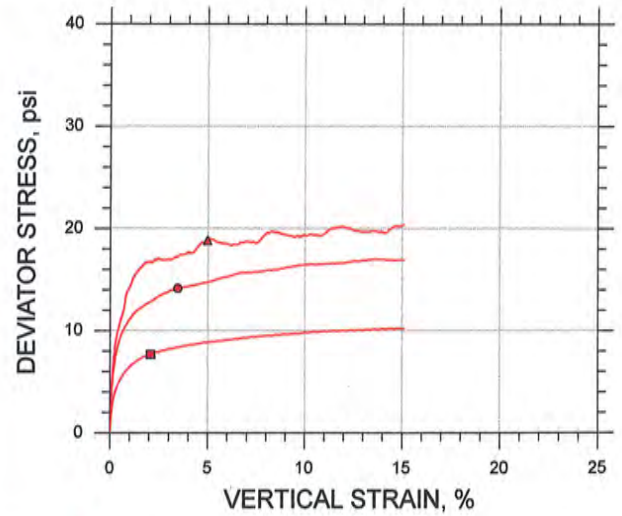
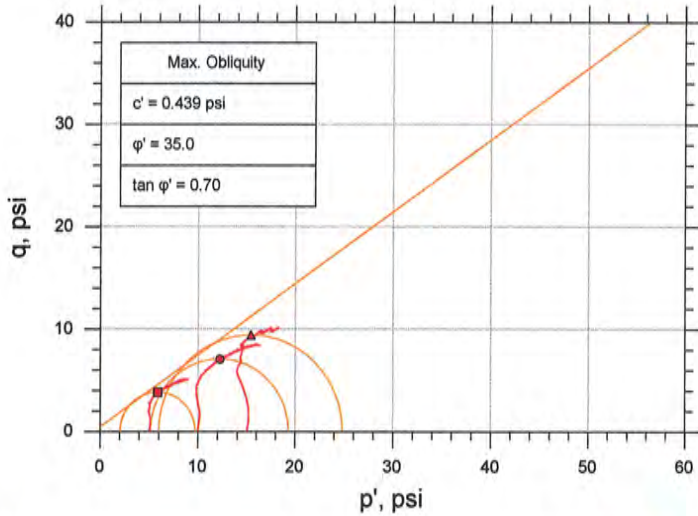
Sample Height: 4.5864 in	California Bearing Ratio			
Sample Area: 28.255 in ²	at 0.1 in: 1	at 0.3 in: 1	at 0.5 in: 1	
Sample Volume: 2123.6 cc	at 0.2 in: 1	at 0.4 in: 1		
Sample Mass: 4166 gm				
Sample Condition: Soaked	Water Content	Before	Top	Average
Swell: 5.19 %	Tare ID	b30	b33	b23
Surcharge: 4550 gm	Tare Mass, gm	59.31	57.07	59.55
Void Ratio: 0.62	Mass Tare + Wet Soil, gm	471.37	455.2	1057.5
Wet Unit Weight: 122.47 pcf	Mass Tare + Dry Soil, gm	401.92	348.22	833.85
Dry Unit Weight: 101.83 pcf	Water Content, %	20.27	36.74	28.88

Project: Riverview Road Improvement	Location: ---	Project No.: GTX-304915
Boring No.: BS-1	Tested By: jm	Checked By: mcm
Sample No.: ---	Test Date: 6/25/16	Depth: 0-5 ft
Test No.: CBR-1	Sample Type: reconstit.	Elevation: ---
Description: Moist, dark brown sandy clay		
Remarks: Target Compaction: 95% of (107.4 pcf) at Optimum Moisture Content (18.5%) + 2%: As Requested by Client		



Client: F&ME Consultants, Inc.	
Project Name: Riverview Road Improvements	
Project Location: ---	
Project Number: GTX-304915	
Tested By: jm	Checked By: mcm
Boring ID: BS-1	
Preparation: reconstituted	
Description: Moist, dark brown sandy clay	
Classification: ---	
Group Symbol: ---	
Liquid Limit: 52	Plastic Limit: 26
Plasticity Index: 26	Estimated Specific Gravity: 2.7

CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

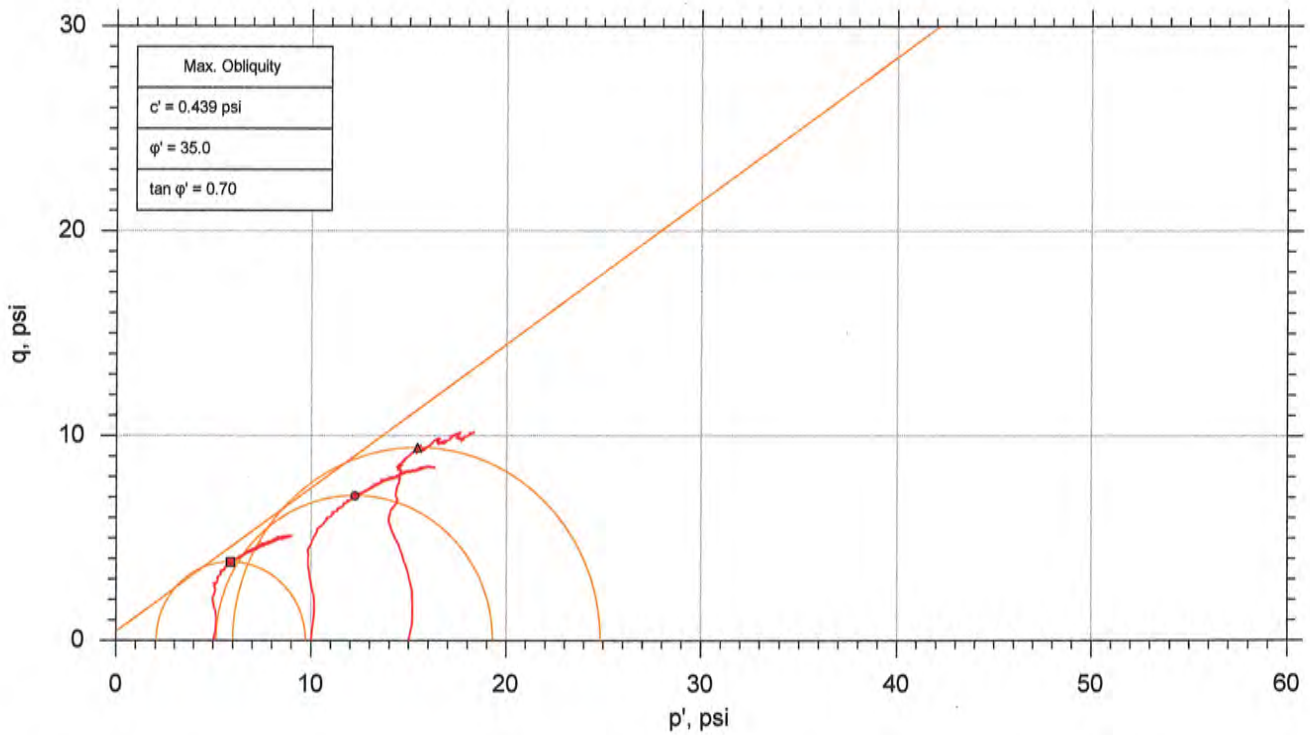
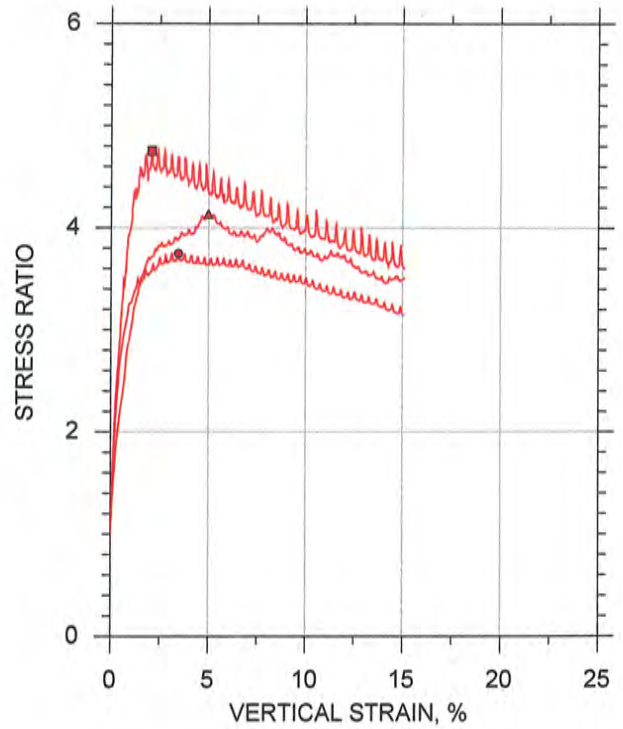
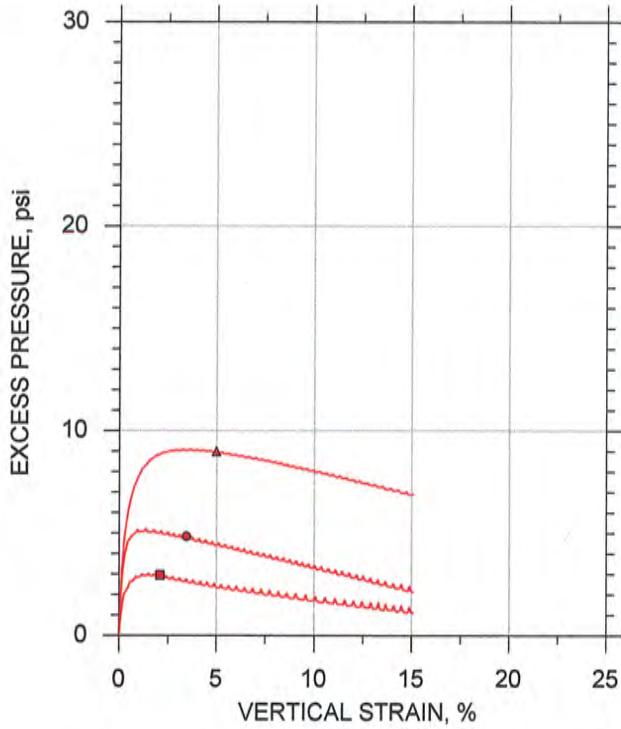


Symbol	■	●	▲	
Sample ID	---	---	---	
Depth, ft	0-5 ft	0-5 ft	0-5 ft	
Test Number	CU-1-1	CU-1-2	CU-1-3	
Initial	Height, in	6.012	5.987	5.988
	Diameter, in	2.810	2.810	2.810
	Moisture Content (from Cuttings), %	20.1	20.3	20.3
	Dry Density, pcf	102.	102.	102.
	Saturation (Wet Method), %	83.5	84.9	84.8
Before Shear	Void Ratio	0.650	0.647	0.646
	Moisture Content, %	23.4	25.3	24.8
	Dry Density, pcf	103.	100.	101.
	Cross-sectional Area (Method A), in ²	6.155	6.298	6.252
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.632	0.684	0.668
	Back Pressure, psi	139.0	122.5	128.8
Vertical Effective Consolidation Stress, psi	5.014	10.00	14.99	
Horizontal Effective Consolidation Stress, psi	5.007	9.998	15.00	
Vertical Strain after Consolidation, %	0.2163	0.1892	0.5898	
Volumetric Strain after Consolidation, %	0.6439	0.4561	1.979	
Time to 50% Consolidation, min	90.25	25.00	60.06	
Shear Strength, psi	3.836	7.076	9.418	
Strain at Failure, %	2.08	3.45	4.98	
Strain Rate, %/min	0.01600	0.01600	0.01600	
Deviator Stress at Failure, psi	7.673	14.15	18.84	
Effective Minor Principal Stress at Failure, psi	2.043	5.149	6.011	
Effective Major Principal Stress at Failure, psi	9.716	19.30	24.85	
B-Value	0.99	0.95	0.95	

Notes:			
- Before Shear Saturation set to 100% for phase calculation.			
- Moisture Content determined by ASTM D2216.			
- Atterberg Limits determined by ASTM D4318.			
- Deviator Stress includes membrane correction.			
- Values for c and phi determined from best-fit straight line for the specific test conditions. Actual strength parameters may vary and should be determined by an engineer for site conditions.			
Remarks:			

Target Compaction: 95% of (107.4 pcf) at Optimum Moisture Content (18.5%) + 2%: As Requested by Client

CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767



Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
■	CU-1-1	0-5 ft	jm	6/24/16	mcm	6/30/16	304915-CU-1m.dat
●	CU-1-2	0-5 ft	jm	6/24/16	mcm	6/30/16	304915-CU-1-2m.dat
▲	CU-1-3	0-5 ft	jm	6/24/16	mcm	6/30/16	304915-CU-1-3m.dat

	Project: Riverview Road Improvements		Location: ---	Project No.: GTX-304915
	Boring No.: BS-1		Sample Type: reconstituted	
	Description: Moist, dark brown sandy clay			
	Remarks: Target Compaction: 95% of (107.4 pcf) at Optimum Moisture Content (18.5%) + 2%: As Requested by Client			



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	BS-1	Sample Type:	bag
Sample ID:	---	Test Date:	06/24/16
Depth :	0-5.0 ft	Test Id:	266203
Test Comment:	---		
Visual Description:	Moist, dark brown sandy clay		
Sample Comment:	---		

Moisture Content of Soil and Rock - ASTM D2216

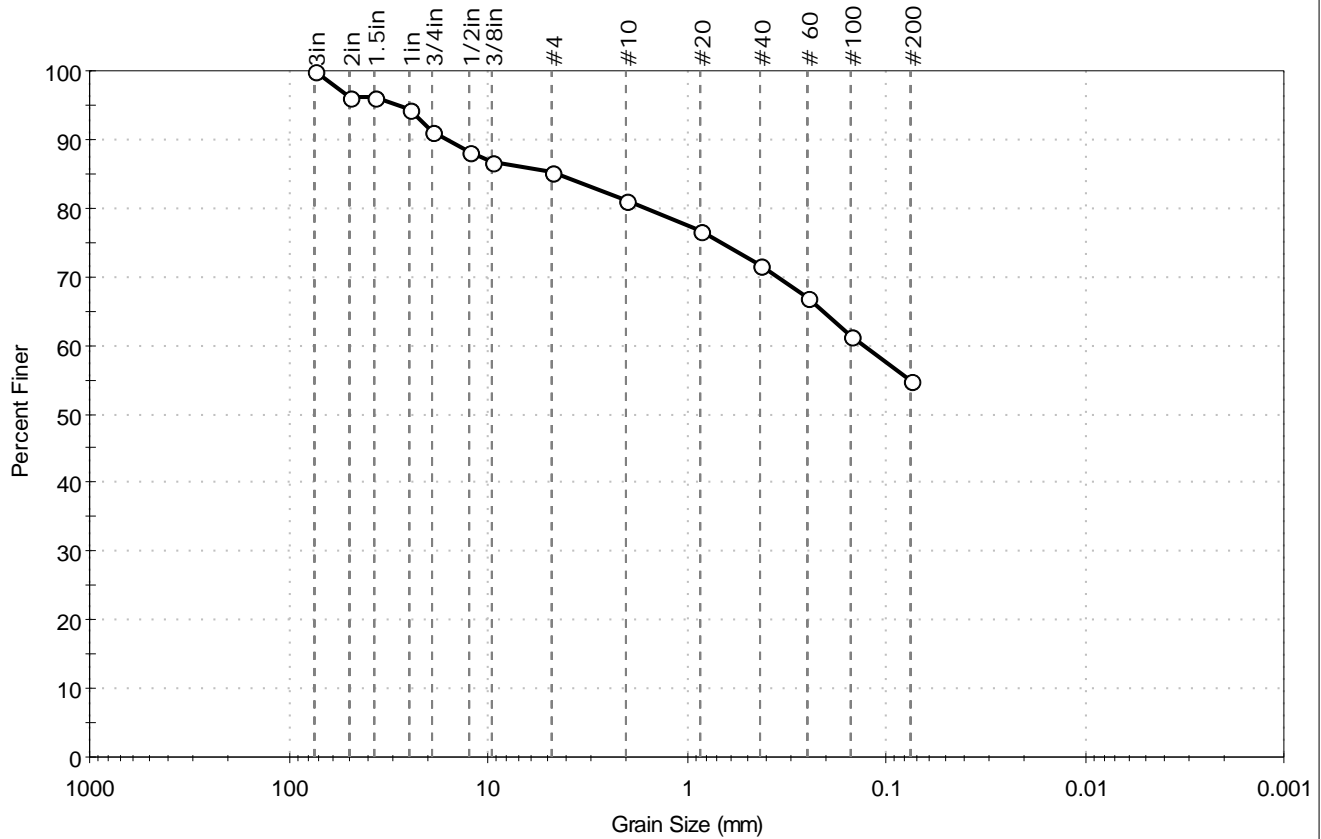
Boring ID	Sample ID	Depth	Description	Moisture Content, %
BS-1	- - -	0-5.0 ft	Moist, dark brown sandy clay	15.0

Notes: Temperature of Drying : 110° Celsius



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	BS-1	Sample Type:	bag
Sample ID:	---	Test Date:	06/27/16
Depth:	0-5.0 ft	Test Id:	266228
Test Comment:	---		
Visual Description:	Moist, dark brown sandy clay		
Sample Comment:	---		

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	14.6	30.4	55.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3in	75.00	100		
2in	50.00	96		
1.5in	37.50	96		
1in	25.00	95		
3/4in	19.00	91		
1/2in	12.50	88		
3/8in	9.50	87		
#4	4.75	85		
#10	2.00	81		
#20	0.85	77		
#40	0.42	72		
#60	0.25	67		
#100	0.15	61		
#200	0.075	55		

<u>Coefficients</u>	
D ₈₅ = 4.3927 mm	D ₃₀ = N/A
D ₆₀ = 0.1284 mm	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

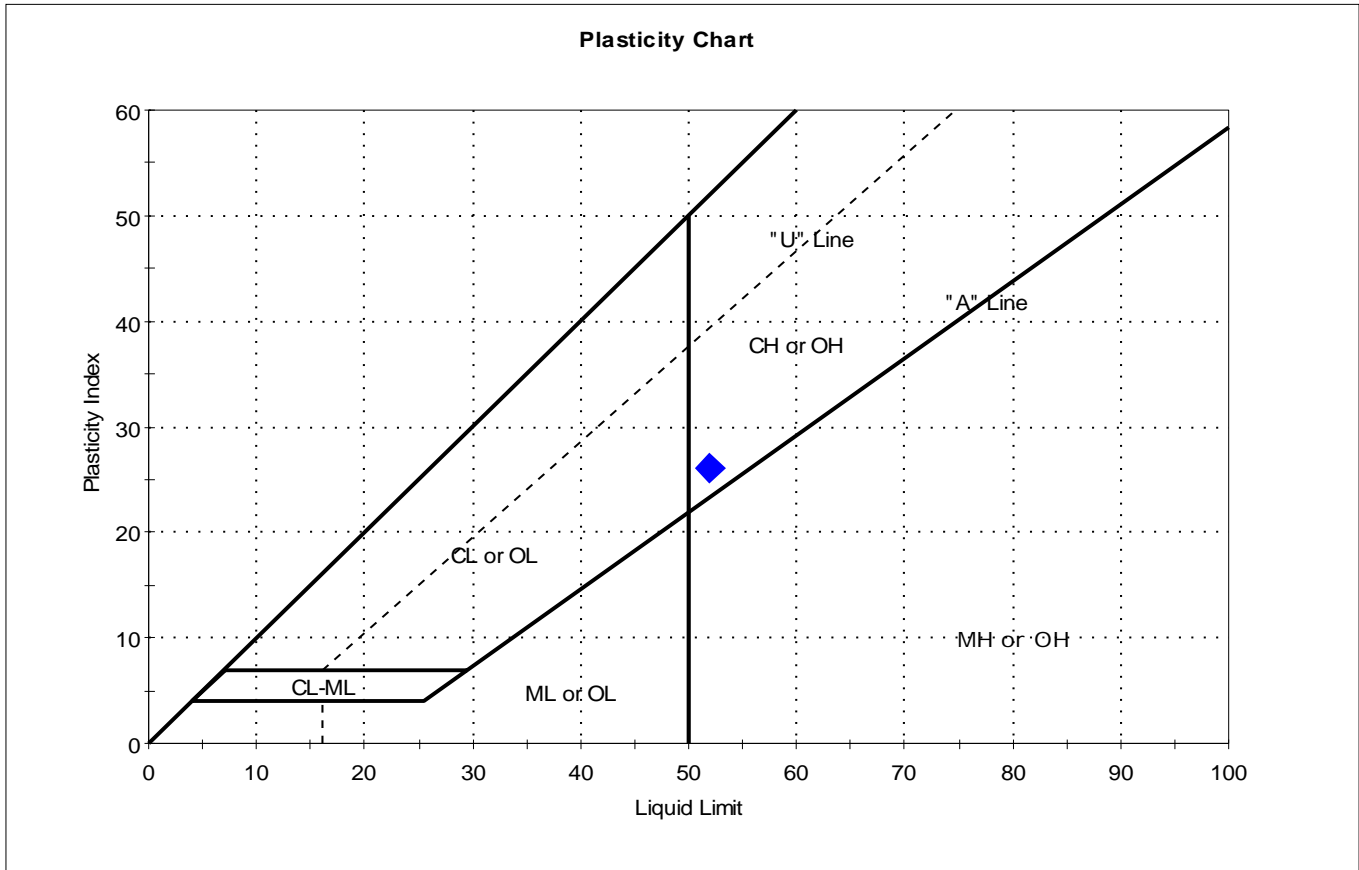
<u>Classification</u>	
<u>ASTM</u>	Sandy Fat clay (CH)
<u>AASHTO</u>	Clayey Soils (A-7-6 (12))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape : ANGULAR	
Sand/Gravel Hardness : HARD	



Client:	F&ME Consultants	Project No:	GTX-304915
Project:	Riverview Road Improvements	Tested By:	twh
Location:	---	Checked By:	MCM
Boring ID:	BS-1	Sample Type:	bag
Sample ID:	---	Test Date:	06/28/16
Depth :	0-5.0 ft	Test Id:	266253
Test Comment:	---		
Visual Description:	Moist, dark brown sandy clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	BS-1	0-5.0 ft	15	52	26	26	-0.4	Sandy Fat clay (CH)

Sample Prepared using the WET method
 28% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: NONE
 Toughness: MEDIUM



Client:	F&ME Consultants		
Project:	Riverview Road Improvements		
Location:	---	Project No:	GTX-304915
Boring ID:	BS-1	Sample Type:	bag
Sample ID:	---	Test Date:	07/06/16
Depth :	0-5.0 ft	Test Id:	266307
Test Comment:	---		
Visual Description:	Moist, dark brown sandy clay		
Sample Comment:	---		

pH of Soil by ASTM D4972

Boring ID	Sample ID	Depth	Visual Description	pH of Soil in Distilled Water	pH of Soil in Calcium Chloride
BS-1	---	0-5.0 ft	Moist, dark brown sandy clay	5.5	5.2

Notes: Sample Preparation: screened through #10 sieve
 Method A, pH meter used



Client:	F&ME Consultants
Project:	Riverview Road Improvements
Location:	---
GTX#:	304915
Test Date:	06/29/16
Tested By:	jm
Checked By:	mcm

**Laboratory Measurement of Soil Resistivity Using
the Wenner Four-Electrode Method by ASTM G57
(Laboratory Measurement)**

Boring ID	Sample ID	Depth, ft.	Sample Description	Electrical Resistivity, ohm-cm	Electrical Conductivity, (ohm-cm) ⁻¹
BS-1	---	0-5	Moist, dark brown sandy clay	2,854	3.50E-04

Notes: Test Equipment: Nilsson Model 400 Soil Resistance Meter, MC Miller Soil Box
Water added to sample to create a thick slurry prior to testing (saturated condition).
Electrical Conductivity is calculated as inverse of Electrical Resistivity (per ASTM G57)
Test conducted in standard laboratory atmosphere: 68-73 F

Project Name: RIVERVIEW ROAD IMPROVEMENT
Project Number: 304915

Lab Number: L1619334
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1619334-01
Client ID: BS-1 0-5FT
Sample Location: Not Specified
Matrix: Soil

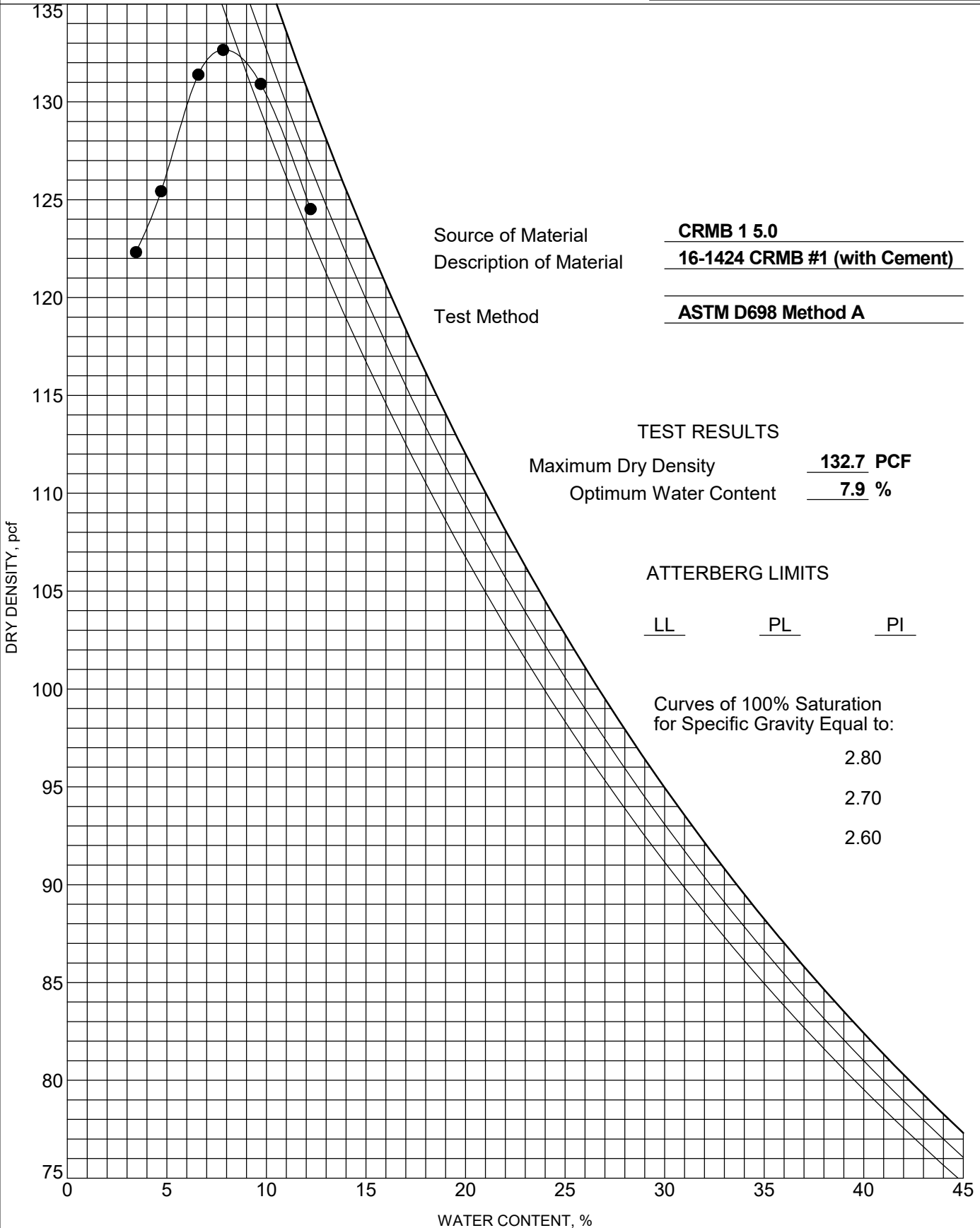
Date Collected: 06/22/16 14:42
Date Received: 06/23/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.3		%	0.100	NA	1	-	06/25/16 03:08	121,2540G	VB
Chloride	ND		mg/kg	11	--	1	-	06/24/16 20:29	1,9251	LA
Sulfate	ND		mg/kg	600	--	5	-	06/27/16 13:05	1,9038	AW

PROJECT ID G5607.00

PROJECT NAME Riverview Road Improvements

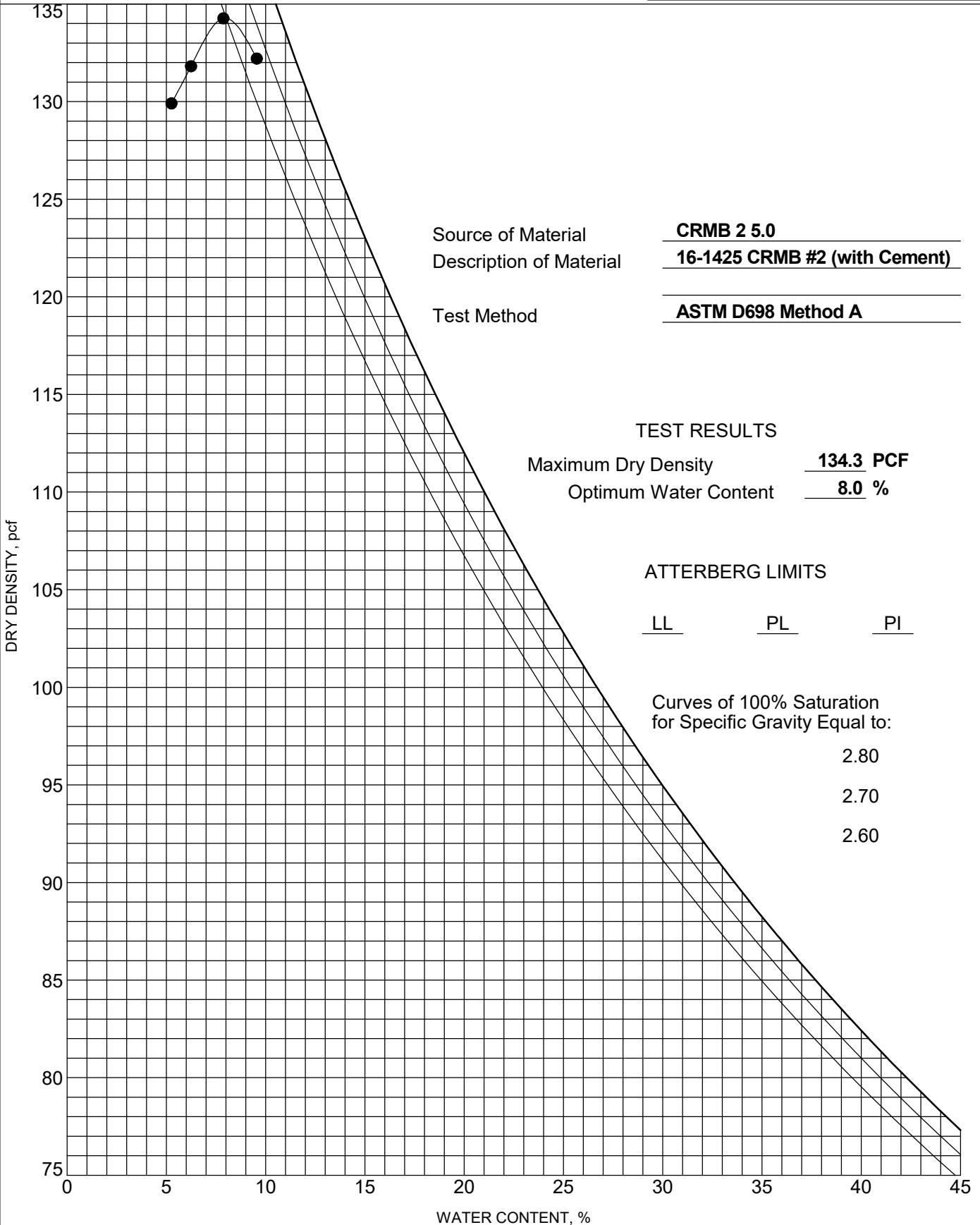
PROJECT COUNTY York



PROJECT ID G5607.00

PROJECT NAME Riverview Road Improvements

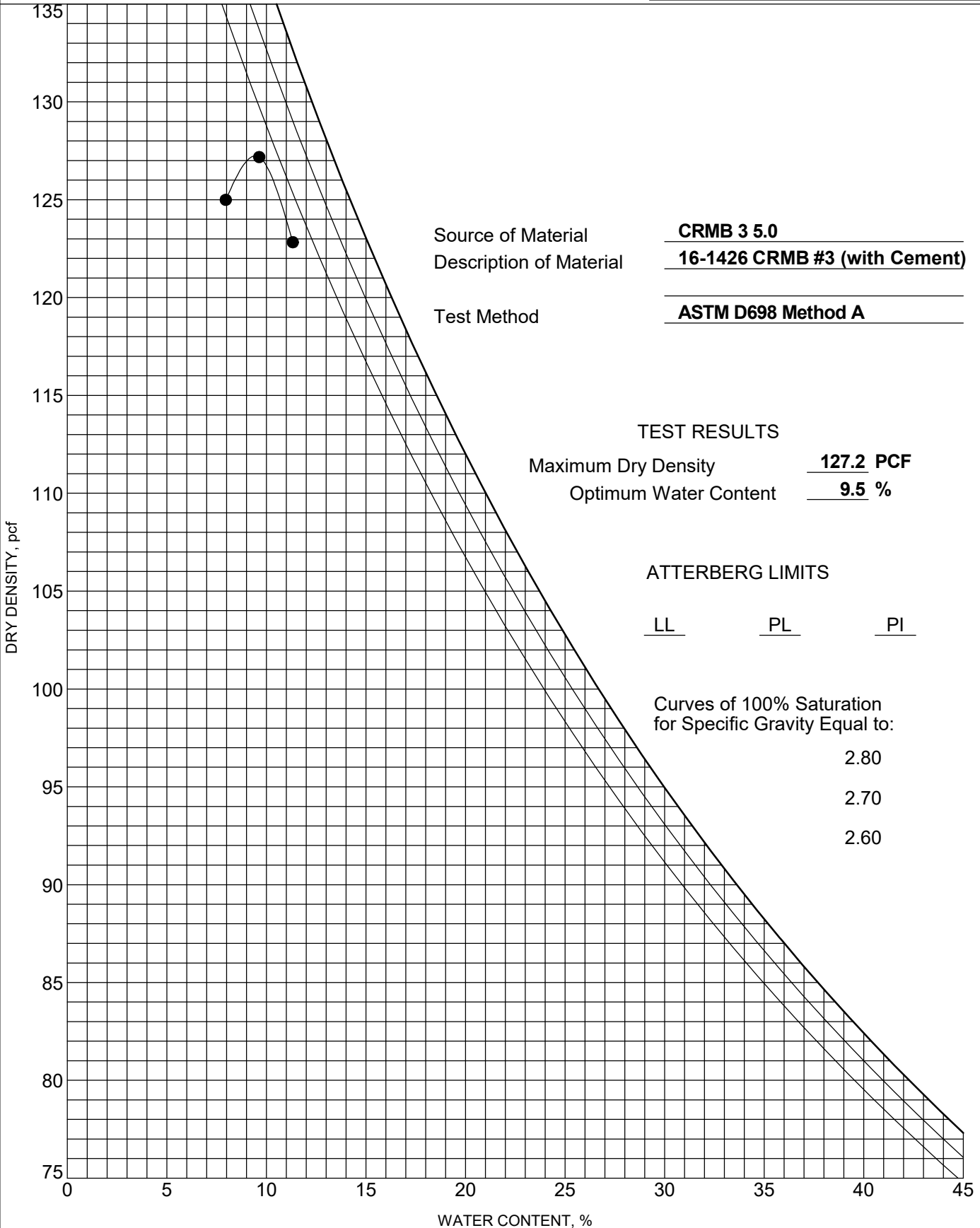
PROJECT COUNTY York



PROJECT ID G5607.00

PROJECT NAME Riverview Road Improvements

PROJECT COUNTY York



Source of Material CRMB 3 5.0
 Description of Material 16-1426 CRMB #3 (with Cement)
 Test Method ASTM D698 Method A

TEST RESULTS

Maximum Dry Density 127.2 PCF
 Optimum Water Content 9.5 %

ATTERBERG LIMITS

LL PL PI

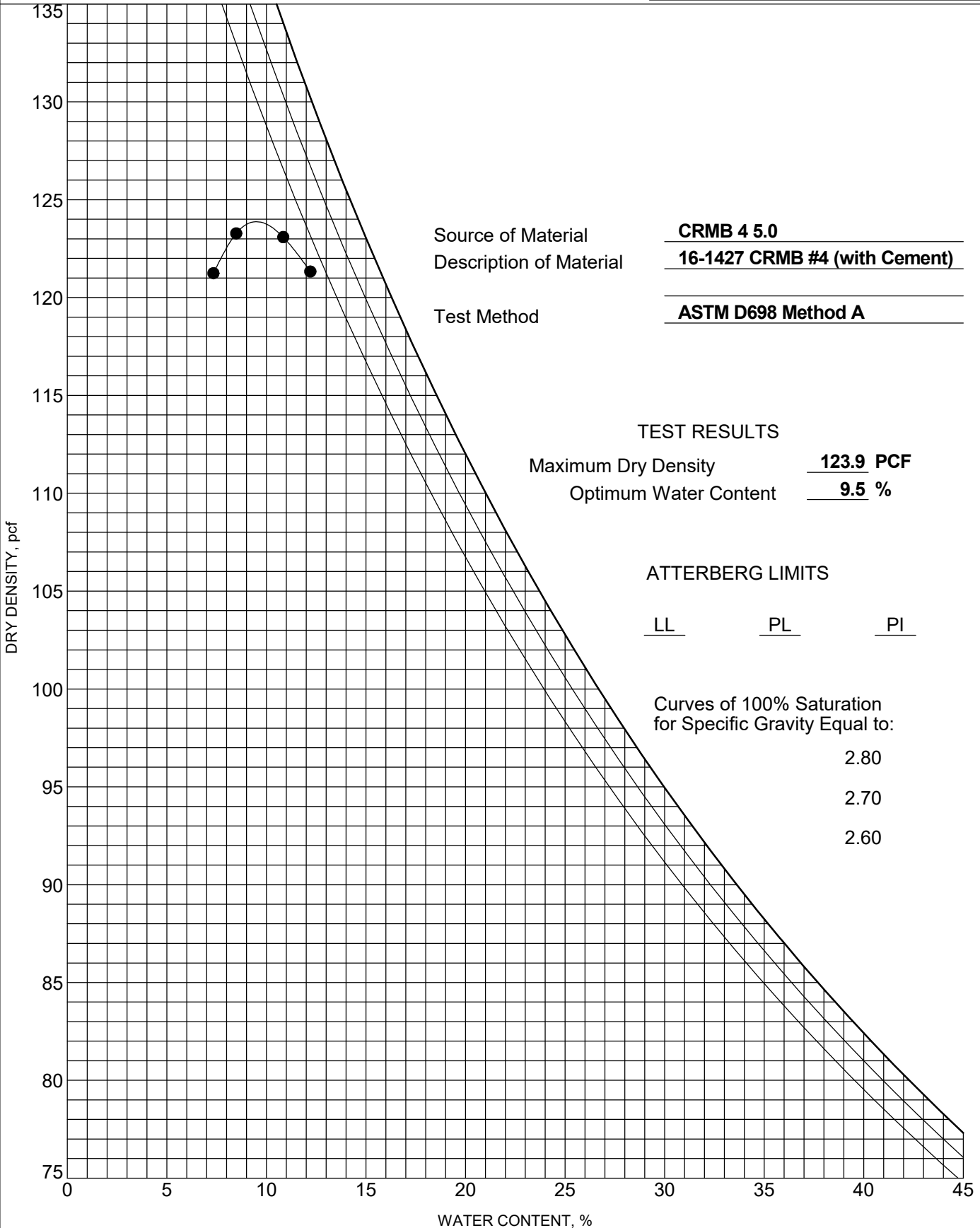
Curves of 100% Saturation
for Specific Gravity Equal to:

- 2.80
- 2.70
- 2.60

PROJECT ID G5607.00

PROJECT NAME Riverview Road Improvements

PROJECT COUNTY York



F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/6/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 3%

Percent Compaction: 95

Date Tested: 9/14/2016 Tested By: JH

Location	CMRB #1 (16-1424)	CMRB #1 (16-1424)				
Sample Number	2279	2280				
Date Tested	09/14/16	09/14/16				
Age (Days)	8	8				
Length	5.007"	5.123"				
Diameter	3.987"	3.989"				
Radius	1.9935"	1.9945"				
Cross Sectional Area	12.48	12.50				
Load (lbs.)	5230	4945				
Correction Factor						
Unit Load (Psi)	420	400				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/6/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 6%

Percent Compaction: 95

Date Tested: 9/14/2016 Tested By: JH

Location	CMRB #1 (16-1424)	CMRB #1 (16-1424)				
Sample Number	2281	2282				
Date Tested	09/14/16	09/14/16				
Age (Days)	8	8				
Length	5.034"	5.066"				
Diameter	3.970"	3.981"				
Radius	1.985"	1.991"				
Cross Sectional Area	12.38	12.45				
Load (lbs.)	7710	7305				
Correction Factor						
Unit Load (Psi)	620	590				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/6/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 9%

Percent Compaction: 95

Date Tested: 9/14/2016 Tested By: JH

Location	CMRB #1 (16-1424)	CMRB #1 (16-1424)				
Sample Number	2283	2284				
Date Tested	09/14/16	09/14/16				
Age (Days)	8	8				
Length	4.910"	4.984"				
Diameter	3.980"	3.977"				
Radius	1.990"	1.989"				
Cross Sectional Area	12.44	12.43				
Load (lbs.)	11660	12235				
Correction Factor						
Unit Load (Psi)	940	980				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/8/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 3%

Percent Compaction: 95

Date Tested: 9/16/2016 Tested By: JH

Location	CMRB #2 (16-1425)					
Sample Number	2305					
Date Tested	09/16/16					
Age (Days)	8					
Length	4.890					
Diameter	3.980					
Radius	1.990					
Cross Sectional Area	12.44					
Load (lbs.)	6595					
Correction Factor						
Unit Load (Psi)	530					

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/8/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 6%

Percent Compaction: 95

Date Tested: 9/16/2016 Tested By: JH

Location	CMRB #2 (16-1425)					
Sample Number	2306					
Date Tested	09/16/16					
Age (Days)	8					
Length	4					
Diameter	4.944					
Radius	3.990					
Cross Sectional Area	12.50					
Load (lbs.)	9215					
Correction Factor						
Unit Load (Psi)	740					

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/8/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 9%

Percent Compaction: 95

Date Tested: 9/16/2016 Tested By: JH

Location	CMRB #2 (16-1425)					
Sample Number	2307					
Date Tested	09/16/16					
Age (Days)	8					
Length	4.938					
Diameter	3.985					
Radius	1.993					
Cross Sectional Area	12.48					
Load (lbs.)	14040					
Correction Factor						
Unit Load (Psi)	1125					

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/8/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 3%

Percent Compaction: 95

Date Tested: 9/16/2016 Tested By: JH

Location	CMRB #3 (16-1426)	CMRB #3 (16-1426)				
Sample Number	2308	2309				
Date Tested	09/16/16	09/16/16				
Age (Days)	8	8				
Length	4.919	4.981				
Diameter	3.997	3.997				
Radius	1.999	1.999				
Cross Sectional Area	12.55	12.55				
Load (lbs.)	2215	2155				
Correction Factor						
Unit Load (Psi)	180	170				

Signature: JH

NOTES:

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/8/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 6%

Percent Compaction: 95

Date Tested: 9/16/2016 Tested By: JH

Location	CMRB #3 (16-1426)	CMRB #3 (16-1426)				
Sample Number	2310	2311				
Date Tested	09/16/16	09/16/16				
Age (Days)	8	8				
Length	4.955	4899				
Diameter	3.987	3.984				
Radius	1.994	1.992				
Cross Sectional Area	12.49	12.47				
Load (lbs.)	3305	3290				
Correction Factor						
Unit Load (Psi)	270	260				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/8/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 9%

Percent Compaction: 95

Date Tested: 9/16/2016 Tested By: JH

Location	CMRB #3 (16-1426)	CMRB #3 (16-1426)				
Sample Number	2312	2313				
Date Tested	09/16/16	09/16/16				
Age (Days)	8	8				
Length	4.994	4.990				
Diameter	3.993	3.977				
Radius	1.997	1.989				
Cross Sectional Area	12.53	12.43				
Load (lbs.)	4335	4765				
Correction Factor						
Unit Load (Psi)	350	380				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/7/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 3%

Percent Compaction: 95

Date Tested: 9/15/2016 Tested By: JH

Location	CMRB #4 (16-1427)	CMRB #4 (16-1427)				
Sample Number	2299	2300				
Date Tested	09/15/16	09/15/16				
Age (Days)	8	8				
Length	4.873	4.977				
Diameter	3.990	3.980				
Radius	1.995	1.990				
Cross Sectional Area	12.50	12.44				
Load (lbs.)	2240	2555				
Correction Factor						
Unit Load (Psi)	180	205				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/7/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 6%

Percent Compaction: 95

Date Tested: 9/15/2016 Tested By: JH

Location	CMRB #4 (16-1427)	CMRB #4 (16-1427)				
Sample Number	2301	2302				
Date Tested	09/15/16	09/15/16				
Age (Days)	8	8				
Length	5.008	4.968				
Diameter	3.986	3.986				
Radius	1.993	1.993				
Cross Sectional Area	12.48	12.48				
Load (lbs.)	3770	4265				
Correction Factor						
Unit Load (Psi)	300	340				

Signature: JH

NOTES: _____

F&ME
CONSULTANTS
 3112 Devine Street
 Columbia, South Carolina 29205
 GEOTECHNICAL / ENVIRONMENTAL / MATERIALS

CEMENT STABILIZED SOIL/AGGREGATE BASE COURSE COMPRESSION TEST REPORT

Job Name: Riverview Road Improvements

Job Number: G5607 Date Sampled: 9/7/2016

Required Strength: 300 psi Aggregate/Soil Cement Rate: 9%

Percent Compaction: 95

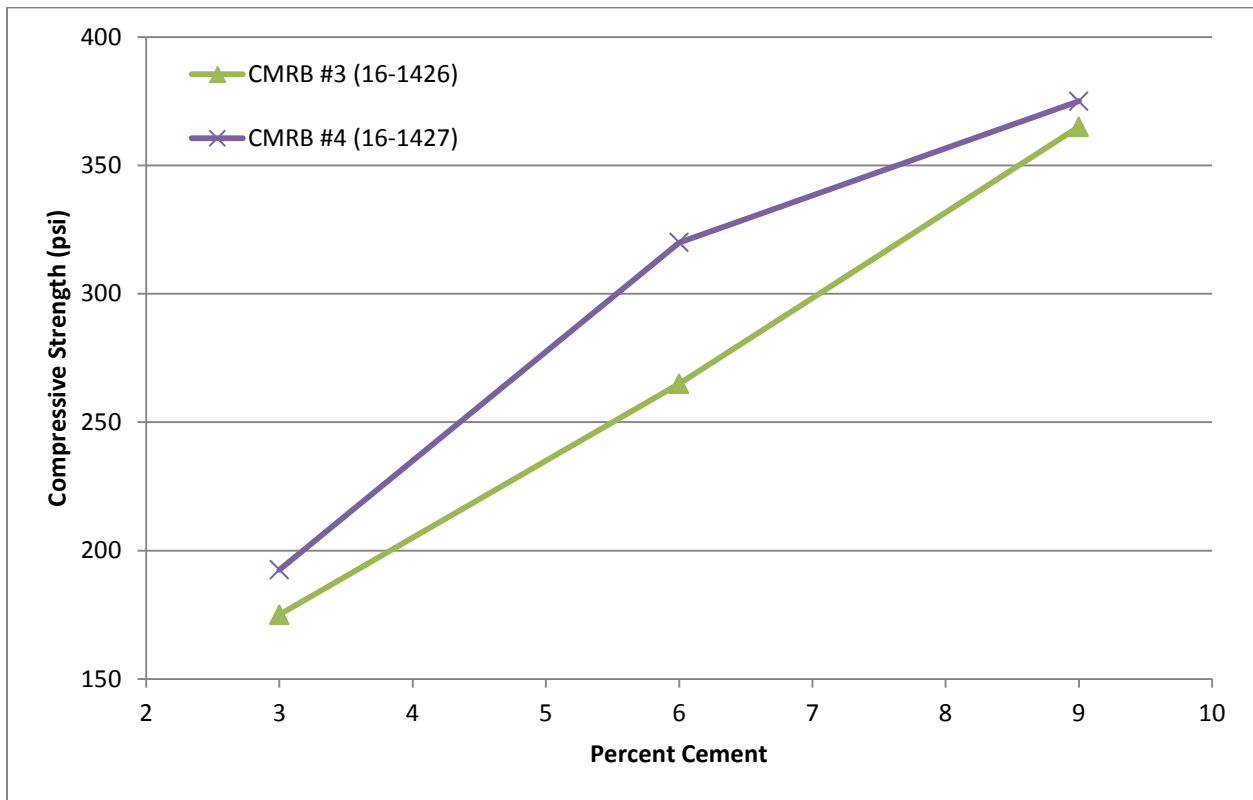
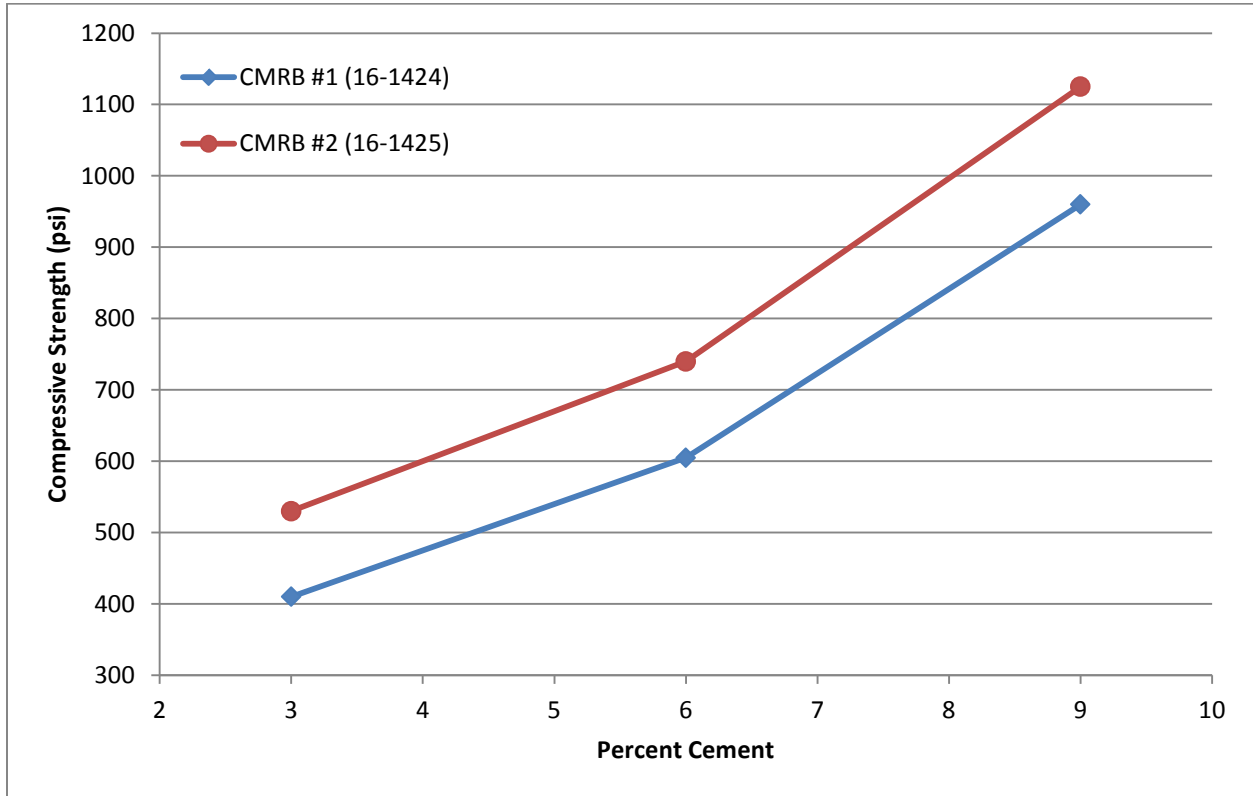
Date Tested: 9/15/2016 Tested By: JH

Location	CMRB #4 (16-1427)	CMRB #4 (16-1427)				
Sample Number	2303	2304				
Date Tested	09/15/16	09/15/16				
Age (Days)	8	8				
Length	4.962	4.920				
Diameter	3.984	3.984				
Radius	1.992	1.992				
Cross Sectional Area	12.47	12.47				
Load (lbs.)	4810	4510				
Correction Factor						
Unit Load (Psi)	390	360				

Signature: JH

NOTES: _____

Cement Modified Recycled Base Average Compressive Strength Results



DIVISION III - SECTION 5
PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Riverview Road Study Area
York County, South Carolina

Phase I Environmental Site Assessment

February 22, 2016

ARM Project #16-301-16

Prepared For:

Campco Engineering, Inc.
156 West Oakland Avenue – Suite 100
Rock Hill, SC 29731



TABLE OF CONTENTS

1.0 – Executive Summary	Page 1
2.0 - Introduction	Page 3
3.0 - Site Description	Page 5
4.0 – User Provided Information	Page 6
5.0 – Records Review	Page 7
6.0 – Site Reconnaissance	Page 15
7.0 – Interviews	Page 17
8.0 – Findings	Page 18
9.0 – Opinion	Page 18
10.0 – Conclusions	Page 19
11.0 – Deviations	Page 20
12.0 – Additional Services	Page 20
13.0 – References	Page 20
14.0 – Signature(s) of Environmental Professional(s)	Page 21
15.0 – Qualifications of Environmental Professional(s)	Page 21
16.0 – Warranty	Page 21
17.0 – Appendices	
17.1 Site (Vicinity) Map – Figure 1	
17.2 Site Plan – Figure 2, Figure 3	
17.3 Site Photographs	
17.4 Historical Research Documentation	
17.5 Regulatory Records Documentation	
17.6 Interview Documentation	
17.7 Special Contractual Conditions Between User and Environmental Professional	
17.8 Qualifications of the Environmental Professional	

1.0 Executive Summary

ARM Environmental Services, Inc. (ARM) has completed a Phase I Environmental Site Assessment (ESA) of a study area consisting of Riverview Road from Eden Terrace to SC 161 (Celanese Road), located in York County, South Carolina. This assessment was performed in general accordance with the standards set forth in ASTM Designation E 1527-13, Standard Practice for Environmental Site Assessments (ESA): Phase I Environmental Site Assessment Process. Due to the multi-property nature of this assessment the Phase I ESA has been modified to be more general in scope and to provide an overall assessment of a large area. The purpose of this assessment was to identify any Recognized Environmental Conditions (RECs) present on, or located in close proximity to, the study area, so that these conditions can be considered during the roadway construction planning process.

The following sites are considered to represent RECs with respect to the study area, within the scope of this assessment:

- The Associated Mechanical Erectors site is a large former structural metal fabrication facility, located adjacent to the west of Riverview Road, near the northwestern end of the study area. An underground storage tank (UST) release was reported on May 15, 2008. A letter of no further action (NFA) was issued for this release by the South Carolina Department of Health and Environmental Control (DHEC) on August 1, 2013. Fuels, metal cutting fluids, lubricants and a variety of other materials were likely used on site, indicating the potential presence of soil and/or groundwater contamination. The buildings at the site have been demolished and removed. The facility may also have partially operated on the east side of Riverview Road. Based on the documented UST fuel release and the long term industrial nature of the site, the former Associated Mechanical Erectors site is considered to represent a moderate to high potential for adverse impact to the subject property.
- The Cammy Express, at 1397 Celanese Road, is a Shell Gasoline station located adjacent to the east of the study area. The UST basin is located approximately 35 feet east of Riverview Road. A release from the UST system was reported on October 21, 1998 and has not received an NFA letter. Based on the proximity of the UST system to the study area, the site is considered to represent a moderate to high potential for adverse impact to the study area. Consideration of the UST basin location relative to areas of planned construction may also be warranted.
- Muffler Masters & The Service Center is an automotive maintenance facility located at 2598 Cherry Road, adjacent to the west of the study area. Typical automotive maintenance and the storage and handling of typical automotive maintenance related materials and fluids occur on site. The service building is located within approximately 10 feet of Riverview Road. Based on the observed conditions and the position of the site relative to the study area, the Muffler Masters / Service Center site is considered to represent a moderate to high potential for adverse impact to the study area.

- The Rock Hill U-Haul Center is a LUST site formerly located at 909 Riverview Road and is suspected to have been at the approximate location of the United Rentals facility, adjacent to the west of the study area. A release was reported from a UST system on December 9, 1991. The release was issued an NFA letter on February 18, 1994. Six USTs were formerly located on the property. Based on the proximity to the study area, the site is considered to represent a low to moderate potential for adverse impact to the study area.
- The former Harrelson Toyota site is located adjacent to the west of the study area at 1195 Riverview Road (the current location of Quik Trip 1099). The site is included on the Emergency Response Notification System (ERNS) list due to a complaint that waste oil containers were overfilled on several occasions. The site included automobile sales and maintenance and typical storage and handling of automotive maintenance related materials and fluids would have occurred on site. Based on the long term automotive maintenance and the ERNS listing, the former Harrelson Toyota site is considered to represent a low to moderate potential for adverse impact to the study area.
- The Quik Trip 1099 gas station is currently located at 1195 Riverview Road. Four large USTs are located approximately 40 feet southwest of Riverview Road. The dispenser islands are located approximately 60 feet southwest of Riverview Road. Although no releases have been reported, and the UST system is in compliance with DHEC regulations, based on the proximity of the USTs to the study area, the site is considered to represent a low to moderate potential for adverse impact to the study area. Consideration of the UST basin location relative to areas of planned construction may also be warranted.
- B&B Tire and Wheel is an automotive maintenance shop, located adjacent to the west of the study area at 737 Riverview Road. The automotive maintenance building is located approximately 100 feet west of Riverview Road. Based on the proximity to the study area and the area topography, the B&B site is considered to represent a low to moderate potential for adverse impact to the study area.
- Two large vacant lots are located adjacent to the study area, on the northeast side of Riverview Road, northwest of the Riverview Road / Cherry Road intersection. These lots appear to have been the location of Components, Inc., a metal truss maker. Based on the former presence of a semi-industrial facility at this location, these vacant lots are considered to represent a low to moderate potential for adverse impact to the study area.

Upon completion of preliminary engineering plans, it may be warranted to conduct detailed investigations of those suspect sites potentially impacted by the roadway improvements, or any portion of the Project Corridor that has the potential to have been adversely impacted by any of the referenced environmental sites. The determination of areas that may warrant Phase II Assessment services should be site specific, based on

hydrogeologic conditions, distance from specific environmental concerns, and other relative factors. Specific Phase II Assessment recommendations can be formulated upon review of preliminary engineering and right of way plans and may include soil / groundwater sampling and/or additional regulatory file review under the freedom of information act (FOIA) process.

Additional incidental environmental conditions include the following:

- Potential presence of asbestos containing materials or lead based paint in structures located in the vicinity of the study area.

2.0 Introduction

Pursuant to authorization from Campco Engineering, ARM has completed a Phase I Environmental Site Assessment (ESA) of a study area consisting of Riverview Road from Eden Terrace to SC 161 (Celanese Road), located in York County, South Carolina.

Due to the multi-property nature of this assessment the Phase I ESA has been modified to be more general in scope and to provide an overall assessment of a large area. For the purposes of this report, the referenced area will be referred to as the "study area."

2.1 Purpose

The purpose of this assessment was to identify any RECs or liabilities present within, or located in close proximity to, the study area. The term *recognized environmental conditions* means the presence, or likely presence, of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment (ASTM E 1527-13).

2.2 Detailed Scope of Services

This assessment was conducted in general accordance with ASTM Standard E 1527-13 for Phase I ESAs. Per this standard, the ESA is composed of four parts. They are (1) Records Review, (2) Site Reconnaissance, (3) Interviews, and (4) Report.

2.3 Significant Assumptions

The purpose of this study is to define and report RECs. This study does not address or relate to "de minimis" conditions that do not present a material threat to health or the environment and generally would not be the subject of an enforcement action by a governmental agency. It is assumed that the user of this ESA expects this study to constitute all appropriate inquiry in order to satisfy one of the requirements to qualify for one or more of the landowner liability protections (LLPs) to CERCLA liability.

This environmental assessment was accomplished based on customary practices and the type of property involved. The following are some issues or conditions which are outside the scope of work for a Phase I ESA as defined by ASTM E 1527: Asbestos Containing Materials, Radon, Lead-Based Paint, Lead in Drinking Water, Wetlands, Regulatory Compliance, Cultural and Historic Resources, Industrial Hygiene, Health and Safety, Ecological Resources, Endangered Species, Flood Plains/Flood Ways, Indoor Air Quality, and High Voltage Power Lines.

The accuracy of this environmental assessment partially depends on information provided by others. ARM cannot be responsible for the accuracy of information provided by other entities or persons. However, we have no reason to suspect that any of the information provided is inaccurate. With regard to the interviews, it is assumed that those interviewed responded in good faith and honestly.

ARM assumes no liability for changes in the fair market value of the property as a result of the performance of the environmental assessment activities, or disclosures of environmental conditions relating to the property.

2.4 Limitations and Exceptions of Assessment

This study was accomplished using the ASTM E 1527-13 guidelines for all appropriate inquiry and the environmental professional's best judgment. The environmental site assessment cannot wholly eliminate uncertainty regarding the potential for environmental conditions to exist on the subject site or adjoining properties. Performance of the study under the referenced ASTM guidelines is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the Study area. ASTM recognizes reasonable limits with regard to time and cost.

Due to the multi-property nature of this assessment the Phase I ESA has been modified to be more general in scope and to provide an overall assessment of a large area. Vapor encroachment was not considered as part of this assessment as it is understood that the project involves roadway construction and not evaluation, renovation, or the construction of buildings or other structures that would potentially collect vapors.

2.5 Special Terms and Conditions

This scope of work has been conducted for Campco Engineering.

2.6 User Reliance

This scope of work has been conducted solely for the user(s) identified on the cover sheet of this report. ARM has no present or contemplated future interest in the inspected property. User reliance may be amended by letter to include other parties, such as involved lenders, as deemed appropriate by ARM **and** pursuant to permission granted to ARM from the originally identified user.

3.0 Site Description

A general site description, site location, uses of adjacent properties, and general background information for the study area is summarized in the following sections. Photographic documentation of the study area is included in Appendix 17.3.

3.1 Location and Description

The study area is centered around Riverview Road from Eden Terrace Road Road to Celanese Road, northeast of Rock Hill, in York County, South Carolina. The study area consists primarily of roadway and road frontage along several properties located on Riverview Road and at the various intersections. The study area is approximately one mile long and includes a mix of light industrial, commercial, and vacant properties. The study area location is indicated on Figure 1 included in Appendix 17.1. Site plans showing the general study area layout and approximate boundaries are included as Figure 2 and Figure 3 in Appendix 17.2.

3.2 Site and Vicinity General Characteristics

The study area is described in Section 3.1 and 3.4. The general vicinity of the study area consists of a mix of light industrial, commercial, and vacant properties.

3.3 Current Use of the Property

The current use of the study area is roadway, roadway frontage, and parking areas associated with the commercial properties along the corridor.

3.4 Descriptions of Structures, Roads, and Improvements on Site

Riverview Road consists of an asphalt paved, two lane road and includes intersections with Eden Terrace Road, North Cherry Road (US 21), Riverchase Boulevard, and Celanese Road.

3.5 Current Uses of Adjoining Properties

Adjoining properties consist of a mix of light industrial, commercial, and vacant properties.

4.0 User Provided Information

4.1 Title Records

As this Phase I ESA has been modified to fit a corridor type project, the review of chain of title information for multiple properties was not considered feasible.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

No information regarding environmental liens or AULs was provided. As this Phase I ESA has been modified to fit a corridor type project, the review of this type of information for multiple properties was not considered feasible.

4.3 Specialized Knowledge

No specialized knowledge or other information relevant to environmental conditions in the study area was provided.

4.4 Commonly Known or Reasonably Ascertainable Information

No commonly known or reasonably ascertainable information relevant to environmental conditions in the study area was provided.

4.5 Valuation Reduction for Environmental Issues

Property valuation information was not provided. The properties within the study area are not currently offered for sale. The intent of this Phase I ESA is to act as a corridor study.

4.6 Owner, Property Manager, and Occupant Information

As this Phase I ESA has been modified to fit a corridor type project, the collection and review of this type of information for these multiple properties was not considered feasible.

4.7 Reason for Performing Phase I

The Phase I ESA has been requested to document the environmental conditions in the study area so that alternatives for roadway construction within the study area can be considered.

4.8 Other

No other User provided information was obtained.

5.0 Records Review

5.1 Standard Environmental Record Sources

Federal and State regulatory databases were reviewed to further identify any known sources of contamination located within a one mile or one-half mile radius of the Study area. The Federal records searched during this assessment included sites which handle or dispose of hazardous wastes or hazardous materials, and sites which otherwise have been identified to have air, soil, or groundwater contamination. The State records reviewed included hazardous waste sites, landfills, and sites with registered or leaking underground storage tanks. The environmental record search information is provided by Environmental Data Resources, Inc. (EDR).

The regulatory databases and target radius for each database are as follows:

Federal Databases

NPL	National Priorities List (1.0 mile radius, 0.5 if delisted)
CERCLIS	EPA Comprehensive Environmental Response, Cleanup and Liability Information System (0.5 mile radius)
CERCLIS NFRAP	CERCLIS No Further Remedial Action Planned (property and adjoining property)
RCRA CORRACTS	Resource Conservation and Recovery Act Facilities that have been notified by the EPA to undertake corrective action under RCRA (1.0 mile radius)
RCRA TSD	RCRA Non-CORRACTS Treatment/Storage/Disposal Facilities (0.5 mile radius)
RCRA Generators	RCRA generators of hazardous waste (property and adjoining property)
AULs	Activity and use limitations – legal or physical restrictions or limitations on use (property)
ERNS	Emergency Response Notification System (property)

State Databases

SHWS	
Equivalent NPL	(1.0 mile radius)
Equivalent CERCLIS	(0.5 mile radius)
SWF/LF	Landfill/Solid Waste (0.5 mile radius)
LUST	Leaking Underground Storage Tank sites (0.5 mile radius)
RUST	Registered Underground Storage Tank sites

	(property and adjoining property)
AULs	(property)
Voluntary Cleanup Sites	(0.5 mile radius)
Brownfield Sites	(0.5 mile radius)

Regulated Facilities

The following regulated sites were identified within the research distances from the study area as defined above. Details gathered during the investigative process, including site visits, for sites deemed to represent greater than a low potential for adverse impact to the study area are also provided following the list. Additional regulatory database descriptions are included in Section 17.5.

- Rockhill U-Haul Center
909 Riverview Road, located adjacent to the west of the study area
LUST site, DHEC ID #11384
- 925 Riverview Road (Currently United Rentals)
925 Riverview Road, located adjacent to the west of the study area
ERNS site, ID #2004740345
- Honda Cars of Rockhill
808 Riverview Road, located adjacent to the east of the study area
LUST site, DHEC ID #09291
- Associated Mechanical Erectors Co., Inc.
1142 Riverview Road, located adjacent to the east of the study area
LUST site, DHEC ID #09257
- Cammy Express
1397 Celanese Road, located adjacent to the east of the study area
LUST site, DHEC ID #09333
- Quik Trip 1099
1195 Riverview Road, located adjacent to the west of the study area
RUST site, DHEC ID #19624
- 1195 Riverview Road (Harrelson Toyota)
1195 Riverview Road, located adjacent to the west of the study area
ERNS site, ID #2000538720
- 914 Riverview Road (currently Econolodge)
914 Riverview Road, located adjacent to the east of the study area
Clandestine Drug Lab (CDL)

- 875 Riverview Road (currently Days Inn)
875 Riverview Road, located adjacent to the west of the study area
CDL
- Best Way Inn
825 Riverview Road, located adjacent to the west of the study area
CDL
- Best Holiday, Inc. (currently Motel 6)
825 Riverview Road, located adjacent to the west of the study area
CDL
- Airport Auto
1015 Riverview Road, located adjacent to the west of the study area
EDR Historical Auto Station (2012)
- 785 Riverview Road
785 Riverview Road, located adjacent to the west of the study area
EDR Historical Auto Station
2010 to 2011 as Palmetto Auto Paint and Body
2012 as Bestway Automotive Sales and Service
- B&B Tire and Wheel
737 Riverview Road, located adjacent to the west of the study area
EDR Historical Auto Station (2002-2012)
- Pantry 3952 dba Petro Express
1420 Celanese Road, located approximately 150 feet north of the study area
LUST site, DHEC ID #18472
- Spratt Street Texaco, LLC – Celanese Road
1430 Celanese Road, located approximately 150 feet northwest of the study area
LUST site, DHEC ID #09277
- Former Harold's Auto Body
2587 Cherry Road, located approximately 150 feet west of the study area
EDR Historical Auto Station (2009)
- Jim Nelson Nissan, Inc.
2574 Cherry Road, located approximately 160 feet southwest of the study area
LUST site, DHEC ID #09233
- Quality Inn
2625 Cherry Road, located approximately 250 feet east of the study area
CDL

- Racetrac 976
2561 Cherry Road, located approximately 270 feet west of the study area
LUST site, DHEC ID #09388
- Pantry 3932 dba Petro Express
2541 North Cherry Road, located approximately 600 feet southwest of the study area
LUST site, DHEC ID #13090
- Queen City Appliance Store
2550 Cherry Road, located approximately 630 feet southwest of the study area
LUST site, DHEC ID #19721
- Frederickson Motor Express
800 Corporate Boulevard, located approximately 850 feet east of the study area
LUST site, DHEC ID #09259
- Pep Boys 98
2514 North Cherry Road, located approximately 1,000 feet southwest of the study area
LUST site, DHEC ID #11721
- Precision Tune
2500 North Cherry Road, located approximately 1,230 feet southwest of the study area
LUST site, DHEC ID #16594
- Quick C Mart 103
2696 Cherry Road, located approximately 1,500 feet northeast of the study area
LUST site, DHEC ID #09970
- CJ Patton Motors, Inc.
955 Anderson Road, located approximately 1,800 feet southwest of the study area
LUST site, DHEC ID #09237
- Celanese Acetate, LLC
Cherry Road, located approximately 1,800 feet northeast of the study area
Cercis No Further Remedial Action Planned (NFRAP) site, EPA Site ID #0403225 ;
RCRA CORRACTS, RCRA TSDF, US Engineering Controls, US Institutional
Controls, EPA ID #SCD003159928 ; SHWS site, DHEC ID # SCD003159928
- Celanese / Greens of Rockhill / Riverwalk Apartments
2850 Cherry Road, located approximately 1,800 feet northeast of the study area
SHWS site, DHEC ID #s SCS123457541, 123457458, 123457457, 123457503,
123457594, Registry of Conditional Remedies, EPA ID #SCD003159928 ; Voluntary
Cleanup Program (VCP) / SC Brownfield site, DHEC File #50767

- Chata Coating and Laminating, Inc.
629 Wilkerson Road, located approximately 2,000 feet east of the study area
SHWS site, DHEC ID #SCR00076600
- Country Store
1143 North Anderson Road, located approximately 2,000 feet southwest of the study area
LUST site, DHEC ID #09394
- EZ Serve 8615
2351 North Cherry Road, located approximately 2,500 feet southwest of the study area
LUST site, DHEC ID #09268
- Prosperity 411
2250 Cherry Road, located approximately 3,000 feet southwest of the study area
SHWS site, DHEC ID # (Not Reported) ; LUST site, DHEC ID #09261
- Rock Hill Chemical Company
North Cherry Road, located approximately 3,200 feet southwest of the study area
NPL site, EPA ID #SCD980844005 ; CERCLIS site, site ID #0403425 ; SHWS site, DHEC ID SCD980844005 ; Groundwater Contamination Inventory (GWCI), DHEC File #52254
- Aquasol Corp and Lanxness Corp
730 North Anderson Road, located approximately 4,100 feet southwest of the study area
SHWS site, DHEC ID #SCD079047106 ; VCP / SC Brownfield site, DHEC file #51789
- Quick as a Wink462
2103 Cherry Road, located approximately 4,800 feet southwest of the study area
SHWS site, DHEC ID #SCDRY0052508 ; SC Drycleaners site, DHEC ID #52508

Regulatory Summary

The Rock Hill U-Haul Center is a LUST site formerly located at 909 Riverview Road. Based on the existing addresses along Riverview Road, this site is suspected to have been at the approximate location of the United Rentals facility, adjacent to the west of the study area. A release was reported from a UST system on December 9, 1991. The release was issued a letter of no further action (NFA) by the South Carolina Department of Health and Environmental Control (DHEC) on February 18, 1994. An NFA letter indicates that DHEC will not require further assessment or remediation of the site as the conditions pertain to the documented release. Six USTs were formerly located on the property. Based on the proximity to the study area, the site is considered to represent a low to moderate potential for adverse impact to the study area.

The Associated Mechanical Erectors site is a large former structural metal fabrication facility, located adjacent to the west of Riverview Road, near the northwestern end of the study area. A UST release was reported on May 15, 2008. An NFA letter was issued for this release on August 1, 2013. Based on city directory research, the use of the site by Associated Mechanical Erectors dates to at least the 1960s. Fuels, metal cutting fluids, lubricants and a variety of other materials were likely used on site. The buildings at the site have been demolished and removed. The facility may also have partially operated on the east side of Riverview Road. Based on the LUST listing and the long term industrial nature of the site, the former Associated Mechanical Erectors site is considered to represent a moderate to high potential for adverse impact to the subject property.

The Cammy Express is a Shell Gasoline station located adjacent to the east of the study area, near the intersection with Celanese Road. The UST basin is located approximately 35 feet east of Riverview Road. A release from the UST system was reported on October 21, 1998. The UST release has not received an NFA letter. The available information indicates that the groundwater flow direction is to the north, cross gradient to the study area; however, based on the proximity of the UST system to the study area, the site is considered to represent a moderate to high potential for adverse impact to the study area. Consideration of the UST basin location relative to areas of planned construction may also be warranted.

1195 Riverview Road is the former location of Harrelson Toyota, located adjacent to the west of the study area. The site is included on the ERNS list due to a complaint that waste oil containers were overfilled on several occasions. The site included automobile sales and maintenance and typical storage and handling of automotive maintenance related materials and fluids would have occurred on site. Based on city directories and aerial photographs, the Toyota dealership appears to have been in place from approximately 1995 to approximately 2013. Based on the long term automotive maintenance and the ERNS listing, the former Harrelson Toyota site is considered to represent a low to moderate potential for adverse impact to the study area.

The Quik Trip 1099 gas station is also located at 1195 Riverview Road. The gas station appears to have been constructed in approximately 2013. Four large USTs are located approximately 40 feet southwest of Riverview Road. The dispenser islands are located approximately 60 feet southwest of Riverview Road. No UST releases have been reported for the facility and the UST system is in compliance with applicable DHEC regulations. Although no releases have been reported, based on the proximity of the USTs to the study area, the site is considered to represent a low to moderate potential for adverse impact to the study area. Consideration of the UST basin location relative to areas of planned construction may also be warranted.

B&B Tire and Wheel is an automotive maintenance shop, located adjacent to the west of the study area. Typical storage and handling of automotive maintenance related materials and fluids occurs on site. The automotive maintenance building is located

approximately 100 feet west of Riverview Road. Based on the proximity to the study area and the area topography, the B&B site is considered to represent a low to moderate potential for adverse impact to the study area.

Based on the available information, and the locations of the other regulated sites relative to the study area, the other identified sites are considered to represent a low potential for adverse environmental impact to the study area.

5.2 Additional Environmental Record Sources

Additional environmental record sources (ASTM non-standard), as listed in the search of environmental databases provided by EDR, were reviewed as they were encountered in the EDR report and as considered appropriate. Any pertinent listings are included along with the standard listings in Section 5.1.

5.3 Physical Setting Sources

ARM reviewed the following sources regarding the physical setting of the study area and surrounding area:

- USGS Topographic Map, 7.5 minute series – Rock Hill East, (SC) Quadrangle, dated 1968.

According to the contour lines on the USGS topographic maps reviewed for this assessment, the study area is located approximately 590 to 620 feet above mean sea level. Topography in the area is gently rolling and slightly hilly, sloping toward the various creeks and tributaries to the Catawba River. Much of the central portion of the study area traverses a hilltop, and slopes to the northwest at the northwestern end and to the southeast at the southeastern end. The southeastern portion of the study area crosses an unnamed tributary to Manchester Creek, however, the tributary appears to be piped beneath the road and I-77 to the east. The Catawba River is located approximately 1.3 miles northeast of the study area.

5.4 Historical Use Information on the Property

Aerial Photographs

Google Earth aerial photographs from 1995, 2006, and 2015 were reviewed. United States Department of Agriculture aerial photographs of the study area dated 1938, 1949, 1964, and 1970 were also available from the University of South Carolina map library. Additionally, a 1980 York County GIS aerial photograph, available at <https://maps.yorkcountygov.com/gvh5/index.html?viewer=imagery> was reviewed. The conditions in the aerial photographs appeared as follows:

1938 – The study area appears to traverse primarily undeveloped agricultural land. Very light residential development is possibly apparent along the northwestern end of the

study area; however, no other development along the study area is apparent. The northwestern portion of Riverview Road, northwest of Cherry Road, is apparent. Riverview Road is not apparent on the southeastern side of Cherry Road. Cherry Road is apparent; however, Celanese Road is not. Eden Terrace Road is apparent at the southeastern end of the study area. The general vicinity appears very rural, undeveloped, very lightly residential, agricultural, and wooded.

1949 – The study area appears to traverse primarily undeveloped agricultural land. Residential development is apparent along the northwestern portion of the study area. The Celanese Plant, further to the northeast of the study area is apparent. The general vicinity appears very rural, undeveloped, very lightly residential, agricultural, and wooded.

1964 – Development is apparent along the northwestern portion of the study area and appears to be primarily residential, but includes apparent commercial structures. Development is also apparent around the Riverview Road / Cherry Road intersection. Southeast of the Riverview Road / Cherry Road intersection Riverview Road is not apparent and the study area appears to traverse primarily undeveloped agricultural land. The general vicinity appears slightly more developed overall.

1970 – Development is apparent along the northwestern portion of the study area and appears to be a mix of residential and commercial. The development is primarily along the southwest side of Riverview Road; however, more development is becoming apparent along the northeast side as well. Development is also apparent around the Riverview Road / Cherry Road intersection. Cherry Road appears to be more of a commercial corridor by the time of this photograph. Southeast of the Riverview Road / Cherry Road intersection Riverview Road is not apparent and the study area appears to traverse primarily undeveloped agricultural land. More development is apparent throughout the general vicinity.

1980 – The study area appears well developed commercially along Riverview Road; however, multiple wooded, undeveloped tracts are apparent. The general vicinity is also well developed commercially. I-77 is apparent to the east of the study area.

1995, 2006, 2015 – The study area appears well developed commercially along Riverview Road. The general vicinity is also well developed commercially.

Historical City Directories

Due to the historically commercial nature of the study area, historical city directories were reviewed at the York County Public Library at 138 East Black Street, Rock Hill, SC. The directories were reviewed at 5 to 10 year intervals, dating to 1959.

The numbering of addresses along Riverview Road appears to have changed by 1990. Therefore it is was difficult to track certain addresses over time. The city directories in general show very limited development through approximately 1980, which is consistent

with the review of historical aerial photography. Businesses along the study area have been a mix of commercial, retail, and light industrial. Information collected from the city directory review is incorporated in other sections of this report as appropriate.

Historical Topographic Maps

The following topographic maps were reviewed as historical sources:

- USGS Topographic Map, 7.5 minute series – Rock Hill East, (SC) Quadrangle, dated 1968

Conditions apparent on this map appear consistent with the 1964 and 1970 aerial photographs.

Summary

The available historical information indicates that the study area and vicinity have progressed from a rural agricultural setting to a mix of commercial and light industrial development.

6.0 Site Reconnaissance

6.1 Methodology and Limiting Conditions

ARM conducted the site walkover/ reconnaissance on February 4, 2015, in order to obtain any information that may indicate RECs. Representative photographs of the study area were taken and are included in Appendix 17.3.

6.2 General Site Setting

The study area location is indicated on Figure 1 included in Appendix 17.1. Site plans showing the general study area layout are included as Figure 2 and Figure 3 in Appendix 17.2. Sections 3.1, 3.2 and 3.4 of this report detail the general setting of the study area. The adjoining properties have been described in Section 3.5 of this report. The pertinent information collected during the site inspection is summarized in the following sections.

6.3 Observations

The study area consists primarily of roadway and road frontage along several properties located on Riverview Road and at the various intersections. The study area is approximately one mile long and includes a mix of light industrial, commercial, and vacant properties. The properties along the corridor include a mix of commercial, light industrial, and undeveloped properties. Details regarding sites identified in the regulatory review process are provided in Section 5.0.

At the south end of the study area a large vacant lot is located on the east side of Riverview Road. The lot includes a small parking lot and laid out sidewalk areas. No definite structure at this location was evident on the aerial photographs reviewed. According to the York County on-line GIS system, the property is owned by Amtel, Inc. which is apparently a hotels/motels business. Therefore, this property appears to have been hotel related.

The Lesslie Animal Hospital property, at 770 Riverview Road, is located adjacent to the east of the study area. This property is the former location of a Suzuki automobile dealership. The automotive service portion of the former automobile dealership appears to have been located in the rear (eastern) portion of the property, approximately 190 feet east of Riverview Road. No significant environmental concerns were noted. Based on the observed conditions and the position of the site relative to the study area, the site is considered to represent a low potential for adverse impact to the study area.

Bestway Automotive, at 785 Riverview Road, is located adjacent to the west of the study area. The site is a small automotive maintenance facility. Based on the observed conditions and the position of the site relative to the study area, the Bestway Automotive site is considered to represent a low potential for adverse impact to the study area.

Rock Hill Power Sports is located at 808 Riverview Road, adjacent to the east of the study area. This is also the former address of Honda Cars of Rock Hill, dating to the early 1980s. Typical automotive and/or motorcycle maintenance has occurred on site for many years. The service area is located approximately 180 feet east of Riverview Road. Based on the observed conditions and the position of the site relative to the study area, the Rock Hill Power Sports site is considered to represent a low potential for adverse impact to the study area.

Carolina Motorworks is located at 818 Riverview Road. The site is a small automobile dealership; however, evidence of significant automotive maintenance activities was not apparent. Based on the observed conditions and the position of the site relative to the study area, the Carolina Motorworks site is considered to represent a low potential for adverse impact to the study area.

United Rentals is an equipment rental facility and is suspected to be the former location of the Rock Hill U-Haul Center. Typical motorized equipment maintenance occurs on site. The maintenance area appears to be in the rear portion of the facility, approximately 180 feet west of Riverview Road. The observed conditions and the position of the site relative to the study area appear to represent a low potential for adverse impact to the study area. However, the conditions associated with the former Rock Hill U-Haul Center, as indicated in Section 5, are considered to represent a low to moderate potential for adverse impact to the study area.

Muffler Masters & The Service Center is an automotive maintenance facility located at 2598 Cherry Road, at the southwest corner of Cherry Road and Riverview Road, adjacent to the west of the study area. Typical automotive maintenance and the storage

and handling of typical automotive maintenance related materials and fluids occur on site. The service building is located within approximately 10 feet of Riverview Road. Based on the observed conditions and the position of the site relative to the study area, the Muffler Masters / Service Center site is considered to represent a moderate to high potential for adverse impact to the study area.

Two large vacant lots are located adjacent to the study area, on the northeast side of Riverview Road, northwest of the Riverview Road / Cherry Road intersection. Both lots appear to be used by the hotels across Riverview Road for truck parking. Based on cross-referencing city directories with aerial photographs these lots also appear to have been the location of Components, Inc., a metal truss maker, possibly associated with Associated Mechanical Erectors. Based on the former presence of a semi-industrial facility at this location, these vacant lots are considered to represent a low to moderate potential for adverse impact to the study area.

7.0 Interviews

Interviews were conducted as part of the Phase I ESA investigative process and are summarized below. Additional information related to the interviews may be contained in other sections of this report, as appropriate, and interview documentation is provided in Section 17.6. Due to the multi-property nature of this assessment the Phase I ESA has been modified to be more general in scope and to provide an overall assessment of a large area. Therefore, interviews with individual property owners / managers were not conducted, as it would have been prohibitively time consuming to locate ownership / manager information for these multiple parcels.

7.1 Interviews with Local Government Officials

The South Carolina Department of Health and Environmental Control (DHEC) Lancaster Environmental Quality Control (EQC) office, which covers York County, was contacted for environmental information in the study area. Information from the DHEC EQC office was not available at the time of this report.

7.2 Interviews with Others

No other interviews were conducted.

8.0 Findings

The following summary of findings is provided:

- The study area consists primarily of roadway and road frontage along several properties located on Riverview Road and at the various intersections from Eden Terrace Road to Celanese Road. The study area is approximately one mile long and includes a mix of light industrial, commercial, and vacant properties. The properties along the corridor include a mix of commercial, light industrial, and undeveloped properties.
- Several environmentally regulated facilities have been identified within or near the study area. These sites have been further described in Section 5.1. Based on the available information and locations of the sites, each site has been categorized as a Low, Low to Moderate, or Moderate to High potential for adverse impact to the study area. Those sites with greater than a Low potential for adverse impact are considered to be RECs with respect to the study area. A summarized list of these sites considered to be RECs is included in the conclusions below.
- Several sites of potential concern that were not identified on available database information were also noted during the investigative process. These sites have also been categorized by potential for adverse impact to the study area. A summarized list of these sites considered to be RECs is included in the conclusions below.

9.0 Opinion

Based on the site inspection, historical research, regulatory data review and interviews, it is the opinion of the environmental professional that RECs exist with respect to the study area. Opinions related to the potential impact of each HREC, CREC, or REC indicated in the findings is provided either in the findings section above, or in the conclusions section below.

10.0 Conclusions

We have performed a Phase I ESA in general conformance with the scope and limitations of ASTM Practice E 1527-13 of the area consisting of Riverview Road from Eden Terrace Road to Celanese Road, located in York County, South Carolina. Any exceptions to, or deletions from, this practice are described in Sections 2.4 and 11.0. This assessment has revealed no evidence of RECs in connection with the study area **except** for the following:

Based on the findings of this assessment and the available information, the following sites are considered to represent a **moderate to high** potential for adverse impact to the study area:

- Associated Mechanical Erectors Site, located at 1142 Riverview Road, adjacent to the west of the study area (also may have partially operated on the eastern side of Riverview Road).
- Cammy Express gas station, located at 1397 Celanese Road, adjacent to the east of the study area.
- Muffler Masters / Service Center site, located at 2598 Cherry Road, adjacent to the west of the study area.

Based on the findings of this assessment and the available information, the following sites are considered to represent a **low to moderate** potential for adverse impact to the study area:

- Former Rock Hill U-Haul Center (currently United Rentals), located at 909 Riverview Road, adjacent to the west of the study area.
- Former Harrelson Toyota, located at 1195 Riverview Road, adjacent to the west of the study area.
- Quik Trip 1099 gas station, located at 1195 Riverview Road, adjacent to the west of the study area.
- B&B Tire and Wheel, located at 737 Riverview Road, adjacent to the west of the study area.
- Vacant lots on the east side of Riverview Road, northwest of Cherry Road. These parcels may have been the former location of Components, Inc., a metal truss fabricator.

Upon completion of preliminary engineering plans, it may be warranted to conduct detailed investigations of those suspect sites potentially impacted by the roadway improvements, or any portion of the Project Corridor that has the potential to have been adversely impacted by any of the referenced environmental sites. The determination of areas that may warrant Phase II Assessment services should be site specific, based on

hydrogeologic conditions, distance from specific environmental concerns, and other relative factors. Specific Phase II Assessment recommendations can be formulated upon review of preliminary engineering and right of way plans and may include soil / groundwater sampling and/or additional regulatory file review under the freedom of information act (FOIA) process.

Additional incidental environmental conditions include the following:

- Potential presence of asbestos containing materials or lead based paint in structures located in the vicinity of the study area.

11.0 Deviations

This Phase I ESA was conducted in general accordance with ASTM Standard E 1527-13 for Phase I Environmental Site Assessments. However, due to the multi-property nature of this assessment the Phase I ESA has been modified to be more general in scope and to provide an overall assessment of a large area.

12.0 Additional Services

No additional services were conducted in conjunction with this Phase I ESA.

13.0 References

ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

Environmental regulatory data and Sanborn Fire Insurance Map searches, provided by EDR, Inc.

Aerial photographs obtained at the University of South Carolina Map Library, Google Earth, and the York County on-line GIS system (<https://maps.yorkcountygov.com/gvh5/index.html?viewer=imagery>)

City directory information obtained at the York County Public Library, 138 E. Black Street, Rock Hill, SC.

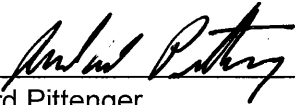
14.0 Signature(s) of Environmental Professional(s)

Report Compiled By:



Richard Ciccolella
Project Manager

Reviewed By:



Richard Pittenger
Sr. Project Manager / Principal

15.0 Qualifications of Environmental Professional(s)

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312, and we have the specific qualifications based on the education, training, and experience to assess a property of the nature, history, and setting of the Study area. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Resumes summarizing the qualifications of the Environmental Professionals that conducted this assessment are included in Appendix 17.8.

16.0 Warranty

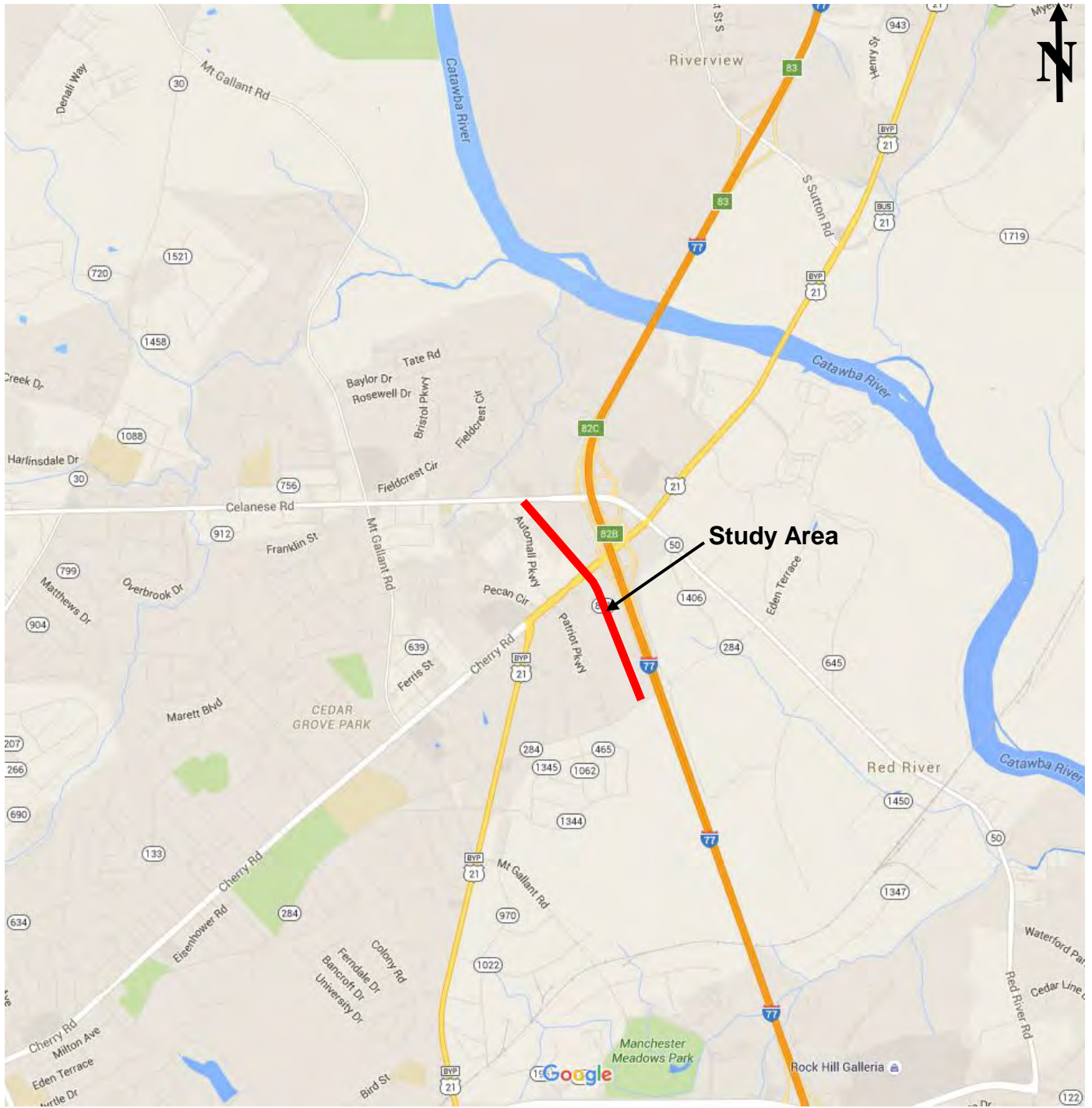
Services provided by ARM in this environmental assessment have been conducted in accordance with generally accepted environmental practices. This report has been generated solely for the use of the client. The information presented in this report is based only upon our site observations at the time of the site reconnaissance and data generated during our site reconnaissance. We cannot be responsible for the accuracy of information provided by others; however, we have no reason to suspect that any of the information provided is inaccurate. We accept no responsibility of damages or claims resulting from past or future environmental impact to the site caused by on or off-site activities or contamination, nor do we accept responsibility for subsequent remediation. This study is intended to be a non-biased assessment of on-site environmental conditions. No other warranties, either expressed or implied, are made.

17.0 APPENDICES

- 17.1 Site (Vicinity) Map – Figure 1
- 17.2 Site Plan – Figure 2
- 17.3 Site Photographs
- 17.4 Historical Research Documentation
- 17.5 Regulatory Records Documentation
- 17.6 Interview Documentation
- 17.7 Special Contractual Conditions Between User and Environmental Professional
- 17.8 Qualifications of the Environmental Professional(s)

17.1 Site (Vicinity) Map

Figure 1 – Topographic Site Location
Map



Project

Phase I Environmental Site Assessment
 Riverview Road Widening Project
 York County, South Carolina

Figure 1

Project Corridor Site Location Map

Scale

No Scale

Date

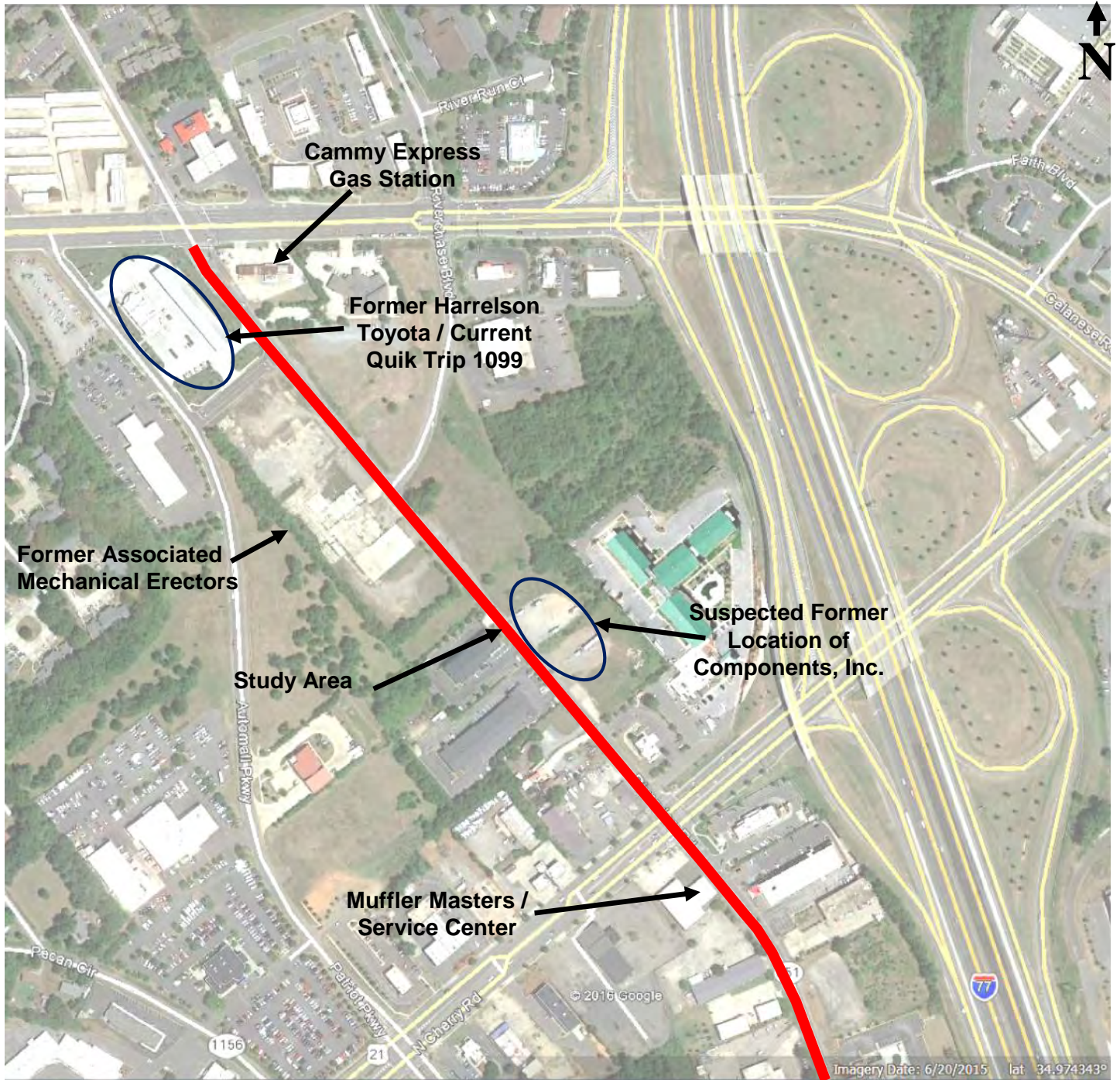
February 2016

ARM ENVIRONMENTAL
 SERVICES, INC.

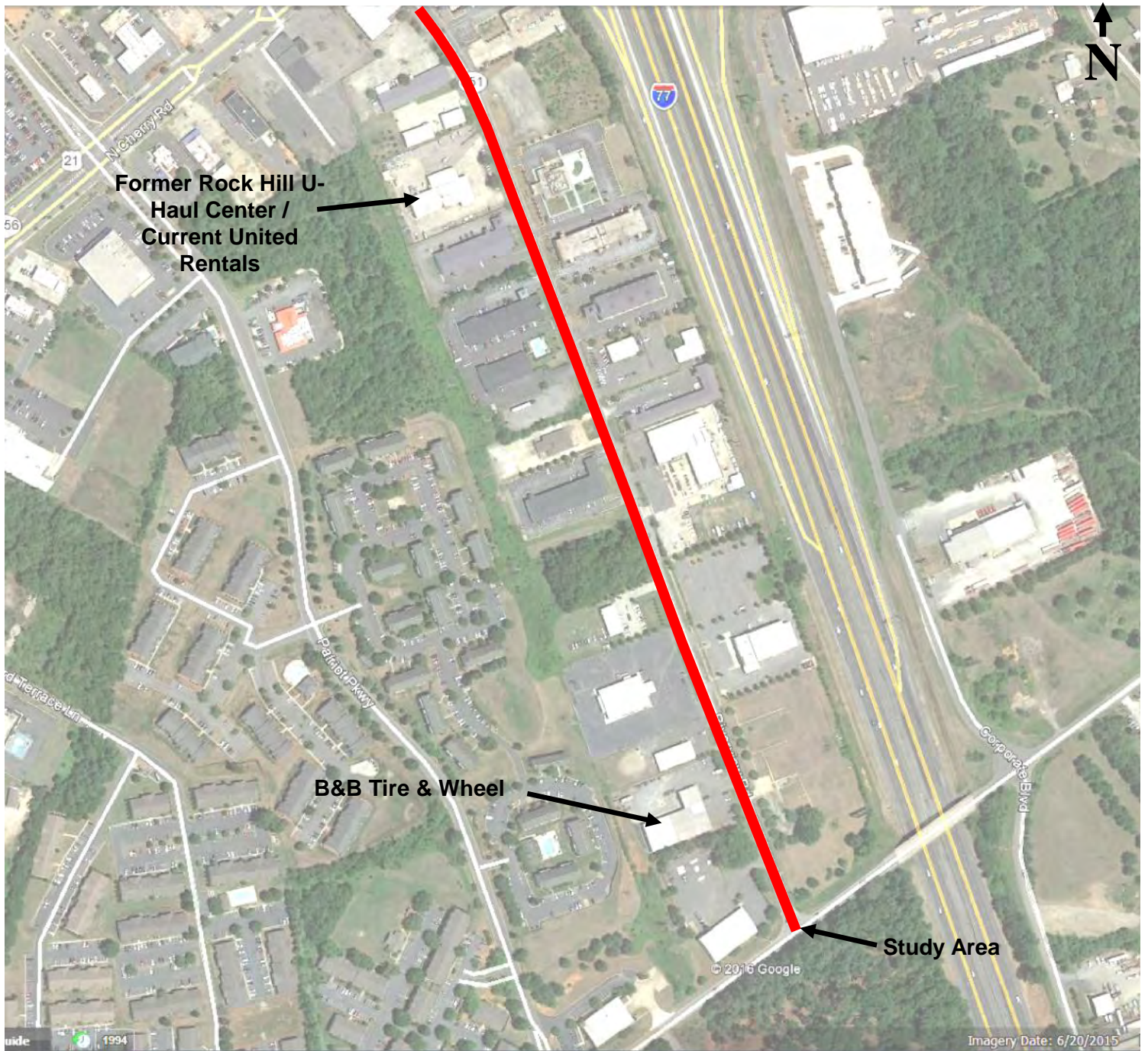
17.2 Site Plan

Figure 2 – General Site Plan

Figure 3 – General Site Plan



Project Phase I Environmental Site Assessment Riverview Road Widening Project York County, South Carolina		Figure 2 Site Plan	
Scale No Scale	Date February 2016		



Project
 Phase I Environmental Site Assessment
 Riverview Road Widening Project
 York County, South Carolina

Figure 3
 Site Plan

Scale
 No Scale

Date
 February 2016

ARM ENVIRONMENTAL SERVICES, INC.

17.3 Site Photographs



Photograph 1 – View looking northwest along the study area from the intersection of Eden Terrace Road and Riverview Road.



Photograph 2 – View of former Associated Mechanical Erectors site on Riverview Road.



Photograph 3 – View of Cammy Express (Shell Food Mart) station located adjacent to Riverview Road.



Photograph 4 – View of Muffler Masters / Service Center located adjacent to Riverview Road.



Photograph 5 – View of United Rentals (suspected former location of Rock Hill U-Haul Center) located adjacent to Riverview Road.



Photograph 6 – View of Quik Trip 1099 (also the former location of Harrelson Toyota) located adjacent to Riverview Road.



Photograph 7 – View of B&B Tire and Wheel located adjacent to Riverview Road.



Photograph 8 – View of vacant lots adjacent to Riverview Road, suspected to be the former location of Components, Inc.

17.4 Historical Research Documentation



1938 USDA Aerial Photograph (USC Map Library)



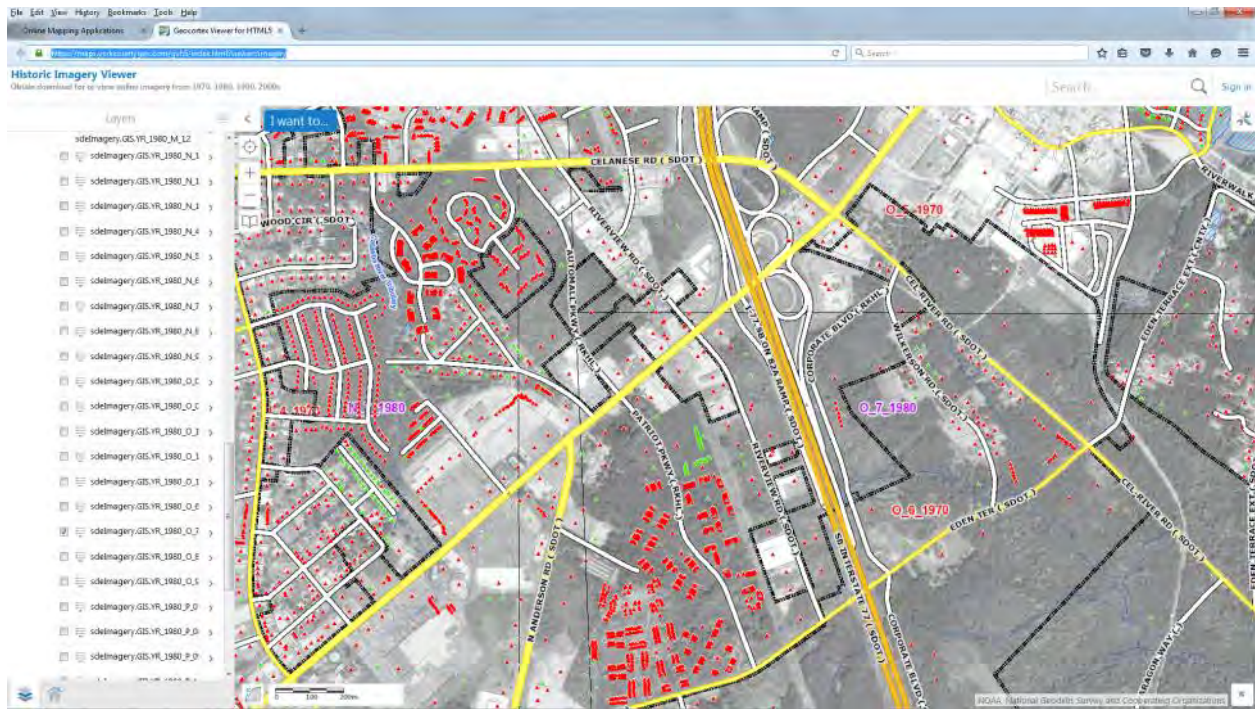
1949 USDA Aerial Photograph (USC Map Library)



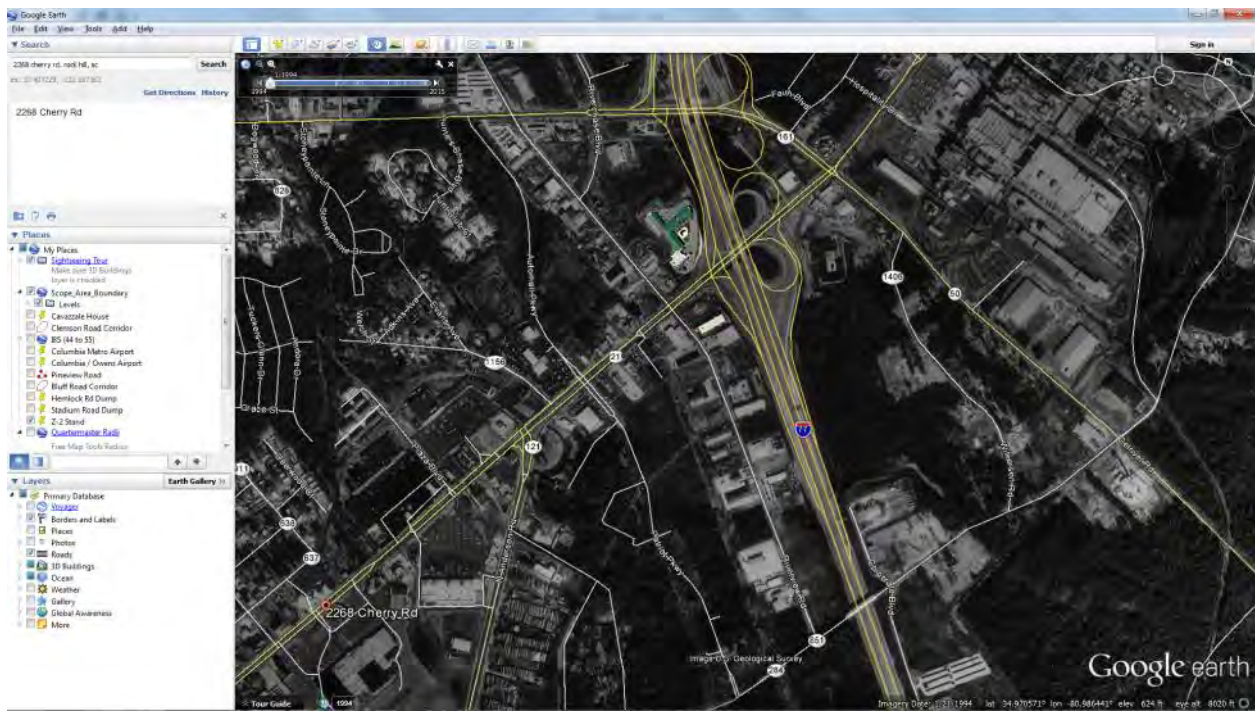
1964 USDA Aerial Photograph (USC Map Library)



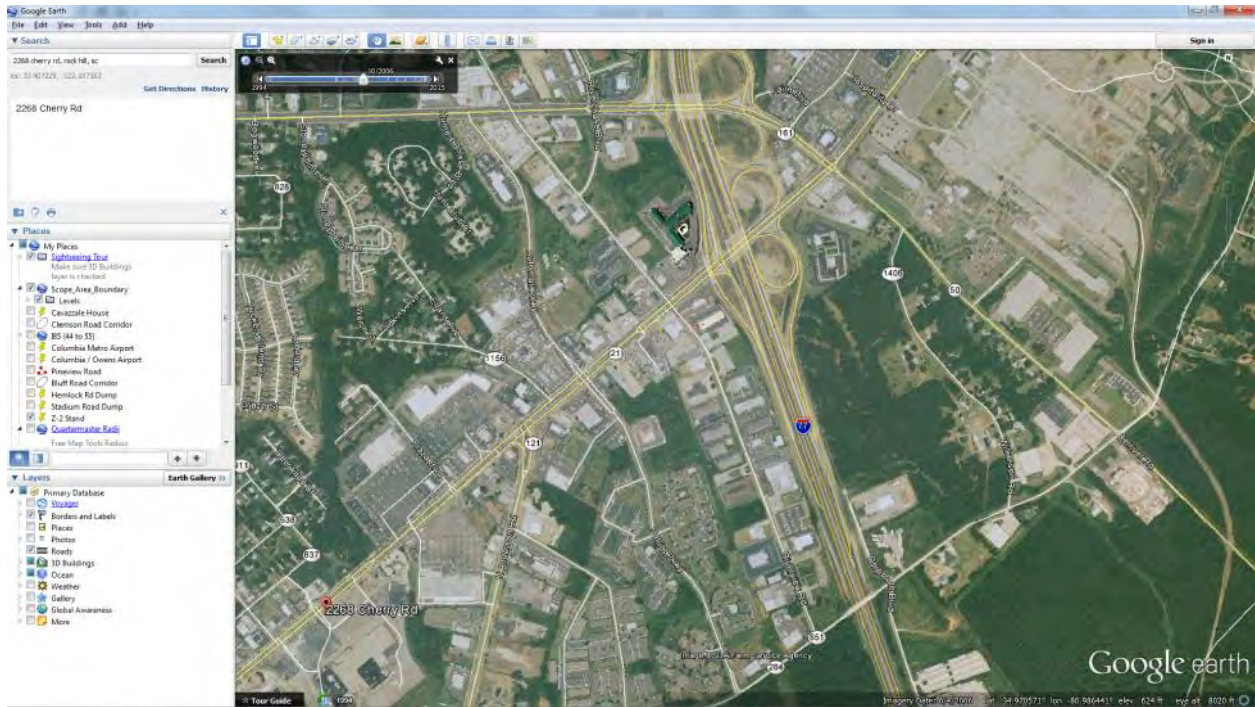
1970 USDA Aerial Photograph (USC Map Library)



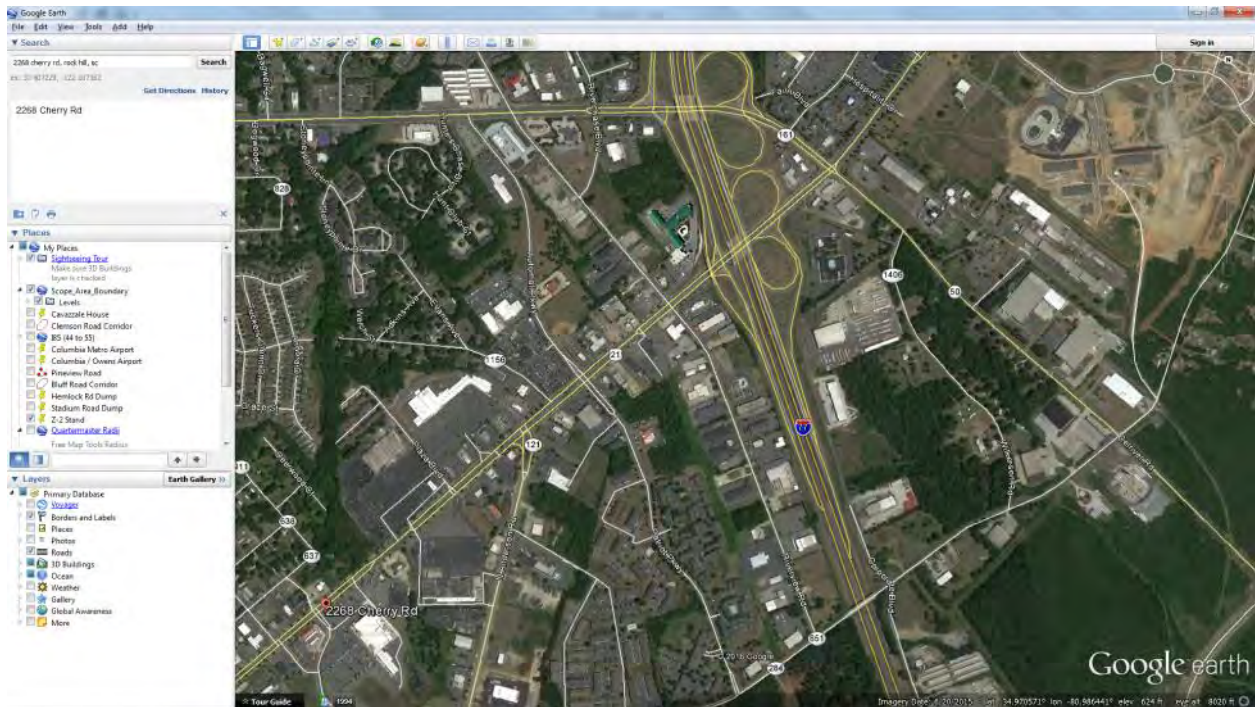
1980 York County GIS Aerial Photograph



1995 Google Earth



2006 Google Earth



2015 Google Earth

432ΔWilson Jas R
Martin av begins
439 Strickland Lenzie
442ΔBechtler Robt L
445 Vacant
448ΔBridwell W Hubert
Saluda intersects

16
RICHLAND AV—From S
York av northwest to
Bynum av, 1 west of
Sou Ry
1008 Knox Matilda
1014 Vacant
Pursley begins
Bynum av begins

6
RICHMOND DRIVE—From
1023 Cherry rd north-
west and southwest, 1
north of Ridge rd
Cherry rd intersects

1021ΔHowell Robt L @
1022ΔLong Furman B @
1025ΔFlemister Agnes L
Mrs
1030ΔGrove John R @
1037ΔFrank Harold H @
1038ΔBradley Elmo E @
1040ΔMullis Roy L @
1053ΔStetton H Grady @
1054ΔBorenstein David
E @
1062ΔRatterree John S @
Ridge rd ends
1122ΔNichols John M @
1114 Under Constn
1135ΔSkull Atwell C @
1128 Under Constn
1123ΔHensley Virgil R @

1051ΔLawless John L @
Woodland dr ends
1062ΔCalvert Julian P @
Richmond dr in-
tersects

3
RIVERS—From 468 N
Trade southeast to
beyond Hope, 1 east of
Charlotte av
214ΔChapman Jas H @
210ΔBolin Arth B
Hope intersects
315ΔGreer Julius H
317 Robertson Geo E

20
RIVERVIEW ROAD (RD 4)
—From Mt Gallant rd
east and south, 1 north
of Celanese rd
—ΔBrakefield Harold J
@
—ΔLedbetter Marvin E
@
—ΔLocklair Richd
—ΔHilton Linwood @
—ΔNivens Wm A @
—Duncan Clarence J
—ΔShuler Everette

15
ROCK—From end of
Clarinda, northwest to
Taylor
115ΔMassett Carrie
Mrs
123 Brown Daisy B Mrs
@
Crawford begins
203ΔMinor Annie M Mrs
211 Robinson Hayward

281 Woods Carrie Mrs
282 McClure Gussie
283ΔCanty John E @
284 Smith Herbert J
286 Preston Jas A
287 Stroud John L @
288ΔSimpson Jos
Taylor intersects
711 Vacant
717 McDow Richd

1
ROCKDALE—From Salu-
da southeast to US Hw
No 21A, north of Blac-
mon
716ΔGainey C E Distri-
buting Co food
products
732 Stephenson J Glen
@
740ΔSimmons Curtis L
@
rear Simmons Lily N
Mrs @

11
ROCKWOOD DRIVE—
From S Stonewall av
east, 1 west of Stone-
wall ct
604ΔHinson Edw T @
610ΔAustin Jas G jr @
618ΔWilliams Leonard
C @
624ΔGoodwin R Eug @
628ΔBrown Harry E @
630 Vacant
632 Deas Jas R
633ΔBazemore Jessie M
Mrs @
639 Craig Wm @
640ΔGlenn Everett L @

1959

1053ΔStetton H Grady @
1044ΔRirkpatrick Davie
1082ΔTeasing Ellis Y
Mrs
Ridge rd ends
1104ΔPratt Saml H @
1112ΔThompson Margt @
1115ΔSkull Atwell C @
1123ΔHensley Virgil H @
1131ΔHuff Chas W @
1132ΔRiches Albert H @
1138ΔJordan Edgar F @
1147ΔRitter Beah Je @
1162ΔRichmond Dr Sch
1165ΔConna H Leon @
1171ΔSeymour Lewis A @
1181ΔCasey Jess T @
1188ΔMcGinnis Donald A @
1192ΔTroutman Coit R jr
Rev
1202ΔDickert Coza B Mrs @
Dickert Georgia B
miss lady
1204ΔAdams Guy W @
1204ΔPhillips Leabelle @
1206ΔChambles Malcolm
G @
Evergreen cir intersects

0
RIDGE RD—From near
4023 Cherry rd north-
west and north, 1
northwest of Myrtle dr
1029ΔWhite Wm P @
1030ΔLonsdale Robt B @
Myrtle dr ends
1040ΔGiggin John C @
1060ΔMayer Robt H @
1061ΔChasey Othert F @
Woodland dr ends
1062ΔCalvert Julian P @
Richmond dr intersects

3
RIVERS—From 468 N
Trade southeast to
beyond Hope, 1 east of
Charlotte av
214ΔHinson Jas F @
218 No Return
Hope intersects
315 Vacant
317 Vacant

21
RIVERVIEW RD (RD 4)—
From Charlotte hwy
west, 1 east of Celand-
nese rd
1022ΔComponents Inc
Cross mks
1022ΔBrakefield Harold
J @
@Diana's Beauty
shop
103 Phillips Robt E
104ΔHilton Linwood @

108 Austin Walter V @
1105ΔShields W F @
Beas Hill
1155ΔLedbetter Marvin E
@
114 Duncan Clarence J
1145ΔRobles Hugo M
118 Porter Raymond L
1255ΔAssociated Machan-
ical Erectors Co
Inc
Celanese rd intersects
300ΔNewly Geo F
400 Vacant

15
ROBINSON—From 1207
Crawford rd northeast,
1 south of Iryin
206 Hemphill Mamie R
Mrs
218 Lindsey Wardell
249 Glet James
277 Minor Percy
281 Vacant
290ΔHinton Willie @
298 Feaster Oscar
298 Ingram Joe L @
301 Vacant
304ΔBarrie John H @
317 Boyles Robt @
Pinky begins

16
ROCK—From Taylor
northeast, 1 southwest
of Tim (numbers irreg-
ular)
125 Maffett Carrie Mrs
123 Brown Daisy B Mrs @
Crawford begins
102ΔMinor Annie M Mrs
311 Smith Herbert
324 Hemphill Glennote
327 Vacant
328 Clifton Ada
2002ΔBrice Jante W Mrs
282 Nelson Willie
284 Truesdale Chas D
286 Vacant
288 Turner Calvin M
2801 Nance Hezekiah
2802 McCord John J
281 Vacant
282 Gardner Leon
284 Vacant
286 Jones Salite Mrs
288 Bill Maggie
288 Neal Nannie
270 Bell Mary Mrs
274 Vacant
711 Dunn Shirley Mrs

7
280 Nance Hezekiah
282 Gordon Leon
282(2) Rollins James
285 Jones Sally Mrs
288 Turner Maggie

INT
N
C
R
A
U
T
O
I
N
S
U
R
A
N
C
O
M
P
A
N
Y
A
U
T
O
L
I
F
E
F
I
R
E
C
A
S
U
A
L
G
E
N
E
R
A
L
I
N
S
U
R
A
N
C
E
S
E
E
D
A
V
E
S
A
D
7
0
8
W.
M
A
T
E
L
S
3
2
7
-
2
7
5
R
E
S.
3
2
7
-
1

When
You
Think
Of
Printing
Dial
327-275
THE
ATLANT
PRESS
Wedding
Invitations
A

1964

117

RIDGEWOOD DR (MONTEREY HILLS) 27
FROM TWIN LAKE RD EAST A
SOUTH, 1 SOUTH OF MELROSE DR

ZIP CODE 29730
Frankie Wu H @ 366-4408
Jackson Weber C @ 366-7527
Holt Carl L @ 366-4494
Tinsley James H @ 366-7359

RIDGEWOOD DR (LAKEWOOD ACRES) 28
FROM MT GALLANT RD WEST, 1
SOUTH OF LAKEWOOD DR

ZIP CODE 29730

RD LA —FROM MAGNOLIA 22
DR, 2 WEST OF CHESTER

ZIP CODE 29730
3793 Every Roger M 328-3180
3794 Pagan B C @
3795 Jackson Earl H @ 328-3101

RIVERS ST —FROM 406 N TRADE ST 3
SOUTHEAST, 1 EAST OF CHARLOTTE
AV

ZIP CODE 29730
214 Oliver Bob 327-4911
218 Rainey Wayne M 327-2639
313 Brooks Nellis H
HOPE ST INTERSECTS

RIVERSIDE DR —FROM CHERRY RD 35
NORTHWEST, 1 SOUTHWEST OF
CATAWBA RIVER

ZIP CODE 29730
1084 Porter J J 366-4216
Murphy H A
Porter Richard H @

RIVERVIEW RD RT 3 —FROM CHERRY 3
RD NORTHWEST, 1 EAST OF
ANDERSON RD

ZIP CODE 29730
100 Components Inc truss mkr 366-7214
102 Elaine's Beauty Shop 366-4075
Brakefield Harold J @ 366-4065
104 Lips Jesse @
106 Hilton Linwood @ 366-4930
108 Nichols Andrew @
110 Shield W F 366-4994
Bean Wm E
112 Ledbetter Marvin E @ 366-7259
114 Duncan Clarence J
116 Ledbetter Marie Mrs
117 Capps Harry L
118 Bean Curtis Jr

125 Associated Mechanical Erectors Inc
366-7117
Champion Cultured Marble Co Inc plmb
sup 366-9131
CELANESE RD INTERSECTS

RIVERVIEW DAIRY RD —FROM 25
CELANESE RD NORTHEAST, 1 EAST
OF MT GALLANT RD

ZIP CODE 29730
1715 Mc Craver W J @
1723 Kehler Wm E @ 366-9874

ROBINSON ST —FROM 1287 CRAWFORD 15
RD NORTHEAST, 1 SOUTH OF IRVIN
ST

ZIP CODE 29730
305 Hemphill Mamie E Mrs
218 Alac Ella L Mrs @
249 Gist James @
257 Adams Sam S
261 Cherry Leroy
293 Hinton Willie @ 328-2270
296 Williams Harvey @
301 Ingram Joseph L @
318 Burris John H @ 328-2667
319 Hoyle Robert @
PINKNEY ST BEGINS

ROBINSON ST EXTN —FROM 1390 15
CRAWFORD RD NORTHWEST, A
CONTINUATION OF ROBINSON ST

ZIP CODE 29730
1314 Brown Ethereas
1300 Locke Charlotte @
1306 1/2 Dewese John

ROBINWOOD CT —FROM RIDGEWOOD 22
LA EAST, 1 NORTH OF MAGNOLIA
DR

ZIP CODE 29730
Dean Marvin 327-9460
Under Consts

ROCK GROVE AV —FROM 1420 13
MARGARET ST SOUTHEAST, 1 EAST
OF PORTER RD

ZIP CODE 29730
305 No Return
303 Roseboro Icelean Mrs @
312 Ingram Lewis @
313 Miller J J @
318 Cady John @ 328-1614
319 Rosborough Johnny @ 328-2950
323 Crawford Ori L @ 327-3560
415 Mc Cullough Green @
418 Hall James R @
419 Chiselm John R @ 327-8987

PIEDMONT
DISTRIBUTING
CO. INC
251
N.
Wilson St.
P.O. Box 1927
(29730)
Tel.
327-2756
Coll 45
Miller
High Life
Fulstaff

Mohler's
Pontiac
-Buick,
Inc.
Pontiac
Buick,
and
OPEL KADETT
HWY. 21
BY PASS

1970

118

WOOD LA —FROM MAGNOLIA 22
NORTH 2 WEST OF CHESTER

ZIP CODE 29730
Every Roger M 328-3180
Hiltside J Bradley @ 328-0979
Thomas Harvey J @ 328-1280
Stover Earl S @
Stam W P 327-7728

RIVERSIDE DR —FROM CHERRY RD 35
NORTHWEST, 1 SOUTHWEST OF
CATAWBA RIVER

ZIP CODE 29730
1084 Porter J J 366-4216

RIVERVIEW RD RT 3 —FROM CHERRY 3
RD NORTHWEST, 1 EAST OF
ANDERSON RD

ZIP CODE 29730
100 Components Inc truss mkr 366-7214
102 Elaine's Beauty Shop 366-3929
Brakefield Harold J @
104 No Return
125 Associated Mechanical Erectors Inc
366-7117
Cedarwood (Ss Ofc) 366-1482
Zip-Up Inc 366-4171
1023 Lips Shirley D 366-2122
1027 Hilton Lovwood 366-4880
1047 Nichols Emanuel A @ 366-9694
1005 Shields Beulah W Mrs @
Bean Bill
Olive Billy R @
1061 Ledbetter Marvin E @ 366-7259
CELANESE RD INTERSECTS

*45 Yamaha Country Inc 366-7160
909 Toyota Of R H 366-5185

RIVERVIEW DAIRY RD —FROM 25
CELANESE RD NORTHEAST, 1 EAST
OF MT GALLANT RD

ZIP CODE 29730
1298 No Return
1338a Johnson Jimmy 366-3008
1339b Vacant
1340 Cedarwood Apartments The 366-1482
1341 Apartments
1341a No Return
1341b Ward Brenda
1341c Tate Ed
1341d Adams Don 366-4440
1342 Apartments
1343a Dixon Wm C
1343b Gordon David
1343c No Return
1343d Smith James
1344 Apartments
1344a McLeod Dan F 366-6322
1344b Ledbetter Daniel P 366-3311
1344c Keith Ronald
1344d Pierce Bobby W 366-3072
1345 Apartments
1345a Alley L
1345b George Dennis

1365b Vacant
1365c Garage B
1367 Apartments
1367a Kelley Jim
1367b Holloman
1367c Vacant
1369 Apartments
1369a Vacant
1369b Richardson
1369c Vason Jim
1369d Keller Wm
1369e Queen John
1370 Apartments
1370a No Return
1371 Apartments
1371a No Return
1372 Apartments
1372a No Return
1373 Apartments
1373a No Return
1374 Coopers
1375 No Return
1376 No Return
1377 No Return
1378 No Return
1379 No Return
1380 Apartments
1380a No Return
1380b No Return
1380c No Return
1380d No Return
1380e No Return
1380f No Return
1380g No Return
1380h No Return
1380i No Return
1380j No Return
1380k No Return
1380l No Return
1380m No Return
1380n No Return
1380o No Return
1380p No Return
1380q No Return
1380r No Return
1380s No Return
1380t No Return
1380u No Return
1380v No Return
1380w No Return
1380x No Return
1380y No Return
1380z No Return
1381 No Return
1382 No Return
1383 No Return
1384 No Return
1385 No Return
1386 No Return
1387 No Return
1388 No Return
1389 No Return
1390 No Return
1391 No Return
1392 No Return
1393 No Return
1394 No Return
1395 No Return
1396 No Return
1397 No Return
1398 No Return
1399 No Return
1400 No Return
1401 No Return
1402 No Return
1403 No Return
1404 No Return
1405 No Return
1406 No Return
1407 No Return
1408 No Return
1409 No Return
1410 No Return
1411 No Return
1412 No Return
1413 No Return
1414 No Return
1415 No Return
1416 No Return
1417 No Return
1418 No Return
1419 No Return
1420 No Return
1421 No Return
1422 No Return
1423 No Return
1424 No Return
1425 No Return
1426 No Return
1427 No Return
1428 No Return
1429 No Return
1430 No Return
1431 No Return
1432 No Return
1433 No Return
1434 No Return
1435 No Return
1436 No Return
1437 No Return
1438 No Return
1439 No Return
1440 No Return
1441 No Return
1442 No Return
1443 No Return
1444 No Return
1445 No Return
1446 No Return
1447 No Return
1448 No Return
1449 No Return
1450 No Return
1451 No Return
1452 No Return
1453 No Return
1454 No Return
1455 No Return
1456 No Return
1457 No Return
1458 No Return
1459 No Return
1460 No Return
1461 No Return
1462 No Return
1463 No Return
1464 No Return
1465 No Return
1466 No Return
1467 No Return
1468 No Return
1469 No Return
1470 No Return
1471 No Return
1472 No Return
1473 No Return
1474 No Return
1475 No Return
1476 No Return
1477 No Return
1478 No Return
1479 No Return
1480 No Return
1481 No Return
1482 No Return
1483 No Return
1484 No Return
1485 No Return
1486 No Return
1487 No Return
1488 No Return
1489 No Return
1490 No Return
1491 No Return
1492 No Return
1493 No Return
1494 No Return
1495 No Return
1496 No Return
1497 No Return
1498 No Return
1499 No Return
1500 No Return

1975

1395a* Crawford Bradley
 1395b* Brashner Aaron
 1395c Broyhill Wm T
 1395d* Bruce Geo
 1396 Apartments
 1396a* Keffer Rick
 1396b Sowell Linda R Mrs 366-3888
 1396c* Summerhill Renee
 1396d Polk Clyde W Jr
 FLINTWOOD DR BEGINS
 1517* Snyder Joseph L Jr @ 366-6782
 1528 Jones Isaac D Jr @ 366-2897
 1529 Payne Geo C @ 366-3578
 1535 Gay Robt K @ 366-1309
 1536 Hasselachwert Clifford L @ 366-7902
 1542 Bryant Robt T @ 366-2947
 1545 Tull Lewis @
 1549 Miller John W @

25
**RIVERVIEW RD RT 3 —FROM CHERRY
 RD NORTHWEST 1 EAST OF
 ANDERSON RD**

ZIP CODE 29730
 NUMBERS IRREGULAR
 100 Components Inc truss mkr 366-7214
 1061 Ledbetter Marvin E @ 366-7259
 105 Oliver Billy R @
 1047 Andrews Television Repair 366-9694
 Nichols E Andrew @ 366-9694
 1055 Shields Beulah W Mrs
 111 Shields Jack
 1037 Hilton Bertha W Mrs @ 366-5547
 1033 Lipe Steve @
 119 Brakefield Elaine B Mrs @ 366-3929
 124 Associated Mechanical Erectors Inc
 366-7117
 135 Theis Corporation tex mach for dying &
 drying 366-4174
 CELANESE RD INTERSECTS

752 W. White St.
 Rock Hill, S.C. 29730
 Budweiser
 KING OF BEERS

1980

Rayfield Electric Heating and Air Conditioning Co
ANY SIZE BOILERS - SALES AND INSTAL
WE INSTALL AND SERVICE ELECTRIC CONTRO
 Wholesale - Retail
 1025 Saluda Street, Rock Hill, S.C. (29730)

182

RIVERVIEW RD RT 3—Contd

745 Welding Supply Of Rock Hill 366-6148 24
 808 Beasley Honda 366-8161
 909 Toyota-Rock Hill Inc 366-5163

**ROBBIE LA —FROM PEARSON RD
 SOUTH 1 WEST OF MT HOLLY RD** 22

ZIP CODE 29730
 1054 Smith Geraldine M @ 328-1946
 1062 Bolder Sammy L @ 328-2310
 1068 No Return
 PARKMONT LA BEGINS
 1074* Hempell Janice @
 1080* Covaty Ronnie @ 28-2732
 1086 Burris
 GLENARDEN DR INTERSECTS

**ROBERTS RD —FROM HOLLIS LAKE
 RD NORTH 2 WEST OF EBENEZER
 RD** 28

ZIP CODE 29730
 BOX NUMBERS
 bx389 Adams Grover F @
 bx387 H. W.

**ROBINWOOD CT —
 LA EAST 1 NORTH
 DR**

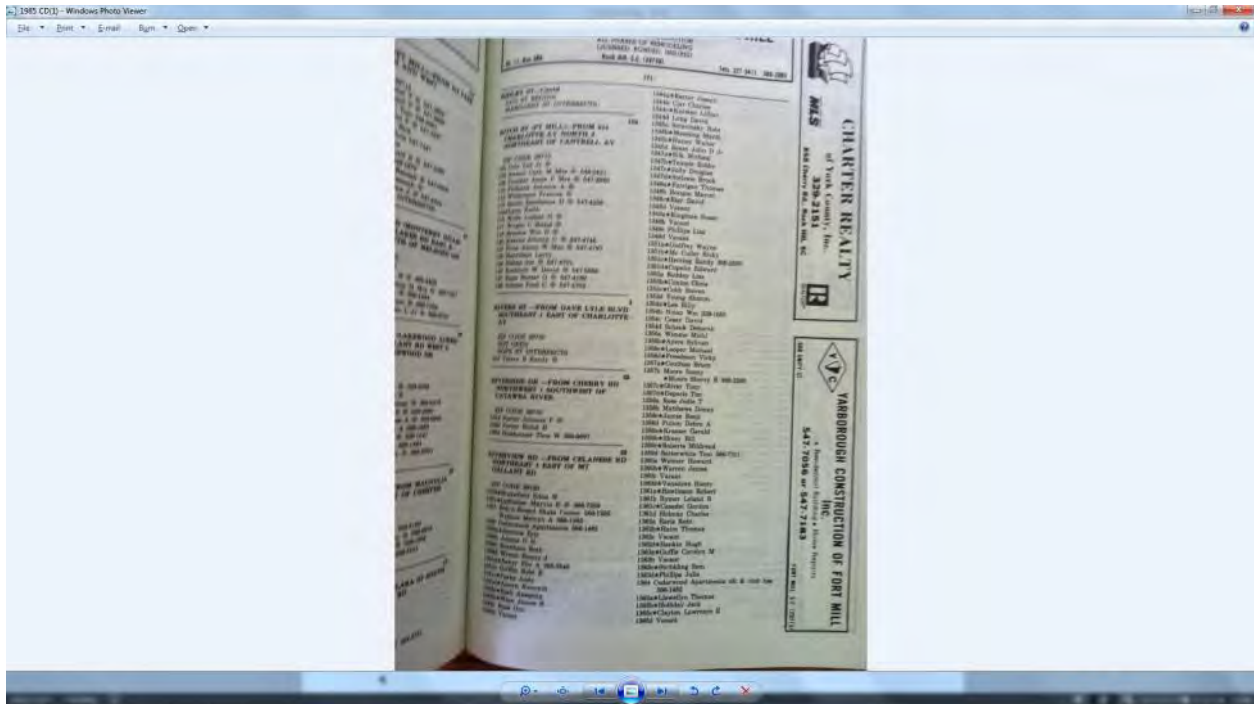
ZIP CODE 29730
 1021 Gaynor Wm W
 1022 Helms Thos E @

**ROCK ST —FROM
 NORTHEAST 1 NORTH
 ST**

ZIP CODE 29730
 119 Hope Odel @ 327-
 122 Moffett Carrie P
 124 Cherry Susie Mrs
 126 Harris Cecil 327-73
 CRAWFORD RD BEGINS
 202 Brown Daisy @ 32-
 211 Vacant
 215 Young Ida Mae @
 223 Fewell Ernestine @
 224 Cunningham Albert
 Mc Clure Willie M
 226 Brown Arth B @
 227 Boozer Shirley @

ROCK HILL CONCRETE CO., Inc.
 CONCRETE BUILDING MATERIALS
 Phone 271-4137
 Tel 548-8411
 Tel 374-8831
 Tel 834-4779
 Tel 283-3140
 188 Fairfield Ave., Rock Hill, S.C. (29730)
 Rock Hill Plant
 Loris Plant
 Trunk Depot Plant
 Chester Plant

1980 (cont.)



1985

DRAKEFORD'S AUTO UPHOLSTERY
"WE UPHOLSTER ANY MODEL"
AUTOMOBILES • BOATS • MOTORCYCLES
928 ALBRIGHT RD., ROCK HILL, SC. (20734)

Now Serving York and Chester Counties in 18 Convenient Locations

172

RIVERVIEW RD.—Contd

1367*Allenman Ron
1367*Pincelli Dorothy
1367*White Debbie
1367*Vacant
1368*Vacant
1368*Bowie D R
1368*Brooks David
1368*Eby Peter
1372*Vacant
1372*Ayers Gloria
1372*Rouse Kenneth
1372*Measers W C
1374*Davis John
1374*White Timothy
1374*James Theo
1374*Cardale Keith
1376*Mackey David
1376*Harris Roy
1376*Cauley Libby
1376*Vacant
1378*Leslie Butch
1378*Banton Patricia
1378*Richard Lonnie R
1378*Buff Randall
*Buff Kimberly W 366-7655

1380a Lowery Ted
1380b Benfield Ed
1380c Vacant
1380d Vacant
1381a Lucas B
1382a Rawlinson Edw
1382b Brown Haver
1382c Scales Gina
1382d Rikin Theodore
1382e Myer Jeff
1384 Lovelace
1384 Christopher Gary
1384a Mc Donough Richd B 366-1129
1386*Pettit Wayne A
1386*Hem Brenda S
1386*Wright Dan
1386a How Larry
1386b Wherry William
1388c Vacant
1388d Wagner Wm
1388a Kiggers
1389b Fowler Geo
1389c Long Ken
1390a Brown Johnny T Rev
1391a Adams
1391b Lee Jerry
1391c Sanders
1391d Leard
1392a Ward
1392b Glines Gina L
1392c Funderburke Tom R
1392d Wooten
1393a Burris
1393b Cobb
1393c Hipp
1393d Hammet Linda R
1394a Mitchell
1394b Mc Neil Bryan
1394c Nix
1394d Dunn Patricia R
1395a Thatcher Cindy A
1395b Hoyt
1395c Tapp Stanley
1395d Curry
1396a Simms

Richard A. Snipes, Jr.
Integrated Capital, Inc.
Tel. 803 / 224-4010
231 Oakland Ave., P.O. Box 11894
Rock Hill, SC. (29721)

173

RIVERVIEW RD.—FROM CHERRY RD NORTHWEST 1 EAST OF ANDERSON RD

ZIP CODE 29730
NUMBERS IRREGULAR
1030 Ultra-Chem Industries Inc. drs
366-8167
1022 Lyles Dave Building Supply 329-1105
1033*Lihe Steve S
1037 Hilton Bertha W Mrs @ 365-5647
1047 Andy's Television Repair 365-0994
Nichola E Andrew @
1055 Shields Boulah W Mrs
Shields Jack
124 Associated Mechanical Erectors Inc
contsr sups 366-7117
135 Theis Corporation tex mach for dying &
drying 366-4174

CELANESE RD INTERSECTS

743 Sans Seventy Seven Souci lounge
745 Walkers Supply Of Rock Hill 366-6149
808 Honda Cars Of Rock Hill 366-8161
818 Ackerman Bernard N acct 366-8371
Carolina Brokerage Co agri pros
366-8375
Kanawha Insurance Co 366-5193
909 U-Haul Center trlr rental 366-7191
962 Kroone-Lodge 329-3233

174

RIVERWOOD CT.—FROM

ZIP CODE 29730
1413*Byrdic C A 366-9185
1415*Latham H L 366-7790
1417*Gaston Nancy M 366-9565
1419*Marine Jeffrey @ 366-3301
1423*Hornby John C @ 366-9180
1425 Vacant

RIVERWOOD CT

1427*Peabody Wm
1428*Mickle Susan
1429*Evans Dan
1429*Warr Mich
1429*Moore Clyde
1429*Quinter Har
1429*Dean Joyce
1429*Welfe Melb
1429*Strickland I
1429*Dennis Fra
1429*Maney Jac
1429*Rollins Jas
1429*Tyrer Arc
1429*Wright M
1429*Bradley W
1429*Godfrey W
1429*Hatterree
*Watson I
1429*Latham C
1429*Matthews
1429*Christman
1429*Marlin St
1429*Sapp Jim
*Pettit A
146*Vacant
146*Wilkins I
146*Shumake
146*Forsythe
1474*Green W
1476 No Herus
1478*Blackston

ROBBIE LA SOUTH 1 V

ZIP CODE 2
1054 Smith G
1022 Bolder S
1058*Digaby
PARKMON
1074 Hempell
1080 Covings
1866 Burrs I
GLENARD

ROBERTS I LAKE RD OF OLE

ZIP CODE
BOX NUM
box387*Holl
box388*Niv
box389*Ada
box390*Har
box391a*St

ROBINSON RD NOR ST

ZIP COD
215 Vacant
218 Cherry
243 Glat Is
281 Vacant
288 Hart

1985 (cont.)

185 A NEW PRESIDENT

BROTHERS OIL, INC.
"SINCE 1907"
• FUEL OIL
• GASOLINE
• MAINT
• OILS
• MORE
• WE'RE
FOR THE
ON THE
ON THE
618-8124

184

RIVERSIDE DR - FROM CHERRY RD
NORTHWEST & SOUTHWEST OF
CATAWHA RIVER

RIVERVIEW RD RT 3 - FROM CHERRY
RD NORTHWEST & EAST OF
ANDERSON RD

183

182

181

180

179

178

177

176

175

174

173

172

171

170

169

168

167

166

165

164

163

162

161

160

159

158

157

156

155

154

153

152

151

150

149

148

147

146

145

144

143

142

141

140

139

138

137

136

135

134

133

132

131

130

129

128

127

126

125

124

123

122

121

120

119

118

117

116

115

114

113

112

111

110

109

108

107

106

105

104

103

102

101

100

99

98

97

96

95

94

93

92

91

90

89

88

87

86

85

84

83

82

81

80

79

78

77

76

75

74

73

72

71

70

69

68

67

66

65

64

63

62

61

60

59

58

57

56

55

54

53

52

51

50

49

48

47

46

45

44

43

42

41

40

39

38

37

36

35

34

33

32

31

30

29

28

27

26

25

24

23

22

21

20

19

18

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

0

1800

1700

1600

1500

1400

1300

1200

1100

1000

900

800

700

600

500

400

300

200

100

0

1990

Salesman
ADVERTISE AND PUT IT TO WORK

USE ZIP CODE

184

HOMEOWNER

1800V Riversview Rd RT 3 - Chas
1800W Ryan Dora
1800U Sharon Latta 305-4821
1800T Robert Powell L 305-4079
1800S Wendeck W 305-34-0621
1800R Charles Arnold A
1800Q James Mike 305-4273
1800P William Stone W 305-4163
1800O Sammie S 305-4054
1800N David K Lynn 305-3480
1800M Donna Sue 305-4056
1800L Clay
1800K G-Edna Lende A 305-4075
1800J Sherman Johnny
1800I Semonsky Rose D 305-1078
1800H Alford Wm 305-4469
1800G Sherman Charles T
1800F Owen John D Jr 305-4050
1800E Robert L
1800D Wm Wm
1800C Margaret L
1800B No Return
1800A George Man
1800 Blackman Ricky A
1800B Sebaste N B 307-1262
1800A No Return
1800A Roberts John T 305-5647
1800A Roberts Dawn M 305-6302
1800A Lewis Leta M 305-2813
1800A Tom Mich
1800A No Return
1800A No Return
1800A No Return
1800A No Return
1800A Knight Roper JD
1800A Hunley
1800C No Return
1800A Oubre Nature T
1800A Knott Lewis D 305-4070
1800A Benoit Chad
1800A No Return
1800A Hixon Dorey L 305-3041
1800A Hester Patricia A
1800A Ayres Anna M 305-3574
1800A Ducaud Fnc 305-4047
1800A Worthy S 307-694
1800A Ducaud Lora 305-2574
1800A Vacant
1800E Staller Keith
1800E Fowler Shirley L 305-6118
1800E Rose Jude 305-4779
1800D Pruitt Carolyn
1800D No Return
1800D No Return
1800A Caldwell Chae
1800A O Neal
1800A Green R J 305-4792
1800A No Return
1800A Toussant Gerald I 305-0631
1800A Spivey Ross W 305-6120
1800C Vacant
1800A Dixon Edmund 304-7160
1800A Crow Andrew D Jr 305-0532
1800A East Mary W 305-2017
1800A McNair Wm E
1800A Combs Thomas A 307-9520
1800A Houston Betty
1800E Sanders Turly V
1800A Hill Barbara L 305-8027
1800A Latta Vicki M Mrs 305-0964
1800A Wright Keith T 305-2021
1800A Woods Kevin 305-7568
1800A Williams R V 309-5979
1800A Delaplane Apartments of & club hse
305-1482
1800A Kennedy Andrew W 307-1936
1800B No Return
1800A Dawdy Don M 307-6297

1300A Schaefer Chas J 305-2000
1300A Curtis Alvin
1300A Silver Barbara J 305-0164
1300A Orr
1300A Mather Gary S
1300A Varnes
1300A Edwards
1300A No Return
1300A Paul Joseph D
1300A No Return
1300A No Return
1300A Deane Gary A 305-4114
1300A Hager James Jr
1300A Susan Kenneth W
1300A Price A L
1300A Turner Kim A 305-5820
1300A Mistral Horace E 305-0556
1300A Wain Andrew L 307-5371
1300A Ferguson Shane
1300A Sophie Stanley C
1300A Beth March W 305-2000
1300A Diane Janet 305-0475
1300A Cox E M
1300A White Sarah P 305-5469
1300A Max Ruth E
1300A Panton
1300A Bradford Jonathan J
1300A Gaultroy Don J
1300A Babinster
1300A Dridger
1300A Bessie
1300A Babs Rowland E 305-0439
1300A No Return
1300A Meyer David J
1300A No Return
1300A William
1300C Young Jacquelin
1300C Cooper Shirley R
1300A Eriton James 328-8960
1300B Howe David J 305-5277
1300C Weeks Ed W 305-4615
1300A Barrett
1300A Criss Mimi A 307-2016
1300A Cr High F 045-5434
1300A Rowland David L 305-8216
1300A Bruce Donald H 305-9820
1300A McCallough Hedy 305-4000
1300B Smith
1300A Brown Rose T 307-2072
1300A Bailey Larry J 305-9868
1300A O Leil Ruth W 304-1307
1300D No Return
1300C No Return
1300A No Return
1300A No Return
1300A Starvo Dorale M
1300A Miller Tomps E 305-7130
1300A No Return
1300A Overcash Joe
1300A No Return
1300A Wichel
1300A Vacant
1300A Pendelbert Don A
1300A Brax E 305-3688
1300A Silver R M 305-1841
1300A No Return
1300A Brown Diane 305-9777
1300A Beaupre Jim D 305-1488
1300A Brasher
F L J WOOD DR 201100
1416A Glimmer S 305-6870
1416A Hasty Susan M
1416A No Return
1416A Tucker Myra E Mrs
1416A Callahan
1416A Fox Wm A 305-1400
1416A No Return
1422A Mr Glenn Perry D 305-2028

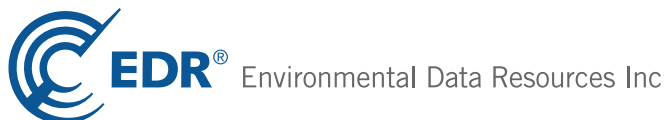
1990 (cont.)

17.5 Regulatory Records Documentation

Riverview Road
Riverview Road
Rock Hill, SC 29730

Inquiry Number: 4508238.2s
January 08, 2016

The EDR Radius Map™ Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	298
Zip Scan Report	ZIP-1
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

RIVERVIEW ROAD
ROCK HILL, SC 29730

COORDINATES

Latitude (North): 34.9706000 - 34° 58' 14.16"
Longitude (West): 80.9888000 - 80° 59' 19.68"
Universal Transverse Mercator: Zone 17
UTM X (Meters): 501022.4
UTM Y (Meters): 3869585.2
Elevation: 638 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6068362 ROCK HILL EAST, SC
Version Date: 2014

Northeast Map: 6060301 FORT MILL, SC
Version Date: 2014

Southwest Map: 6064775 ROCK HILL WEST, SC
Version Date: 2014

Northwest Map: 6061844 LAKE WYLIE, SC
Version Date: 2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20110430, 20120602, 20110522
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
RIVERVIEW ROAD
ROCK HILL, SC 29730

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	ROCK HILL CHEMICAL C	NORTH CHERRY RD	NPL, CERCLIS, US ENG CONTROLS, US INST CONTROL, SC	Same	2725, 0.516, WSW
A1	QUEEN CITY APPLIANCE	2550 CHERRY ST	SC LUST	Higher	388, 0.073, WNW
A2	JIM NELSON NISSAN IN	2574 CHERRY RD	FINDS	Lower	405, 0.077, NNW
A3	JIM NELSON NISSAN IN	2574 CHERRY RD	SC LUST, SC UST	Lower	405, 0.077, NNW
A4	BURNS NISSAN	2574 CHERRY RD	RCRA NonGen / NLR, FINDS	Lower	405, 0.077, NNW
A5	JIM NELSON NISSAN IN	2574 CHERRY RD	SC RGA LUST	Lower	405, 0.077, NNW
A6	RACETRAC 265	2561 CHERRY RD	SC RGA LUST	Lower	468, 0.089, NW
A7	RACETRAC 976	2561 CHERRY RD	SC RGA LUST	Lower	468, 0.089, NW
A8	RACETRAC #265	2561 CHERRY RD	SC RGA LUST	Lower	468, 0.089, NW
A9	RACETRAC 976	2561 CHERRY RD	FINDS	Lower	468, 0.089, NW
A10	RACETRAC 976	2561 CHERRY RD	SC LUST, SC UST, SC Financial Assurance, SC GWCI	Lower	468, 0.089, NW
A11	RACETRAC SERVICE STA	2561 CHERRY RD	SC RGA LUST	Lower	468, 0.089, NW
A12		2561 CHERRY RD	EDR Hist Auto	Lower	468, 0.089, NW
13	BEST HOLIDAY INC	962 RIVER VIEW RD	FINDS	Lower	469, 0.089, NE
B14		925 RIVERVIEW RD	ERNS	Lower	477, 0.090, East
A15	CONOCO #40023	2541 CHERRY RD	SC RGA LUST	Higher	520, 0.098, WNW
A16	PANTRY 3932 DBA PETR	2541 N CHERRY RD	SC RGA LUST	Higher	520, 0.098, WNW
A17	PANTRY 3932 DBA PETR	2541 N CHERRY RD	SC LUST, SC UST, SC Financial Assurance	Higher	520, 0.098, WNW
A18	PETRO EXPRESS 14	2541 N CHERRY RD	SC RGA LUST	Higher	520, 0.098, WNW
A19	PETRO EXPRESS #14	2541 CHERRY RD	SC RGA LUST	Higher	520, 0.098, WNW
A20	KAYO SERVICE STA JET	2541 CHERRY RD	FINDS	Higher	520, 0.098, WNW
A21	PETRO EXPRESS 14	2541 CHERRY RD	SC RGA LUST	Higher	520, 0.098, WNW
A22	PETRO EXPRESS 14	2541 N CHERRY RD	FINDS	Higher	520, 0.098, WNW
A23	PANTRY 3932 DBA PETR	2541 N CHERRY RD	SC GWCI	Higher	520, 0.098, WNW
A24	KAYO SERVICE STA (JE	2541 CHERRY RD	SC RGA LUST	Higher	520, 0.098, WNW
C25	GARYS COLLISION	2587 N CHERRY RD	RCRA-CESQG, FINDS	Lower	552, 0.105, North
C26		2587 CHERRY RD	EDR Hist Auto	Lower	552, 0.105, North
B27		914 RIVERVIEW RD	SC CDL	Lower	558, 0.106, ESE
B28	ROCK HILL U HAUL CTR	909 RIVERVIEW RD	FINDS	Lower	561, 0.106, ESE
B29	ROCK HILL U HAUL CTR	909 RIVERVIEW RD	SC LUST, SC UST	Lower	561, 0.106, ESE
B30	ROCK HILL U-HAUL CEN	909 RIVERVIEW RD	SC RGA LUST	Lower	561, 0.106, ESE
B31	ROCK HILL U HAUL CTR	909 RIVERVIEW RD	SC RGA LUST	Lower	561, 0.106, ESE
D32		2531 CHERRY RD	EDR Hist Auto	Higher	647, 0.123, West
C33		1015 RIVERVIEW RD	EDR Hist Auto	Lower	665, 0.126, North
D34	PEP BOYS THE ROCK	2514 N CHERRY RD	FINDS	Higher	690, 0.131, West
D35	PEP BOYS #98	2514 N CHERRY RD	SC RGA LUST	Higher	690, 0.131, West
D36		2514 CHERRY RD	EDR Hist Auto	Higher	690, 0.131, West
D37	PEP BOYS 98	2514 NORTH CHERRY RO	RCRA-CESQG	Higher	690, 0.131, West
D38	PEP BOYS 98	2514 N CHERRY RD	SC LUST, SC UST	Higher	690, 0.131, West

MAPPED SITES SUMMARY

Target Property Address:
RIVERVIEW ROAD
ROCK HILL, SC 29730

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
D39	PEP BOYS 98	2514 N CHERRY RD	SC RGA LUST	Higher	690, 0.131, West
40		875 RIVERVIEW	SC CDL	Lower	816, 0.155, SE
E41		2500 CHERRY RD	EDR Hist Auto	Higher	909, 0.172, WSW
E42	PRECISION TUNE	2500 N CHERRY RD	SC LUST, SC UST	Higher	909, 0.172, WSW
E43	PRECISION TUNE	2500 N CHERRY RD	SC RGA LUST	Higher	909, 0.172, WSW
E44	PRECISION TUNE	2500 N CHERRY RD	FINDS	Higher	909, 0.172, WSW
F45	BURNS CHEVROLET INCO	2515 CHERRY RD	RCRA-CESQG, ICIS, FINDS	Higher	1064, 0.202, West
F46		2515 CHERRY RD	EDR Hist Auto	Higher	1064, 0.202, West
47	QAULITY INN	2625 CHERRY RD.	SC CDL	Lower	1275, 0.241, North
48		2433 CHERRY RD	EDR Hist Cleaner	Lower	1307, 0.248, WSW
G49	BEST WAY INN	825 RIVERVIEW RD.	SC CDL	Lower	1349, 0.255, SE
G50	HONDA CARS OF ROCK H	808 RIVERVIEW RD	SC LUST, SC UST	Lower	1442, 0.273, SE
G51	HONDA CARS OF ROCK H	808 RIVERVIEW RD	SC RGA LUST	Lower	1442, 0.273, SE
G52	HONDA CARS OF ROCK H	808 RIVERVIEW RD	RCRA NonGen / NLR, FINDS	Lower	1442, 0.273, SE
H53	ASSOCIATED MECHANICA	1142 RIVERVIEW RD	SC LUST, SC UST	Lower	1545, 0.293, NNW
H54	ASSOCIATED MECHANICA	1142 RIVERVIEW RD	SC RGA LUST	Lower	1545, 0.293, NNW
H55	ASSOCIATED MECHANICA	1142 RIVERVIEW RD	FINDS	Lower	1545, 0.293, NNW
H56		1145 RIVERVIEW RD	EDR Hist Cleaner	Lower	1554, 0.294, NNW
I57	COUNTRY STORE	1143 N ANDERSON RD	SC RGA LUST	Higher	1629, 0.309, SW
I58	COUNTRY STORE	1143 N ANDERSON RD	FINDS	Higher	1629, 0.309, SW
I59	COUNTRY STORE	1143 N ANDERSON RD	SC GWCI	Higher	1629, 0.309, SW
I60	THE COUNTRY STORE	1143 N ANDERSON RD	SC RGA LUST	Higher	1629, 0.309, SW
I61	COUNTRY STORE	1143 N ANDERSON RD	SC LUST, SC UST	Higher	1629, 0.309, SW
I62		1117 ANDERSON RD N	EDR Hist Auto	Higher	1635, 0.310, SW
63		785 RIVERVIEW RD	EDR Hist Auto	Lower	1679, 0.318, SE
64	US 21 SUNOCO SERVICE	US 21 & 161	RCRA NonGen / NLR	Lower	1720, 0.326, NE
I65	A QUALITY SMILE FOR	1125 ANDERSON RD STE	FINDS	Lower	1793, 0.340, SW
I66		1117 N ANDERSON RD	ERNS	Lower	1849, 0.350, SW
I67		1117 N ANDERSON RD	EDR Hist Auto	Lower	1849, 0.350, SW
68		2374 CHERRY RD	EDR Hist Auto	Lower	1905, 0.361, WSW
69		1117 ANDERSON RD	EDR Hist Auto	Lower	1985, 0.376, SW
J70	QUICK C MART 103	2696 CHERRY RD	SC RGA LUST	Lower	1991, 0.377, NE
J71	QUICK C MART #103	2696 CHERRY RD	SC RGA LUST	Lower	1991, 0.377, NE
K72	FREDRICKSON MOTOR EX	800 CORPORATE BLVD	FINDS	Lower	2115, 0.401, SE
K73	FREDRICKSON MOTOR EX	800 CORPORATE BLVD	SC RGA LUST	Lower	2115, 0.401, SE
K74	FREDRICKSON MOTOR EX	800 CORPORATE BLVD	SC LUST, SC UST	Lower	2115, 0.401, SE
75		737 RIVERVIEW RD	EDR Hist Auto	Lower	2120, 0.402, SSE
J76		2688 CHERRY RD	EDR Hist Auto	Lower	2121, 0.402, NE
J77	THE QUICK C FOOD MAR	2696 CHERRY RD	SC SPILLS	Lower	2168, 0.411, NE

MAPPED SITES SUMMARY

Target Property Address:
RIVERVIEW ROAD
ROCK HILL, SC 29730

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
J78	QUICK C MART 103	2696 CHERRY RD	FINDS	Lower	2168, 0.411, NE
J79	QUICK C MART 103	2696 CHERRY RD	SC LUST, SC UST, SC Financial Assurance, SC GWCI	Lower	2168, 0.411, NE
J80	RANDOLPH YARNS-CLOSE	1175 CELRIVER RD	FINDS	Lower	2232, 0.423, NE
81		1279 CELANESE RD	EDR Hist Auto	Higher	2234, 0.423, North
J82	CREEKSIDE OF YORK CO	2750 HWY 21 S	FINDS	Lower	2259, 0.428, NE
J83	ART PRINTING CO INC	CELANESE BYPASS	FINDS	Lower	2263, 0.429, NE
L84		1195 RIVERVIEW ROAD	ERNS	Lower	2396, 0.454, NNW
L85	HARRELSON TOYOTA	1195 RIVERVIEW RD	SC SPILLS	Lower	2396, 0.454, NNW
M86	E Z SERVE #8615	2351 N CHERRY RD	SC RGA LUST	Lower	2420, 0.458, WSW
M87	E Z SERVE 8615	2351 N CHERRY RD	SC RGA LUST	Lower	2420, 0.458, WSW
M88	TENNECO 61538	2351 N CHERRY RD	SC RGA LUST	Lower	2420, 0.458, WSW
M89	E Z SERVE 8615	2351 N CHERRY RD	FINDS	Lower	2420, 0.458, WSW
M90	TOC RETAIL #615-38	2351 N CHERRY RD	SC RGA LUST	Lower	2420, 0.458, WSW
M91	E-Z SERVE #8615	2351 N CHERRY RD	SC RGA LUST	Lower	2420, 0.458, WSW
M92	E Z SERVE 8615	2351 N CHERRY RD	SC LUST, SC UST, SC GWCI	Lower	2420, 0.458, WSW
N93	CAMMY EXPRESS	1397 CELANESE RD	SC RGA LUST	Lower	2436, 0.461, NNW
N94	EXPRESS #128	1397 CELANESE RD	SC RGA LUST	Lower	2436, 0.461, NNW
N95	EXPRESS 128	1397 CELANESE RD	SC RGA LUST	Lower	2436, 0.461, NNW
L96	RIVERVIEW MEDICAL CL	1393 CELANESE RD	FINDS	Lower	2448, 0.464, NNW
M97	KMART 7043	2302 CHERRY RD	SC UST	Lower	2453, 0.465, WSW
M98	KMART 7043	2302 CHERRY RD	RCRA-LQG	Lower	2453, 0.465, WSW
M99	KMART 7043	2302 CHERRY RD	FINDS	Lower	2453, 0.465, WSW
L100	QUIKTRIP 1099	1195 RIVERVIEW RD	SC UST, SC Financial Assurance	Lower	2454, 0.465, NNW
L101	CAMMY EXPRESS	1397 CELANESE RD	SC LUST, SC UST, SC GWCI	Lower	2476, 0.469, NNW
L102	EXPRESS 128	1397 CELANESE RD	FINDS	Lower	2476, 0.469, NNW
L103	PANTRY 3952 DBA PETR	1420 CELANESE RD	SC RGA LUST	Lower	2577, 0.488, NNW
L104	PETRO EXPRESS 36	1420 CELANESE ROAD	FINDS	Lower	2577, 0.488, NNW
L105	PANTRY 3952 DBA PETR	1420 CELANESE RD	SC LUST, SC UST, SC Financial Assurance, SC GWCI	Lower	2577, 0.488, NNW
M106	RUTLEDGE	2268 CHERRY RD	SC UST	Lower	2619, 0.496, WSW
L107	SPRATT STREET TEXACO	1430 CELANESE RD	SC LUST, SC UST, SC Financial Assurance, SC GWCI	Lower	2675, 0.507, NNW
O108	CYTEC CARBON FIBERS	800A CEL RIVER RD	RCRA-CESQG	Lower	2811, 0.532, ENE
O109	INCHEM CORPORATION	800 CELRIVER RD	RCRA-LQG	Lower	2811, 0.532, ENE
110	HOME DEPOT 1114	2815 HOME DEPOT BLVD	RCRA-SQG	Lower	2981, 0.565, NNE
111	CHATA COATING & LAMI	629 WILKERSON RD	SC SHWS, RCRA NonGen / NLR	Lower	3035, 0.575, ESE
P112	PROSPERITY 411	2250 CHERRY RD	SC SHWS, SC LUST, SC UST, SC GWCI	Lower	3072, 0.582, SW
P113	HESS STATION 40251	2250 CHERRY RD	RCRA NonGen / NLR, FINDS	Lower	3072, 0.582, SW
P114		2245 CHERRY RD	EDR Hist Auto	Lower	3169, 0.600, WSW
115	PRATT RECYCLING INC.	720 CEL RIVER RD.	SC SWRCY	Lower	3277, 0.621, East
Q116		955 ANDERSON RD N	EDR Hist Auto	Higher	3285, 0.622, SSW

MAPPED SITES SUMMARY

Target Property Address:
RIVERVIEW ROAD
 ROCK HILL, SC 29730

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Q117	CJ PATTON MAZDA	955 ANDERSON RD	RCRA-CESQG, FINDS	Higher	3312, 0.627, SSW
Q118	C J PATTON MOTORS IN	955 ANDERSON RD	SC LUST, SC UST	Higher	3312, 0.627, SSW
R119	ECONO LUBE N TUNE 31	2215 CHERRY RD	RCRA-CESQG, FINDS	Lower	3625, 0.687, WSW
120	SAMUEL STRAPPING SYS	640 CEL RIVER ROAD	RCRA NonGen / NLR, NY MANIFEST	Lower	3672, 0.695, East
S121	HOLOX LTD	2687 EDEN TERRACE	SC LUST, SC UST, SC RCR, SC GWCI, SC NPDES	Lower	3711, 0.703, East
S122	HOLOX LTD	2687 EDEN TERRACE	RCRA-CESQG	Lower	3711, 0.703, East
T123	GREEN OIL / THOMAS P	2849 CHERRY ROAD	SC AST	Lower	3714, 0.703, NE
T124	COMMUNITY MART 6	2849 CHERRY RD	SC LUST, SC UST, SC Financial Assurance, SC GWCI,...	Lower	3714, 0.703, NE
R125	SEARS ROEBUCK & CO	2188 CHERRY RD	SC LUST, SC UST	Lower	3726, 0.706, SW
U126	CELANESE ACETATE LLC	BOX CRS CHERRY RD ST	CERCLIS-NFRAP, CORRACTS, RCRA-TSDF, US ENG...	Lower	4055, 0.768, NE
U127	CELANESE / GREENS OF	2850 CHERRY RD	SC SHWS, SC RCR, SC VCP, SC BROWNFIELDS, SC...	Lower	4055, 0.768, NE
V128	QUICK AS A WINK 462	2103 CHERRY RD	SC SHWS, RCRA NonGen / NLR, FINDS, SC DRYCLEANERS	Lower	4662, 0.883, SW
V129	MOUNT GALLANT EXPRES	1024 MT GALLANT RD	SC LUST, SC UST, SC Financial Assurance	Lower	4676, 0.886, SW
V130	NEW WAY CAR WASH	2101 CHERRY RD	SC LUST, SC UST, SC SPILLS, SC GWCI	Lower	4683, 0.887, SW
V131	NORGETOWN CLEANERS	2036 CHERRY RD	SC SHWS, SC DRYCLEANERS	Lower	4891, 0.926, SW
V132	NORGETOWN CLEANERS	2036 CHERRY ROAD	RCRA-CESQG, SC GWCI	Lower	4891, 0.926, SW
133	CIRCLE K 8401	1830 CELANESE RD	SC LUST, SC UST, SC RCR, SC SPILLS, SC Financial...	Lower	4898, 0.928, WNW
W134	MR G'S FOOD STORES 1	2120 NATIONS FORD RD	SC LUST, SC UST, SC Financial Assurance	Higher	5110, 0.968, SSW
W135	MR G'S FOOD STORES 1	2120 NATIONS FORD RD	SC GWCI	Higher	5110, 0.968, SSW
136	SUN CORNER CITGO	2000 CELANESE RD	SC LUST, SC UST, SC GWCI	Lower	5225, 0.990, WNW
137	AQUASOL CORP AND LAN	730 N ANDERSON RD	SC SHWS, SC AUL, SC VCP, SC BROWNFIELDS, SC...	Higher	5564, 1.054, SSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

State and tribal landfill and/or solid waste disposal site lists

SC SWF/LF..... Permitted Landfills List

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... National Clandestine Laboratory Register
US CDL..... Clandestine Drug Labs

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SC SPILLS 90..... SPILLS 90 data from FirstSearch
SC SPILLS 80..... SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
EPA WATCH LIST..... EPA WATCH LIST
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PADS..... PCB Activity Database System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
SC COAL ASH..... Coal Ash Disposal Sites

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

SC RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
SC RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 10/30/2015 has revealed that there is 1 NPL site within approximately 1.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>ROCK HILL CHEMICAL C</i>	<i>NORTH CHERRY RD</i>	<i>WSW 1/2 - 1 (0.516 mi.)</i>	<i>0</i>	<i>8</i>

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>ROCK HILL CHEMICAL C</i>	<i>NORTH CHERRY RD</i>	<i>WSW 1/2 - 1 (0.516 mi.)</i>	<i>0</i>	<i>8</i>

EXECUTIVE SUMMARY

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERCLIS-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS-NFRAP site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>CELANESE ACETATE LLC</i>	<i>BOX CRS CHERRY RD ST</i>	<i>NE 1/2 - 1 (0.768 mi.)</i>	<i>U126</i>	<i>205</i>

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 CORRACTS site within approximately 1.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>CELANESE ACETATE LLC</i>	<i>BOX CRS CHERRY RD ST</i>	<i>NE 1/2 - 1 (0.768 mi.)</i>	<i>U126</i>	<i>205</i>

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-TSDF site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>CELANESE ACETATE LLC</i>	<i>BOX CRS CHERRY RD ST</i>	<i>NE 1/2 - 1 (0.768 mi.)</i>	<i>U126</i>	<i>205</i>

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/09/2015 has revealed that there are 2 RCRA-LQG sites within approximately 0.75 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
KMART 7043	2302 CHERRY RD	WSW 1/4 - 1/2 (0.465 mi.)	M98	90
INCHEM CORPORATION	800 CELRIVER RD	ENE 1/2 - 1 (0.532 mi.)	O109	110

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-SQG site within approximately 0.75 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HOME DEPOT 1114	2815 HOME DEPOT BLVD	NNE 1/2 - 1 (0.565 mi.)	110	159

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 06/09/2015 has revealed that there are 7 RCRA-CESQG sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PEP BOYS 98	2514 NORTH CHERRY RO	W 1/8 - 1/4 (0.131 mi.)	D37	49
BURNS CHEVROLET INCO	2515 CHERRY RD	W 1/8 - 1/4 (0.202 mi.)	F45	55
CJ PATTON MAZDA	955 ANDERSON RD	SSW 1/2 - 1 (0.627 mi.)	Q117	186
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GARYS COLLISION	2587 N CHERRY RD	N 0 - 1/8 (0.105 mi.)	C25	42
CYTEC CARBON FIBERS	800A CEL RIVER RD	ENE 1/2 - 1 (0.532 mi.)	O108	106
ECONO LUBE N TUNE 31	2215 CHERRY RD	WSW 1/2 - 1 (0.687 mi.)	R119	189
HOLOX LTD	2687 EDEN TERRACE	E 1/2 - 1 (0.703 mi.)	S122	198

EXECUTIVE SUMMARY

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 09/10/2015 has revealed that there are 2 US ENG CONTROLS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROCK HILL CHEMICAL C	NORTH CHERRY RD	WSW 1/2 - 1 (0.516 mi.)	0	8

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CELANESE ACETATE LLC	BOX CRS CHERRY RD ST	NE 1/2 - 1 (0.768 mi.)	U126	205

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 09/10/2015 has revealed that there are 2 US INST CONTROL sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROCK HILL CHEMICAL C	NORTH CHERRY RD	WSW 1/2 - 1 (0.516 mi.)	0	8

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CELANESE ACETATE LLC	BOX CRS CHERRY RD ST	NE 1/2 - 1 (0.768 mi.)	U126	205

Federal ERNS list

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 06/22/2015 has revealed that there are 3 ERNS sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	925 RIVERVIEW RD	E 0 - 1/8 (0.090 mi.)	B14	36
Not reported	1117 N ANDERSON RD	SW 1/4 - 1/2 (0.350 mi.)	I66	74
Not reported	1195 RIVERVIEW ROAD	NNW 1/4 - 1/2 (0.454 mi.)	L84	84

State- and tribal - equivalent CERCLIS

SC SHWS: State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

A review of the SC SHWS list, as provided by EDR, and dated 03/23/2015 has revealed that there are 8

EXECUTIVE SUMMARY

SC SHWS sites within approximately 1.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROCK HILL CHEMICAL C EPA ID: SCD980844005	NORTH CHERRY RD	WSW 1/2 - 1 (0.516 mi.)	0	8
AQUASOL CORP AND LAN EPA ID: SCD079047106	730 N ANDERSON RD	SSW 1 - 2 (1.054 mi.)	137	273

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHATA COATING & LAMI EPA ID: SCR000766600	629 WILKERSON RD	ESE 1/2 - 1 (0.575 mi.)	111	165
PROSPERITY 411	2250 CHERRY RD	SW 1/2 - 1 (0.582 mi.)	P112	179
CELANESE ACETATE LLC	BOX CRS CHERRY RD ST	NE 1/2 - 1 (0.768 mi.)	U126	205
CELANESE / GREENS OF EPA ID: SCS123457541 EPA ID: SCS123457458 EPA ID: SCS123457457 EPA ID: SCS123457503 EPA ID: SCS123457594	2850 CHERRY RD	NE 1/2 - 1 (0.768 mi.)	U127	247
QUICK AS A WINK 462 EPA ID: SCDRY0052508	2103 CHERRY RD	SW 1/2 - 1 (0.883 mi.)	V128	257
NORGETOWN CLEANERS EPA ID: SCDRY0052671	2036 CHERRY RD	SW 1/2 - 1 (0.926 mi.)	V131	263

State and tribal leaking storage tank lists

SC LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health & Environmental Control's Leaking UST list.

A review of the SC LUST list, as provided by EDR, and dated 07/29/2015 has revealed that there are 26 SC LUST sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
QUEEN CITY APPLIANCE Substance: PETROL Facility Status: conduct invest/risk assessment Facility Id: 19721	2550 CHERRY ST	WNW 0 - 1/8 (0.073 mi.)	A1	27
PANTRY 3932 DBA PETR Substance: PETRO Facility Status: conduct invest/risk assessment Facility Id: 13090	2541 N CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A17	37
PEP BOYS 98 No Action Required: 01/31/00 Substance: PETRO Facility Status: conduct invest/risk assessment Facility Id: 11721	2514 N CHERRY RD	W 1/8 - 1/4 (0.131 mi.)	D38	51
PRECISION TUNE	2500 N CHERRY RD	WSW 1/8 - 1/4 (0.172 mi.)	E42	53

EXECUTIVE SUMMARY

No Action Required: 05/12/95

Substance: PETRO

Facility Id: 16594

COUNTRY STORE 1143 N ANDERSON RD SW 1/4 - 1/2 (0.309 mi.) I61 70

No Action Required: 02/11/10

Substance: PETRO

Facility Status: monitored natural attenuation

Facility Id: 09394

Facility Id: 13935

C J PATTON MOTORS IN 955 ANDERSON RD SSW 1/2 - 1 (0.627 mi.) Q118 188

No Action Required: 03/18/98

Substance: PETRO

Facility Id: 09237

MR G'S FOOD STORES 1 2120 NATIONS FORD RD SSW 1/2 - 1 (0.968 mi.) W134 269

Substance: PETROL

Facility Status: conduct invest/risk assessment

Facility Id: 09407

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JIM NELSON NISSAN IN No Action Required: 07/29/03 Substance: PETRO Facility Status: conduct invest/risk assessment Facility Id: 09233	2574 CHERRY RD	NNW 0 - 1/8 (0.077 mi.)	A3	28
RACETRAC 976 Substance: PETRO Facility Status: approved Facility Id: 09388	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A10	33
ROCK HILL U HAUL CTR No Action Required: 02/18/94 Substance: PETRO Facility Id: 11384	909 RIVERVIEW RD	ESE 0 - 1/8 (0.106 mi.)	B29	46
HONDA CARS OF ROCK H No Action Required: 03/01/96 Substance: PETRO Facility Id: 09291	808 RIVERVIEW RD	SE 1/4 - 1/2 (0.273 mi.)	G50	62
ASSOCIATED MECHANICA No Action Required: 08/01/13 Substance: PETROL Facility Status: monitored natural attenuation Facility Id: 09257	1142 RIVERVIEW RD	NNW 1/4 - 1/2 (0.293 mi.)	H53	65
FREDRICKSON MOTOR EX No Action Required: 03/17/99 Substance: PETRO Facility Id: 09259	800 CORPORATE BLVD	SE 1/4 - 1/2 (0.401 mi.)	K74	77
QUICK C MART 103 No Action Required: 10/21/13 No Action Required: 01/13/10 Substance: PETRO Facility Status: monitored natural attenuation Facility Id: 09970	2696 CHERRY RD	NE 1/4 - 1/2 (0.411 mi.)	J79	80
E Z SERVE 8615	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M92	87

EXECUTIVE SUMMARY

No Action Required: 03/24/11

Substance: PETRO

Facility Status: approved

Facility Id: 09268

CAMMY EXPRESS	1397 CELANESE RD	NNW 1/4 - 1/2 (0.469 mi.)	L101	98
Substance: PETRO				
Facility Status: monitored natural attenuation				
Facility Id: 09333				
PANTRY 3952 DBA PETR	1420 CELANESE RD	NNW 1/4 - 1/2 (0.488 mi.)	L105	101
Substance: PETROL				
Facility Status: conduct invest/risk assessment				
Facility Id: 18472				
SPRATT STREET TEXACO	1430 CELANESE RD	NNW 1/2 - 1 (0.507 mi.)	L107	104
Substance: PETRO				
Facility Status: conduct invest/risk assessment				
Facility Id: 09277				
PROSPERITY 411	2250 CHERRY RD	SW 1/2 - 1 (0.582 mi.)	P112	179
No Action Required: 03/28/12				
No Action Required: 03/29/99				
Substance: PETRO				
Substance: PETROL				
Facility Status: monitored natural attenuation				
Facility Id: 09261				
HOLOX LTD	2687 EDEN TERRACE	E 1/2 - 1 (0.703 mi.)	S121	195
No Action Required: 02/20/03				
Substance: PETRO				
Facility Status: monitored natural attenuation				
Facility Id: 09221				
COMMUNITY MART 6	2849 CHERRY RD	NE 1/2 - 1 (0.703 mi.)	T124	201
No Action Required: 02/06/09				
Substance: PETRO				
Facility Status: active corrective action				
Facility Id: 09344				
SEARS ROEBUCK & CO	2188 CHERRY RD	SW 1/2 - 1 (0.706 mi.)	R125	204
No Action Required: 05/20/94				
Substance: PETRO				
Facility Id: 13049				
MOUNT GALLANT EXPRES	1024 MT GALLANT RD	SW 1/2 - 1 (0.886 mi.)	V129	259
No Action Required: 05/17/93				
Substance: PETRO				
Facility Id: 09422				
NEW WAY CAR WASH	2101 CHERRY RD	SW 1/2 - 1 (0.887 mi.)	V130	260
Substance: PETRO				
Facility Status: conduct invest/risk assessment				
Facility Id: 17727				
CIRCLE K 8401	1830 CELANESE RD	WNW 1/2 - 1 (0.928 mi.)	133	266
No Action Required: 08/05/03				
Substance: PETRO				
Facility Status: approved				
Facility Id: 09307				
SUN CORNER CITGO	2000 CELANESE RD	WNW 1/2 - 1 (0.990 mi.)	136	271

EXECUTIVE SUMMARY

No Action Required: 08/18/08
 Substance: PETRO
 Facility Status: monitored natural attenuation
 Facility Id: 09349

State and tribal registered storage tank lists

SC UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Health & Environmental Control's list: Comprehensive Underground Storage Tanks.

A review of the SC UST list, as provided by EDR, and dated 07/29/2015 has revealed that there are 23 SC UST sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PANTRY 3932 DBA PETR Facility Id: 13090 Facility Id: 18074 Status: ABD Status: CIU	2541 N CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A17	37
PEP BOYS 98 Facility Id: 11721 Status: ABD	2514 N CHERRY RD	W 1/8 - 1/4 (0.131 mi.)	D38	51
PRECISION TUNE Facility Id: 16594 Status: ABD	2500 N CHERRY RD	WSW 1/8 - 1/4 (0.172 mi.)	E42	53
COUNTRY STORE Facility Id: 13935 Facility Id: 9394 Status: ABD	1143 N ANDERSON RD	SW 1/4 - 1/2 (0.309 mi.)	I61	70
C J PATTON MOTORS IN Facility Id: 9237 Status: ABD	955 ANDERSON RD	SSW 1/2 - 1 (0.627 mi.)	Q118	188
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JIM NELSON NISSAN IN Facility Id: 9233 Status: ABD	2574 CHERRY RD	NNW 0 - 1/8 (0.077 mi.)	A3	28
RACETRAC 976 Facility Id: 9388 Status: ABD Status: CIU	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A10	33
ROCK HILL U HAUL CTR Facility Id: 11384 Status: ABD	909 RIVERVIEW RD	ESE 0 - 1/8 (0.106 mi.)	B29	46
HONDA CARS OF ROCK H Facility Id: 9291 Status: ABD	808 RIVERVIEW RD	SE 1/4 - 1/2 (0.273 mi.)	G50	62
ASSOCIATED MECHANICA	1142 RIVERVIEW RD	NNW 1/4 - 1/2 (0.293 mi.)	H53	65

EXECUTIVE SUMMARY

Facility Id: 9311 Facility Id: 9257 Status: ABD				
FREDRICKSON MOTOR EX Facility Id: 9259 Status: ABD	800 CORPORATE BLVD	SE 1/4 - 1/2 (0.401 mi.)	K74	77
QUICK C MART 103 Facility Id: 9970 Status: ABD Status: CIU	2696 CHERRY RD	NE 1/4 - 1/2 (0.411 mi.)	J79	80
E Z SERVE 8615 Facility Id: 9268 Status: ABD	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M92	87
KMART 7043 Facility Id: 9283 Status: ABD	2302 CHERRY RD	WSW 1/4 - 1/2 (0.465 mi.)	M97	90
QUIKTRIP 1099 Facility Id: 19624 Status: CIU	1195 RIVERVIEW RD	NNW 1/4 - 1/2 (0.465 mi.)	L100	97
CAMMY EXPRESS Facility Id: 9333 Status: CIU	1397 CELANESE RD	NNW 1/4 - 1/2 (0.469 mi.)	L101	98
PANTRY 3952 DBA PETR Facility Id: 18472 Status: CIU	1420 CELANESE RD	NNW 1/4 - 1/2 (0.488 mi.)	L105	101
RUTLEDGE Facility Id: 9405 Status: ABD	2268 CHERRY RD	WSW 1/4 - 1/2 (0.496 mi.)	M106	103
SPRATT STREET TEXACO Facility Id: 9277 Status: ABD Status: CIU	1430 CELANESE RD	NNW 1/2 - 1 (0.507 mi.)	L107	104
PROSPERITY 411 Facility Id: 9261 Status: ABD	2250 CHERRY RD	SW 1/2 - 1 (0.582 mi.)	P112	179
HOLOX LTD Facility Id: 9221 Status: ABD	2687 EDEN TERRACE	E 1/2 - 1 (0.703 mi.)	S121	195
COMMUNITY MART 6 Facility Id: 9344 Status: ABD Status: POS	2849 CHERRY RD	NE 1/2 - 1 (0.703 mi.)	T124	201
SEARS ROEBUCK & CO Facility Id: 13049 Status: ABD	2188 CHERRY RD	SW 1/2 - 1 (0.706 mi.)	R125	204

EXECUTIVE SUMMARY

SC AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Health & Environmental Control's list: Comprehensive Aboveground Storage Tanks.

A review of the SC AST list, as provided by EDR, and dated 03/25/2004 has revealed that there is 1 SC AST site within approximately 0.75 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GREEN OIL / THOMAS P Facility Id: 518	2849 CHERRY ROAD	NE 1/2 - 1 (0.703 mi.)	T123	200

State and tribal voluntary cleanup sites

SC VCP: Voluntary Cleanup Sites from the Department of Health and Environmental Control.

A review of the SC VCP list, as provided by EDR, and dated 09/08/2015 has revealed that there is 1 SC VCP site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CELANESE / GREENS OF	2850 CHERRY RD	NE 1/2 - 1 (0.768 mi.)	U127	247

State and tribal Brownfields sites

SC BROWNFIELDS: The Brownfields component of the Voluntary Cleanup Program allows a non responsible party to acquire a contaminated property with State Superfund liability protection for existing contamination by agreeing to perform an environmental assessment and/or remediation.

A review of the SC BROWNFIELDS list, as provided by EDR, and dated 09/08/2015 has revealed that there is 1 SC BROWNFIELDS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CELANESE / GREENS OF Status Code: ACTIVE Status Code: INCOMP File Number: 50767	2850 CHERRY RD	NE 1/2 - 1 (0.768 mi.)	U127	247

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SC SWRCY: A listing of recycling center locations.

A review of the SC SWRCY list, as provided by EDR, and dated 07/01/2015 has revealed that there is 1 SC SWRCY site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PRATT RECYCLING INC.	720 CEL RIVER RD.	E 1/2 - 1 (0.621 mi.)	115	185

EXECUTIVE SUMMARY

Facility Id: 33907

Local Lists of Hazardous waste / Contaminated Sites

SC ALLSITES: The South Carolina Department of Health and Environmental Control is pleased to have the Public Record for your review. The purpose of this database is two-fold. First, it will provide to communities another form of notice of cleanup activity, allowing them to have more information about assessment and cleanup activities in their area and in the State. Second, it can assist those seeking to redevelop brownfield properties within South Carolina.

A review of the SC ALLSITES list, as provided by EDR, and dated 09/14/2015 has revealed that there is 1 SC ALLSITES site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CELANESE / GREENS OF Permit Number: SCS123457541 Permit Number: SCS123457458 Permit Number: SCS123457457 Permit Number: SCS123457503 Project Status Code: ACTIVE Project Status Code: INCOMP	2850 CHERRY RD	NE 1/2 - 1 (0.768 mi.)	U127	247

SC CDL: A listing of clandestine drug lab site locations.

A review of the SC CDL list, as provided by EDR, and dated 01/24/2012 has revealed that there are 4 SC CDL sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	914 RIVERVIEW RD	ESE 0 - 1/8 (0.106 mi.)	B27	44
Not reported	875 RIVERVIEW	SE 1/8 - 1/4 (0.155 mi.)	40	52
QAULITY INN	2625 CHERRY RD.	N 1/8 - 1/4 (0.241 mi.)	47	59
BEST WAY INN	825 RIVERVIEW RD.	SE 1/4 - 1/2 (0.255 mi.)	G49	61

Records of Emergency Release Reports

SC SPILLS: The Spills Database.

A review of the SC SPILLS list, as provided by EDR, and dated 03/25/2015 has revealed that there are 2 SC SPILLS sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THE QUICK C FOOD MAR Incident Name: 200304451 Incident ID number: 6202168	2696 CHERRY RD	NE 1/4 - 1/2 (0.411 mi.)	J77	79
HARRELSON TOYOTA Incident Name: 200002346 Incident ID number: 570281	1195 RIVERVIEW RD	NNW 1/4 - 1/2 (0.454 mi.)	L85	84

EXECUTIVE SUMMARY

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/09/2015 has revealed that there are 7 RCRA NonGen / NLR sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROCK HILL CHEMICAL C	NORTH CHERRY RD	WSW 1/2 - 1 (0.516 mi.)	0	8
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BURNS NISSAN	2574 CHERRY RD	NNW 0 - 1/8 (0.077 mi.)	A4	29
HONDA CARS OF ROCK H	808 RIVERVIEW RD	SE 1/4 - 1/2 (0.273 mi.)	G52	64
US 21 SUNOCO SERVICE	US 21 & 161	NE 1/4 - 1/2 (0.326 mi.)	64	72
CHATA COATING & LAMI	629 WILKERSON RD	ESE 1/2 - 1 (0.575 mi.)	111	165
HESS STATION 40251	2250 CHERRY RD	SW 1/2 - 1 (0.582 mi.)	P113	183
SAMUEL STRAPPING SYS	640 CEL RIVER ROAD	E 1/2 - 1 (0.695 mi.)	120	190

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROCK HILL CHEMICAL C	NORTH CHERRY RD	WSW 1/2 - 1 (0.516 mi.)	0	8

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 01/23/2015 has revealed that there is 1 ICIS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BURNS CHEVROLET INCO	2515 CHERRY RD	W 1/8 - 1/4 (0.202 mi.)	F45	55

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/20/2015 has revealed that there are 25

EXECUTIVE SUMMARY

FINDS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
KAYO SERVICE STA JET	2541 CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A20	40
PETRO EXPRESS 14	2541 N CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A22	40
PEP BOYS THE ROCK	2514 N CHERRY RD	W 1/8 - 1/4 (0.131 mi.)	D34	48
PRECISION TUNE	2500 N CHERRY RD	WSW 1/8 - 1/4 (0.172 mi.)	E44	55
BURNS CHEVROLET INCO	2515 CHERRY RD	W 1/8 - 1/4 (0.202 mi.)	F45	55
COUNTRY STORE	1143 N ANDERSON RD	SW 1/4 - 1/2 (0.309 mi.)	I58	68
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JIM NELSON NISSAN IN	2574 CHERRY RD	NNW 0 - 1/8 (0.077 mi.)	A2	27
BURNS NISSAN	2574 CHERRY RD	NNW 0 - 1/8 (0.077 mi.)	A4	29
RACETRAC 976	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A9	33
BEST HOLIDAY INC	962 RIVER VIEW RD	NE 0 - 1/8 (0.089 mi.)	13	36
GARYS COLLISION	2587 N CHERRY RD	N 0 - 1/8 (0.105 mi.)	C25	42
ROCK HILL U HAUL CTR	909 RIVERVIEW RD	ESE 0 - 1/8 (0.106 mi.)	B28	46
HONDA CARS OF ROCK H	808 RIVERVIEW RD	SE 1/4 - 1/2 (0.273 mi.)	G52	64
ASSOCIATED MECHANICA	1142 RIVERVIEW RD	NNW 1/4 - 1/2 (0.293 mi.)	H55	67
A QUALITY SMILE FOR	1125 ANDERSON RD STE	SW 1/4 - 1/2 (0.340 mi.)	I65	73
FREDRICKSON MOTOR EX	800 CORPORATE BLVD	SE 1/4 - 1/2 (0.401 mi.)	K72	76
QUICK C MART 103	2696 CHERRY RD	NE 1/4 - 1/2 (0.411 mi.)	J78	79
RANDOLPH YARNS-CLOSE	1175 CELRIVER RD	NE 1/4 - 1/2 (0.423 mi.)	J80	83
CREEKSIDE OF YORK CO	2750 HWY 21 S	NE 1/4 - 1/2 (0.428 mi.)	J82	83
ART PRINTING CO INC	CELANESE BYPASS	NE 1/4 - 1/2 (0.429 mi.)	J83	84
E Z SERVE 8615	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M89	86
RIVERVIEW MEDICAL CL	1393 CELANESE RD	NNW 1/4 - 1/2 (0.464 mi.)	L96	90
KMART 7043	2302 CHERRY RD	WSW 1/4 - 1/2 (0.465 mi.)	M99	97
EXPRESS 128	1397 CELANESE RD	NNW 1/4 - 1/2 (0.469 mi.)	L102	100
PETRO EXPRESS 36	1420 CELANESE ROAD	NNW 1/4 - 1/2 (0.488 mi.)	L104	101

SC Financial Assurance: Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

A review of the SC Financial Assurance list, as provided by EDR, and dated 03/19/2015 has revealed that there are 5 SC Financial Assurance sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PANTRY 3932 DBA PETR Facility ID: P-18074	2541 N CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A17	37
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RACETRAC 976 Facility ID: R-09388	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A10	33
QUICK C MART 103 Facility ID: P-09970	2696 CHERRY RD	NE 1/4 - 1/2 (0.411 mi.)	J79	80
QUIKTRIP 1099 Facility ID: P-19624	1195 RIVERVIEW RD	NNW 1/4 - 1/2 (0.465 mi.)	L100	97
PANTRY 3952 DBA PETR	1420 CELANESE RD	NNW 1/4 - 1/2 (0.488 mi.)	L105	101

EXECUTIVE SUMMARY

Facility ID: P-18472

SC GWCI: Groundwater Contamination Inventory Cases. Any site that has groundwater contamination over a federal MCL.

A review of the SC GWCI list, as provided by EDR, and dated 07/01/2008 has revealed that there are 18 SC GWCI sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROCK HILL CHEMICAL C PANTRY 3932 DBA PETR Solid Waste Permit #: 13090	NORTH CHERRY RD 2541 N CHERRY RD	WSW 1/2 - 1 (0.516 mi.) WNW 0 - 1/8 (0.098 mi.)	0 A23	8 41
COUNTRY STORE Solid Waste Permit #: 13935	1143 N ANDERSON RD	SW 1/4 - 1/2 (0.309 mi.)	I59	69
MR G'S FOOD STORES 1 Solid Waste Permit #: 09407	2120 NATIONS FORD RD	SSW 1/2 - 1 (0.968 mi.)	W135	271
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RACETRAC 976 Solid Waste Permit #: 09388	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A10	33
QUICK C MART 103 Solid Waste Permit #: 09970	2696 CHERRY RD	NE 1/4 - 1/2 (0.411 mi.)	J79	80
E Z SERVE 8615 Solid Waste Permit #: 09268	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M92	87
CAMMY EXPRESS Solid Waste Permit #: 09333	1397 CELANESE RD	NNW 1/4 - 1/2 (0.469 mi.)	L101	98
PANTRY 3952 DBA PETR Solid Waste Permit #: 18472	1420 CELANESE RD	NNW 1/4 - 1/2 (0.488 mi.)	L105	101
SPRATT STREET TEXACO Solid Waste Permit #: 09277	1430 CELANESE RD	NNW 1/2 - 1 (0.507 mi.)	L107	104
PROSPERITY 411 Solid Waste Permit #: 09261	2250 CHERRY RD	SW 1/2 - 1 (0.582 mi.)	P112	179
HOLOX LTD Solid Waste Permit #: 09221	2687 EDEN TERRACE	E 1/2 - 1 (0.703 mi.)	S121	195
COMMUNITY MART 6 Solid Waste Permit #: 09344	2849 CHERRY RD	NE 1/2 - 1 (0.703 mi.)	T124	201
CELANESE ACETATE LLC NEW WAY CAR WASH Solid Waste Permit #: 17727	BOX CRS CHERRY RD ST 2101 CHERRY RD	NE 1/2 - 1 (0.768 mi.) SW 1/2 - 1 (0.887 mi.)	U126 V130	205 260
NORGETOWN CLEANERS CIRCLE K 8401 Solid Waste Permit #: 09307	2036 CHERRY ROAD 1830 CELANESE RD	SW 1/2 - 1 (0.926 mi.) WNW 1/2 - 1 (0.928 mi.)	V132 133	263 266
SUN CORNER CITGO Solid Waste Permit #: 09349	2000 CELANESE RD	WNW 1/2 - 1 (0.990 mi.)	136	271

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 17 EDR Hist Auto sites within approximately 0.625 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2531 CHERRY RD	W 0 - 1/8 (0.123 mi.)	D32	48
Not reported	2514 CHERRY RD	W 1/8 - 1/4 (0.131 mi.)	D36	49
Not reported	2500 CHERRY RD	WSW 1/8 - 1/4 (0.172 mi.)	E41	53
Not reported	2515 CHERRY RD	W 1/8 - 1/4 (0.202 mi.)	F46	59
Not reported	1117 ANDERSON RD N	SW 1/4 - 1/2 (0.310 mi.)	I62	71
Not reported	1279 CELANESE RD	N 1/4 - 1/2 (0.423 mi.)	81	83
Not reported	955 ANDERSON RD N	SSW 1/2 - 1 (0.622 mi.)	Q116	186

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A12	35
Not reported	2587 CHERRY RD	N 0 - 1/8 (0.105 mi.)	C26	44
Not reported	1015 RIVERVIEW RD	N 1/8 - 1/4 (0.126 mi.)	C33	48
Not reported	785 RIVERVIEW RD	SE 1/4 - 1/2 (0.318 mi.)	63	72
Not reported	1117 N ANDERSON RD	SW 1/4 - 1/2 (0.350 mi.)	I67	74
Not reported	2374 CHERRY RD	WSW 1/4 - 1/2 (0.361 mi.)	68	74
Not reported	1117 ANDERSON RD	SW 1/4 - 1/2 (0.376 mi.)	69	74
Not reported	737 RIVERVIEW RD	SSE 1/4 - 1/2 (0.402 mi.)	75	77
Not reported	2688 CHERRY RD	NE 1/4 - 1/2 (0.402 mi.)	J76	78
Not reported	2245 CHERRY RD	WSW 1/2 - 1 (0.600 mi.)	P114	185

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 2 EDR Hist Cleaner sites within approximately 0.625 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2433 CHERRY RD	WSW 1/8 - 1/4 (0.248 mi.)	48	61
Not reported	1145 RIVERVIEW RD	NNW 1/4 - 1/2 (0.294 mi.)	H56	68

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

SC RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

A review of the SC RGA LUST list, as provided by EDR, has revealed that there are 32 SC RGA LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CONOCO #40023	2541 CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A15	36
PANTRY 3932 DBA PETR	2541 N CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A16	37
PETRO EXPRESS 14	2541 N CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A18	39
PETRO EXPRESS #14	2541 CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A19	40
PETRO EXPRESS 14	2541 CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A21	40
KAY0 SERVICE STA (JE	2541 CHERRY RD	WNW 0 - 1/8 (0.098 mi.)	A24	42
PEP BOYS #98	2514 N CHERRY RD	W 1/8 - 1/4 (0.131 mi.)	D35	49
PEP BOYS 98	2514 N CHERRY RD	W 1/8 - 1/4 (0.131 mi.)	D39	52
PRECISION TUNE	2500 N CHERRY RD	WSW 1/8 - 1/4 (0.172 mi.)	E43	54
COUNTRY STORE	1143 N ANDERSON RD	SW 1/4 - 1/2 (0.309 mi.)	I57	68
THE COUNTRY STORE	1143 N ANDERSON RD	SW 1/4 - 1/2 (0.309 mi.)	I60	70

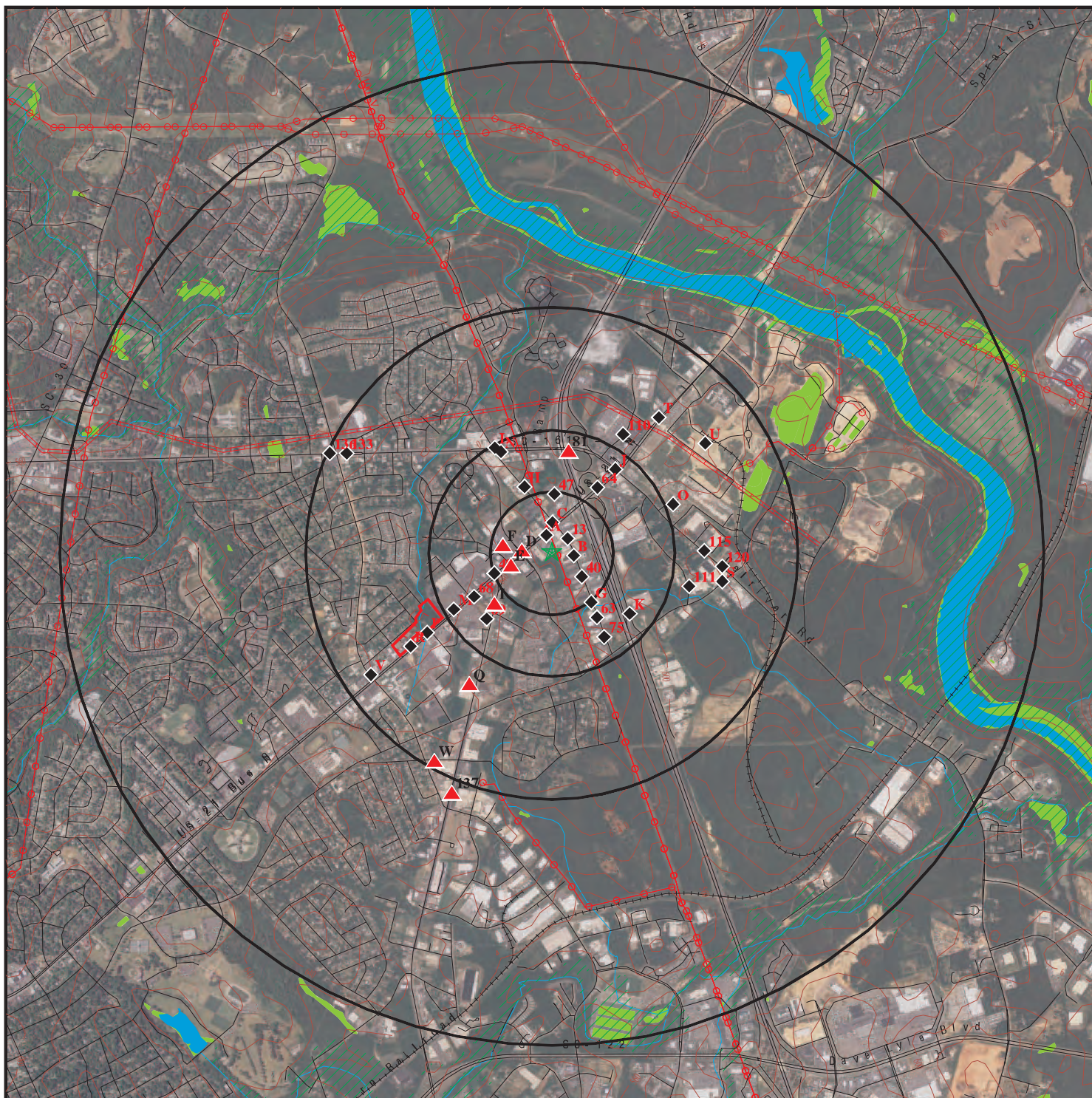
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JIM NELSON NISSAN IN	2574 CHERRY RD	NNW 0 - 1/8 (0.077 mi.)	A5	31
RACETRAC 265	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A6	32
RACETRAC 976	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A7	32
RACETRAC #265	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A8	32
RACETRAC SERVICE STA	2561 CHERRY RD	NW 0 - 1/8 (0.089 mi.)	A11	35
ROCK HILL U-HAUL CEN	909 RIVERVIEW RD	ESE 0 - 1/8 (0.106 mi.)	B30	47
ROCK HILL U HAUL CTR	909 RIVERVIEW RD	ESE 0 - 1/8 (0.106 mi.)	B31	47
HONDA CARS OF ROCK H	808 RIVERVIEW RD	SE 1/4 - 1/2 (0.273 mi.)	G51	63
ASSOCIATED MECHANICA	1142 RIVERVIEW RD	NNW 1/4 - 1/2 (0.293 mi.)	H54	67
QUICK C MART 103	2696 CHERRY RD	NE 1/4 - 1/2 (0.377 mi.)	J70	75
QUICK C MART #103	2696 CHERRY RD	NE 1/4 - 1/2 (0.377 mi.)	J71	75
FREDRICKSON MOTOR EX	800 CORPORATE BLVD	SE 1/4 - 1/2 (0.401 mi.)	K73	76
E Z SERVE #8615	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M86	85
E Z SERVE 8615	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M87	85
TENNECO 61538	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M88	86
TOC RETAIL #615-38	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M90	87
E-Z SERVE #8615	2351 N CHERRY RD	WSW 1/4 - 1/2 (0.458 mi.)	M91	87
CAMMY EXPRESS	1397 CELANESE RD	NNW 1/4 - 1/2 (0.461 mi.)	N93	89
EXPRESS #128	1397 CELANESE RD	NNW 1/4 - 1/2 (0.461 mi.)	N94	89
EXPRESS 128	1397 CELANESE RD	NNW 1/4 - 1/2 (0.461 mi.)	N95	89
PANTRY 3952 DBA PETR	1420 CELANESE RD	NNW 1/4 - 1/2 (0.488 mi.)	L103	100

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

<u>Site Name</u>	<u>Database(s)</u>
CAROLINA STEEL DRUM CORP.	SC VCP, SC BROWNFIELDS
CLASSIC CLEANERS	SC SHWS
1ST BANK FIRST FEDERAL SAVINGS	SC SHWS, RCRA NonGen / NLR

OVERVIEW MAP - 4508238.2S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

- 0 1/2 1 2 Miles
- Indian Reservations BIA
- ⚡ Power transmission lines
- ⚡ Pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Riverview Road
 ADDRESS: Riverview Road
 Rock Hill SC 29730
 LAT/LONG: 34.9706 / 80.9888

CLIENT: ARM Environmental Services
 CONTACT: Richard Ciccolella
 INQUIRY #: 4508238.2s
 DATE: January 08, 2016 9:38 am

DETAIL MAP - 4508238.2S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ⚡ Manufactured Gas Plants
- ⚠ Sensitive Receptors
- 🚚 National Priority List Sites
- 🏢 Dept. Defense Sites

- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Riverview Road
 ADDRESS: Riverview Road
 Rock Hill SC 29730
 LAT/LONG: 34.9706 / 80.9888

CLIENT: ARM Environmental Services
 CONTACT: Richard Ciccolella
 INQUIRY #: 4508238.2s
 DATE: January 08, 2016 9:39 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.500		0	0	0	1	0	1
Proposed NPL	1.500		0	0	0	0	0	0
NPL LIENS	0.500		0	0	0	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.500		0	0	0	0	0	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	1.000		0	0	0	0	NR	0
CERCLIS	1.000		0	0	0	1	NR	1
<i>Federal CERCLIS NFRAP site List</i>								
CERCLIS-NFRAP	1.000		0	0	0	1	NR	1
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.500		0	0	0	1	0	1
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	1.000		0	0	0	1	NR	1
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.750		0	0	1	1	NR	2
RCRA-SQG	0.750		0	0	0	1	NR	1
RCRA-CESQG	0.750		1	2	0	4	NR	7
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	1.000		0	0	0	0	NR	0
US ENG CONTROLS	1.000		0	0	0	2	NR	2
US INST CONTROL	1.000		0	0	0	2	NR	2
<i>Federal ERNS list</i>								
ERNS	0.500		1	0	2	NR	NR	3
<i>State- and tribal - equivalent CERCLIS</i>								
SC SHWS	1.500		0	0	0	7	1	8
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SC SWF/LF	1.000		0	0	0	0	NR	0
<i>State and tribal leaking storage tank lists</i>								
SC LUST	1.000		5	2	8	11	NR	26
INDIAN LUST	1.000		0	0	0	0	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.750		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SC UST	0.750		4	2	11	6	NR	23
SC AST	0.750		0	0	0	1	NR	1
INDIAN UST	0.750		0	0	0	0	NR	0
State and tribal institutional control / engineering control registries								
SC RCR	0.500		0	0	0	NR	NR	0
SC AUL	1.000		0	0	0	0	NR	0
State and tribal voluntary cleanup sites								
SC VCP	1.000		0	0	0	1	NR	1
INDIAN VCP	1.000		0	0	0	0	NR	0
State and tribal Brownfields sites								
SC BROWNFIELDS	1.000		0	0	0	1	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	1.000		0	0	0	0	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SC SWRCY	1.000		0	0	0	1	NR	1
INDIAN ODI	1.000		0	0	0	0	NR	0
DEBRIS REGION 9	1.000		0	0	0	0	NR	0
ODI	1.000		0	0	0	0	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.500		0	0	0	NR	NR	0
SC ALLSITES	1.000		0	0	0	1	NR	1
SC CDL	0.500		1	2	1	NR	NR	4
US CDL	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.500		0	0	0	NR	NR	0
SC SPILLS	0.500		0	0	2	NR	NR	2
SC SPILLS 90	0.500		0	0	0	NR	NR	0
SC SPILLS 80	0.500		0	0	0	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.750		1	0	2	4	NR	7
FUDS	1.500		0	0	0	0	0	0
DOD	1.500		0	0	0	0	0	0
SCRD DRYCLEANERS	1.000		0	0	0	0	NR	0
US FIN ASSUR	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EPA WATCH LIST	0.500		0	0	0	NR	NR	0
2020 COR ACTION	0.750		0	0	0	0	NR	0
TSCA	0.500		0	0	0	NR	NR	0
TRIS	0.500		0	0	0	NR	NR	0
SSTS	0.500		0	0	0	NR	NR	0
ROD	1.500		0	0	0	1	0	1
RMP	0.500		0	0	0	NR	NR	0
RAATS	0.500		0	0	0	NR	NR	0
PRP	0.500		0	0	0	NR	NR	0
PADS	0.500		0	0	0	NR	NR	0
ICIS	0.500		0	1	0	NR	NR	1
FTTS	0.500		0	0	0	NR	NR	0
MLTS	0.500		0	0	0	NR	NR	0
COAL ASH DOE	0.500		0	0	0	NR	NR	0
COAL ASH EPA	1.000		0	0	0	0	NR	0
PCB TRANSFORMER	0.500		0	0	0	NR	NR	0
RADINFO	0.500		0	0	0	NR	NR	0
HIST FTTS	0.500		0	0	0	NR	NR	0
DOT OPS	0.500		0	0	0	NR	NR	0
CONSENT	1.500		0	0	0	0	0	0
INDIAN RESERV	1.500		0	0	0	0	0	0
UMTRA	1.000		0	0	0	0	NR	0
LEAD SMELTERS	0.500		0	0	0	NR	NR	0
US AIRS	0.500		0	0	0	NR	NR	0
US MINES	0.750		0	0	0	0	NR	0
FINDS	0.500		8	3	14	NR	NR	25
SC AIRS	0.500		0	0	0	NR	NR	0
SC COAL ASH	1.000		0	0	0	0	NR	0
SC DRYCLEANERS	0.750		0	0	0	0	NR	0
SC Financial Assurance	0.500		2	0	3	NR	NR	5
SC GWCI	1.000		2	0	5	11	NR	18
WI MANIFEST	0.250		0	0	NR	NR	NR	0
NY MANIFEST	0.250		0	0	NR	NR	NR	0
SC NPDES	0.500		0	0	0	NR	NR	0
SC UIC	0.500		0	0	0	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.500		0	0	0	0	0	0
EDR Hist Auto	0.625		3	4	8	2	NR	17
EDR Hist Cleaner	0.625		0	1	1	0	NR	2

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

SC RGA HWS	0.500		0	0	0	NR	NR	0	
SC RGA LF	0.500		0	0	0	NR	NR	0	
SC RGA LUST	0.500		13	3	16	NR	NR	32	
- Totals --			0	41	20	74	62	1	198

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
-----------------	--	----------------------------	-----------------	------------------	------------------	----------------	---------------	--------------------------

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NPL
Region
WSW
1/2-1
2725 ft.

ROCK HILL CHEMICAL CO.
NORTH CHERRY RD
ROCK HILL, SC 29730

NPL 1000266565
CERCLIS SCD980844005
US ENG CONTROLS
US INST CONTROL
SC SHWS
RCRA NonGen / NLR
ROD
PRP
ICIS
SC GWCI

NPL:

EPA ID: SCD980844005
Cerclis ID: 0403425
EPA Region: 04
Federal: N
Final Date: 1990-02-21 00:00:00
Site Score: 40.289999999999999
Latitude: +34.966100
Longitude: -80.998500000000007

Category Details:

NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-> 25 And <= 50 Feet
Category Value: 40

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 500

Site Details:

Site Name: ROCK HILL CHEMICAL CO.
Site Status: Final
Site Zip: 29730
Site City: ROCK HILL
Site State: SC
Federal Site: No
Site County: YORK
EPA Region: 04
Date Proposed: 06/24/88
Date Deleted: Not reported
Date Finalized: 02/21/90

Substance Details:

NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A020
Substance: CHROMIUM AND COMPOUNDS
CAS #: Not reported
Pathway: GROUND WATER PATHWAY
Scoring: 3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

NPL Status: Currently on the Final NPL
Substance ID: A020
Substance: CHROMIUM AND COMPOUNDS
CAS #: Not reported
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D004
Substance: ARSENIC
CAS #: 7440-38-2
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D004
Substance: ARSENIC
CAS #: 7440-38-2
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D008
Substance: LEAD (PB)
CAS #: 7439-92-1
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D008
Substance: LEAD (PB)
CAS #: 7439-92-1
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U077
Substance: DICHLOROETHANE, 1,2-
CAS #: 107-06-2
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Substance ID: U211
Substance: CARBON TETRACHLORIDE
CAS #: 56-23-5
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U211
Substance: CARBON TETRACHLORIDE
CAS #: 56-23-5
Pathway: SURFACE WATER PATHWAY
Scoring: 3

Summary Details:

Conditions at proposal June 24, 1988): Rock Hill Chemical Co. operated a solvent distillation facility in the 1960s on approximately 4.5 acres on North Cherry Road in a light commercial and residential area of Rock Hill, York County, South Carolina. The company distilled paint solvents and reportedly recovered textile dye products. Some of the residue from the bottoms of the storage tanks and drums was placed in piles on the surface and later covered with dirt and construction debris. The facility was abandoned after it burned in 1964. The site is now owned by Rutledge Enterprise and First Federal Savings and Loan. In an inspection in 1985, EPA discovered aboveground tanks, an underground tank, a sludge pile, and an area of discolored soil. EPA analyses revealed lead, PCBs, chromium, methylene chloride, and 1,2-dichloroethane in waste and oil samples and trichloro ethylene, 1,2-dichloroethane, trans-1,2-dichloroethylene, and tetrachloroethylene in an on-site well. An estimated 1,100 people obtain drinking water from wells within 3 miles of the site. The South Carolina Department of Health and Environmental Control (SCDHEC) advised a nearby business to stop using its well. The owner of an adjacent trailer park (approximately 200 residents) hooked the park up to a municipal water system. In 1986, SCDHEC detected PCBs and other organic compounds, including trichloroethane and tetrachloroethane, in the unnamed tributary to the Catawba River that drains the site. Fort Mill draws drinking water for an estimated 5,500 people from an intake into the Catawba River that is approximately 2 miles downstream of the site. In 1986, First Federal transported approximately 41 cubic yards of paint sludges and still bottoms to a hazardous waste facility regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA). In late 1987, under an EPA Administrative Order issued under CERCLA Section 106 and RCRA Section 7003, Rutledge Enterprises discharged approximately 2,000 gallons of waste water contaminated with solvents, in limited amounts per day, into the sewer system for treatment in the municipal sewage treatment plant. Status February 21, 1990): EPA's preliminary plan for fiscal year 1989 includes a remedial investigation/feasibility study to determine the type and extent of contamination at the site and identify alternatives for remedial action. Several parties potentially responsible for wastes associated with the site recently removed additional sludge from the site under supervision of EPA emergency personnel.

Site Status Details:

NPL Status: Final
Proposed Date: 06/24/1988
Final Date: 02/21/1990
Deleted Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Narratives Details:

NPL Name: ROCK HILL CHEMICAL CO.
City: ROCK HILL
State: SC

CERCLIS:

Site ID: 0403425
EPA ID: SCD980844005
Facility County: YORK
Short Name: ROCK HILL CHEMICAL CO.
Congressional District: 05
IFMS ID: 04N9
SMSA Number: 1760
USGC Hydro Unit: 03050106
Federal Facility: Not a Federal Facility
DMNSN Number: 4.50000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 04
Classification: Not reported
Site Settings Code: SU
NPL Status: Currently on the Final NPL
DMNSN Unit Code: ACRE
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Not reported
Non NPL Status Date: / /
Site Fips Code: 45091
CC Concurrence Date: 12/31/96
CC Concurrence FY: 1997
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 4000583.00000
Contact Name: Craig Zeller
Contact Tel: (404) 562-8827
Contact Title: Remedial Project Manager (RPM)
Contact Email: zeller.craig@epa.gov

Contact ID: 4000234.00000
Contact Name: Ralph Howard
Contact Tel: (404) 562-8829
Contact Title: Remedial Project Manager (RPM)
Contact Email: howard.ralph@epa.gov

Contact ID: 4270070.00000
Contact Name: Craig Zeller
Contact Tel: (404) 562-8827
Contact Title: Site Assessment Manager (SAM)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Contact Email: Not reported

Contact ID: 4000271.00000
Contact Name: Yvonne Jones
Contact Tel: (404) 562-8793
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 4000206.00000
Contact Name: FRANCIS GARCIA
Contact Tel: (404) 347-3931
Contact Title: On-Scene Coordinator (OSC)
Contact Email: Not reported

Contact ID: 4000376.00000
Contact Name: Mike Norman
Contact Tel: (404) 562-8792
Contact Title: Remedial Project Manager (RPM)
Contact Email: norman.mike@epa.gov

Contact ID: 4000275.00000
Contact Name: William Joyner
Contact Tel: (404) 562-8795
Contact Title: Site Assessment Manager (SAM)
Contact Email: joyner.william@epa.gov

Contact ID: 4270495.00000
Contact Name: Paul Wagner
Contact Tel: (404) 562-8792
Contact Title: Remedial Project Manager (RPM)
Contact Email: wagner.paul@epa.gov

Contact ID: 13002428.00000
Contact Name: Donna Seadler
Contact Tel: (404) 562-8870
Contact Title: Site Assessment Manager (SAM)
Contact Email: seadler.donna@epa.gov

Contact ID: 4000566.00000
Contact Name: Robert West
Contact Tel: (404) 562-8806
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 4271412.00000
Contact Name: Richard Campbell
Contact Tel: (404) 562-8825
Contact Title: Remedial Project Manager (RPM)
Contact Email: campbell.richard@epa.gov

Contact ID: 13002538.00000
Contact Name: Corey Hendrix
Contact Tel: (404) 562-8738
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

CERCLIS Site Alias Name(s):

Alias ID: 101
Alias Name: ROCK HILL CHEMICAL COMPANY/RUTLEDGE PROP
Alias Address: Not reported
YORK, SC

Alias ID: 201
Alias Name: ROCK HILL CHEMICAL
Alias Address: Not reported
YORK, SC

Alias ID: 202
Alias Name: ROCK HILL CHEMICAL CO
Alias Address: NORTH CHERRY RD
ROCK HILL, SC 29730

Alias ID: 203
Alias Name: ROCK HILL CHEMICAL CO.
Alias Address: NORTH CHERRY RD
ROCK HILL, SC 29730

Alias Comments: Not reported

Site Description: From 1960 to 1964, the Rock Hill Chemical Company (RHCC) was in operation. Paint solvents were distilled and textile dye products were recovered. Waste oils and solvents were separated and resold back to the generators. Paint sludges, textile dye products, still bottoms, and other wastes generated were stored in piles placed directly on the ground and later covered with fill dirt and construction debris. Waste fluids were stored in drums and above ground storage tanks. In 1964, a fire at the facility caused drums of oil and chemicals to explode releasing their contents into the environment. In 1984 during construction of the First Federal Savings Bank (prior owners before First Union), it was discovered that the site was contaminated. A removal action involving excavating contaminated soil that was disposed of off-site, followed by capping, was completed in 1986. In 1987, EPA's Emergency Response Team removed approximately 46,000 gallons of waste from above ground storage tanks along with unknown quantities of contaminated soil and disposed the material at a RCRA facility. In 1991, the Potentially Responsible Party refused to sign the Administrative Order on Consent and EPA conducted the Remedial Investigation/feasibility Study. The 4.5-acre Rutledge Property site is the location of a former solvent and waste oil distillation facility (Rock Hill Chemical Company) located on North Cherry Road, in Rock Hill, York County, SC. The site is divided into two plots of land: one parcel, which is currently owned by William C. Rutledge, Jr. and the second parcel, which is the location of the First Union National Bank of South Carolina. The site is drained by an unnamed stream which originates on the northern portion of the site. Land use in the area is predominantly light commercial and residential. The site is bound to the south, east, and west by commercial properties and to the north by single-family dwellings. The Rock Hill Chemical Company is currently inactive. From 1960 to 1964, the Rock Hill Chemical Company (RHCC) was in operation. Paint solvents were distilled, and textile dye products were recovered. Waste oils and solvents were separated and operational. Paint sludges, textile dye products, still bottoms, and other wastes generated were stored in piles placed directly on the ground and later covered with fill dirt and construction debris. Waste fluids were stored in drums and above ground storage tanks. In 1964, a fire at the facility caused drums of oil and chemicals to explode releasing their contents into the environment. In 1984, during construction of the First Federal Savings Bank, it was discovered that the site was contaminated.

CERCLIS Assessment History:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 01/01/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 05/14/85
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 09/22/86
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 11/19/86
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: UNILATERAL ADMIN ORDER
Date Started: / /

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Date Completed: 12/30/86
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: / /
Date Completed: 09/28/87
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 11/12/87
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 06/24/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 12/14/87
Date Completed: 12/29/88
Priority Level: Not reported
Operable Unit: SITEWIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 02/21/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMOVAL
Date Started: 10/01/86
Date Completed: 05/03/90
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Time Critical
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 05/30/91
Date Completed: 09/25/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 12/31/92
Date Completed: 12/31/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 09/30/93
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/25/91
Date Completed: 06/27/94
Priority Level: Higher priority for further assessment
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 06/27/94
Priority Level: Final Remedy Selected at Site
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ADMINISTRATIVE RECORDS
Date Started: 07/23/93
Date Completed: 08/12/94
Priority Level: Admin Record Compiled for a Remedial Event
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Special Notice Issued

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Date Started: / /
Date Completed: 09/14/94
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 09/14/94
Date Completed: 02/14/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 02/14/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ALTERNATIVE DISPUTE RESOLUTION
Date Started: 12/03/93
Date Completed: 02/21/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 03/23/95
Date Completed: 09/19/96
Priority Level: Higher priority for further assessment

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Operable Unit: OU01
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 11/06/96
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 09/19/96
Date Completed: 12/18/96
Priority Level: Interim RA Report
Operable Unit: OU01
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Long Term Action
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PRELIMINARY CLOSE-OUT REPORT PREPARED
Date Started: / /
Date Completed: 12/31/96
Priority Level: Not reported
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: COST RECOVERY NEGOTIATIONS
Date Started: 06/03/98
Date Completed: 03/08/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: CONSENT AGREEMENT (ADMINISTRATIVE)
Date Started: / /
Date Completed: 03/08/00
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 12/14/00
Priority Level: Not reported
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: 08/01/06
Date Completed: 09/29/06
Priority Level: Not reported
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: FIVE-YEAR REVIEW
Date Started: 12/01/10
Date Completed: 08/18/11
Priority Level: Not reported
Operable Unit: OU01
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Action Code: 001
Action: OPERATIONS AND MAINTENANCE
Date Started: 12/31/96
Date Completed: / /
Priority Level: Not reported
Operable Unit: OU01
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Federal Register Details:

Fed Register Date: 02/21/90
Fed Register Volume: 55
Page Number: 6154

Fed Register Date: 06/24/88
Fed Register Volume: 53
Page Number: 23988

[Click this hyperlink](#) while viewing on your computer to access
34 additional US CERCLIS Financial: record(s) in the EDR Site Report.

US ENG CONTROLS:

EPA ID: SCD980844005
Site ID: 0403425
Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
ROCK HILL, SC 29730

EPA Region: 04
County: YORK
Event Code: Not reported
Actual Date: 05/15/1994
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/27/1994
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/27/1994
Operable Unit: 01
Contaminated Media : Groundwater

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Engineering Control: Operations & Maintenance (O&M)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/27/1994
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Publicly Owned Treatment Works (POTW)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

US INST CONTROL:

EPA ID: SCD980844005
Site ID: 0403425
Name: ROCK HILL CHEMICAL CO.
Action Name: RECORD OF DECISION
Address: NORTH CHERRY RD
ROCK HILL, SC 29730

EPA Region: 04
County: YORK
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: 05/15/1994
Comple. Date: 06/27/1994
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext :Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: SCD980844005
Site ID: 0403425
Name: ROCK HILL CHEMICAL CO.
Action Name: RECORD OF DECISION
Address: NORTH CHERRY RD
ROCK HILL, SC 29730

EPA Region: 04
County: YORK
Event Code: Not reported
Inst. Control: Water Supply Use Restriction
Actual Date: 05/15/1994
Comple. Date: 06/27/1994
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext :Not reported
Latitude : Not reported
Longitude : Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

SHWS:

EPA ID: SCD980844005

RCRA NonGen / NLR:

Date form received by agency: 12/03/1987

Facility name: RUTLEDGE PROPERTY
Facility address: N CHERRY RD & CRANFORD ST
ROCK HILL, SC 29730

EPA ID: SCD980844005
Contact: BILL RUTLEDGE
Contact address: N CHERRY RD & CRANFORD ST
ROCK HILL, SC 29730

Contact country: US
Contact telephone: (803) 366-6555
Contact email: Not reported
EPA Region: 04
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: RUTLEDGE PROPERTY
Owner/operator address: N CHERRY RD & CRANFORD ST
ROCK HILL, SC 29730

Owner/operator country: Not reported
Owner/operator telephone: (803) 366-6555
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

PRP:

PRP name: BASF (INMONT) CORP
BASF (INMONT) CORP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

BURLINGTON INDUSTRIES, INC.
CELANESE FIBERS OPERATIONS
CHASE PACKAGING CORP.
CHASE PACKAGING CORP.
CTS CORPORATION
CTS CORPORATION
ENGRAPH, INCORPORATED
ENGRAPH, INCORPORATED
FIRST UNION NATIONAL BANK
FMC CORPORATION
FMC CORPORATION
HATCHER, BARBARA A.
HOECHST CELANESE CORPORATION
HOECHST CELANESE CORPORATION
LAWRENCE LEONARD
REEVES BROTHERS, INCORPORATED
REEVES BROTHERS, INCORPORATED
REXHAM INDUSTRIES CORP.
REXHAM INDUSTRIES CORP.
RUTLEDE REALTY COMPANY
RUTLEDE REALTY COMPANY
RUTLEDGE REALTY COMPANY, INC
RUTLEDGE, WILLIAM C. JR.,
RUTLEDGE, WILLIAM C. JR.,
RUTLEDGE, WILLIAM C. JR.,
TEXTRON, INC.
TEXTRON, INC.
VANDERVER, TIMOTHY A. JR.,
W.R. GRACE AND COMPANY
W.R. GRACE AND COMPANY

ICIS:

Enforcement Action ID: 04-2000-0200
FRS ID: 110009345280
Program ID: CERCLIS SCD980844005
Action Name: ROCK HILL CHEMICAL COMPANY (AKA RUTLEDGE PROPERTY)
Full Address: NORTH CHERRY RD NORTH CHERRY RD ROCK HILL SC 29730
State: South Carolina
Facility Name: ROCK HILL CHEMICAL CO.
Facility Address: NORTH CHERRY RD
ROCK HILL, SC 29730
Enforcement Action Type: CERCLA 122h Agrmt For Cost Recovery
Facility County: YORK
EPA Region #: 4

Enforcement Action ID: 04-2000-0200
FRS ID: 110009345280
Program ID: FRS 110009345280
Action Name: ROCK HILL CHEMICAL COMPANY (AKA RUTLEDGE PROPERTY)
Full Address: NORTH CHERRY RD NORTH CHERRY RD ROCK HILL SC 29730
State: South Carolina
Facility Name: ROCK HILL CHEMICAL CO.
Facility Address: NORTH CHERRY RD
ROCK HILL, SC 29730
Enforcement Action Type: CERCLA 122h Agrmt For Cost Recovery
Facility County: YORK
EPA Region #: 4

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Enforcement Action ID: 04-2000-0200
FRS ID: 110009345280
Program ID: RE-POWERING SCD980844005-65913
Action Name: ROCK HILL CHEMICAL COMPANY (AKA RUTLEDGE PROPERTY)
Full Address: NORTH CHERRY RD NORTH CHERRY RD ROCK HILL SC 29730
State: South Carolina
Facility Name: ROCK HILL CHEMICAL CO.
Facility Address: NORTH CHERRY RD
ROCK HILL, SC 29730
Enforcement Action Type: CERCLA 122h Agrmt For Cost Recovery
Facility County: YORK
EPA Region #: 4

Enforcement Action ID: 04-1997-0584
FRS ID: 110009345280
Program ID: CERCLIS SCD980844005
Action Name: ROCK HILL (AKA RUTLEDGE PROPERTY SITE) - PPA W/CHERRY STREET
Full Address: NORTH CHERRY RD NORTH CHERRY RD ROCK HILL SC 29730
State: South Carolina
Facility Name: ROCK HILL CHEMICAL CO.
Facility Address: NORTH CHERRY RD
ROCK HILL, SC 29730
Enforcement Action Type: CERCLA 122G1B Agrmt For Innocent Landowner
Facility County: YORK
EPA Region #: 4

Enforcement Action ID: 04-1997-0584
FRS ID: 110009345280
Program ID: FRS 110009345280
Action Name: ROCK HILL (AKA RUTLEDGE PROPERTY SITE) - PPA W/CHERRY STREET
Full Address: NORTH CHERRY RD NORTH CHERRY RD ROCK HILL SC 29730
State: South Carolina
Facility Name: ROCK HILL CHEMICAL CO.
Facility Address: NORTH CHERRY RD
ROCK HILL, SC 29730
Enforcement Action Type: CERCLA 122G1B Agrmt For Innocent Landowner
Facility County: YORK
EPA Region #: 4

Enforcement Action ID: 04-1997-0584
FRS ID: 110009345280
Program ID: RE-POWERING SCD980844005-65913
Action Name: ROCK HILL (AKA RUTLEDGE PROPERTY SITE) - PPA W/CHERRY STREET
Full Address: NORTH CHERRY RD NORTH CHERRY RD ROCK HILL SC 29730
State: South Carolina
Facility Name: ROCK HILL CHEMICAL CO.
Facility Address: NORTH CHERRY RD
ROCK HILL, SC 29730
Enforcement Action Type: CERCLA 122G1B Agrmt For Innocent Landowner
Facility County: YORK
EPA Region #: 4

Program ID: CERCLIS SCD980844005
Facility Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
Tribal Indicator: N

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110009345280
Facility Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING SCD980844005-65913
Facility Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: CERCLIS SCD980844005
Facility Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: FRS 110009345280
Facility Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RE-POWERING SCD980844005-65913
Facility Name: ROCK HILL CHEMICAL CO.
Address: NORTH CHERRY RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

SC GWIC:

Bureau: BLWM
EAP ID: SCD980844005
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: 52254
Permit Number: Not reported
WPC Permit: Not reported
Program: SUPERFUND
Contamination: VOC, METALS
Petroleum Products: False
Volatile Organic Compounds: True
Metals: True
Nitrates or Potential to Nitrate: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ROCK HILL CHEMICAL CO. (Continued)

1000266565

Pesticides & Herbicides:	False
Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	AGT
Underground Storage Tanks:	False
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	True
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	NO
Monitoring:	YES
Remediation:	YES
Surface Impact:	NO
Drinking Water Well Impact:	NO
Remarks:	BLWM File # 52254. In monitoring and remediation phases.

A1
WNW
 < 1/8
 0.073 mi.
 388 ft.

QUEEN CITY APPLIANCE STORE
2550 CHERRY ST
ROCK HILL, SC 29732
 Site 1 of 22 in cluster A

SC LUST **S116715630**
N/A

Relative:
Higher

LUST:
 Facility ID: 19721
 Release Number: 2
 Facility Status: conduct invest/risk assessment
 Substance: PETROL
 Owner: WILKERSON OIL CO
NFA Date: Not reported
 Date Confirmed: 10/27/14
 Report Date: 03/24/14
 Rank: 4BC

Actual:
641 ft.

A2
NNW
 < 1/8
 0.077 mi.
 405 ft.

JIM NELSON NISSAN INC
2574 CHERRY RD
ROCK HILL, SC 29732
 Site 2 of 22 in cluster A

FINDS **1007226668**
N/A

Relative:
Lower

FINDS:
 Registry ID: 110016978074
 Environmental Interest/Information System
 SC-EFIS (South Carolina - Environmental Facility Information System)
 integrates information on environmental facilities, permits,
 violations, enforcement actions, and compliance activities needed to

Actual:
631 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIM NELSON NISSAN INC (Continued)

1007226668

support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

**A3
NNW
< 1/8
0.077 mi.
405 ft.**

**JIM NELSON NISSAN INC
2574 CHERRY RD
ROCK HILL, SC 29730
Site 3 of 22 in cluster A**

**SC LUST U003522776
SC UST N/A**

**Relative:
Lower**

LUST:

Facility ID: 09233
Release Number: 1
Facility Status: conduct invest/risk assessment
Substance: PETRO
Owner: JORDAN ENTERPRISES
NFA Date: 07/29/03
Date Confirmed: 04/30/93
Report Date: 03/01/93
Rank: 4BC

**Actual:
631 ft.**

LUST DETAIL:

Release Date: 03/01/1993
Cleanup Complete Date: 07/16/2003
RP Name: JORDAN ENTERPRISES
RP Address: 10800 SIKES PL
RP City: CHARLOTTE
RP State: NC
RP Zip: 28277-8129
SCRBCA Class Code: CLASS4BC
Depth to Ground Water: 7
Ground Water Flow Direction: N
Project Manager: PADGETT, JOEL P
Release Fin Type Code: With SUPERB

UST:

Facility ID: 9233
Owner: JORDAN ENTERPRISES
Owner Contact: KEITH RICHARDSON
Owner Address: 10800 SIKES PL
Owner City,St,Zip: CHARLOTTE, NC 28277-8129
Owner Phone: 704-535-4012
Contact: KEITH RICHARDSON
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 550
Product: Motor Oil
Calcage: 10

Tank ID: 2
Status: Abandoned
Capacity: 1000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIM NELSON NISSAN INC (Continued)

U003522776

Product: Waste Oil
Calcage: 10

**A4
NNW
< 1/8
0.077 mi.
405 ft.**

**BURNS NISSAN
2574 CHERRY RD
ROCK HILL, SC 29732**

**RCRA NonGen / NLR
FINDS**

**1001969294
SCD982166803**

Site 4 of 22 in cluster A

**Relative:
Lower**

RCRA NonGen / NLR:

**Actual:
631 ft.**

Date form received by agency: 04/19/2000
Facility name: BURNS NISSAN
Facility address: 2574 CHERRY RD
ROCK HILL, SC 29730
EPA ID: SCD982166803
Mailing address: CHERRY RD
ROCK HILL, SC 29731
Contact: CINDI HARBIN
Contact address: 2574 CHERRY RD
ROCK HILL, SC 29731
Contact country: US
Contact telephone: (803) 366-8171
Contact email: Not reported
EPA Region: 04
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: WELDON BURNS
Owner/operator address: 2574 CHERRY RD
ROCK HILL, SC 29732
Owner/operator country: Not reported
Owner/operator telephone: (999) 999-9999
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, WY 99999
Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BURNS NISSAN (Continued)

1001969294

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110002240405

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BURNS NISSAN (Continued)

1001969294

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**A5
 NNW
 < 1/8
 0.077 mi.
 405 ft.**

**JIM NELSON NISSAN INC
 2574 CHERRY RD
 ROCK HILL, SC
 Site 5 of 22 in cluster A**

**SC RGA LUST S114813629
 N/A**

**Relative:
 Lower**

RGALUST:

2012	JIM NELSON NISSAN INC	2574 CHERRY RD
2011	JIM NELSON NISSAN INC	2574 CHERRY RD
2010	JIM NELSON NISSAN INC	2574 CHERRY RD
2009	JIM NELSON NISSAN INC	2574 CHERRY RD
2008	JIM NELSON NISSAN INC	2574 CHERRY RD
2007	JIM NELSON NISSAN INC	2574 CHERRY RD
2006	JIM NELSON NISSAN INC	2574 CHERRY RD
2005	JIM NELSON NISSAN INC	2574 CHERRY RD
2004	JIM NELSON NISSAN INC	2574 CHERRY RD
2003	JIM NELSON NISSAN INC	2574 CHERRY RD
2002	JIM NELSON NISSAN INC	2574 CHERRY RD
2000	JIM NELSON NISSAN INC	2574 CHERRY RD
1999	JIM NELSON NISSAN INC	2574 CHERRY RD
1998	JIM NELSON NISSAN INC	2574 CHERRY RD
1997	JIM NELSON NISSAN INC	2574 CHERRY RD
1996	JIM NELSON NISSAN INC	2574 CHERRY RD

**Actual:
 631 ft.**

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

A6 NW < 1/8 0.089 mi. 468 ft.	RACETRAC 265 2561 CHERRY RD ROCK HILL, SC Site 6 of 22 in cluster A	SC RGA LUST	S114818868 N/A
---	---	--------------------	--------------------------

Relative: Lower RGA LUST: 2000 RACETRAC 265 2561 CHERRY RD

Actual: 637 ft.

A7 NW < 1/8 0.089 mi. 468 ft.	RACETRAC 976 2561 CHERRY RD ROCK HILL, SC Site 7 of 22 in cluster A	SC RGA LUST	S114818874 N/A
---	---	--------------------	--------------------------

Relative: Lower RGA LUST: 2012 RACETRAC 976 2561 CHERRY RD

Actual: 637 ft.

- 2011 RACETRAC 976 2561 CHERRY RD
- 2010 RACETRAC 976 2561 CHERRY RD
- 2009 RACETRAC 976 2561 CHERRY RD
- 2008 RACETRAC 976 2561 CHERRY RD
- 2007 RACETRAC 976 2561 CHERRY RD
- 2006 RACETRAC 976 2561 CHERRY RD
- 2005 RACETRAC 976 2561 CHERRY RD
- 2004 RACETRAC 976 2561 CHERRY RD
- 2003 RACETRAC 976 2561 CHERRY RD
- 2002 RACETRAC 976 2561 CHERRY RD

A8 NW < 1/8 0.089 mi. 468 ft.	RACETRAC #265 2561 CHERRY RD ROCK HILL, SC Site 8 of 22 in cluster A	SC RGA LUST	S114818860 N/A
---	--	--------------------	--------------------------

Relative: Lower RGA LUST: 1999 RACETRAC #265 2561 CHERRY RD

Actual: 637 ft.

1998 RACETRAC #265 2561 CHERRY RD

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

A9 NW < 1/8 0.089 mi. 468 ft.	RACETRAC 976 2561 CHERRY RD ROCK HILL, SC 29732 Site 9 of 22 in cluster A	FINDS	1007256729 N/A
---	--	--------------	---------------------------------

Relative: FINDS:
Lower

Registry ID: 110017296638

Actual: Environmental Interest/Information System
637 ft. SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

A10 NW < 1/8 0.089 mi. 468 ft.	RACETRAC 976 2561 CHERRY RD ROCK HILL, SC 29732 Site 10 of 22 in cluster A	SC LUST SC UST SC Financial Assurance SC GWCI	U003629097 N/A
--	---	--	---------------------------------

Relative: LUST:
Lower

Facility ID: 09388
 Release Number: 1
 Facility Status: approved
 Substance: PETRO
 Owner: RACETRAC PETROLEUM INC
NFA Date: Not reported
 Date Confirmed: 03/23/92
 Report Date: 11/20/91
 Rank: 3BA

LUST DETAIL:

Release Date: 11/20/1991
 Cleanup Complete Date: Not reported
 RP Name: RACETRAC PETROLEUM INC
 RP Address: 300 TECHNOLOGY CT
 RP City: SMYRNA
 RP State: GA
 RP Zip: 30082
 SCRBCA Class Code: CLASS3BA
 Depth to Ground Water: 4
 Ground Water Flow Direction: S
 Project Manager: THOMA, DEBRA L
 Release Fin Type Code: With SUPERB

UST:

Facility ID: 9388
 Owner: RACETRAC PETROLEUM INC
 Owner Contact: CHUCK WEATHERSBEE
 Owner Address: 3225 CUMBERLAND BLVD STE 100
 Owner City,St,Zip: ATLANTA, GA 30339
 Owner Phone: 770-431-7600
 Contact: CHUCK WEATHERSBEE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RACETRAC 976 (Continued)

U003629097

Contact Phone: 803-366-1397

Tank ID: 1
Status: Abandoned
Capacity: 12000
Product: Gasoline
Calcage: 10

Tank ID: 2
Status: Currently in use
Capacity: 12000
Product: RUL
Calcage: 10

Tank ID: 3
Status: Currently in use
Capacity: 12000
Product: PLUS
Calcage: 10

Tank ID: 4
Status: Currently in use
Capacity: 12000
Product: PREM
Calcage: 10

SC Financial Assurance 3:

Owner Name: RACETRAC PETROLEUM INC
Owner Address: 3225 CUMBERLAND BLVD STE 100
Owner City: ATLANTA
Owner State: GA
Owner Zip: 30339
Mechanism: Self Insurance 280.95
Date Expired: 01/21/16
Bill: 3
RNU: 0
Rel Number: N

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09388
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RACETRAC 976 (Continued)

U003629097

Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	Yes
Monitoring:	No
Remediation:	No
Surface Impact:	No
Drinking Water Well Impact:	No
Remarks:	Site ID # 09388. RBCA Classification 3BA1. Conducting investigation/Risk Assessment.

**A11
 NW
 < 1/8
 0.089 mi.
 468 ft.**

**RACETRAC SERVICE STATION
 2561 CHERRY RD
 ROCK HILL, SC**

**SC RGA LUST S114818885
 N/A**

Site 11 of 22 in cluster A

**Relative:
 Lower**

RGA LUST: 1997 RACETRAC SERVICE STATION 2561 CHERRY RD

**Actual:
 637 ft.**

1996 RACETRAC SERVICE STATION 2561 CHERRY RD
 1993 RACETRAC SERVICE STATION 2561 CHERRY RD

**A12
 NW
 < 1/8
 0.089 mi.
 468 ft.**

**2561 CHERRY RD
 ROCK HILL, SC 29732**

**EDR Hist Auto 1015368807
 N/A**

Site 12 of 22 in cluster A

**Relative:
 Lower**

EDR Historical Auto Stations:
 Name: RACE TRAC SERVICE STATION
 Year: 2003
 Address: 2561 CHERRY RD

**Actual:
 637 ft.**

Name: RACETRAC PETROLEUM INC
 Year: 2006
 Address: 2561 CHERRY RD

 Name: RACE TRAC SERVICE STATION
 Year: 2007
 Address: 2561 CHERRY RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

1015368807

Name: RACE TRAC SERVICE STATION
 Year: 2008
 Address: 2561 CHERRY RD

Name: RACETRAC PETROLEUM INC
 Year: 2009
 Address: 2561 CHERRY RD

**13
 NE
 < 1/8
 0.089 mi.
 469 ft.**

**BEST HOLIDAY INC
 962 RIVER VIEW RD
 ROCK HILL, SC 29730**

**FINDS 1007246120
 N/A**

**Relative:
 Lower**

FINDS:

Registry ID: 110017179925

**Actual:
 632 ft.**

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

**B14
 East
 < 1/8
 0.090 mi.
 477 ft.**

**925 RIVERVIEW RD
 ROCKHILL, SC
 Site 1 of 6 in cluster B**

**ERNS 2004740345
 N/A**

**Relative:
 Lower**

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

**Actual:
 626 ft.
 A15
 WNW
 < 1/8
 0.098 mi.
 520 ft.**

**CONOCO #40023
 2541 CHERRY RD
 ROCK HILL, SC
 Site 13 of 22 in cluster A**

**SC RGA LUST S114807400
 N/A**

**Relative:
 Higher**

RGA LUST:

1993 CONOCO #40023 2541 CHERRY RD

**Actual:
 641 ft.**

1992 CONOCO #40023 2541 CHERRY RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

EDR ID Number
 EPA ID Number

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
A16 WNW < 1/8 0.098 mi. 520 ft.	PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD ROCK HILL, SC Site 14 of 22 in cluster A Relative: Higher Actual: 641 ft.	SC RGA LUST	S114817530 N/A
	Relative: Higher Actual: 641 ft.	RGA LUST: 2012 PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD 2011 PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD 2010 PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD 2009 PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD 2008 PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD 2007 PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD	

A17 WNW < 1/8 0.098 mi. 520 ft.	PANTRY 3932 DBA PETRO EXPRESS 2541 N CHERRY RD ROCK HILL, SC 29730 Site 15 of 22 in cluster A Relative: Higher Actual: 641 ft.	SC LUST SC UST SC Financial Assurance	U003975672 N/A
	Relative: Higher Actual: 641 ft.	LUST: Facility ID: 13090 Release Number: 1 Facility Status: conduct invest/risk assessment Substance: PETRO Owner: PETRO ASSOCIATES OF SC LLC NFA Date: Not reported Date Confirmed: 10/04/90 Report Date: 12/18/89 Rank: 2BB LUST DETAIL: Release Date: 12/18/1989 Cleanup Complete Date: Not reported RP Name: CONOCO PHILLIPS RP Address: 12911 N TELECOM PKWY STE 100 RP City: TAMPA RP State: FL RP Zip: 33637-0907 SCRBCA Class Code: CLASS2BB Depth to Ground Water: 12 Ground Water Flow Direction: NW Project Manager: THOMA, DEBRA L Release Fin Type Code: With SUPERB	
	Relative: Higher Actual: 641 ft.	UST: Facility ID: 13090 Owner: PETRO ASSOCIATES OF SC LLC Owner Contact: EDWIN PEARLSTINE Owner Address: PO BOX 72301 Owner City,St,Zip: CHARLESTON, SC 29415-2301 Owner Phone: 803-554-1022 Contact: EDWIN PEARLSTINE Contact Phone: 803-366-2192	

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PANTRY 3932 DBA PETRO EXPRESS (Continued)

U003975672

Tank ID:	1
Status:	Abandoned
Capacity:	10000
Product:	Gasoline
Calcage:	Not reported
Tank ID:	1
Status:	Currently in use
Capacity:	32000
Product:	Multiple Petroleum Products
Calcage:	0
Tank ID:	2
Status:	Abandoned
Capacity:	10000
Product:	Gasoline
Calcage:	Not reported
Tank ID:	2
Status:	Currently in use
Capacity:	8000
Product:	Multiple Petroleum Products
Calcage:	0
Tank ID:	3
Status:	Abandoned
Capacity:	10000
Product:	Gasoline
Calcage:	Not reported
Tank ID:	3
Status:	Currently in use
Capacity:	3000
Product:	Kerosene
Calcage:	0
Tank ID:	4
Status:	Abandoned
Capacity:	10000
Product:	Diesel
Calcage:	Not reported
Tank ID:	5
Status:	Abandoned
Capacity:	4000
Product:	Kerosene
Calcage:	Not reported
Tank ID:	6

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PANTRY 3932 DBA PETRO EXPRESS (Continued)

U003975672

Status: Abandoned
 Capacity: 10000
 Product: Gasoline
 Calcage: Not reported

Tank ID: 7
Status: Abandoned
 Capacity: 10000
 Product: Gasoline
 Calcage: Not reported

Tank ID: 8
Status: Abandoned
 Capacity: 10000
 Product: Diesel
 Calcage: Not reported

Tank ID: 9
Status: Abandoned
 Capacity: 6000
 Product: Gasoline
 Calcage: Not reported

SC Financial Assurance 3:

Owner Name: PANTRY INC
 Owner Address: 305 GREGSON DR
 Owner City: CARY
 Owner State: NC
 Owner Zip: 27511
 Mechanism: Letter of Credit
 Date Expired: 03/09/15
 Bill: 3
 RNU: 0
 Rel Number: N

A18
 WNW
 < 1/8
 0.098 mi.
 520 ft.

PETRO EXPRESS 14
2541 N CHERRY RD
ROCK HILL, SC
 Site 16 of 22 in cluster A

SC RGA LUST S114817968
N/A

Relative:
Higher

RGA LUST:	2006	PETRO EXPRESS 14	2541 N CHERRY RD
	2005	PETRO EXPRESS 14	2541 N CHERRY RD
	2004	PETRO EXPRESS 14	2541 N CHERRY RD
	2003	PETRO EXPRESS 14	2541 N CHERRY RD
	2002	PETRO EXPRESS 14	2541 N CHERRY RD

Actual:
641 ft.

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
--	------	-------------	--------------------------------

A19 WNW < 1/8 0.098 mi. 520 ft.	PETRO EXPRESS #14 2541 CHERRY RD ROCK HILL, SC Site 17 of 22 in cluster A	SC RGA LUST	S114817966 N/A												
Relative: Higher	RGA LUST: <table border="0" style="margin-left: 20px;"> <tr> <td style="width: 50px;">1999</td> <td>PETRO EXPRESS #14</td> <td>2541 CHERRY RD</td> </tr> <tr> <td>1998</td> <td>PETRO EXPRESS #14</td> <td>2541 CHERRY RD</td> </tr> <tr> <td>1997</td> <td>PETRO EXPRESS #14</td> <td>2541 CHERRY RD</td> </tr> <tr> <td>1996</td> <td>PETRO EXPRESS #14</td> <td>2541 CHERRY RD</td> </tr> </table>			1999	PETRO EXPRESS #14	2541 CHERRY RD	1998	PETRO EXPRESS #14	2541 CHERRY RD	1997	PETRO EXPRESS #14	2541 CHERRY RD	1996	PETRO EXPRESS #14	2541 CHERRY RD
1999	PETRO EXPRESS #14	2541 CHERRY RD													
1998	PETRO EXPRESS #14	2541 CHERRY RD													
1997	PETRO EXPRESS #14	2541 CHERRY RD													
1996	PETRO EXPRESS #14	2541 CHERRY RD													
Actual: 641 ft.															

A20 WNW < 1/8 0.098 mi. 520 ft.	KAYO SERVICE STA JET 40023 2541 CHERRY RD ROCK HILL, SC 29732 Site 18 of 22 in cluster A	FINDS	1007232797 N/A		
Relative: Higher	FINDS: <table border="0" style="margin-left: 20px;"> <tr> <td style="width: 100px;">Registry ID:</td> <td>110017041128</td> </tr> </table>			Registry ID:	110017041128
Registry ID:	110017041128				
Actual: 641 ft.	Environmental Interest/Information System SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.				

A21 WNW < 1/8 0.098 mi. 520 ft.	PETRO EXPRESS 14 2541 CHERRY RD ROCK HILL, SC Site 19 of 22 in cluster A	SC RGA LUST	S114817967 N/A			
Relative: Higher	RGA LUST: <table border="0" style="margin-left: 20px;"> <tr> <td style="width: 50px;">2000</td> <td>PETRO EXPRESS 14</td> <td>2541 CHERRY RD</td> </tr> </table>			2000	PETRO EXPRESS 14	2541 CHERRY RD
2000	PETRO EXPRESS 14	2541 CHERRY RD				

A22 WNW < 1/8 0.098 mi. 520 ft.	PETRO EXPRESS 14 2541 N CHERRY RD ROCK HILL, SC 29732 Site 20 of 22 in cluster A	FINDS	1007228536 N/A		
Relative: Higher	FINDS: <table border="0" style="margin-left: 20px;"> <tr> <td style="width: 100px;">Registry ID:</td> <td>110016997231</td> </tr> </table>			Registry ID:	110016997231
Registry ID:	110016997231				
Actual: 641 ft.	Environmental Interest/Information System SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits,				

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PETRO EXPRESS 14 (Continued)

1007228536

violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

**A23
 WNW
 < 1/8
 0.098 mi.
 520 ft.**

**PANTRY 3932 DBA PETRO EXPRESS
 2541 N CHERRY RD
 ROCK HILL, SC 29730**

**SC GWCI U004017464
 N/A**

Site 21 of 22 in cluster A

**Relative:
 Higher**

SC GWIC:

Bureau:	BLWM
EAP ID:	Not reported
Solid Waste Permit #:	Not reported
Bureau of Land & Waste Management File #:	Not reported
Permit Number:	13090
WPC Permit:	Not reported
Program:	DUST
Contamination:	PETRO
Petroleum Products:	True
Volatile Organic Compounds:	False
Metals:	False
Nitrates or Potential to Nitrate:	False
Pesticides & Herbicides:	False
Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	No
Monitoring:	Yes
Remediation:	No
Surface Impact:	No
Drinking Water Well Impact:	No
Remarks:	Site ID # 13090. RBCA Classification 2BB6. Contacted.

**Actual:
 641 ft.**

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
--	--	-------------	--------------------------------

A24 WNW < 1/8 0.098 mi. 520 ft.	KAY0 SERVICE STA (JET) #4 2541 CHERRY RD ROCK HILL, SC Site 22 of 22 in cluster A	SC RGA LUST	S114813870 N/A
---	---	--------------------	--------------------------

Relative: Higher RGA LUST: 1992 KAY0 SERVICE STA (JET) #4 2541 CHERRY RD

Actual: 641 ft.

C25 North < 1/8 0.105 mi. 552 ft.	GARYS COLLISION 2587 N CHERRY RD ROCK HILL, SC 29732 Site 1 of 3 in cluster C	RCRA-CESQG FINDS	1001962003 SCR000074997
---	---	-----------------------------------	--

Relative: Lower RCRA-CESQG:

Date form received by agency: 10/29/1999

Facility name: GARYS COLLISION

Facility address: 2587 N CHERRY RD
ROCK HILL, SC 29730

EPA ID: SCR000074997

Mailing address: GALLERIA POINTE CIR
ROCK HILL, SC 29730

Contact: GARY PERRY

Contact address: 3509 GALLERIA POINTE CIR
ROCK HILL, SC 29730

Contact country: US

Contact telephone: (803) 324-1367

Contact email: Not reported

EPA Region: 04

Land type: Private

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: GARY PERRY

Owner/operator address: 2587 N CHERRY RD
ROCK HILL, SC 29730

Owner/operator country: Not reported

Owner/operator telephone: (803) 324-1367

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GARYS COLLISION (Continued)

1001962003

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 10/11/1999
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110002236072

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

C26
North
< 1/8
0.105 mi.
552 ft.

2587 CHERRY RD
ROCK HILL, SC 29732

Site 2 of 3 in cluster C

EDR Hist Auto 1015370008
N/A

Relative:
Lower

Actual:
626 ft.

EDR Historical Auto Stations:
Name: HAROLDS AUTO BODY
Year: 2009
Address: 2587 CHERRY RD

B27
ESE
< 1/8
0.106 mi.
558 ft.

914 RIVERVIEW RD
ROCK HILL, SC 29730

Site 2 of 6 in cluster B

SC CDL S111333786
N/A

Relative:
Lower

Actual:
625 ft.

CDL:
Lab/Seizure Unit # (Apt, Room Number, Ect.): 238
Latitude: Not reported
Longitude: Not reported
QA/QC Id #: 1406
Id Num Of GIS Data Point: 1404
Has Call Been Verified To Be True: Yes
EFIS Report Number: 0
Did DHEC Respond To The Site In Any Way?: No
Direct Threat Of Environment Or Public Health?: No
Type Of Report-Lab Seizure: Yes
Report Chemicals/Glassware/Equipment Seizure: No
Report-Dumpsite Seizure: No
Official Police Report Or Case Number: 201100032587
Seizure Date: 9/22/2011
Law Enforcement Agency In Charge (Generator): YCMDEU
Originating Agency Identification (Ori) Number: 460000
Law Enforcement Agency In Charge City: Rock Hill
Law Enforcement Agency In Charge State: SC
Leo Case Or File Title: Terry Goins
Name Of Person Reporting Incident: Jim Lubben
Telephone Number Of Caller: 803-325-2514
Seizure Location - Apartment, Condo: No
Seizure Location - Hotel Or Motel: Yes
Seizure Location - Out Building (Shed,etc.): No
Seizure Location - Vehicle: No
Seizure Location - Family Dwelling House: No
Seizure Location - Family Dwelling Mobile Home: No
Seizure Loc-FamilyDwellingDuplex Or Other NonApartment MultiStructure: No
Seizure Location - Dumpster: No
Seizure Location - Storage Locker: No
Seizure Location - Open - No Structure: No
Seizure Location - Business: No
Seizure Location - Other - Describe: Not reported
Neighborhood - Commercial Or Industrial: Yes
Neighborhood - Public Land - Check Box: No
Neighborhood - Public Land - Name: Not reported
Neighborhood - Rural: No
Neighborhood - Suburban: No
Neighborhood - Other - Check Box: No
Neighborhood - Other - Describe: Not reported
Neighborhood - Urban: No
Lab Status - Operational, Not In Production: No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

S111333786

Lab Status - Operational, In Production:	No	
Lab Status - Abandoned:	No	
Lab Status - Boxed Or Dismantled:	Yes	
Lab Status - Fire Or Explosion:	No	
Lab Status - Other, Check Box:	No	
Lab Status - Other, Describe:	Not reported	
Lab Mfg Proc-Ephedrin,RedP,HydriodicAcidAnd/OrIodineReduction:	No	
LMP-Pseudoephedrin, RedP,HydriodicAcid And/Or Iodine Reduction:	No	
Lab Mfg Process-P2p / Methylamine:	No	
Lab Mfg Process-Hydrogenation:	No	
LMP-Ephedrin,(Nazi/Birch)-Lithium,Sodium,Potassium,AnhydrousAmmonia:	No	
LMP-Pseudoephedrin,(Nazi/Birch)-Lithium,Sodium,Potassium,An Ammonia:	Yes	
Lab Mfg Process-Hydriodic Acid Method:	No	
Lab Mfg Process-Anhydrous Ammonia Manufacturing:	No	
Lab Mfg Process-Ephedrine Tablet Extraction:	No	
Lab Mfg Process-Pseudoephedrine Tablet Extraction:	No	
Lab Mfg Process-Other, Describe:	No	
Lab Mfg Process-Other, Describe:	Not reported	
Lab Type - Amphetamine:	0	
Lab Type - Hydriodic Acid:	0	
Lab Type - Tablet Extraction:	0	
Lab Type - GHB:	0	
Lab Type - Anhydrous Ammonia:	0	
Lab Type - MDMA:	0	
Lab Type - Methamphetamine:	1	
Lab Type - Methcathinone:	0	
Lab Type - PCP:	0	
Lab Type - Other, Describe:	0	
Lab Type - Other, Describe:	Not reported	
Method Waste Disposal Cook Used.Poured Down Drains,etc.:	Unknown	
Was There A Fire?:	No	
Was There An Explosion?:	No	
Was Anyone Injured?:	No	
Were There Any Deaths?:	No	
Other Than Lab Itself, Was There Evacuation Due To Hazard?:	No	
Was A Chemist On Site? State Or Local.:	No	
Was A Chemist On Site? Dea Or Dea Contractor:	No	
Did The Leo Perform Removal?:	No	
Was A Hazmat Contractor Used?:	No	
Name Of Hm Contractor Used.:	Not reported	
Remarks:	Chemicals were in proper containers, room had been vacant for two days, hazmat cr	

CDL 2:

Date Seized:	04/21/2013
Facility Detail:	Not reported
Lab Address:	914 Riverview RdRock Hill, SC 29730
Lat/Longitude:	Not reported
Police Agency Name:	York County Sheriff's Office
Lab Number:	Not reported
Children Present:	Not reported
Lab Type:	Not reported
Contractor Name:	Not reported
Invoice Amount:	Not reported
Was NPLEX Used:	Not reported
Num Child:	Not reported
Structure:	Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

B28
ESE
< 1/8
0.106 mi.
561 ft.

ROCK HILL U HAUL CTR
909 RIVERVIEW RD
ROCK HILL, SC 29730
Site 3 of 6 in cluster B

FINDS **1007232827**
N/A

Relative:
Lower

FINDS:

Registry ID: 110017041431

Actual:
623 ft.

Environmental Interest/Information System
SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

B29
ESE
< 1/8
0.106 mi.
561 ft.

ROCK HILL U HAUL CTR
909 RIVERVIEW RD
ROCK HILL, SC 29730
Site 4 of 6 in cluster B

SC LUST **U003524707**
SC UST **N/A**

Relative:
Lower

LUST:

Facility ID: 11384
Release Number: 1
Facility Status: Not reported
Substance: PETRO
Owner: U HAUL CO OF NC
NFA Date: 02/18/94
Date Confirmed: 03/23/92
Report Date: 12/09/91
Rank: Not reported

Actual:
623 ft.

UST:

Facility ID: 11384
Owner: U HAUL CO OF NC
Owner Contact: BRETT CLEVENNA
Owner Address: 1224 N TRYON ST
Owner City,St,Zip: CHARLOTTE, NC 28206-3256
Owner Phone: 803
Contact: BRETT CLEVENNA
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 4000
Product: Gasoline
Calcage: 5

Tank ID: 2
Status: Abandoned
Capacity: 4000
Product: Gasoline
Calcage: 5

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ROCK HILL U HAUL CTR (Continued)

U003524707

Tank ID: 3
Status: Abandoned
 Capacity: 1000
 Product: Kerosene
 Calcage: 5

Tank ID: 4
Status: Abandoned
 Capacity: 550
 Product: Waste Oil
 Calcage: 5

Tank ID: 5
Status: Abandoned
 Capacity: 1000
 Product: Diesel
 Calcage: 25

Tank ID: 6
Status: Abandoned
 Capacity: 1000
 Product: Waste Oil
 Calcage: 25

B30
ESE
 < 1/8
 0.106 mi.
 561 ft.

ROCK HILL U-HAUL CENTER
909 RIVERVIEW RD
ROCK HILL, SC
 Site 5 of 6 in cluster B

SC RGA LUST S114819362
N/A

Relative:
Lower

RGA LUST: 1997 ROCK HILL U-HAUL CENTER 909 RIVERVIEW RD

Actual:
623 ft.

1996 ROCK HILL U-HAUL CENTER 909 RIVERVIEW RD
 1993 ROCK HILL U-HAUL CENTER 909 RIVERVIEW RD
 1992 ROCK HILL U-HAUL CENTER 909 RIVERVIEW RD

B31
ESE
 < 1/8
 0.106 mi.
 561 ft.

ROCK HILL U HAUL CTR
909 RIVERVIEW RD
ROCK HILL, SC
 Site 6 of 6 in cluster B

SC RGA LUST S114819361
N/A

Relative:
Lower

RGA LUST: 2012 ROCK HILL U HAUL CTR 909 RIVERVIEW RD

Actual:
623 ft.

2011 ROCK HILL U HAUL CTR 909 RIVERVIEW RD
 2010 ROCK HILL U HAUL CTR 909 RIVERVIEW RD
 2009 ROCK HILL U HAUL CTR 909 RIVERVIEW RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ROCK HILL U HAUL CTR (Continued)

S114819361

2008	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2007	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2006	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2005	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2004	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2003	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2001	ROCK HILL U HAUL CTR	909 RIVERVIEW RD
2000	ROCK HILL U HAUL CTR	909 RIVERVIEW RD

D32
 West
 < 1/8
 0.123 mi.
 647 ft.

2531 CHERRY RD
ROCK HILL, SC 29732
 Site 1 of 7 in cluster D

EDR Hist Auto 1015366786
N/A

Relative:
Higher

Actual:
638 ft.

EDR Historical Auto Stations:
 Name: CAROLINA AUTOMOTIVE GROUP LLC
 Year: 2003
 Address: 2531 CHERRY RD

 Name: CAROLINA AUTOMOTIVE GROUP INC
 Year: 2004
 Address: 2531 CHERRY RD

C33
 North
 1/8-1/4
 0.126 mi.
 665 ft.

1015 RIVERVIEW RD
ROCK HILL, SC 29732
 Site 3 of 3 in cluster C

EDR Hist Auto 1015127960
N/A

Relative:
Lower

Actual:
622 ft.

EDR Historical Auto Stations:
 Name: AIRPORT AUTO
 Year: 2012
 Address: 1015 RIVERVIEW RD

D34
 West
 1/8-1/4
 0.131 mi.
 690 ft.

PEP BOYS THE ROCK HILL
2514 N CHERRY RD
ROCK HILL, SC 29732
 Site 2 of 7 in cluster D

FINDS 1016185036
N/A

Relative:
Higher

Actual:
642 ft.

FINDS:
 Registry ID: 110002239916
 Environmental Interest/Information System
 SC-EFIS (South Carolina - Environmental Facility Information System)
 integrates information on environmental facilities, permits,

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PEP BOYS THE ROCK HILL (Continued)

1016185036

violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

D35
West
1/8-1/4
0.131 mi.
690 ft.

PEP BOYS #98
2514 N CHERRY RD
ROCK HILL, SC

SC RGA LUST **S114817911**
N/A

Site 3 of 7 in cluster D

Relative:
Higher

RGA LUST: 1999 PEP BOYS #98 2514 N CHERRY RD

Actual:
642 ft.

D36
West
1/8-1/4
0.131 mi.
690 ft.

2514 CHERRY RD
ROCK HILL, SC 29732

EDR Hist Auto **1015364957**
N/A

Site 4 of 7 in cluster D

Relative:
Higher

EDR Historical Auto Stations:
 Name: PEP BOYS AUTOMOTIVE SPRCNTR
 Year: 2003
 Address: 2514 CHERRY RD

Actual:
642 ft.

Name: PEP BOYS 0098
 Year: 2008
 Address: 2514 CHERRY RD

D37
West
1/8-1/4
0.131 mi.
690 ft.

PEP BOYS 98
2514 NORTH CHERRY ROAD
ROCK HILL, SC 29730

RCRA-CESQG **1000575670**
SCD987580909

Site 5 of 7 in cluster D

Relative:
Higher

RCRA-CESQG:
 Date form received by agency: 07/20/1998
 Facility name: PEP BOYS 98
 Facility address: 2514 NORTH CHERRY ROAD
 ROCK HILL, SC 29730
 EPA ID: SCD987580909
 Mailing address: W ALLGHNEY AVENUE
 PHILADELPHIA, PA 19132
 Contact: JOHN KERELO
 Contact address: 3111 W ALLGHNEY AVENUE
 PHILADELPHIA, PA 19132

Actual:
642 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PEP BOYS 98 (Continued)

1000575670

Contact country: US
Contact telephone: (215) 430-9277
Contact email: Not reported
EPA Region: 04
Land type: Private
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: THE PEP BOYS
Owner/operator address: 3111 W ALLGHNEY AVENUE
PHILADELPHIA, PA 19132
Owner/operator country: Not reported
Owner/operator telephone: (215) 227-9277
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Facility Has Received Notices of Violations:

Regulation violated: SR - 262.23(A)
Area of violation: Generators - General
Date violation determined: 07/24/1991

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PEP BOYS 98 (Continued)

1000575670

Date achieved compliance: 11/01/1995
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/24/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 07/23/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/01/1995
Evaluation lead agency: State

D38
West
1/8-1/4
0.131 mi.
690 ft.

PEP BOYS 98
2514 N CHERRY RD
ROCK HILL, SC 29730
Site 6 of 7 in cluster D

SC LUST **U003930035**
SC UST **N/A**

Relative:
Higher

LUST:
Facility ID: 11721
Release Number: 1
Facility Status: conduct invest/risk assessment
Substance: PETRO
Owner: PEP BOYS
NFA Date: 01/31/00
Date Confirmed: 04/22/99
Report Date: 03/30/99
Rank: 4BA

Actual:
642 ft.

LUST DETAIL:

Release Date: 03/30/1999
Cleanup Complete Date: 01/31/2000
RP Name: PEP BOYS
RP Address: 3111 W ALLEGHENY AVE
RP City: PHILADELPHIA
RP State: PA
RP Zip: 19132
SCRBCA Class Code: CLASS4BA
Depth to Ground Water: Not reported
Ground Water Flow Direction: Not reported
Project Manager: PASLEY, DOUG C
Release Fin Type Code: Qualifies for Fund with Deductible

UST:

Facility ID: 11721
Owner: PEP BOYS
Owner Contact: DAVE DONALDSON
Owner Address: 3111 W ALLEGHENY AVE
Owner City,St,Zip: PHILADELPHIA, PA 19132
Owner Phone: 215-430-9277
Contact: DAVE DONALDSON

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PEP BOYS 98 (Continued)

U003930035

Contact Phone: 803-324-1980

Tank ID: 1
Status: Abandoned
 Capacity: 550
 Product: Waste Oil
 Calcage: Not reported

Tank ID: 2
Status: Abandoned
 Capacity: 550
 Product: Waste Oil
 Calcage: Not reported

D39
West
1/8-1/4
0.131 mi.
690 ft.

PEP BOYS 98
2514 N CHERRY RD
ROCK HILL, SC

SC RGA LUST S114817912
N/A

Site 7 of 7 in cluster D

Relative:
Higher

Actual: 642 ft.	RGA LUST:	2012	PEP BOYS 98	2514 N CHERRY RD
		2011	PEP BOYS 98	2514 N CHERRY RD
		2010	PEP BOYS 98	2514 N CHERRY RD
		2009	PEP BOYS 98	2514 N CHERRY RD
		2008	PEP BOYS 98	2514 N CHERRY RD
		2007	PEP BOYS 98	2514 N CHERRY RD
		2006	PEP BOYS 98	2514 N CHERRY RD
		2005	PEP BOYS 98	2514 N CHERRY RD
		2004	PEP BOYS 98	2514 N CHERRY RD
		2003	PEP BOYS 98	2514 N CHERRY RD
		2001	PEP BOYS 98	2514 N CHERRY RD
		2000	PEP BOYS 98	2514 N CHERRY RD

40
SE
1/8-1/4
0.155 mi.
816 ft.

875 RIVERVIEW
ROCK HILL, SC

SC CDL S117406290
N/A

Relative:
Lower

CDL 2:
 Date Seized: 07/27/2014
 Facility Detail: Not reported
 Lab Address: 875 Riverview; Rock Hill, SC

Actual:
624 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S117406290

Lat/Longitude:	Not reported
Police Agency Name:	York County Sheriff's Office
Lab Number:	Lab-14-1756
Children Present:	Not reported
Lab Type:	One-Pot
Contractor Name:	None
Invoice Amount:	0.00
Was NPLEX Used:	Not reported
Num Child:	Not reported
Structure:	Not reported

E41
WSW
1/8-1/4
0.172 mi.
909 ft.

2500 CHERRY RD
ROCK HILL, SC 29732
Site 1 of 4 in cluster E

EDR Hist Auto 1015362950
N/A

Relative:
Higher
Actual:
640 ft.

EDR Historical Auto Stations:

Name:	PRECISION TUNE AUTO CARE
Year:	2004
Address:	2500 CHERRY RD
Name:	PRECISION TUNE AUTO CARE
Year:	2007
Address:	2500 CHERRY RD
Name:	PRECISION TUNE AUTO CARE
Year:	2008
Address:	2500 CHERRY RD
Name:	PRECISION TUNE AUTO CARE
Year:	2009
Address:	2500 CHERRY RD
Name:	PRECISION TUNE AUTO CARE
Year:	2010
Address:	2500 CHERRY RD
Name:	PRECISION TUNE AUTO CARE
Year:	2011
Address:	2500 CHERRY RD
Name:	PRECISION TUNE AUTO CARE OF ROCK HIL
Year:	2012
Address:	2500 CHERRY RD

E42
WSW
1/8-1/4
0.172 mi.
909 ft.

PRECISION TUNE
2500 N CHERRY RD
ROCK HILL, SC 29730
Site 2 of 4 in cluster E

SC LUST U003524409
SC UST N/A

Relative:
Higher
Actual:
640 ft.

LUST:	
Facility ID:	16594
Release Number:	1
Facility Status:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PRECISION TUNE (Continued)

U003524409

Substance: PETRO
 Owner: JOE MITCHELL
NFA Date: 05/12/95
 Date Confirmed: 08/16/94
 Report Date: 08/16/94
 Rank: Not reported

UST:

Facility ID: 16594
 Owner: MITCHELL
 Owner Contact: JOE MITCHELL
 Owner Address: PO BOX 2474
 Owner City,St,Zip: ROCK HILL, SC 29732
 Owner Phone: 803-325-1313
 Contact: JOE MITCHELL
 Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
 Capacity: 1000
 Product: Motor Oil
 Calcage: 10

Tank ID: 2
Status: Abandoned
 Capacity: 1000
 Product: Waste Oil
 Calcage: 10

E43
WSW
1/8-1/4
0.172 mi.
909 ft.

PRECISION TUNE
2500 N CHERRY RD
ROCK HILL, SC
Site 3 of 4 in cluster E

SC RGA LUST S114818470
N/A

Relative:
Higher

RGA LUST:

Actual:
640 ft.

2012	PRECISION TUNE	2500 N CHERRY RD
2011	PRECISION TUNE	2500 N CHERRY RD
2010	PRECISION TUNE	2500 N CHERRY RD
2009	PRECISION TUNE	2500 N CHERRY RD
2008	PRECISION TUNE	2500 N CHERRY RD
2007	PRECISION TUNE	2500 N CHERRY RD
2006	PRECISION TUNE	2500 N CHERRY RD
2005	PRECISION TUNE	2500 N CHERRY RD
2004	PRECISION TUNE	2500 N CHERRY RD
2003	PRECISION TUNE	2500 N CHERRY RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PRECISION TUNE (Continued)

S114818470

2001 PRECISION TUNE 2500 N CHERRY RD
 2000 PRECISION TUNE 2500 N CHERRY RD
 1997 PRECISION TUNE 2500 N CHERRY RD

E44
WSW
1/8-1/4
0.172 mi.
909 ft.

PRECISION TUNE
2500 N CHERRY RD
ROCK HILL, SC 29730

FINDS 1007226375
N/A

Site 4 of 4 in cluster E

Relative:
Higher

FINDS:

Registry ID: 110016975095

Actual:
640 ft.

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

F45
West
1/8-1/4
0.202 mi.
1064 ft.

BURNS CHEVROLET INCORPORATED
2515 CHERRY RD
ROCK HILL, SC 29732

RCRA-CESQG 1004780174
ICIS SCD981759335
FINDS

Site 1 of 2 in cluster F

Relative:
Higher

RCRA-CESQG:

Date form received by agency: 02/28/2002

Facility name: BURNS CHEVROLET CADILLAC

Facility address: 2515 CHERRY RD
 ROCK HILL, SC 29731

EPA ID: SCD981759335

Mailing address: PO BOX 2815 CRS
 ROCK HILL, SC 29731

Contact: FRED DEARTH

Contact address: 2515 CHERRY RD
 ROCK HILL, SC 29731

Contact country: US

Contact telephone: (803) 366-9414

Contact email: Not reported

EPA Region: 04

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BURNS CHEVROLET INCORPORATED (Continued)

1004780174

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CLAUDE W BURNS
Owner/operator address: 2515 CHERRY RD
ROCK HILL, SC 29730
Owner/operator country: Not reported
Owner/operator telephone: (803) 366-9414
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, WY 99999
Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:

Date form received by agency: 07/13/1994

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BURNS CHEVROLET INCORPORATED (Continued)

1004780174

Site name: BURNS CHEVROLET CADILLAC
Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

ICIS:

Enforcement Action ID: 04-2005-9105
FRS ID: 110002240398
Program ID: FRS 110002240398
Action Name: BURNS CHEVROLET-CADILLAC, INC.
Full Address: 2515 CHERRY RD ROCK HILL SC 29732-2174
State: South Carolina
Facility Name: BURNS CHEVROLET INCORPORATED
Facility Address: 2515 CHERRY RD
ROCK HILL, SC 29732-2174
Enforcement Action Type: CAA 113D1 Action For Penalty
Facility County: YORK
EPA Region #: 4

Enforcement Action ID: 04-2005-9105
FRS ID: 110002240398
Program ID: SC-EFIS SC0000013399
Action Name: BURNS CHEVROLET-CADILLAC, INC.
Full Address: 2515 CHERRY RD ROCK HILL SC 29732-2174
State: South Carolina
Facility Name: BURNS CHEVROLET INCORPORATED
Facility Address: 2515 CHERRY RD
ROCK HILL, SC 29732-2174
Enforcement Action Type: CAA 113D1 Action For Penalty
Facility County: YORK
EPA Region #: 4

Enforcement Action ID: 04-2005-9105
FRS ID: 110002240398
Program ID: RCRAINFO SCD981759335
Action Name: BURNS CHEVROLET-CADILLAC, INC.
Full Address: 2515 CHERRY RD ROCK HILL SC 29732-2174
State: South Carolina
Facility Name: BURNS CHEVROLET INCORPORATED
Facility Address: 2515 CHERRY RD
ROCK HILL, SC 29732-2174
Enforcement Action Type: CAA 113D1 Action For Penalty
Facility County: YORK
EPA Region #: 4

Program ID: FRS 110002240398
Facility Name: BURNS CHEVROLET INCORPORATED
Address: 2515 CHERRY RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Program ID: RCRAINFO SCD981759335
Facility Name: BURNS CHEVROLET INCORPORATED
Address: 2515 CHERRY RD
Tribal Indicator: N

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BURNS CHEVROLET INCORPORATED (Continued)

1004780174

Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	SC-EFIS SC0000013399
Facility Name:	BURNS CHEVROLET INCORPORATED
Address:	2515 CHERRY RD
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported

FINDS:

Registry ID: 110002240398

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

F46
West
1/8-1/4
0.202 mi.
1064 ft.

2515 CHERRY RD
ROCK HILL, SC 29732

Site 2 of 2 in cluster F

EDR Hist Auto 1015365049
N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: BURNS COLLISION REPAIR & PAINT SHOP
 Year: 2006
 Address: 2515 CHERRY RD

Actual:
642 ft.

Name: BURNS COLLISION REPAIR & PAINT SHOP
 Year: 2007
 Address: 2515 CHERRY RD

Name: BURNS COLLISION REPAIR & PAINT SHOP
 Year: 2008
 Address: 2515 CHERRY RD

Name: BURNS COLLISION REPAIR & PAINT SHOP
 Year: 2009
 Address: 2515 CHERRY RD

47
North
1/8-1/4
0.241 mi.
1275 ft.

QAULTY INN
2625 CHERRY RD.
ROCK HILL, SC

SC CDL S110824710
N/A

Relative:
Lower

CDL:

Lab/Seizure Unit # (Apt, Room Number, Ect.): 129
 Latitude: Not reported
 Longitude: Not reported
 QA/QC Id #: 1206
 Id Num Of GIS Data Point: 1204
 Has Call Been Verified To Be True: Yes
 EFIS Report Number: 0
 Did DHEC Respond To The Site In Any Way?: No
 Direct Threat Of Environment Or Public Health?: No
 Type Of Report-Lab Seizure: Yes
 Report Chemicals/Glassware/Equipment Seizure: No
 Report-Dumpsite Seizure: No
 Official Police Report Or Case Number: 201100010854
 Seizure Date: 4/7/2011
 Law Enforcement Agency In Charge (Generator): YCMDEU
 Originating Agency Identification (Ori) Number: 460000
 Law Enforcement Agency In Charge City: Rock Hill
 Law Enforcement Agency In Charge State: SC
 Leo Case Or File Title: Mitchell Allen Thomas Jr.
 Name Of Person Reporting Incident: Jim Lubben
 Telephone Number Of Caller: 803-325-2514
 Seizure Location - Apartment, Condo: No
 Seizure Location - Hotel Or Motel: Yes
 Seizure Location - Out Building (Shed,etc.): No
 Seizure Location - Vehicle: No
 Seizure Location - Family Dwelling House: No
 Seizure Location - Family Dwelling Mobile Home: No
 Seizure Loc-FamilyDwellingDuplex Or Other NonApartment MultiStructure: No
 Seizure Location - Dumpster: No
 Seizure Location - Storage Locker: No

Actual:
622 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

QAULITY INN (Continued)

S110824710

Seizure Location - Open - No Structure:	No	
Seizure Location - Business:	No	
Seizure Location - Other - Describe:	Not reported	
Neighborhood - Commercial Or Industrial:	Yes	
Neighborhood - Public Land - Check Box:	No	
Neighborhood - Public Land - Name:	Not reported	
Neighborhood - Rural:	No	
Neighborhood - Suburban:	No	
Neighborhood - Other - Check Box:	No	
Neighborhood - Other - Describe:	Not reported	
Neighborhood - Urban:	No	
Lab Status - Operational, Not In Production:	Yes	
Lab Status - Operational, In Production:	No	
Lab Status - Abandoned:	No	
Lab Status - Boxed Or Dismantled:	Yes	
Lab Status - Fire Or Explosion:	No	
Lab Status - Other, Check Box:	No	
Lab Status - Other, Describe:	Not reported	
Lab Mfg Proc-Ephedrin,RedP,HydriodicAcidAnd/OrIodineReduction:	No	
LMP-Pseudoephedrin, RedP,HydriodicAcid And/Or Iodine Reduction:	No	
Lab Mfg Process-P2p / Methylamine:	No	
Lab Mfg Process-Hydrogenation:	No	
LMP-Ephedrin,(Nazi/Birch)-Lithium,Sodium,Potassium,AnhydrousAmmonia:	No	
LMP-Pseudoephedrin,(Nazi/Birch)-Lithium,Sodium,Potassium,An Ammonia:	Yes	
Lab Mfg Process-Hydriodic Acid Method:	No	
Lab Mfg Process-Anhydrous Ammonia Manufacturing:	No	
Lab Mfg Process-Ephedrine Tablet Extraction:	No	
Lab Mfg Process-Pseudoephedrine Tablet Extraction:	No	
Lab Mfg Process-Other, Describe:	No	
Lab Mfg Process-Other, Describe:	Not reported	
Lab Type - Amphetamine:	0	
Lab Type - Hydriodic Acid:	0	
Lab Type - Tablet Extraction:	0	
Lab Type - GHB:	0	
Lab Type - Anhydrous Ammonia:	0	
Lab Type - MDMA:	0	
Lab Type - Methamphetamine:	1	
Lab Type - Methcathinone:	0	
Lab Type - PCP:	0	
Lab Type - Other, Describe:	0	
Lab Type - Other, Describe:	Not reported	
Method Waste Disposal Cook Used.Poured Down Drains,etc.:	Not reported	
Was There A Fire?:	No	
Was There An Explosion?:	No	
Was Anyone Injured?:	No	
Were There Any Deaths?:	No	
Other Than Lab Itself, Was There Evacuation Due To Hazard?:	No	
Was A Chemist On Site? State Or Local.:	No	
Was A Chemist On Site? Dea Or Dea Contractor:	No	
Did The Leo Perform Removal?:	No	
Was A Hazmat Contractor Used?:	Yes	
Name Of Hm Contractor Used.:	Advanced Environmental Options, Inc.	
Remarks:	Not reported	

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

48 **WSW** **1/8-1/4** **0.248 mi.** **1307 ft.** **2433 CHERRY RD** **ROCK HILL, SC 29732** **EDR Hist Cleaner** **1015026577**
N/A

Relative: EDR Historical Cleaners:
Lower Name: FAITH DRY CLEANING
Year: 2003
Actual: Address: 2433 CHERRY RD
635 ft.

G49 **SE** **1/4-1/2** **0.255 mi.** **1349 ft.** **BEST WAY INN** **825 RIVERVIEW RD.** **ROCK HILL, SC** **SC CDL** **S110824701**
Site 1 of 4 in cluster G **N/A**

Relative: CDL:
Lower Lab/Seizure Unit # (Apt, Room Number, Ect.): 124
Latitude: Not reported
Actual: Longitude: Not reported
606 ft. QA/QC Id #: 1175
Id Num Of GIS Data Point: 1173
Has Call Been Verified To Be True: Yes
EFIS Report Number: 0
Did DHEC Respond To The Site In Any Way?: No
Direct Threat Of Environment Or Public Health?: No
Type Of Report-Lab Seizure: Yes
Report Chemicals/Glassware/Equipment Seizure: No
Report-Dumpsite Seizure: No
Official Police Report Or Case Number: 201100006270
Seizure Date: 2/27/2011
Law Enforcement Agency In Charge (Generator): YCMDEU
Originating Agency Identification (Ori) Number: 460000
Law Enforcement Agency In Charge City: Rock Hill
Law Enforcement Agency In Charge State: SC
Leo Case Or File Title: Jason Johnson
Name Of Person Reporting Incident: Jim Lubben
Telephone Number Of Caller: 803-325-2514
Seizure Location - Apartment, Condo: No
Seizure Location - Hotel Or Motel: Yes
Seizure Location - Out Building (Shed,etc.): No
Seizure Location - Vehicle: No
Seizure Location - Family Dwelling House: No
Seizure Location - Family Dwelling Mobile Home: No
Seizure Loc-FamilyDwellingDuplex Or Other NonApartment MultiStructure: No
Seizure Location - Dumpster: No
Seizure Location - Storage Locker: No
Seizure Location - Open - No Structure: No
Seizure Location - Business: No
Seizure Location - Other - Describe: Not reported
Neighborhood - Commercial Or Industrial: Yes
Neighborhood - Public Land - Check Box: No
Neighborhood - Public Land - Name: Not reported
Neighborhood - Rural: No
Neighborhood - Suburban: No
Neighborhood - Other - Check Box: No
Neighborhood - Other - Describe: Not reported
Neighborhood - Urban: No
Lab Status - Operational, Not In Production: No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BEST WAY INN (Continued)

S110824701

Lab Status - Operational, In Production:	Yes	
Lab Status - Abandoned:	No	
Lab Status - Boxed Or Dismantled:	No	
Lab Status - Fire Or Explosion:	No	
Lab Status - Other, Check Box:	No	
Lab Status - Other, Describe:	Not reported	
Lab Mfg Proc-Ephedrin,RedP,HydriodicAcidAnd/OrIodineReduction:	No	No
LMP-Pseudoephedrin, RedP,HydriodicAcid And/Or Iodine Reduction:	No	No
Lab Mfg Process-P2p / Methylamine:	No	No
Lab Mfg Process-Hydrogenation:	No	No
LMP-Ephedrin,(Nazi/Birch)-Lithium,Sodium,Potassium,AnhydrousAmmonia:	No	No
LMP-Pseudoephedrin,(Nazi/Birch)-Lithium,Sodium,Potassium,An Ammonia:	Yes	No
Lab Mfg Process-Hydriodic Acid Method:	No	No
Lab Mfg Process-Anhydrous Ammonia Manufacturing:	No	No
Lab Mfg Process-Ephedrine Tablet Extraction:	No	No
Lab Mfg Process-Pseudoephedrine Tablet Extraction:	No	No
Lab Mfg Process-Other, Describe:	No	No
Lab Mfg Process-Other, Describe:	Not reported	No
Lab Type - Amphetamine:	0	
Lab Type - Hydriodic Acid:	0	
Lab Type - Tablet Extraction:	0	
Lab Type - GHB:	0	
Lab Type - Anhydrous Ammonia:	0	
Lab Type - MDMA:	0	
Lab Type - Methamphetamine:	1	
Lab Type - Methcathinone:	0	
Lab Type - PCP:	0	
Lab Type - Other, Describe:	0	
Lab Type - Other, Describe:	Not reported	
Method Waste Disposal Cook Used.Poured Down Drains,etc.:	Not reported	
Was There A Fire?:	No	
Was There An Explosion?:	No	
Was Anyone Injured?:	No	
Were There Any Deaths?:	No	
Other Than Lab Itself, Was There Evacuation Due To Hazard?:	No	
Was A Chemist On Site? State Or Local.:	No	
Was A Chemist On Site? Dea Or Dea Contractor:	No	
Did The Leo Perform Removal?:	No	
Was A Hazmat Contractor Used?:	Yes	
Name Of Hm Contractor Used.:	Advanced Environmental Options, Inc.	
Remarks:	Not reported	

G50
SE
 1/4-1/2
 0.273 mi.
 1442 ft.

HONDA CARS OF ROCK HILL
808 RIVERVIEW RD
ROCK HILL, SC 29730
Site 2 of 4 in cluster G

SC LUST **U003522328**
SC UST **N/A**

Relative:
Lower

LUST:
 Facility ID: 09291
 Release Number: 1
 Facility Status: Not reported
 Substance: PETRO
 Owner: MARGARET BEASLEY
NFA Date: 03/01/96
 Date Confirmed: 01/17/96
 Report Date: 12/19/95
 Rank: Not reported

Actual:
604 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HONDA CARS OF ROCK HILL (Continued)

U003522328

UST:

Facility ID: 9291
 Owner: BEASLEY
 Owner Contact: TOM BAILEY
 Owner Address: PO BOX 10631
 Owner City,St,Zip: ROCK HILL, SC 29731-0631
 Owner Phone: Not reported
 Contact: TOM BAILEY
 Contact Phone: 803-366-8161

Tank ID: 1
Status: Abandoned
 Capacity: 500
 Product: Waste Oil
 Calcage: 15

Tank ID: 2
Status: Abandoned
 Capacity: 1000
 Product: Motor Oil
 Calcage: Not reported

G51
SE
1/4-1/2
0.273 mi.
1442 ft.

HONDA CARS OF ROCK HILL
808 RIVERVIEW RD
ROCK HILL, SC
Site 3 of 4 in cluster G

SC RGA LUST S114812763
N/A

Relative:
Lower

RGA LUST:

Actual:
604 ft.

2012	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2011	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2010	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2009	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2008	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2007	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2006	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2005	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2004	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2003	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2001	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
2000	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD
1997	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G52
SE
1/4-1/2
0.273 mi.
1442 ft.

HONDA CARS OF ROCK HILL
808 RIVERVIEW RD
ROCK HILL, SC 29730

RCRA NonGen / NLR **1000184377**
FINDS **SCD981759459**

Site 4 of 4 in cluster G

Relative:
Lower

RCRA NonGen / NLR:

Date form received by agency: 06/09/1995

Facility name: ROCK HILL AUTOMOTIVE DBA HONDA CARS OFRH

Facility address: 808 RIVERVIEW RD
ROCK HILL, SC 29730

EPA ID: SCD981759459

Mailing address: RIVERVIEW RD
ROCK HILL, SC 29730

Contact: PD HELMS

Contact address: 808 RIVERVIEW RD
ROCK HILL, SC 29730

Contact country: US

Contact telephone: (803) 366-8161

Contact email: Not reported

EPA Region: 04

Land type: Facility is not located on Indian land. Additional information is not known.

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: JRH INC & WOM INC
Owner/operator address: OWNERSTREET
OWNERCITY, WY 99999

Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, WY 99999

Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HONDA CARS OF ROCK HILL (Continued)

1000184377

Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 04/07/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110002189499

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

H53
NNW
1/4-1/2
0.293 mi.
1545 ft.

ASSOCIATED MECHANICAL ERECTORS CO INC
1142 RIVERVIEW RD
ROCK HILL, SC 29732
Site 1 of 4 in cluster H

SC LUST U003970389
SC UST N/A

Relative:
Lower

LUST:

Facility ID: 09257
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETROL
Owner: ASSOCIATED MECHANICAL ERECTORS AME INC
NFA Date: 08/01/13
Date Confirmed: 06/24/08
Report Date: 05/15/08
Rank: 3BF

Actual:
627 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASSOCIATED MECHANICAL ERECTORS CO INC (Continued)

U003970389

LUST DETAIL:

Release Date: 05/15/2008
Cleanup Complete Date: Not reported
RP Name: ASSOCIATED MECHANICAL ERECTORS AME INC
RP Address: 2467 COLTHARP RD
RP City: FORT MILL
RP State: SC
RP Zip: 29715
SCRBCA Class Code: CLASS3BA
Depth to Ground Water: 4.349
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

UST:

Facility ID: 9311
Owner: CULP BROTHERS INC
Owner Contact: O CULP
Owner Address: 212 S WHITE ST
Owner City,St,Zip: FORT MILL, SC 29715
Owner Phone: 803-547-1040
Contact: O CULP
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 550
Product: Gasoline
Calcage: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 10000
Product: Diesel
Calcage: 5

Tank ID: 2
Status: Abandoned
Capacity: 11000
Product: Gasoline
Calcage: 5

Tank ID: 2
Status: Abandoned
Capacity: 280
Product: Diesel
Calcage: Not reported

Tank ID: 3
Status: Abandoned
Capacity: 1000

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ASSOCIATED MECHANICAL ERECTORS CO INC (Continued)

U003970389

Product: Gasoline
 Calcage: Not reported

Tank ID: 4
Status: Abandoned
 Capacity: 550
 Product: Gasoline
 Calcage: Not reported

**H54
 NNW
 1/4-1/2
 0.293 mi.
 1545 ft.**

**ASSOCIATED MECHANICAL ERECTORS CO INC
 1142 RIVERVIEW RD
 ROCK HILL, SC
 Site 2 of 4 in cluster H**

SC RGA LUST

**S114804113
 N/A**

**Relative:
 Lower**

RGA LUST:

2012 ASSOCIATED MECHANICAL ERECTORS CO INC 1142 RIVERVIEW RD

**Actual:
 627 ft.**

2011 ASSOCIATED MECHANICAL ERECTORS CO INC 1142 RIVERVIEW RD

2010 ASSOCIATED MECHANICAL ERECTORS CO INC 1142 RIVERVIEW RD

2009 ASSOCIATED MECHANICAL ERECTORS CO INC 1142 RIVERVIEW RD

2008 ASSOCIATED MECHANICAL ERECTORS CO INC 1142 RIVERVIEW RD

**H55
 NNW
 1/4-1/2
 0.293 mi.
 1545 ft.**

**ASSOCIATED MECHANICAL ERECTORS CO INC
 1142 RIVERVIEW RD
 ROCK HILL, SC 29732
 Site 3 of 4 in cluster H**

FINDS

**1007247559
 N/A**

**Relative:
 Lower**

FINDS:

Registry ID: 110017194686

**Actual:
 627 ft.**

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

H56
NNW **1145 RIVERVIEW RD**
1/4-1/2 **ROCK HILL, SC 29732**
0.294 mi.
1554 ft. **Site 4 of 4 in cluster H**

EDR Hist Cleaner **1014978080**
N/A

Relative: EDR Historical Cleaners:
Lower Name: SIGNATURE PROFESSIONAL CLEANING
 Year: 2011
Actual: Address: 1145 RIVERVIEW RD
628 ft.

 Name: SIGNATURE PROFESSIONAL CLEANING
 Year: 2012
 Address: 1145 RIVERVIEW RD

I57 **COUNTRY STORE**
SW **1143 N ANDERSON RD**
1/4-1/2 **ROCK HILL, SC**
0.309 mi.
1629 ft. **Site 1 of 9 in cluster I**

SC RGA LUST **S114807752**
N/A

Relative: RGA LUST:
Higher 2012 COUNTRY STORE 1143 N ANDERSON RD

Actual: 2011 COUNTRY STORE 1143 N ANDERSON RD
642 ft. 2010 COUNTRY STORE 1143 N ANDERSON RD
 2009 COUNTRY STORE 1143 N ANDERSON RD
 2008 COUNTRY STORE 1143 N ANDERSON RD
 2007 COUNTRY STORE 1143 N ANDERSON RD
 2006 COUNTRY STORE 1143 N ANDERSON RD
 2005 COUNTRY STORE 1143 N ANDERSON RD
 2004 COUNTRY STORE 1143 N ANDERSON RD
 2003 COUNTRY STORE 1143 N ANDERSON RD
 2002 COUNTRY STORE 1143 N ANDERSON RD
 2000 COUNTRY STORE 1143 N ANDERSON RD

I58 **COUNTRY STORE**
SW **1143 N ANDERSON RD**
1/4-1/2 **ROCK HILL, SC 29730**
0.309 mi.
1629 ft. **Site 2 of 9 in cluster I**

FINDS **1008009654**
N/A

Relative: FINDS:
Higher

Actual: Registry ID: 110002259074
642 ft. Environmental Interest/Information System
 SC-EFIS (South Carolina - Environmental Facility Information System)

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

COUNTRY STORE (Continued)

1008009654

integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

I59
SW
1/4-1/2
0.309 mi.
1629 ft.

COUNTRY STORE
1143 N ANDERSON RD
ROCK HILL, SC 29730
Site 3 of 9 in cluster I

SC GWCI **U003975627**
N/A

Relative:
Higher

SC GWIC:	
Bureau:	BLWM
EAP ID:	Not reported
Solid Waste Permit #:	Not reported
Bureau of Land & Waste Management File #:	Not reported
Permit Number:	13935
WPC Permit:	Not reported
Program:	DUST
Contamination:	PETRO
Petroleum Products:	True
Volatile Organic Compounds:	False
Metals:	False
Nitrates or Potential to Nitrate:	False
Pesticides & Herbicides:	False
Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	No
Monitoring:	No
Remediation:	Yes
Surface Impact:	No
Drinking Water Well Impact:	No

Actual:
642 ft.

Remarks: Site ID # 13935. RBCA Classification 2BB3. Monitored Natural Attenuation.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

I60
SW
1/4-1/2
0.309 mi.
1629 ft.

THE COUNTRY STORE
1143 N ANDERSON RD
ROCK HILL, SC

SC RGA LUST

S114822949
N/A

Site 4 of 9 in cluster I

Relative:
Higher

RGA LUST:

1999 THE COUNTRY STORE 1143 N ANDERSON RD

Actual:
642 ft.

1998 THE COUNTRY STORE 1143 N ANDERSON RD

1997 THE COUNTRY STORE 1143 N ANDERSON RD

1996 THE COUNTRY STORE 1143 N ANDERSON RD

I61
SW
1/4-1/2
0.309 mi.
1629 ft.

COUNTRY STORE
1143 N ANDERSON RD
ROCK HILL, SC 29730

SC LUST
SC UST

U003629108
N/A

Site 5 of 9 in cluster I

Relative:
Higher

LUST:

Facility ID: 09394
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETRO
Owner: GASTONIA UNITED OIL CO INC
NFA Date: 02/11/10
Date Confirmed: 03/23/92
Report Date: 12/31/91
Rank: 2BB

Actual:
642 ft.

LUST DETAIL:

Release Date: 12/31/1991
Cleanup Complete Date: Not reported
RP Name: GASTONIA UNITED OIL CO INC
RP Address: PO BOX 68
RP City: GASTONIA
RP State: SC
RP Zip: 28053-0068
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 8.699
Ground Water Flow Direction: W
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

Facility ID: 13935
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETRO
Owner: BILL SETTLEMYER
NFA Date: 02/11/10
Date Confirmed: 03/23/92
Report Date: 12/31/91
Rank: 2BB

LUST DETAIL:

Release Date: 12/31/1991
Cleanup Complete Date: Not reported
RP Name: SETTLEMYER

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTRY STORE (Continued)

U003629108

RP Address: PO BOX 10963
RP City: ROCK HILL
RP State: SC
RP Zip: 29731
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 8.699
Ground Water Flow Direction: W
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

UST:

Facility ID: 13935
Owner: SETTLEMYER
Owner Contact: BILL SETTLEMYER
Owner Address: PO BOX 10963
Owner City,St,Zip: ROCK HILL, SC 29731
Owner Phone: 803-329-5114
Contact: BILL SETTLEMYER
Contact Phone: 803-366-7502

Tank ID: 1
Status: Abandoned
Capacity: 4000
Product: Gasoline
Calclage: 15

Tank ID: 1
Status: Abandoned
Capacity: 8000
Product: Gasoline
Calclage: 15

Tank ID: 2
Status: Abandoned
Capacity: 4000
Product: Gasoline
Calclage: 15

I62
SW
1/4-1/2
0.310 mi.
1635 ft.

1117 ANDERSON RD N
ROCK HILL, SC 29730
Site 6 of 9 in cluster I

EDR Hist Auto 1015159360
N/A

Relative:
Higher
Actual:
641 ft.

EDR Historical Auto Stations:
Name: MIDAS AUTO SVC EXPERTS
Year: 2010
Address: 1117 ANDERSON RD N
Name: MIDAS AUTO SERVICE EXPERTS
Year: 2011
Address: 1117 ANDERSON RD N

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

63
SE
1/4-1/2
0.318 mi.
1679 ft.

785 RIVERVIEW RD
ROCK HILL, SC 29730

EDR Hist Auto 1015633197
N/A

Relative:
Lower
Actual:
610 ft.

EDR Historical Auto Stations:

Name: PALMETTO AUTO PAINT & BODY
Year: 2010
Address: 785 RIVERVIEW RD

Name: PALMETTO AUTO PAINTING & BODY WORKS
Year: 2011
Address: 785 RIVERVIEW RD

Name: BEST WAY AUTOMOTIVE SERVICE & SALES
Year: 2012
Address: 785 RIVERVIEW RD

64
NE
1/4-1/2
0.326 mi.
1720 ft.

US 21 SUNOCO SERVICE STATION
US 21 & 161
ROCK HILL, SC 29730

RCRA NonGen / NLR 1000141409
SCD991279191

Relative:
Lower
Actual:
627 ft.

RCRA NonGen / NLR:

Date form received by agency: 11/02/1998
Facility name: US 21 SUNOCO SERVICE STATION
Facility address: US 21 & 161
ROCK HILL, SC 29730
EPA ID: SCD991279191
Contact: SAM BRATTON
Contact address: US 21 & 161
ROCK HILL, SC 29730
Contact country: US
Contact telephone: (803) 327-7141
Contact email: Not reported
EPA Region: 04
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: Not reported
Owner/operator address: OWNERSTREET
OWNERCITY, WY 99999
Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, WY 99999
Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private
Owner/Operator Type: Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

US 21 SUNOCO SERVICE STATION (Continued)

1000141409

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

**165
SW
1/4-1/2
0.340 mi.
1793 ft.**

**A QUALITY SMILE FOR YOU PC
1125 ANDERSON RD STE 104
ROCK HILL, SC 29730**

**FINDS 1007832252
N/A**

Site 7 of 9 in cluster I

**Relative:
Lower**

FINDS:

Registry ID: 110019962414

**Actual:
637 ft.**

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
	Site		

I66 SW 1/4-1/2 0.350 mi. 1849 ft.	1117 N ANDERSON RD ROCKHILL, SC 29730 Site 8 of 9 in cluster I	ERNS	2008882022 N/A
--	---	-------------	---------------------------------

Relative: [Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Lower

Actual: 632 ft. I67 SW 1/4-1/2 0.350 mi. 1849 ft.	1117 N ANDERSON RD ROCK HILL, SC 29730 Site 9 of 9 in cluster I	EDR Hist Auto	1015159458 N/A
--	--	----------------------	---------------------------------

Relative: EDR Historical Auto Stations:

Lower	Name:	MIDAS MUFFLER
	Year:	2002
Actual:	Address:	1117 N ANDERSON RD
632 ft.	Name:	MIDAS AUTO SERVICE EXPERTS
	Year:	2003
	Address:	1117 N ANDERSON RD

68 WSW 1/4-1/2 0.361 mi. 1905 ft.	2374 CHERRY RD ROCK HILL, SC 29732	EDR Hist Auto	1015351548 N/A
--	---	----------------------	---------------------------------

Relative: EDR Historical Auto Stations:

Lower	Name:	AUTOMOTIVE SERVICE RESOURCES LLC
	Year:	2005
Actual:	Address:	2374 CHERRY RD
626 ft.	Name:	AUTOMOTIVE SERVICE RESOURCES LLC
	Year:	2006
	Address:	2374 CHERRY RD
	Name:	AUTOMOTIVE SERVICE RESOURCES LLC
	Year:	2007
	Address:	2374 CHERRY RD
	Name:	AUTOMOTIVE SERVICE RESOURCES LLC
	Year:	2008
	Address:	2374 CHERRY RD

69 SW 1/4-1/2 0.376 mi. 1985 ft.	1117 ANDERSON RD ROCK HILL, SC 29730	EDR Hist Auto	1015159361 N/A
---	---	----------------------	---------------------------------

Relative: EDR Historical Auto Stations:

Lower	Name:	MIDAS AUTO SYSTEMS EXPERTS
	Year:	1999
Actual:	Address:	1117 ANDERSON RD
627 ft.		

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

1015159361

Name: MIDAS AUTO SYSTEMS EXPERTS
 Year: 2000
 Address: 1117 ANDERSON RD

Name: MIDAS AUTO SYSTEMS EXPERTS
 Year: 2001
 Address: 1117 ANDERSON RD

J70
NE
1/4-1/2
0.377 mi.
1991 ft.

QUICK C MART 103
2696 CHERRY RD
ROCK HILL, SC
Site 1 of 9 in cluster J

SC RGA LUST

S114818637
N/A

Relative:
Lower

RGA LUST:

2012	QUICK C MART 103	2696 CHERRY RD
2011	QUICK C MART 103	2696 CHERRY RD
2010	QUICK C MART 103	2696 CHERRY RD
2009	QUICK C MART 103	2696 CHERRY RD
2008	QUICK C MART 103	2696 CHERRY RD
2007	QUICK C MART 103	2696 CHERRY RD
2006	QUICK C MART 103	2696 CHERRY RD
2005	QUICK C MART 103	2696 CHERRY RD
2004	QUICK C MART 103	2696 CHERRY RD
2003	QUICK C MART 103	2696 CHERRY RD
2002	QUICK C MART 103	2696 CHERRY RD
2000	QUICK C MART 103	2696 CHERRY RD

Actual:
625 ft.

J71
NE
1/4-1/2
0.377 mi.
1991 ft.

QUICK C MART #103
2696 CHERRY RD
ROCK HILL, SC
Site 2 of 9 in cluster J

SC RGA LUST

S114818636
N/A

Relative:
Lower

RGA LUST:

1999	QUICK C MART #103	2696 CHERRY RD
1998	QUICK C MART #103	2696 CHERRY RD
1997	QUICK C MART #103	2696 CHERRY RD
1996	QUICK C MART #103	2696 CHERRY RD

Actual:
625 ft.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

K72
SE
1/4-1/2
0.401 mi.
2115 ft.

FREDRICKSON MOTOR EXPRESS
800 CORPORATE BLVD
ROCK HILL, SC 29730

FINDS **1007226216**
N/A

Site 1 of 3 in cluster K

Relative:
Lower

FINDS:

Registry ID: 110016973499

Actual:
617 ft.

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

K73
SE
1/4-1/2
0.401 mi.
2115 ft.

FREDRICKSON MOTOR EXPRESS
800 CORPORATE BLVD
ROCK HILL, SC

SC RGA LUST **S114810845**
N/A

Site 2 of 3 in cluster K

Relative:
Lower

RGA LUST:

- 2012 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2011 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2010 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2009 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2008 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2007 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2006 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2005 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2004 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2003 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2001 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD
- 2000 FREDRICKSON MOTOR EXPRESS 800 CORPORATE BLVD

Actual:
617 ft.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

K74 **FREDRICKSON MOTOR EXPRESS**
SE **800 CORPORATE BLVD**
1/4-1/2 **ROCK HILL, SC 29730**
0.401 mi.
2115 ft. **Site 3 of 3 in cluster K**

SC LUST **U003521552**
SC UST **N/A**

Relative:
Lower

LUST:
Facility ID: 09259
Release Number: 1
Facility Status: Not reported
Substance: PETRO
Owner: FREDRICKSON MOTOR EXPRESS
NFA Date: **03/17/99**
Date Confirmed: 01/04/99
Report Date: 03/30/98
Rank: Not reported

Actual:
617 ft.

UST:
Facility ID: 9259
Owner: FREDRICKSON MOTOR EXPRESS
Owner Contact: RONNIE SAVERANCE
Owner Address: 800 CORPORATE BLVD
Owner City,St,Zip: ROCK HILL, SC 29730
Owner Phone: 704-376-2471
Contact: RONNIE SAVERANCE
Contact Phone: 704-376-2471

Tank ID: 1
Status: **Abandoned**
Capacity: 10000
Product: Diesel
Calcage: 5

75 **737 RIVERVIEW RD**
SSE **ROCK HILL, SC 29730**
1/4-1/2
0.402 mi.
2120 ft.

EDR Hist Auto **1015621080**
N/A

Relative:
Lower

EDR Historical Auto Stations:
Name: B & B TIRE & WHEEL INC
Year: 2002
Address: 737 RIVERVIEW RD

Name: B & B TIRE & WHEEL INC
Year: 2011
Address: 737 RIVERVIEW RD

Name: B & B TIRE & WHEEL INC
Year: 2012
Address: 737 RIVERVIEW RD

Actual:
630 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J76
NE
1/4-1/2
0.402 mi.
2121 ft.

2688 CHERRY RD
ROCK HILL, SC 29730

Site 3 of 9 in cluster J

EDR Hist Auto 1015377468
N/A

Relative:
Lower

EDR Historical Auto Stations:

Actual:
629 ft.

Name: AUTO LUBE SERVICE CENTER 2
Year: 1999
Address: 2688 CHERRY RD

Name: AUTO LUBE SERVICE CENTER 2
Year: 2000
Address: 2688 CHERRY RD

Name: AUTO LUBE SERVICE CENTER 2
Year: 2001
Address: 2688 CHERRY RD

Name: KLOCS XPRESS LUBE INC
Year: 2004
Address: 2688 CHERRY RD

Name: KLOCS XPRESS LUBE INC
Year: 2005
Address: 2688 CHERRY RD

Name: KLOCS XPRESS LUBE INC
Year: 2006
Address: 2688 CHERRY RD

Name: XPRESS LUBE INC
Year: 2007
Address: 2688 CHERRY RD

Name: CLOCKS EXPRESS LUBE
Year: 2008
Address: 2688 CHERRY RD

Name: KLOCS XPRESS LUBE
Year: 2009
Address: 2688 CHERRY RD

Name: KLOCS XPRESS LUBE
Year: 2010
Address: 2688 CHERRY RD

Name: JIFFY LUBE
Year: 2012
Address: 2688 CHERRY RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J77
NE
1/4-1/2
0.411 mi.
2168 ft.

THE QUICK C FOOD MART/EXXON
2696 CHERRY RD
ROCK HILL, SC

Site 4 of 9 in cluster J

SC SPILLS S107997607
N/A

Relative:
Lower

SPILL:

Actual:
629 ft.

Incident ID number: 6202168
Incident Name: 200304451
District Logged In: 43
Date DHEC notified: 11/10/2003
DHEC notification: 16:20:00
Observed date: 11/10/2003
observed_t: 1705
Spill Date: Not reported
Spill Time: Not reported
Duration: 0.5
Created Date: 11/13/2003
Updated Date: 11/17/2003
District Name: Lancaster EQC Office
PRP Last Name: Not reported
PRP First Name: Not reported
Incident substance type: Oil
Received by Name: TOMASZ CHMURA
Revised by Name: ADAM ALIM
Transportation: Not reported
Surface water affected: Not reported
Lead Investigator Name: Not reported
CCBEP: No
Water body: Not reported
Caller Last Name: Not reported
Caller name: Not reported
Caller phone number: Not reported
Caller extension: Not reported
Caller organization: Not reported
Substance: DIESEL
Quantity: 5
Units: Gallons
Recovered: Not reported
Recovered Units: Not reported
Comments: Not reported

J78
NE
1/4-1/2
0.411 mi.
2168 ft.

QUICK C MART 103
2696 CHERRY RD
ROCK HILL, SC 29730

Site 5 of 9 in cluster J

FINDS 1007246013
N/A

Relative:
Lower

FINDS:

Actual:
629 ft.

Registry ID: 110017178837
Environmental Interest/Information System
SC-EFIS (South Carolina - Environmental Facility Information System)
integrates information on environmental facilities, permits,
violations, enforcement actions, and compliance activities needed to
support regulatory requirements and target environmental quality
improvements for the water, air, solid waste, and hazardous waste
program areas. The EFIS was developed by the state of South Carolina

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUICK C MART 103 (Continued)

1007246013

and Maine joined their system in 2004.

J79
NE
1/4-1/2
0.411 mi.
2168 ft.

QUICK C MART 103
2696 CHERRY RD
ROCK HILL, SC 29730
Site 6 of 9 in cluster J

SC LUST
SC UST
SC Financial Assurance
SC GWCI

U004019864
N/A

Relative:
Lower

LUST:

Facility ID: 09970
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETRO
Owner: WILKERSON FUEL CO INC
NFA Date: 10/21/13
Date Confirmed: 03/23/92
Report Date: 12/31/91
Rank: 3BF

Actual:
629 ft.

LUST DETAIL:

Release Date: 12/31/1991
Cleanup Complete Date: Not reported
RP Name: WILKERSON FUEL CO INC
RP Address: 534 PENDLETON ST
RP City: ROCK HILL
RP State: SC
RP Zip: 29730
SCRBCA Class Code: CLASS3BF
Depth to Ground Water: 10.36
Ground Water Flow Direction: RAD
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

Facility ID: 09970
Release Number: 2
Facility Status: Not reported
Substance: Not reported
Owner: WILKERSON FUEL CO INC
NFA Date: 01/13/10
Date Confirmed: 01/13/10
Report Date: 01/08/10
Rank: Not reported

LUST DETAIL:

Release Date: 12/31/1991
Cleanup Complete Date: Not reported
RP Name: WILKERSON FUEL CO INC
RP Address: 534 PENDLETON ST
RP City: ROCK HILL
RP State: SC
RP Zip: 29730
SCRBCA Class Code: CLASS3BF
Depth to Ground Water: 10.36
Ground Water Flow Direction: RAD
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUICK C MART 103 (Continued)

U004019864

UST:

Facility ID: 9970
Owner: WILKERSON FUEL CO INC
Owner Contact: THOMAS GWYNN
Owner Address: 534 PENDLETON ST
Owner City,St,Zip: ROCK HILL, SC 29730
Owner Phone: 803-324-4080
Contact: THOMAS GWYNN
Contact Phone: 803-366-7994

Tank ID: 1
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: Not reported

Tank ID: 2
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: Not reported

Tank ID: 3
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: Not reported

Tank ID: 4
Status: Abandoned
Capacity: 10000
Product: Diesel
Calcage: Not reported

Tank ID: 5
Status: Abandoned
Capacity: 2000
Product: Kerosene
Calcage: Not reported

Tank ID: 6
Status: Abandoned
Capacity: 2000
Product: Kerosene
Calcage: Not reported

Tank ID: 7
Status: Currently in use
Capacity: 20000
Product: Multiple Petroleum Products
Calcage: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUICK C MART 103 (Continued)

U004019864

Tank ID: 8
Status: Currently in use
Capacity: 6000
Product: Diesel
Calclage: 0

SC Financial Assurance 3:

Owner Name: WILKERSON FUEL CO INC
Owner Address: PO BOX 2835
Owner City: ROCK HILL
Owner State: SC
Owner Zip: 29732-4835
Mechanism: Self Insurance 280.101
Date Expired: 11/01/15
Bill: 2
RNU: 0
Rel Number: N

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09970
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: No
Monitoring: Yes
Remediation: No
Surface Impact: No
Drinking Water Well Impact: No
Remarks: Site ID # 09970. RBCA Classification 3BF5. Inactive.

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

J80 NE 1/4-1/2 0.423 mi. 2232 ft.	RANDOLPH YARNS-CLOSED 1175 CELRIVER RD ROCK HILL, SC 29730 Site 7 of 9 in cluster J	FINDS	1012094269 N/A
--	--	--------------	---------------------------------

Relative: FINDS:
Lower

Registry ID: 110038802374

Actual: Environmental Interest/Information System
630 ft. AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

AIR EMISSIONS CLASSIFICATION UNKNOWN

81 North 1/4-1/2 0.423 mi. 2234 ft.	1279 CELANESE RD ROCK HILL, SC 29732	EDR Hist Auto	1015197234 N/A
--	---	----------------------	---------------------------------

Relative: EDR Historical Auto Stations:
Higher

Name: TUFFY AUTO SVC CTR
Year: 2010
Address: 1279 CELANESE RD

Name: TUFFY AUTO SERVICE CENTERS
Year: 2011
Address: 1279 CELANESE RD

Name: TUFFY AUTO SERVICE CENTERS
Year: 2012
Address: 1279 CELANESE RD

J82 NE 1/4-1/2 0.428 mi. 2259 ft.	CREEKSIDE OF YORK CO INC/CREEK 2750 HWY 21 S ROCK HILL, SC 29730 Site 8 of 9 in cluster J	FINDS	1010731911 N/A
--	--	--------------	---------------------------------

Relative: FINDS:
Lower

Registry ID: 110033634912

Actual: Environmental Interest/Information System
630 ft. US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CREEKSIDE OF YORK CO INC/CREEK (Continued)

1010731911

issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

J83
NE
 1/4-1/2
 0.429 mi.
 2263 ft.

ART PRINTING CO INC
CELANESE BYPASS
ROCK HILL, SC 29730
 Site 9 of 9 in cluster J

FINDS 1016245354
N/A

Relative:
Lower

FINDS:

Registry ID: 110007904170

Actual:
624 ft.

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

L84
NNW
 1/4-1/2
 0.454 mi.
 2396 ft.

1195 RIVERVIEW ROAD
ROCK HILL, SC 29732
 Site 1 of 10 in cluster L

ERNS 2000538720
N/A

Relative:
Lower

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Actual:
616 ft.
L85
NNW
 1/4-1/2
 0.454 mi.
 2396 ft.

HARRELSON TOYOTA
1195 RIVERVIEW RD
ROCK HILL, SC
 Site 2 of 10 in cluster L

SC SPILLS S104841604
N/A

Relative:
Lower

SPILL:

Incident ID number: 570281
 Incident Name: 200002346
 District Logged In: 46
 Date DHEC notified: 08/15/2000

Actual:
616 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HARRELSON TOYOTA (Continued)

S104841604

DHEC notification: 1210
 Observed date: 08/16/2000
 observed_t: 1300
 Spill Date: 08/15/2000
 Spill Time: Not reported
 Duration: Not reported
 Created Date: 08/15/2000
 Updated Date: 12/14/2000
 District Name: Lancaster EQC Office
 PRP Last Name: HARRELSON TOYOTA
 PRP First Name: Not reported
 Incident substance type: Oil
 Received by Name: ROBERT DUNCAN
 Received by Name: JOE FARIS
 Transportation: Not reported
 Surface water affected: Not reported
 Lead Investigator Name: Not reported
 CCBEF: No
 Water body: Not reported
 Caller Last Name: Not reported
 Caller name: Not reported
 Caller phone number: Not reported
 Caller extension: Not reported
 Caller organization: Not reported
 Substance: WASTE PETROLEUM OIL, [COMBUSTIBLE LIQUID]
 Quantity: 30
 Units: Gallons
 Recovered: Not reported
 Recovered Units: Not reported
 Comments: Not reported

M86
WSW
1/4-1/2
0.458 mi.
2420 ft.

E Z SERVE #8615
2351 N CHERRY RD
ROCK HILL, SC

SC RGA LUST S114808798
N/A

Site 1 of 11 in cluster M

Relative:
Lower

RGA LUST: 1999 E Z SERVE #8615 2351 N CHERRY RD

Actual:
622 ft.

M87
WSW
1/4-1/2
0.458 mi.
2420 ft.

E Z SERVE 8615
2351 N CHERRY RD
ROCK HILL, SC

SC RGA LUST S114808806
N/A

Site 2 of 11 in cluster M

Relative:
Lower

RGA LUST: 2012 E Z SERVE 8615 2351 N CHERRY RD

Actual:
622 ft.

2011 E Z SERVE 8615 2351 N CHERRY RD
 2010 E Z SERVE 8615 2351 N CHERRY RD
 2009 E Z SERVE 8615 2351 N CHERRY RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

E Z SERVE 8615 (Continued)

S114808806

2008	E Z SERVE 8615	2351 N CHERRY RD
2007	E Z SERVE 8615	2351 N CHERRY RD
2006	E Z SERVE 8615	2351 N CHERRY RD
2005	E Z SERVE 8615	2351 N CHERRY RD
2004	E Z SERVE 8615	2351 N CHERRY RD
2003	E Z SERVE 8615	2351 N CHERRY RD
2002	E Z SERVE 8615	2351 N CHERRY RD
2000	E Z SERVE 8615	2351 N CHERRY RD

M88
WSW
 1/4-1/2
 0.458 mi.
 2420 ft.

TENNECO 61538
2351 N CHERRY RD
ROCK HILL, SC
 Site 3 of 11 in cluster M

SC RGA LUST

S114822857
 N/A

Relative:
 Lower

RGA LUST:
 1992 TENNECO 61538 2351 N CHERRY RD

Actual:
 622 ft.

M89
WSW
 1/4-1/2
 0.458 mi.
 2420 ft.

E Z SERVE 8615
2351 N CHERRY RD
ROCK HILL, SC 29732
 Site 4 of 11 in cluster M

FINDS

1007247554
 N/A

Relative:
 Lower

FINDS:
 Registry ID: 110017194622

Actual:
 622 ft.

Environmental Interest/Information System
 SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

M90
WSW
1/4-1/2
0.458 mi.
2420 ft.

TOC RETAIL #615-38
2351 N CHERRY RD
ROCK HILL, SC
Site 5 of 11 in cluster M

SC RGA LUST **S114823243**
N/A

Relative:
Lower

RGA LUST:
1993 TOC RETAIL #615-38 2351 N CHERRY RD

Actual:
622 ft.

M91
WSW
1/4-1/2
0.458 mi.
2420 ft.

E-Z SERVE #8615
2351 N CHERRY RD
ROCK HILL, SC
Site 6 of 11 in cluster M

SC RGA LUST **S114808908**
N/A

Relative:
Lower

RGA LUST:
1998 E-Z SERVE #8615 2351 N CHERRY RD

Actual:
622 ft.

1997 E-Z SERVE #8615 2351 N CHERRY RD
1996 E-Z SERVE #8615 2351 N CHERRY RD

M92
WSW
1/4-1/2
0.458 mi.
2420 ft.

E Z SERVE 8615
2351 N CHERRY RD
ROCK HILL, SC 29732
Site 7 of 11 in cluster M

SC LUST **U003520967**
SC UST **N/A**
SC GWCI

Relative:
Lower

LUST:
Facility ID: 09268
Release Number: 1
Facility Status: approved
Substance: PETRO
Owner: E Z SERVE CONVENIENCE STORES INC
NFA Date: 03/24/11
Date Confirmed: 12/04/92
Report Date: 12/04/92
Rank: 2BB

Actual:
622 ft.

LUST DETAIL:
Release Date: 12/04/1992
Cleanup Complete Date: Not reported
RP Name: SWIFTY SERVE CONVENIENCE STORES INC
RP Address: 225 HILLSBOROUGH ST
RP City: RALEIGH
RP State: NC
RP Zip: 27603
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 13
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

UST:

Facility ID: 9268
Owner: E Z SERVE CONVENIENCE STORES INC
Owner Contact: LINA HITCHCOCK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E Z SERVE 8615 (Continued)

U003520967

Owner Address: 300 W MORGAN ST STE 1500
Owner City,St,Zip: DURHAM, NC 27701-2190
Owner Phone: 919-384-9888
Contact: LINA HITCHCOCK
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 12000
Product: Gasoline
Calcage: 25

Tank ID: 2
Status: Abandoned
Capacity: 12000
Product: Gasoline
Calcage: 25

Tank ID: 3
Status: Abandoned
Capacity: 12000
Product: Gasoline
Calcage: 25

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09268
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

E Z SERVE 8615 (Continued)

U003520967

Assessment: Yes
 Monitoring: No
 Remediation: No
 Surface Impact: No
 Drinking Water Well Impact: No
 Remarks: Site ID # 09268. RBCA Classification 2BB1. Conducting investigation/Risk Assessment.

N93	CAMMY EXPRESS	SC RGA LUST	S114805843
NNW	1397 CELANESE RD		N/A
1/4-1/2	ROCK HILL, SC		
0.461 mi.			
2436 ft.	Site 1 of 3 in cluster N		

Relative:	RGA LUST:						
Lower		2012	CAMMY EXPRESS	1397 CELANESE RD			
		2011	CAMMY EXPRESS	1397 CELANESE RD			
		2010	CAMMY EXPRESS	1397 CELANESE RD			
		2009	CAMMY EXPRESS	1397 CELANESE RD			
		2008	CAMMY EXPRESS	1397 CELANESE RD			
		2007	CAMMY EXPRESS	1397 CELANESE RD			

N94	EXPRESS #128	SC RGA LUST	S114809370
NNW	1397 CELANESE RD		N/A
1/4-1/2	ROCK HILL, SC		
0.461 mi.			
2436 ft.	Site 2 of 3 in cluster N		

Relative:	RGA LUST:						
Lower		1999	EXPRESS #128	1397 CELANESE RD			

N95	EXPRESS 128	SC RGA LUST	S114809382
NNW	1397 CELANESE RD		N/A
1/4-1/2	ROCK HILL, SC		
0.461 mi.			
2436 ft.	Site 3 of 3 in cluster N		

Relative:	RGA LUST:						
Lower		2006	EXPRESS 128	1397 CELANESE RD			
		2005	EXPRESS 128	1397 CELANESE RD			
		2004	EXPRESS 128	1397 CELANESE RD			
		2003	EXPRESS 128	1397 CELANESE RD			
		2002	EXPRESS 128	1397 CELANESE RD			
		2000	EXPRESS 128	1397 CELANESE RD			

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
--	--	-------------	--------------------------------

L96 NNW 1/4-1/2 0.464 mi. 2448 ft.	RIVERVIEW MEDICAL CLINIC 1393 CELANESE RD ROCK HILL, SC 29730 Site 3 of 10 in cluster L	FINDS	1007233853 N/A
---	--	--------------	---------------------------------

Relative: Lower Actual: 620 ft.	FINDS: Registry ID: 110017052213 Environmental Interest/Information System SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.
--	--

M97 WSW 1/4-1/2 0.465 mi. 2453 ft.	KMART 7043 2302 CHERRY RD ROCK HILL, SC 29732 Site 8 of 11 in cluster M	SC UST	U003522985 N/A
---	--	---------------	---------------------------------

Relative: Lower Actual: 621 ft.	UST: Facility ID: 9283 Owner: KMART 7043 Owner Contact: D BROOKS Owner Address: 2302 CHERRY RD Owner City,St,Zip: ROCK HILL, SC 29732-2165 Owner Phone: 847-286-0037 Contact: D BROOKS Contact Phone: 847-286-0037 Tank ID: 1 Status: Abandoned Capacity: 1000 Product: Waste Oil Calcage: Not reported
--	--

M98 WSW 1/4-1/2 0.465 mi. 2453 ft.	KMART 7043 2302 CHERRY RD ROCK HILL, SC 29732 Site 9 of 11 in cluster M	RCRA-LQG	1012188346 SCR000771063
---	--	-----------------	--

Relative: Lower Actual: 621 ft.	RCRA-LQG: Date form received by agency: 07/30/2014 Facility name: KMART 7043 Facility address: 2302 CHERRY RD ROCK HILL, SC 29732 EPA ID: SCR000771063 Mailing address: BEVERLY RD B5 348A HOFFMAN ESTATES, IL 60179 Contact: ROBYN WEST Contact address: BEVERLY RD B5 348A
--	--

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 7043 (Continued)

1012188346

HOFFMAN ESTATES, IL 60179
Contact country: US
Contact telephone: (847) 286-0037
Contact email: ROBYN.WEST@SEARSHC.COM
EPA Region: 04
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: KMART CORP
Owner/operator address: BEVERLY RD B5 348A
HOFFMAN ESTATES, IL 60179
Owner/operator country: US
Owner/operator telephone: (847) 286-0037
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/31/2009
Owner/Op end date: Not reported

Owner/operator name: KMART CORP
Owner/operator address: BEVERLY RD B5 348A
HOFFMAN ESTATES, IL 60179
Owner/operator country: US
Owner/operator telephone: (847) 286-0037
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/31/2009
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 7043 (Continued)

1012188346

Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-(S)-, & SALTS

Historical Generators:

Date form received by agency: 01/09/2013
Site name: KMART 7043
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 7043 (Continued)

1012188346

- . Waste name: SILVER
- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: P075
- . Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Date form received by agency: 01/01/2012
Site name: KMART 7043
Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D005
- . Waste name: BARIUM
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007
- . Waste name: CHROMIUM
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: P075
- . Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Date form received by agency: 07/29/2011
Site name: KMART 7043
Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 7043 (Continued)

1012188346

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D005
- . Waste name: BARIUM

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: P075
- . Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Date form received by agency: 06/30/2011
Site name: KMART 7043
Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D005
- . Waste name: BARIUM

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 7043 (Continued)

1012188346

- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: P075
- . Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Date form received by agency: 03/31/2010

Site name: KMART 7043

Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D005
- . Waste name: BARIUM
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007
- . Waste name: CHROMIUM
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Date form received by agency: 03/23/2009

Site name: KMART 7043

Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE

Biennial Reports:

Last Biennial Reporting Year: 2013

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 7043 (Continued)

1012188346

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 215

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 192

Waste code: D006
Waste name: CADMIUM
Amount (Lbs): 75

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 192

Waste code: D008
Waste name: LEAD
Amount (Lbs): 267

Waste code: D011
Waste name: SILVER
Amount (Lbs): 75

Waste code: D016
Waste name: 2,4-D
Amount (Lbs): 82

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 23

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 215

Waste code: P075
Waste name: NICOTINE, & SALTS
Amount (Lbs): 15

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 05/18/2009
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

M99
WSW
1/4-1/2
0.465 mi.
2453 ft.
KMART 7043
2302 CHERRY RD
ROCK HILL, SC 29732
Site 10 of 11 in cluster M

FINDS **1007247546**
N/A

Relative:
Lower

FINDS:

Actual:
621 ft.

Registry ID: 110017194542

Environmental Interest/Information System
SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

L100
NNW
1/4-1/2
0.465 mi.
2454 ft.
QUIKTRIP 1099
1195 RIVERVIEW RD
ROCK HILL, SC 29732
Site 4 of 10 in cluster L

SC UST **U004192151**
SC Financial Assurance **N/A**

Relative:
Lower

UST:

Actual:
620 ft.

Facility ID: 19624
Owner: QUIKTRIP CORPORATION
Owner Contact: LAURA THOMPSON
Owner Address: 4705 S 129TH EAST AVE
Owner City,St,Zip: TULSA, OK 74134-7008
Owner Phone: 918-615-7990
Contact: LAURA THOMPSON
Contact Phone: Not reported

Tank ID: 1
Status: **Currently in use**
Capacity: 20000
Product: RUL
Calcage: 0

Tank ID: 2
Status: **Currently in use**
Capacity: 20000
Product: RUL
Calcage: 0

Tank ID: 3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUIKTRIP 1099 (Continued)

U004192151

Status: Currently in use
Capacity: 12000
Product: PREM
Calcage: 0

Tank ID: 4
Status: Currently in use
Capacity: 12000
Product: Diesel
Calcage: 0

SC Financial Assurance 3:

Owner Name: QUIKTRIP CORPORATION
Owner Address: 4705 S 129TH EAST AVE
Owner City: TULSA
Owner State: OK
Owner Zip: 74134-7008
Mechanism: Self Insurance 280.95
Date Expired: 07/01/15
Bill: 4
RNU: 0
Rel Number: N

L101
NNW
1/4-1/2
0.469 mi.
2476 ft.

CAMMY EXPRESS
1397 CELANESE RD
ROCK HILL, SC 29732
Site 5 of 10 in cluster L

SC LUST U003629019
SC UST N/A
SC GWCI

Relative:
Lower

LUST:
Facility ID: 09333
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETRO
Owner: T DAO CAPITAL INVESTMENTS LLC
NFA Date: Not reported
Date Confirmed: 04/08/99
Report Date: 10/21/98
Rank: 4AA

Actual:
621 ft.

LUST DETAIL:
Release Date: 10/21/1998
Cleanup Complete Date: Not reported
RP Name: PETROLEUM WORLD INC
RP Address: PO BOX 341
RP City: MOORESBORO
RP State: NC
RP Zip: 28114-0341
SCRBCA Class Code: CLASS3BA
Depth to Ground Water: 12.84
Ground Water Flow Direction: N
Project Manager: ORGAIN, DAVID H
Release Fin Type Code: With SUPERB

UST:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CAMMY EXPRESS (Continued)

U003629019

Facility ID: 9333
Owner: T DAO CAPITAL INVESTMENTS LLC
Owner Contact: Not reported
Owner Address: 1397 CELANESE RD
Owner City,St,Zip: ROCK HILL, SC 29732-1722
Owner Phone: Not reported
Contact: TIM BUI
Contact Phone: 803-366-6756

Tank ID: 1
Status: Currently in use
Capacity: 12000
Product: RUL
Calcage: 5

Tank ID: 2
Status: Currently in use
Capacity: 12000
Product: RUL
Calcage: 5

Tank ID: 3
Status: Currently in use
Capacity: 6000
Product: PREM
Calcage: 5

Tank ID: 4
Status: Currently in use
Capacity: 6000
Product: Diesel
Calcage: 5

Tank ID: 5
Status: Currently in use
Capacity: 6000
Product: Gasoline
Calcage: 5

SC GWIC:
Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09333
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CAMMY EXPRESS (Continued)

U003629019

Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	Yes
Monitoring:	No
Remediation:	No
Surface Impact:	No
Drinking Water Well Impact:	No
Remarks:	Site ID # 09333. RBCA Classification 3BB1. Conducting investigation/Risk Assessment.

L102
NNW
 1/4-1/2
 0.469 mi.
 2476 ft.

EXPRESS 128
1397 CELANESE RD
ROCK HILL, SC 29732
 Site 6 of 10 in cluster L

FINDS 1007247783
N/A

Relative:
Lower

FINDS:

Registry ID: 110017197004

Actual:
621 ft.

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

L103
NNW
 1/4-1/2
 0.488 mi.
 2577 ft.

PANTRY 3952 DBA PETRO EXPRESS
1420 CELANESE RD
ROCK HILL, SC
 Site 7 of 10 in cluster L

SC RGA LUST S114817533
N/A

Relative:
Lower

RGA LUST:

2012 PANTRY 3952 DBA PETRO EXPRESS 1420 CELANESE RD

Actual:
621 ft.

2011 PANTRY 3952 DBA PETRO EXPRESS 1420 CELANESE RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PANTRY 3952 DBA PETRO EXPRESS (Continued)

S114817533

2010 PANTRY 3952 DBA PETRO EXPRESS 1420 CELANESE RD
2009 PANTRY 3952 DBA PETRO EXPRESS 1420 CELANESE RD
2008 PANTRY 3952 DBA PETRO EXPRESS 1420 CELANESE RD
2007 PANTRY 3952 DBA PETRO EXPRESS 1420 CELANESE RD

L104
NNW
1/4-1/2
0.488 mi.
2577 ft.

PETRO EXPRESS 36
1420 CELANESE ROAD
ROCK HILL, SC 29732

FINDS 1007245870
N/A

Site 8 of 10 in cluster L

Relative:
Lower

FINDS:

Registry ID: 110017177400

Actual:
621 ft.

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

L105
NNW
1/4-1/2
0.488 mi.
2577 ft.

PANTRY 3952 DBA PETRO EXPRESS
1420 CELANESE RD
ROCK HILL, SC 29732

SC LUST U003665719
SC UST N/A
SC Financial Assurance
SC GWCI

Site 9 of 10 in cluster L

Relative:
Lower

LUST:

Facility ID: 18472
Release Number: 1
Facility Status: conduct invest/risk assessment
Substance: PETROL
Owner: PANTRY INC
NFA Date: Not reported
Date Confirmed: 05/31/07
Report Date: 04/02/07
Rank: 3BA

Actual:
621 ft.

LUST DETAIL:

Release Date: 04/02/2007
Cleanup Complete Date: Not reported
RP Name: PANTRY INC
RP Address: 1801 DOUGLAS DR
RP City: SANFORD
RP State: NC
RP Zip: 27330
SCRBCA Class Code: CLASS3BA
Depth to Ground Water: 8.720
Ground Water Flow Direction: NW
Project Manager: ORGAIN, DAVID H

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PANTRY 3952 DBA PETRO EXPRESS (Continued)

U003665719

Release Fin Type Code: Qualifies for Fund with Deductible

Facility ID: 18472
Release Number: 2
Facility Status: conduct invest/risk assessment
Substance: PETROL
Owner: PANTRY INC
NFA Date: Not reported
Date Confirmed: 10/25/13
Report Date: 09/16/13
Rank: 3BA

LUST DETAIL:

Release Date: 04/02/2007
Cleanup Complete Date: Not reported
RP Name: PANTRY INC
RP Address: 1801 DOUGLAS DR
RP City: SANFORD
RP State: NC
RP Zip: 27330
SCRBCA Class Code: CLASS3BA
Depth to Ground Water: 8.720
Ground Water Flow Direction: NW
Project Manager: ORGAIN, DAVID H
Release Fin Type Code: Qualifies for Fund with Deductible

UST:

Facility ID: 18472
Owner: PANTRY INC
Owner Contact: MARY BATCHELOR
Owner Address: 1801 DOUGLAS DR
Owner City,St,Zip: SANFORD, NC 27330
Owner Phone: 800-476-7574
Contact: MARY BATCHELOR
Contact Phone: 803-327-9016

Tank ID: 1
Status: Currently in use
Capacity: 32000
Product: Multiple Petroleum Products
Calcage: 0

Tank ID: 2
Status: Currently in use
Capacity: 12000
Product: Multiple Petroleum Products
Calcage: 0

SC Financial Assurance 3:

Owner Name: PANTRY INC
Owner Address: 305 GREGSON DR
Owner City: CARY
Owner State: NC
Owner Zip: 27511

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PANTRY 3952 DBA PETRO EXPRESS (Continued)

U003665719

Mechanism: Letter of Credit
 Date Expired: 03/09/15
 Bill: 2
 RNU: 0
 Rel Number: Y

SC GWIC:

Bureau:	BLWM
EAP ID:	Not reported
Solid Waste Permit #:	Not reported
Bureau of Land & Waste Management File #:	Not reported
Permit Number:	18472
WPC Permit:	Not reported
Program:	DUST
Contamination:	PETRO
Petroleum Products:	True
Volatile Organic Compounds:	False
Metals:	False
Nitrates or Potential to Nitrate:	False
Pesticides & Herbicides:	False
Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	Yes
Monitoring:	No
Remediation:	No
Surface Impact:	No
Drinking Water Well Impact:	No
Remarks:	Site ID # 18472. RBCA Classification 5B1. Conducting investigation/Risk Assessment.

M106
WSW
 1/4-1/2
 0.496 mi.
 2619 ft.

RUTLEDGE
2268 CHERRY RD
ROCK HILL, SC 29732
 Site 11 of 11 in cluster M

SC UST U001542206
N/A

Relative:
Lower

UST:
 Facility ID: 9405
 Owner: RUTLEDGE
 Owner Contact: BILL RUTLEDGE
 Owner Address: PO BOX 268 CRS
 Owner City,St,Zip: ROCK HILL, SC 29731-6268

Actual:
615 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RUTLEDGE (Continued)

U001542206

Owner Phone: 803-366-6555
Contact: BILL RUTLEDGE
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 1000
Product: Diesel
Calcage: Not reported

L107 **SPRATT STREET TEXACO LLC-CELANESE ROAD**
NNW **1430 CELANESE RD**
1/2-1 **ROCK HILL, SC 29732**
0.507 mi.
2675 ft. **Site 10 of 10 in cluster L**

SC LUST **U002323673**
SC UST **N/A**
SC Financial Assurance
SC GWCI

Relative:
Lower

LUST:
Facility ID: 09277
Release Number: 1
Facility Status: conduct invest/risk assessment
Substance: PETRO
Owner: SPRATT STREET TEXACO LLC
NFA Date: Not reported
Date Confirmed: 07/06/90
Report Date: 10/03/89
Rank: 3BA

Actual:
609 ft.

LUST DETAIL:
Release Date: 10/03/1989
Cleanup Complete Date: Not reported
RP Name: CROWN CENTRAL LLC
RP Address: 1 N CHARLES ST STE 2000
RP City: BALTIMORE
RP State: MD
RP Zip: 21201-3759
SCRBCA Class Code: CLASS3BA
Depth to Ground Water: 11.51
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

UST:

Facility ID: 9277
Owner: SPRATT STREET TEXACO LLC
Owner Contact: Not reported
Owner Address: 1715 CAVENDALE DR
Owner City,St,Zip: ROCK HILL, SC 29732
Owner Phone: 803-329-1725
Contact: Not reported
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: 10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPRATT STREET TEXACO LLC-CELANESE ROAD (Continued)

U002323673

Tank ID: 2
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: 10

Tank ID: 3
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: 10

Tank ID: 4
Status: Currently in use
Capacity: 20000
Product: Multiple Petroleum Products
Calcage: 0

SC Financial Assurance 3:

Owner Name: SPRATT STREET TEXACO LLC
Owner Address: 1715 CAVENDALE DR
Owner City: ROCK HILL
Owner State: SC
Owner Zip: 29732
Mechanism: Self Insurance 280.101
Date Expired: 02/01/16
Bill: 1
RNU: 0
Rel Number: N

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09277
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPRATT STREET TEXACO LLC-CELANESE ROAD (Continued)

U002323673

Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: No
Monitoring: Yes
Remediation: No
Surface Impact: No
Drinking Water Well Impact: No
Remarks: Site ID # 09277. RBCA Classification 3BF5. Inactive.

O108
ENE
1/2-1
0.532 mi.
2811 ft.

CYTEC CARBON FIBERS LLC ROCK HILL SC
800A CEL RIVER RD
ROCK HILL, SC 29730
Site 1 of 2 in cluster O

RCRA-CESQG 1001199134
SCR000001925

Relative:
Lower

RCRA-CESQG:

Date form received by agency: 01/29/2008

Facility name: CYTEC CARBON FIBERS LLC ROCK HILL SC

Facility address: 800A CEL RIVER RD
ROCK HILL, SC 29730

EPA ID: SCR000001925

Mailing address: PO BOX 849
GREENVILLE, SC 29602

Contact: ROBERT REDFIELD

Contact address: PO BOX 849
GREENVILLE, SC 29602

Contact country: US

Contact telephone: (864) 299-9398

Contact email: Not reported

EPA Region: 04

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CYTEC CARBON FIBERS LLC

Owner/operator address: P. O. BOX 849
GREENVILLE, SC 29602

Owner/operator country: US

Owner/operator telephone: (864) 299-9398

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CYTEC CARBON FIBERS LLC ROCK HILL SC (Continued)

1001199134

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/31/2001
Owner/Op end date: Not reported

Owner/operator name: CYTEC CARBON FIBERS LLC
Owner/operator address: P. O. BOX 849
GREENVILLE, SC 29602

Owner/operator country: US
Owner/operator telephone: (864) 299-9398
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/31/2001
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CYTEC CARBON FIBERS LLC ROCK HILL SC (Continued)

1001199134

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:

Date form received by agency: 01/17/2006

Site name: CYTEC CARBON FIBERS LLC ROCK HILL SC

Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 01/16/2005

Site name: CYTEC CARBON FIBERS LLC ROCK HILL SC

Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: F002

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CYTEC CARBON FIBERS LLC ROCK HILL SC (Continued)

1001199134

- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- Date form received by agency: 09/07/2001
- Site name: CYTEC CARBON FIBERS LLC ROCK HILL SC
- Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CYTEC CARBON FIBERS LLC ROCK HILL SC (Continued)

1001199134

MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 04/19/1999
Site name: CYTEC CARBON FIBERS LLC ROCK HILL SC
Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

O109
ENE
1/2-1
0.532 mi.
2811 ft.

INCHEM CORPORATION
800 CELRIVER RD
ROCK HILL, SC 29730

RCRA-LQG 1007115515
SCD981014780

Site 2 of 2 in cluster O

Relative:
Lower

RCRA-LQG:

Actual:
620 ft.

Date form received by agency: 01/05/2015
Facility name: INCHEM CORPORATION
Facility address: 800 CELRIVER RD
ROCK HILL, SC 29730
EPA ID: SCD981014780
Contact: AUDURA HENDERSON
Contact address: 800 CELRIVER RD
ROCK HILL, SC 29730
Contact country: US
Contact telephone: (803) 329-8000
Contact email: AHENDERSON@PHENOXY.COM
EPA Region: 04
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: INCHEM CORP
Owner/operator address: STEELE CREEK RD
CHARLOTTE, 28273
Owner/operator country: US

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Owner/operator telephone: (803) 329-8000
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/05/2015
Owner/Op end date: Not reported

Owner/operator name: INCHEM CORP
Owner/operator address: STEELE CREEK RD
CHARLOTTE, 28273

Owner/operator country: US
Owner/operator telephone: (803) 329-8000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/05/2015
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Historical Generators:

Date form received by agency: 07/18/2014

Site name: INCHEM CORPORATION

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Date form received by agency: 01/01/2014

Site name: INCHEM CORPORATION

Classification: Large Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: U012
- . Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Date form received by agency: 10/21/2013

Site name: INCHEM CORPORATION

Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE (OR) 1,4-DIOXANE

Date form received by agency: 01/01/2012
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE (OR) 1,4-DIOXANE

Date form received by agency: 07/13/2010
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: U012
- . Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Date form received by agency: 12/31/2009
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

Date form received by agency: 01/01/2008
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 01/01/2006
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 01/01/2004
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date form received by agency: 07/09/2003
Site name: INCHEM CORP
Classification: Large Quantity Generator

Date form received by agency: 03/27/2002
Site name: INCHEM CORP
Classification: Large Quantity Generator

Waste code: D001
Waste name: IGNITABLE WASTE

Date form received by agency: 03/01/2002
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 08/13/2001
Site name: INCHEM CORP
Classification: Small Quantity Generator

Date form received by agency: 01/03/2000
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/01/1998
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/01/1996
Site name: INCHEM CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 12/13/1995
Site name: INCHEM CORP
Classification: Small Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 539490

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Amount (Lbs): 65550

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 433990

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 438640

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 649490

Waste code: U108
Waste name: 1,4-DIETHYLENEOXIDE
Amount (Lbs): 10000

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 03/14/2013
Enf. disposition status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Permits - Application
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Permits - Application
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 03/14/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Regulation violated: Not reported
Area of violation: Permits - Application
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 03/14/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/01/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 04/16/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/20/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/04/2012
Date achieved compliance: 03/14/2013
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 04/16/2013
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 4500
Paid penalty amount: 4500

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/21/2009
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 01/21/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 10/30/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/23/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/21/2009
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/23/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/27/2008
Date achieved compliance: 10/30/2008
Violation lead agency: EPA
Enforcement action: EPA TO STATE ADMINISTRATIVE REFERRAL
Enforcement action date: 08/27/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/27/2008
Date achieved compliance: 10/30/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/23/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 08/27/2008
Date achieved compliance: 10/30/2008
Violation lead agency: EPA
Enforcement action: EPA TO STATE ADMINISTRATIVE REFERRAL
Enforcement action date: 08/27/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date violation determined: 08/27/2008
Date achieved compliance: 01/21/2009
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 10/30/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/29/2009
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/27/2008
Date achieved compliance: 10/30/2008
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 09/23/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/29/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 01/13/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date achieved compliance: 01/21/2009
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 01/13/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/21/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/06/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/29/2009
Violation lead agency: EPA
Enforcement action: EPA TO STATE ADMINISTRATIVE REFERRAL
Enforcement action date: 08/27/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/29/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 01/21/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/29/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 09/23/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 08/27/2008
Date achieved compliance: 10/30/2008
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 09/23/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/27/2008
Date achieved compliance: 01/29/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 10/30/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.273.14(e)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.265.16
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(1)(ii)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.31
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.175(b)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.16(a)(1)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.41(a)(6)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.41(a)(6)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.173(a)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.35
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(2)
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(2)
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 262.21(a)(6)
Area of violation: Generators - Manifest
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.262.90
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.262.34(c)(1)(ii)
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.265.174
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.262.34(a)(2)&(3)
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.262.41
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.174
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.41(a)(6)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.90
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(1)(ii)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 262.90
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.35
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(c)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(3)
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.265.31
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(d)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.175(b)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Paid penalty amount: Not reported

Regulation violated: SR - 265.173(a)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.16(a)(1)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.173(d)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.262.21(a)(6)
Area of violation: Generators - Manifest
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Regulation violated: SR - R.61-79.262.11
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.265.175
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.21(a)(6)
Area of violation: Generators - Manifest
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.175(b)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 262.34(c)(1)(ii)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.31
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.174
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(3)
Area of violation: Generators - Records/Reporting

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.21(a)(6)
Area of violation: Generators - Manifest
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(2)
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(3)
Area of violation: Generators - Records/Reporting
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - R.61-79.265.35
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.265.173(c)&(d)
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.35
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - R.61-79.262.34(b)
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.265.173(a)
Area of violation: Generators - Pre-transport
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - R.61-79.273.13(a)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 07/10/2002
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.90
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.173(c)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(d)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 07/23/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(c)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.174
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.16(a)(1)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(a)
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/06/2004
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 35000
Paid penalty amount: 5833

Regulation violated: SR - 265.31
Area of violation: Generators - General
Date violation determined: 07/10/2002
Date achieved compliance: 10/06/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/16/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(1)(ii)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 265.173(d)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.35
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.175(b)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(2)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(2)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 265.175(b)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)(2)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 261.1(c)(8)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.35
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(2)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 262.34(c)(1)(ii)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 261.1(c)(8)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.35(a)(5)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.35(a)(5)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 262.35(a)(5)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(c)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(d)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(1)(ii)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Paid penalty amount: Not reported

Regulation violated: SR - 261.1(c)(8)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 262.34(c)(2)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Regulation violated: SR - 265.173(c)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(a)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173(c)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 265.173(d)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 265.35

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/11/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 42000
Paid penalty amount: 42000

Regulation violated: SR - 265.175(b)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/07/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(c)(2)
Area of violation: Generators - General
Date violation determined: 06/14/2001
Date achieved compliance: 11/11/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/16/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - Records/Reporting
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 02/10/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 12800
Paid penalty amount: Not reported

Regulation violated: SR - 262.34 a
Area of violation: Generators - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/08/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34 a
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 02/10/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 12800
Paid penalty amount: Not reported

Regulation violated: SR - 265.193
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34 a 5
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/08/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34 a 5
Area of violation: Generators - General
Date violation determined: 04/26/1996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 02/10/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 12800
Paid penalty amount: Not reported

Regulation violated: SR - 265.193
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 02/10/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 12800
Paid penalty amount: Not reported

Regulation violated: SR - 262.34 a
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - Records/Reporting
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34 a 5
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.193
Area of violation: Generators - General
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/08/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.11
Area of violation: Generators - Records/Reporting
Date violation determined: 04/26/1996
Date achieved compliance: 02/10/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/08/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34
Area of violation: Generators - General
Date violation determined: 12/13/1994
Date achieved compliance: 02/01/1995
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 12/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.174
Area of violation: Generators - General
Date violation determined: 12/13/1994
Date achieved compliance: 02/01/1995
Violation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Enforcement action: Not reported
Enforcement action date: 12/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173 c & d
Area of violation: Generators - Pre-transport
Date violation determined: 12/13/1994
Date achieved compliance: 02/01/1995
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 12/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 265.173 9
Area of violation: Generators - Pre-transport
Date violation determined: 12/13/1994
Date achieved compliance: 02/01/1995
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 12/13/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 04/16/2013
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/14/2013
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/04/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 04/16/2013
Evaluation lead agency: State

Evaluation date: 09/04/2012

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Permits - Application
Date achieved compliance: 03/14/2013
Evaluation lead agency: State

Evaluation date: 09/04/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 03/14/2013
Evaluation lead agency: State

Evaluation date: 09/04/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 03/14/2013
Evaluation lead agency: State

Evaluation date: 09/04/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-General Facility Standards
Date achieved compliance: 03/14/2013
Evaluation lead agency: State

Evaluation date: 09/04/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 04/16/2013
Evaluation lead agency: State

Evaluation date: 09/04/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/16/2013
Evaluation lead agency: State

Evaluation date: 10/30/2008
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/27/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 01/29/2009
Evaluation lead agency: EPA

Evaluation date: 08/27/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/30/2008
Evaluation lead agency: State

Evaluation date: 08/27/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 10/30/2008

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Evaluation lead agency: State

Evaluation date: 08/27/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/30/2008
Evaluation lead agency: EPA

Evaluation date: 08/27/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/30/2008
Evaluation lead agency: EPA

Evaluation date: 08/27/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 01/21/2009
Evaluation lead agency: State

Evaluation date: 10/06/2004
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/10/2003
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/11/2002
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 07/10/2002
Evaluation lead agency: EPA

Evaluation date: 07/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 07/10/2002
Evaluation lead agency: EPA

Evaluation date: 07/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 10/06/2004
Evaluation lead agency: State

Evaluation date: 07/10/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/06/2004
Evaluation lead agency: State

Evaluation date: 07/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 07/10/2002
Evaluation lead agency: EPA

Evaluation date: 07/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 10/06/2004
Evaluation lead agency: State

Evaluation date: 07/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/10/2002
Evaluation lead agency: EPA

Evaluation date: 11/07/2001
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/14/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/11/2002
Evaluation lead agency: State

Evaluation date: 03/16/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/24/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/26/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 02/10/1997
Evaluation lead agency: State

Evaluation date: 04/26/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/10/1997

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INCHEM CORPORATION (Continued)

1007115515

Evaluation lead agency: State

Evaluation date: 02/01/1995
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/06/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 02/01/1995
Evaluation lead agency: State

Evaluation date: 12/06/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/01/1995
Evaluation lead agency: State

110
NNE
1/2-1
0.565 mi.
2981 ft.

HOME DEPOT 1114
2815 HOME DEPOT BLVD
ROCK HILL, SC 29730

RCRA-SQG 1007571729
SCR000766139

Relative:
Lower

RCRA-SQG:

Actual:
626 ft.

Date form received by agency: 01/29/2015
Facility name: HOME DEPOT 1114
Facility address: 2815 HOME DEPOT BLVD
ROCK HILL, SC 29730
EPA ID: SCR000766139
Mailing address: SAN FELIPE ST STE 1600
HOUSTON, TX 77056
Contact: CHRIS BAKER
Contact address: SAN FELIPE ST STE 1600
HOUSTON, TX 77056
Contact country: US
Contact telephone: (713) 625-7015
Contact email: CHRIS.BAKER@PSCNOW.COM
EPA Region: 04
Land type: Private
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: THE HOME DEPOT 1114
Owner/operator address: THE HOME DEPOT 1114
ROCK HILL, 29730
Owner/operator country: US
Owner/operator telephone: (803) 909-2420
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/29/2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOME DEPOT 1114 (Continued)

1007571729

Owner/Op end date: Not reported
Owner/operator name: THE HOME DEPOT USA
Owner/operator address: PACES FERRY RD
ATLANTA, GA 30339
Owner/operator country: US
Owner/operator telephone: (770) 433-8211
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/09/2004
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D005
- . Waste name: BARIUM

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

- . Waste code: D018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOME DEPOT 1114 (Continued)

1007571729

- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Historical Generators:

Date form received by agency: 02/19/2014
Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D005
- . Waste name: BARIUM
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007
- . Waste name: CHROMIUM
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Date form received by agency: 03/04/2013
Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D005

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOME DEPOT 1114 (Continued)

1007571729

- . Waste name: BARIUM
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007
- . Waste name: CHROMIUM
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Date form received by agency: 01/23/2012
Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D005
- . Waste name: BARIUM
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007
- . Waste name: CHROMIUM
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOME DEPOT 1114 (Continued)

1007571729

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Date form received by agency: 03/25/2011
Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Date form received by agency: 04/08/2010
Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D016
- . Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Date form received by agency: 03/10/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOME DEPOT 1114 (Continued)

1007571729

Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

Date form received by agency: 02/19/2009

Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

Date form received by agency: 01/25/2006

Site name: HOME DEPOT 1114
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

Date form received by agency: 08/09/2004

Site name: THE HOME DEPOT 1114
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOME DEPOT 1114 (Continued)

1007571729

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 09/05/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/23/2004
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

111
ESE
1/2-1
0.575 mi.
3035 ft.

CHATA COATING & LAMINATING INC
629 WILKERSON RD
ROCK HILL, SC 29732

SC SHWS 1007990797
RCRA NonGen / NLR SCR000766600

Relative:
Lower

SHWS:
EPA ID: SCR000766600

Actual:
576 ft.

RCRA NonGen / NLR:
Date form received by agency: 07/21/2010
Facility name: CHATA COATING & LAMINATING INC
Facility address: 629 WILKERSON RD
ROCK HILL, SC 29732

EPA ID: SCR000766600
Mailing address: RED FOX TRAIL
CHARLOTTE, NC 28211

Contact: DOC J THURSTON III
Contact address: RED FOX TRAIL
CHARLOTTE, NC 28211

Contact country: US
Contact telephone: (704) 364-7389
Contact email: Not reported
EPA Region: 04
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: DOC J THURSTON III
Owner/operator address: RED FOX TRAIL
CHARLOTTE, NC 28211

Owner/operator country: US
Owner/operator telephone: (704) 364-7389
Legal status: Private
Owner/Operator Type: Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Owner/Op start date: 02/01/2005
Owner/Op end date: Not reported

Owner/operator name: DOC J THURSTON III
Owner/operator address: RED FOX TRAIL
CHARLOTTE, NC 28211

Owner/operator country: US
Owner/operator telephone: (704) 364-7389
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 02/01/2005
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:

Date form received by agency: 05/02/2008
Site name: CHATA COATING & LAMINATING INC
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/01/2005

Site name: CHATA COATING & LAMINATING INC

Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/06/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Permits - General Information
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/16/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Regulation violated: Not reported
Area of violation: Permits - General Information
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/15/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 10000
Paid penalty amount: 10000

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/16/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 06/05/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Area of violation: TSD IS-Container Use and Management
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/06/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/06/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 06/05/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 06/05/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/15/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 10000
Paid penalty amount: 10000

Regulation violated: Not reported
Area of violation: Permits - General Information
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/06/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/15/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 10000
Paid penalty amount: 10000

Regulation violated: Not reported
Area of violation: Permits - General Information
Date violation determined: 05/15/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/15/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 10000
Paid penalty amount: 10000

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Permits - General Information
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 06/05/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/16/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/15/2009
Date achieved compliance: 07/15/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/16/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/06/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/06/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/06/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 10/21/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Enforcement action date: 10/06/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/20/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 10/21/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/08/2008
Date achieved compliance: 09/08/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/08/2008
Date achieved compliance: 09/08/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/20/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 10/21/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008
Enf. disposition status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/20/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 10/21/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/08/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/06/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-General Facility Standards
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/20/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 11/20/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/08/2008
Date achieved compliance: 11/20/2008
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 10/21/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 07/15/2010
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/06/2009
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/15/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/15/2010
Evaluation lead agency: State

Evaluation date: 05/15/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Permits - General Information
Date achieved compliance: 07/15/2010
Evaluation lead agency: State

Evaluation date: 05/15/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 07/15/2010
Evaluation lead agency: State

Evaluation date: 05/15/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 07/15/2010
Evaluation lead agency: State

Evaluation date: 11/20/2008
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Generators - General
Date achieved compliance: 11/20/2008
Evaluation lead agency: State

Evaluation date: 11/20/2008
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Generators - Records/Reporting
Date achieved compliance: 11/20/2008
Evaluation lead agency: State

Evaluation date: 11/20/2008
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: TSD IS-General Facility Standards
Date achieved compliance: 11/20/2008
Evaluation lead agency: State

Evaluation date: 11/20/2008
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 11/20/2008
Evaluation lead agency: State

Evaluation date: 11/20/2008
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Generators - Pre-transport
Date achieved compliance: 11/20/2008
Evaluation lead agency: State

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CHATA COATING & LAMINATING INC (Continued)

1007990797

Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - Pre-transport
Date achieved compliance:	11/20/2008
Evaluation lead agency:	State
Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	TSD IS-Container Use and Management
Date achieved compliance:	11/20/2008
Evaluation lead agency:	State
Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	TSD IS-Container Use and Management
Date achieved compliance:	09/08/2008
Evaluation lead agency:	State
Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	TSD IS-General Facility Standards
Date achieved compliance:	11/20/2008
Evaluation lead agency:	State
Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - Records/Reporting
Date achieved compliance:	11/20/2008
Evaluation lead agency:	State
Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - Pre-transport
Date achieved compliance:	09/08/2008
Evaluation lead agency:	State
Evaluation date:	09/08/2008
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	11/20/2008
Evaluation lead agency:	State
Evaluation date:	02/17/2005
Evaluation:	COMPLIANCE ASSISTANCE VISIT
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State

P112 **PROSPERITY 411**
SW **2250 CHERRY RD**
1/2-1 **ROCK HILL, SC 29732**
0.582 mi.
3072 ft. **Site 1 of 3 in cluster P**

SC SHWS **U004019734**
SC LUST **N/A**
SC UST
SC GWCI

Relative: SHWS:
Lower EPA ID: Not reported

Actual:
609 ft. LUST:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROSPERITY 411 (Continued)

U004019734

Facility ID: 09261
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETRO
Owner: PROSPERITY JOCKEY LOT INC
NFA Date: 03/28/12
Date Confirmed: 07/24/92
Report Date: 04/06/92
Rank: 2BB

LUST DETAIL:

Release Date: 04/06/1992
Cleanup Complete Date: Not reported
RP Name: HESS CORPORATION
RP Address: 1 HESS PLAZA
RP City: WOODBRIDGE
RP State: NJ
RP Zip: 07095-1299
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 9.789
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

Release Date: 07/06/2001
Cleanup Complete Date: Not reported
RP Name: ORPHAN TRICO
RP Address: 725 SALUDA ST
RP City: ROCK HILL
RP State: SC
RP Zip: 29730-5741
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 9.789
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: Recoverable Deductible

Facility ID: 09261
Release Number: 2
Facility Status: Not reported
Substance: PETRO
Owner: PROSPERITY JOCKEY LOT INC
NFA Date: 03/29/99
Date Confirmed: 03/10/99
Report Date: 09/16/98
Rank: Not reported

LUST DETAIL:

Release Date: 04/06/1992
Cleanup Complete Date: Not reported
RP Name: HESS CORPORATION
RP Address: 1 HESS PLAZA
RP City: WOODBRIDGE
RP State: NJ
RP Zip: 07095-1299
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 9.789

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROSPERITY 411 (Continued)

U004019734

Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

Release Date: 07/06/2001
Cleanup Complete Date: Not reported
RP Name: ORPHAN TRICO
RP Address: 725 SALUDA ST
RP City: ROCK HILL
RP State: SC
RP Zip: 29730-5741
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 9.789
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: Recoverable Deductible

Facility ID: 09261
Release Number: 3
Facility Status: monitored natural attenuation
Substance: PETROL
Owner: PROSPERITY JOCKEY LOT INC
NFA Date: 03/28/12
Date Confirmed: 07/06/01
Report Date: 07/06/01
Rank: 2BB

LUST DETAIL:

Release Date: 04/06/1992
Cleanup Complete Date: Not reported
RP Name: HESS CORPORATION
RP Address: 1 HESS PLAZA
RP City: WOODBRIDGE
RP State: NJ
RP Zip: 07095-1299
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 9.789
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

Release Date: 07/06/2001
Cleanup Complete Date: Not reported
RP Name: ORPHAN TRICO
RP Address: 725 SALUDA ST
RP City: ROCK HILL
RP State: SC
RP Zip: 29730-5741
SCRBCA Class Code: CLASS2BB
Depth to Ground Water: 9.789
Ground Water Flow Direction: NW
Project Manager: THOMA, DEBRA L
Release Fin Type Code: Recoverable Deductible

UST:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROSPERITY 411 (Continued)

U004019734

Facility ID: 9261
Owner: PROSPERITY JOCKEY LOT INC
Owner Contact: JOHN COX
Owner Address: 120 W WHITNER ST
Owner City,St,Zip: ANDERSON, SC 29621
Owner Phone: 864-225-3701
Contact: JOHN COX
Contact Phone: 803-366-4574

Tank ID: 1
Status: Abandoned
Capacity: 10000
Product: Gasoline
Calcage: 10

Tank ID: 2
Status: Abandoned
Capacity: 10000
Product: Gasoline
Calcage: 10

Tank ID: 3
Status: Abandoned
Capacity: 10000
Product: Gasoline
Calcage: 10

Tank ID: 4
Status: Abandoned
Capacity: 10000
Product: Gasoline
Calcage: 10

SC GWIC:
Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09261
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PROSPERITY 411 (Continued)

U004019734

Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: Yes
Monitoring: No
Remediation: No
Surface Impact: No
Drinking Water Well Impact: No
Remarks: Site ID # 09261. RBCA Classification 3BD1. Conducting investigation/Risk Assessment.

P113
SW
1/2-1
0.582 mi.
3072 ft.

HESS STATION 40251
2250 CHERRY RD
ROCK HILL, SC 29732

RCRA NonGen / NLR **1004780676**
FINDS **SCD987592011**

Site 2 of 3 in cluster P

Relative:
Lower

RCRA NonGen / NLR:

Actual:
609 ft.

Date form received by agency: 10/03/2006
Facility name: HESS STATION 40251
Facility address: 2250 CHERRY RD
ROCK HILL, SC 29732
EPA ID: SCD987592011
Mailing address: HESS PLAZA
WOODBRIDGE, NJ 07095
Contact: JOHN GEITNER
Contact address: HESS PLAZA
WOODBRIDGE, NJ 07095
Contact country: US
Contact telephone: (732) 750-7105
Contact email: Not reported
EPA Region: 04
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: AMERADA HESS CORPORATION
Owner/operator address: ONE HESS PLAZA
WOODBRIDGE, NJ 07095
Owner/operator country: US
Owner/operator telephone: (732) 750-6000
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/03/2006
Owner/Op end date: Not reported

Owner/operator name: AMERADA HESS CORPORATION
Owner/operator address: ONE HESS PLAZA
WOODBRIDGE, NJ 07095
Owner/operator country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HESS STATION 40251 (Continued)

1004780676

Owner/operator telephone: (732) 750-6000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

- . Waste code: D000
- . Waste name: Not Defined

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D018
- . Waste name: BENZENE

Historical Generators:

Date form received by agency: 01/08/1998
Site name: HESS STATION 40251
Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D000
- . Waste name: Not Defined

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D018
- . Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110004941788

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System)
integrates information on environmental facilities, permits,
violations, enforcement actions, and compliance activities needed to
support regulatory requirements and target environmental quality

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HESS STATION 40251 (Continued)

1004780676

improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

P114
WSW
1/2-1
0.600 mi.
3169 ft.

2245 CHERRY RD
ROCK HILL, SC 29732

Site 3 of 3 in cluster P

EDR Hist Auto 1015339247
N/A

Relative:
Lower

EDR Historical Auto Stations:

Name: BRAKE SPECIALTIES OF ROCK HILL
 Year: 2002
 Address: 2245 CHERRY RD

Actual:
608 ft.

Name: BRAKE SPECIALTIES OF ROCK HILL INC
 Year: 2003
 Address: 2245 CHERRY RD

115
East
1/2-1
0.621 mi.
3277 ft.

PRATT RECYCLING INC. ROCK HILL
720 CEL RIVER RD.
ROCK HILL, SC 29730

SC SWRCY S117361920
N/A

Relative:
Lower

SWRCY:

Facility Id: 33907
 Contact Name: Mandy Barnette
 Contact Phone: (864) 801-9993
 Contact Fax: (864) 751-5937
 Contact Email: mbarnett@prattindustries.com
 Website: www.prattindustries.com
 Mailing Address: Not reported
 Mailing City: Not reported
 Mailing State: Not reported
 Mailing Zip: Not reported
 Description: Pratt provides transportation and recycling of the following commodities: cardboard; office, mixed and shredded paper; DLK; plastics (HDPE, PET, LDPE Grades A, B and C, PP); aluminum; baled super sacks; and EPS.

Actual:
582 ft.

Product/Services: Cardboard; Metal, Ferrous; Metal, Non-ferrous; Paper; Plastic; Plastic, PET; Plastic, Polyethylene; Plastic, Polypropylene; Plastic, Polystyrene; Styrofoam; Super Sacks

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

Q116
SSW
1/2-1
0.622 mi.
3285 ft.

955 ANDERSON RD N
ROCK HILL, SC 29730

Site 1 of 3 in cluster Q

EDR Hist Auto **1015683678**
N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: B & R BODY AUTO SERVICE INC
Year: 2007
Address: 955 ANDERSON RD N

Actual:
649 ft.

Name: B & R BODY AUTO SERVICE INC
Year: 2008
Address: 955 ANDERSON RD N

Name: B & R BODY SHOP
Year: 2010
Address: 955 ANDERSON RD N

Name: B & R BODY SHOP EAST
Year: 2011
Address: 955 ANDERSON RD N

Name: B & R BODY SHOP
Year: 2012
Address: 955 ANDERSON RD N

Q117
SSW
1/2-1
0.627 mi.
3312 ft.

CJ PATTON MAZDA
955 ANDERSON RD
ROCK HILL, SC 29730

Site 2 of 3 in cluster Q

RCRA-CESQG **1004779994**
FINDS **SCD036249498**

Relative:
Higher

RCRA-CESQG:

Date form received by agency: 07/13/1994
Facility name: CJ PATTON MAZDA
Facility address: 955 ANDERSON RD
ROCK HILL, SC 29730
EPA ID: SCD036249498
Mailing address: PO BOX 2994 CRS
ROCK HILL, SC 29732
Contact: CARROLL WILKERSON
Contact address: 955 ANDERSON RD
ROCK HILL, SC 29736

Actual:
646 ft.

Contact country: US
Contact telephone: (803) 366-4151
Contact email: Not reported
EPA Region: 04
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CJ PATTON MAZDA (Continued)

1004779994

any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: VIVIAN PATTON
Owner/operator address: 686 UNIVERSITY DR
ROCK HILL, SC 29730
Owner/operator country: Not reported
Owner/operator telephone: (803) 366-4151
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D021
- . Waste name: CHLORO BENZENE

- . Waste code: D027
- . Waste name: 1,4-DICHLORO BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: D040
- . Waste name: TRICHLOROETHYLENE

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CJ PATTON MAZDA (Continued)

1004779994

Violation Status: No violations found

FINDS:

Registry ID: 110002240334

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Q118
SSW
 1/2-1
 0.627 mi.
 3312 ft.

C J PATTON MOTORS INC
955 ANDERSON RD
ROCK HILL, SC 29730
 Site 3 of 3 in cluster Q

SC LUST **U003519735**
SC UST **N/A**

Relative:
Higher

LUST:
 Facility ID: 09237
 Release Number: 1
 Facility Status: Not reported
 Substance: PETRO
 Owner: C J PATTON MOTORS INC
NFA Date: 03/18/98
 Date Confirmed: 01/23/98
 Report Date: 12/31/97
 Rank: Not reported

Actual:
646 ft.

UST:
 Facility ID: 9237
 Owner: C J PATTON MOTORS INC
 Owner Contact: CARROLL WILKERSON
 Owner Address: 955 ANDERSON RD
 Owner City,St,Zip: ROCK HILL, SC 29730
 Owner Phone: 803-366-4151
 Contact: CARROLL WILKERSON
 Contact Phone: 803-366-4151

Tank ID: 1
Status: Abandoned
 Capacity: 1000
 Product: Gasoline
 Calcage: 10

Tank ID: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C J PATTON MOTORS INC (Continued)

U003519735

Status: Abandoned
Capacity: 550
Product: Waste Oil
Calclage: Not reported

R119
WSW
1/2-1
0.687 mi.
3625 ft.

ECONO LUBE N TUNE 319
2215 CHERRY RD
ROCK HILL, SC 29732
Site 1 of 2 in cluster R

RCRA-CESQG **1001962010**
FINDS **SCR000075127**

Relative:
Lower

RCRA-CESQG:

Date form received by agency: 12/07/1999

Facility name: ECONO LUBE N TUNE 319

Facility address: 2215 CHERRY RD
ROCK HILL, SC 29732

EPA ID: SCR000075127

Mailing address: CHERRY RD
ROCK HILL, SC 29732

Contact: WALTER CARRICK

Contact address: 2215 CHERRY RD
ROCK HILL, SC 29732

Contact country: US

Contact telephone: (704) 510-1603

Contact email: Not reported

EPA Region: 04

Land type: Private

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CARRICK BROS LLC
Owner/operator address: 4607 APPLEY MEAD LANE
CHARLOTTE, NC 28269

Owner/operator country: Not reported

Owner/operator telephone: (704) 510-1603

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

Mixed waste (haz. and radioactive): No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ECONO LUBE N TUNE 319 (Continued)

1001962010

Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 02/01/2000
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110002235983

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

120
East
1/2-1
0.695 mi.
3672 ft.

SAMUEL STRAPPING SYSTEMS INC
640 CEL RIVER ROAD
ROCK HILL, SC 29730

RCRA NonGen / NLR 1000367508
NY MANIFEST SCD131901092

Relative:
Lower

RCRA NonGen / NLR:
Date form received by agency: 05/16/2011
Facility name: SAMUEL STRAPPING SYSTEMS INC
Facility address: 640 CEL RIVER ROAD
ROCK HILL, SC 29730
EPA ID: SCD131901092
Mailing address: CEL RIVER ROAD
ROCK HILL, SC 29730

Actual:
584 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAMUEL STRAPPING SYSTEMS INC (Continued)

1000367508

Contact: JEFF SHAVER
Contact address: 640 CEL RIVER ROAD
ROCK HILL, SC 29730
Contact country: US
Contact telephone: (803) 325-1616
Contact email: Not reported
EPA Region: 04
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, WY 99999
Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SAMUEL MANU TECH
Owner/operator address: 191 THE W MALL S 418
ETOBICOKE, ON 99999
Owner/operator country: Not reported
Owner/operator telephone: (416) 626-2190
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D008
. Waste name: LEAD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAMUEL STRAPPING SYSTEMS INC (Continued)

1000367508

Historical Generators:

Date form received by agency: 01/31/1997
Site name: SAMUEL STRAPPING SYSTEMS INC
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D008
. Waste name: LEAD

Date form received by agency: 03/01/1990
Site name: BRAINARD STRAPPING - DIV OF SHARON STEEL
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: SR - 262.42(b)
Area of violation: Generators - Records/Reporting
Date violation determined: 05/06/1997
Date achieved compliance: 05/29/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 05/13/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.21(a)(2)
Area of violation: Generators - Manifest
Date violation determined: 05/06/1997
Date achieved compliance: 05/29/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 05/13/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 262.34(d)(5)(ii)
Area of violation: Generators - General
Date violation determined: 05/06/1997
Date achieved compliance: 05/29/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 05/13/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAMUEL STRAPPING SYSTEMS INC (Continued)

1000367508

Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 07/09/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/29/1997
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/06/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 05/29/1997
Evaluation lead agency: State

Evaluation date: 05/06/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 05/29/1997
Evaluation lead agency: State

Evaluation date: 05/06/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/29/1997
Evaluation lead agency: State

Evaluation date: 01/09/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

NY MANIFEST:

EPA ID: SCD131901092
Country: USA
Location Address 1: 640 CEL RIVER RD
Location Address 2: Not reported
Location City: ROCK HILL
Location State: SC
Location Zip Code: 29730
Location Zip Code 4: Not reported

Mailing Info:

Name: SAMUEL STRAPPING SYSTEMS
Contact: ROBERT LANGLEY
Address: 640 CEL RIVER RD
City/State/Zip: ROCK HILL, SC 29730
Country: USA
Phone: 803-325-1616

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAMUEL STRAPPING SYSTEMS INC (Continued)

1000367508

Manifest:

Document ID: NYG0328968
Manifest Status: Not reported
Trans1 State ID: 2281OHNY
Trans2 State ID: Not reported
Generator Ship Date: 02/01/2001
Trans1 Recv Date: 02/01/2001
Trans2 Recv Date: Not reported
TSD Site Recv Date: 02/05/2001
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: SCD131901092
Trans1 EPA ID: NYD982792814
Trans2 EPA ID: Not reported
TSD ID: NYD049836679
Waste Code: D008 - LEAD 5.0 MG/L TCLP
Quantity: 13140
Units: P - Pounds
Number of Containers: 032
Container Type: DM - Metal drums, barrels
Handling Method: T Chemical, physical, or biological treatment.
Specific Gravity: 01.00
Year: 2001

Document ID: NYB4734801
Manifest Status: Not reported
Trans1 State ID: 161125328
Trans2 State ID: Not reported
Generator Ship Date: 09/20/2000
Trans1 Recv Date: 09/20/2000
Trans2 Recv Date: Not reported
TSD Site Recv Date: 09/22/2000
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: SCD131901092
Trans1 EPA ID: NYD982792814
Trans2 EPA ID: Not reported
TSD ID: NYD049836679
Waste Code: D008 - LEAD 5.0 MG/L TCLP
Quantity: 33414
Units: P - Pounds
Number of Containers: 082
Container Type: DM - Metal drums, barrels
Handling Method: T Chemical, physical, or biological treatment.
Specific Gravity: 01.00
Year: 2000

Document ID: NYG0328941
Manifest Status: Not reported
Trans1 State ID: 80358VNY
Trans2 State ID: Not reported
Generator Ship Date: 10/23/2000
Trans1 Recv Date: 10/23/2000
Trans2 Recv Date: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAMUEL STRAPPING SYSTEMS INC (Continued)

1000367508

TSD Site Recv Date: 10/25/2000
 Part A Recv Date: Not reported
 Part B Recv Date: Not reported
 Generator EPA ID: SCD131901092
 Trans1 EPA ID: NYD982792814
 Trans2 EPA ID: Not reported
 TSD ID: NYD049836679
 Waste Code: D008 - LEAD 5.0 MG/L TCLP
 Quantity: 15448
 Units: P - Pounds
 Number of Containers: 044
 Container Type: DM - Metal drums, barrels
 Handling Method: T Chemical, physical, or biological treatment.
 Specific Gravity: 01.00
 Year: 2000

Document ID: NYG0331281
 Manifest Status: Not reported
 Trans1 State ID: 279793ANY
 Trans2 State ID: Not reported
 Generator Ship Date: 05/31/2001
 Trans1 Recv Date: 05/31/2001
 Trans2 Recv Date: Not reported
 TSD Site Recv Date: 06/04/2001
 Part A Recv Date: Not reported
 Part B Recv Date: Not reported
 Generator EPA ID: SCD131901092
 Trans1 EPA ID: NYD982792814
 Trans2 EPA ID: Not reported
 TSD ID: NYD049836679
 Waste Code: D008 - LEAD 5.0 MG/L TCLP
 Quantity: 02070
 Units: P - Pounds
 Number of Containers: 011
 Container Type: DM - Metal drums, barrels
 Handling Method: T Chemical, physical, or biological treatment.
 Specific Gravity: 01.00
 Waste Code: D008 - LEAD 5.0 MG/L TCLP
 Quantity: 03134
 Units: P - Pounds
 Number of Containers: 008
 Container Type: DM - Metal drums, barrels
 Handling Method: L Landfill.
 Specific Gravity: 01.00
 Year: 2001

S121
East
1/2-1
0.703 mi.
3711 ft.

HOLOX LTD
2687 EDEN TERRACE
ROCK HILL, SC 29730
Site 1 of 2 in cluster S

SC LUST **U003522319**
SC UST **N/A**
SC RCR
SC GWCI
SC NPDES

Relative:
Lower

LUST:
 Facility ID: 09221
 Release Number: 1
 Facility Status: monitored natural attenuation
 Substance: PETRO

Actual:
579 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOLOX LTD (Continued)

U003522319

Owner: HOLOX LTD
NFA Date: **02/20/03**
Date Confirmed: 04/20/95
Report Date: 02/03/94
Rank: 3BD

LUST DETAIL:

Release Date: 02/03/1994
Cleanup Complete Date: Not reported
RP Name: HOLOX LTD
RP Address: 1500 INDIAN TRAIL RD STE C
RP City: NORCROSS
RP State: GA
RP Zip: 30093
SCRBCA Class Code: CLASS3BD
Depth to Ground Water: 10.9
Ground Water Flow Direction: W
Project Manager: FULMER, SUSAN B
Release Fin Type Code: Qualifies for Fund with Deductible

UST:

Facility ID: 9221
Owner: HOLOX LTD
Owner Contact: DOUG CREIGHTON
Owner Address: 1500 INDIAN TRAIL RD STE C
Owner City,St,Zip: NORCROSS, GA 30093
Owner Phone: 770-925-4640
Contact: DOUG CREIGHTON
Contact Phone: 803-324-4180

Tank ID: 1
Status: **Abandoned**
Capacity: 10000
Product: Diesel
Calcage: 5

Tank ID: 2
Status: **Abandoned**
Capacity: 4000
Product: Gasoline
Calcage: 5

Tank ID: 3
Status: **Abandoned**
Capacity: 6000
Product: Gasoline
Calcage: Not reported

RCR:

Entity Responsibility: Holox Ltd
Region: 3
Tax Id: 665-00-00-104
Latitude: 34.96873
Longitude: -80.97595

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOLOX LTD (Continued)

U003522319

Tracking Number: 9221
Regulatory Program: UST
Unit Type: UST
Unit Number/Letter: 1
Area/Acres: Not reported
Affected Media: Groundwater
Site/Unit: Regulated Petroleum Underground Storage Tank Location
Conditions: Public Noticed Corrective Action Plan
Associated Response/Corrective Action: Not reported
Associated Chemicals Requiring: Benzene MTBE

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09221
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: No
Monitoring: No
Remediation: Yes
Surface Impact: No
Drinking Water Well Impact: No
Remarks: Site ID # 09221. RBCA Classification 3BD3. Monitored Natural Attenuation.

NPDES:

Permit: SC0039004
Permit Status Date: 06/20/1998
Act/Inactive: INACT
App Type: NPDES REISSUE
App Status Date: 10/19/1994

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOLOX LTD (Continued)

U003522319

Permit Contact: BARNETT, GREG P
Permit Issued Date: 10/19/1994
Permit Expire Date: 11/30/1999
Permit Type: WTRNPDESWWTP
Permit Sub Type: INDUSTRIAL
Permit Status: CLOSED
Receiving Stream: TRIB/MANCHESTER CK/CATAWBA RVR
Address Type: SITE
Owner Address Type: BUSINESS
Owner Telephone: 803-324-4180

S122
East
1/2-1
0.703 mi.
3711 ft.

HOLOX LTD
2687 EDEN TERRACE
ROCKHILL, SC 29730
Site 2 of 2 in cluster S

RCRA-CESQG 1000344207
SCD982144461

Relative:
Lower

RCRA-CESQG:

Date form received by agency: 03/13/2003

Facility name: HOLOX LTD
Facility address: 2687 EDEN TERRACE
ROCKHILL, SC 29730

EPA ID: SCD982144461
Mailing address: EDEN TERRACE
ROCKHILL, SC 29730

Contact: ARCH DILLEY
Contact address: EDEN TERRACE
ROCKHILL, SC 29730

Contact country: US
Contact telephone: (803) 324-4180
Contact email: Not reported

EPA Region: 04

Land type: Private

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: HOLOX LTD
Owner/operator address: INDIAN TRAIL
NORCROSS, GA 30093

Owner/operator country: US
Owner/operator telephone: (770) 925-1696
Legal status: Private

Owner/Operator Type: Operator

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HOLOX LTD (Continued)

1000344207

Owner/Op start date: 01/01/1997
 Owner/Op end date: Not reported

Owner/operator name: SUNOX, INC.
 Owner/operator address: 2687 EDEN TERRACE
 ROCKHILL, SC 29730

Owner/operator country: Not reported
 Owner/operator telephone: (999) 999-9999
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Owner/operator name: HOLOX LTD
 Owner/operator address: INDIAN TRAIL ‘
 NORCROSS, GA 30093

Owner/operator country: US
 Owner/operator telephone: (770) 925-1696
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: 01/01/1997
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No
 Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

Historical Generators:

Date form received by agency: 03/27/2002
 Site name: SUNOX, INC.
 Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 07/10/2000
 Site name: SUNOX, INC.
 Classification: Small Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 03/14/1994
 Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of violation: Not reported
 Date achieved compliance: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HOLOX LTD (Continued)

1000344207

Evaluation lead agency: State

**T123
 NE
 1/2-1
 0.703 mi.
 3714 ft.**

**GREEN OIL / THOMAS PETROLEUM
 2849 CHERRY ROAD
 ROCK HILL, SC 29730**

**SC AST A100267602
 N/A**

Site 1 of 2 in cluster T

**Relative:
 Lower**

AST:

**Actual:
 613 ft.**

Facility ID:	518
District:	Catawba
Mailing Addr:	Not reported
Mailing City,St,Zip:	Shelby, NC 28150-
Facility Manager:	Ray Thomas
Manager Phone:	7042620351
Facility office location:	1629 LaFayette Street
Facility phone number:	8033665146
Facility manager Ext:	Not reported
Tank A-How many of size < 250 glns:	0
Tank B-How many of size 250-1000 glns:	0
Tank C-How many of size 1001-2000 glns:	0
Tank D-How many of size 2001-10000 glns:	1
Tank E-How many of size 10001-42000 glns:	2
Tank F-How many of size 42001-250000 glns:	0
Tank G-How many of size 250001-1000000 glns:	0
Tank H-How many of size 1000001-4000000 glns:	0
Tank I-How many of size >4000000 glns:	0
Total site capacity 661-2,000 glns:	False
Total site capacity 2001-10,000 glns:	False
Total site capacity 10,001-42,000 glns:	False
Total site capacity 42,001-100,000 glns:	True
Total site capacity 100,001-250,000 glns:	False
Total site capacity 250,001-1,000,000 glns:	False
Total site capacity 1,000,001-5,000,000 glns:	False
Total site capacity 5,000,001-10,000,000 glns:	False
Total site capacity >10,000,000 glns:	False
Actual storage amount in gallons:	48000.00000
NAICS code:	14.00000
Is this a registered terminal facility?:	False
If not, does it need to be registered?:	False
Earthen containment:	False
Asphalt containment:	False
Liner:	False
Concrete floor and walls:	True
Concrete walls, earth floor:	False
Block walls, concrete floor:	False
Block walls, earthen floor:	False
Double wall tank:	False
Does containment need repair?:	False
GPS unit make/model:	Trimble XRS
GPS mode uncorrected, Radio beacon, Satellite corrected:	Sat - DGPS
Lat/Long:	34 58 43.65 -80 58 52.84
Date data was collected:	07/11/00
Comments:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

T124
NE
1/2-1
0.703 mi.
3714 ft.
COMMUNITY MART 6
2849 CHERRY RD
ROCK HILL, SC 29730
Site 2 of 2 in cluster T

SC LUST
SC UST
SC Financial Assurance
SC GWCI
SC UIC
U003629043
N/A

Relative:
Lower

LUST:

Facility ID: 09344
 Release Number: 1
 Facility Status: active corrective action
 Substance: PETRO
 Owner: RAY THOMAS PETROLEUM CO INC
NFA Date: 02/06/09
 Date Confirmed: 12/07/89
 Report Date: 07/18/89
 Rank: 3BF

Actual:
613 ft.

LUST DETAIL:

Release Date: 07/18/1989
 Cleanup Complete Date: Not reported
 RP Name: GREEN'S OIL COMPANY
 RP Address: 2457 BREEN CIR
 RP City: ROCK HILL
 RP State: SC
 RP Zip: 29732
 SCRBCA Class Code: CLASS3BF
 Depth to Ground Water: 7
 Ground Water Flow Direction: E
 Project Manager: THOMA, DEBRA L
 Release Fin Type Code: With Insurance Policy

UST:

Facility ID: 9344
 Owner: RAY THOMAS PETROLEUM CO INC
 Owner Contact: DAVID CLARY
 Owner Address: 104 CHAMBLEE BLVD
 Owner City,St,Zip: GREENVILLE, SC 29615-6731
 Owner Phone: 864-353-8725
 Contact: DAVID CLARY
 Contact Phone: 704-482-0351

Tank ID: 1
Status: Abandoned
 Capacity: 3000
 Product: Diesel
 Calcage: Not reported

Tank ID: 10
Status: Permanently out of service
 Capacity: 8000
 Product: PLUS
 Calcage: 0

Tank ID: 11
Status: Permanently out of service
 Capacity: 8000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COMMUNITY MART 6 (Continued)

U003629043

Product: PREM
Calcage: 0

Tank ID: 12
Status: Permanently out of service
Capacity: 8000
Product: Diesel
Calcage: 0

Tank ID: 2
Status: Abandoned
Capacity: 3000
Product: Gasoline
Calcage: Not reported

Tank ID: 3
Status: Abandoned
Capacity: 3000
Product: Gasoline
Calcage: Not reported

Tank ID: 4
Status: Abandoned
Capacity: 3000
Product: Gasoline
Calcage: Not reported

Tank ID: 5
Status: Abandoned
Capacity: 3000
Product: Gasoline
Calcage: Not reported

Tank ID: 6
Status: Abandoned
Capacity: 3000
Product: Gasoline
Calcage: Not reported

Tank ID: 7
Status: Abandoned
Capacity: 10000
Product: Gasoline
Calcage: Not reported

Tank ID: 8
Status: Abandoned
Capacity: 10000
Product: Gasoline

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COMMUNITY MART 6 (Continued)

U003629043

Calcage: Not reported

Tank ID: 9
Status: Permanently out of service
Capacity: 8000
Product: RUL
Calcage: 0

SC Financial Assurance 3:

Owner Name: RAY THOMAS PETROLEUM CO IN
Owner Address: 104 CHAMBLEE BLVD
Owner City: GREENVILLE
Owner State: SC
Owner Zip: 29615-6731
Mechanism: Self Insurance 280.101
Date Expired: 05/01/12
Bill: 0
RNU: 0
Rel Number: N

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09344
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: No
Monitoring: No
Remediation: Yes
Surface Impact: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COMMUNITY MART 6 (Continued)

U003629043

Drinking Water Well Impact: No
Remarks: Site ID # 09344. RBCA Classification 3BF4. Active corrective action.

UIC:
Permit Number: SCHE03000052
Facility Address 2: Not reported
Permit Holder: GREENE
Former Permit Number: 161 161M
Activity: Inactive
Operator: Not reported
Disposition: Closed

R125 SEARS ROEBUCK & CO
SW 2188 CHERRY RD
1/2-1 ROCK HILL, SC 29730
0.706 mi.
3726 ft. Site 2 of 2 in cluster R

SC LUST U003665496
SC UST N/A

Relative:
Lower

LUST:
Facility ID: 13049
Release Number: 1
Facility Status: Not reported
Substance: PETRO
Owner: ROBERT BRUCE
NFA Date: 05/20/94
Date Confirmed: 11/10/93
Report Date: 03/20/92
Rank: Not reported

Actual:
608 ft.

UST:
Facility ID: 13049
Owner: BRUCE
Owner Contact: BUD LAUGHERY
Owner Address: PO BOX 136
Owner City,St,Zip: GREENVILLE, SC 29602
Owner Phone: 803-232-8615
Contact: BUD LAUGHERY
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 500
Product: Waste Oil
Calcage: Not reported

Tank ID: 2
Status: Abandoned
Capacity: 10000
Product: Gasoline
Calcage: Not reported

Tank ID: 3
Status: Abandoned
Capacity: 10000
Product: Gasoline

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SEARS ROEBUCK & CO (Continued)

U003665496

Calclage: Not reported

U126
NE
1/2-1
0.768 mi.
4055 ft.

Relative:
Lower

Actual:
629 ft.

CELANESE ACETATE LLC
BOX CRS CHERRY RD STATION
ROCK HILL, SC

Site 1 of 2 in cluster U

CERCLIS-NFRAP
CORRACTS
RCRA-TSDF
US ENG CONTROLS
US INST CONTROL
SC SHWS
RCRA NonGen / NLR
US FIN ASSUR
2020 COR ACTION
SC GWCI
WI MANIFEST

1000171142
SCD003159928

CERCLIS-NFRAP:
Site ID: 0403225
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 4358603.00000
Person ID: 4000583.00000

Contact Sequence ID: 4359152.00000
Person ID: 4000234.00000

Contact Sequence ID: 4359705.00000
Person ID: 4270070.00000

Contact Sequence ID: 4363337.00000
Person ID: 4000271.00000

Contact Sequence ID: 4518851.00000
Person ID: 4000376.00000

Contact Sequence ID: 4535818.00000
Person ID: 4000275.00000

Contact Sequence ID: 4678681.00000
Person ID: 4270495.00000

Contact Sequence ID: 4777710.00000
Person ID: 13002428.00000

Contact Sequence ID: 13063572.00000
Person ID: 13002538.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: CELANESE FIBERS CO CELRIVER PLANT
Alias Address: Not reported
YORK, SC

Program Priority:
Description: RCRA Deferral - Lead Confirmed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: / /
Date Completed: 06/01/81
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 03/19/86
Priority Level: Deferred to RCRA (Subtitle C)

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 12/31/96
Priority Level: Not reported

CORRACTS:

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19901201
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20080701
Action: CA550RC
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20080701
Action: CA550RC
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19910601
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Area Name: AOC 14
Actual Date: 20100402
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20020802
Action: CA184
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20040602
Action: CA300 - CMS Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20060302
Action: CA200 - RFI Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20060302
Action: CA186
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 2 ACID RECOVERY BLDG.
Actual Date: 20060302
Action: CA109
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20030502
Action: CA260 - CMS Workplan Received

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19881102
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19940902
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 3
Actual Date: 20130603
Action: CA260 - CMS Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 4
Actual Date: 20130603
Action: CA260 - CMS Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19890603
Action: CA100 - RFI Imposition
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20020503
Action: CA186
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20031103
Action: CA260 - CMS Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: BENZENE UNDERGROUND TANK
Actual Date: 19911003
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19990804
Action: CA190 - RFI Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20060104
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19930504
Action: CA102
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20061004
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 2 ACID RECOVERY BLDG.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 20070105
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19930305
Action: CA010 - RFA Initiation
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 15,16 & 19
Actual Date: 20090505
Action: CA370 - Petition For No Further Action Receipt Date
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19941005
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: KETONE AREA (NEW SWMU)
Actual Date: 19920206
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 325220
Original schedule date: 19920206
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: KETONE AREA (NEW SWMU)
Actual Date: 19920106
Action: CA100 - RFI Imposition
NAICS Code(s): 325220
Original schedule date: 19920106
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19920106
Action: CA050 - RFA Completed
NAICS Code(s): 325220

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Original schedule date: 19920106
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19990106
Action: CA186
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20030506
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20000807
Action: CA200 - RFI Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20000807
Action: CA250 - CMS Imposition
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 21 & 22
Actual Date: 20060207
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19911007
Action: CA010 - RFA Initiation
NAICS Code(s): 325220
Original schedule date: 19911007
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 15,16 & 19
Actual Date: 20060208
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20090108
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 1 - ACETONE TANK AREA
Actual Date: 19990708
Action: CA010 - RFA Initiation
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20011008
Action: CA184
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 1 - ACETONE TANK AREA
Actual Date: 20000809
Action: CA050 - RFA Completed
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 2 ACID RECOVERY BLDG.
Actual Date: 20040609
Action: CA107
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 20050509
Action: CA200 - RFI Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: KETONE AREA (NEW SWMU)
Actual Date: 19921109
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220
Original schedule date: 19921102
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19921109
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220
Original schedule date: 19921102
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20021210
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19921210
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: 19921210
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 21 & 22
Actual Date: 20060110
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19910110
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20100811
Action: CA350 - CMS Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20121111
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19900712
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20070312
Action: CA200 - RFI Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20090312
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20031112
Action: CA184
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20010413
Action: CA334
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19930813
Action: CA050 - RFA Completed
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19930813
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 15,16 & 19
Actual Date: 20051213
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 14
Actual Date: 20051213
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 2 ACID RECOVERY BLDG.
Actual Date: 20101213
Action: CA375 - Decision On Petition For No Further Action
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 19920113
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations

NAICS Code(s): 325220
Original schedule date: 19920415
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: BENZENE UNDERGROUND TANK
Actual Date: 19900313
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SETTLING BASIN
Actual Date: 19910513
Action: CA610
NAICS Code(s): 325220
Original schedule date: 19910513
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SETTLING BASIN
Actual Date: 19901214
Action: CA610
NAICS Code(s): 325220
Original schedule date: 19901214
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20030314
Action: CA270 - CMS Workplan Modification Requested By Agency
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 1 HOLDING POND
Actual Date: 20080314
Action: CA375 - Decision On Petition For No Further Action
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 2 ACID RECOVERY BLDG.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 20101115
Action: CA370 - Petition For No Further Action Receipt Date
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20030915
Action: CA270 - CMS Workplan Modification Requested By Agency
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19931217
Action: CA184
NAICS Code(s): 325220
Original schedule date: 19931208
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19931217
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20020517
Action: CA186
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19900517
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220
Original schedule date: 19900517
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19900517
Action: CA120 - RFI Workplan Modification Requested By Agency
NAICS Code(s): 325220

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19910517
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: 19910515
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU #8
Actual Date: 19931117
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19921218
Action: CA184
NAICS Code(s): 325220
Original schedule date: 19921217
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 21 & 22
Actual Date: 20000718
Action: CA050 - RFA Completed
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19880718
Action: CA050 - RFA Completed
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19891018
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: 19891006
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20030918
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 15,16 & 19
Actual Date: 20051219
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20100219
Action: CA340 - CMS Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20090519
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19930420
Action: CA010 - RFA Initiation
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SETTLING BASIN
Actual Date: 19910320
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: BENZENE UNDERGROUND TANK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 19920121
Action: CA610
NAICS Code(s): 325220
Original schedule date: 19920121
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: KETONE AREA (NEW SWMU)
Actual Date: 19920121
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: 19920121
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 3
Actual Date: 20130621
Action: CA300 - CMS Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 4
Actual Date: 20130621
Action: CA300 - CMS Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20030321
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SETTLING BASIN
Actual Date: 19910521
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19920622
Action: CA050 - RFA Completed
NAICS Code(s): 325220

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Original schedule date: 19920622
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19981022
Action: CA772EP
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19981022
Action: CA770GW
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19950922
Action: CA186
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20020423
Action: CA336
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20041123
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20090923
Action: CA405
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU #8
Actual Date: 19930824
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19930824
Action: CA186
NAICS Code(s): 325220
Original schedule date: 19930824
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: BENZENE UNDERGROUND TANK
Actual Date: 19920224
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19930525
Action: CA106
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20111025
Action: CA100 - RFI Imposition
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19910925
Action: CACAO
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 20070226
Action: CA190 - RFI Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 2 ACID RECOVERY BLDG.
Actual Date: 20070126
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20021126
Action: CA260 - CMS Workplan Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19910926
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 14
Actual Date: 20100427
Action: CA630
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20100827
Action: CA500 - CMI Workplan Approved
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 14
Actual Date: 20060227
Action: CA620
NAICS Code(s): 325220

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 14
Actual Date: 20060227
Action: CA620
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20070927
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20070927
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19910927
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 325220
Original schedule date: 19910329
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19910927
Action: CA110 - RFI Workplan Received
NAICS Code(s): 325220
Original schedule date: 19910215
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19920428
Action: CA190 - RFI Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 14
Actual Date: 20051228
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 14
Actual Date: 20051228
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20051228
Action: CA109
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: KETONE AREA (NEW SWMU)
Actual Date: 19920228
Action: CA184
NAICS Code(s): 325220
Original schedule date: 19920228
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: WASTE ACID DOPE DISPOSAL AREA(WADDA)
Actual Date: 20130328
Action: CA120 - RFI Workplan Modification Requested By Agency
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19931028
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU #8

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Actual Date: 19931028
Action: CA610
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19920429
Action: CA010 - RFA Initiation
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 11 & 17
Actual Date: 20010629
Action: CA184
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: AOC 3 and PCE Area
Actual Date: 20061129
Action: CA190 - RFI Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 15,16 & 19
Actual Date: 20090630
Action: CA380 - Date For Public Notice On Proposed Remedy
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 21 & 22
Actual Date: 20000330
Action: CA010 - RFA Initiation
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 20041130
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 325220

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 3
Actual Date: 20131030
Action: CA340 - CMS Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMU 4
Actual Date: 20131030
Action: CA340 - CMS Report Received
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19920930
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: SWMUS 2,5,6,7,14,11,12 DIESEL SUMP
Actual Date: 19920930
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19920930
Action: CA226YB
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19960930
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19960930
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified

NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19970131
Action: CA184
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: SCD003159928
EPA Region: 4
Area Name: ENTIRE FACILITY
Actual Date: 19920331
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s): 325220
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-TSDF:

Date form received by agency: 12/07/2009
Facility name: GREENS OF ROCK HILL
Facility address: 2850 CHERRY RD
ROCK HILL, SC 29730
EPA ID: SCD003159928
Mailing address: CHERRY RD
ROCK HILL, SC 29730
Contact: KEITH EGAN
Contact address: CHERRY RD
ROCK HILL, SC 29730
Contact country: US
Contact telephone: (513) 489-6789
Contact email: Not reported
EPA Region: 04
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: THE GREENS OF ROCK HILL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Owner/operator address: E BUSINESS WAY
CINCINNATI, OH 45241
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/09/2005
Owner/Op end date: Not reported

Owner/operator name: THE GREENS OF ROCK HILL
Owner/operator address: E BUSINESS WAY
CINCINNATI, OH 45241
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/09/2005
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/26/2007
Site name: GREENS OF ROCK HILL
Classification: Not a generator, verified

Date form received by agency: 01/01/2006
Site name: GREENS OF ROCK HILL
Classification: Large Quantity Generator

Date form received by agency: 11/09/2005
Site name: THE GREENS OF ROCK HILL
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

- . Waste name: REACTIVE WASTE

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Date form received by agency: 01/01/2004

Site name: CELANESE ACETATE LLC

Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

- . Waste name: CORROSIVE WASTE
- . Waste code: D003
- . Waste name: REACTIVE WASTE
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Date form received by agency: 03/01/2002
Site name: CELANESE ACETATE LLC
Classification: Large Quantity Generator

Date form received by agency: 01/03/2000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Site name: CELANESE ACETATE LLC
Classification: Large Quantity Generator

Date form received by agency: 03/01/1998

Site name: CELANESE ACETATE LLC
Classification: Large Quantity Generator

Date form received by agency: 09/30/1997

Site name: CELANESE ACETATE LLC
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

MAP FINDINGS

CELANESE ACETATE LLC (Continued)

1000171142

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: P003
- . Waste name: 2-PROPENAL (OR) ACROLEIN

- . Waste code: P005
- . Waste name: 2-PROPEN-1-OL (OR) ALLYL ALCOHOL

- . Waste code: P012
- . Waste name: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

- . Waste code: P022
- . Waste name: CARBON DISULFIDE

- . Waste code: P028
- . Waste name: BENZENE, (CHLOROMETHYL)- (OR) BENZYL CHLORIDE

- . Waste code: P048
- . Waste name: 2,4-DINITROPHENOL (OR) PHENOL, 2,4-DINITRO-

- . Waste code: P053
- . Waste name: Not Defined

- . Waste code: P095
- . Waste name: CARBONIC DICHLORIDE (OR) PHOSGENE

- . Waste code: P098
- . Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

- . Waste code: P105
- . Waste name: SODIUM AZIDE

- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

- . Waste code: U008
- . Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

- . Waste code: U013
- . Waste name: Not Defined

- . Waste code: U019
- . Waste name: BENZENE (I,T)

- . Waste code: U036
- . Waste name: 4,7-METHANO-1H-INDENE,
 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO- (OR) CHLORDANE,
 ALPHA & GAMMA ISOMERS

- . Waste code: U044
- . Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

- . Waste code: U055
- . Waste name: BENZENE, (1-METHYLETHYL)- (I) (OR) CUMENE (I)

- . Waste code: U080
- . Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

- . Waste code: U112
- . Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

- . Waste code: U117
- . Waste name: ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)

- . Waste code: U122
- . Waste name: FORMALDEHYDE

- . Waste code: U123
- . Waste name: FORMIC ACID (C,T)

- . Waste code: U134
- . Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

- . Waste code: U144
- . Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

- . Waste code: U151
- . Waste name: MERCURY

- . Waste code: U154
- . Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

- . Waste code: U159
- . Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

- . Waste code: U162
- . Waste name: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL METHACRYLATE (I,T)

- . Waste code: U188
- . Waste name: PHENOL

- . Waste code: U220
- . Waste name: BENZENE, METHYL- (OR) TOLUENE

- . Waste code: U226
- . Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

- . Waste code: U239
- . Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Date form received by agency: 03/01/1996

Site name: HOECHST CELANESE (ROCK HILL)
Classification: Large Quantity Generator

Date form received by agency: 06/20/1994

Site name: CELANESE ACETATE LLC
Classification: Large Quantity Generator

- . Waste code: D000
- . Waste name: Not Defined

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: D004
- . Waste name: ARSENIC

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

- . Waste code: U008
- . Waste name: 2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)

- . Waste code: U080
- . Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

- . Waste code: U112
- . Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

- . Waste code: U113
- . Waste name: 2-PROPENOIC ACID, ETHYL ESTER (I) (OR) ETHYL ACRYLATE (I)

- . Waste code: U122
- . Waste name: FORMALDEHYDE

- . Waste code: U123
- . Waste name: FORMIC ACID (C,T)

- . Waste code: U159
- . Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

- . Waste code: 7777
- . Waste name: 7777

Date form received by agency: 03/01/1994
Site name: HOECHST CELANESE (ROCK HILL)
Classification: Large Quantity Generator

Date form received by agency: 09/24/1990
Site name: CELANESE ACETATE LLC
Classification: Not a generator, verified

Date form received by agency: 03/04/1985
Site name: CELANESE ACETATE LLC
Classification: Not a generator, verified

Corrective Action Summary:

- Event date: 07/18/1988
- Event: RFA Completed

- Event date: 11/02/1988
- Event: Stabilization Measures Implemented

- Event date: 06/03/1989
- Event: RFI Imposition

- Event date: 10/18/1989
- Event: RFI Workplan Received

- Event date: 03/13/1990
- Event: CA610

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date:	05/17/1990
Event:	RFI Workplan Modification Requested By Agency
Event date:	05/17/1990
Event:	RFI Workplan Notice Of Deficiency Issued
Event date:	07/12/1990
Event:	RFI Workplan Received
Event date:	12/01/1990
Event:	CA630
Event date:	12/14/1990
Event:	CA610
Event date:	01/10/1991
Event:	RFI Workplan Notice Of Deficiency Issued
Event date:	03/20/1991
Event:	CA620
Event date:	05/13/1991
Event:	CA610
Event date:	05/17/1991
Event:	RFI Workplan Received
Event date:	05/21/1991
Event:	CA620
Event date:	06/01/1991
Event:	CA630
Event date:	09/25/1991
Event:	CACAO
Event date:	09/26/1991
Event:	RFI Workplan Approved
Event date:	09/27/1991
Event:	RFI Workplan Approved
Event date:	09/27/1991
Event:	RFI Workplan Received
Event date:	10/03/1991
Event:	CA620
Event date:	10/07/1991
Event:	RFA Initiation
Event date:	01/06/1992
Event:	RFA Completed
Event date:	01/06/1992
Event:	RFI Imposition

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date:	01/13/1992
Event:	Stabilization Measures Evaluation, This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.
Event date:	01/21/1992
Event:	CA610
Event date:	01/21/1992
Event:	RFI Workplan Received
Event date:	02/06/1992
Event:	RFI Workplan Approved
Event date:	02/24/1992
Event:	CA630
Event date:	02/28/1992
Event:	CA184
Event date:	03/31/1992
Event:	CA Prioritization, Facility or area was assigned a high corrective action priority.
Event date:	04/28/1992
Event:	RFI Report Received
Event date:	04/29/1992
Event:	RFA Initiation
Event date:	06/22/1992
Event:	RFA Completed
Event date:	09/30/1992
Event:	Stabilization Measures Evaluation, This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.
Event date:	09/30/1992
Event:	CA226YB
Event date:	09/30/1992
Event:	Stabilization Measures Implemented
Event date:	11/09/1992
Event:	RFI Workplan Notice Of Deficiency Issued
Event date:	12/10/1992
Event:	RFI Workplan Received
Event date:	12/18/1992
Event:	CA184
Event date:	03/05/1993
Event:	RFA Initiation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date:	04/20/1993
Event:	RFA Initiation
Event date:	05/04/1993
Event:	CA102
Event date:	05/25/1993
Event:	CA106
Event date:	08/13/1993
Event:	RFA Completed
Event date:	08/13/1993
Event:	Stabilization Measures Implemented
Event date:	08/24/1993
Event:	CA186
Event date:	08/24/1993
Event:	Stabilization Measures Implemented
Event date:	10/28/1993
Event:	CA610
Event date:	11/17/1993
Event:	CA630
Event date:	12/17/1993
Event:	CA620
Event date:	12/17/1993
Event:	CA184
Event date:	09/02/1994
Event:	Stabilization Measures Implemented
Event date:	10/05/1994
Event:	Stabilization Measures Implemented
Event date:	09/22/1995
Event:	CA186
Event date:	09/30/1996
Event:	Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.
Event date:	09/30/1996
Event:	Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date:	01/31/1997
Event:	CA184
Event date:	10/22/1998
Event:	CA772EP
Event date:	10/22/1998
Event:	CA770GW
Event date:	01/06/1999
Event:	CA186
Event date:	07/08/1999
Event:	RFA Initiation
Event date:	08/04/1999
Event:	RFI Report Received
Event date:	03/30/2000
Event:	RFA Initiation
Event date:	07/18/2000
Event:	RFA Completed
Event date:	08/07/2000
Event:	RFI Approved
Event date:	08/07/2000
Event:	CMS Imposition
Event date:	08/09/2000
Event:	RFA Completed
Event date:	04/13/2001
Event:	CA334
Event date:	06/29/2001
Event:	CA184
Event date:	10/08/2001
Event:	CA184
Event date:	04/23/2002
Event:	CA336
Event date:	05/03/2002
Event:	CA186
Event date:	05/17/2002
Event:	CA186

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date:	08/02/2002
Event:	CA184
Event date:	11/26/2002
Event:	CMS Workplan Received
Event date:	12/10/2002
Event:	RFI Workplan Notice Of Deficiency Issued
Event date:	03/14/2003
Event:	CMS Workplan Modification Requested By Agency
Event date:	03/21/2003
Event:	RFI Workplan Received
Event date:	05/02/2003
Event:	CMS Workplan Received
Event date:	05/06/2003
Event:	RFI Workplan Notice Of Deficiency Issued
Event date:	09/15/2003
Event:	CMS Workplan Modification Requested By Agency
Event date:	09/18/2003
Event:	RFI Workplan Notice Of Deficiency Issued
Event date:	11/03/2003
Event:	CMS Workplan Received
Event date:	11/12/2003
Event:	CA184
Event date:	06/02/2004
Event:	CMS Workplan Approved
Event date:	06/09/2004
Event:	CA107
Event date:	11/23/2004
Event:	CA630
Event date:	11/30/2004
Event:	RFI Workplan Approved
Event date:	05/09/2005
Event:	RFI Approved
Event date:	12/13/2005
Event:	CA620
Event date:	12/19/2005
Event:	CA610
Event date:	12/28/2005
Event:	CA610

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date:	12/28/2005
Event:	CA610
Event date:	12/28/2005
Event:	CA109
Event date:	01/04/2006
Event:	CA620
Event date:	01/10/2006
Event:	CA610
Event date:	02/07/2006
Event:	CA630
Event date:	02/08/2006
Event:	CA630
Event date:	02/27/2006
Event:	CA620
Event date:	02/27/2006
Event:	CA620
Event date:	03/02/2006
Event:	RFI Approved
Event date:	03/02/2006
Event:	CA186
Event date:	03/02/2006
Event:	CA109
Event date:	10/04/2006
Event:	RFI Workplan Approved
Event date:	11/29/2006
Event:	RFI Report Received
Event date:	01/05/2007
Event:	CA610
Event date:	01/26/2007
Event:	CA630
Event date:	02/26/2007
Event:	RFI Report Received
Event date:	03/12/2007
Event:	RFI Approved
Event date:	09/27/2007
Event:	Date For Remedy Selection (CM Imposed)
Event date:	03/14/2008
Event:	Decision On Petition For No Further Action

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date:	07/01/2008
Event:	CA550RC
Event date:	01/08/2009
Event:	RFI Workplan Received
Event date:	03/12/2009
Event:	RFI Workplan Approved
Event date:	05/05/2009
Event:	Petition For No Further Action Receipt Date
Event date:	05/19/2009
Event:	CA630
Event date:	06/30/2009
Event:	Date For Public Notice On Proposed Remedy
Event date:	09/23/2009
Event:	CA405
Event date:	02/19/2010
Event:	CMS Report Received
Event date:	04/02/2010
Event:	CA610
Event date:	04/27/2010
Event:	CA630
Event date:	08/11/2010
Event:	CMS Approved
Event date:	08/27/2010
Event:	CMI Workplan Approved
Event date:	11/15/2010
Event:	Petition For No Further Action Receipt Date
Event date:	12/13/2010
Event:	Decision On Petition For No Further Action
Event date:	10/25/2011
Event:	RFI Imposition
Event date:	11/11/2012
Event:	RFI Workplan Received
Event date:	03/28/2013
Event:	RFI Workplan Modification Requested By Agency
Event date:	06/03/2013
Event:	CMS Workplan Received
Event date:	06/21/2013
Event:	CMS Workplan Approved

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Event date: 10/30/2013
Event: CMS Report Received

Violation Status: No violations found

US ENG CONTROLS:

EPA ID: SCD003159928
Site ID: Not reported
Name: GREENS OF ROCK HILL
Address: 2850 CHERRY RD
ROCK HILL, SC 29730
EPA Region: 04
County: YORK
Event Code: CA770GW
Actual Date: 10/22/1998
Contact Name: KEITH EGAN
Contact Phone and Ext: 5134896789
Latitude: 35
Longitude: -81

Action ID: Not reported
Action Name: Not reported
Action Completion date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported
Engineering Control: Not reported
Contact Name: KEITH EGAN
Contact Phone and Ext: 5134896789
Latitude: 35
Longitude: -81

US INST CONTROL:

EPA ID: SCD003159928
Site ID: Not reported
Name: GREENS OF ROCK HILL
Action Name: Not reported
Address: 2850 CHERRY RD
ROCK HILL, SC 29730
EPA Region: 04
County: YORK
Event Code: CA772EP
Inst. Control: Not reported
Actual Date: 10/22/1998
Comple. Date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported
Contact Name : KEITH EGAN
Contact Phone and Ext :5134896789
Latitude : 35
Longitude : -81

SHWS:

EPA ID: SCD003159928

US FIN ASSUR:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

EPA ID: SCD003159928
Provider: ASSURED CAPITAL CASUALTY & SURETY LLC
EPA region: 4
County: YORK
Mechanism type: INSURANCE
Mechanism ID: GRHPCC462006
Cost estimate: 830860
Face value: 1000000
Effective date: 4/5/2006

EPA ID: SCD003159928
Provider: BANK OF TOKYO-MITSUBISHI UFJ
EPA region: 4
County: YORK
Mechanism type: LETTER OF CREDIT
Mechanism ID: S018052
Cost estimate: 546461
Face value: 3103942
Effective date: 1/21/2014

EPA ID: SCD003159928
Provider: LEXON
EPA region: 4
County: YORK
Mechanism type: SURETY BOND GUARANTEEING PERFORMANCE
Mechanism ID: 1074331
Cost estimate: 546461
Face value: 592840
Effective date: 6/21/2012

EPA ID: SCD003159928
Provider: LEXON
EPA region: 4
County: YORK
Mechanism type: SURETY BOND GUARANTEEING PERFORMANCE
Mechanism ID: 1074331
Cost estimate: 592840
Face value: 592840
Effective date: 6/21/2012

EPA ID: SCD003159928
Provider: BB&T
EPA region: 4
County: YORK
Mechanism type: STANDBY TRUST
Mechanism ID: 1785003495
Cost estimate: 546461
Face value: 0
Effective date: 7/13/2015

EPA ID: SCD003159928
Provider: WACHOVIA
EPA region: 4
County: YORK
Mechanism type: STANDBY TRUST
Mechanism ID: STANDBY TRUST FUND
Cost estimate: 546461

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

Face value: 0
Effective date: 6/14/2005

2020 COR ACTION:

EPA ID: SCD003159928
Region: 4
Action: Not reported

SC GWIC:

Bureau: BLWM
EAP ID: SCD003159928
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: Not reported
WPC Permit: Not reported
Program: RCRA
Contamination: VOC
Petroleum Products: False
Volatile Organic Compounds: True
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: PPL, LF, UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: True
Spills & Leaks: False
Landfills: True
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: YES
Monitoring: NO
Remediation: YES
Surface Impact: Not reported
Drinking Water Well Impact: YES
Remarks: Formerly Celanese Acetate. In assessment and remediation phases. Site undergoing redevelopment and is known as "The Greens of Rock Hill." PCE detected, but not over MCL, in 1 private drinking water well in "Eden Terrace"

WI MANIFEST:

Year: 2005
EPA ID: SCD003159928
FID: 0
ACT Code: 201
ACT Status: A
ACT Code 1: 201

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE ACETATE LLC (Continued)

1000171142

ACT Name: HW Generator - Large
Contact Title: Not reported
Contact Name: Not reported
Contact Address: Not reported
Contact City/State/Zip: 0
Contact Telephone: 0
Contact EMail Address: Not reported

U127
NE
1/2-1
0.768 mi.
4055 ft.

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS
2850 CHERRY RD
ROCK HILL, SC 29730
Site 2 of 2 in cluster U

SC SHWS S106044907
SC RCR N/A
SC VCP
SC BROWNFIELDS
SC ALLSITES
SC SPILLS

Relative:
Lower

SHWS:
EPA ID: SCS123457541
EPA ID: SCS123457458
EPA ID: SCS123457457
EPA ID: SCS123457503
EPA ID: SCS123457594

Actual:
629 ft.

RCR:

Entity Responsibility: Not reported
Region: 3
Tax Id: Not reported
Latitude: Not reported
Longitude: Not reported
Tracking Number: SCD 003 159 928
Regulatory Program: RCRA Hazardous Waste
Unit Type: Regulated Unit
Unit Number/Letter: 1
Area/Acres: -
Affected Media: 1. Groundwater, Soil
Site/Unit: 1. Closed Chemical Holding Pond. Also known as SWMU 1.
Conditions: 1. Engineered Soil Cap, Notice to Deed as required by R.61-79.264.119(b).
Associated Response/Corrective Action: 1. Groundwater Pump and Treat.
Associated Chemicals Requiring: 1. Antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, zinc, acetone, benzene, carbon disulfide, chloroform, 1,1-dichloroethane, 1,2-dichloroethene, diethylphthalate, d-n-butylphthalate, 2-hexanone, methylene chloride, methyl ethyl ketone, 4-methyl-2-pentanone, phenol, tetrachloroethene, toluene, trichloroethene.

Entity Responsibility: Not reported
Region: 3
Tax Id: Not reported
Latitude: Not reported
Longitude: Not reported
Tracking Number: SCD 003 159 928
Regulatory Program: RCRA Hazardous Waste

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Unit Type: Regulated Unit
Unit Number/Letter: -
Area/Acres: -
Affected Media: 2. Groundwater, Soil
Site/Unit: 2. Waste Acide Dope Pits. These consists of SWMUs 3 and 4.
Conditions: 2. Engineered Soil Cap, Notice to Deed as required by R.61-79.264.119(b).
Associated Response/Corrective Action: 2. Groundwater Pump and Treat.
Associated Chemicals Requiring: 2. Barium, cadmium, chromium, copper, lead, mercury, nickel, zinc, acetone, benzene, 1,2-dichloroethane, 1,2-dichloroethene, methylene chloride, methyl ethyl ketone, phenol, trichlorofluoromethane.

VCP:

Person Company: ROCK HILL CITY OF
Prim Address 1: PO BOX 11706
Prim Address 2: Not reported
Prim City: ROCK HILL
Prim State: SC
Prim Zip: Not reported
Type Brownfield: Not reported
Contact: DAVID VEHAUN
Status code: ACTIVE
File Number: 50767
Exec Date: 9/26/2013
Contract Mailed Date: 7/26/2013
Date Terminated: Not reported
Contract #: 12-6112-NRP-A1
Contract Type: NRP
Contract Manager: FULMER, WILLIAM ALEXANDER
Acreage: 5
COC Issued Date: 8/12/2014
RC Executed Date: Not reported
I C Received: 5/29/2013
Workplan Due: Not reported
Workplan Receive: Not reported
Workplan Reviewed: Not reported
Workplan Approved: Not reported
Report Receive: Not reported
Report Reviewed: Not reported
Report Approved: Not reported
Cap Approved: Not reported

Person Company: ROCK HILL CITY OF
Prim Address 1: PO BOX 11706
Prim Address 2: Not reported
Prim City: ROCK HILL
Prim State: SC
Prim Zip: Not reported
Type Brownfield: Not reported
Contact: PHIL OKEY
Status code: ACTIVE
File Number: 50767
Exec Date: 10/11/2012
Contract Mailed Date: 8/3/2012
Date Terminated: Not reported
Contract #: 12-6112-NRP
Contract Type: NRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Contract Manager: FULMER, WILLIAM ALEXANDER
Acreage: 18.2
COC Issued Date: 8/12/2014
RC Executed Date: Not reported
I C Received: 3/28/2011
Workplan Due: Not reported
Workplan Receive: Not reported
Workplan Reviewed: Not reported
Workplan Approved: Not reported
Report Receive: Not reported
Report Reviewed: Not reported
Report Approved: Not reported
Cap Approved: Not reported

Person Company: ROCK HILL CITY OF
Prim Address 1: PO BOX 11706
Prim Address 2: Not reported
Prim City: ROCK HILL
Prim State: SC
Prim Zip: Not reported
Type Brownfield: Not reported
Contact: PHIL OKEY
Status code: INCOMP
File Number: 50767
Exec Date: 10/18/2012
Contract Mailed Date: Not reported
Date Terminated: Not reported
Contract #: 11-6113-NRP
Contract Type: NRP
Contract Manager: FULMER, WILLIAM ALEXANDER
Acreage: 7.18
COC Issued Date: 8/12/2014
RC Executed Date: Not reported
I C Received: 2/15/2011
Workplan Due: Not reported
Workplan Receive: Not reported
Workplan Reviewed: Not reported
Workplan Approved: Not reported
Report Receive: Not reported
Report Reviewed: Not reported
Report Approved: Not reported
Cap Approved: Not reported

Person Company: ROCK HILL CITY OF
Prim Address 1: PO BOX 11706
Prim Address 2: Not reported
Prim City: ROCK HILL
Prim State: SC
Prim Zip: Not reported
Type Brownfield: Not reported
Contact: PHIL OKEY
Status code: ACTIVE
File Number: 50767
Exec Date: 6/24/2013
Contract Mailed Date: 1/16/2013
Date Terminated: Not reported
Contract #: 13-6157-NRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Contract Type:	NRP
Contract Manager:	FULMER, WILLIAM ALEXANDER
Acreage:	16.11
COC Issued Date:	8/12/2014
RC Executed Date:	Not reported
I C Received:	12/18/2012
Workplan Due:	Not reported
Workplan Receive:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Receive:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Person Company:	ROCKBRIDGE COMMUNITY ONE LLC
Prim Address 1:	Not reported
Prim Address 2:	Not reported
Prim City:	Not reported
Prim State:	Not reported
Prim Zip:	Not reported
Type Brownfield:	Not reported
Contact:	JOAN WILLIAMS
Status code:	INCOMP
File Number:	50767
Exec Date:	8/26/2014
Contract Mailed Date:	Not reported
Date Terminated:	Not reported
Contract #:	14-6259-NRP
Contract Type:	NRP
Contract Manager:	FULMER, WILLIAM ALEXANDER
Acreage:	Not reported
COC Issued Date:	4/17/2015
RC Executed Date:	Not reported
I C Received:	Not reported
Workplan Due:	Not reported
Workplan Receive:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Receive:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Person Company:	RIVERWALK APARTMENTS LLC
Prim Address 1:	Not reported
Prim Address 2:	Not reported
Prim City:	Not reported
Prim State:	Not reported
Prim Zip:	Not reported
Type Brownfield:	Not reported
Contact:	JOHN S. WISE
Status code:	ACTIVE
File Number:	50767
Exec Date:	8/23/2013
Contract Mailed Date:	Not reported
Date Terminated:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Contract #: 13-6195-NRP
Contract Type: NRP
Contract Manager: FULMER, WILLIAM ALEXANDER
Acreage: 16.2
COC Issued Date: Not reported
RC Executed Date: Not reported
I C Received: 2/4/2013
Workplan Due: Not reported
Workplan Receive: Not reported
Workplan Reviewed: Not reported
Workplan Approved: Not reported
Report Receive: Not reported
Report Reviewed: Not reported
Report Approved: Not reported
Cap Approved: Not reported

SC BROWNFIELD:

Contract Number: 13-6195-NRP
Contract Type: NRP
File Number: 50767
Contract Manager: FULMER, WILLIAM ALEXANDER
Person Company: RIVERWALK APARTMENTS LLC
Primary Address1: Not reported
Primary Address2: Not reported
Primary City: Not reported
Primary State Code: Not reported
Primary Zip Code: Not reported
Type Brownfield: Not reported
Acreage: 16.2
Contract Executed: 8/23/2013
COC Date Issued: Not reported
RC Executed: Not reported
Contact: JOHN S. WISE
Status Code: ACTIVE
IC Received: 2/4/2013
Workplan Due: Not reported
Workplan Received: Not reported
Workplan Reviewed: Not reported
Workplan Approved: Not reported
Report Received: Not reported
Report Reviewed: Not reported
Report Approved: Not reported
Cap Approved: Not reported
Contract Mailed: Not reported
Date Terminated: Not reported

Contract Number: 12-6112-NRP-A1
Contract Type: NRP
File Number: 50767
Contract Manager: FULMER, WILLIAM ALEXANDER
Person Company: ROCK HILL CITY OF
Primary Address1: PO BOX 11706
Primary Address2: Not reported
Primary City: ROCK HILL
Primary State Code: SC
Primary Zip Code: Not reported
Type Brownfield: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Acreage:	5
Contract Executed:	9/26/2013
COC Date Issued:	8/12/2014
RC Executed:	Not reported
Contact:	DAVID VEHAUN
Status Code:	ACTIVE
IC Received:	5/29/2013
Workplan Due:	Not reported
Workplan Received:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Received:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Contract Mailed:	7/26/2013
Date Terminated:	Not reported
Contract Number:	12-6112-NRP
Contract Type:	NRP
File Number:	50767
Contract Manager:	FULMER, WILLIAM ALEXANDER
Person Company:	ROCK HILL CITY OF
Primary Address1:	PO BOX 11706
Primary Address2:	Not reported
Primary City:	ROCK HILL
Primary State Code:	SC
Primary Zip Code:	Not reported
Type Brownfield:	Not reported
Acreage:	18.2
Contract Executed:	10/11/2012
COC Date Issued:	8/12/2014
RC Executed:	Not reported
Contact:	PHIL OKEY
Status Code:	ACTIVE
IC Received:	3/28/2011
Workplan Due:	Not reported
Workplan Received:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Received:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Contract Mailed:	8/3/2012
Date Terminated:	Not reported
Contract Number:	11-6113-NRP
Contract Type:	NRP
File Number:	50767
Contract Manager:	FULMER, WILLIAM ALEXANDER
Person Company:	ROCK HILL CITY OF
Primary Address1:	PO BOX 11706
Primary Address2:	Not reported
Primary City:	ROCK HILL
Primary State Code:	SC
Primary Zip Code:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Type Brownfield:	Not reported
Acreage:	7.18
Contract Executed:	10/18/2012
COC Date Issued:	8/12/2014
RC Executed:	Not reported
Contact:	PHIL OKEY
Status Code:	INCOMP
IC Received:	2/15/2011
Workplan Due:	Not reported
Workplan Received:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Received:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Contract Mailed:	Not reported
Date Terminated:	Not reported
Contract Number:	13-6157-NRP
Contract Type:	NRP
File Number:	50767
Contract Manager:	FULMER, WILLIAM ALEXANDER
Person Company:	ROCK HILL CITY OF
Primary Address1:	PO BOX 11706
Primary Address2:	Not reported
Primary City:	ROCK HILL
Primary State Code:	SC
Primary Zip Code:	Not reported
Type Brownfield:	Not reported
Acreage:	16.11
Contract Executed:	6/24/2013
COC Date Issued:	8/12/2014
RC Executed:	Not reported
Contact:	PHIL OKEY
Status Code:	ACTIVE
IC Received:	12/18/2012
Workplan Due:	Not reported
Workplan Received:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Received:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Contract Mailed:	1/16/2013
Date Terminated:	Not reported
Contract Number:	14-6259-NRP
Contract Type:	NRP
File Number:	50767
Contract Manager:	FULMER, WILLIAM ALEXANDER
Person Company:	ROCKBRIDGE COMMUNITY ONE LLC
Primary Address1:	Not reported
Primary Address2:	Not reported
Primary City:	Not reported
Primary State Code:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Primary Zip Code:	Not reported
Type Brownfield:	Not reported
Acreage:	Not reported
Contract Executed:	8/26/2014
COC Date Issued:	4/17/2015
RC Executed:	Not reported
Contact:	JOAN WILLIAMS
Status Code:	INCOMP
IC Received:	Not reported
Workplan Due:	Not reported
Workplan Received:	Not reported
Workplan Reviewed:	Not reported
Workplan Approved:	Not reported
Report Received:	Not reported
Report Reviewed:	Not reported
Report Approved:	Not reported
Cap Approved:	Not reported
Contract Mailed:	Not reported
Date Terminated:	Not reported

ALLSITES:

Brownfield:	Not reported
Brownfield Type:	Not reported
Funds Used:	No
Resp Action:	No
Permit Number:	SCS123457541
Program:	SF
Owner:	RIVERWALK APARTMENTS LLC
Project Status Code:	ACTIVE
Execute Date:	08/23/2013
Restrictions Filed Date:	Not yet recorded.
Cleanup Contract Complete Date:	Not reported
Project Complete Date:	Not yet completed.
File Number:	50767
Land Use Restriction:	We do not have enough information yet to determine whether restrictions will be required.
Contamination On Site:	Please call 803-898-2000 for this information.
Acreage:	Not reported
Soil Contamination Desc:	Not reported
Soil COCS:	Not reported
SW Sed Contamination Desc:	Not reported
SW COCS:	Not reported
GW Contamination Desc:	Not reported
GW COCS:	Not reported
Air Contamination Desc:	Not reported
Air COCS:	Not reported
Lat:	34.974982
Long:	-80.977299
Brownfield:	Not reported
Brownfield Type:	Not reported
Funds Used:	No
Resp Action:	No
Permit Number:	SCS123457458
Program:	SF
Owner:	ROCK HILL CITY OF
Project Status Code:	INCOMP
Execute Date:	10/18/2012

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

Restrictions Filed Date: Not yet recorded.
Cleanup Contract Complete Date: 08/12/2014
Project Complete Date: 8/12/2014
File Number: 50767
Land Use Restriction: Not yet determined.
Contamination On Site: Please call 803-898-2000 for this information.
Acreage: Not reported
Soil Contamination Desc: Not reported
Soil COCS: Not reported
SW Sed Contamination Desc: Not reported
SW COCS: Not reported
GW Contamination Desc: Not reported
GW COCS: Not reported
Air Contamination Desc: Not reported
Air COCS: Not reported
Lat: 34.97762
Long: -80.974732

Brownfield: Not reported
Brownfield Type: Not reported
Funds Used: No
Resp Action: No
Permit Number: SCS123457457
Program: SF
Owner: ROCK HILL CITY OF
Project Status Code: ACTIVE
Execute Date: 10/11/2012
Restrictions Filed Date: Not yet recorded.
Cleanup Contract Complete Date: 08/12/2014
Project Complete Date: 8/12/2014
File Number: 50767
Land Use Restriction: Not yet determined.
Contamination On Site: Please call 803-898-2000 for this information.
Acreage: Not reported
Soil Contamination Desc: Not reported
Soil COCS: Not reported
SW Sed Contamination Desc: Not reported
SW COCS: Not reported
GW Contamination Desc: Not reported
GW COCS: Not reported
Air Contamination Desc: Not reported
Air COCS: Not reported
Lat: 34.934259
Long: -80.979972

Brownfield: Not reported
Brownfield Type: Not reported
Funds Used: No
Resp Action: No
Permit Number: SCS123457503
Program: SF
Owner: ROCK HILL CITY OF
Project Status Code: ACTIVE
Execute Date: 06/24/2013
Restrictions Filed Date: Not yet recorded.
Cleanup Contract Complete Date: 08/12/2014
Project Complete Date: 8/12/2014

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

File Number: 50767
Land Use Restriction: Not yet determined.
Contamination On Site: Please call 803-898-2000 for this information.
Acreage: Not reported
Soil Contamination Desc: Not reported
Soil COCS: Not reported
SW Sed Contamination Desc: Not reported
SW COCS: Not reported
GW Contamination Desc: Not reported
GW COCS: Not reported
Air Contamination Desc: Not reported
Air COCS: Not reported
Lat: 34.978351
Long: -80.970544

Brownfield: Not reported
Brownfield Type: Not reported
Funds Used: No
Resp Action: No
Permit Number: Not reported
Program: Not reported
Owner: ROCKBRIDGE COMMUNITY ONE LLC
Project Status Code: INCOMP
Execute Date: 08/26/2014
Restrictions Filed Date: Not yet recorded.
Cleanup Contract Complete Date: 04/17/2015
Project Complete Date: 4/17/2015
File Number: 50767
Land Use Restriction: Not yet determined.
Contamination On Site: Please call 803-898-2000 for this information.
Acreage: Not reported
Soil Contamination Desc: Not reported
Soil COCS: Not reported
SW Sed Contamination Desc: Not reported
SW COCS: Not reported
GW Contamination Desc: Not reported
GW COCS: Not reported
Air Contamination Desc: Not reported
Air COCS: Not reported
Lat: 34.974284
Long: -80.974516

SPILL:

Incident ID number: 5840283
Incident Name: 200303613
District Logged In: 27
Date DHEC notified: 09/15/2003
DHEC notification: 1130
Observed date: 09/14/2003
observed_t: Not reported
Spill Date: 09/14/2003
Spill Time: 2200
Duration: Not reported
Created Date: 09/16/2003
Updated Date: 09/23/2003
District Name: Lancaster EQC Office
PRP Last Name: GREENS OF ROCK HILL LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CELANESE / GREENS OF ROCK HILL / RIVERWALK APTS (Continued)

S106044907

PRP First Name: Not reported
Incident substance type: Hazardous Material
Received by Name: JIM RICE
Revised by Name: STEVE SPIGNER
Transportation: N
Surface water affected: No
Lead Investigator Name: Not reported
CCBEP: No
Water body: Not reported
Caller Last Name: Not reported
Caller name: Not reported
Caller phone number: Not reported
Caller extension: Not reported
Caller organization: Not reported
Substance: ACETIC ACID
Quantity: 12000
Units: Pounds
Recovered: Not reported
Recovered Units: Not reported
Comments: Not reported

V128
SW
1/2-1
0.883 mi.
4662 ft.

**QUICK AS A WINK 462
2103 CHERRY RD
ROCK HILL, SC 29732
Site 1 of 5 in cluster V**

**SC SHWS 1000172556
RCRA NonGen / NLR SCD981480619
FINDS
SC DRYCLEANERS**

**Relative:
Lower**

SHWS:
EPA ID: SCDRY0052508

**Actual:
619 ft.**

RCRA NonGen / NLR:
Date form received by agency: 07/27/1998
Facility name: QUICK AS A WINK 462
Facility address: 2103 CHERRY RD
ROCK HILL, SC 29730
EPA ID: SCD981480619
Mailing address: SOUTHPORT RD
SPARTANBURG, SC 29301
Contact: WAYNE BONENSCHEN
Contact address: 107 SOUTHPORT RD
SPARTANBURG, SC 29301
Contact country: US
Contact telephone: (864) 576-9050
Contact email: Not reported
EPA Region: 04
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, WY 99999
Owner/operator country: Not reported
Owner/operator telephone: (404) 555-1212
Legal status: Private
Owner/Operator Type: Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUICK AS A WINK 462 (Continued)

1000172556

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: DRYCLEAN USA SC INC
Owner/operator address: 4401 N KEYSTONE AVE
INDIANAPOLIS, IN 46205

Owner/operator country: Not reported
Owner/operator telephone: (999) 999-9999
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUICK AS A WINK 462 (Continued)

1000172556

SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110002240094

Environmental Interest/Information System

SC-EFIS (South Carolina - Environmental Facility Information System) integrates information on environmental facilities, permits, violations, enforcement actions, and compliance activities needed to support regulatory requirements and target environmental quality improvements for the water, air, solid waste, and hazardous waste program areas. The EFIS was developed by the state of South Carolina and Maine joined their system in 2004.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Drycleaners:

BLWM Number: 52508
Rank: 2nd
Priority Group Explanation: 2nd

V129
SW
1/2-1
0.886 mi.
4676 ft.

**MOUNT GALLANT EXPRESS
1024 MT GALLANT RD
ROCK HILL, SC 29732**

**SC LUST U003665771
SC UST N/A
SC Financial Assurance**

Site 2 of 5 in cluster V

**Relative:
Lower**

LUST:

Facility ID: 09422
Release Number: 1
Facility Status: Not reported
Substance: PETRO
Owner: MYRINA VY
NFA Date: 05/17/93
Date Confirmed: 01/31/89
Report Date: 01/23/89
Rank: Not reported

**Actual:
620 ft.**

UST:

Facility ID: 9422
Owner: VY
Owner Contact: Not reported
Owner Address: 1024 MT GALLANT RD
Owner City,St,Zip: ROCK HILL, SC 29732
Owner Phone: 803-322-0692
Contact: Not reported
Contact Phone: 803-328-1052

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOUNT GALLANT EXPRESS (Continued)

U003665771

Tank ID: 1
Status: **Currently in use**
Capacity: 10000
Product: RUL
Calcage: 15

Tank ID: 2
Status: **Currently in use**
Capacity: 8000
Product: RUL
Calcage: 15

Tank ID: 3
Status: **Currently in use**
Capacity: 8000
Product: RUL
Calcage: 15

SC Financial Assurance 3:

Owner Name: VY, MYRINA
Owner Address: 1024 MT GALLANT RD
Owner City: ROCK HILL
Owner State: SC
Owner Zip: 29732
Mechanism: Environmental Insurance
Date Expired: 04/15/15
Bill: 3
RNU: 0
Rel Number: N

V130 **NEW WAY CAR WASH**
SW **2101 CHERRY RD**
1/2-1 **ROCK HILL, SC 29730**
0.887 mi.
4683 ft. **Site 3 of 5 in cluster V**

SC LUST U003159883
SC UST N/A
SC SPILLS
SC GWCI

Relative:
Lower

LUST:
Facility ID: 17727
Release Number: 1
Facility Status: conduct invest/risk assessment
Substance: PETRO
Owner: EXXON MOBIL
NFA Date: **Not reported**
Date Confirmed: 02/10/97
Report Date: 01/15/97
Rank: 3BF

Actual:
619 ft.

LUST DETAIL:
Release Date: 01/15/1997
Cleanup Complete Date: Not reported
RP Name: EXXON MOBIL
RP Address: 217 COUNTRY CLUB PARK PMB# 101
RP City: BIRMINGHAM
RP State: AL
RP Zip: 35213-4237
SCRBCA Class Code: CLASS3BF

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEW WAY CAR WASH (Continued)

U003159883

Depth to Ground Water: 8.550
Ground Water Flow Direction: E
Project Manager: ORGAIN, DAVID H
Release Fin Type Code: With SUPERB

UST:

Facility ID: 17727
Owner: EXXON MOBIL
Owner Contact: HEBER BRANHAM
Owner Address: 875 W POPLAR AVE STE 23 #353
Owner City,St,Zip: COLLIERVILLE, TN 38017-2598
Owner Phone: 901-233-4112
Contact: HEBER BRANHAM
Contact Phone: Not reported

Tank ID: 1
Status: Abandoned
Capacity: 1000
Product: Miscellaneous Hydrocarbons
Calcage: 25

Tank ID: 2
Status: Abandoned
Capacity: 1000
Product: Miscellaneous Hydrocarbons
Calcage: 25

Tank ID: 3
Status: Abandoned
Capacity: 6000
Product: Miscellaneous Hydrocarbons
Calcage: 25

Tank ID: 4
Status: Abandoned
Capacity: 6000
Product: Miscellaneous Hydrocarbons
Calcage: 25

Tank ID: 5
Status: Abandoned
Capacity: 6000
Product: Miscellaneous Hydrocarbons
Calcage: 25

SPILL:

Incident ID number: 78242125
Incident Name: 201104418
District Logged In: 207
Date DHEC notified: 10/17/2011
DHEC notification: 1721

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NEW WAY CAR WASH (Continued)

U003159883

Observed date: 10/17/2011
observed_t: 11:15
Spill Date: Not reported
Spill Time: Not reported
Duration: Not reported
Created Date: 10/17/2011
Updated Date: 06/15/2012
District Name: Lancaster EQC Office
PRP Last Name: CHERRY ROAD LUBE SHOP
PRP First Name: Not reported
Incident substance type: Oil
Received by Name: ELIZABETH SHAWANESSE
Reviewed by Name: WENDY RICHARD
Transportation: Not reported
Surface water affected: Not reported
Lead Investigator Name: Not reported
CCBEP: No
Water body: Not reported
Caller Last Name: Not reported
Caller name: Not reported
Caller phone number: Not reported
Caller extension: Not reported
Caller organization: Not reported
Substance: Not reported
Quantity: Not reported
Units: Not reported
Recovered: Not reported
Recovered Units: Not reported
Comments: Not reported

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 17727
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NEW WAY CAR WASH (Continued)

U003159883

Single-Event Spill: False
 Unpermitted Disposal: False
 Septic Tank/Tile Field: False
 Substances Not In Other Categories: False
 Sources of Contamination Undetermined: False
 Assessment: Yes
 Monitoring: No
 Remediation: No
 Surface Impact: No
 Drinking Water Well Impact: No
 Remarks: Site ID # 17727. RBCA Classification 3BA1. Conducting investigation/Risk Assessment.

V131
 SW
 1/2-1
 0.926 mi.
 4891 ft.

NORGETOWN CLEANERS
2036 CHERRY RD
ROCK HILL, SC 29732

SC SHWS S107454552
SC DRYCLEANERS N/A

Site 4 of 5 in cluster V

Relative:
 Lower

SHWS:
 EPA ID: SCDRY0052671

Actual:
 622 ft.

Drycleaners:
 BLWM Number: 52671
 Rank: 3rd
 Priority Group Explanation: 3rd

V132
 SW
 1/2-1
 0.926 mi.
 4891 ft.

NORGETOWN CLEANERS
2036 CHERRY ROAD
ROCK HILL, SC 29730

RCRA-CESQG 1000233405
SC GWCI SCD981759384

Site 5 of 5 in cluster V

Relative:
 Lower

RCRA-CESQG:
 Date form received by agency: 02/25/2013
 Facility name: NORGETOWN CLEANERS
 Facility address: 2036 CHERRY ROAD
 ROCK HILL, SC 29730

Actual:
 622 ft.

EPA ID: SCD981759384
 Mailing address: CHERRY ROAD
 ROCK HILL, SC 29730
 Contact: SANG H SONG
 Contact address: CORONATION BLVD STE 120
 CHARLOTTE, NC 28227
 Contact country: US
 Contact telephone: (704) 847-7208
 Contact email: Not reported
 EPA Region: 04
 Classification: Conditionally Exempt Small Quantity Generator
 Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORGETOWN CLEANERS (Continued)

1000233405

of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: SANG K KANG
Owner/operator address: CHERRY RD
ROCK HILL, SC 29732
Owner/operator country: US
Owner/operator telephone: (803) 366-3403
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/01/2007
Owner/Op end date: Not reported

Owner/operator name: LEO KANG ENTERPRISES INC
Owner/operator address: CHERRY RD
ROCK HILL, SC 29732
Owner/operator country: US
Owner/operator telephone: (803) 366-3403
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/01/2007
Owner/Op end date: Not reported

Owner/operator name: JONES FRANCES W
Owner/operator address: 2036 CHERRY ROAD
ROCK HILL, SC 29730
Owner/operator country: US
Owner/operator telephone: (999) 999-9999
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: 12/01/2007

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NORGETOWN CLEANERS (Continued)

1000233405

. Waste code: D002
. Waste name: CORROSIVE WASTE

Historical Generators:

Date form received by agency: 04/04/2011
Site name: NORGETOWN CLEANERS
Classification: Small Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 03/31/2010
Site name: LEO KANG ENTERPRISES INC
Classification: Small Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 04/02/2009
Site name: LEO KANG ENTERPRISES INC
Classification: Small Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 04/25/2008
Site name: LEO KANG ENTERPRISES INC
Classification: Small Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 03/27/2002
Site name: NORGE TOWN CLEANERS
Classification: Small Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 10/21/1986
Site name: NORGE TOWN CLEANERS
Classification: Small Quantity Generator

Violation Status: No violations found

SC GWIC:

Bureau: BLWM
EAP ID: SCD981759384
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: 52671
Permit Number: Not reported
WPC Permit: Not reported
Program: DRY CLEANERS
Contamination: VOC
Petroleum Products: False
Volatile Organic Compounds: True
Metals: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NORGETOWN CLEANERS (Continued)

1000233405

Nitrates or Potential to Nitrate:	False
Pesticides & Herbicides:	False
Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	S/L
Underground Storage Tanks:	False
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	True
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	NO
Monitoring:	NO
Remediation:	NO
Surface Impact:	Not reported
Drinking Water Well Impact:	Not reported
Remarks:	BLWM File # 052671. No activity at this time.

133
 WNW
 1/2-1
 0.928 mi.
 4898 ft.

CIRCLE K 8401
1830 CELANESE RD
ROCK HILL, SC 29732

SC LUST **U003629005**
SC UST **N/A**
SC RCR
SC SPILLS
SC Financial Assurance
SC GWCI

Relative:
Lower

LUST:
 Facility ID: 09307
 Release Number: 1
 Facility Status: approved
 Substance: PETRO
 Owner: CIRCLE K STORES INC
NFA Date: 08/05/03
 Date Confirmed: 10/09/89
 Report Date: 01/23/89
 Rank: 3BF

Actual:
605 ft.

LUST DETAIL:
 Release Date: 01/23/1989
 Cleanup Complete Date: Not reported
 RP Name: CIRCLE K STORES INC
 RP Address: 2440 WHITEHALL PARK DR STE 800
 RP City: CHARLOTTE
 RP State: NC
 RP Zip: 28273
 SCRBCA Class Code: CLASS3BF
 Depth to Ground Water: 10
 Ground Water Flow Direction: NW
 Project Manager: PADGETT, JOEL P
 Release Fin Type Code: With SUPERB

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CIRCLE K 8401 (Continued)

U003629005

UST:

Facility ID: 9307
Owner: CIRCLE K STORES INC
Owner Contact: BILL MCCULLOUGH
Owner Address: 2440 WHITEHALL PARK DR STE 800
Owner City,St,Zip: CHARLOTTE, NC 28273
Owner Phone: 704-583-5700
Contact: LARRY SEXTON
Contact Phone: 803-366-4007

Tank ID: 1
Status: Currently in use
Capacity: 12000
Product: RUL
Calcage: 5

Tank ID: 2
Status: Currently in use
Capacity: 12000
Product: PREM
Calcage: 5

Tank ID: 3
Status: Currently in use
Capacity: 12000
Product: Diesel
Calcage: 5

RCR:

Entity Responsibility: Circle K Stores Inc
Region: 3
Tax Id: 1839
Latitude: 34.97616
Longitude: -81.00368
Tracking Number: 9307
Regulatory Program: UST
Unit Type: UST
Unit Number/Letter: 1
Area/Acres: Not reported
Affected Media: Groundwater
Site/Unit: Regulated Petroleum Underground Storage Tank Location
Conditions: Public Noticed Corrective Action Plan
Associated Response/Corrective Action: Not reported
Associated Chemicals Requiring: Not reported

SPILL:

Incident ID number: 6481379
Incident Name: 200400570
District Logged In: Not reported
Date DHEC notified: 02/09/2004
DHEC notification: 10:31
Observed date: Not reported
observed_t: Not reported
Spill Date: 02/08/2004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CIRCLE K 8401 (Continued)

U003629005

Spill Time: 9:00
Duration: Not reported
Created Date: 02/09/2004
Updated Date: 02/09/2004
District Name: Lancaster EQC Office
PRP Last Name: Not reported
PRP First Name: Not reported
Incident substance type: Oil
Received by Name: JUSTIN HUGHES
Reieved by Name: Not reported
Transportation: Y
Surface water affected: No
Lead Investigator Name: Not reported
CCBEP: No
Water body: Not reported
Caller Last Name: Not reported
Caller name: Not reported
Caller phone number: Not reported
Caller extension: Not reported
Caller organization: Not reported
Substance: GASOLINE
Quantity: 30
Units: Gallons
Recovered: Not reported
Recovered Units: Not reported
Comments: Not reported

SC Financial Assurance 3:

Owner Name: CIRCLE K STORES INC
Owner Address: 2440 WHITEHALL PARK DR STE 80
Owner City: CHARLOTTE
Owner State: NC
Owner Zip: 28273
Mechanism: Guarantee
Date Expired: 09/01/15
Bill: 3
RNU: 0
Rel Number: N

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09307
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CIRCLE K 8401 (Continued)

U003629005

Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	No
Monitoring:	No
Remediation:	Yes
Surface Impact:	No
Drinking Water Well Impact:	No
Remarks:	Site ID # 09307. RBCA Classification 3BF7. Approved Monitored Natural Attenuation (MNA Awaiti.

W134
SSW
1/2-1
0.968 mi.
5110 ft.

MR G'S FOOD STORES 124
2120 NATIONS FORD RD
ROCK HILL, SC 29730
Site 1 of 2 in cluster W

SC LUST **U004051626**
SC UST **N/A**
SC Financial Assurance

Relative:
Higher

LUST:
 Facility ID: 09407
 Release Number: 1
 Facility Status: conduct invest/risk assessment
 Substance: PETROL
 Owner: SMITH PETROLEUM CO INC
NFA Date: Not reported
 Date Confirmed: 05/22/03
 Report Date: 05/13/03
 Rank: 4BC

Actual:
657 ft.

LUST DETAIL:
 Release Date: 05/13/2003
 Cleanup Complete Date: Not reported
 RP Name: SMITH PETROLEUM CO INC
 RP Address: PO BOX 1869
 RP City: LANCASTER
 RP State: SC
 RP Zip: 29721-1869
 SCRBCA Class Code: CLASS4BC
 Depth to Ground Water: 14.78
 Ground Water Flow Direction: N
 Project Manager: ORGAIN, DAVID H
 Release Fin Type Code: Qualifies for Fund with Deductible

UST:
 Facility ID: 19205
 Owner: MR EXPRESS LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MR G'S FOOD STORES 124 (Continued)

U004051626

Owner Contact: Not reported
Owner Address: 2120 NATIONS FORD RD
Owner City,St,Zip: ROCK HILL, SC 29730
Owner Phone: 803-329-8828
Contact: Not reported
Contact Phone: 803-329-8828

Tank ID: 1
Status: **Currently in use**
Capacity: 20000
Product: Multiple Petroleum Products
Calcage: 0

Tank ID: 1
Status: **Abandoned**
Capacity: 10000
Product: Gasoline
Calcage: 5

Tank ID: 2
Status: **Abandoned**
Capacity: 10000
Product: Gasoline
Calcage: 5

SC Financial Assurance 3:

Owner Name: SMITH PETROLEUM CO INC
Owner Address: PO BOX 1869
Owner City: LANCASTER
Owner State: SC
Owner Zip: 29721-1869
Mechanism: Self Insurance 280.101
Date Expired: 12/01/05
Bill: 0
RNU: 0
Rel Number: N

Owner Name: MR EXPRESS LLC
Owner Address: PO BOX 2982
Owner City: ROCK HILL
Owner State: SC
Owner Zip: 29732
Mechanism: Letter of Credit
Date Expired: 03/23/16
Bill: 1
RNU: 0
Rel Number: N

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

W135
SSW
1/2-1
0.968 mi.
5110 ft.

MR G'S FOOD STORES 124
2120 NATIONS FORD RD
ROCK HILL, SC 29730

Site 2 of 2 in cluster W

SC GWCI **U003879279**
N/A

Relative:
Higher

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09407
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True
Volatile Organic Compounds: False
Metals: False
Nitrates or Potential to Nitrate: False
Pesticides & Herbicides: False
Polychlorinated Biphenyls: False
Base, Neutral, & Acid Extractables: False
Phenols: False
Radionuclides Over Max Contaminant Levels: False
Sources Not In Other Categories: False
Source: UST
Underground Storage Tanks: True
Pits, Ponds, & Lagoons: False
Spills & Leaks: False
Landfills: False
Aboveground Storage Tank: False
Spray Irrigation: False
Single-Event Spill: False
Unpermitted Disposal: False
Septic Tank/Tile Field: False
Substances Not In Other Categories: False
Sources of Contamination Undetermined: False
Assessment: Yes
Monitoring: No
Remediation: No
Surface Impact: No
Drinking Water Well Impact: No

Actual:
657 ft.

Remarks: Site ID # 09407. RBCA Classification 5A1. Conducting investigation/Risk Assessment.

136
WNW
1/2-1
0.990 mi.
5225 ft.

SUN CORNER CITGO
2000 CELANESE RD
ROCK HILL, SC 29732

SC LUST **U000484586**
SC UST **N/A**
SC GWCI

Relative:
Lower

LUST:

Facility ID: 09349
Release Number: 1
Facility Status: monitored natural attenuation
Substance: PETRO
Owner: MID STATE PETROLEUM INC
NFA Date: 08/18/08
Date Confirmed: 03/09/93
Report Date: 03/09/93

Actual:
605 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SUN CORNER CITGO (Continued)

U000484586

Rank: 3BF

LUST DETAIL:

Release Date: 03/09/1993
Cleanup Complete Date: Not reported
RP Name: MID STATE OIL CO
RP Address: PO BOX 849
RP City: LEXINGTON
RP State: NC
RP Zip: 27293-0849
SCRBCA Class Code: CLASS3BF
Depth to Ground Water: 10.5
Ground Water Flow Direction: NE
Project Manager: THOMA, DEBRA L
Release Fin Type Code: With SUPERB

UST:

Facility ID: 9349
Owner: MID STATE PETROLEUM INC
Owner Contact: WILLIAM SHIPTON
Owner Address: PO BOX 849
Owner City,St,Zip: LEXINGTON, NC 27293-0849
Owner Phone: 336-249-0363
Contact: WILLIAM SHIPTON
Contact Phone: 803-366-4685

Tank ID: 1
Status: Abandoned
Capacity: 6000
Product: Gasoline
Calcage: 20

Tank ID: 2
Status: Abandoned
Capacity: 4000
Product: Gasoline
Calcage: 20

Tank ID: 3
Status: Abandoned
Capacity: 4000
Product: Gasoline
Calcage: 20

SC GWIC:

Bureau: BLWM
EAP ID: Not reported
Solid Waste Permit #: Not reported
Bureau of Land & Waste Management File #: Not reported
Permit Number: 09349
WPC Permit: Not reported
Program: DUST
Contamination: PETRO
Petroleum Products: True

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SUN CORNER CITGO (Continued)

U000484586

Volatile Organic Compounds:	False
Metals:	False
Nitrates or Potential to Nitrate:	False
Pesticides & Herbicides:	False
Polychlorinated Biphenyls:	False
Base, Neutral, & Acid Extractables:	False
Phenols:	False
Radionuclides Over Max Contaminant Levels:	False
Sources Not In Other Categories:	False
Source:	UST
Underground Storage Tanks:	True
Pits, Ponds, & Lagoons:	False
Spills & Leaks:	False
Landfills:	False
Aboveground Storage Tank:	False
Spray Irrigation:	False
Single-Event Spill:	False
Unpermitted Disposal:	False
Septic Tank/Tile Field:	False
Substances Not In Other Categories:	False
Sources of Contamination Undetermined:	False
Assessment:	No
Monitoring:	No
Remediation:	Yes
Surface Impact:	No
Drinking Water Well Impact:	No
Remarks:	Site ID # 09349. RBCA Classification 3BF7. Approved Monitored Natural Attenuation (MNA Awaiti.

137
 SSW
 > 1
 1.054 mi.
 5564 ft.

AQUASOL CORP AND LANXESS CORP
730 N ANDERSON RD
ROCK HILL, SC 29730

SC SHWS 1007115202
SC AUL SCD079047106
SC VCP
SC BROWNFIELDS
SC ALLSITES
RCRA NonGen / NLR
SC AIRS
SC UIC

**Relative:
 Higher**

**Actual:
 658 ft.**

SHWS:
 EPA ID: SCD079047106

AUL:
 Owner: AQUASOL INC
 Latitude / Longitude: 34.955933 / -80.99535
 Project Status: ACTIVE
 Execute Date: 05/03/2007
 Restriction File Date: 06/02/2011
 Cleanup Contract Complete Date: 06/10/2011
 Project Complete Date: 06/10/2011
 File Number: 51789
 Land Use Restriction: Not yet determined.
 Contamination on Site: Volatile Organic Compounds
 Brownfield Type: Hazardous Substances
 Fund 128(A) Utilized: Yes
 Respond Action Planned: No
 Acreage: 5.5

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

VCP:

Person Company: AQUASOL INC
Prim Address 1: 730 N ANDERSON RD
Prim Address 2: Not reported
Prim City: ROCK HILL
Prim State: SC
Prim Zip: 29730
Type Brownfield: Hazardous Substances
Contact: Dan Bennett
Status code: ACTIVE
File Number: 51789
Exec Date: 5/3/2007
Contract Mailed Date: 9/27/2006
Date Terminated: Not reported
Contract #: 06-5666-NRP
Contract Type: NRP
Contract Manager: GORMAN, ANGELA K
Acreage: 5.5
COC Issued Date: 6/10/2011
RC Executed Date: 5/18/2011
I C Received: 5/8/2006
Workplan Due: 6/2/2007
Workplan Receive: 5/31/2007
Workplan Reviewed: 6/25/2007
Workplan Approved: Not reported
Report Receive: 11/13/2007
Report Reviewed: 12/14/2007
Report Approved: Not reported
Cap Approved: Not reported

SC BROWNFIELD:

Contract Number: 06-5666-NRP
Contract Type: NRP
File Number: 51789
Contract Manager: GORMAN, ANGELA K
Person Company: AQUASOL INC
Primary Address1: 730 N ANDERSON RD
Primary Address2: Not reported
Primary City: ROCK HILL
Primary State Code: SC
Primary Zip Code: 29730
Type Brownfield: Hazardous Substances
Acreage: 5.5
Contract Executed: 5/3/2007
COC Date Issued: 6/10/2011
RC Executed: 5/18/2011
Contact: Dan Bennett
Status Code: ACTIVE
IC Received: 5/8/2006
Workplan Due: 6/2/2007
Workplan Received: 5/31/2007
Workplan Reviewed: 6/25/2007
Workplan Approved: Not reported
Report Received: 11/13/2007
Report Reviewed: 12/14/2007
Report Approved: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

Cap Approved: Not reported
Contract Mailed: 9/27/2006
Date Terminated: Not reported

ALLSITES:

Brownfield: Not reported
Brownfield Type: Hazardous Substances
Funds Used: Yes
Resp Action: No
Permit Number: Not reported
Program: Not reported
Owner: AQUASOL INC
Project Status Code: ACTIVE
Execute Date: 05/03/2007
Restrictions Filed Date: 6/2/2011
Cleanup Contract Complete Date: 06/10/2011
Project Complete Date: 6/10/2011
File Number: 51789
Land Use Restriction: Not yet determined.
Contamination On Site: Volatile Organic Compounds
Acreage: 5.5
Soil Contamination Desc: Not reported
Soil COCS: Not reported
SW Sed Contamination Desc: Not reported
SW COCS: Not reported
GW Contamination Desc: Not reported
GW COCS: Not reported
Air Contamination Desc: Not reported
Air COCS: Not reported
Lat: 34.955933
Long: -80.99535

RCRA NonGen / NLR:

Date form received by agency: 01/28/2013
Facility name: AQUASOL CORP AND LANXESS CORP
Facility address: 730 N ANDERSON RD
ROCK HILL, SC 29730
EPA ID: SCD079047106
Mailing address: 111 RIDC PARK WEST DR
PITTSBURGH, PA 15207
Contact: JOHN SCRABIS
Contact address: 111 RIDC PARK WEST DR
PITTSBURGH, PA 15207
Contact country: US
Contact telephone: (412) 809-3590
Contact email: Not reported
EPA Region: 04
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: BAYER CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/31/2009
Owner/Op end date: Not reported

Owner/operator name: BAYER CORP
Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/31/2009
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F007
. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Historical Generators:

Date form received by agency: 01/01/2012
Site name: AQUASOL CORP AND LANXESS CORP
Classification: Large Quantity Generator

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F007
. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Date form received by agency: 07/15/2011
Site name: AQUASOL CORP AND LANXESS CORP
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: U140
- . Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

Date form received by agency: 12/31/2009

Site name: AQUASOL CORP AND LANXESS CORP

Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: U140
- . Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

Date form received by agency: 06/05/2008

Site name: AQUASOL CORP AND LANXESS CORP

Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D022

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste name: CHLOROFORM
- . Waste code: D024
- . Waste name: M-CRESOL
- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: D038
- . Waste name: PYRIDINE
- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE
- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F004
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: K014
- . Waste name: BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.

- . Waste code: K106
- . Waste name: WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION.

- . Waste code: P066
- . Waste name: ETHANIMIDOTHIOIC ACID, N-[[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL

- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

- . Waste code: U003
- . Waste name: ACETONITRILE (I,T)

- . Waste code: U007
- . Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

- . Waste code: U019
- . Waste name: BENZENE (I,T)

- . Waste code: U044
- . Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

- . Waste code: U057
- . Waste name: CYCLOHEXANONE (I)

- . Waste code: U069
- . Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

- . Waste code: U075
- . Waste name: DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-

- . Waste code: U123
- . Waste name: FORMIC ACID (C,T)

- . Waste code: U147
- . Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

- . Waste code: U151
- . Waste name: MERCURY

- . Waste code: U154

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)
- . Waste code: U165
- . Waste name: NAPHTHALENE
- . Waste code: U210
- . Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE
- . Waste code: U219
- . Waste name: THIOUREA
- . Waste code: U220
- . Waste name: BENZENE, METHYL- (OR) TOLUENE
- . Waste code: U239
- . Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)
- . Waste code: 7777
- . Waste name: 7777

Date form received by agency: 02/01/2007

Site name: LANXESS CORP ROCK HILL SITE

Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D003
- . Waste name: REACTIVE WASTE
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007
- . Waste name: CHROMIUM
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D010
- . Waste name: SELENIUM
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D022
- . Waste name: CHLOROFORM
- . Waste code: D024
- . Waste name: M-CRESOL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D038
- . Waste name: PYRIDINE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F004
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: K014
- . Waste name: BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.

- . Waste code: K106
- . Waste name: WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION.

- . Waste code: P066
- . Waste name: ETHANIMIDOTHIOIC ACID, N-[[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL

- . Waste code: U002
- . Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

- . Waste code: U003
- . Waste name: ACETONITRILE (I,T)

- . Waste code: U007
- . Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

- . Waste code: U019
- . Waste name: BENZENE (I,T)

- . Waste code: U044
- . Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

- . Waste code: U057
- . Waste name: CYCLOHEXANONE (I)

- . Waste code: U069
- . Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

- . Waste code: U075
- . Waste name: DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-

- . Waste code: U123
- . Waste name: FORMIC ACID (C,T)

- . Waste code: U147
- . Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

- . Waste code: U151
- . Waste name: MERCURY

- . Waste code: U154
- . Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

- . Waste code: U165
- . Waste name: NAPHTHALENE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: U210
- . Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

- . Waste code: U219
- . Waste name: THIOUREA

- . Waste code: U220
- . Waste name: BENZENE, METHYL- (OR) TOLUENE

- . Waste code: U239
- . Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

- . Waste code: 7777
- . Waste name: 7777

Date form received by agency: 01/20/2005

Site name: LANXESS CORP ROCK HILL SITE

Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D022
- . Waste name: CHLOROFORM

- . Waste code: D024
- . Waste name: M-CRESOL

- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: D038
- . Waste name: PYRIDINE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F004
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

. Waste code: K014
. Waste name: BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.

. Waste code: K106
. Waste name: WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION.

. Waste code: P066
. Waste name: ETHANIMIDOTHIOIC ACID, N-[[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U019
. Waste name: BENZENE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U075
. Waste name: DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

. Waste code: U151
. Waste name: MERCURY

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U219
. Waste name: THIOUREA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: U220
- . Waste name: BENZENE, METHYL- (OR) TOLUENE

- . Waste code: U239
- . Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

- . Waste code: 7777
- . Waste name: 7777

Date form received by agency: 10/04/2004

Site name: LANXESS CORP ROCK HILL SITE

Classification: Conditionally Exempt Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D022
- . Waste name: CHLOROFORM

- . Waste code: D024
- . Waste name: M-CRESOL

- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D038
- . Waste name: PYRIDINE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F004
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: K014
- . Waste name: BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.

- . Waste code: K106
- . Waste name: WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

PRODUCTION.

. Waste code: P066
. Waste name: ETHANIMIDOTHIOIC ACID, N-[[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U019
. Waste name: BENZENE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U075
. Waste name: DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

. Waste code: U151
. Waste name: MERCURY

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U219
. Waste name: THIOUREA

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

. Waste code: 7777
. Waste name: 7777

Date form received by agency: 02/23/2004

Site name: BAYER CHEMICALS CORP ROCK HILL PLT

Classification: Not a generator, verified

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D027
. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:
TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE,
1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED
FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F004
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: K014
- . Waste name: BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.

- . Waste code: K106
- . Waste name: WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION.

- . Waste code: P066
- . Waste name: ETHANIMIDOTHIOIC ACID, N-[[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U019
. Waste name: BENZENE (I,T)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U057
. Waste name: CYCLOHEXANONE (I)

. Waste code: U069
. Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

. Waste code: U075
. Waste name: DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U147
. Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

. Waste code: U151
. Waste name: MERCURY

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U219
. Waste name: THIOUREA

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

. Waste code: 7777
. Waste name: 7777

Date form received by agency: 02/02/2004

Site name: BAYER CHEMICALS CORP ROCK HILL PLT

Classification: Not a generator, verified

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D022
- . Waste name: CHLOROFORM

- . Waste code: D024
- . Waste name: M-CRESOL

- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D038
- . Waste name: PYRIDINE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F004
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: K014
. Waste name: BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.

. Waste code: K106
. Waste name: WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION.

. Waste code: P066
. Waste name: ETHANIMIDOTHIOIC ACID, N-[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: U007
- . Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

- . Waste code: U019
- . Waste name: BENZENE (I,T)

- . Waste code: U044
- . Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

- . Waste code: U057
- . Waste name: CYCLOHEXANONE (I)

- . Waste code: U069
- . Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

- . Waste code: U075
- . Waste name: DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-

- . Waste code: U123
- . Waste name: FORMIC ACID (C,T)

- . Waste code: U147
- . Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

- . Waste code: U151
- . Waste name: MERCURY

- . Waste code: U154
- . Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

- . Waste code: U165
- . Waste name: NAPHTHALENE

- . Waste code: U210
- . Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

- . Waste code: U219
- . Waste name: THIOUREA

- . Waste code: U220
- . Waste name: BENZENE, METHYL- (OR) TOLUENE

- . Waste code: U239
- . Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

- . Waste code: 7777
- . Waste name: 7777

Date form received by agency: 07/29/2002

Site name: BAYER CORP ROCK HILL PLANT

Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

- . Waste code: D003
- . Waste name: REACTIVE WASTE

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: U007
- . Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

- . Waste code: U069
- . Waste name: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE

- . Waste code: U147
- . Waste name: 2,5-FURANDIONE (OR) MALEIC ANHYDRIDE

- . Waste code: U165
- . Waste name: NAPHTHALENE

- . Waste code: U210
- . Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

- . Waste code: U219
- . Waste name: THIOUREA

- . Waste code: 7777
- . Waste name: 7777

Date form received by agency: 11/02/1998
Site name: BAYER CORP ROCK HILL PLANT
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/01/1996
Site name: BAYER CORP
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D039

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 800

Waste code: F007
Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
Amount (Lbs): 800

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/13/2009
Date achieved compliance: 01/07/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/29/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 05/13/2009
Date achieved compliance: 01/07/2010
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 09/29/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 01/07/2010
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/13/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 01/07/2010
Evaluation lead agency: State

Evaluation date: 05/13/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/07/2010
Evaluation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUASOL CORP AND LANXESS CORP (Continued)

1007115202

Evaluation date: 05/13/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA-Initiated Oversight/Observation/Training Actions

Evaluation date: 11/09/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/08/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/14/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

AIRS:

Operate Status: operating
Emissions Contact: FABYAN SAXE
Contact Telephone: 8033273833
Mail Address: 730 N ANDERSON RD
Mail City/State/Zip: ROCK HILL, SC 29730
Latitude/Longitude: 345703 / 811003
Source Industrial Code (SIC): 2843
NAICS Code: 325613
State Permit Number: 2440-0192
State Permit Type: COND

UIC:

Permit Number: SCHE03000736
Facility Address 2: Not reported
Permit Holder: LANXESS CORPORATION
Former Permit Number: 861 FILE
Activity: Active/Operating
Operator: LANXESS CORPORATION
Disposition: Approved

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FORT MILL	S107454496	CLASSIC CLEANERS	933 CROSS RD PLAZA	29708	SC SHWS
ROCK HILL	1004780110	1ST BANK FIRST FEDERAL SAVINGS	1ST CHERRY RD	29730	SC SHWS, RCRA NonGen / NLR
ROCK HILL	S110143023	CAROLINA STEEL DRUM CORP.	PORTER RD @ I-77	29730	SC VCP, SC BROWNFIELDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
** - Indicates location may or may not be in requested radius. Site has not been assigned a latitude/longitude coordinate. Further review recommended.								
29708	1015001857			1646 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Cleaners
29708	1007244529	110017163479	FORT MILL FAMILY PRACTICE	1690 HWY 160 W		FORT MILL	SC	FINDS
29708	1015272399			1746 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	S116230444		CHS PLASTICS INC.	1750 HWY. 160 W.		FORT MILL	SC	SWRCY
29708	1010683995	110033196066	CIRCLE K #5963	1756 HWY 160 W		FORT MILL	SC	FINDS
29708	1015274359			1766 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015276187			1790 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015012696			2000 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Cleaners
29708	1015352459			2390 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015354654			2404 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015026613			2435 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Cleaners
29708	1015034485			2834 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Cleaners
29708	1015034978			2879 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Cleaners
29708	1015391105			2888 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015391311			2891 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015750324	SCR000776104	RITE AID 11663	2907 HWY 160 W		FORT MILL	SC	RCRA-CESQG
29708	1016037189	110046540409	RITE AID 11663	2907 HWY 160 W		FORT MILL	SC	FINDS
29708	1015393463			2911 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015417469			3149 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1015418390			3157 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29708	1007835750	110019997404	CLEAR SPRINGS BAXTER LLC	1022 ASSEMBLY DR		FORT MILL	SC	FINDS
29708	1007837340	110020013313	CLEAR SPRINGS BAXTER LLC	1030 ASSEMBLY DR		FORT MILL	SC	FINDS
29708	S110091433		CHEMTRON CORPORATION	424 S. ATLANTIC DR.		FORT MILL	SC	SWRCY
29708	1007837536	110020015277	CLEAR SPRINGS BAXTER LLC	1822 2ND BAXTER CROSSING		FORT MILL	SC	FINDS
29708	1009218492	SCR000767350	SAMUEL STRAPPING SYSTEMS	2000 K BAYER DR	**	FORT MILL	SC	RCRAInfo-SQG
29708	1009317102	110024428181	SAMUEL STRAPPING SYSTEMS	2000 K BAYER DR	**	FORT MILL	SC	FINDS
29708	1007225438	110016965293	GOODWIN THOMAS JR DMD - FT MILL	105 BEN CASEY DR STE 109		FORT MILL	SC	FINDS
29708	1007225742	110016968361	ALPINE PODIATRY CENTER PA- FT MILL	105 BEN CASEY DR STE 133		FORT MILL	SC	FINDS
29708	1007256950	110017298869	BRIAN BIEHL DMD	139 BEN CASEY RD		FORT MILL	SC	FINDS
29708	1009404986	110024890714	SAMUEL STRAPPING SYSTEMS	200 K BOYER RD		FORT MILL	SC	AIRS, FINDS
29708	2012112818		3058 Lakemont Blvd.	3058 Lakemont Blvd.		FORT MILL	SC	HMIRS
29708	1017812468	110064386187	CABELA'S FORT MILL RETAIL	1000 CABELA DRIVE	**	FORT MILL	SC	FINDS
29708	1017788951	SCR000778944	CABELA'S FORT MILL RETAIL	1000 CABELA DRIVE	**	FORT MILL	SC	RCRA-CESQG
29708	1015126018			1010 CAROLINA PLACE DR		FORT MILL	SC	EDR Historical Auto Stations
29708	1012219003	110040511372	PALMETTO FUNERAL HOME LLC	2049 CAROLINA PL DR		FORT MILL	SC	FINDS
29708	S110824618		PALMETTO FUNERAL HOME LLC	2049 CAROLINA PL DR		FORT MILL	SC	AIRS
29708	1006817790	SCR000764563	UAV CORP	2200 CAROLINA PLACE		FT MILL	SC	RCRA-NonGen
29708	1015353398			240 CAROWINDS BLVD		FORT MILL	SC	EDR Historical Auto Stations
29708	1007247556	110017194640	CAROWINDS EXXON 47373	240 CAROWINDS BOULEVARD		FORT MILL	SC	FINDS
29708	1015361144			249 CAROWINDS BLVD		FORT MILL	SC	EDR Historical Auto Stations
29708	1007244671	110017164922	LATHANS CHRYSLER	2744 CAROWINDS BLVD	**	FORT MILL	SC	FINDS
29708	1007228898	110017000895	WORLDCOM FORT MILL JUNCTION	377 CAROWINDS BLVD STE 211		FT MILL	SC	FINDS
29708	1016303441	110013297422	LEINER HEALTH PRODUCTS LLC	355 CRESTMONT DRIVE		FORT MILL	SC	FINDS
29708	1007225767	110016968619	CHRISTIE HENSON DMD	765 CROSS RD S PLAZA		FORT MILL	SC	FINDS
29708	S107454496		CLASSIC CLEANERS	933 CROSS RD PLAZA	**	FORT MILL	SC	SHWS
29708	1015107127			933 CROSSROADS PLZ		FORT MILL	SC	EDR Historical Cleaners
29708	1008009649	110002259010	NIVENS MHP	2283 DAM RD		FORT MILL	SC	FINDS
29708	1007224673	110016957355	CHRISS S MHP	750 DEAN DR		FORT MILL	SC	FINDS
29708	1007258954	110017320022	MCCALL GRADING COMPANY INC	3016 DEER CREEK RD		FORT MILL	SC	FINDS
29708	1001233701	SCR000007187	REYNOLDS INDUSTRIES INC	3601 FOOTHILLS WAY		FT MILL	SC	RCRA-NonGen
29708	1004780569	110002189435	REYNOLDS INDUSTRIES INCORPORATED	3601 FOOTHILLS WAY		FORT MILL	SC	RCRA-NonGen, FINDS
29708	1007255966	110017288781	PALMETTO PET HOSPITAL	1718 GOLD HILL RD		FORT MILL	SC	FINDS
29708	1015004516			1726 GOLD HILL RD		FORT MILL	SC	EDR Historical Cleaners
29708	1007257585	110017305593	SOUTH LAKE FAMILY DENTISTRY	1741 GOLD HILL RD		FORT MILL	SC	FINDS
29708	1007256952	110017298887	MICHAEL RIORDAN DMD	1741 GOLD HILL RD STE 200		FORT MILL	SC	FINDS
29708	1015277718			1800 GOLD HILL RD		FORT MILL	SC	EDR Historical Auto

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29708	1015308977			2026 GOLD HILL RD		FORT MILL	SC	Stations
29708	1015311454			2040 GOLD HILL RD		FORT MILL	SC	EDR Historical Auto Stations
29708	1015016345			2094 GOLD HILL RD		FORT MILL	SC	EDR Historical Cleaners
29708	1015019205			2166 GOLD HILL RD		FORT MILL	SC	EDR Historical Cleaners
29708	1000449199	110002189550	FORT MILL FORD	788 GOLD HILL RD		FORT MILL	SC	RCRA-NonGen, FINDS
29708	1015637520			800 GOLD HILL RD		FORT MILL	SC	EDR Historical Auto Stations
29708	1007247628	110017195391	FORT MILL DODGE	800 GOLD HILL RD		FORT MILL	SC	FINDS
29708	U003628306	11338	FORT MILL DODGE	800 GOLD HILL RD		FORT MILL	SC	LUST, UST
29708	1014835591	110041679706	FORT MILL FORD	801 GOLD HILL RD		FORT MILL	SC	FINDS
29708	1014401291	SCR000771824	FORT MILL FORD	801 GOLD HILL RD		FORT MILL	SC	RCRA-CESQG
29708	1015639539			802 GOLD HILL RD		FORT MILL	SC	EDR Historical Auto Stations
29708	U004018238	18170	GOLDHILL SHELL	802 GOLD HILL RD		FORT MILL	SC	UST
29708	1015680273			940 GOLD HILL RD		FORT MILL	SC	EDR Historical Auto Stations
29708	1010683992	110033196039	LAZY DAZE EXXON	940 GOLD HILL RD		FORT MILL	SC	FINDS
29708	U003975676	18119	LAZY DAZE CAMPGROUND	940 GOLD HILL RD		FORT MILL	SC	UST
29708	1005852720	110006621959	LAZY DAZE CAMPGROUND	940 GOLD HILL ROAD		FORT MILL	SC	FINDS
29708	1005790982	110002185901	TRACY TRIGG CAMP	940 GOLDHILL RD		FORT MILL	SC	FINDS
29708	1009525303		UNIVERSITY OF SOUTH CAROLINA	743 GREEN ST		COLUMBIA	SC	FTTS
29708	1012236223	110039565958	KURARAY AMERICA INC VECTRAN DIV	460 E GREENWAY INDUSTRIAL DR		FORT MILL	SC	FINDS
29708	1012188380	SCR000771402	KURARAY AMERICA INC VECTRAN DIV	460 E GREENWAY INDUSTRIAL DR		FORT MILL	SC	RCRAInfo-SQG
29708	1012095194	110038799636	ASCO VALVE CORP FT MILL-CLOSED	460 GREENWAY INDUSTRIAL DR #J		FORT MILL	SC	FINDS
29708	1005833090	110012163871	ASCO VALVE MANUFACTURING INC	460 GREENWAY INDUSTRIAL DR #J		FORT MILL	SC	FINDS
29708	1007834370	110019983589	CELANESE ADVANCED MATERIALS INC	460 GREENWAY INDUSTRIAL DR STE E		FORT MILL	SC	FINDS
29708	1005891422	110012172647	TYCO ELECTRONICS CORPORATION	587 GREENWAY INDUSTRIAL DRIVE		FORT MILL	SC	FINDS
29708	1016125574	110014363170	CROMPTON CORPORATION	600 GREENWAY INDUSTRIAL DRIVE		FORT MILL	SC	FINDS
29708	1010347989	110030768676	DUKE ENERGY/WYLIE HYDRO STA	2701 GREY ROCK RD		FORT MILL	SC	FINDS
29708	S118178704		DUKE ENERGY/WYLIE HYDRO STA	2701 GREY ROCK RD		FORT MILL	SC	NPDES
29708	2006804101			2701 GREY ROCK ROAD		FT MILL	SC	ERNS
29708	2004720323			2701 GREY ROCK ROAD		FT MILL	SC	ERNS
29708	A100163415	1225	DUKE POWER - WYLIE HYDR0	2701 GREY ROCK ROAD		FORT MILL	SC	AST
29708	2007302628			2701 GREY ROCK RD		FORT MILL	SC	ERNS
29708	U003878949	18878	FORMER CINDYS PIT STOP	1816 W HWY 160		FORT MILL	SC	LUST, UST
29708	1007248552	110017204960	FORMER CINDYS PIT STOP	1816 W HWY 160		FORT MILL	SC	FINDS
29708	1008010069	110002331183	LAKESIDE MHP	3170 W WALY 160		FORT MILL	SC	FINDS
29708	S118178232		TEGA CAY WWTP #2	9062 KOALA CIR	**	TEGA CAY	SC	NPDES
29708	2014007753		3058 LAKEMMONT BLVD	3058 LAKEMMONT BLVD		Fort Mill	SC	HMIRS
29708	2010105321		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		FORT MILL	SC	HMIRS
29708	2015000116		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		Fort Mill	SC	HMIRS
29708	2014012348		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		Fort Mill	SC	HMIRS
29708	2015002420		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		FORT MILL	SC	HMIRS
29708	2014005873		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		Fort Mill	SC	HMIRS
29708	2015007402		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD	**	Fort Mill	SC	HMIRS
29708	2012113394		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		FORT MILL	SC	HMIRS
29708	2014007878		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		Fort Mill	SC	HMIRS
29708	2015002941		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		FORT MILL	SC	HMIRS
29708	2015001994		3058 LAKEMONT BLVD	3058 LAKEMONT BLVD		FORT MILL	SC	HMIRS
29708	2012113506		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		Fort Mill	SC	HMIRS
29708	2011002304		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011000300		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010105070		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010111188		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011002042		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010107772		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2012112442		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010110828		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2009056171		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011004024		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011004862		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011008688		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010106193		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011001694		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010109971		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2009058268		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2011006634		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS
29708	2010109802		3058 LAKEMONT BLVD.	3058 LAKEMONT BLVD.		FORT MILL	SC	HMIRS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29708	1007246923	110017188201	CBM ENVIRONMENTAL SERVICES	3440 LAKEMONT BLVD		FORT MILL	SC	FINDS
29708	1007242681	110017144231	NEWLAND CAROLINA	C/O LARRY BURTON	**	TEGA CAY	SC	FINDS
29708	1015108239			951 MARKET ST		FORT MILL	SC	EDR Historical Cleaners
29708	1007255928	110017288399	JONNA J MORESCHI DMD PC	1021 MAXWELL MILL RD		FORT MILL	SC	FINDS
29708	2010106877		MILE MARKER 87 I77 SOUTH	MILE MARKER 87 I77 SOUTH	**	FT. MILL	SC	HMIRS
29708	1007239660	110017112426	TEGA CAY RECREATION	1 MOLLOKAI DR		TEGA CAY	SC	FINDS
29708	1014834928	110040713225	TEGA CAY RECREATION	MOLOKAI DR		FORT MILL	SC	FINDS
29708	1015678873			933 NIVENS PARK DR		FORT MILL	SC	EDR Historical Auto Stations
29708	1007259393	110017324484	TEGA CAY DEVELOPMENT CO INC	ONE MOLOKAI DR		TEGA CAY	SC	FINDS
29708	1015261921			1666 PINE BLUFF CT		FORT MILL	SC	EDR Historical Auto Stations
29708	1008009223	110002200298	KINGS COURT S D	1866 PLEASANT RD		FORT MILL	SC	FINDS
29708	1007228354	110016995386	MICHELE M JASPER DDS	2752 PLEASANT RD		FORT MILL	SC	FINDS
29708	1007235708	110017071363	THE MCCARTNEY CHIROPRACTIC CENTE	2752 PLEASANT RD STE 104		FORT MILL	SC	FINDS
29708	1007837875	110020018666	CHA DEVELOPMENT COMPANY	3336 PLEASANT RD		FORT MILL	SC	FINDS
29708	2006805966			3020 POINT CLEAR DRIVE		TEGA CAY	SC	ERNS
29708	S113669618			814 PROMENADE		FT MILL	SC	
29708	1015326058			214 ROCKMONT DR		FORT MILL	SC	EDR Historical Auto Stations
29708	1007240351	110017119811	WILLIAM S BURNS DMD	264 ROCKMONT DR		FORT MILL	SC	FINDS
29708	1015245348			1540 SAM SMITH RD		FORT MILL	SC	EDR Historical Auto Stations
29708	1015245531			1541 SAM SMITH RD		FORT MILL	SC	EDR Historical Auto Stations
29708	1015212265			135 SEA ISLAND BLVD		FORT MILL	SC	EDR Historical Auto Stations
29708	1007836774	110020007650	NNP TEGA CAY LLC	120 SHORELINE PKWY		TEGA CAY	SC	FINDS
29708	1016144999	110055418775	SHUTTERFLY INC	1000 SHUTTERFLY BLVD	**	FORT MILL	SC	RCRAInfo-SQG, FINDS
29708	1017803416	110064030828	GLENDALE PHASE 2, LAKE RIDGE, DR HC	807 SOLANDRA WAY		FORT MILL	SC	FINDS
29708	1017385617	110062739559	CELANESE AMI	460 STE E GREENWAY IND DR	**	FORT MILL	SC	FINDS
29708	1007257202	110017301640	MAY GREEN PROPERTIES LLC	104 STONE VILLAGE DR		FORT MILL	SC	FINDS
29708	1016039618	110055082887	WALMART SUPERCENTER STORE 3733	1151 STONE CREST BLVD		TEGA CAY	SC	FINDS
29708	1010567679	SCR000769588	WALMART SUPERCENTER STORE 3733	1151 STONE CREST BLVD		TEGA CAY	SC	RCRAInfo-SQG
29708	U004000637	19130	LOVES TRAVEL STOP 333	135 SUTTON RD	**	FORT MILL	SC	UST
29708	1015283738			184 SUTTON RD S		FORT MILL	SC	EDR Historical Auto Stations
29708	1015358928			245 SUTTON RD S		FORT MILL	SC	EDR Historical Auto Stations
29708	1007235686	110017071149	BARFIELD GRADING CO INC	270 SUTTON RD		FORT MILL	SC	FINDS
29708	1007258427	110017314556	TEGA CAY WATER SERVICE INC	25039 TIMBERLAKE DR		FORT MILL	SC	FINDS
29708	S116715809		TEGA CAY WWTP #3 & #4	25039 TIMBERLAKE DR		TEGA CAY	SC	NPDES
29708	1008009197	110002199978	TEGA CAY	25039 TIMBERLAKE DRIVE		TEGA CAY	SC	FINDS
29708	1015316645			2081 VISTA RD		FORT MILL	SC	EDR Historical Auto Stations
29708	1015369477			2575 WHITLEY RD		FORT MILL	SC	EDR Historical Auto Stations
29715	2009052991				**	FORT MILL	SC	HMIRS
29715	2004740657				**	FORT MILL	SC	ERNS
29715	1005792336	110002312676	MCCLANCY SEASONING COMPANY	8746 HWY # 521 (CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	1004779753	SC0000468710	DUKE POWER WYLIE HYDRO	RT 1	**	FORT MILL	SC	RCRA-CESQG
29715	1015227437			1431 HIGHWAY 160 E		FORT MILL	SC	EDR Historical Auto Stations
29715	1015227438			1431 HIGHWAY 160 W		FORT MILL	SC	EDR Historical Auto Stations
29715	1007240501	110017121354	CAROLINA ORTHOPAEDIC SURGERY - FT	1690 HWY 160 W		FORT MILL	SC	FINDS
29715	1014961224	SCR000774273	CVS PHARMACY 1571	1740 HWY 160 W		FORT MILL	SC	RCRAInfo-LQG
29715	1016006751	110045990166	CVS PHARMACY 1571	1740 HWY 160 W		FORT MILL	SC	FINDS
29715	U003982810	19084		CIRCLE K 2705963		FORT MILL	SC	UST
29715	1008010066	110002331147	RIVERSTOP INC	1940 HWY 160 W		FORT MILL	SC	FINDS
29715	U004107269	19309	PANTRY 3987 DBA PETRO EXPRE	2415 HWY 160 W		TEGA CAY	SC	UST
29715	1007233117	110017044401	BIG HWY 160 AUTO PARTS	2471 HWY 160 W		FORT MILL	SC	FINDS
29715	U003519350	9323	BIG HWY 160 AUTO PARTS	2471 HWY 160 W		FORT MILL	SC	UST
29715	U003868976	18862	GATE PETROLEUM 326	2911 HWY 160 W		FORT MILL	SC	UST
29715	1008010064	110002331110	WENDELL S MHP	3128 HWY 160		FORT MILL	SC	FINDS
29715	1016240685	110007837788	STEGALLS GROCERY SUNOCO SERVICE	HIGHWAY 160		FORT MILL	SC	FINDS
29715	1015697127			HIGHWAY 160	**	FORT MILL	SC	EDR Historical Auto Stations
29715	1000232508	SCD991279134	STEGALLS GROCERY SUNOCO SERVICE	HWY 160		FORT MILL	SC	RCRA-NonGen
29715	1016240688	110007837813	WILLIAMSON GROCERY SUNOCO SERVIC	HWY 160		FORT MILL	SC	FINDS
29715	1007242353	110017140716	C&A MARKET	HWY 160	**	FORT MILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	1000283950	SCD991279167	WILLIAMSON GROCERY	SUNOCO SERVICE	HWY 160	FORT MILL	SC	RCRA-NonGen
29715	U003558411	9346	RIVERSTOP GROCERY	HWY 160	**	FORT MILL	SC	LUST, UST
29715	1007256501	110017294319	RIVERSTOP GROCERY	HWY 160	**	FORT MILL	SC	FINDS
29715	1016240319	110007831203	SUTTONS GROCERY	SUNOCO SERVICE	HWY 160	FORT MILL	SC	FINDS
29715	1000417624	SCD061258257	SUTTONS GROCERY	SUNOCO SERVICE	HWY 160	FORT MILL	SC	RCRA-NonGen
29715	U003557742	9303	C&A MARKET	HWY 160	**	FORT MILL	SC	LUST, UST
29715	1007243827	110017156085	ONE PUTT INC	HWY 160 AT I 77	**	FORT MILL	SC	FINDS
29715	1007241500	110017131806	GATE PETROLEUM 326	HWY 160 W	**	FORT MILL	SC	FINDS
29715	1007224900	110016959674	WILSON MHP 2	RT 2	**	FORT MILL	SC	FINDS
29715	1007228061	110016992281	MOORES MHP	RT 2 PO BOX 333	**	FORT MILL	SC	FINDS
29715	1007236379	110017078384	521 GRILL	RT 2 PO BOX 342	**	FORT MILL	SC	FINDS
29715	1017383130	110062699343	PALMETTO CONCRETE	PLANT 2 NEVER E		LANCASTER	SC	FINDS
29715	1015263532			1686 HIGHWAY 21 BYP		FORT MILL	SC	EDR Historical Auto Stations
29715	1007247768	110017196853	TIMES TURN AROUND 10	2488 US 21 BYPASS		FORT MILL	SC	FINDS
29715	U003629246	10381	TIMES TURN AROUND 10	2488 US 21 BYPASS		FORT MILL	SC	GWCI, LUST, UST
29715	1007236135	110017075877	QUEEN S CASTLE	2707 HWY 21 BUS		FORT MILL	SC	FINDS
29715	1015384701			2788 HIGHWAY 21	**	FORT MILL	SC	EDR Historical Auto Stations
29715	1015384699			2788 HIGHWAY 21 BUS		FORT MILL	SC	EDR Historical Auto Stations
29715	1015384700			2788 HIGHWAY 21 BYP		FORT MILL	SC	EDR Historical Auto Stations
29715	1007228633	110016998221	T & G S COUNTRY STORE	2976 HWY 21		FORT MILL	SC	FINDS
29715	U003994151	9358	T & G'S COUNTRY STORE	2976 HWY 21 BYP		FORT MILL	SC	GWCI, LUST, UST
29715	S109516815		T & G'S COUNTRY STORE	2976 HWY 21 BYP		FORT MILL	SC	UIC
29715	1007236341	110017078008	DIAMONDS #1	3004 HWY 21		FORT MILL	SC	FINDS
29715	1007233028	110017043518	HANDY PANTRY 28 FOOD MART	3004 US 21 BYPASS		FORT MILL	SC	FINDS
29715	U001015802	9316	HANDY PANTRY 28 FOOD MART	3004 US 21 BYPASS		FORT MILL	SC	GWCI, UIC, SHWS, LUST, UST
29715	1015405870			3031 HIGHWAY 21		FORT MILL	SC	EDR Historical Auto Stations
29715	1015405869			3031 HIGHWAY 21 BYP		FORT MILL	SC	EDR Historical Auto Stations
29715	1008010068	110002331174	STATE LINE LIGHTING	3133 HWY 21 N		FORT MILL	SC	FINDS
29715	1015041703			3160 HIGHWAY 21		FORT MILL	SC	EDR Historical Cleaners
29715	1008010065	110002331138	STATE STORE AND LOCK	3203 HWY 21		FORT MILL	SC	FINDS
29715	1015423751			3215 HIGHWAY 21 BYP		FORT MILL	SC	EDR Historical Auto Stations
29715	U004218989		QUIKTRIP 1077	3282 HWY 21		FORT MILL	SC	UST
29715	1015044767			3312 HIGHWAY 21		FORT MILL	SC	EDR Historical Cleaners
29715	U003629280	10515	PANTRY 3969 DBA PETRO EXPRESS	3473 HWY 21		FORT MILL	SC	LUST, UST
29715	1007234556	110017059369	PETRO EXPRESS 55	3473 HWY 21 US 21 & I 77		FORT MILL	SC	FINDS
29715	1007225066	110016961386	ROCKET STOP	3477 HWY 21		FORT MILL	SC	FINDS
29715	U003766194	18691	ROCKET STOP	3477 HWY 21		FORT MILL	SC	LUST, UST
29715	U003521693	9315	GENERAL STORE	HWY 21		FORT MILL	SC	GWCI, LUST, UST
29715	1007233029	110017043527	GENERAL STORE	HWY 21	**	FORT MILL	SC	FINDS
29715	1007233027	110017043509	FT MILL 66	HWY 21	**	FORT MILL	SC	FINDS
29715	U003521579	9317	FORT MILL 66	HWY 21		FORT MILL	SC	GWCI, LUST, UST
29715	1016982614	110007008353	METROMONT MATERIALS CORP FORT MI	HWY 21 BYPASS	**	FORT MILL	SC	FINDS
29715	S118177436		PINECREST MOBILE HOME PARK	U.S 21 4 MI N OF FORT MILL	**	YORK	SC	NPDES
29715	1008009256	110002200671	ACROSS THE BORDER	US 21 BYPASS 1963	**	FORT MILL	SC	FINDS
29715	1000395755	SCD079053401	CONTAINER CORPORATION OF CAROLIN	3358 HWY 51		FORT MILL	SC	RCRA-CESQG
29715	1016185553	110002329597	CONTAINER COMPANY OF CAROLINA	3358 HWY 51 N		FORT MILL	SC	FINDS
29715	U004019726	9220	CONTAINER CORPORATION OF CAROLIN	3358 HWY 51 N		FORT MILL	SC	LUST, UST
29715	1007244702	110017165235	DYNAMIC PROPERT	3490 HWY 51		FORT MILL	SC	FINDS
29715	1007650914	110019917036	BYI LLC	3550 HWY 51		FORT MILL	SC	FINDS
29715	1004593191	110002329365	PARTEX INCORPORATED	3551 HWY 51		FORT MILL	SC	FINDS
29715	1007835716	110019997066	VIKING ENTERPRISES	3551 HWY 51		FORT MILL	SC	FINDS
29715	1001120786	110008870515	EUMERIC HOLDINGS NV	3551 HWY 51		FORT MILL	SC	RCRA-NonGen, FINDS
29715	1007227176	110016983264	LORDS ARMORY	3578 HWY 51		FORT MILL	SC	FINDS
29715	1007231610	110017028928	SUMMERVILLE GROCERY	HWY 51	**	FORT MILL	SC	FINDS
29715	U003525696	14057	SUMMERVILLE GROCERY	HWY 51		FORT MILL	SC	LUST, UST
29715	1008010099	110002466251	ACTION STAINLESS & ALLOYS	1300 HWY 521	**	FORT MILL	SC	FINDS
29715	1007232778	110017040922	PRESSLEY TRUCKING	1306 HWY 521	**	FORT MILL	SC	FINDS
29715	U003930245	14423	F H YARBOROUGH USED CARS INC	7550 HWY 521		FORT MILL	SC	LUST, UST
29715	1000245511	SCD071076111	INDIAN LAND SERVICE CENTER	HIGHWAY 521 N LANCASTER COUNTY		INDIAN LAND COMMUNITY	SC	RCRA-NonGen
29715	1005853746	110008565105	J P STEVENS INDIAN LAND SERVICE CEN	HIGHWAY 521 ROUTE 2		FORT MILL	SC	FINDS
29715	1007233030	110017043536	PANHANDLE FOOD MART	HWY 521	**	FORT MILL	SC	FINDS
29715	1007244983	110017168214	SPRINGS IND (INDIAN)	HWY 521	**	FORT MILL	SC	FINDS
29715	1005851852	110008552985	RMC MID ATLANTIC LLC INDIAN LAND	HWY 521 & SHELLEY MULLINS RD	**	FORT MILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	S118178475		SPRINGS IND/FT LAWN COMPLEX	HWY 9 AND HWY 21	**	FORT LAWN	SC	NPDES
29715	1000129491	110001992648	SEA RAY BOATS INC	23 ABACO LANE		FORT MILL	SC	RCRA-NonGen, FINDS
29715	1014976259			112 ACADEMY ST		FORT MILL	SC	EDR Historical Cleaners
29715	S105621344		THE CLEANERS	112 ACADEMY ST		FORT MILL	SC	DRYCLEANERS, SHWS
29715	1016184834	110002189649	CAMPBELLS LAUNDRY & DRYCLEANERS	114 ACADEMY ST		FORT MILL	SC	FINDS
29715	1000345594	SCD982098394	CAMPBELLS LAUNDRY & DRY CLEANERS	114 ACADEMY ST		FORD MILL	SC	RCRAInfo-SQG
29715	1014978849			116 ACADEMY ST		FORT MILL	SC	EDR Historical Cleaners
29715	1008009226	110002200332	FERN FOREST MHP	141 AMELIA DR		FORT MILL	SC	FINDS
29715	1007226927	110016980695	COMFORT INN CAROWINDS	3725 AVE OF CAROLINAS		FORT MILL	SC	FINDS
29715	U004017271	12070	COMFORT INN CAROWINDS	3725 AVE OF CAROLINAS		FORT MILL	SC	UST
29715	1004781004	110007838411	JOHN SHAWN PRODUCTIONS-KEYHOLE F	3900 AVE OF CAROLINAS N GATE	**	FORT MILL	SC	RCRA-CESQG, FINDS
29715	1009518750		NATION FORD CHEMICAL CO	2300 BANK RD		FORT MILL	SC	FTTS
29715	1015246612			1550 BANKS RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1012138479	110039166504	NORTHERN TOOL AND EQUIPMENT	1850 BANKS RD		FORT MILL	SC	FINDS
29715	1009518751		NATION FORD CHEMICAL O	2300 BANKS RD.		FORT MILL	SC	FTTS
29715	1000119496		NATION FORD CHEMICAL	2300 BANKS ST		FORT MILL	SC	AIRS, NPDES, SHWS
29715	1014200007		NATION FORD CHEMICAL COMPANY	2300 BANKS ST		FORT MILL	SC	TSCA
29715	93323783			2300 BANKS ST EXTENSION		FT MILL	SC	ERNS
29715	U003521494	9369	FORT MILL GOLF COURSE	BANKS ST		FORT MILL	SC	UST
29715	1007256516	110017294462	FORT MILL GOLF COURSE	BANKS ST	**	FORT MILL	SC	FINDS
29715	S118178614		PALMETTO ENERGY CENTER	BANKS ST	**	FORT MILL	SC	NPDES
29715	1007256637	110017295719	FORT MILL SCHOOL DIST 4	BANKS ST	**	FORT MILL	SC	FINDS
29715	1005435587		R-M INDUSTRIES, INC	BANKS ST EXTENSION	**	FORT MILL	SC	SSTS
29715	1015731900	110064201634	R-M INDUSTRIES INC	BANKS STREET EXTN		FORT MILL	SC	CERCLIS, FINDS, RCRAInfo-LQG, TRIS
29715	1015123620			10082 BARBERVILLE RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1014968487		VON'S AUSTIN HEALEY RESTORATION	10162 BARBERVILLE RD		FORT MILL	SC	EDR Historical Cleaners
29715	1004781074	SCR000073569	QUEEN CITY PLASTICS INC	1270 BARBERVILLE RD		FT MILL	SC	RCRA-CESQG
29715	U001540126	9178	QUEEN CITY PLASTICS INC	2650 BENNETT RD		FORT MILL	SC	GWCI, AIRS, LUST, UST
29715	1007247608	110017195186	QUEEN CITY PLASTICS INC	2650 BENNETT RD		FORT MILL	SC	FINDS
29715	1007834967	110019989574	BLACK HORSE RUN	BLACK HORSE RUN DR	**	FORT MILL	SC	FINDS
29715	1016030919	110044437375	ROBERT W. UNDERWOOD	P.O. BOX 70	**	FORT MILL	MS	FINDS
29715	1016023479	110044383636	JACK Y. BROWN	P.O. BOX 70	**	FORT MILL	MS	FINDS
29715	1014835742	110035810165	R-M INDUSTRIES, INC.	P.O. BOX 770	**	FORT MILL	SC	FINDS
29715	1008010153	110006190086	SPRINGS FARM	PO BOX 100	**	FORT MILL	SC	FINDS
29715	1007245093	110017169357	HERITAGE USA	PO BOX 1087	**	FT MILL	SC	FINDS
29715	1007236569	110017080317	SPRINGS FT MILL	PO BOX 159	**	FORT MILL	SC	FINDS
29715	1007236055	110017075047	FORT MILL #2/IMHOFF	PO BOX 159	**	FORT MILL	SC	FINDS
29715	1007236515	110017079766	BYPASS GRILL	PO BOX 218	**	FT MILL	SC	FINDS
29715	1007224899	110016959665	WILSON MHP	PO BOX 304	**	FORT MILL	SC	FINDS
29715	1007228062	110016992290	INDIAN LAND MHP	PO BOX 341	**	FORT MILL	SC	FINDS
29715	1007242370	110017140887	PLEASANT VALLEY	PO BOX 446	**	FORT MILL	SC	FINDS
29715	S118177446		PLEASANT VALLEY SD	PO BOX 446	**	FORT MILL	SC	NPDES
29715	1005851368	110008558257	WIKOFF COLOR/SC HWY 48 PLANT	PO BOX W	**	FORT MILL	SC	FINDS
29715	1007828655	110019926384	MARRIOTT DISTRIBUTION	2000 BOYER ST		FORT MILL	SC	FINDS
29715	1007834299	110019982893	HOLLY RIDGE APARTMENTS INC	105 BOZEMAN DR		FORT MILL	SC	FINDS
29715	1005891423	110012172656	PALMETTO ENERGY CENTER LLC	BRADLEY INDUSTRIAL PARK	**	FORT MILL	SC	FINDS
29715	1007234786	110017061702	PARKLINE DEVELOPMENT CORP	101 BROOKSHIRE DR		FORT MILL	SC	FINDS
29715	U003525419	9212	SOUTHERN TREE & LANDSCAPING	2621 BUS HWY 21		FORT MILL	SC	LUST, UST
29715	1007232820	110017041360	SOUTHERN TREE & LANDSCAPING	2621 BUS HWY 21	**	FORT MILL	SC	FINDS
29715	1008009233	110002200412	CPT STEVE S SEAFOOD RESTAURANT	1975 21 BY PASS		FORT MILL	SC	FINDS
29715	1007244770	110017165912	WALLACE MHP	3520 CADDELL DR		FORT MILL	SC	FINDS
29715	1008009995	110002314978	CAMP COX MHP	430 CAMP COX CIR		FORT MILL	SC	FINDS
29715	U003629763	15836	TIMES 45	1010 CAROLINA PL		FORT MILL	SC	UST
29715	1007257811	110017307911	ROBERT CHAPPELL DVM	2040 CAROLINA PL		FORT MILL	SC	FINDS
29715	U003628224	9264	7 ELEVEN STORE 35581	240 CAROWINDS BLVD		FORT MILL	SC	GWCI, RCR, LUST, UST
29715	1004780462	SCD987579331	EXXON RAS 47373	240 CAROWINDS BLVD		FORT MILL	SC	RCRA-CESQG
29715	U003629898	18073	PANTRY 3943 DBA PETRO EXPRESS	249 CAROWINDS BLVD		FORT MILL	SC	GWCI, LUST, UST
29715	1007256337	110017292641	PETRO EXPRESS 26	249 CAROWINDS BLVD		FORT MILL	SC	FINDS
29715	1011849239	110037084507	SUMMIT ENGINEERING & CONSTRUCTION	3575 CENTRE CIRCLE		FORT MILL	SC	FINDS
29715	S113913083		SUMMIT ENGINEERING AND CONSTRUCTION	3575 CENTRE CIRCLE DR.		FORT MILL	SC	SWRCY
29715	1007832763	110019967525	CAROLINA MEDIA BLASTING INC	3635 CENTRE CIR		FORT MILL	SC	FINDS
29715	1015451711			3661 CENTRE CIR		FORT MILL	SC	EDR Historical Auto Stations
29715	S118128575		WEIMA AMERICA INC.	3678 CENTRE CIR.		FORT MILL	SC	SWRCY
29715	1007228665	110016998542	MR B S MARKET	8083 CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	1015098769			8173 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Cleaners
29715	1015651713			8341 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Auto Stations

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	U004018200	17920	INDIANLAND EXXON	8341 CHARLOTTE HWY		FORT MILL	SC	UST
29715	U003796707	9345	521 EXPRESS MART	8429 CHARLOTTE HWY		FORT MILL	SC	GWCI
29715	U004158066		521 EXPRESS MART	8475 CHARLOTTE HWY		FORT MILL	SC	LUST, UST
29715	1015657212			8565 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1015660452			8719 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1007834607	110019985970	SOUTHERN STATES FAMILY HEALTHCAR	8763 CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	1015683379			9528 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1008230044	110020997830	INDIAN LAND ENTERPRISES LLC	9531 B CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	1007228701	110016998908	PLEASANT VALLEY GROCERY	9757 CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	U003754942	18633	7 ELEVELN STORE 35551	9759 CHARLOTTE HWY		FORT MILL	SC	UST
29715	1007240788	110017124404	PANHANDLE	9775 CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	U003629063	9368	PANHANDLE FOOD STORE	9775 CHARLOTTE HWY		FORT MILL	SC	LUST, UST
29715	U004067063	19252	COBBLESTONE CREEK	9792 CHARLOTTE HWY		FORT MILL	SC	UST
29715	1015689896			9909 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1015110140			9935 CHARLOTTE HWY		FORT MILL	SC	EDR Historical Cleaners
29715	1007236120	110017075724	CURTSINGER ANIMAL HOSPITAL	9955 CHARLOTTE HWY 521		FORT MILL	SC	FINDS
29715	1007256072	110017289860	INDIAN LAND ANIMAL HOSPITAL	9990 CHARLOTTE HWY		FORT MILL	SC	FINDS
29715	1012093912	110038800731	CHESTER COUNTY	CHESTER COUNTY COURTHOUSE		CHESTER	SC	FINDS
29715	1007242305	110017140217	BROWN MHP	110 W CLOSE ST		FORT MILL	SC	FINDS
29715	1000575825	SCD987582780	AME INC	2467 COLTHARD ROAD		FORT MILL	SC	RCRAInfo-SQG
29715	1007260393	110017334838	RESERVE DOMICILES LTD TRUSTEES FO	2151 COLTHARP RD		FORT MILL	SC	FINDS
29715	U003629592	12856	AME INC	2467 COLTHARP RD		FORT MILL	SC	UST
29715	1007232816	110017041324	COLEMAN CO INC	COLTHARP & LUCKADOO RDS		FORT MILL	SC	FINDS
29715	U001540143	9222	COLEMAN CO INC	COLTHARP & LUCKADOO RDS		FORT MILL	SC	UST
29715	1008009238	110002200485	CECILS MHP	COLTHARP RD I 77	**	FORT MILL	SC	FINDS
29715	1007837807	110020017989	FORT MILL TOWN OF	112 CONFEDERATE RD		FORT MILL	SC	FINDS
29715	1008405389	SCR000767160	WELLMAN INC	1041 521 CORPORATE CENTER DR		FORT MILL	SC	RCRA-NonGen
29715	1006811433	SCR000763417	LEINER HEALTH PRODUCTS LLC	355 CRESTNUT DR		FORT MILL	SC	RCRA-NonGen
29715	1007256496	110017294266	NIVENS GROCERY	2231 DAM RD		FORT MILL	SC	FINDS
29715	1008009208	110002200083	MARLOWE MHP	2264 DAM RD		FORT MILL	SC	FINDS
29715	1007236060	110017075118	CWS LAMPLIGHTER VILLAGE SOUTH	12930 DANBY RD	**	FORT MILL	SC	FINDS
29715	S110274970		CWS INC OF NC/LAMPLIGHTER VILLAGE S	12930 DANBY RD	**	FORT MILL	SC	NPDES
29715	1005903681	110009704748	CWS INC OF NC/LAMPLIGHTER VILL	12930 DANBY RD		FORT MILL	SC	FINDS
29715	1007224390	110016954410	DEER CREEK COMPOSTING	3016 DEERCREEK		FORT MILL	SC	FINDS
29715	1000695873	110000917973	BALDOR ELECTRIC CO	2499 DEERFIELD DR		FORT MILL	SC	RCRA-NonGen, FINDS
29715	U003522029	9412	H E PATTERSON GROC	DOBY BRIDGE RD		FORT MILL	SC	UST
29715	1007228675	110016998640	H E PATTERSON GROC	DOBY BRIDGE RD	**	FORT MILL	SC	FINDS
29715	1016447106	110056162290	FORT MILL ELEMENTARY SCHOOL #9	2100 DOBYS BRIDGE ROAD		FORT MILL	SC	FINDS
29715	1016447104	110056162272	MASSEY PHASE 4 - IOTA	2200 DOBYS BRIDGE ROAD		FORT MILL	SC	ICIS, FINDS
29715	1016447105	110056162281	MASSEY PHASE 2 - IOTA	2300 DOBYS BRIDGE ROAD		FORT MILL	SC	FINDS
29715	1016447103	110056162263	MASSEY PHASE 1 - IOTA	3500 DOBYS BRIDGE ROAD		FORT MILL	SC	ICIS, FINDS
29715	1007232809	110017041244	HUFFS IRON & METAL CO INC	DOBYS BRIDGE RD	**	FORT MILL	SC	FINDS
29715	U003522394	9246	HUFFS IRON & METAL CO INC	DOBYS BRIDGE RD		FORT MILL	SC	LUST, UST
29715	1005488007	110009794017	UTILS SRVS OF SC/FOXWOOD SD WW	0.6 MI E OF RD 674 & 1.4 MI N		FORT MILL	SC	FINDS
29715	S111680916		UTILS SRVS OF SC/FOXWOOD SD WWTP	0.6 MI E OF RD 674 & 1.4 MI N OF HWY 160	**	FORT MILL	SC	NPDES
29715	1008009200	110002200001	ROSE LAKE ESTATE	1729 EDIT ROSE LN	**	FORT MILL	SC	FINDS
29715	1007833764	110019977541	CREEKSIDE OF YORK CO INC	108 W ELLIOTT ST		FORT MILL	SC	FINDS
29715	1010169989	110030476517	YORK COUNTY SCHOOL DISTRICT #4	120 EAST ELLIOTT ST.		FT. MILL	SC	FINDS
29715	S118177862		HUNTINGTON FARMS SD	END OF HOLBROOK RD	**	FORT MILL	SC	NPDES
29715	1016447101	110056162245	MASSEY PHASE 1 RYAN HOMES	100 FARBEN WAY		FORT MILL	SC	FINDS
29715	1007837747	110020017382	TOUCHBERRY DEVELOPMENT CO INC	2682 FARM LAKE RD		ROCK HILL	SC	FINDS
29715	1015477185			409 FEATHERSON RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1004593737	110001993282	THOMAS CONCRETE OF CAROLINA INC C	350 FLINT HILL RD		FORT MILL	SC	FINDS
29715	S108282224		THOMAS CONCRETE OF CAROLINA INC C	350 FLINT HILL RD		FORT MILL	SC	AIRS
29715	1011841074		US FOODSERVICE - CAROLINAS DIVISION	US FOODSERVICE - CAROLINAS DIVISION		FORT MILL	SC	RMP
29715	1014966148			100 FORT MILL SQ		FORT MILL	SC	EDR Historical Cleaners
29715	1015117944			100 FORT MILL SQ		FORT MILL	SC	EDR Historical Auto Stations
29715	S107454516		SUN CLEANERS	100 FORT MILL SQ SHOPPING CTR		FORT MILL	SC	SHWS
29715	1015122884			1006 FORT MILL HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1015141113			1057 FORT MILL HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1015172765			1171 FORT MILL HWY		FORT MILL	SC	EDR Historical Auto Stations
29715	1015190496			124 FORT MILL HWY		FORT MILL	SC	EDR Historical Auto

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	1011840431		U.S. FOODSERVICE, INC. - FORT MILL	125 FORT MILL PARKWAY		FORT MILL	SC	Stations
29715	1016170890		US FOODS, INC. - FORT MILL	125 FORT MILL PARKWAY		FORT MILL	SC	RMP
29715	2007304396			125 FORT MILL PARKWAY		FORT MILL	SC	ERNS
29715	1017430861	110000712783	US FOODS, INC. - FORT MILL	125 FORT MILL PARKWAY		FORT MILL	SC	FINDS
29715	1007834895	110019988851	NORKETT MHP	872 FORT MILL HWY		FORT MILL	SC	FINDS
29715	S113910553			2285 GARY'S CIRCLE		FORT MILL	SC	
29715	1007259958	110017330388	STONE ACRES SD	1319 GOLD HILL RD		FORT MILL	SC	FINDS
29715	1007243187	110017149496	A COUNTRY STORE	1800 GOLD HILL RD		FORT MILL	SC	FINDS
29715	1007259116	110017321646	EXECUTIVE POINT DEVELOPMENT CO	2086 GOLD HILL RD		FORT MILL	SC	FINDS
29715	1007241896	110017135937	TEGA CAY ANIMAL HOSPITAL	2152 GOLD HILL RD		FORT MILL	SC	FINDS
29715	1007228642	110016998310	SHOP & GO FOOD MART	701 GOLD HILL RD		FORT MILL	SC	FINDS
29715	1010683991	110033196020	WOODIES SHELL	802 GOLD HILL RD		FORT MILL	SC	FINDS
29715	1015229694			1448 HARRIS RD		FORT MILL	SC	EDR Historical Auto
29715	1005792452	110002310883	SAM FISHERS LANDFILL	1023 HARRISBURG RD		FORT MILL	SC	Stations
29715	1015315971			208 HATCHWAY RD		FORT MILL	SC	FINDS
29715	1007226352	110016974862	P&M CONCRETE	HENLEY RD	**	FORT MILL	SC	EDR Historical Auto
29715	1015652172			8362 HENRY HARRIS RD		FORT MILL	SC	Stations
29715	1015167425			1149 HENSLEY RD		FORT MILL	SC	EDR Historical Auto
29715	1016119303	110001993175	CAROLINA CONCRETE II LLC:SOUTH PLA	1196 HENSLEY ROAD		FORT MILL	SC	Stations
29715	1015246097			1547 HENSLEY RD		FORT MILL	SC	FINDS
29715	1015003297			1700 HENSLEY RD		FORT MILL	SC	EDR Historical Auto
29715	1007256730	110017296647	T & T GROCERY	HENSLEY RD	**	FORT MILL	SC	EDR Historical Cleaners
29715	U001015827	9387	T & T GROCERY	HENSLEY RD		FORT MILL	SC	FINDS
29715	1007835827	110019998172	INTEGRITY PROPERTIES LLC	130 HERITAGE BLVD		FORT MILL	SC	UST
29715	1007837282	110020012733	STONECUTT LLC	130 HERITAGE BLVD		FORT MILL	SC	FINDS
29715	1007243455	110017152294	NEW HERITAGE CAROLINA CORPORATIO	3000 HERITAGE PKWY		FORT MILL	SC	FINDS
29715	2002616042			3158 HIGHGATE DR		FORT MILL	SC	FINDS
29715	1007247572	110017194819	FORT MILL CITY SHOP	HILL ST		FORT MILL	SC	ERNS
29715	U001542187	9148	FORT MILL CITY SHOP	HILL ST		FORT MILL	SC	FINDS
29715	U003628999	9299	PEACH STAND INC	1325 W HWY 160		FORT MILL	SC	UST
29715	1007233037	110017043607	NEW PEACH STAND	1325 W HWY 160 US 21 BY PASS		FORT MILL	SC	GWCI, LUST, UST
29715	1007241867	110017135642	FORT MILL MAMMOGRAPHY	1674 W HWY 160 STE 200		FORT MILL	SC	FINDS
29715	1007257801	110017307813	CHARLES H CRAWFORD	1686 WEST HWY 160		FORT MILL	SC	FINDS
29715	1007246707	110017185990	CENTER FOR ORAL & MAXILLOFACIAL SL	1698 W HWY 160		FORT MILL	SC	FINDS
29715	1008010708	110008568772	LAKEVIEW MHP	1891 US HWY 21 S		FORT MILL	SC	FINDS
29715	1007238909	110017104658	CRAFT BYPASS TRUCK STOP	2046 S HWY 21 BYPASS		FORT MILL	SC	FINDS
29715	U004017906	16032	CRAFT BYPASS TRUCK STOP	2046 S HWY 21 BYPASS		FORT MILL	SC	UST
29715	1007232855	110017041725	FORT MILL TELEPHONE CO	2382 W HWY 160		FORT MILL	SC	FINDS
29715	1008010067	110002331165	STAFAST CORPORATION	2426 W HWY 160		FORT MILL	SC	FINDS
29715	1007259959	110017330397	B&R RENTAL	2444 WEST HWY 160		FORT MILL	SC	FINDS
29715	1007247551	110017194597	SC502	2891 WEST HWY TEGA CAY RD		FORT MILL	SC	FINDS
29715	1012216445	110040485383	CLEMS BRANCH REGNL WASTEWATER P	SC HWY 160 & BARBERVILLE RD		FORT MILL	SC	FINDS
29715	1000116315	SCD000825919	521 GROCERY SERVICE STATION	SC HWY 521		FORT MILL	SC	RCRA-NonGen
29715	1016240241	110007829706	521 GROCERY SERVICE STATION	SC HWY 521		FORT MILL	SC	FINDS
29715	1017796164	110063873321	RIVERVIEW REPLACEMENT	INTERSECTION OF FT MILL PKWY & US21	**	FORT MILL	SC	FINDS
29715	1000835590	SCD987596707	SOUTHERN TREE & LANDSCAPE CO	INTERSECTION US21 & SC51		FORT MILL	SC	RCRA-NonGen
29715	1016240651	110007837305	SOUTHERN TREE & LANDSCAPE CO	INTERSECTION US21 & SC51	**	FORT MILL	SC	FINDS
29715	S118177212		KIMBRELLS TRAILER PARK	INTRS OF I-77 BTWN RD 160 & TE	**	FORT MILL	SC	NPDES
29715	S118177151		INDIANLAND SCHOOL WWTF	INTRS OF US 521 & SC 126	**	FORT MILL	SC	NPDES
29715	1015231393			146 JOHNNA PARK LN		FORT MILL	SC	EDR Historical Auto
29715	1015609240			707 JOY DR		FORT MILL	SC	Stations
29715	1015609934			709 JOY DR		FORT MILL	SC	EDR Historical Auto
29715	1015022068			2255 KEARNEY LN		FORT MILL	SC	Stations
29715	1011491120	SCR000770180	JOHN WIELAND HOMES AND NEIGHBORH	3223 KENDALL TRACE		FORT MILL	SC	EDR Historical Cleaners
29715	1011923718	110037443451	JOHN WIELAND HOMES AND NEIGHBORH	3223 KENDALL TRACE		FORT MILL	SC	RCRA-CESQG
29715	S109362346		SPRINGS INDUSTRIES - INDIAN LAND SEF	3223 KENDELL TRACE		FORT MILL	SC	FINDS
29715	1016447100	110056162227	MASSEY PHASE 1 DAVID WEEKLEY HOME	KING'S BOTTOM ROAD		FORT MILL	SC	VCP, ALLSITES, SHWS
29715	1005903682	110009793955	TEGA CAY WWTP #2	4135 KOALA CIR		TEGA CAY	SC	FINDS
29715	1007241258	110017129294	FOREST LAKE COMM CLUB	401 LAKE VW		FORT MILL	SC	FINDS
29715	1005791344	110002186303	SOUTH LAKE PARTNERS	S LAKE PTNRS 1141 MOLOKAI DRIV		TEGA CAY	SC	FINDS
29715	1000835536	SCD987596145	GE MEDICAL SYSTEMS	3440 LAKEMONT BLVD		FT MILL	SC	RCRA-NonGen
29715	1005791508	110002183164	TWIN LAKES ESTATES	7001 LAKES BLVD		FORT MILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	1008009227	110002200341	TRE S LEARNING CENTER	1941 LANDS END	**	FORT MILL	SC	FINDS
29715	1015242332			1520 LEGION RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1012086849		CONCRETE SUPPLY CO LLC INDIAN LANE	LOT 15 NORTHFIELD DR	**	FORT MILL	SC	AIRS
29715	1016939770	110056425603	CONCRETE SUPPLY CO LLC INDIAN LANE	LOT 15 NORTHFIELD DR		FORT MILL	SC	FINDS
29715	1007831961	110019959516	KIMBRELL CROSSING INC	220 MAIN ST		FORT MILL	SC	FINDS
29715	1007233998	110017053677	FORT MILL ANIMAL CLINIC	240 MAIN ST		FORT MILL	SC	GWCI, FINDS, LUST, UST
29715	U003666081	9427	TEGA CAY MARINA	1 MARINA DR		TEGA CAY	SC	GWCI, LUST, UST
29715	1015288967			190 MARVIN RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1015148385			109 MASSEY ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1015170307			116 MASSEY ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1015216164			138 MASSEY ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1015667209			9000 W MEADOW RIDGE RD		FORT MILL	SC	EDR Historical Auto Stations
29715	U004239857		HARRIS TEETER FUEL SPRINGFIELD	412 MERCANTILE PL	**	FORT MILL	SC	UST
29715	S109516873		WIKOFF COLOR CORPORATION	1886 MERRIT RD		FORT MILL	SC	UIC, NPDES
29715	1015257586			1627 MERRITT RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1015259980			1648 MERRITT RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1005933766		WIKOFF COLOR CORP	1886 MERRITT RD		FT MILL	SC	TSCA
29715	1000332393	SCD079071395	WIKOFF COLOR CORP	1886 MERRITT RD		FORT MILL	SC	VCP, ALLSITES, AIRS, NPDES, RCRA-CESQG, SHWS, UST
29715	1005851768		WIKOFF COLOR:FORT MILL	1886 MERRITT RD		FORT MILL	SC	
29715	1016122051	110008554135	WIKOFF COLOR CORPORATION	1886 MERRITT ROAD		FORT MILL	SC	FINDS
29715	1005933768		WIKOFF COLOR CORP	1886 MERRITT ROAD		FT MILL	SC	TSCA
29715	1001233702	SCR000007195	BELDEN CDT INC	793 FT MILL HWY		FT MILL	SC	RCRA-NonGen
29715	S118177651		SOUTH LAKE PARTNERS	1141 MOLOKAI DR		TEGA CAY	SC	NPDES
29715	1007225109	110016961821	SOUTHLAKE CENTER	1141 MOLOKAI DR	**	TEGA CAY	SC	FINDS
29715	1007834874	110019988628	FORT MILL SCHOOL DISTRICT 4	C/O MS KAREN PUTHOFF		FORT MILL	SC	FINDS
29715	1000875824	SCD987597226	SLOAN RECON INC	142 MUNN RD		FT MILL	SC	RCRA-NonGen
29715	1016185038	110002240003	SLOAN RECON INCORPORATED	142 MUNN RD		FORT MILL	SC	FINDS
29715	1015750255	SCR000772640	FORT MILL HIGH SCHOOL	225 MUNN RD		FORT MILL	SC	RCRA-NonGen
29715	1008259119	110021488166	FORT MILL HIGH SCHOOL	225 MUNN RD.		FORT MILL	SC	FINDS
29715	1004779871	110002189293	SCARNG FORT MILL	276 MUNN RD		FORT MILL	SC	RCRA-CESQG, FINDS
29715	S118176126		YORK COUNTY/NEW HERITAGE	NEAR US HWY 21 @ CONFLUENCE	**	FORT MILL	SC	NPDES
29715	1007834275	110019982651	SPRING BRANCH GLEN INC	610 NIMS LAKE RD		FORT MILL	SC	FINDS
29715	1008010889	110008571722	NORKETT MH RENTALS	NORKETT RD	**	FORT MILL	SC	FINDS
29715	1016680474	110002445051	MACLEOD CONSTRUCTION INC STATEWI	9160 NORTHFIELD		FT MILL	SC	FINDS
29715	1016702446		MACLEOD CONSTRUCTION INC STATEWI	9160 NORTHFIELD		FT MILL	SC	ICIS
29715	1005654341	110056423106	THOMAS CONCRETE OF CAROLINA INC	9160 NORTHFIELD DR		FORT MILL	SC	AIRS, FINDS
29715	1016939773		CONCRETE SUPPLY CO LLC LANCASTER	9169 NORTHFIELD DR		FORT MILL	SC	
29715	1012086736	1100384445867	CONCRETE SUPPLY CO LLC LANCASTER	9169 NORTHFIELD DR		FORT MILL	SC	AIRS, FINDS, TRIS
29715	S118176529		PINELAKES CAMPGROUND	9MI N OF R.HILL ON U.S 21	**	FORT MILL	SC	NPDES
29715	S118177927		TWIN LAKES MOBILE ESTATES	N OF F.MILL ON US 21 4MI N O	**	FORT MILL	SC	NPDES
29715	1005791286	110002187188	MCHANNA PROP /RIVER RIDGE DEVL	1419 OLD TARA LN		FORT MILL	SC	FINDS
29715	1015384705			2788 OLD NATION RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1007256659	110017295933	TEGA CAY MARINA LTD	ONE MARINA DR		TEGA CAY	SC	FINDS
29715	1007234061	110017054337	T C 126 INC	ONE MOLOKAI DR		TEGA CAY	SC	FINDS
29715	S118176430		MCCLANCY SEASONING CO INC	ONE SPICE RD	**	FORT MILL	SC	NPDES
29715	1007834667	110019986577	LMS PROPERTIES	1161 ORCHARD DR		FORT MILL	SC	FINDS
29715	1015281392			182 PATTERSON LN		FORT MILL	SC	EDR Historical Auto Stations
29715	1005791624	110002181834	PITCO	211 PEBBLE CREEK CROSSING		FORT MILL	SC	FINDS
29715	1007235301	110017067145	COMMERCIAL ROOFING CONCEPTS INC	2740 PLEASANT RD		FORT MILL	SC	FINDS
29715	1007259957	110017330379	NORTH COUNTY SERVICE CO	3336 PLEASANT RD		FORT MILL	SC	FINDS
29715	1007256517	110017294471	D M CREECH	4210 PLEASANT RD		FORT MILL	SC	FINDS
29715	1007834584	110019985747	BANK OF AMERICA	1250 PLUM BRANCH		FORT MILL	SC	FINDS
29715	1007256488	110017294186	MR PAUL HUCKS	1601 POSSUM HOLLOW RD		FORT MILL	SC	FINDS
29715	1001120773	SCR000003582	HUFFS IRON & METAL	881 PUTNAM LANE		FORT MILL	SC	RCRA-NonGen
29715	1016117077	110002189505	HUFFS IRON & METAL	881 PUTNAM LN		FORT MILL	SC	FINDS
29715	1014970805			1046 REGENT PKWY		FORT MILL	SC	EDR Historical Cleaners
29715	1015138021			1046 REGENT PKWY		FORT MILL	SC	EDR Historical Auto Stations
29715	U004182754		OPUS REGENT COMMERCIAL LLC	8170 REGENT PKWY		FORT MILL	SC	LUST, UST

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	1011981434	110037955326	FALLBROOK	REGENT PARK & FARMHOUSE DRIVE	**	FORT MILL	SC	ICIS, FINDS
29715	1010683996	110033196075	LOVES #333	135 S RIDGE LN		FORT MILL	SC	FINDS
29715	1008228431	110020997581	LANCASTER COUNTY CATAWBA RIVER W	7864 RIVER RD		FORT MILL	SC	FINDS
29715	U003522321	9292	HOME OF ELLIOTT S CLOSE	RIVER RIDGE PL	**	FORT MILL	SC	UST
29715	1007233040	110017043634	HOME OF ELLIOTT S CLOSE	RIVER RIDGE PL		FORT MILL	SC	FINDS
29715	1003868456	SCD980558332	SOUTHERN RAILWAY/TANK CAR CLEANIN	2900 FT S OF MP R-18	**	FORT MILL	SC	CERCLIS-NFRAP, SHWS
29715	1015021377			223 SANDERS ST		FORT MILL	SC	EDR Historical Cleaners
29715	1007831993	110019959810	ADVANCED CHIROPRACTIC CLINIC PA	1808 SECOND BAXTER CROSSING		FORT MILL	SC	FINDS
29715	1007836113	110020001031	LAKESHORE ON LAKE WYLLIE	120 SHORELINE DR		TEGA CAY	SC	FINDS
29715	1008009997	110002314996	THERRELL MHP	1040 SILVER RUN RD		FORT MILL	SC	FINDS
29715	1015375722			265 SLEEPY HOLLOW RD E		FORT MILL	SC	EDR Historical Auto Stations
29715	1008009137	110002178606	P KAUFMANN INC	440 SOUTHERN YORK RD	**	FORT MILL	SC	FINDS
29715	1008009910	110002309760	MCCLANCY SEASONING CO INC	1 SPICE RD		FORT MILL	SC	FINDS
29715	U003629346	10857	SCOTTS FOOD STORE 1	101 SPRATT ST		FORT MILL	SC	UST
29715	1015146342			108 SPRATT ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1005790251	110002237311	WINDJAMMER SD	1090 SPRATT ST		FORT MILL	SC	FINDS
29715	1007233167	110017044928	FISHCAMP RD #1	1112 SPRATT ST		FORT MILL	SC	FINDS
29715	1007257895	110017308750	ARNOLD BATCHELOR DMD	117-A SPRATT ST		FORT MILL	SC	FINDS
29715	1007247548	110017194560	C&S SUPERETTE	140 SPRATT ST		FORT MILL	SC	FINDS
29715	S108051564	SC0000000123	FORT MILL WWTF	1435 SPRATT ST		FORT MILL	SC	NPDES
29715	1011825126		FORT MILL WPCP	1435 SPRATT STREET		FORT MILL	SC	RMP
29715	1004594056	110002040648	FORT MILL WWTF	1435 SPRATT STREET		FORT MILL	SC	FINDS
29715	U000484451	9269	FORT MILL VOR FML	SPRATT FARM		FORT MILL	SC	UST
29715	1007247553	110017194613	FT MILL VOR FML	SPRATT FARM	**	FORT MILL	SC	FINDS
29715	1007834516	110019985060	CLOSE FAMILY REAL ESTATE	308 SPRINGCREST DR		FORT MILL	SC	FINDS
29715	1015055266			402 SPRINGCREST DR		FORT MILL	SC	EDR Historical Cleaners
29715	1015055689			404 SPRINGCREST DR		FORT MILL	SC	EDR Historical Cleaners
29715	1015380830			272 SPRINGHILL FARM RD		FORT MILL	SC	EDR Historical Auto Stations
29715	S108281864		SCHAEFFLER GROUP USA INC PLTS III A	308 SPRINGHILL FARM RD		FORT MILL	SC	AIRS, SPILLS
29715	2013016561		308 SPRINGHILL FARM ROAD	308 SPRINGHILL FARM ROAD		FORT MILL	SC	HMIRS
29715	1007257573	110017305478	SPRINGLAND INCORPORATED	104 E SPRINGS ST		FORT MILL	SC	FINDS
29715	1007240739	110017123897	SPRINGS MILLS/INDIAN LAND	SPRINGS MILLS PO BOX 70		FORT MILL	SC	FINDS
29715	1007258439	110017314672	SPRINGS PARK	SPRINGS PARK PO BOX 746		FORT MILL	SC	FINDS
29715	S118177679		SPRINGS PARK	SPRINGS PARK-PO BOX 746	**	FORT MILL	SC	NPDES
29715	1007233168	110017044937	HENSLEY RD MHP	1112 SPTATT ST	**	FORT MILL	SC	FINDS
29715	S110676080		UTILS SRVS OF SC/CAROWOOD SD	SSIDE OF GOLD HILL RD S-46-98	**	FORT MILL	SC	NPDES
29715	1004595205	110009793615	UTILS SRVS OF SC/CAROWOOD SD	SSIDE OF GOLD HILL RD S-46-98	**	FORT MILL	SC	FINDS
29715	1007235254	110017066654	SAMS MART 22	1713 STEEL HILL RD	**	FORT MILL	SC	FINDS
29715	1007233306	110017046338	FORT MILL OPERATIONS CENTER	401 STEELE ST		FORT MILL	SC	FINDS
29715	1008009196	110002199969	STRAWBERRY BARN	2050 STEILE RD		FORT MILL	SC	FINDS
29715	1010351774	110030912662	LOVE'S TRAVEL CENTER	135 SUTTON RIDGE LN		FORT MILL	SC	FINDS
29715	U003714880	16182	HOPES STORE	187 SUTTON RD		FORT MILL	SC	UST
29715	1007229000	110017001947	HOPES STORE	187 SUTTON RD		FORT MILL	SC	FINDS
29715	1007226237	110016973701	OFF RAMP 83	274 S SUTTON RD		FORT MILL	SC	FINDS
29715	1007232858	110017041761	SOUTHEASTERN TREE	S SUTTON RD	**	FORT MILL	SC	FINDS
29715	1007256636	110017295700	ALL AMERICAN CONCRETE	SUTTON RD	**	FORT MILL	SC	FINDS
29715	U003518914	9416	ALL AMERICAN CONCRETE	SUTTON RD	**	FORT MILL	SC	UST
29715	1007247571	110017194800	TEGA CAY FIRE DEPT	5000 TEGA CAY DR		TEGA CAY	SC	FINDS
29715	1008009204	110002200047	PINECREST MHP	1983 TELEPHONE ST		FORT MILL	SC	FINDS
29715	1015199098			1290 TOM HALL ST		FORT MILL	SC	EDR Historical Auto Stations
29715	U004051643	19222	FAIRWAY ENTERPRISES 1	1290 E TOM HALL ST		FORT MILL	SC	UST
29715	1015199586			1294 TOM HALL ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1015227460			1431 TOM HALL ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1007256497	110017294275	EXPRESS MART 2	1431 E TOM HALL ST		FORT MILL	SC	FINDS
29715	U003520872	9362	DOUGLAS GROCERY	1751 E TOM HALL ST		FORT MILL	SC	UST
29715	1007256684	110017296184	DOUGLAS GROCERY	1751 E TOM HALL ST		FORT MILL	SC	FINDS
29715	1007244742	110017165636	PLEAS VAL APTS	2084 E TOM HALL ST		FORT MILL	SC	FINDS
29715	U003522964	9201	KISSIAH TRUCKING CO	2084 TOM HALL ST		FORT MILL	SC	UST
29715	1007232776	110017040904	KISSIAH TRUCKING CO	2084 TOM HALL ST		FORT MILL	SC	FINDS
29715	1007246187	110017180600	THE STORE	3045 E TOM HALL RD		FORT MILL	SC	FINDS
29715	1007234078	110017054505	FT MILL CHIROPRACTIC CENTER	306 TOM HALL ST		FORT MILL	SC	FINDS
29715	1005418361	110012223726	HINSON MOTOR CO	510 TOM HALL ST		FORT MILL	SC	FINDS, RCRAInfo-LQG
29715	1007226680	110016978190	FORMER H&H SERVICE STATION	510 TOM HALL ST		FORT MILL	SC	FINDS
29715	U003759646	18600	FORMER H&H SERVICE STATION	510 TOM HALL ST		FORT MILL	SC	GWCI, LUST, UST
29715	1016027920	110045990905	CVS PHARMACY 4287	510 TOM HALL ST		FORT MILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29715	1015098809			818 TOM HALL ST		FORT MILL	SC	EDR Historical Cleaners
29715	1015647172			820 TOM HALL ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1015647713			821 TOM HALL ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1005851078	110008561207	FORT MILL/WATER FILTER PLT	TOWN FORT MILL	**	FORT MILL	SC	FINDS
29715	S118178490		FORT MILL/WATER FILTER PLT	TOWN OF FORT MILL-PO BOX 159	**	FORT MILL	SC	NPDES
29715	1007234132	110017055041	HITCHING POST HOMES INC	4076 TRINTON DR	**	FORT MILL	SC	FINDS
29715	1007244701	110017165226	LAKE WYLIE LUTH	4076 TRITON DR		FORT MILL	SC	FINDS
29715	1008009996	110002314987	PATTERSON PLANT	10879 VALLEY HILLS RD		FORT MILL	SC	FINDS
29715	1007236513	110017079748	FAILES PIT STOP	857 WESTWIND LN		FORT MILL	SC	FINDS
29715	1000914397	SC0000630483	MORE PRINTING	8715 WHIPPORWILL LN		FORT MILL	SC	RCRA-NonGen
29715	1007256494	110017294248	FORT MILL GULF	100 N WHITE		FORT MILL	SC	FINDS
29715	1007256493	110017294239	HOWES EXXON	118 N WHITE		FORT MILL	SC	FINDS
29715	1000256816	SCD003163102	SPRINGS IND RESEARCH & DEVELOPMEI	123 N WHITE ST		FORT MILL	SC	RCRA-NonGen
29715	1016687279	110038502590	SPRINGS GLOBAL GRACE PLANT	205 N WHITE ST		FORT MILL	SC	FINDS
29715	U003525555	9186	SPRINGS GLOBAL US INC	205 N WHITE ST		FORT MILL	SC	UST
29715	U003520637	9366	CULP BROTHERS INC	212 S WHITE ST		FORT MILL	SC	LUST, UST
29715	1007228632	110016998212	CULP BROS BULK PLANT FACILITY	212 S WHITE ST		FORT MILL	SC	FINDS
29715	1000295765	110002240227	COLMANS SUNOCO SERVICE STATION	314 E WHITE ST		FORT MILL	SC	RCRA-NonGen, FINDS
29715	1015417033			314 N WHITE ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1007239219	110017107815	FORT MILL AUTOMOTIVE	314 WHITE ST		FORT MILL	SC	FINDS
29715	U003629924	18378	FORT MILL AUTOMOTIVE	314 WHITE ST		FORT MILL	SC	UST
29715	1007256639	110017295737	WHITE HOMESTEAD GARAGE	WHITE ST	**	FORT MILL	SC	FINDS
29715	U004019762	9411	WHITE HOMESTEAD GARAGE	WHITE ST	**	FORT MILL	SC	UST
29715	1015217052			1387 WILLIAMS RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1015230633			1452 WILLIAMS RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1015252429			1600 WILLIAMS RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1007115382	SCD460010143	SPRINGS GLOBAL US INC WHITE PLANT	104 WILLIAMSON ST		FORT MILL	SC	RCRA-NonGen
29715	1001969308	SCR000006296	SPRINGS INDUSTRIES RESEARCH & DEV	104 WILLIAMSON ST		FT MILL	SC	RCRA-NonGen
29715	A100200365	1706	SPRINGS WHITE PLANT	104 WILLIAMSON ST		FORT MILL	SC	AST
29715	1014623765		WHITE PLANT	104 WILLIAMSON STREET		FORT MILL	SC	PCB TRANSFORMER
29715	1014629700		WHITE PLANT	104 WILLIAMSON STREET		FORT MILL	SC	PCB TRANSFORMER
29715	S118176378		SPRINGS IND/WHITE PLANT	WILLIAMSON ST	**	FORT MILL	SC	NPDES
29715	1007835070	110019990606	SIGNATURE INVESTMENT GROUP LLC	1025 WILSON BUSINESS PKWY		FORT MILL	SC	FINDS
29715	1015138170			1047 W WILSON RD		FORT MILL	SC	EDR Historical Auto Stations
29715	1015190722			124 WILSON ST		FORT MILL	SC	EDR Historical Auto Stations
29715	1006222424	110009793964	TEGA CAY WWTP #3 & #4	9082 WINDJAMMER DR		TEGA CAY	SC	FINDS
29715	1016240678	110007837706	SPRINGS MILLS INC WHITE PLANT	WITHERS ST	**	FORT MILL	SC	FINDS
29715	1000257429	SCD991278557	SPRINGS MILLS INC WHITE PLANT	WITHERS ST		FORT MILL	SC	RCRA-NonGen
29715	1015348470			2332 WOODRIDGE DR		FORT MILL	SC	EDR Historical Auto Stations
29715	1005791122	110002189603	CIBA GEIGY CORP	419 YORK SOUTHERN RD		FORT MILL	SC	FINDS
29715	1007226670	110016978092	FEDERAL PACIFIC ELECTRIC CO	440 YORK SOUTHERN RD		FORT MILL	SC	FINDS
29715	1007232734	110017040469	REGENT CAROLINA CORPORATION	1000 ZENITH AVE		FORT MILL	SC	FINDS
29730	S112637950					ROCK HILL	SC	
29730	952768560				**	ROCK HILL	SC	ERNS
29730	S112637948					ROCK HILL	SC	
29730	952795540				**	ROCK HILL	SC	ERNS
29730	S112637946					ROCK HILL	SC	
29730	S112637938					ROCK HILL	SC	
29730	952795541				**	ROCK HILL	SC	ERNS
29730	973963740				**	ROCK HILL	SC	ERNS
29730	2002597993				**	WADESBORO	NC	ERNS
29730	S112637944					ROCK HILL	SC	
29730	973963741				**	ROCK HILL	SC	ERNS
29730	S112637926					ROCK HILL	SC	
29730	952768561				**	ROCK HILL	SC	ERNS
29730	1007834677	110019986675	BORDERS BROS FEEDLOT	RT 1	**	ROCK HILL	SC	FINDS
29730	1007244721	110017165422	YORK COUNTY DETOX	RT 1 PO BOX 63	**	ROCK HILL	SC	FINDS
29730	1007226647	110016977850	LITTLE GIANT ST	RTE 10 PO BOX 24	**	ROCK HILL	SC	FINDS
29730	1016240670	110007837608	GENES SUNOCO SERVICE STATION	HWY 161		ROCK HILL	SC	FINDS
29730	1016240671	110007837617	HILTONS SUNOCO SERVICE STATION	HWY 161		ROCK HILL	SC	FINDS
29730	1000417625	SCD991277815	HILTONS SUNOCO SERVICE STATION	HWY 161		ROCK HILL	SC	RCRA-NonGen
29730	1000221589	SCD991277690	GENES SUNOCO SERVICE STATION	HWY 161		ROCK HILL	SC	RCRA-NonGen

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1005851208	110008560066	MAR-RU MOBILE HOME ESTATES	RT 2	**	CLOVER	SC	FINDS
29730	1010731911	110033634912	CREEKSIDE OF YORK CO INC/CREEK	2750 HWY 21 S	J, NE, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	1012094213	110038802356	WINN DIXIE HWY 21	HWY 21 BYP&HWY 72	**	ROCK HILL	SC	FINDS
29730	A100036322	526	MITCHELL OIL	HWY 21 NORTH BYPASS	**	ROCK HILL	SC	AST
29730	U004019720	9190	ROCK HILL CONCRETE CO INC	HWY 21 S	**	FORT MILL	SC	LUST, UST
29730	1016218434	110007008362	METROMONT MATERIALS CORP LESSLIE	HWY 21 S AT RD 31	**	LESSLIE	SC	FINDS
29730	1007237435	110017089434	ROCK HILL CONCRETE CO INC	HWY 21 SOUTH	**	FORT MILL	SC	FINDS
29730	1000141409	SCD991279191	US 21 SUNOCO SERVICE STATION	US 21 & 161	64, NE, 1/4 - 1/2	ROCK HILL	SC	RCRA-NonGen
29730	1016240689	110007837822	US 21 SUNOCO SERVICE STATION	US 21 & 161	**	ROCK HILL	SC	FINDS
29730	1000171142	SCD003159928	GREENS OF ROCK HILL	US 21 @ CATAWBA RIVER	U, ENE, 1/2 - 1	ROCK HILL	SC	GWCI, CORRACTS, CERCLIS-NFRAP, US ENG CONTROLS, US INST CONTROL, RCRA-NonGen, SHWS, RCRAInfo-TSDF
29730	1000139681	SCD991289810	MID-STATE OIL CO BULK PLANT	US 21 BYPASS	**	ROCK HILL	SC	RCRA-NonGen
29730	1016240698	110007837975	MID-STATE OIL CO BULK PLANT	US 21 BYPASS	**	ROCK HILL	SC	FINDS
29730	1016240680	110007837724	NEELYS CREEK SUNOCO SERVICE STATION	HWY 31	**	ROCK HILL	SC	FINDS
29730	1000293706	SCD991278771	NEELYS CREEK SUNOCO SERVICE STATION	HWY 31	**	ROCK HILL	SC	RCRA-NonGen
29730	1007244710	110017165315	HONEYCUTT MHP	4671 HWY 5	**	ROCK HILL	SC	FINDS
29730	1014908578	110043834367	UNITED CONTR/SC-5 CATAWBA MINE	4750 HWY 5	**	ROCK HILL	SC	FINDS
29730	1007230737	110017020070	FAST BUCKS	5595 HWY 5 S	**	ROCK HILL	SC	FINDS
29730	1007228667	110016998560	ROPERS GROCERY	RT 5 BOX 15	**	ROCK HILL	SC	FINDS
29730	S103245809		QUALITY DRUM CO	RTE 5 VERNSDALE RD	**	ROCK HILL	SC	SHWS
29730	S102448982		FERGUSON SITE	SC 5N OF ROCK HILL	**	ROCK HILL	SC	SHWS
29730	1005791329	110002186508	ROSEWOOD COURT	ROUTE 6 BOX 474D	**	ROCK HILL	SC	FINDS
29730	1007233212	110017045384	GREEN S MHP 2	RTE 6 PO BOX 125	**	ROCK HILL	SC	FINDS
29730	1003869328	SCD987571759	BOBO'S BODY SHOP	HIGHWAY 72 (ALBRIGHT ROAD)	**	ROCK HILL	SC	CERCLIS-NFRAP
29730	1000277508	SCD991278722	BALLARDS GROCERY SUNOCO SVC STA	HWY 72	**	ROCK HILL	SC	RCRA-NonGen
29730	1000281352	SCD991278052	HOYLES GROCERY SUNOCO SERVICE ST	HWY 72	**	ROCK HILL	SC	RCRA-NonGen
29730	1016240679	110007837715	BALLARDS GROCERY SUNOCO SVC STA	HWY 72	**	ROCK HILL	SC	FINDS
29730	1016240674	110007837644	HOYLES GROCERY SUNOCO SERVICE ST	HWY 72	**	ROCK HILL	SC	FINDS
29730	1000327384		BOBO'S BODY SHOP	HWY 72 ALBRIGHT RD	**	ROCK HILL	SC	SHWS
29730	1015700452			INTERSTATE 77TH	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1007256623	110017295568	S&D MARKET	RT 8 BOX 208A	**	ROCK HILL	SC	FINDS
29730	U003524775	9458	S&D MARKET	RT 8 PO BOX 208A	**	ROCK HILL	SC	UST
29730	U001542203	9329	WHITE PINETUCK	HWY 901	**	ROCK HILL	SC	UST
29730	1007233114	110017044376	WHITE PINETUCK	HWY 901	**	ROCK HILL	SC	FINDS
29730	1007225674	110016967674	PIEDMONT EAST DIAGNOSTIC CENTER	760 ADDISON AVE	**	ROCK HILL	SC	FINDS
29730	1007258741	110017317857	PIEDMONT EAST URGENT CARE CENTER	760 ADDISON AVE	**	ROCK HILL	SC	FINDS
29730	1007235476	110017068974	ORTHODONTIC SPECIALIST OF CAROLIN.	775 ADDISON AVE STE 111	**	ROCK HILL	SC	FINDS
29730	1007837305	110020012966	PARKLINE DEVELOPMENT	1544 ADNAH CHURCH RD	**	ROCK HILL	SC	FINDS
29730	1005418341	110002189300	SCARNG OMS 5	126 AIRPORT RD	**	ROCK HILL	SC	RCRA-CESQG, FINDS
29730	U003558496	9165	FMS #5 ROCK HILL	126 AIRPORT RD	**	ROCK HILL	SC	LUST, UST
29730	A100205581	1885	JR & SONS	1073 ALBRIGHT RD	**	ROCK HILL	SC	AST
29730	1015149520			1093 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1007449388	SCR000766048	DIVERSIFIED RECYCLING INC	1099 ALBRIGHT RD	**	ROCK HILL	SC	RCRA-NonGen
29730	1007733219	110018901722	DIVERSIFIED RECYCLING INC	1099 ALBRIGHT RD	**	ROCK HILL	SC	FINDS
29730	A100267448	912	KAVEH PETROLEUM (MARSHALL OIL)	1099 ALBRIGHT ROAD	**	ROCK HILL	SC	AST
29730	1014992161			1409 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Cleaners
29730	1007232814	110017041306	WALDENSIAN BAKERIES INC	1445 ALBRIGHT RD	**	ROCK HILL	SC	FINDS
29730	S117574494		SCOTCHMAN ONE STOP 3721	1500 ALBRIGHT RD	**	ROCK HILL	SC	
29730	1015367810			255 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015436023			340 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015571558			605 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015572208			606 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015087421			688 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Cleaners
29730	1015614056			718 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015668322			902 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015669149			904 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1000316563	110002189462	FRANK BOBOS INC	904 ALBRIGHT RD	**	ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1015672516			912 ALBRIGHT RD	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	1007234797	110017061819	FAST STOP PRIDE TRUCK STOP	1011 S ANDERSON RD	**	ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	U003629796	16874	SOUTHERN PRIDE	1011 S ANDERSON RD		ROCK HILL	SC	LUST, UST
29730	1015126790			1011 S ANDERSON RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015159361			1117 ANDERSON RD	69, SW, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015159360			1117 ANDERSON RD N	I, WSW, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015159458			1117 N ANDERSON RD	I, SW, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29730	2008882022			1117 N ANDERSON RD	I, SW, 1/4 - 1/2	ROCKHILL	SC	ERNS
29730	1007832252	110019962414	A QUALITY SMILE FOR YOU PC	1125 ANDERSON RD STE 104	I, WSW, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	1008009654	110002259074	COUNTRY STORE	1143 N ANDERSON RD	I, WSW, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	U003730129	18573	WILCO TRAVEL PLAZA 906	1155 ANDERSON RD S		ROCK HILL	SC	UST
29730	1007226720	110016978591	CONE OIL COMPANY	1155 ANDERSON RD S		ROCK HILL	SC	FINDS
29730	1010351773	110030912653	CONE TRAVEL PLAZA	1155 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	1015171690			1167 ANDERSON RD S		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007239388	110017109591	CITGO FOOD MART	1167 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	U003629321	10725	CITGO FOOD MART	1167 S ANDERSON RD		ROCK HILL	SC	LUST, UST
29730	1008009650	110002259029	OAKS INN	1182 ANDERSON RD		ROCK HILL	SC	FINDS
29730	1007228654	110016998436	LITTLE GIANT 2	1190 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	U003629130	9438	LITTLE GIANT 2	1190 S ANDERSON RD		ROCK HILL	SC	GWCI, LUST, UST
29730	1007257510	110017304843	LESLIE ANIMAL HOSPITAL	1382 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	1012086775	110056425587	STEVENSON WEIR INC	1523 S ANDERSON RD		ROCK HILL	SC	AIRS, FINDS
29730	1007226239	110016973729	EXPRESS MART 5	267 ANDERSON RD		ROCK HILL	SC	FINDS
29730	U003628976	9275	CORNERSTOP 110	267 N ANDERSON RD		ROCK HILL	SC	LUST, UST
29730	U000484548	9302	BAILEYS TEXACO	325 ANDERSON RD		ROCK HILL	SC	UST
29730	1007233035	110017043581	BAILEYS TEXACO	325 ANDERSON RD		ROCK HILL	SC	FINDS
29730	1007230393	110017016441	LUCKY 7 MART	325 N ANDERSON RD		ROCK HILL	SC	FINDS
29730	2012005588			452 SOUTH ANDERSON ROAD		ROCKHILL	SC	ERNS
29730	1014834980	110042329414	TRANSACTION NETWORK SERVICES INC	454 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	1016184832	110002189523	MID STATE COATINGS CONT INCORPOR/	454 S ANDERSON RD BTC # 563	**	ROCK HILL	SC	FINDS
29730	1000575701	SCD987581279	MID-STATE COATINGS CONT INC	454 S ANDERSON RD BTC #563		ROCK HILL	SC	RCRA-NonGen
29730	1016032373	110044720601	HECTOR MATAMOROS	454 S. ANDERSON ROAD		ROCK HILL	MS	FINDS
29730	1016021282	110044744480	CARMEN OSORIO	454 S. ANDERSON ROAD		ROCK HILL	MS	FINDS
29730	1016017374	110044727203	GUSTAVO ADAMS	454 S. ANDERSON ROAD		ROCK HILL	MS	FINDS
29730	1016017410	110044727579	OLGA OSORIO	454 S. ANDERSON ROAD		ROCK HILL	MS	FINDS
29730	1016012743	110044725278	VICTOR OCHOA	454 S. ANDERSON ROAD		ROCK HILL	MS	FINDS
29730	1016034475	110044704889	AMY NIBERT	454 S. ANDERSON ROAD		ROCK HILL	MS	FINDS
29730	1015523754			501 ANDERSON RD N		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015524358			501 N ANDERSON RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015526250			503 N ANDERSON RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	U003629609	12955	CORNERSTOP 111	505 S ANDERSON RD		ROCK HILL	SC	GWCI, UIC, LUST, SPILLS, UST
29730	1007247152	110017190546	EXPRESS MART 1	505 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	1004780069	SCD095464665	GRIFFIN PONTIAC BUICK GMC	515 S ANDERSON		ROCK HILL	SC	RCRA-CESQG
29730	1016280998	110009454385	GRIFFIN PONTIAC BUICK GMC	515 SOUTH ANDERSON ROAD		ROCK HILL	SC	FINDS
29730	1015074782			552 ANDERSON RD N		ROCK HILL	SC	EDR Historical Cleaners
29730	1015074805			552 N ANDERSON RD		ROCK HILL	SC	EDR Historical Cleaners
29730	U004019738	9281	SC507	597 S ANDERSON RD		ROCK HILL	SC	GWCI, LUST, UST
29730	1007247547	110017194551	SC507	597 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	U003796704	9305	ONE SMART STOP INC	655 N ANDERSON RD		ROCK HILL	SC	LUST, UST
29730	1007233033	110017043563	ONE SMART STOP	655 N ANDERSON RD		ROCK HILL	SC	FINDS
29730	1007650894	110019917456	RHSC #3	660 N ANDERSON RD		ROCK HILL	SC	FINDS
29730	1010169987	110030476492	YORK COUNTY SCHOOL DISTRICT #3	660 N. ANDERSON ROAD		ROCK HILL	SC	FINDS
29730	1007233113	110017044367	DISCOUNT PET FOOD	661 ANDERSON RD		ROCK HILL	SC	FINDS
29730	1007235956	110017073959	ANDERSON ROAD DELI	661 ANDERSON RD		ROCK HILL	SC	FINDS
29730	2014008367			664 ANDERSON ROAD NORTH		ROCK HILL	SC	HMIRS
29730	1015594927			665 ANDERSON RD N		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015085890			665 ANDERSON RD N		ROCK HILL	SC	EDR Historical Cleaners
29730	1015595012			665 N ANDERSON RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015606715			702 ANDERSON RD N		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015607309			703 ANDERSON RD N		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015607503			703 N ANDERSON RD		ROCK HILL	SC	EDR Historical Auto Stations

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1016037212	110055082805	AQUASOL CORP AND LANXESS CORP	730 N ANDERSON RD		ROCK HILL	SC	Stations
29730	1007115202	SCD079047106	AQUASOL CORP AND LANXESS CORP	730 N ANDERSON RD	137, SW, 1 - 2	ROCK HILL	SC	FINDS BROWNFIELDS, VCP, ALLSITES, AIRS, UIC, RCRA-NonGen, AUL, SHWS
29730	96504362			730 N. ANDERSON		ROCKHILL	SC	ERNS
29730	S109516184		LAXNESS FACILITY	730 NORTH ANDERSON ROAD		ROCK HILL	SC	RCR
29730	U004158036		ROCK HILL CITY OF OPERATION	757 S ANDERSON RD		ROCK HILL	SC	UST
29730	S116230642		ROCK HILL CITY OF OPERATIONS CENTE	757 S ANDERSON RD		ROCK HILL	SC	AIRS
29730	1014835666	110043179244	ROCK HILL CITY OF OPERATIONS CENTE	757 S ANDERSON RD		ROCK HILL	SC	FINDS
29730	1004780738	110002258592	TOWN & COUNTRY CPJ OF ROCK HILL INI	830 N ANDERSON RD		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1015650483			830 N ANDERSON RD		ROCK HILL	SC	EDR Historical Auto
29730	1015663298			888 ANDERSON RD S		ROCK HILL	SC	Stations EDR Historical Auto
29730	1007247557	110017194668	JACKSONS EXXON	888 S ANDERSON RD		ROCK HILL	SC	Stations
29730	1015663350			888 S ANDERSON RD		ROCK HILL	SC	FINDS EDR Historical Auto
29730	1015683678			955 ANDERSON RD N	Q, SW, 1/2 - 1	ROCK HILL	SC	Stations EDR Historical Auto
29730	U003519735	9237	C J PATTON MOTORS INC	955 ANDERSON RD	Q, SW, 1/2 - 1	ROCK HILL	SC	Stations LUST, UST
29730	1015685462			965 ANDERSON RD S		ROCK HILL	SC	EDR Historical Auto
29730	1015685534			965 S ANDERSON RD		ROCK HILL	SC	Stations EDR Historical Auto
29730	U004127754		MAX	989 S ANDERSON RD		ROCK HILL	SC	Stations LUST, UST
29730	1007232604	110017039097	MAX	S ANDERSON RD	**	ROCK HILL	SC	FINDS
29730	1015304438			201 ANNAFREL ST		ROCK HILL	SC	EDR Historical Auto
29730	2012012665			606 ARTH DRIVE	**	ROCKHILL	SC	Stations
29730	1007258166	110017311755	ROCK HILL ECONOMIC DEVELOPMENT C	ATTN: STEPHEN TURNER	**	ROCK HILL	SC	ERNS
29730	1007225541	110016966327	KIMBLE CHIROPRACTIC CENTER	518 NORTH AVE		ROCK HILL	SC	FINDS
29730	1007225546	110016966372	GOODWIN THOMAS JR DMD	1033 BAYSHORE DR		ROCK HILL	SC	FINDS
29730	1007835190	110019991801	BETHELWOODS	BETHELWOODS CAMPGROUND	**	ROCK HILL	SC	FINDS
29730	1007236475	110017079365	MY PARENTS CARE CENTER	1324 E BLACH ST		ROCK HILL	SC	FINDS
29730	1015162625			1127 E BLACK ST		ROCK HILL	SC	EDR Historical Auto
29730	1004780222	110002240441	A&B IMPORTS	1135 E BLACK ST		ROCK HILL	SC	Stations
29730	1015164732			1135 E BLACK ST		ROCK HILL	SC	RCRA-CESQG, FINDS EDR Historical Auto
29730	1015166110			1140 E BLACK ST		ROCK HILL	SC	Stations EDR Historical Auto
29730	1015167358			1148 E BLACK ST		ROCK HILL	SC	Stations EDR Historical Auto
29730	1007247796	110017197139	ROCK HILL LAW ENFORCEMENT CTR	120 E BLACK ST		ROCK HILL	SC	Stations
29730	1012313346	110040425108	CELLCO - ROCK HILL EAST	1335 E BLACK STREET		ROCK HILL	SC	FINDS
29730	1015213518			1358 E BLACK ST		ROCK HILL	SC	FINDS EDR Historical Auto
29730	S108281693		COMPORIUM	330 E BLACK ST		ROCK HILL	SC	Stations
29730	1005648541		COMPORIUM	330 E BLACK ST		ROCK HILL	SC	AIRS
29730	1016119297	110001676142	ROCK HILL TELEPHONE COMPANY	330 EAST BLACK ST		ROCK HILL	SC	FINDS
29730	1015674218			917 E BLACK ST		ROCK HILL	SC	EDR Historical Auto
29730	1007837812	110020018032	WILLIAM L ATKINS JR & SONS CONSTRUC	926 E BLACK ST		ROCK HILL	SC	Stations
29730	1015678891			933 E BLACK ST		ROCK HILL	SC	FINDS EDR Historical Auto
29730	1015683934			956 E BLACK ST		ROCK HILL	SC	Stations EDR Historical Auto
29730	1004593360	110038744384	YORK COUNTY INDUSTRIES CLOSED	7 BLACKWELL ST		ROCK HILL	SC	Stations
29730	1012099867		WILDCAT CREEK AT ARCADE TEXTILE MI	7 BLACKWELL STREET		ROCK HILL	SC	FINDS
29730	1007834946	110019989360	EBENEZER ACCESS PARK	BOATSHORE RD	**	ROCK HILL	SC	US BROWNFIELDS
29730	1008009644	110002258930	SEXTON MHP	4183 BOOKOUT RD		ROCK HILL	SC	FINDS
29730	1005790216	110002237954	PINETUCK PROPERTIES	BOX 1048 120 OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1012094374	110038802445	NATIONAL FENCE MFG	BOX 3187,W WHITE ST	**	ROCK HILL	SC	FINDS
29730	1007236476	110017079374	LESSLIE ELEMENTARY SCH	PO BOX 10072	**	ROCK HILL	SC	FINDS
29730	1016991805	110021891434	ROCK HILL HIGH SCHOOL	PO BOX 10072	**	ROCK HILL	SC	FINDS
29730	1007832249	110019962398	M LOWENSTEIN CORP TRANSP	PO BOX 10352	**	ROCK HILL	SC	FINDS
29730	1007236578	110017080406	CARTERS BUICK	PO BOX 10449	**	ROCK HILL	SC	FINDS
29730	1007235353	110017067699	JAD LAND DEVELOPMENT INC	PO BOX 10611	**	ROCK HILL	SC	FINDS
29730	1007224746	110016958103	MCGUIRE MHP	PO BOX 156	**	ROCK HILL	SC	FINDS
29730	1007233166	110017044919	SEXTONS MHP	PO BOX 242	**	ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1016982103	110006184066	PINE LAKE CAMPGROUND	PO BOX 2685 CRS		ROCK HILL	SC	FINDS
29730	1007239593	110017111720	BEAVER CREEK TP	PO BOX 2685 CRS	**	ROCK HILL	SC	FINDS
29730	1007837582	110020015730	BURNS FAMILY LTD PARTNERSHIP	PO BOX 2815	**	ROCK HILL	SC	FINDS
29730	1012092709	110038795444	VERONA:ROCK HILL	PO BOX 2855	**	ROCK HILL	SC	FINDS
29730	1007246543	110017184312	JACKSON RESTAURANT	PO BOX 2A	**	ROCK HILL	SC	FINDS
29730	1007258555	110017315902	OAK ROAD MHP	PO BOX 3188	**	ROCK HILL	SC	FINDS
29730	1007236516	110017079775	BERRYS MHP #2	PO BOX 325	**	ROCK HILL	SC	FINDS
29730	1007228083	110016992502	RIVERVIEW S/D	PO BOX 3518	**	ROCK HILL	SC	FINDS
29730	1007236514	110017079757	CEDAR VILLAS	PO BOX 495	**	ROCK HILL	SC	FINDS
29730	1007236407	110017078669	FLAT CREEK HEAD	PO BOX 933	**	ROCK HILL	SC	FINDS
29730	1016982232	110006646969	N CHESTER HEADSTART	PO BOX 933	**	ROCK HILL	SC	FINDS
29730	1015054763			4007 BRANDON LEE CT		ROCK HILL	SC	EDR Historical Cleaners
29730	1008009242	110002200537	BRANHAMS MHP I	201 BRANHAM RD		ROCK HILL	SC	FINDS
29730	1015582493			627 BRIARCLIFF RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1005651418	110009702713	SUNBELT CORPORATION	2120 BURKETT RD		ROCK HILL	SC	FINDS
29730	1007449379	SCR000765958	RED LINE INC	2121 BURKETT RD		ROCK HILL	SC	FINDS
29730	1005619312	110001675759	CATOE'S WELDING & FABRICATION INC	2160 BURKETT RD		ROCK HILL	SC	RCRA-CESQG
29730	1007259781	110017328541	RED LINE CHEMICAL CO	BURKETT RD		ROCK HILL	SC	AIRS, ICIS, FINDS, TRIS
29730	S109515676		SUNBELT CORP	2120 BURKETTE RD		ROCK HILL	SC	FINDS
29730	1010567656	SCR000769356	SUNBELT CORP	2120 BURKETTE RD		ROCK HILL	SC	AIRS
29730	1004780759	110002189453	FOSTERS CLEANERS	439 BYNUM AVE		ROCK HILL	SC	RCRAInfo-LQG
29730	1000172541	110002189417	QUICK AS A WINK NUMBER 5	121 CALDWELL ST		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1007243004	110017147620	EPISCOPAL CHURCH OF OUR SAVIOR	144 CALDWELL ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	S105621425		ONE HOUR MARTINIZING	1045 CAMDEN AVE		ROCK HILL	SC	FINDS
29730	U003943103	18986	BRAGG SITE	1315 CAMP DR		LANCASTER	SC	DRYCLEANERS, SHWS
29730	1005791609	110002182101	KENVIRONMENTAL SERVICES	2203 CANBERRA DR		ROCK HILL	SC	UST
29730	1008230857	110020998198	HARRISON & CHRISTOPHER CORN	1053 CARDINAL DR		ROCK HILL	SC	FINDS
29730	1000408124	110064286669	SOUTHERN MANUFACTURING COMPANY	127 S CATAWBA DRIVE		ROCK HILL	SC	FINDS
29730	1007239694	110017112809	MINH O & TUYET T NGUYEN	1715 CAVENDALE DR		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1004781078	SCR000073635	CHAMPION ROLLER INC	1550 CEDAR LINE DR		ROCK HILL	SC	FINDS
29730	1007116167	SCR000000752	AVERY DENNISON	1595 CEDAR LINE DR		ROCK HILL	SC	RCRA-CESQG
29730	1001030625	110000355268	AVERY DENNISON INC	1595 CEDAR LINE DRIVE		ROCK HILL	SC	RCRA-NonGen
29730	1005602686	110001675401	EBARA INTERNATIONAL CORPORATION	1651 CEDAR LINE DR		ROCK HILL	SC	ICIS, FINDS
29730	1000367508	SCD131901092	SAMUEL STRAPPING SYSTEMS INC	640 CEL RIVER ROAD	120, East, 1/2 - 1	ROCK HILL	SC	FINDS
29730	S109515675		CYTEC CARBON FIBERS ROCK HILL	800 CEL RIVER RD		ROCK HILL	SC	RCRA-NonGen
29730	1017426921	29730MCPPLY80	CYTEC CARBON FIBERS LLC	800 CEL RIVER RD		ROCK HILL	SC	AIRS
29730	1000991976		CYTEC CARBON FIBERS ROCK HILL	800 CEL RIVER RD		ROCK HILL	SC	TRIS
29730	1001199134	SCR000001925	CYTEC CARBON FIBERS LLC ROCK HILL	800A CEL RIVER RD	O, East, 1/2 - 1	ROCK HILL	SC	RCRA-CESQG
29730	1017385624	110062739639	RECOVERY TECHNOLOGIES CORP.	800 CEL-RIVER RD		ROCK HILL	SC	FINDS
29730	1011828144		INCHEM CORPORATION RESUBMIT-2004	800 CEL-RIVER RD.		ROCK HILL	SC	RMP
29730	1016949842		INCHEM CORPORATION	800 CEL-RIVER RD.		ROCK HILL	SC	TSCA
29730	1011828142		INCHEM CORP.	800 CEL-RIVER RD.		ROCK HILL	SC	RMP
29730	1016121481	110000355213	CYTEC CARBON FIBERS LLC	800 CEL-RIVER ROAD		ROCK HILL	SC	FINDS
29730	1011828143		INCHEM CORPORATION	800 CEL-RIVER ROAD		ROCK HILL	SC	RMP
29730	1016949843		INCHEM CORPORATION	800 CEL-RIVER ROAD		ROCK HILL	SC	TSCA
29730	1007233853	110017052213	RIVERVIEW MEDICAL CLINIC	1393 CELANESE RD	L, NNW, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	1007234088	110017054603	ROCK HILL DENTAL CENTER	1805 CELANESE RD		ROCK HILL	SC	FINDS
29730	1007230877	110017021480	LITTLE GIANT BP 4	2690 CELANESE BLVD BYPASS		ROCK HILL	SC	FINDS
29730	1007258924	110017319711	GWC ABATEMENT	3126 CELANESE RD		ROCK HILL	SC	FINDS
29730	U004222779		QUIKTRIP 1061	3836 CELANESE RD		ROCK HILL	SC	UST
29730	1016245354	110007904170	ART PRINTING CO INC	CELANESE BYPASS	J, NE, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	1004780015	SCD046150272	ART PRINTING CO INC	CELANESE BYPASS	**	ROCK HILL	SC	RCRA-NonGen
29730	93340608			800 CELL RIVER ROAD		ROCKHILL	SC	ERNS
29730	1007248343	110017202793	RANDOLPH YARNS INC	175 CELNSE RD	**	ROCK HILL	SC	FINDS
29730	1012094269	110038802374	RANDOLPH YARNS-CLOSED	1175 CELRIVER RD	J, NE, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	1005652981	110009802197	SAMUEL STRAPPING SYSTEMS INC	640 CELRIVER RD		ROCK HILL	SC	FINDS
29730	1015591127			651 CELRIVER RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015597938			677 CELRIVER RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1005790371	110002234984	CATAWBA LABORATORIES INC	701 CELRIVER RD		ROCK HILL	SC	FINDS
29730	1006976085	110015633322	OLDCASTLE GLASS INCORPORATED	780 CELRIVER ROAD		ROCKHILL	SC	FINDS
29730	1007115515	SCD981014780	INCHEM CORPORATION	800 CELRIVER RD	O, East, 1/2 - 1	ROCK HILL	SC	RCRAInfo-LQG
29730	S108282493		INCHEM CORP	800 CELRIVER RD		ROCK HILL	SC	AIRS
29730	1016978653	110050813958	INCHEM CORP	800 CELRIVER RD		ROCK HILL	SC	ICIS, FINDS
29730	94373310			CELRIVER PLANT 2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	1005926867		CELANESE CHEMICAL CO INC	CELRIVER TERMINAL	**	ROCK HILL	SC	TSCA
29730	1005926865		CELANESE CHEM CO	CELRIVER TERMINAL CHERRY RD SA	**	ROCK HILL	SC	TSCA
29730	1015577223			615 CENTER ST		ROCK HILL	SC	EDR Historical Auto Stations

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1007227702	110016988615	CHAPPELL S ANIMAL HOSPITAL PC	940 E CHAPEL RD		ROCK HILL	SC	FINDS
29730	U004110950	19239	CHARLOTTE AVENUE PROPERTY	104 S CHARLOTTE AVE		ROCK HILL	SC	GWCI, LUST, UST
29730	S113913079		DEGREE WWC	361 CHARLOTTE AVE.		ROCK HILL	SC	SWRCY
29730	1007234701	110017060838	TODD AUTO SALES	375 CHARLOTTE AVE		ROCK HILL	SC	FINDS
29730	1016028837	110044872215	LOOKING GLASS	407 CHATHAM AVENUE		ROCK HILL	SC	FINDS
29730	1016976331	SCR000778613	WALMART NEIGHBORHOOD MARKET #69	1225 CHERRY RD		ROCK HILL	SC	RCRA-CESQG
29730	1017418478	110063381095	WALMART NEIGHBORHOOD MARKET #69	1225 CHERRY RD		ROCK HILL	SC	FINDS
29730	1005444746	SCR000763052	CAROLINA CUSTOM PAINT & BODY	128 1/2 CHERRY RD		ROCK HILL	SC	RCRA-CESQG
29730	1004781066	SCR000007302	CAROLINA COLLISION & FRAME SVC	1447 1/2 CHERRY RD		ROCK HILL	SC	RCRA-CESQG
29730	U003522194	9234	HEARN MOTORS INC	1601 CHERRY RD		ROCK HILL	SC	UST
29730	1016186341	110002466091	1ST BANK FIRST FEDERAL SAVINGS	1ST CHERRY RD	**	ROCK HILL	SC	FINDS
29730	1004780110	SCD980844203	1ST BANK FIRST FEDERAL SAVINGS	1ST CHERRY RD	**	ROCK HILL	SC	RCRA-NonGen, SHWS
29730	1007243367	110017151348	DOUGLAS MASON	2009 CHERRY RD		ROCK HILL	SC	FINDS
29730	1000233405	SCD981759384	NORGETOWN CLEANERS	2036 CHERRY ROAD	V, WSW, 1/2 - 1	ROCK HILL	SC	GWCI, RCRA-CESQG
29730	U003159883	17727	NEW WAY CAR WASH	2101 CHERRY RD	V, WSW, 1/2 - 1	ROCK HILL	SC	GWCI, LUST, SPILLS, UST
29730	1017109568	110050630126	ROCK HILL CITY OF (4610002)-ROCK HILL	2102 CHERRY RD		ROCK HILL	SC	FINDS
29730	1011818948		CHERRY ROAD FILTER PLANT	2102 CHERRY ROAD		ROCK HILL	SC	RMP
29730	1000172556	110002240094	QUICK AS A WINK #462	2103 CHERRY RD	V, WSW, 1/2 - 1	ROCK HILL	SC	DRYCLEANERS, RCRA-NonGen, SHWS, FINDS
29730	U003521266	9409	FIRESTONE STORE 0589	2155 CHERRY RD		ROCK HILL	SC	UST
29730	U003665496	13049	SEARS ROEBUCK & CO	2188 CHERRY RD	R, WSW, 1/2 - 1	ROCK HILL	SC	LUST, UST
29730	1007226375	110016975095	PRECISION TUNE	2500 N CHERRY RD	E, West, 1/8 - 1/4	ROCK HILL	SC	FINDS
29730	U003524409	16594	PRECISION TUNE	2500 N CHERRY RD	E, West, 1/8 - 1/4	ROCK HILL	SC	LUST, UST
29730	U003930035	11721	PEP BOYS 98	2514 N CHERRY RD	D, West, 1/8 - 1/4	ROCK HILL	SC	LUST, UST
29730	1000575670	SCD987580909	PEP BOYS 98	2514 NORTH CHERRY ROAD	D, West, 1/8 - 1/4	ROCK HILL	SC	RCRA-CESQG
29730	S109516055		CONOCO 40023	2541 CHERRY HILL RD N	**	ROCK HILL	SC	UIC
29730	U003975672	18074	PANTRY 3932 DBA PETRO EXPRESS	2541 N CHERRY RD	A, NW, 0 - 1/8	ROCK HILL	SC	LUST, UST
29730	U004017464	13090	PANTRY 3932 DBA PETRO EXPRESS	2541 N CHERRY RD	A, NW, 0 - 1/8	ROCK HILL	SC	GWCI
29730	U003522776	9233	JIM NELSON NISSAN INC	2574 CHERRY RD	A, North, 0 - 1/8	ROCK HILL	SC	LUST, UST
29730	1015377468			2688 CHERRY RD	J, NE, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29730	1007246013	110017178837	QUICK C MART 103	2696 CHERRY RD	J, NE, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	U004019864	9970	QUICK C MART 103	2696 CHERRY RD	J, NE, 1/4 - 1/2	ROCK HILL	SC	GWCI, LUST, UST
29730	93341366			2805 N CHERRY RD		ROCK HILL	SC	ERNS
29730	93334861			2805 N CHERRY RD		ROCK HILL	SC	ERNS
29730	1008892427	SCR000767293	CELANESE ACETATE LLC	2848 CHERRY RD		ROCK HILL	SC	RCRA-NonGen
29730	1015389443			2849 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	U003629043	9344	COMMUNITY MART 6	2849 CHERRY RD	T, NE, 1/2 - 1	ROCK HILL	SC	GWCI, UIC, LUST, UST
29730	1007256502	110017294328	COMMUNITY MART 6	2849 CHERRY RD		ROCK HILL	SC	FINDS
29730	A100267602	518	GREEN OIL / THOMAS PETROLEUM	2849 CHERRY ROAD		ROCK HILL	SC	AST
29730	U001015767	9198	GREENS OF ROCK HILL (CELANESE)	2850 CHERRY RD	T, NE, 1/2 - 1	ROCK HILL	SC	UST
29730	92271622			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93350175			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93322866			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	1005929247		HOECHST CELANESE-ROCK HILL TER	2850 CHERRY RD		ROCK HILL	SC	TSCA
29730	93304047			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92272810			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	94353741			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93309711			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92294792			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	94412905			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	1005929211		HOECHST CELANESE	2850 CHERRY RD		ROCK HILL	SC	TSCA
29730	96504507			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92279734			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92258678			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92260720			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	1007119512	SCR000765149	CINERGY SOLUTIONS OF ROCK HILL LLC	2850 CHERRY RD		ROCK HILL	SC	RCRA-NonGen
29730	93340521			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	94355044			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93311660			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92287981			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92255559			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92275949			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92289121			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93309678			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	S103349340	1886	CELANESE ACETATE	2850 CHERRY RD		ROCK HILL	SC	AST
29730	1014835791	110042025509	GREENS OF ROCK HILL	2850 CHERRY RD		ROCK HILL	SC	FINDS
29730	96501827			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	99641141			2850 CHERRY RD		ROCK HILL	SC	ERNS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	92289859			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92262083			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93306719			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93334379			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93315747			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93334749			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93301350			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	984210501			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	984210500			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	94363254			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92293340			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92262031			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93320097			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93330357			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92294553			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92292373			2850 CHERRY RD		ROCKHILL	SC	ERNS
29730	92269502			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93305694			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	94383676			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	92255608			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	93304019			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	2000546763			2850 CHERRY RD		ROCK HILL	SC	ERNS
29730	984647811			2850 CHERRY ROAD		ROCK HILL	SC	ERNS
29730	93308059			2850 CHERRY ROAD		ROCKHILL	SC	ERNS
29730	1011819211		CINERGY SOLUTIONS OF ROCK HILL, LLC	2850 CHERRY ROAD		ROCK HILL	SC	RMP
29730	92258834			2850 CHERRY ROAD		ROCKHILL	SC	ERNS
29730	1014198144		CELANESE ACETATE - CELRIVER PLANT	2850 CHERRY ROAD		ROCK HILL	SC	TSCA
29730	2003656915			2850 CHERRY ROAD		ROCK HILL	SC	ERNS
29730	94358126			2850 CHERRY ROAD		ROCKHILL	SC	ERNS
29730	92277437			2850 CHERRY ROAD		ROCKHILL	SC	ERNS
29730	2000519353			2850 CHERRY ROAD		ROCK HILL	SC	ERNS
29730	1005926871		CELANESE FIBERS	2850 CHERRY ROAD		ROCK HILL	SC	TSCA
29730	92279539			2850 CHERRY ROAD		ROCKHILL	SC	ERNS
29730	1011818398		CELANESE ACETATE LLC - CELRIVER PL	2850 CHERRY ROAD		ROCK HILL	SC	RMP
29730	99611899			2850 CHERRY ROAD		ROCK HILL	SC	ERNS
29730	1000995607		HOECHST CELANESE - CELRIVER PLANT	2850 CHERRY ROAD		ROCK HILL	SC	TSCA
29730	1007088482		CELANESE ROCKHILL TERMINAL	2850 CHERRY ROAD		ROCKHILL	SC	TSCA
29730	1012041090		CELANESE ACETATE - CELRIVER SITE	2850 CHERRY ROAD		ROCK HILL	SC	RMP
29730	984647810			2850 CHERRY ROAD		ROCK HILL	SC	ERNS
29730	1015390665			2875 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015035723			2915 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29730	S108282034		PBI PERFORMANCE PRODUCTS	2972 CHERRY RD		ROCK HILL	SC	AIRS
29730	1008221625		PBI PERFORMANCE PRODUCTS	2972 CHERRY RD		ROCK HILL	SC	
29730	1008375204	29730PBPRF29	PBI PERFORMANCE PRODUCTS INC	2972 CHERRY RD		ROCK HILL	SC	RCRAInfo-SQG, TRIS
29730	1014200218		PBI PERFORMANCE PRODUCTS - ROCK H	2972 CHERRY ROAD		ROCK HILL	SC	TSCA
29730	1015405975			3033 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1008009648	110002258994	PORTERS MOTEL	3057 CHERRY RD		ROCK HILL	SC	FINDS
29730	U000484475	9185	ROCK HILL COCA COLA	520 CHERRY RD		ROCK HILL	SC	UST
29730	1004779770	110002240423	CAROLINA TIRE 1462	724 CHERRY RD		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007240306	110017119358	LAMB FAMILY CHIROPRACTIC	858 CHERRY RD		ROCK HILL	SC	FINDS
29730	S118176809		CHERRY MOUNT INC	CHERRY MOUNT-117 LANCASTER AVE	**	ROCK HILL	SC	NPDES
29730	1008214900	110020917132	CHERRY ROAD FIRE STATION	CHERRY ROAD		ROCK HILL	SC	FINDS
29730	1008231147	110020972492	ROCK HILL WATER FILTER PLANT	CHERRY ROAD		ROCK HILL	SC	FINDS
29730	S116706395		RUTLEDGE PROPERTY	N CHERRY RD & CRANFORD ST	**	ROCK HILL	SC	UIC
29730	1015981626	110008562974	RUTLEDGE PROPERTY	N CHERRY RD & CRANFORD ST		ROCK HILL	SC	ICIS, FINDS
29730	1016279909	110009345280	ROCK HILL CHEMICAL CO.	NORTH CHERRY RD		ROCK HILL	SC	FINDS
29730	1000266565	SCD9808440005	ROCK HILL CHEM.-RUTLEDGE (BILL) PRO	NORTH CHERRY RD		ROCK HILL	SC	GWCI, CERCLIS, US ENG CONTROLS, US INST CONTROL, ICIS, RCRA-NonGen, SHWS, NPL, ROD, PRP
29730	92268969			2850 CHERY RD		ROCK HILL	SC	ERNS
29730	1008010715	110008568914	CATAWBA BAP CHILD DEV CE	CHERYL BUMGARNER	**	ROCK HILL	SC	FINDS
29730	U004067076	19266	CITY BUILDERS SERVICE INC	190 CHESTER ST		ROCK HILL	SC	UST
29730	1004781300	110012192288	POLYMER SPECIALTIES INC	303 CHURCH ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1015025137			2388 CIRCLE B LAKE RD		ROCK HILL	SC	EDR Historical Cleaners
29730	1005851279	110008559229	ROCK HILL/WILDCAT PLANT	CITY OF ROCK HILL PO BOX 11706	**	ROCK HILL	SC	FINDS
29730	1005851278	110008559210	ROCK HILL/COLLEGE DOWNS SD	CITY OF ROCK HILL PO BOX 11706	**	ROCK HILL	SC	FINDS
29730	1007244766	110017165878	HAMRICK MHP	1029 CLARKSON ST		ROCK HILL	SC	FINDS
29730	1008009230	110002200387	GOLD HILL MHP	1763 COLONY DR		ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1007833549	110019975384	ROCK HILL CITY OF	349 COLUMBIA AVE		ROCK HILL	SC	FINDS
29730	1007247795	110017197120	OPERATIONS CENTER	349 COLUMBIA AVE		ROCK HILL	SC	FINDS
29730	1009305355		HARRELL IND INC	2495 COMMERCE DR		ROCKHILL	SC	SSTS
29730	1000355631		HARRELL INDUSTRIES	2495 COMMERCE DR		ROCK HILL	SC	
29730	S108281838		HARRELL INDUSTRIES	2495 COMMERCE DR		ROCK HILL	SC	AIRS
29730	1007115658	29730HRRLL24	HARRELL INDUSTRIES INC	2495 COMMERCE DR		ROCK HILL	SC	RCRAInfo-LQG, TRIS
29730	1016121483	110000355231	HARRELL INDUSTRIES INC	2495 COMMERCE DR.		ROCK HILL	SC	FINDS
29730	1016461747		HARRELL INDUSTRIES INC	2495 COMMERCE DR.		ROCK HILL	SC	ICIS
29730	1011836987		SENTURY REAGENTS	2515 COMMERCE		ROCK HILL	SC	RMP
29730	1011836988		SENTURY REAGENTS	2515 COMMERCE DR		ROCK HILL	SC	RMP
29730	1014200589		SENTURY REAGENTS	2515 COMMERCE DR		ROCK HILL	SC	TSCA
29730	1005931936		ROCK HILL	2515 COMMERCE DR.		ROCK HILL	SC	TSCA
29730	2001561190			2651 COMMERCE DR		ROCK HILL	SC	ERNS
29730	1010331908	SCR000767947	HENRY COMPANY	2651 COMMERCE DR		ROCK HILL	SC	RCRA-NonGen
29730	1007846034	110020149052	CORNERSTONE DEVELOP/I-77 MINE	COMMERCE DR		ROCK HILL	SC	FINDS
29730	1007244847	110017166724	PREFERRED HEALTHCARE PLUS	122 S CONFEDERATE		ROCK HILL	SC	FINDS
29730	S105811291		ROCK HILL MGP	CONSTITUTION BLVD @ LEE ST	**	ROCK HILL	SC	SHWS
29730	1008009232	110002200403	CORE CARRIERS INC	466 CORPORATE BLVD		ROCK HILL	SC	FINDS
29730	U003521552	9259	FREDRICKSON MOTOR EXPRESS	800 CORPORATE BLVD	K, SE, 1/4 - 1/2	ROCK HILL	SC	LUST, UST
29730	1007226216	110016973499	FREDRICKSON MOTOR EXPRESS	800 CORPORATE BLVD	K, SE, 1/4 - 1/2	ROCK HILL	SC	FINDS
29730	U003796710	9418	ROCK HILL COUNTRY CLUB INC	600 COUNTRY CLUB DR		ROCK HILL	SC	NPDES, LUST, UST
29730	1005852696	110006622315	ROCK HILL COUNTRY CLUB	600 COUNTRY CLUB DRIVE		ROCK HILL	SC	FINDS
29730	1016184831	110002189514	KNOXS GROCERY SERVICE STATION	1327 CRAWFORD RD		ROCK HILL	SC	FINDS
29730	1000439375	SCD036248805	KNOXS GROCERY SERVICE STATION	1327 CRAWFPRD RD	**	ROCKHILL	SC	RCRA-NonGen
29730	1015620258			734 CREST ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	S107599672		SPRINGDALE DRY CLEANERS	2260 CROSS POINTE SQUARE STE 118		ROCK HILL	SC	SHWS
29730	1015022193			2260 CROSSPOINTE DR		ROCK HILL	SC	EDR Historical Cleaners
29730	1016170179	110055947720	SAMS CLUB 6236	2474 CROSSPOINTE DRIVE	**	ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1016983151	110008568629	HANDLE S BAR & GRILL	CURTIS HAGGERTY	**	ROCK HILL	SC	FINDS
29730	1004593301	110002185661	PIEDMONT WATER CO WOODFOREST SD	4464 CYPRESS COVE		ROCK HILL	SC	FINDS
29730	1000991979	SCD987588241	TRICO INC	1439 DAVE LYLE BLVD		ROCK HILL	SC	RCRA-NonGen
29730	1016118877	110001669132	TRICO INTERNATIONAL PACKAGING COR	1439 DAVE LYLE BOULEVARD		ROCK HILL	SC	FINDS
29730	1008009652	110002259047	LYLE S BLDG SUPPLY	2080 DAVE LYLE BLVD		ROCK HILL	SC	FINDS
29730	1015331650			2197 DAVE LYLE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29730	U003629859	17676	LITTLE GIANT 5	2326 DAVE LYLE BLVD		ROCK HILL	SC	UST
29730	1007232584	110017038891	LITTLE GIANT 5	2326 DAVE LYLE BLVD		ROCK HILL	SC	FINDS
29730	1015351063			2366 DAVE LYLE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015351082			2366 N DAVE LYLE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29730	U003796566	18744	MURPHY USA 6749	2371 DAVE LYLE BLVD		ROCK HILL	SC	UST
29730	1007241454	110017131325	MURPHY USA 6749	2371 DAVE LYLE BLVD		ROCK HILL	SC	FINDS
29730	1005418383	110012260775	WALMART SUPERCENTER 585	2377 DAVE LYLE BLVD		ROCK HILL	SC	RCRAInfo-SQG, FINDS
29730	U003520823	9213	DMP CORPORATION	2445 DAVE LYLE BLVD		ROCK HILL	SC	UST
29730	1000180365	110002240263	DMP CORPORATION	2445 DAVE LYLE BOULEVARD		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1015371078			260 DAVE LYLE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1017385626	110062739657	FRESENIUS MEDICAL CARE - ROCK HILL	2865 DAVE LYLE BLVD		ROCK HILL	SC	FINDS
29730	1007225537	110016966283	HORACE GOGGINS DDS	427 S DAVE LYLES BLVD		ROCK HILL	SC	FINDS
29730	U003628311	12763	ROCK HILL TELEPHONE CO	529 DAVE LYLE BLVD		ROCK HILL	SC	UST
29730	1007230751	110017020212	ROCK HILL TELEPHONE CO	529 DAVE LYLE BLVD		ROCK HILL	SC	FINDS
29730	U004107262	19296	TOWN CENTER MALL	N DAVE LYLE BLVD AND E MAIN ST		ROCK HILL	SC	GWCI, LUST, UST
29730	1004780844	SCR000000901	SEARS 2807	2197 DAVID LYLE BLVD	**	ROCK HILL	SC	RCRA-CESQG
29730	1016117075	110002189337	SEARS #2807	2197 DAVID LYLE BOULEVARD	**	ROCK HILL	SC	FINDS
29730	1015265106			170 DAVIS ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015227176			1430 DUNLAP RODDEY RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015254752			1610 DUNLAP RODDEY RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007257894	110017308741	CHARLES CRAWFORD JR DMD	1236 EBENEZER RD STE 110		ROCK HILL	SC	FINDS
29730	1007233856	110017052240	HENRY D SHARP JR DDS	1381 EBENEZER RD		ROCK HILL	SC	FINDS
29730	U002323899	17213	SAWYERS GROCERY	1704 EBENEZER RD		ROCK HILL	SC	LUST, UST
29730	1007828953	110019929416	EBENEZER ELEMENTARY	242 EBENEZER AVENUE		ROCK HILL	SC	FINDS
29730	1007257888	110017308689	EBENEZER ANIMAL CLINIC	2445 EBENEZER RD		ROCK HILL	SC	FINDS
29730	1000344207	SCD982144461	HOLOX LTD	2687 EDEN TERRACE	S, East, 1/2 - 1	ROCKHILL	SC	RCRA-CESQG
29730	U003522319	9221	HOLOX LTD	2687 EDEN TERRACE	S, East, 1/2 - 1	ROCK HILL	SC	GWCI, NPDES, RCR, LUST, UST
29730	1016185015	110002229963	SUNOX INC	2687 EDEN TERRACE		ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1008009954	110002314442	GENE S VILLAGE RENTAL	821 EDEN TERRACE		ROCK HILL	SC	FINDS
29730	1008009194	110002199932	WILLIAMS ESTATE	140 EDENVALE RD		ROCK HILL	SC	FINDS
29730	1015682012			948 EDMONT ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015108516			956 EDMONT ST		ROCK HILL	SC	EDR Historical Cleaners
29730	1000314302	SCD011096948	BENNETT PUMP CO	FAIRFIELD AVE		ROCK HILL	SC	RCRA-NonGen
29730	1004593192	110001670442	POLYMER PROCESSING	1391 FIRE TOWER RD		ROCK HILL	SC	AIRS, FINDS
29730	S103722100		ELECTRIC SERVICE COMPANY	FIRE TOWER RD	**	ROCK HILL	SC	SHWS
29730	1003869329	SCD036247872	ELECTRIC SERVICE CO.	FIRE TOWER ROAD	**	ROCK HILL	SC	CERCLIS-NFRAP
29730	1000181244	110001668749	INTEGRATED POWER SERVICES LLC	1332 FIRETOWER RD		ROCK HILL	SC	AIRS, RCRA-CESQG, FINDS
29730	1000302450	110004938774	CHAMPION ROLLER COMPANY	1273 FLINT STREET EXTENSION		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007233429	110017047587	AMERICAN BAKERIES CO	1287 FLINT ST		ROCK HILL	SC	FINDS
29730	U003518953	9912	AMERICAN BAKERIES CO	1287 FLINT ST		ROCK HILL	SC	LUST, UST
29730	1015202880			1304 FLINT STREET EXT		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015208369			1326 FLINT STREET EXT		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015208597			1328 FLINT STREET EXT		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015210008			1335 FLINT STREET EXT		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015217843			1393 FLINT STREET EXT		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007243317	110017150839	KENNEDYS LANDSCAPING & DEVELOPM	1402 FLINTHILL ST		ROCK HILL	SC	FINDS
29730	S108281543		AMERICAN FIBERGLASS CORP	228 MT GALLANT RD		ROCK HILL	SC	AIRS
29730	1007216151		AMERICAN FIBERGLASS CORP	228 MT GALLANT RD		ROCK HILL	SC	
29730	1001818776	110002236232	COLUMBIA PICTURES	400 MT GALLANT RD		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007246544	110017184321	BILLS SEAFOOD	4901 MT GALLANT RD		ROCK HILL	SC	FINDS
29730	1012195804		J.F. DALEY INTERNATIONAL, LTD	586 MT GALLANT RD		ROCK HILL	SC	SSTS
29730	1007233837	110017052053	JOSEPH M BANGERT JR DC PA	746 MT GALLANT RD		ROCK HILL	SC	FINDS
29730	1016240239	110007829671	RATTEREES SUNOCO SERVICE STATION	MT GALLANT RD		ROCK HILL	SC	FINDS
29730	1000401849	SCD000825752	RATTEREES SUNOCO SERVICE STATION	MT GALLANT RD		ROCK HILL	SC	RCRA-NonGen
29730	1008009229	110002200369	GAULDEN S MHP	4953 MT GALLANT RD		ROCK HILL	SC	FINDS
29730	1008931499	110022884173	TEREX USA LLC	1205 GALLERIA BLVD		ROCK HILL	SC	FINDS
29730	1014921703	SCR000773069	TEREX USA HYDRA PLATFORMS	1205 GALLERIA BLVD		ROCK HILL	SC	RCRAInfo-SQG
29730	1001030641	110002189355	ROCK HILL AUTOMOTIVE	686 GALLERIA BLVD		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1016184828	110002189239	WILKERSON OIL CO BULK PLANT	101 GARBISON ST		ROCK HILL	SC	FINDS
29730	S108282616		QUALAWASH HOLDINGS LLC	131 S GARRISON RD		ROCK HILL	SC	AIRS
29730	1007114173	110000857305	QUALA SYSTEMS INCORPORATED	131 S GARRISON RD		ROCK HILL	SC	FINDS, RCRAInfo-LQG
29730	1000266563		QUALAWASH HOLDINGS LLC	131 S GARRISON RD		ROCK HILL	SC	
29730	U003520069	9215	CHEMICAL LEAMAN	131 S GARRISON RD		ROCK HILL	SC	LUST, UST
29730	1007232819	110017041351	CHEMICAL LEAMAN	131 S GARRISON RD		ROCK HILL	SC	FINDS
29730	1015432578			333 S GARRISON RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1000269542	SCD000792721	WILKERSON OIL CO BULK PLANT	GARRISON ST		ROCK HILL	SC	RCRA-NonGen
29730	S110091428		GLYECO INC.	230 GILL WAY		ROCK HILL	SC	SWRCY
29730	1014961331	SCR000775353	GLYECO ACQUISITION CORP 5	230 GILL WAY		ROCK HILL	SC	RCRAInfo-SQG
29730	1012095032	110038799663	RENEW RESOURCES LLC	230 GILL WAY		ROCK HILL	SC	FINDS
29730	U003520140	5587	CIRCLE K 8367	723 GILLSBROOK RD HWY 9		LANCASTER	SC	GWCI, LUST, UST
29730	1015243593			1528 GLASSCOCK RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1017385631	110062739700	LINDSAY PRECAST INC ROCK HILL DIV	200 GLENN HOPE RD		ROCK HILL	SC	FINDS
29730	S118176045		LINDSAY PRECAST INC ROCK HILL DIV	200 GLENN HOPE RD		ROCK HILL	SC	AIRS
29730	1007234856	110017062435	F D BOSTIC	2835 GREENWOOD RD		ROCK HILL	SC	FINDS
29730	U004018007	16690	F D BOSTIC	2835 GREENWOOD RD		ROCK HILL	SC	UST
29730	1008009217	110002200225	LAMBERT MHP	562 GRIER LESSLIE RD		ROCK HILL	SC	FINDS
29730	1015754601	SCR000776724	SUPERMETAL HOLDING USA	1345 HALL SPENCER RD		ROCK HILL	SC	RCRAInfo-LQG
29730	S116230641		SUPERMETAL	1345 HALL SPENCER RD		ROCK HILL	SC	AIRS
29730	1008214899	110020917123	ROCK HILL CITY HALL	120 HAMPTON ST		ROCK HILL	SC	FINDS
29730	1007837510	110020015017	H P EQUITIES	129-131 HAMPTON ST		ROCK HILL	SC	FINDS
29730	1007244362	110017161649	WILLIAMS ENGINEERING INC	215 HAMPTON ST STE 100		ROCK HILL	SC	FINDS
29730	1007225108	110016961812	NEWPORT SELFWAY #1604	111 HANDS MILL EXT		ROCK HILL	SC	FINDS
29730	1007247590	110017195006	NEWPORT PATROL FACILITY	305 HANDS MILL RD (SC 274)		NEWPORT	SC	FINDS
29730	U003994148	9161	NEWPORT PATROL FACILITY	305 HANDS MILL RD SC 274		NEWPORT	SC	GWCI, LUST, UST
29730	1012095261	110038799645	RED LINE CHEMICAL COMPANY-EXEMPT	2443 HARMONY RD		ROCK HILL	SC	FINDS
29730	1005790960	110002200118	MCAFEES MHP	736 HARRELL ST		ROCK HILL	SC	FINDS
29730	A100168592	911	REA CONSTRUCTION - ROCK HILL	900 HAWKFIELD ROAD		ROCK HILL	SC	AST
29730	1004594520		MARTIN MARIETTA AGGREGATES:ROCK I	911 HAWKFIELD RD		ROCK HILL	SC	
29730	S108282542		MARTIN MARIETTA AGGREGATES:ROCK I	911 HAWKFIELD RD		ROCK HILL	SC	AIRS
29730	1016121659	110001668703	MARTIN MARIETTA ROCK HILL	911 HAWKFIELD ROAD		ROCK HILL	SC	FINDS
29730	1017385630	110062739693	SITE PREP INC	991 HAWKFIELD RD		ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	U003096454	17492	YORK COUNTY OFFICE COMPLE	1070 HECKLE BLVD		ROCK HILL	SC	UST
29730	1007234733	110017061150	NICK MART	684 E HECKLE BLVD		ROCK HILL	SC	FINDS
29730	1015632428			781 S HECKLE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015101279			851 HECKLE BLVD		ROCK HILL	SC	EDR Historical Cleaners
29730	1008009201	110002200010	SAM DONALD S MHP	1084 HELM ST		ROCK HILL	SC	FINDS
29730	1004594685	SCD987567799	PIEDMONT HEALTHCARE SYSTEMS	222 S HERLONG AVE		ROCK HILL	SC	RCRA-CESQG
29730	1007240483	110017121167	CAROLINA ORTHOPAEDIC SURGERY - RC	370 S HERLONG AVE		ROCK HILL	SC	FINDS
29730	1000875873	110002240067	PRESTIGE DRY CLEANERS	465 S HERLONG AVE		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007648008	110020063848	BRYANT DIRT MINE	US HIGHWAY 21	**	ROCK HILL	SC	FINDS
29730	1008009243	110002200546	APPLE VALLEY	630 HILLSIDE DR		ROCK HILL	SC	FINDS
29730	1007242282	110017139988	HINSON LANE MHP	4212-B HINSON LN		ROCK HILL	SC	FINDS
29730	S113910485			1227 MT HOLLY		ROCK HILL	SC	
29730	1016039632	110046599711	EAGLE CONSTR/EN HERITAGE MINE	1369 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	U003523854	12401	NICHOLS STORE INC	1980 MT HOLLY DR		ROCK HILL	SC	LUST, UST
29730	1007236951	110017084215	NICHOLS STORE INC	1980 MT HOLLY DR		ROCK HILL	SC	FINDS
29730	1007228616	110016998052	EXPRESS MART 10	2109 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	U003629036	9339	PALMETTO EXPRESS 10	2110 MT HOLLY RD		ROCK HILL	SC	LUST, UST
29730	1007240798	110017124501	MIKE DAVIS LANDSCAPING & CLEARING	2111 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	1007236493	110017079542	CREATIVE WORLD DAY CARE	2199 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	1008009234	110002200421	CRENCO FOOD STORE #8	2433 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	U003629550	12626	CRENCO FOOD STORE #8	2433 MT HOLLY RD		ROCK HILL	SC	UST
29730	1010351772	110030912644	FLYING J COUNTRY MARKET	2435 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	U003522074	19152	FLYING J TRAVEL PLAZA 714	2440 MT HOLLY RD		ROCK HILL	SC	UST
29730	1007236586	110017080488	RODGERS WLDN SH	2519 MT HOLLY RD		ROCK HILL	SC	FINDS
29730	1007571729	SCR000766139	HOME DEPOT 1114	2815 HOME DEPOT BLVD	110, NE, 1/2 - 1	ROCK HILL	SC	RCRAInfo-SQG
29730	1007733234	110018901875	THE HOME DEPOT 1114	2815 HOME DEPOT BLVD		ROCK HILL	SC	FINDS
29730	S113669187			1396 HOPEWELL RD		ROCK HILL	SC	
29730	1008009236	110002200449	CULP CIRCLE S D	1903 HOPEWELL RD		ROCK HILL	SC	FINDS
29730	1007835600	110019995905	BANFIELD THE PET HOSPITAL #0405	1110 HOSPITALITY DR		ROCK HILL	SC	FINDS
29730	S108282217			590 HUEY RD		ROCK HILL	SC	AIRS
29730	1008383204	29732TRXLG59	TEREX USA LLC	590 HUEY RD		ROCK HILL	SC	TRIS
29730	1000914368	17304	TEREX USA LLC	590 HUEY RD		ROCK HILL	SC	LUST, SPILLS, UST
29730	1007729536	110018864415	ASKO INC	600 HUEY RD		ROCK HILL	SC	FINDS, TRIS
29730	1008009199	110002199996	ROCK HILL MOTEL & MHP	2275 HUNT CIR		ROCK HILL	SC	FINDS
29730	1016240226	110007829458	QUALITY DRUM CO INC	SC HWY 243		ROCK HILL	SC	FINDS
29730	1000286955	SCD000772160	QUALITY DRUM CO INC	SC HWY 243		ROCK HILL	SC	RCRA-NonGen
29730	1000389986	SCD083673350	ARMSTRONGS GROCERY SER STA	SC HWY 322		ROCK HILL	SC	RCRA-NonGen
29730	1016240342	110007831686	ARMSTRONGS GROCERY SER STA	SC HWY 322		ROCK HILL	SC	FINDS
29730	1005852108	110008550282	SC PIPELINE CORPORATION ROCK HILL	SC HWY 327	**	ROCK HILL	SC	FINDS
29730	1012120703	110039014116	FORMER INDUSTRIAL CHEMICAL CO. LAN	US HWY 21 N 1/2 MI FROM S-465	**	ROCK HILL	SC	FINDS
29730	1000188727	SCD980500292	FORMER INDUSTRIAL CHEMICAL CO. LAN	US HWY 21 N 1/2 MI FROM S-465	**	CATAWBA	SC	GWCI, CERCLIS, RCRA-NonGen, SHWS, RAATS
29730	1004780102	SCD980515431	CELANESE CHEMICAL CO	US HWY 21 N AT CATAWBA	**	ROCK HILL	SC	RCRA-NonGen
29730	S108476491			US HWY 5/21	**	ROCK HILL	SC	SHWS
29730	1011924253	110037443317	SCDOT SB I77	8400 SB I77	**	ROCK HILL	SC	FINDS
29730	1011491107	SCR000770057	SCDOT SB I77	8400 SB I77	**	ROCK HILL	SC	RCRA-NonGen
29730	1007257891	110017308714	MARK E TROMBLEY DDS	1144-A INDIA HOOK RD		ROCK HILL	SC	FINDS
29730	1007241907	110017136044	CONNIE BAKER DDS	1144B INDIA HOOK RD		ROCK HILL	SC	FINDS
29730	U003930163	13127	EBINPORT ELEMENTARY SCHOOL	2142 INDIA HOOK RD		ROCK HILL	SC	UST
29730	1007244312	110017161122	AMP INCORPORATED	200 INTERCONNECT DR		ROCK HILL	SC	FINDS
29730	1004781030	110000355259	TE CONNECTIVITY	200 INTERCONNECT DR		ROCK HILL	SC	FINDS, RCRAInfo-LQG, TRIS
29730	1008010704	110008568727	LEARS WELDING FAB & RIGGIN	JACKIE LEAR	**	ROCK HILL	SC	FINDS
29730	1007214884	110008568950	COTTON BELT SANDERS SAND/GRAVEL	JOHN BLACK	**	YORK	SC	FINDS
29730	1006153047	110006623591	CITY OF ROCK HILL	155 JOHNSTON STREET		ROCK HILL	SC	FINDS
29730	1015106995			931 KENTWOOD DR		ROCK HILL	SC	EDR Historical Cleaners
29730	1001969314	110002184074	WOOLMARK COMPANY	500 LAKE SHORE PKWY		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	10078335377	110019993676	WATER EDGE LLC	448 LAKEHORE DR		ROCK HILL	SC	FINDS
29730	1007235771	110017072022	EMERALD LAKE ASSOC INC	3040 LAKELAND DR		ROCK HILL	SC	FINDS
29730	1007837889	110020018808	PIEDMONT DEVELOPMENT ASSOC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007837788	110020017792	WHITLEY MILLS PLANTATION LLC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007257204	110017301668	ANTRIM GROUP LLC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007837682	110020016739	JMT LAND DEVELOPMENT LLC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007650912	110019917018	TUTTLE COMPANY	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007835102	110019990928	MANCHESTER ASSOCITES LLC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007835347	110019993373	MILLWOOD PLANTATION DEV INC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007837624	110020016150	STONECREST ENTERPRISES LLC	448 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1007245052	110017168937	WILLAMETTE INDUSTRIES INC	452 LAKESHORE PRKWY STE 120		ROCK HILL	SC	FINDS
29730	1000575757	110002240370	BALZERS TOOL COATING INCORPORATE	463 LAKESHORE PKWY		ROCK HILL	SC	FINDS, RCRAInfo-LQG
29730	1005517814	110001674894	ARQUEST INCORPORATED	467 LAKESHORE PARKWAY		ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1014198380		COMPOSITES ONE LLC	467 LAKESHORE PARKWAY		ROCK HILL	SC	TSCA
29730	2011000015		467 LAKESHORE PKWY	467 LAKESHORE PKWY		ROCK HILL	SC	HMIRS
29730	1014921691	SCR000772947	COMPOSITES ONE LLC	467 LAKESHORE PKWY		ROCK HILL	SC	RCRA-CESQG
29730	2009050687		467 LAKESHORE PKWY	467 LAKESHORE PKWY		ROCK HILL	SC	HMIRS
29730	1000875741	SC0000053264	HAMILTON STANDARD CSC	471 LAKESHORE PKWY		ROCK HILL	SC	RCRA-NonGen
29730	1006538823	110001671487	HARTMANN CONCO INC	481 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1012219034	110040511390	COMPOSITE RESOURCES - ROCK HILL	485 LAKESHORE PKWY		ROCK HILL	SC	FINDS
29730	1014921692	SCR000772954	COMPOSITE RESOURCES	485 LAKESHORE PKWY		ROCK HILL	SC	RCRAInfo-SQG
29730	1000893281	110000854200	IVAX INDUSTRIES INCORPORATED TEXTI	1880 LANGSTON ROAD		ROCK HILL	SC	FINDS
29730	1005929610		IVAX INDUSTRIES - TEXTILE PROD GROU	1880 LANGSTON ST		ROCK HILL	SC	TSCA
29730	1004593401	110007184279	AVA INDUSTRIES	1960 LANGSTON ROAD		ROCK HILL	SC	FINDS
29730	1005932001		S U S CHEM CO	LANGSTON RD	**	ROCK HILL	SC	TSCA
29730	1007232779	110017040931	SUS CHEMICAL CO INC	LANGSTON ROAD		ROCK HILL	SC	FINDS
29730	1001962011	110002184136	BLANCHARD MACHINERY CO	3777 LAZY HAWK RD		ROCK HILL	SC	RCRAInfo-SQG, FINDS
29730	1016679870		NATIONAL FENCE SITE	167 NORTH LEE STREET		ROCK HILL	SC	US BROWNFIELDS
29730	1017370831	110060374081	NATIONAL FENCE SITE	167 NORTH LEE STREET		ROCK HILL	SC	FINDS
29730	1000259885	110002189382	NATIONAL FENCE MFG CO	181 N LEE ST		ROCK HILL	SC	CERCLIS-NFRAP, RCRA-NonGen, FINDS
29730	1008408831		ROCK HILL GAS CO	N LEE STREET		ROCK HILL	SC	Manufactured Gas Plants
29730	1007247276	110017191796	EXPRESS MART 4	3065 LESLIE HWY		ROCK HILL	SC	FINDS
29730	1007245889	110017177598	JACK GLASSCOCK PROPERTY	3211 LESLIE HIGHWAY		ROCK HILL	SC	FINDS
29730	1000317754	SCD000825653	JOHNNYS STORE SERVICE STATION	LESLIE HWY		ROCK HILL	SC	RCRA-NonGen
29730	1016240236	110007829644	JOHNNYS STORE SERVICE STATION	LESLIE HWY		ROCK HILL	SC	FINDS
29730	1008009653	110002259056	HEPP APARTMENTS	2172 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	U003632491	11232	LESSLIE FOOD INC	2700 LESSLIE HWY		ROCK HILL	SC	UST
29730	1007232095	110017033896	LESLIE MART INC	2700 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	1015385072			2799 LESSLIE HWY		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007244686	110017165075	H & B MOTEL	2869 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	U004198552		FORMER SERVICE STATION/LIQUOR STO	3021 LESSLIE CT		ROCK HILL	SC	LUST, UST
29730	1017385622	110062739611	WHOLESALE FORK LIFTS, INC	3030 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	1015406071			3035 LESSLIE HWY		ROCK HILL	SC	EDR Historical Auto Stations
29730	A100267672	1468	ROBERT'S PAINT & BODY SHOP	3035 LESSLIE HWY		ROCK HILL	SC	AST
29730	1007236477	110017079383	LOVELAND	3151 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	1004595437	110002187008	NEELYS CRK RETIR HOME	3175 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	1005790173	110002238579	JACK NELSON ENTERPRISES	3175 LESSLIE HWY		ROCK HILL	SC	FINDS
29730	1007244955	110017167929	G S COUNTRY STORE	3881 LESSLIE HWY		CATAWBA	SC	FINDS
29730	1015477081			4089 LINDA RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1008009224	110002200314	DOUGLAS BECKNER	4098 LINDA DR		ROCK HILL	SC	FINDS
29730	1008009211	110002200145	MT HOLLY MHP	3165 LONG MEADOW RD		ROCK HILL	SC	FINDS
29730	1007835230	110019992196	YORKSHIRE APARTMENTS	LUCAS RD		ROCK HILL	SC	FINDS
29730	1015121606			1002 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015127414			1013 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1014969649			103 E MAIN ST		ROCK HILL	SC	EDR Historical Cleaners
29730	1015139692			105 W MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015159448			1117 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015161790			1123 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007835251	110019992418	CORNERSTONE DEVELOPMENT CO	114 E MAIN ST		ROCK HILL	SC	FINDS
29730	1007257208	110017301702	SITE ONE LLC	114 E MAIN ST STE 201		ROCK HILL	SC	FINDS
29730	1015174923			1184 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015750329	SCR000776153	RITE AID #11665	1295 EAST MAIN STREET		ROCK HILL	SC	RCRA-CESQG
29730	1016037194	110046540454	RITE AID #11665	1295 EAST MAIN STREET		ROCK HILL	SC	FINDS
29730	1007837288	110020012797	LANFORD & ASSOC	130 E MAIN ST		ROCK HILL	SC	FINDS
29730	U003629047	9347	BOBS FOOD MART	1307 E MAIN ST		ROCK HILL	SC	GWCI, LUST, UST
29730	U003558402	9326	RHAE LYLES GULF	1308 E MAIN ST		ROCK HILL	SC	LUST, UST
29730	U003714879	16239	DOVES GARAGE & AUTO	1317 E MAIN ST		ROCK HILL	SC	GWCI, LUST, UST
29730	1016185041	110002240389	BLACKHAWK MOLDING	1320 E MAIN ST		ROCK HILL	SC	FINDS
29730	U003519398	17116	BLACKHAWK MOLDING	1320 E MAIN ST		ROCK HILL	SC	GWCI, LUST, UST
29730	1000173258	SCD982145534	BLACKHAWK MOLDING	1320 EAST MAIN STREET		ROCK HILL	SC	RCRA-NonGen
29730	1015212590			1350 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	2002593085			1350 EAST MAIN ST. EXT		ROCK HILL	SC	ERNS
29730	2003701967			1350 EAST MAIN ST. EXT		ROCK HILL	SC	ERNS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	A100267601	509	CULP PETROLEUM	1350 EAST MAIN STREET		ROCK HILL	SC	AST
29730	1007248247	110017201810	EXPRESS MART 8	1398 W MAIN ST		ROCK HILL	SC	FINDS
29730	1007256500	110017294300	PARTY WORLD	1307 E MAIN ST		ROCK HILL	SC	FINDS
29730	1007232582	110017038873	ROCK HILL ECONOMIC DEVELOPMENT	140 E MAIN ST		ROCK HILL	SC	FINDS
29730	1011491096	110064177867	CULP PETROLEUM	1444B E MAIN ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1015238072			1501 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015245645			1542 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015261364			166 W MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015271805			174 W MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	U004198556		FORMER BUTLERS SERVICE STATION	190 W MAIN ST		ROCK HILL	SC	LUST, UST
29730	1015308062			202 W MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007234664	110017060464	MARSHALL TIRE SERVICE INC	202 W MAIN ST		ROCK HILL	SC	FINDS
29730	1004780259	SCD982114688	S&S CLEANERS	2562 W MAIN ST		ROCK HILL	SC	RCRA-CESQG
29730	1016117103	110002240049	PALMETTO CONTAINER INCORPORATED	339 E MAIN		ROCK HILL	SC	FINDS
29730	1007259364	110017324180	PITTMAN & ALLISON TESTING AND TRAIN	339 E MAIN ST STE 212		ROCK HILL	SC	FINDS
29730	1001818766	SCR000000984	PALMETTO CONTAINER INC	339 EAST MAIN		ROCK HILL	SC	RCRA-NonGen
29730	1007228771	110016999603	ROCK HILL CHIROPRACTIC WORKS INC	419 E MAIN ST		ROCK HILL	SC	FINDS
29730	1007240480	110017121130	R K GAY DC	510 E MAIN ST		ROCK HILL	SC	FINDS
29730	1007225544	110016966354	WENONAH G HAIRE DMD	611 E MAIN ST		ROCK HILL	SC	FINDS
29730	S111027659		ROCK HILL BODYCOMPANY	615 WEST MAIN STREET		ROCK HILL	SC	RCR
29730	1015587290			640 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1010552698	110032660074	AKZO NOBEL PAINTS 343	710 W MAIN ST		ROCK HILL	SC	FINDS
29730	1010567647	SCR000769265	AKZO NOBEL PAINTS 343	710 W MAIN ST		ROCK HILL	SC	RCRA-CESQG
29730	1015669006			903 W MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015670710			908 E MAIN ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007238950	110017105078	COOKS BATTERY	932 E MAIN ST		ROCK HILL	SC	FINDS
29730	U001540369	16235	YORK COUNTY NATURAL GAS A	965 W MAIN ST		ROCK HILL	SC	UST
29730	1000139678	SCD000792564	MID-STATE OIL CO BULK PLANT	972 W MAIN ST		ROCKHILL	SC	RCRA-NonGen
29730	1000269544	110002240110	MID STATE OIL CO BULK PLANT	972 W MAIN ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007238719	110017102721	WEST MAIN AUTO REPAIR	990 W MAIN ST		ROCK HILL	SC	FINDS
29730	1015694406			E MAIN	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	U004117035		TOWN CENTER MALL 2	E MAIN ST	**	ROCK HILL	SC	GWCI, LUST, UST
29730	1015329071			2166 MANA CT		ROCK HILL	SC	EDR Historical Auto Stations
29730	1005851966	110008551708	ROCK HILL CITY OF	MANCHESTER CREEK GENERATING PL	**	ROCK HILL	SC	FINDS
29730	1016976283	SCR000778084	3D SYSTEMS CORPORATION	700 MARINE DRIVE		ROCK HILL	SC	RCRAInfo-SQG
29730	1016899348	110060240671	3D SYSTEMS CORPORATION	700 MARINE DRIVE		ROCK HILL	SC	FINDS
29730	1001225642	110002185457	WEST MARINE	860 MARINE DR		ROCK HILL	SC	RCRAInfo-SQG, FINDS
29730	1015443418			3509 MARSHALL RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	U003629140	9449	COUNTRY C'S FOOD MART	2090 MCCONNELLS HWY		ROCK HILL	SC	GWCI, UIC, LUST, UST
29730	1008010714	110008568861	COUNTRY C S FOOD MART	2090 MCCONNELLS HWY		ROCK HILL	SC	FINDS
29730	U003629815	17034	CROSSROADS EXPRESS FOOD MART	3702 MCCONNELLS HWY		ROCK HILL	SC	LUST, UST
29730	1008009235	110002200430	CROSSROADS AMOCO	3702 MCCONNELLS HWY		ROCK HILL	SC	FINDS
29730	1007226134	110016972659	SANDY PINES MHP	1835 MEELEY CREEK RD	**	ROCK HILL	SC	FINDS
29730	1016119287	110001675553	HGP INDUSTRIES	1900 MIDLAND STREET		ROCK HILL	SC	FINDS
29730	1016118878	110001669141	XERXES CORP.	1911 MIDLAND RD		ROCK HILL	SC	FINDS
29730	1000439256	SCD981932239	XERXES CORPORATION	1911 MIDLAND ROAD		ROCK HILL	SC	RCRA-NonGen
29730	S108281576		VALIANT SPECIALTY FINISHING	1975 MIDLAND RD		ROCK HILL	SC	AIRS
29730	1017783433		VALIANT SPECIALTY FINISHING	1975 MIDLAND RD		ROCK HILL	SC	
29730	S116230408			MILL ST AND CHURCH ST		ROCK HILL	SC	
29730	U004019744	9310	TEGA CAY RECREATION	1 MOLLOKAI DR		TEGA CAY	SC	LUST, UST
29730	1000286054	110002189364	ROLLINS LEASING CORPORATION	227 W MOORE ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007247585	110017194944	CATAWBA TRUCKING & TRANSP DIV	227 W MOORE ST		ROCK HILL	SC	FINDS
29730	2009046538		120 E MOUNT GALLANT ROAD	120 E MOUNT GALLANT ROAD		ROCK HILL	SC	HMIRS
29730	1000982248	110001671469	ADPLEX RHODES	150 WEST MOUNT GALLANT		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1016119284	110001675223	INLAND PAPERBOARD & PACKAGING RO	210 MOUNT PHILLIPS STREET		ROCK HILL	SC	FINDS
29730	1017385619	110062739577	MSI FORKS	280 MOUNT GALLANT RD		ROCK HILL	SC	FINDS
29730	1007236577	110017080399	NATURE MUSEUM YORK CO	4621 MOUNT GALLENT RD		ROCK HILL	SC	FINDS
29730	1011996322	110038220216	J.F. DALEY INTERNATIONAL, LTD	586 MOUNT GALLANT RD		ROCK HILL	SC	FINDS
29730	1009305678		J.F. DALEY INTERNATIONAL, LTD	586 MOUNT GALLANT RD		ROCK HILL	SC	SSTS
29730	1012207458	29730CHMSL12	CHEMSOLV INC 2	120 E MT GALLANT RD		ROCK HILL	SC	TRIS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1017738973	110063667321	CHEMSOLV ROCK HILL FACILITY	120 EAST MT GALLANT ROAD		ROCK HILL	SC	FINDS
29730	1017822692		CHEMSOLV ROCK HILL FACILITY	120 EAST MT GALLANT ROAD		ROCK HILL	SC	RMP
29730	1017363694	110056732629	CHEMICALS & SOLVENTS - ROCK HILL, SC	120 EAST MT. GALLANT ROAD		ROCK HILL	SC	FINDS
29730	1008009218	110002200234	LANIER RETIREMENT	644 MUSEUM RD		ROCK HILL	SC	FINDS
29730	1012095052	110038799654	POSSEHL CONNECTOR SERVICES SC INC	NA	**	ROCK HILL	SC	FINDS
29730	U004051626	19205	MR G'S FOOD STORES 124	2120 NATIONS FORD RD	W, SW, 1/2 - 1	ROCK HILL	SC	LUST, UST
29730	1007256662	110017295960	MR G S FOOD STORES 124	2120 NATIONS FORD RD		ROCK HILL	SC	FINDS
29730	U003879279	9407	MR G'S FOOD STORES 124	2120 NATIONS FORD RD	W, SW, 1/2 - 1	ROCK HILL	SC	GWCI
29730	1008009222	110002200289	JONES MHP	726 NATIONS CT		ROCK HILL	SC	FINDS
29730	1007830196	110019941848	JACK NELSON INC	105 NEELY S CREEK RD		ROCK HILL	SC	FINDS
29730	1007244852	110017166797	NEELY S CREEK GROCERY	1308 NEELY S CREEK RD		ROCK HILL	SC	FINDS
29730	1007230780	110017020506	NEELY CREEK GROCERY	1312 NEELY CREEK RD		ROCK HILL	SC	FINDS
29730	1007246315	110017181896	NEELYS COUNTRY CORNER	2150 NEELY STORE RD		ROCK HILL	SC	FINDS
29730	1007214679	110002258850	VILLAGE MARKET INC	2185 NEELY STORE RD		ROCK HILL	SC	FINDS
29730	U003629791	16821	VILLAGE MARKET OF ROCK HILL	2185 NEELY STORE RD		ROCK HILL	SC	UST
29730	1008009185	110002185019	BOY S HOME THE	3210 NEELY STORE RD		ROCK HILL	SC	FINDS
29730	1015597950			677 NEELY RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015124614			101 NEELYS CREEK RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	S118177352		NEELYS CREEK HOMES, INC.	1086 NEELYS CREEK RD		ROCK HILL	SC	NPDES
29730	1016044510	110055020917	NEELYS CREEK HOMES, INC.	1086 NEELYS CREEK RD		ROCK HILL	SC	FINDS
29730	1015085269			656 NEELYS CREEK RD		ROCK HILL	SC	EDR Historical Cleaners
29730	1005791224	110002187650	HORNES NEWSSTAND(BARBER SHOP)	NEWS STAND 1225 CRANFORD ST		ROCK HILL	SC	FINDS
29730	1005488009	110009704579	UTILS SRVS OF SC/SHANDON WWTP	.6MI NNW OF INTR OF SC734&738		ROCK HILL	SC	FINDS
29730	S110676082		UTILS SRVS OF SC/SHANDON WWTP	.6MI NNW OF INTR OF SC734&738	**	ROCK HILL	SC	NPDES
29730	S113669168			1315 NOOSTE TOWN RD		ROCK HILL	SC	
29730	1016446706	110056156699	CONCRETE SUPPLY COMPANY	9165 NORTHFIELD DRIVE		FORT MILL	SC	FINDS
29730	1000276478	110004939648	WILLIAMETTE INDUSTRIES ROCKHILL FO	300 NORTH PARK DR.		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1007244613	110017164343	A AND W MHP	1938 OAK POND RD		ROCK HILL	SC	FINDS
29730	1008009213	110002200181	OAK POND MANOR INC	2210 OAK POND RD		ROCK HILL	SC	FINDS
29730	1007647994	110020063704	ROGERS SAND MINE	OAK PARK RD (S-46-103)		ROCK HILL	SC	FINDS
29730	U003628970	9263	EXXON CAR WASH	1001 OAKLAND AVE		ROCK HILL	SC	GWCI, LUST, UST
29730	U004051625	19192	FORMER OAKLAND AVE STATION	104 OAKLAND AVE		ROCK HILL	SC	GWCI, LUST, UST
29730	1007227755	110016989151	BLAIR M BYCURA DPM	1057 W OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1004781302	110038760338	AUTO PROS	119 S OAKLAND AVE		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1015175936			119 S OAKLAND AVE		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007242360	110017140789	WADE WILLIAMS GULF	122 SOUTH OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1000283945	110002189257	WILLIAMSL MOTORS INC	129 W OAKLAND AVENUE		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007233283	110017046105	PEOPLES TRUST	151 S OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1007828704	110019926892	PEOPLES FIRST INSURANCE	151 S OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1015311322			204 S OAKLAND AVE		ROCK HILL	SC	EDR Historical Auto Stations
29730	1016303322	110013282312	GOOD KIA-CAD-OLDS MOTOR CO.	204 SOUTH OAKLAND AVENUE		ROCK HILL	SC	FINDS
29730	1015328455			216 OAKLAND AVE		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007257535	110017305094	DENTAL ACCESS CAROLINA LLC	219-A OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1007257850	110017308304	W C WILSON DDS	219-B OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1007257596	110017305708	ADVANCED PAIN RELIEF CENTER	410 OAKLAND AVE		ROCK HILL	SC	FINDS
29730	1000461887	SCD987577863	EXXON CO. USA #46925	5001 OAKLAND AVENUE		ROCK HILL	SC	RCRA-NonGen
29730	1007233102	110017044250	SUNSET PARK GROCERY	801 OGDEN RD	**	ROCK HILL	SC	FINDS
29730	U003629507	12264	SUNSET PARK GROCERY	801 OGDEN RD	**	ROCK HILL	SC	GWCI, LUST, UST
29730	S118177850		PIEDMONT WTR CO/WOODFOREST SD	1.4MI NW OF ROCK HILL	**	ROCK HILL	SC	NPDES
29730	S108051857	SC0000014553	UTILS SRVS OF SC/COUNTRY OAKS WWT	W OF ROCK HILL ON RAWLINSON R	**	ROCK HILL	SC	NPDES
29730	1004595436	110009793483	UTILS SRVS OF SC/COUNTRY OAKS	W OF ROCK HILL ON RAWLINSON R	**	ROCK HILL	SC	FINDS
29730	1003868460	SCD980711337	FERGUSON SITE	OFF SC ROUTE 5	**	ROCK HILL	SC	CERCLIS-NFRAP
29730	1007241807	110017135018	LANDSFORD CANAL STATE PARK	OFF US 21	**	CATAWBA	SC	FINDS
29730	U003629959	13128	SUNSET PARK ELEMENTARY	1036 OGDEN RD		ROCK HILL	SC	UST
29730	1015252354			1600 OGDEN RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007231690	110017029749	SQUIRE VILLAGE FOOD STORE	1600 OGDEN RD		ROCK HILL	SC	FINDS
29730	1005792448	110002310829	W L POPE CONSTRUCTION C AND D	2010 OGDEN ROAD		ROCKHILL	SC	FINDS
29730	1007228135	110016993020	CAIN S LAKESIDE MHP	1321 OLD CATTLE BARN RD		ROCK HILL	SC	FINDS
29730	1015215367			1371 OLD SPRINGDALE RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007229912	110017011366	UNION DEVELOPMENT GROUP INC	1379 OLD SPRINGDALE RD		ROCK HILL	SC	FINDS
29730	U003740902	13212	UNION DEVELOPMENT GROUP INC	1379 OLD SPRINGDALE RD		ROCK HILL	SC	LUST, UST
29730	1007483466	110017613876	TIRE KINGDOM INC 213	1383 OLD SPRINGDALE RD		ROCK HILL	SC	FINDS
29730	1007265034	SCR000765461	TBC RETAIL GROUP INC D/B/A NTB NATIC	1383 OLD SPRINGDALE RD		ROCK HILL	SC	RCRA-CESQG
29730	U003629342	10846	NEWPORT ACE HARDWARE	4800 OLD YORK RD		ROCK HILL	SC	LUST, UST

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1007245555	110017174172	NEWPORT ACE HARDWARE	4800 OLD YORK RD		ROCK HILL	SC	FINDS
29730	1008009660	110002259234	BRANDS MHP	4940 OLD YORK RD		ROCK HILL	SC	FINDS
29730	1008009206	110002200065	PLAYERS MHP	778 OLD FRIENDSHIP RD		ROCK HILL	SC	FINDS
29730	96499492			OPEN STAINLESS STEEL TANK / RELEASE	**	ROCKHILL	SC	ERNS
29730	1015534750			516 ORCHARD LN		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007236497	110017079588	MUNN MHP	605 OTTAWA DR		ROCK HILL	SC	FINDS
29730	1007837676	110020016677	SPECIAL PLACES INC	1849 OVERBROOK DR		ROCK HILL	SC	FINDS
29730	1016455945	110057070011	3D SYSTEMS CORPORATION	1679 OVERVIEW DRIVE		ROCK HILL	SC	RCRAInfo-SQG, FINDS
29730	S110824619		SEM PRODUCTS INC	1685 OVERVIEW DR		ROCK HILL	SC	AIRS, SPILLS
29730	1014351238	29730KNGSL16	SEM PRODUCTS INC	1685 OVERVIEW DR		ROCK HILL	SC	TRIS
29730	1007116304	SCR000007245	SEM PRODUCTS INC	1685 OVERVIEW DR		ROCK HILL	SC	RCRAInfo-LQG
29730	1001233704	110001675492	SEM PRODUCTS INC	1685 OVERVIEW DR		ROCK HILL	SC	FINDS
29730	1014475071		SEM PRODUCTS, INC.	1685 OVERVIEW DRIVE		ROCK HILL	SC	RMP
29730	1016121486	110000355348	ATOTECH USA	1750 OVERVIEW DR.		ROCK HILL	SC	FINDS
29730	1004780981	SCR000005066	CHICAGO PNEUMATIC TOOL CO	1800 OVERVIEW DR		ROCK HILL	SC	RCRA-CESQG
29730	1008206368	110020903272	ATLAS COPCO COMPRESSORS LLC	1800 OVERVIEW DR		ROCK HILL	SC	AIRS, FINDS, SPILLS
29730	1016121696	110001137760	PADDOCK OF CALIFORNIA	555 PADDOCK PARKWAY		ROCK HILL	SC	FINDS
29730	U000486340	10293	PADDOCK POOL EQUIPMENT CO	555 PADDOCK PKWY		ROCK HILL	SC	GWCI, LUST, UST
29730	U004239863		QUIKTRIP 1092TC	743 PADDOCK PKWY		ROCK HILL	SC	UST
29730	1016145018	110055474053	PHYSICIANS CHOICE LABORATORY SERV	854 PARAGON WAY		ROCK HILL	SC	FINDS, RCRAInfo-LQG
29730	1016900669	110060257724	CONCRETE SUPPLY CO LLC - PROJECT C	996 PARAGON WAY		ROCK HILL	SC	FINDS, TRIS
29730	1017795451	110063863387	CATAWBA INDIAN NATION CWS	3596 PASSMORE ROAD		ROCK HILL	SC	FINDS
29730	1007244247	110017160436	COSMETIC & RECONSTRUCTIVE ASSOCI	311 PENDLETON ST		ROCK HILL	SC	FINDS
29730	1015451943			367 PENDLETON ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1004593938	110001673387	CAROLINAS CUSTOM CLAD	422 PENDLETON ST		ROCK HILL	SC	FINDS
29730	1015525331			502 PENDLETON ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015534761			516 PENDLETON ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	U004239864		WILKERSON FUEL CO INC	534 PENDLETON ST		ROCK HILL	SC	LUST, UST
29730	1005816145	110006184734	WILKERSON FUEL COMPANY LAWSONS C	534 PENDLETON STREET		ROCK HILL	SC	ICIS, FINDS
29730	1015544252			535 PENDLETON ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007835724	110019997146	JKH CABINETS	2068 PERSIMMON PL		ROCK HILL	SC	FINDS
29730	1007259955	110017330351	DEERTRACKS SD	424 MT PHILLIPS RD		ROCK HILL	SC	FINDS
29730	A100267757	1807	INLAND PAPERBOARD & PACKING	210 MT. PHILLIPS RD.		ROCK HILL	SC	AST
29730	1015397341			2985 PINETUCK LN		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007247815	110017197335	SHELL INN	3021 PINETUCK LN		ROCK HILL	SC	FINDS
29730	1008172651	110020688264	YORK INVESTMENT GROUP, LLC	351 PINEWOOD LANE		ROCK HILL	SC	FINDS
29730	1015309509			203 PLEAZER RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007224835	110016958997	HARGETTS GROCER	RT5 PO BOX 122	**	ROCK HILL	SC	FINDS
29730	U003629090	9385	ADAMS GROCERY	603 POND ST		ROCK HILL	SC	LUST, UST
29730	1007256732	110017296665	ADAMS GROCERY	603 POND ST		ROCK HILL	SC	FINDS
29730	1000435673	110002189373	MIDWAY GROCERY SER STA	603 POND ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	U003629807	17022	RED ROCKET FIREWORKS STORE	1166 PORTER RD		ROCK HILL	SC	UST
29730	1012218958	110056427530	MACLEOD CONSTRUCTION INC.	1184 PORTER RD		ROCK HILL	SC	FINDS
29730	1007235196	110017066066	CONCRETE SUPPLY CO ROCK HILL	1260 PORTER RD		ROCK HILL	SC	FINDS
29730	S108281699		CONCRETE SUPPLY COMPANY	1260 PORTER RD		ROCK HILL	SC	AIRS
29730	U003524281	17905	BRITTANI EXPRESS	1275 PORTER RD		ROCK HILL	SC	UST
29730	1007228305	110016994868	BRITTANI EXPRESS	1275 PORTER RD		ROCK HILL	SC	FINDS
29730	1015199905			1298 PORTER RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1008009647	110002258985	STATE FARM MUTUAL AUTO INSURANCE	1550 PORTER RD		ROCK HILL	SC	FINDS
29730	U003519857	16435	CAROLINA SALVAGE OF ROCK HILL INC	234 PORTER RD		ROCK HILL	SC	LUST, UST
29730	1007245836	110017177062	CAROLINA SALVAGE	234 PORTER RD		ROCK HILL	SC	FINDS
29730	1007465124	110017713875	CAROLINA STEEL DRUM	2500 PORTER ROAD	**	ROCK HILL	SC	ICIS, FINDS
29730	1005637128	110009701698	BOGGS PAVING/JUDSON LAWRENCE	5-46-245 PORTER RD		ROCK HILL	SC	FINDS
29730	S108281598		BOGGS MATERIALS INC ROCK HILL	751 PORTER RD		ROCK HILL	SC	AIRS
29730	1016117439	110007173584	BOGGS MATERIALS	751 PORTER ROAD		ROCK HILL	SC	FINDS
29730	S118176008		REA CONTRACTING A DIV OF THE LANE C	PORTER RD	**	ROCK HILL	SC	AIRS
29730	1016240277	110007830507	DUNCAN STEEL DRUM CORP/HENRY PLT	PORTER RD		ROCK HILL	SC	FINDS
29730	U004019718	9181	ROCK HILL QUARRY	PORTER RD	**	ROCK HILL	SC	UST
29730	1000333872	SCD980559926	CAROLINA STEEL DRUM CORP.	PORTER RD		ROCKHILL	SC	GWCI, CERCLIS, LIENS 2, RCRA-NonGen, PRP
29730	1007247584		REA CONTRACTING LLC PLANT 67	PORTER RD		ROCK HILL	SC	
29730	1000167754	SCD036247765	DUNCAN STEEL DRUM CORP/HENRY PLT	PORTER RD		ROCK HILL	SC	RCRA-NonGen
29730	S118177981		MARTIN MARIETTA/ROCK HILL QUAR	PORTER RD (1/4 MI W OF I-77)	**	ROCK HILL	SC	NPDES

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	S105527999		CAROLINA STEEL DRUM CORP	PORTER RD @ I-77		ROCK HILL	SC	ALLSITES, AUL, SHWS
29730	S110143023		CAROLINA STEEL DRUM CORP.	PORTER RD @ I-77	**	ROCK HILL	SC	BROWNFIELDS, VCP
29730	1016240379	110007832248	DUNCAN STEEL DRUM CORPORATION E/	PORTER ROAD		ROCK HILL	SC	FINDS
29730	1008247975	110021343045	REA CONSTRUCTION:PLANT 67	PORTER ROAD		ROCK HILL	SC	FINDS
29730	1005532599	110009811926	MARTIN MARIETTA/ROCK HILL QUAR	PORTER ROAD OFF OF I-77	**	ROCK HILL	SC	FINDS
29730	1015134549			1032 PRINCE LN		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007837698	110020016891	PEOPLE S FIRST	1604 PROGRESS WAY		ROCK HILL	SC	FINDS
29730	1007233169	110017044946	W C MCGEE MHP	2025-C QUAIL CREEK DR		ROCK HILL	SC	FINDS
29730	S106880516		TECH PARK PROPERTY	QUANZ ST	**	ROCK HILL	SC	SHWS
29730	1008009651	110002259038	LEE QUALITY MHP	1088 RED RIVER RD		ROCK HILL	SC	FINDS
29730	1007236496	110017079579	BEARDEN MHP	1088 RED RIVER RD		ROCK HILL	SC	FINDS
29730	1015150057			1098 RED RIVER RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007232589	110017038944	RED RIVER GROCERY	142 RED RIVER RD		ROCK HILL	SC	FINDS
29730	U003177870	17856	RED RIVER GROCERY	142 RED RIVER RD		ROCK HILL	SC	UST
29730	1004594062	110002240012	ROCK HILL CITY OF	310 RED RIVER RD		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	S108051752	SC0000016243	ROCK HILL/MANCHESTER CREEK	310 RED RIVER RD		ROCK HILL	SC	NPDES
29730	1012126157		MANCHESTER CREEK WASTE WATER TR	310 RED RIVER ROAD		ROCK HILL	SC	RMP
29730	1015591178			651 RED RIVER RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007256646	110017295808	CATAWBA ASPHALT & PAVING CO	RED RIVER RD	**	ROCK HILL	SC	FINDS
29730	10162274680	110008563143	CCF INC	RED RIVER RD	**	ROCK HILL	SC	FINDS
29730	1004780116	SCD981015647	CCF INC	RED RIVER RD	**	ROCK HILL	SC	RCRA-NonGen
29730	U003975541	9448	CATAWBA ASPHALT & PAVING CO	RED RIVER RD	**	ROCK HILL	SC	LUST, UST
29730	1008010706	110008568754	RED RIVER MHP	RED RIVER RD	**	ROCK HILL	SC	FINDS
29730	1008010705	110008568736	SCOTLAND YARD MHP	REECE WILLIAMS	**	FORT MILL	SC	FINDS
29730	1007224653	110016957159	DEBBIE S DINER	REID RD & HWY 901		ROCK HILL	SC	FINDS
29730	1007247863	110017197852	GNATO S ACRES	1495 RESERVATION RD		ROCK HILL	SC	FINDS
29730	1016121399	110060258046	CONCRETE SUPPLY CO LLC - ROCK HILL	1000 RICHLAND ST		ROCK HILL	SC	FINDS, TRIS
29730	S108952074		CONCRETE SUPPLY CO LLC ROCK HILL	RICHLAND ST		ROCK HILL	SC	AIRS
29730	1007246120	110017179925	BEST HOLIDAY INC	962 RIVER VIEW RD	13, ENE, 0 - 1/8	ROCK HILL	SC	FINDS
29730	1015621080			737 RIVERVIEW RD	75, SSE, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29730	1015633197			785 RIVERVIEW RD	63, SSE, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29730	U003522328	9291	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD	G, SSE, 1/4 - 1/2	ROCK HILL	SC	LUST, UST
29730	1000184377	110002189499	HONDA CARS OF ROCK HILL	808 RIVERVIEW RD	G, SSE, 1/4 - 1/2	ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007232827	110017041431	ROCK HILL U HAUL CTR	909 RIVERVIEW RD	B, ESE, 0 - 1/8	ROCK HILL	SC	FINDS
29730	S111333786			914 RIVERVIEW RD	B, ESE, 0 - 1/8	ROCK HILL	SC	
29730	1005434449		OSMOSE INC	103 ROBERTSON RD		ROCKHILL	SC	SSTS
29730	2000528728			103 ROBERTSON RD		ROCKHILL	SC	ERNS
29730	1000342229	110000355277	KOPPERS PERFORMANCE CHEMICALS IN	103 ROBERTSON RD		ROCK HILL	SC	AIRS, SHWS, FINDS, RCRAInfo-LQG, TRIS
29730	1014200153		OSMOSE INC - ROCK HILL	103 ROBERTSON RD		ROCK HILL	SC	TSCA
29730	2002621800			103 ROBERTSON RD		ROCKHILL	SC	ERNS
29730	2000529336			103 ROBERTSON ROAD		ROCK HILL	SC	ERNS
29730	1005434455		OSMOSE WOOD PRESERVING, INC.	103 ROBERTSON ROAD		ROCKHILL	SC	SSTS
29730	1000278027	29730MLLCN20	GEORGIA PACIFIC/SOUTHEAST WOOD	203 ROBERTSON RD		ROCK HILL	SC	RCRAInfo-SQG, TRIS
29730	1016121484	110000355240	GEORGIA PACIFIC	203 ROBERTSON RD		ROCK HILL	SC	FINDS
29730	2008864290			203 ROBERTSON ROAD		ROCK HILL	SC	ERNS
29730	1000278028	SCD982161861	MELCO INC	203 ROBERTSON ROAD		ROCK HILL	SC	RCRA-NonGen
29730	U004018413	19167	YORK MAINTENANCE FACILITY	338 ROBERTSON RD W		ROCK HILL	SC	UST
29730	1011404188	110035430593	SCDOT YORK COUNTY MAINTENANCE	338 ROBERTSON RD W		ROCK HILL	SC	FINDS
29730	1010787913	SCR000769737	SCDOT YORK COUNTY MAINTENANCE	338 ROBERTSON RD W		ROCK HILL	SC	RCRA-CESQG
29730	1015547338			5426 ROCK HL	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	S118177335		MT GALLANT ROAD ELEM SCHOOL	ROCK HILL DIST 3-PO DWR 10072	**	ROCK HILL	SC	NPDES
29730	1016240391	110007832426	UNITED PARCEL SERVICE ROCK HILL	ROCK HILL INDUSTRIAL PK	**	ROCK HILL	SC	FINDS
29730	1004780112	SCD980847552	UNITED PARCEL SERVICE ROCK HILL	ROCK HILL INDUSTRIAL PK	**	ROCK HILL	SC	RCRA-CESQG
29730	1012092817	110038795499	WINN DIXIE:R H MALL	ROCK HILL MALL	**	ROCK HILL	SC	FINDS
29730	1005929226		HOECHST CELANESE CHEM GROUP INC	ROCK HILL TERMINAL	**	ROCK HILL	SC	TSCA
29730	1015113775			ROCK HL	**	ROCK HILL	SC	EDR Historical Cleaners
29730	1015716454			ROCK HL	**	ROCK HILL	SC	EDR Historical Auto Stations
29730	S113669597			743 ROLLING RIDGE	**	YORK	SC	
29730	1000430140	SCD003160744	STEVENS JP & CO INC INDUSTRIAL	WEST ROY STREET		ROCK HILL	SC	RCRA-NonGen
29730	1005852213	110008548928	J P STEVENS INDUSTRIAL PLANT	WEST ROY STREET		ROCK HILL	SC	FINDS
29730	1005425066		BAYER CORP.TEXTILE CTR.	U. S. BYPASS 21	**	ROCK HILL	SC	SSTS
29730	1007234734	110017061169	LITTLE GIANT FOOD STORES INC	1001 SALUDA ST		ROCK HILL	SC	FINDS
29730	1015134910			1034 SALUDA ST		ROCK HILL	SC	EDR Historical Auto

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1015167138			1146 SALUDA RD		ROCK HILL	SC	Stations
29730	1015174695			1182 SALUDA RD		ROCK HILL	SC	EDR Historical Auto
29730	1014980640			1195 SALUDA ST		ROCK HILL	SC	Stations
29730	1015181948			1207 SALUDA RD		ROCK HILL	SC	EDR Historical Auto
29730	U004017295	12200	ROADSIDE MARKET SERVICE STATION	1224 SALUDA ST		ROCK HILL	SC	Stations
29730	U003930500	17284	DUNCAN OIL	1308 SALUDA ST		ROCK HILL	SC	EDR Historical Cleaners
29730	1007231858	110017031488	DUNCAN OIL	1308 SALUDA ST		ROCK HILL	SC	EDR Historical Auto
29730	1015207858			1323 SALUDA RD		ROCK HILL	SC	Stations
29730	1001489889	110002240281	ECONO BODY SHOP	1323 SALUDA ST		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	U003526573	9340	WESTBROOKS GROCERY	1505 SALUDA ST		ROCK HILL	SC	GWCI, UIC, LUST, UST
29730	1007241655	110017133449	ONE STOP FOOD STORE	1505 SALUDA ST		ROCK HILL	SC	FINDS
29730	1007228615	110016998043	WESTBROOKS GROCERY	1505 SALUDA ST		ROCK HILL	SC	FINDS
29730	1007231183	110017024566	T & T EXPRESS	1697 SALUDA ST		ROCK HILL	SC	FINDS
29730	1015276450			1794 SALUDA RD		ROCK HILL	SC	EDR Historical Auto
29730	1000322827	110002240236	COUNTRY CLUB SUNOCO SERVICE STAT	1794 SALUDA RD		ROCK HILL	SC	Stations
29730	1007238686	110017102393	MARY ANN ABERMAN	1794 SALUDA ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1007257377	110017303489	LEITNER CONSTRUCTION COMPANY	1800 SALUDA RD		ROCK HILL	SC	FINDS
29730	1007235079	110017064825	COUNTRY CLUB MARKET	2551 SALUDA RD		ROCK HILL	SC	FINDS
29730	1007228570	110016997589	THE DEPOE STORE	2555 SALUDA RD		ROCK HILL	SC	FINDS
29730	U003629016	9327	WORKMANS GULF	314 SALUDA ST		ROCK HILL	SC	LUST, UST
29730	1015434203			336 SALUDA ST		ROCK HILL	SC	EDR Historical Auto
29730	1007233020	110017043439	GUNTERS AUTO SERVICE	336 SALUDA ST		ROCK HILL	SC	Stations
29730	1000329952	110002189346	SUNOCO SERVICE STATION	336 SALUDA ST		ROCK HILL	SC	FINDS
29730	U003522004	12228	GUNTERS AUTO SERVICE	336 SALUDA ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1015449999			3622 SALUDA RD		ROCK HILL	SC	GWCI, LUST, UST
29730	1007228993	110017001876	BRANTLEYS STORE FORMER	3622 S SALUDA RD		ROCK HILL	SC	EDR Historical Auto
29730	1007241494	110017131744	C&A MARKETS INC	3622 SALUDA RD		ROCK HILL	SC	Stations
29730	1007241493	110017131735	HIGH COTTON CONVENIENCE	3622 SALUDA RD		ROCK HILL	SC	FINDS
29730	U003807498	18762	HIGH COTTON CONVENIENCE	3622 SALUDA RD		ROCK HILL	SC	FINDS
29730	1005767627		QUICK AS A WINK #461	423 SALUDA ST		ROCK HILL	SC	UST
29730	1004780472	110002240085	QUICK AS A WINK 461	423 SALUDA STREET		ROCK HILL	SC	DRYCLEANERS, SHWS
29730	U003629126	9423	PASSMORE GROCERY & GRILL INC	4303 SALUDA RD		ROCK HILL	SC	RCRA-CESQG, FINDS
29730	1007230487	110017017431	PASSMORE GROCERY & GRILL	4303 SALUDA RD		ROCK HILL	SC	GWCI, UIC, LUST, UST
29730	1007233032	110017043554	SALUDA DISCOUNT AND BEVERAGE	531 SALUDA ST		ROCK HILL	SC	FINDS
29730	1015578502			618 SALUDA ST		ROCK HILL	SC	EDR Historical Auto
29730	1007226983	110016981266	USA GROCERS 412	725 SALUDA ST		ROCK HILL	SC	Stations
29730	1007233026	110017043493	SPEEDWAY 615	764 SALUDA ST		ROCK HILL	SC	FINDS
29730	1007831818	110019958072	SD SUPERETTE	SALUDA RD & HWY 324		ROCK HILL	SC	FINDS
29730	1000172560	SCD981480973	QUICK AS A WINK	SALUDA SHOPPING CTR		ROCK HILL	SC	FINDS
29730	1016240420	110007832925	QUICK AS A WINK	SALUDA SHOPPING CTR	**	ROCK HILL	SC	RCRA-NonGen
29730	1015362635			250 SCHOOLSIDE DR		ROCK HILL	SC	FINDS
29730	U004179513		MURPHY EXPRESS 8589	105 SECESSION WAY	**	ROCK HILL	SC	EDR Historical Auto
29730	1015289748			1901 SHADOW OAK DR		ROCK HILL	SC	Stations
29730	98455413			SHEEN INTERMITTENTLY RELEASED INTO	**	ROCK HILL	SC	UST
29730	1008009646	110002258958	SMITH CIRCLE	1911 SMITH CIR		ROCK HILL	SC	ERNS
29730	1012215892	110040478907	FORMER WILLIAMS COTTON WAREHOUS	122 SOUTHERN STREET		ROCK HILL	SC	FINDS
29730	1014350720		FORMER WILLIAMS COTTON WAREHOUS	122 SOUTHERN STREET 302 SOUTHERN		ROCK HILL	SC	FINDS
29730	1012092787	110038795612	POLACRYL	SOUTHWAY DR		ROCK HILL	SC	US BROWNFIELDS
29730	1000153589	SCD981476567	ATLANTIC SOFT DRINK CO	SPRINGDALE RD	**	ROCK HILL	SC	FINDS
29730	1008009216	110002200216	LAKE WYLIE VILLAGE	1570 SPRING POINT RD		ROCK HILL	SC	RCRA-NonGen
29730	1015677302			927 SPRING ST		ROCK HILL	SC	FINDS
29730	1015163692			1130 SPRINGDALE RD		ROCK HILL	SC	EDR Historical Auto
29730	U003714968	9421	SPRINGDALE SUPERETTE 827	1130 SPRINGDALE RD		ROCK HILL	SC	Stations
29730	1016185288	110002258967	SPRINGDALE SUPERETTE	1130 SPRINGDALE ROAD		ROCK HILL	SC	GWCI, UIC, LUST, UST
29730	1015215744			1375 SPRINGDALE RD		ROCK HILL	SC	FINDS
29730	1007832552	110019965411	YOUNG BUILDING & CONSULTING	155 W SPRINGDALE RD		ROCK HILL	SC	EDR Historical Auto
29730	U003287711	9169	ATLANTIC SOFT DRINK CO INC	457 SPRINGDALE RD		ROCK HILL	SC	Stations
								FINDS
								GWCI, RCR, LUST, UST

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1016184829	110002189408	ATLANTIC SOFT DRINK COMPANY INCOR	457 SPRINGDALE ROAD		ROCK HILL	SC	FINDS
29730	1000257162	SCD000825877	SPRINGDALE SUPERETTE	SPRINGDALE ROAD	**	ROCK HILL	SC	RCRA-NonGen
29730	1006323272	110012630171	SCHELL WOODWORKS INC	1595 SPRINGSTEEN ROAD		ROCK HILL	SC	FINDS
29730	S113669248			1900 SPRINGSTEEN RD		ROCK HILL	SC	
29730	1007834062	110019980519	TARGET STORES ROCK HILL	1900 SPRINGSTEEN RD		ROCK HILL	SC	FINDS
29730	1009218516	SCR000767608	TARGET STORE 1371	1900 SPRINGSTEEN RD		ROCK HILL	SC	RCRAInfo-LQG
29730	1015290207			1903 SPRINGSTEEN RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1005651724	110009810963	THOMASSON/MANCHESTER VILLAGE	SPRINGSTEEN RD AT DAVE LYLE BV		ROCK HILL	SC	FINDS
29730	1015002108			1654 SPRINGWINDS DR		ROCK HILL	SC	EDR Historical Cleaners
29730	1007236607	110017080692	C EDDIE & E THOMAS GAINEY	1665 SPRINGWINDS DR		ROCK HILL	SC	FINDS
29730	1005790101	110002239435	BILL SLATER MHP	1439 SPRINGWOOD LN		ROCK HILL	SC	FINDS
29730	S118176727			1439 SPRINGWOOD LN		ROCK HILL	SC	NPDES
29730	1014834929	110040713243	SQUIRE VILLAGE FOOD STORE	1611 SQUIRE RD		ROCK HILL	SC	FINDS
29730	1015166678			1143 STANDARD ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007837300	110020012911	P&S PROPERTIES	308 STE WART ST		ROCK HILL	SC	FINDS
29730	1007837269	110020012608	JAD LAND DEVELOPMENT LLC	4705 STEEL VILLAGE RD		ROCK HILL	SC	FINDS
29730	1000358338	110002189532	FABRIC RESOURCES INTERNATIONAL	245 STEWART AVE		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	1012092735	110038795462	URO FABRICS,LIMITED	STEWART AVE	**	FORT MILL	SC	FINDS
29730	1015183172			121 S STONEWALL ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007248500	110017204443	BRYANT NORMAN K SR	726 STONEWALL CT		ROCK HILL	SC	FINDS
29730	1007834183	110019981732	LEONARD CHEMICAL CO	520 SUMTER AVE		ROCK HILL	SC	FINDS
29730	1010695648	110033019043	3D SYSTEMS CORP	333 THREE D SYSTEMS CIR		ROCK HILL	SC	FINDS
29730	1010567674	SCR000769539	3D SYSTEMS CORP	333 THREE D SYSTEMS CIR		ROCK HILL	SC	RCRAInfo-SQG
29730	1007245881	110017177516	PETRO EXPRESS 37	618 TINSLEY WAY		ROCK HILL	SC	FINDS
29730	1007214891	110008569021	ASSOCIATED TELECOM INC	TOMMY WILLIAMS		ROCK HILL	SC	FINDS
29730	1008009240	110002200519	BERRYS MHP #1	1154 TOOLS FORK RD		ROCK HILL	SC	FINDS
29730	1016117076	110002189391	NORFOLK SOUTHERN RAILWAY CO ROCK	100 N TRADE ST EXT		ROCK HILL	SC	FINDS
29730	1000575988	SCD987584620	NORFOLK SOUTHERN RAILWAY CO ROCK	100 NORTH TRADE STREET EXT		ROCK HILL	SC	RCRA-CESQG
29730	1015500224			446 N TRADE ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	U004018343	18830	PINETUCK GOLF COURSE	2578 TUCKAWAY RD		ROCK HILL	SC	GWCI, LUST, UST
29730	1007259479	110017325349	PINETUCK GOLF COURSE	2578 TUCKAWAY RD		ROCK HILL	SC	FINDS
29730	1007232610	110017039159	SMITH CONSTRUCTION CO	1835 TUCKER ST		ROCK HILL	SC	FINDS
29730	1008009215	110002200207	PATTERSON MHP	6655 TURKEY FARM RD		ROCK HILL	SC	FINDS
29730	1004780039	110002189480	GENERAL FABRICATORS INC	1565 TWIN LAKES RD		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	S116710427			1960 TWIN LAKES RD		ROCK HILL	SC	
29730	U003522566	16605	J A FEWELL ESTATE PROPERTY	TWIN LAKES & INDIA HOOK RDS		ROCK HILL	SC	LUST, UST
29730	1015597591			675 UNIVERSITY DR		ROCK HILL	SC	EDR Historical Auto Stations
29730	1016350970	110039529775	NATIONAL FENCE COMPANY	UNKNOWN		ROCK HILL	SC	US BROWNFIELDS, FINDS
29730	1007114934	SCD062559331	CLARIANT LIFE SCIENCE MOLECULES	2550 VERNESDALE RD		ROCK HILL	SC	RCRA-NonGen
29730	1005827463			2324 VERNSDALE RD		ROCK HILL	SC	
29730	S106234020			2324 VERNSDALE RD		ROCK HILL	SC	ALLSITES, AIRS, SHWS
29730	1000364788	110000618742	PHILIP SERVICES CORPORATION	2324 VERNSDALE ROAD		ROCK HILL	SC	GWCI, CORRACTS, CERCLIS, ICIS, RCRA-NonGen, FINDS, RCRAInfo-TSDF
29730	1016124411	110012165370	SANTEE COOPER THERMAL KEM	2324 VERNSDALE ROAD		ROCK HILL	SC	FINDS
29730	1010359457			2550 VERNSDALE RD		ROCK HILL	SC	VCP, ALLSITES, UIC, SHWS
29730	1005929209			2550 VERNSDALE RD		ROCK HILL	SC	TSCA
29730	99641198			2550 VERNSDALE RD		ROCK HILL	SC	ERNS
29730	1011815630			2550 VERNSDALE ROAD		ROCK HILL	SC	RMP
29730	1007268998			2550 VERNSDALE ROAD		ROCK HILL	SC	FTTS
29730	1007088591			2550 VERNSDALE ROAD		ROCK HILL	SC	TSCA
29730	1009510008			2550 VERNSDALE ROAD		ROCK HILL	SC	FTTS
29730	1001957410			2550 VERNSDALE ROAD		ROCK HILL	SC	TSCA
29730	1012092785	110038795505	WINN DIXIE:VILLGE SQ	VILLAGE SQUARE CENTR	**	ROCK HILL	SC	FINDS
29730	1007228051	110016992183	THE COUNTRY MANOR	4269 WALNUT RIDGE RD		ROCK HILL	SC	FINDS
29730	1001120794	110064207530	ATOTECH USA INC	WATERFORD PARK	**	ROCK HILL	SC	FINDS
29730	S108281571			WATERFORD PARK		ROCK HILL	SC	AIRS
29730	1008009221	110002200270	JOHNSON MHP	1262 WENDY RD		ROCK HILL	SC	FINDS
29730	1016353747	110040478881	PHUNG PROPERTY	101 W. WHITE STREET		ROCK HILL	SC	US BROWNFIELDS, FINDS
29730	1005790224	110002237703	SOUTHERN RAILWAY/ROCK HILL	111E WHITE ST	**	ROCK HILL	SC	FINDS
29730	1015175843			119 E WHITE ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1000183583	SCD982094757	ROCK HILL COLLISION INC	119 E WHITE ST		ROCK HILL	SC	RCRAInfo-SQG, UST
29730	1007232798	110017041137	ROCK HILL COLLISION INC	119 E WHITE ST		ROCK HILL	SC	FINDS
29730	1016353745	110040478863	GIVENS PROPERTY	119 WHITE STREET WEST		ROCK HILL	SC	US BROWNFIELDS, FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29730	1016353746	110040478872	FEWELL PROPERTY	121 WHITE STREET WEST		ROCK HILL	SC	US BROWNFIELDS, FINDS
29730	1007228653	110016998427	WELDERS SUPPLY	1299 E WHITE ST		ROCK HILL	SC	FINDS
29730	1016353770	110040479274	MELTON PROPERTIES	143 WHITE STREET WEST, 137 WHITE STI	**	ROCK HILL	SC	FINDS
29730	1012216095		MELTON PROPERTIES	143 WHITE STREET WEST, 137 WHITE STI	**	ROCK HILL	SC	US BROWNFIELDS
29730	1007256573	110017295041	WYLIES TEXACO	174 W WHITE ST		ROCK HILL	SC	FINDS
29730	1016353750	110040478925	HILTON PROPERTY	205 WHITE STREET WEST		ROCK HILL	SC	US BROWNFIELDS, FINDS
29730	1015317647			209 W WHITE ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	U004225344		FAMILY TRUST - WHITE STREET	225 W WHITE ST		ROCK HILL	SC	LUST, UST
29730	1007241702	110017133939	MARSHALL FAMILY PARTNERSHIP	241 W WHITE ST		ROCK HILL	SC	FINDS
29730	1007227753	110016989133	HUGHES CHIROPRACTIC CENTER	332 E WHITE ST		ROCK HILL	SC	FINDS
29730	U003975679	18188	ROCK HILL PRINTING AND FINISHING	420 W WHITE ST		ROCK HILL	SC	GWCI, BROWNFIELDS, VCP, ALLSITES, SHWS, LUST, UST
29730	1016447371	110056253815	ROCK HILL BLEACHERY	420 WEST WHITE STREET		ROCK HILL	SC	US BROWNFIELDS, FINDS
29730	1016027951	110056428487	ACTION DEMOLITION AND RECYCLING LL	500 WHITE ST		ROCK HILL	SC	FINDS
29730	1007233042	110017043652	DOTS CORNER	557 E WHITE		ROCK HILL	SC	FINDS
29730	1015583679			630 E WHITE ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	U003604083	18429	ROCK HILL FEED & SEED	700 E WHITE ST		ROCK HILL	SC	SHWS, LUST, UST
29730	1007231898	110017031898	ROCK HILL FEED & SEED	700 E WHITE ST		ROCK HILL	SC	FINDS
29730	1016679940		ROCK HILL FEED AND SEED	700-898 EAST WHITE STREET		ROCK HILL	SC	US BROWNFIELDS
29730	1007114117	SC0000099614	BLUESTAR SILICONES USA CORP	911 E WHITE ST		ROCK HILL	SC	RCRAInfo-LQG
29730	S107520941		ROCK HILL REVITALIZATION	E WHITE ST & DAVE LYLE BLVD		ROCK HILL	SC	SHWS
29730	1011855089		TOWN CENTER MALL 1.8 ACRE SITE 3B	EAST WHITE STREET		ROCK HILL	SC	US BROWNFIELDS
29730	1016349536	110038760971	TOWN CENTER MALL 1.8 ACRE SITE 3B	EAST WHITE STREET		ROCK HILL	SC	FINDS
29730	1007990797	SCR000766600	CHATA COATING & LAMINATING INC	628 WILKERSON RD	111, ESE, 1/2 - 1	ROCK HILL	SC	RCRA-NonGen, SHWS
29730	1008001006	110020745808	CHATA COATING & LAMINATING INC	629 WILKERSON RD		ROCK HILL	SC	FINDS
29730	1005791674	110002180915	BOYD R E & SONS	4600 WILLIAMSON		ROCK HILL	SC	FINDS
29730	1015334186			2205 WILLIFORD RD		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007247550	110017194588	EXPRESS MART 6	329 WILLOWBROOK AVE		ROCK HILL	SC	FINDS
29730	U003628980	9278	H&H MART	329 WILLOWBROOK AVE		ROCK HILL	SC	UST
29730	1015100042			833 WILLOWBROOK AVE		ROCK HILL	SC	EDR Historical Cleaners
29730	1007247552	110017194604	MAIN POST OFFICE	206 S WILSON ST		ROCK HILL	SC	FINDS
29730	1007234690	110017060721	BEATY WHOLESale	212 WILSON ST		ROCK HILL	SC	FINDS
29730	U003519246	14926	BEATY WHOLESale	212 WILSON ST	**	ROCK HILL	SC	LUST, UST
29730	S116706332		CITY BODY SHOP OF ROCK HILL INC	251 N WILSON ST		ROCK HILL	SC	UIC
29730	1015364507			251 N WILSON ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1001493867	110002184494	CITY BODY SHOP OF ROCK HILL INC	251 N WILSON ST		ROCK HILL	SC	RCRA-NonGen, FINDS
29730	U003518851	9341	ADAMS GROCERY	599 S WILSON ST		ROCK HILL	SC	LUST, UST
29730	1007256570	110017295014	ADAMS GROCERY	599 S WILSON ST		ROCK HILL	SC	FINDS
29730	1008009225	110002200323	DUNCAN MHP	2538 WMINISTER DR	**	ROCK HILL	SC	FINDS
29730	1015095836			790 WOFFORD ST		ROCK HILL	SC	EDR Historical Cleaners
29730	1015165685			114 WOOD ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015178486			120 WOOD ST		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007236531	110017079926	DENTON OFFICE	1446 WOODFOREST DR	**	ROCK HILL	SC	FINDS
29730	1007256934	110017298707	CALHOUN GRADING & HAULING	1081 WOODSHIRE CT		ROCK HILL	SC	FINDS
29730	1015556340			569 WOODVALE DR		ROCK HILL	SC	EDR Historical Auto Stations
29730	1007235440	110017068581	RANDALL CONSTRUCTION INC	124 WORKMAN ST		ROCK HILL	SC	FINDS
29730	1007230502	110017017592	WORTHY BOYS CAMP	2352 WORTHY BOYS RD		ROCK HILL	SC	FINDS
29730	1008010279	110008546494	SUTTON PLACE PARK #1	WYLIE S MILL RD	**	RICHBURG	SC	FINDS
29730	1008009640	110002258896	SANDERS MHP	640 WYNDALE DR		ROCK HILL	SC	FINDS
29730	1007228134	110016993011	FRIENDSHIP MHP	1426 YORK DALE DR		ROCK HILL	SC	FINDS
29730	1016184833	110002189630	BOONES SUNOCO SERVICE STATION	502 N YORK AVE		ROCK HILL	SC	FINDS
29730	1000313578	SCD036246916	BOONES SUNOCO SERVICE STATION	502 NORTH YORK AVE		ROCK HILL	SC	RCRA-NonGen
29730	1007256495	110017294257	SMILE GAS 43	630 S YORK AVE		ROCK HILL	SC	FINDS
29730	U003929985	11164	LILLYS MART	630 S YORK AVE		ROCK HILL	SC	GWCI, LUST, UST
29730	1010163748	110030476642	TJ'S MARKET	630 S. YORK AVENUE		ROCK HILL	SC	FINDS
29730	1015272244			1744 YORKSHIRE DR		ROCK HILL	SC	EDR Historical Auto Stations
29730	1015278820			1803 YORKSHIRE DR		ROCK HILL	SC	EDR Historical Auto Stations
29730	1009801258	110056425248	THOMAS CONCRETE OF CAROLINA	1803 YORKSHIRE RD		ROCK HILL	SC	AIRS, FINDS
29732	1007236846	110017083145	OPERATING DEPT	HWY 274	**	NEWPORT	SC	FINDS
29732	S116549999		ADNAH HILLS MHP WWTP	102 ADNAH HILLS AVE		ROCK HILL	SC	NPDES
29732	1007231847	110017031371	BILLIE BEVERS	1367 ADNAH CHURCH RD		ROCK HILL	SC	FINDS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	U003519370	16337	BILLIE BEVERS	1367 ADNAH CHURCH RD		ROCK HILL	SC	LUST, UST
29732	1010731915	110033634958	EAGLE CONST CO INC/JIM WHITE M	1436 ADNAH CHURCH RD		ROCK HILL	SC	FINDS
29732	1009326154	110024411448	DWIGHT WOOD/ADNAH CH RD MINE	683 ADNAH CHURCH ROAD		ROCK HILL	SC	FINDS
29732	1007226311	110016974443	2 BN 263 ARMOR	126 AIRPORT RD		ROCK HILL	SC	FINDS
29732	1015560038			580 AIRPORT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1005891421	110012172638	TYCO ELECTRONICS	3658 AIRWAY DRIVE		ROCK HILL	SC	FINDS
29732	1015310727			204 ALPHA ST		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007234297	110017056692	ROCK HILL BIBLE FELLOWSHIP MEDICAL-	1366 AMELIA AVE		ROCK HILL	SC	FINDS
29732	U003629696	14633	LUCKY EXPRESS	325 N ANDERSON RD		ROCK HILL	SC	LUST, UST
29732	S116230439		INDUSTRIAL SERVICE & SOLUTIONS LLC	454 S. ANDERSON RD.		ROCK HILL	SC	SWRCY
29732	1007834919	110019989093	HARR-LEE DEVELOPMENT LLC	249 BLUE HERON DR		ROCK HILL	SC	FINDS
29732	1008010587	110008556339	ADNAH HILLS MHP	BLUE RIBBON WATER	**	ROCK HILL	SC	FINDS
29732	1007833625	110019976141	EBENEZER PARK	4490 BOATSHORE RD		ROCK HILL	SC	FINDS
29732	1005624393		THERMAL KEM, INC.	P.O. BOX 2664 CRS	**	ROCK HILL	SC	FTTS
29732	1007836097	110020000871	ELA CORP	PO BOX 2452	**	ROCK HILL	SC	FINDS
29732	1007835611	110019996012	ENV LAND AUGMENTATION	PO BOX 2452		ROCK HILL	SC	FINDS
29732	1007230501	110017017583	WOODFOREST S/D	PO BOX 2585	**	ROCK HILL	SC	FINDS
29732	1008010072	110002331227	LA PINATA RESTAURANTE	PO BOX 2913	**	ROCK HILL	SC	FINDS
29732	1007835469	110019994595	YORK COUNTY BOARD OF DISABILITIES	PO BOX 30	**	ROCK HILL	SC	FINDS
29732	1007835783	110019997734	ADNAH HILLS INC	PO BOX 3150	**	ROCK HILL	SC	FINDS
29732	1007248246	110017201801	EXPRESS MART INC	PO BOX 3278	**	ROCK HILL	SC	FINDS
29732	1007226101	110016972294	FOREST LAKE ESTATES	PO BOX 3308	**	ROCK HILL	SC	FINDS
29732	1007234878	110017062667	TRAYBOR INC	PO BOX 3517	**	ROCK HILL	SC	FINDS
29732	1007651057	110019920843	GLM DEVELOPMENT GROUP LLC	PO BOX 36248	**	ROCK HILL	SC	FINDS
29732	1007259360	110017324144	GWC COMPANY	PO BOX 36263	**	ROCK HILL	SC	FINDS
29732	1007233620	110017049549	NEWCORP INC	PO BOX 36263	**	ROCK HILL	SC	FINDS
29732	1007832561	110019965509	C DOUGLAS SHORE & CO INC	PO BOX 36293	**	ROCK HILL	SC	FINDS
29732	1007835790	110019997814	FIRST LAND CO INC	PO BOX 36518	**	ROCK HILL	SC	FINDS
29732	1015710508			PO BOX 36728	**	ROCK HILL	SC	EDR Historical Auto Stations
29732	1007835868	110019998582	HALLMARK INC OF ROCK HILL	PO BOX 37027	**	ROCK HILL	SC	FINDS
29732	1007235454	110017068750	JM COPE CONSTRUCTION CO	PO BOX 4047	**	ROCK HILL	SC	FINDS
29732	1007240226	110017118493	CLEARVIEW PROPERTIES LLC	PO BOX 4457	**	ROCK HILL	SC	FINDS
29732	1015508317			4641 BREWINGTON PKWY		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007233164	110017044893	SHADOW LANE MHP	801 BROKEN OAK RD		ROCK HILL	SC	FINDS
29732	1016409903	110055497984	ACE ELASTOMER	320 BRYANT BLVD		ROCK HILL	SC	FINDS, TRIS
29732	1015440920			348 BRYANT BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29732	S110824617		ENGINE POWER SOURCE	348 BRYANT BLVD		ROCK HILL	SC	AIRS
29732	1012219054	110040511363	ENGINE POWER SOURCE	348 BRYANT BLVD		ROCK HILL	SC	FINDS
29732	S108281735		DMP CORPORATION	400 BRYANT BLVD		ROCK HILL	SC	AIRS
29732	1017426922	29732MCMTL44	POSSEHL CONNECTOR SERVICES SC INC	445 BRYANT BLVD		ROCK HILL	SC	TRIS
29732	1007115668	SCD982085813	POSSEHL CONNECTOR SERVICES SC INC	445 BRYANT BLVD		ROCK HILL	SC	RCRAInfo-LQG
29732	1000326188	110002100985	MECO METAL FINISHING	445 BRYANT BOULEVARD		ROCK HILL	SC	FINDS
29732	1007282263		ISOICHEMCOLORS, INC.	474 BRYANT BLVD		ROCK HILL	SC	FTTS, ICIS
29732	1016950908		PULCRA CHEMICALS LLC	474 BRYANT BLVD		ROCK HILL	SC	TSCA
29732	1014835818	110043432639	PULCRA CHEMICALS	474 BRYANT BLVD		ROCK HILL	SC	FINDS
29732	1007282262		ISOICHEMCOLORS, INC	474 BRYANT ROAD		ROCK HILL	SC	FTTS
29732	1015563688			591 BRYANT BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1000389238	110002240174	LEXINGTON COMPONENTS INCORPORAT	663 BRYANT BLVD		ROCK HILL	SC	RCRA-NonGen, FINDS
29732	S108281659		CL&D GRAPHICS	680 BRYANT BLVD		ROCK HILL	SC	AIRS, SPILLS
29732	1000914332	110002236081	CL&D GRAPHICS INC	680 BRYANT BLVD		ROCK HILL	SC	RCRAInfo-SQG, FINDS
29732	1006757919	110012509035	CHAMPION ROLLER CHARLOTTE PLANT	680 BRYANT BOULEVARD		ROCK HILL	SC	FINDS
29732	1000835571	110002240218	COMPOSITES ONE LLC	698 BRYANT BLVD		ROCK HILL	SC	RCRA-NonGen, FINDS
29732	1010496107	110032617443	E-Z CLEANERS, LLC	698 BRYANT BOULEVARD		ROCK HILL	SC	ICIS, FINDS
29732	1005932589	29731SNBLT21	SUNBELT CORP COLOR DIV	2120 BURKETT RD		ROCK HILL	SC	TRIS, TSCA
29732	1005932590		SUNBELT CORPORATION COLOR DIVISIO	2120 BURKETT ROAD		ROCK HILL	SC	TSCA
29732	1007089767		SUNBELT CORPORATION	2120 BURKETTE ROAD		ROCK HILL	SC	TSCA
29732	1015061402			439 BYNUM AVE		ROCK HILL	SC	EDR Historical Cleaners
29732	1014970737			1045 CAMDEN AVE		ROCK HILL	SC	EDR Historical Cleaners
29732	1007257889	110017308698	DANIEL D MEADER DMD	1157 CAMDEN AVE		ROCK HILL	SC	FINDS
29732	1015197234			1279 CELANESE RD	81, NNE, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29732	U003629019	9333	CAMMY EXPRESS	1397 CELANESE RD	L, NNW, 1/4 - 1/2	ROCK HILL	SC	GWCI, LUST, UST
29732	1007247783	110017197004	EXPRESS 128	1397 CELANESE RD	L, NNW, 1/4 - 1/2	ROCK HILL	SC	FINDS
29732	U003665719	18472	PANTRY 3952 DBA PETRO EXPRE	1420 CELANESE RD	L, NNW, 1/4 - 1/2	ROCK HILL	SC	GWCI, LUST, UST
29732	U003629005	9307	CIRCLE K 8401	1830 CELANESE RD	133, NW, 1/2 - 1	ROCK HILL	SC	GWCI, RCR, LUST, SPILLS,

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1015013017			2007 CELANESE RD		ROCK HILL	SC	UST
29732	1007835189	110019991794	CARRIAGE HILLS APARTMENTS	2400 CELANESE RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015373190			2615 CELANESE RD		ROCK HILL	SC	FINDS
								EDR Historical Auto Stations
29732	1007242002	110017137007	THOMAS W EPPS DMD	2660 CELANESE RD		ROCK HILL	SC	FINDS
29732	1007228677	110016998668	MAJIK MARKET 70512	2690 CELANESE RD		ROCK HILL	SC	FINDS
29732	1014961267	SCR000774703	CVS PHARMACY 4288	2707 CELANESE RD		ROCK HILL	SC	RCRAInfo-LQG
29732	1016017336	110045990594	CVS PHARMACY 4288	2707 CELANESE RD		ROCK HILL	SC	FINDS
29732	1015032426			2720 CELANESE RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015032527			2726 CELANESE RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1007224794	110016958586	PURIFIED WATER TO GO	2738 CELANESE RD		ROCK HILL	SC	FINDS
29732	1007259864	110017329416	APPLIED ABATEMENT CONCEPTS	3126 CELANESE RD		ROCK HILL	SC	FINDS
29732	1000338179	110002189676	ALLIED SIGNAL BARRON BLAKESLEE	3819 CELANESE BYPASS HWY. 161		ROCKHILL	SC	RCRA-NonGen, FINDS
29732	1012092794	110038795550	BARON BLAKESLEE	3819 CELANESE RD		ROCK HILL	SC	FINDS
29732	1007227479	110016986332	ROCK HILL CITY OF	3905 CELANESE RD		ROCK HILL	SC	FINDS
29732	1015469649			4001 CELANESE RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007230695	110017019643	AIRPORT CHEVRON	4001 CELANESE RD		ROCK HILL	SC	FINDS
29732	1015057181			4110 CELANESE RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1007835404	110019993943	LAUREL CREEK LLC	2697 CELEANESE RD STE 400		ROCK HILL	SC	FINDS
29732	1007833282	110019972715	WARREN NORMAN CO	2695 CELENEASE RD		ROCK HILL	SC	FINDS
29732	1007233660	110017050028	WARREN NORMAN COMPANY	2697 CELENEASE RD STE 400		ROCK HILL	SC	FINDS
29732	1016447102	110056162254	CHAPEL GATE SUBDIVISION - D.R. HORTC	CHAPEL GATE DRIVE		ROCK HILL	SC	FINDS
29732	1007227707	110016988660	BLACK S FAMILY CHIROPRACTIC CENTEF	1121 CHARLOTTE AVE		ROCK HILL	SC	FINDS
29732	U003629078	9374	ONE STOP GROCERIES	275 S CHARLOTTE AVE		ROCK HILL	SC	GWCI, UIC, LUST, UST
29732	1014966432			100 S CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1007228683	110016998720	FAST PACE STORE	106 S CHERRY RD		ROCK HILL	SC	FINDS
29732	U003970391	9373	GULF	106 S CHERRY RD		ROCK HILL	SC	GWCI, LUST, UST
29732	1007256490	110017294202	ALL AMERICAN SERV STATION	1111 CHERRY RD		ROCK HILL	SC	FINDS
29732	U003518915	9361	ALL AMERICAN SERV STATION	1111 CHERRY RD		ROCK HILL	SC	LUST, UST
29732	1000300271	110002240432	60 MINUTE CLEANERS	1160 CHERRY RD		ROCK HILL	SC	RCRA-NonGen, FINDS
29732	S105621442		SIXTY MINUTE CLEANERS	1160 CHERRY RD		ROCK HILL	SC	DRYCLEANERS, SHWS
29732	1015183307			1210 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015197352			128 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1016302514	110012564992	CAROLINA CUSTOM PAINT & BODY	128 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015203823			1308 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	U003629061	9359	ELLIOTT'S EXXON	1308 CHERRY RD		ROCK HILL	SC	LUST, UST
29732	1007256491	110017294211	ALLEN & BOYCE ELLIOTT	1308 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015220861			1402 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015221594			1405 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1005906049	SCR000763359	ANSON AUTOBODY AND PAINTWORKS LL	1405 CHERRY RD		ROCK HILL	SC	RCRA-CESQG
29732	1016119279	110001674288	MAACO ROCK HILL	1405 CHERRY ROAD		ROCK HILL	SC	FINDS
29732	1007247784	110017197013	JOHN G AZER	1406 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015222061			1407 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015228164			1437 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015229405			1445 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015229604			1447 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015243402			1526 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	S109516721		SPEEDWAY 617	1651 CHERRY RD		ROCK HILL	SC	UIC
29732	1007233025	110017043484	SUNOCO 0616-1228/COOP2681	1657 CHERRY RD		ROCK HILL	SC	FINDS
29732	1007234101	110017054738	ALPHONSO PEEPLES DDS	172 S CHERRY RD		ROCK HILL	SC	FINDS
29732	1007230752	110017020221	ROCK HILL TELEPHONE CO	1739 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015006768			1807 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015297727			198 S CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015012777			2001 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1007247205	110017191073	WESTERN AUTO SUPPLY CO	2012 CHERRY HILL		ROCK HILL	SC	FINDS
29732	1017788940	110064012768	FAMILY DOLLAR #12	2021 CHERRY HILL		ROCK HILL	SC	RCRA-CESQG, FINDS
29732	1015014449			2036 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	S107454552		NORGETOWN CLEANERS	2036 CHERRY RD	V, WSW, 1/2 - 1	ROCK HILL	SC	DRYCLEANERS, SHWS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1016117102	110002240030	NORGE TOWN CLEANERS	2036 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015320018			2101 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007232612	110017039177	NEW WAY CAR WASH	2101 CHERRY RD		ROCK HILL	SC	FINDS
29732	1014961335	SCR000775395	EXPRESS CAR WASH OF ROCK HILL INC	2101 CHERRY RD		ROCK HILL	SC	RCRA-CESQG
29732	1016037090	110046247414	EXPRESS CAR WASH OF ROCK HILL INC	2101 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015016987			2103 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015324735			2129 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015328068			2155 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007226813	110016979536	SEARS ROEBUCK & CO	2188 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015335746			2215 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1001962010	110002235983	ECONO LUBE N TUNE 319	2215 CHERRY RD	R, WSW, 1/2 - 1	ROCK HILL	SC	RCRA-CESQG, FINDS
29732	1015339247			2245 CHERRY RD	P, WSW, 1/2 - 1	ROCK HILL	SC	EDR Historical Auto Stations
29732	1007247558	110017194677	USA GROCERS 411	2250 CHERRY RD		ROCK HILL	SC	FINDS
29732	1004780676	110004941788	HESS STATION 40251	2250 CHERRY RD	P, WSW, 1/2 - 1	ROCK HILL	SC	RCRA-NonGen, FINDS
29732	1007837271	110020012626	MANCHESTER ASSOC LLC	2260 CHERRY RD		ROCK HILL	SC	FINDS
29732	1007247546	110017194542	KMART 7043	2302 CHERRY RD	M, WSW, 1/4 - 1/2	ROCK HILL	SC	FINDS
29732	1012188346	SCR000771063	KMART 7043	2302 CHERRY RD	M, WSW, 1/4 - 1/2	ROCK HILL	SC	RCRAInfo-LQG
29732	1015023792			232 S CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015351548			2374 CHERRY RD	68, WSW, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Auto Stations
29732	1015026577			2433 CHERRY RD	48, West, 1/8 - 1/4	ROCK HILL	SC	EDR Historical Cleaners
29732	1015362950			2500 CHERRY RD	E, West, 1/8 - 1/4	ROCK HILL	SC	EDR Historical Auto Stations
29732	1015364957			2514 CHERRY RD	D, West, 1/8 - 1/4	ROCK HILL	SC	EDR Historical Auto Stations
29732	1015365049			2515 CHERRY RD	F, WNW, 1/8 - 1/4	ROCK HILL	SC	EDR Historical Auto Stations
29732	1015366786			2531 CHERRY RD	D, WNW, 0 - 1/8	ROCK HILL	SC	EDR Historical Auto Stations
29732	1007232797	110017041128	KAYO SERVICE STA JET 40023	2541 CHERRY RD	A, NW, 0 - 1/8	ROCK HILL	SC	FINDS
29732	1007228536	110016997231	PETRO EXPRESS 14	2541 N CHERRY RD	A, NW, 0 - 1/8	ROCK HILL	SC	FINDS
29732	1015368807			2561 CHERRY RD	A, NNW, 0 - 1/8	ROCK HILL	SC	EDR Historical Auto Stations
29732	1007226668	110016978074	JIM NELSON NISSAN INC	2574 CHERRY RD	A, North, 0 - 1/8	ROCK HILL	SC	FINDS
29732	1015370008			2587 CHERRY RD	C, North, 0 - 1/8	ROCK HILL	SC	EDR Historical Auto Stations
29732	1001962003	110002236072	GARYS COLLISION	2587 N CHERRY RD	C, North, 0 - 1/8	ROCK HILL	SC	RCRA-CESQG, FINDS
29732	2013038849			2875 CHERRY ROAD		ROCK HILL	SC	ERNS
29732	1015043589			325 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015043656			325 S CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	S105621386		SAWYER'S DRY CLEANING & LAUNDRY IN	325 S CHERRY RD		ROCK HILL	SC	SHWS
29732	1007227178	110016983282	BULK PLANT	335 S CHERRY RD		ROCK HILL	SC	FINDS
29732	1007233115	110017044385	SC503	348 S CHERRY RD		ROCK HILL	SC	FINDS
29732	1007256666	110017296004	YORK TIRE CO	402 S CHERRY RD		ROCK HILL	SC	FINDS
29732	1015525209			502 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007256499	110017294293	SUNOCO STATION	502 N CHERRY RD		ROCK HILL	SC	FINDS
29732	1007228881	110017000724	ROCK HILL CITGO	502 N CHERRY RD		ROCK HILL	SC	FINDS
29732	1016185037	110002239925	US ARMY RESERVE FACILITY ROCK HILL	515 S CHERRY RD		ROCK HILL	SC	FINDS
29732	1007226217	110016973505	ROCK HILL COCA COLA	520 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015538892			523 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	U000484490	9218	YONCE MOTORS	523 CHERRY RD		ROCK HILL	SC	GWCI, UIC, LUST, UST
29732	1007232817	110017041333	YONCE MOTORS	523 CHERRY RD		ROCK HILL	SC	FINDS
29732	1000172558	110002240076	QUICK AS A WINK 38	529 CHERRY RD		ROCK HILL	SC	RCRA-NonGen, FINDS
29732	S105621616		FMR DRYCLEAN USA OF SC INC	529 CHERRY RD		ROCK HILL	SC	DRYCLEANERS, SHWS
29732	1007243971	110017157618	YORK COUNTY DETENTION CENTER	529 S CHERRY RD		ROCK HILL	SC	FINDS
29732	1016037001	110045989864	CVS PHARMACY 3809	609 CHERRY RD		ROCK HILL	SC	FINDS
29732	1014961195	SCR000773986	CVS PHARMACY 3809	609 CHERRY RD		ROCK HILL	SC	RCRAInfo-LQG
29732	1007246196	110017180691	QUICK C 106	624 N CHERRY RD		ROCK HILL	SC	FINDS
29732	U003970388	9265	CHERRY ROAD EXXON	710 CHERRY RD		ROCK HILL	SC	LUST, UST
29732	1007247555	110017194631	CHERRY ROAD EXXON	710 CHERRY RD		ROCK HILL	SC	FINDS
29732	1015616820			724 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015091503			725 CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	S107454532		CROWN CLEANERS	725 CHERRY RD STE 178		ROCK HILL	SC	DRYCLEANERS, SHWS

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1007226385	110016975193	BEATY SHOPPING CTR PARTNERSHIP	742 CHERRY RD		ROCK HILL	SC	FINDS
29732	U003519245	12943	BEATY SHOPPING CENTER PARTNERSHI	742 CHERRY RD		ROCK HILL	SC	UST
29732	1015675060			920 CHERRY RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	U003629516	12351	QUIKTRIP 1091	990 S CHERRY RD		ROCK HILL	SC	UST
29732	1015109944			990 S CHERRY RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015208811			133 CHURCHILL DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007235767	110017071988	FISHING CREEK WCD	13 S CONGRESS ST		YORK	SC	FINDS
29732	1007832567	110019965563	SC DEPT OF TRANSPORTATION YORK M/	330 S CONGRESS ST		ROCK HILL	SC	FINDS
29732	1015179050			1200 CONSTITUTION BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007837376	110020013670	CRYSTAL LAKES LLC	1452 CONSTITUTION BLVD		ROCK HILL	SC	FINDS
29732	1007228386	110016995714	MICHELE BOYNE DMD	1562 CONSTITUTION BLVD		ROCK HILL	SC	FINDS
29732	1007225538	110016966292	S E MURDOCH III DMD	1562 CONSTITUTION BLVD STE 103		ROCK HILL	SC	FINDS
29732	1007227754	110016989142	FAMILY & COSMETIC DENTISTRY	1562-101 CONSTITUTION BLVD		ROCK HILL	SC	FINDS
29732	1007240286	110017119143	METROLINA MEDICAL ASSOCIATES PA	1578 CONSTITUTION BLVD		ROCK HILL	SC	FINDS
29732	1007832468	110019964555	PALMETTO DENTAL ASSOCIATES ROCK I	1578-01 CONSTITUTION BLVD		ROCK HILL	SC	FINDS
29732	1008009639	110002258887	RIVER PINES S D	4464 CYPRESS COVE		ROCK HILL	SC	FINDS
29732	1015121864			1003 DEAS ST		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015091428			724 DILWORTH LN		ROCK HILL	SC	EDR Historical Cleaners
29732	1015021132			2221 DOWNEY ST		ROCK HILL	SC	EDR Historical Cleaners
29732	S117724226		EDGAR SMITH/QUAIL MEADOW MHP	.3MI E&S OF INTR OF SR 839&675	**	ROCK HILL	SC	NPDES
29732	1015274796			1771 EASTVIEW RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015396517			2964 EASTVIEW RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007256873	110017298093	CAROLINA CHIROPRACTIC DR HEWETSO	1120 EBENEZER AVE EXT		ROCK HILL	SC	FINDS
29732	1007225545	110016966363	HUGH B DICKEY DDS	1204 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007835571	110019995610	BENSON MORGAN COMPANY	1230 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007227787	110016989473	DONG CHIROPRACTIC - ROCK HILL	1267 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007256776	110017297129	JOHN W FLOREN DMD PA	1307 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007257887	110017308670	JEFFREY T BLANK DMD	1318 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007835825	110019998154	NEWCORT LLC	1348 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007256881	110017298173	ROCK HILL FAMILY PRACTICE ASSOC PA	1435 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007236904	110017083733	M GLENN BARKER DMD PA	1447 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007234428	110017058057	STEWART FAMILY CHIROPRACTIC	1473 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007255965	110017288772	T DIMERY ALFORD DDS FAMILY DENTIST	1505 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007236901	110017083706	ORTHODONTIC ASSOCIATES	1507 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007257806	110017307868	MARK BENTLEY DC	1549 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007239181	110017107432	SAWYERS GROCERY	1704 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1015750328	SCR000776146	RITE AID #11666	1705 EBENEZER ROAD		ROCK HILL	SC	RCRA-CESQG
29732	1016037193	110046540445	RITE AID #11666	1705 EBENEZER ROAD		ROCK HILL	SC	FINDS
29732	1007242000	110017136981	ROBERT E PENNY DMD	1721 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1007225725	110016968192	ROCK HILL GYN/OB ASSOCIATES P A	1721 EBENEZER RD STE 145		ROCK HILL	SC	FINDS
29732	1007228634	110016998230	PANTRY 626	2165 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1016344758	110038293520	RUDOLF VENTURE CHEMICAL INC	2304 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1016951040		RUDOLF VENTURE CHEMICAL INC	2304 EBENEZER RD		ROCK HILL	SC	TSCA
29732	1012007058		RUDOLF VENTURE CHEMICAL INC	2304 EBENEZER RD		ROCK HILL	SC	SSTS
29732	1007240997	110017126590	AIRPORT EXPRESS FOOD MART	2316 EBENEZER RD		ROCK HILL	SC	FINDS
29732	1004781197	SCR000760959	A&K PAINTING	2352A EBENEZER RD		ROCK HILL	SC	RCRA-NonGen
29732	1016184813	110002181512	A&K PAINTING	2352A EBENEZER RD		ROCK HILL	SC	FINDS
29732	1015350792			2360 EBENEZER RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015352562			2392 EBENEZER RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007233839	110017052071	WILLIAM CULP JR DMD	EBENEZER COMMONS STE 100	**	ROCK HILL	SC	FINDS
29732	1006877880		GREENE FUNERAL HOME NORTHWEST C	2133 EBENZER RD		ROCK HILL	SC	FINDS
29732	1015389980			2858 EBINWOOD RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1006818407	110008557659	CLINICAL DIAGNOSTICS INC	2606 EDEN TERRACE		ROCK HILL	SC	FINDS
29732	1011829600		LAKE WYLIE RAW WATER PUMP STATION	3900 ELKS PARK ROAD		ROCK HILL	SC	RMP
29732	1017429657	110000542057	LAKE WYLIE RAW WATER PUMP STATION	3900 ELKS PARK ROAD		ROCK HILL	SC	FINDS
29732	1015475216			4053 ELKS PARK RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1011829601		LAKE WYLIE RAW WATER PUMP STATION	3900 ELS PARK ROAD		ROCK HILL	SC	RMP
29732	1015029490			2578 ENCHANTO RD	**	ROCK HILL	SC	EDR Historical Cleaners
29732	1015428302			3281 ENOLA DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015428303			3281 ENOLA LN		ROCK HILL	SC	EDR Historical Auto

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1016028823	110044740180	CARLOS E. SANCHEZ	118 FAIRFIELD AVE		ROCK HILL	SC	Stations
29732	1016020900	110044740233	SANTIAGO T. ESQUIVEL	118 FAIRFIELD AVE		ROCK HILL	MS	FINDS
29732	1007258720	110002189621	ENVIRO TECH ABATEMENT SERVICES	118 FAIRFIELD AVE		ROCK HILL	SC	FINDS
29732	1016020897	110044740206	JORGE A. DIAZ	118 FAIRFIELD AVE.		ROCK HILL	MS	FINDS
29732	1016020896	110044740199	MARVIN R. DIAZ	118 FAIRFIELD AVE.		ROCK HILL	MS	FINDS
29732	1016012845	110044733651	MOISES F. GUZMAN DIAZ	118 FAIRFIELD AVE.		ROCK HILL	MS	FINDS
29732	1016020898	110044740215	ESTEBAN S. TAVIRA	118 FAIRFIELD AVE.		ROCK HILL	MS	FINDS
29732	1014835665	110043179235	MARLOW BROWN FUNERAL HOME	2368 FAITH CAROLINE BLVD		ROCK HILL	SC	FINDS
29732	1015351549			2374 FAITH CAROLINE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007837775	110020017667	MEADOW LAKES PARTNERS	1814 FARROW DR		ROCK HILL	SC	FINDS
29732	1011834325		PERFORMANCE FOOD GROUP, ROCK HIL	1441 FIRETOWER DRIVE		ROCK HILL	SC	RMP
29732	1014206822		PERFORMANCE FOOD GROUP, ROCK HIL	1441 FIRETOWER ROAD		ROCK HILL	SC	RMP
29732	1017456151	110023014076	PERFORMANCE FOOD GROUP, ROCK HIL	1441 FIRETOWER ROAD		ROCK HILL	SC	FINDS
29732	1007456372	110017839614	COLE CREEK TOWN HOMES	FLINT ROAD NEAR PIKEVIEW ROAD		ROCK HILL	SC	ICIS, FINDS
29732	U003665771	9422	MOUNT GALLANT EXPRESS	1024 MT GALLANT RD	** V, WSW, 1/2 - 1	ROCK HILL	SC	LUST, UST
29732	1007224179	110016952145	PRO CAL PROFESSIONAL DECALS	2061 GALLANT RD		ROCK HILL	SC	FINDS
29732	1007228674	110016998631	GAULDENS GROCERY	4939 MT GALLANT RD		ROCK HILL	SC	FINDS
29732	1008009237	110002200476	CARROLL MHP NUMBER 1	1688 GORDON RD		ROCK HILL	SC	FINDS
29732	1008009657	110002259190	CARROLL MHP NUMBER 2	1688 GORDON RD		ROCK HILL	SC	FINDS
29732	1005490663	110001674457	CABINET CREATIONS	155 GRAYSON RD		ROCK HILL	SC	AIRS, FINDS
29732	1014835712	110041889686	MARLOW AND BROWN	155 GRAYSON RD		ROCK HILL	SC	FINDS
29732	1007256643	110017295773	RAYS QUICK STOP	110 HANDS MILL HWY		ROCK HILL	SC	FINDS
29732	U001015847	9451	RAYS QUICK STOP	110 HANDS MILL HWY		ROCK HILL	SC	LUST, UST
29732	1015156465			111 HANDS MILL EXT		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007256763	110017296987	EXPRESS 129	111 HANDS MILL RD EXT		ROCK HILL	SC	FINDS
29732	1014998954			1569 HANDS MILL HWY		ROCK HILL	SC	EDR Historical Cleaners
29732	1015334777			221 HANDS MILL HWY		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007236534	110017079953	CAROLINA SPORTSMAN	247 HANDS MILL RD		ROCK HILL	SC	FINDS
29732	1008009641	110002258903	SC DEPT OF REVENUE DMV	305 HANDS MILL RD		ROCK HILL	SC	FINDS
29732	1004781028	110002189177	INDUSTRIAL STEEL FABRICATION CO	373 HANDS MILL RD		ROCK HILL	SC	RCRA-CESQG, FINDS
29732	1008009207	110002200074	PLEXICO S MHP	4405 HARBOR INN RD		ROCK HILL	SC	FINDS
29732	1007234486	110017058654	LAKE CLUB MARINA LLC	4500 HARBOR INN RD		ROCK HILL	SC	FINDS
29732	1015127032			1012 HEARN ST		ROCK HILL	SC	EDR Historical Auto Stations
29732	1004781252	SCR000761593	TBC RETAIL GRIROUP INC D/B/A NATIONAL	1741 HECKEL BLVD	**	ROCK HILL	SC	RCRA-CESQG
29732	1007241615	110017133029	SCOTTS FOOD STORES 2	860 HECKEL BLVD		ROCK HILL	SC	FINDS
29732	1001818765	110002189266	YORK COUNTY OPERATION CENTER	1070 HECKLE BLVD		ROCK HILL	SC	RCRA-NonGen, FINDS
29732	1007225643	110016967362	STONE CHIROPRACTIC CENTER	1735 HECKLE BLVD STE 103		ROCK HILL	SC	FINDS
29732	1015271990			1741 HECKLE BLVD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1014927708	SCR000773176	MERCHANTS TIRE & AUTO 352	1741 HECKLE BLVD		ROCK HILL	SC	RCRA-CESQG
29732	1016125573	110014363143	MERCHANTS TIRE & AUTO 2017	1741 HECKLE BLVD		ROCK HILL	SC	FINDS
29732	1006811507	SCR000764142	MERCHANTS TIRE & AUTO 2017	1741 HECKLE BLVD		ROCK HILL	SC	RCRA-NonGen
29732	1016028828	110044831661	MERCHANTS TIRE & AUTO 352	1741 HECKLE BLVD		ROCK HILL	SC	FINDS
29732	1016006763	110045990282	CVS PHARMACY 5679	1746 HECKLE BLVD		ROCK HILL	SC	FINDS
29732	1014961236	SCR000774398	CVS PHARMACY 5679	1746 HECKLE BLVD		ROCK HILL	SC	RCRAInfo-LQG
29732	1015107135			933 HECKLE BLVD		ROCK HILL	SC	EDR Historical Cleaners
29732	S108954002		HECKLE DRY CLEANERS	933 HECKLE BLVD #101		ROCK HILL	SC	SHWS
29732	1014990402			137 S HERLONG AVE		ROCK HILL	SC	EDR Historical Cleaners
29732	1007236896	110017083653	CAROLINA CENTER FOR RHEUMATOLOG	1665 HERLONG CT		ROCK HILL	SC	FINDS
29732	1007227669	110016988278	PIEDMONT PAIN CENTER	1665 HERLONG CT STE B		ROCK HILL	SC	FINDS
29732	1015005533			1764 HERLONG VILLAGE DR		ROCK HILL	SC	EDR Historical Cleaners
29732	S107599687		LONG'S CLEANERS	1764 HERLONG VILLAGE DR		ROCK HILL	SC	DRYCLEANERS, SHWS
29732	1007247061	110017189601	CAROLINA SURGICAL CENTER	198 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007833554	110019975437	CONSTITUTION PARTNERSHIP LLP	200 S HERLONG AVE STE B		ROCK HILL	SC	FINDS
29732	1007233858	110017052268	PIEDMONT WOMEN S DIAGNOSTIC CENT	218 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007225448	110016965391	PREMIER CLINICS PA ROCK HILL	223 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007257597	110017305717	PIEDMONT PODIATRY GROUP	225 S HERLONG		ROCK HILL	SC	FINDS
29732	1007258066	110017310621	SANGER CLINIC	225 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007234063	110017054355	ROCK HILL RADIATION THERAPY CENTEF	228 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007225468	110016965596	PALMETTO PHYSICAL MEDICINE & REHA	237 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007831824	110019958125	CAROLINA INTERVENTIONAL PAIN ASSOC	410 S HERLONG STE 103		ROCK HILL	SC	FINDS
29732	1007259046	110017320941	US HEALTH WORKS OCCUMED	410-B S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1007257489	110017304638	CORNERSTONE CLINIC	430 S HERLONG AVE STE B		ROCK HILL	SC	FINDS
29732	1015499841			445 S HERLONG AVE		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015066635			489 S HERLONG AVE		ROCK HILL	SC	EDR Historical Cleaners

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1007242123	110017138364	HERLONG BP	490 S HERLONG AVE		ROCK HILL	SC	FINDS
29732	1015517368			490 S HERLONG AVE		ROCK HILL	SC	EDR Historical Auto Stations
29732	U004018355	18910	HERLONG EXPRESS	490 S HERLONG AVE		ROCK HILL	SC	UST
29732	1007233307	110017046347	TEC MART	499 HERLONG AVE		ROCK HILL	SC	FINDS
29732	U003629585	12793	PANTRY 3977 DBA PETRO EXPRE	499 HERLONG AVE		ROCK HILL	SC	LUST, UST
29732	1015540100			525 S HERLONG AVE		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015099590			827 S HERLONG AVE		ROCK HILL	SC	EDR Historical Cleaners
29732	S105736172		WILLINGHAM TRACT DUMP SITE	HERLONG AVE	**	ROCK HILL	SC	SHWS
29732	1015315646			2074 HIGHTOWER RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1005791188	110002188089	FARM POND ACRES TREATMENT FACILIT	706 HILLCROFT		ROCK HILL	SC	FINDS
29732	S118176976		FARM POND ACRES TREATMENT FACI	706 HILLCROFT PL		ROCK HILL	SC	NPDES
29732	1015669586			905 HILLCROFT PL		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015040665			3117 HILTON RD		ROCK HILL	SC	EDR Historical Cleaners
29732	201299544			3012 HITCHING POST LANE		ROCK HILL	SC	ERNS
29732	1014202102	SCN000410555	HOLLAND RD SITE	1286 HOLLAND RD		ROCKHILL	SC	CERCLIS
29732	1014835524	110041622553	HOLLAND RD SITE	1286 HOLLAND RD		ROCKHILL	SC	FINDS
29732	1015994864	110009795061	THOMAS CONCRETE OF SC, INC.	681 HOLLIS LAKES RD		ROCK HILL	SC	FINDS
29732	1015476907			4080 HOMESTEAD RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	S118176973		FAITH TEMPLE BINGO	SC HWY 51 5MI E OF US 21	**	ROCK HILL	SC	NPDES
29732	1007233031	110017043545	EXPRESS MART 3	1130 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1007240371	110017120015	H NELSON EDDY DDS	1144 INDIA HOOK RD STE D		ROCK HILL	SC	FINDS
29732	1007240482	110017121158	DRS CULBRETH & POOLE	1144 INDIA HOOK RD STE E		ROCK HILL	SC	FINDS
29732	1007236902	110017083715	COOMBS & ROSS DMD	1144 INDIA HOOK ROAD STE C		ROCK HILL	SC	FINDS
29732	1007257830	110017308108	WILLIS AND HOOK DENTAL ASSOCIATES	1144 INDIA HOOK ROAD SUITE F		ROCK HILL	SC	FINDS
29732	1007242011	110017137098	ANDERSON AND HOUCK DENTISTRY PAR	1144-E INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1007234119	110017054916	BEAVER CHIROPRACTIC CENTER	1906 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1007244771	110017165921	T & M FOOD STORE	2028 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1015328847			2161 INDIA HOOK RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007232484	110017037883	VIDEO STORE (FORMERLY)	2208 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1015020720			2210 INDIA HOOK RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1007240453	110017120863	HOOMANY CHIROPRACTIC CLINIC	2210 INDIA HOOK RD STE 103		ROCK HILL	SC	FINDS
29732	1007232927	110017042485	SAWYERS MARKET	2216 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1007231669	110017029525	CORNER STORE 2	2216 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1007225543	110016966345	CATAWBA ANIMAL CLINIC	2241 INDIA HOOK RD		ROCK HILL	SC	FINDS
29732	1007835795	110019997850	SUNLION CONSTRUCTION INC	319 IVY ARBOR CIR		ROCK HILL	SC	FINDS
29732	1005791187	110002188070	FAITH TEMPLE BINGO	811 KEMPER CIR		ROCK HILL	SC	FINDS
29732	1007236133	110017075859	STATE LINE 51	811 KEMPER CIR		ROCK HILL	SC	FINDS
29732	1007837234	110020012252	LAKE CLUB	153 LAKE CLUB COMMONS		ROCK HILL	SC	FINDS
29732	1007837925	110020019166	CROWN POINTE AT MANCHESTER VILLAC	2870 LAKE WYLIE		ROCK HILL	SC	FINDS
29732	1007235360	110017067760	SUMMIT AT MANCHESTER VILLAGE LLC	2870 LAKE WYLIE DR		ROCK HILL	SC	FINDS
29732	2010100666		467 LAKESHORE PKWY	467 LAKESHORE PKWY		ROCK HILL	SC	HMIRS
29732	1015263663			1689 E LAKEWOOD DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015134313			1031 LATHAM CT		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015134314			1031 LATHAM DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015135617			1039 LATHAM CT		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015135618			1039 LATHAM DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1014966917			1002 LINWOOD DR		ROCK HILL	SC	EDR Historical Cleaners
29732	1007226937	110016980793	SATPANTH CORPORATION	1308 E MAIN ST		ROCK HILL	SC	FINDS
29732	1007247549	110017194579	SC506	1370 W MAIN ST		ROCK HILL	SC	FINDS
29732	U003629787	16764	WEST MAIN DISCOUNT	1398 W MAIN ST		ROCK HILL	SC	UST
29732	1007240505	110017121390	ROCK HILL ANIMAL HOSPITAL	1825 W MAIN ST		ROCK HILL	SC	FINDS
29732	U003628152	14148	OPERATIONS CENTER	2171 W MAIN ST		ROCK HILL	SC	LUST, UST
29732	1004781126	SCR000075267	ROCK HILL SCHOOL DISTRICT 3 OF YORK	2171 W MAIN ST		ROCK HILL	SC	RCRA-CESQG
29732	U003524011	18064	QUICK MART ROCK HILL	2460 W MAIN ST		ROCK HILL	SC	UST
29732	1007256322	110017292482	ONE STOP 124	2460 W MAIN ST		ROCK HILL	SC	FINDS
29732	1007256727	110017296610	COMMUNITY FOOD MART	2561 W MAIN AVE		ROCK HILL	SC	FINDS
29732	1015029336			2562 W MAIN ST		ROCK HILL	SC	EDR Historical Cleaners
29732	S107454564		S&S PARK CLEANERS	2562 W MAIN ST		ROCK HILL	SC	DRYCLEANERS, SHWS
29732	1016185040	110002240352	S&S CLEANERS	2562 WEST MAIN STREET		ROCK HILL	SC	FINDS
29732	1015528967			5070 MATTHEWS SIMRIL RD		ROCK HILL	SC	EDR Historical Auto

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1015317678			2090 MCCONNELLS HWY		ROCK HILL	SC	Stations EDR Historical Auto
29732	1007235768	110017071997	FISHING CREEK WCD	2792 MCCONNELLS HWY		ROCK HILL	SC	Stations FINDS
29732	1015453682			3702 MCCONNELLS HWY		ROCK HILL	SC	EDR Historical Auto Stations
29732	1012132553	110039150815	CARAUSTAR, INC.	179 MCDON DRIVE	**	ROCK HILL	SC	FINDS
29732	1004593190	110002232049	CARAUSTAR	1379 MCDOW DR		ROCK HILL	SC	FINDS
29732	1006046646		CARAUSTAR:ROCK HILL	1379 MCDOW DR		ROCK HILL	SC	AIRS
29732	U004019766	9430	STAR PAPER TUBE	MCDOW DR	**	ROCK HILL	SC	UST
29732	1007256656	110017295906	STAR PAPER TUBE	MCDOW DR	**	ROCK HILL	SC	FINDS
29732	1015190104			1237 MCGILL POND LN		ROCK HILL	SC	EDR Historical Auto Stations
29732	1004595227	110002186660	QUAIL MEADOW PARK	1359 MEADOW LAKES DR		ROCK HILL	SC	FINDS
29732	1007236898	110017083671	CAROLINA UROLOGY CENTER PA	1780 MEDICAL PARK DR		ROCK HILL	SC	FINDS
29732	1007225713	110016968076	METROLINA MEDICAL ASSOCIATES OFFI	2670 MILLS PARK RD		ROCK HILL	SC	FINDS
29732	1015310143			2031 MONTCLAIR DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015290713			1907 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015009899			1912 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1015320089			2101 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015350419			2356 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015350481			2358 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1004781053	110004943063	AUTO PROS	2847 MOUNT GALLANT RD		ROCK HILL	SC	RCRA-NonGen, FINDS
29732	1015406074			3035 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015433276			3340 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015463165			3901 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1008230445	110020997974	RON WHISENANT	4829 MOUNT GALLANT RD		ROCK HILL	SC	FINDS
29732	1015545055			5378 MOUNT GALLANT RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007231261	110017025351	SC VOC REHABILITATION DEPT	1925 E MT GALLANT RD		ROCK HILL	SC	FINDS
29732	1007240190	110017118073	MURLAND LLC	SE MURDOCH	**	ROCK HILL	SC	FINDS
29732	1007224506	110016955623	RICHMAR FASHIONS	NATIONS FORD RD		ROCK HILL	SC	FINDS
29732	1007232856	110017041743	DUKE POWER CO	NEWPORT TIE STA RD 54	**	NEWPORT	SC	FINDS
29732	1008009212	110002200172	OAK MEADOW S/D	4604 OAK MEADOWS CT		ROCK HILL	SC	FINDS
29732	1015120845			1001 OAKLAND AVE		ROCK HILL	SC	EDR Historical Auto Stations
29732	1006084804	110002240290	EXXON COMPANY USA NUMBER 46925	1001 OAKLAND AVENUE		ROCK HILL	SC	FINDS
29732	1014968267			1013 OAKLAND AVE		ROCK HILL	SC	EDR Historical Cleaners
29732	1007235534	110017069571	FORMER OVERHEAD STATION	103 W OAKLAND AVE		ROCK HILL	SC	FINDS
29732	U003853744	18824	FORMER OVERHEAD STATION	103 W OAKLAND AVE		ROCK HILL	SC	LUST, UST
29732	1007227668	110016988269	ADVANCED CHIROPRACTIC SOLUTIONS	1030 OAKLAND AVE #102		ROCK HILL	SC	FINDS
29732	1007228429	110016996143	ANN B KIROL DDS LLC	219 OAKLAND AVE		ROCK HILL	SC	FINDS
29732	1007214678	110002258841	YORK DIESEL SERVICE	200 OLD RAWLINSON RD		ROCK HILL	SC	FINDS
29732	U003665324	12822	ROCK HILL TELEPHONE CO FACILITIES A	200 OLD RAWLINSON RD		ROCK HILL	SC	LUST, UST
29732	1007214658	110002235073	CAROLINA LAWN & GARDEN LLC	4372 OLD YORK ROAD		ROCK HILL	SC	FINDS
29732	1012218756	110040508091	SNIPES, T H & SONS	4405 OLD YORK RD		ROCK HILL	SC	FINDS
29732	S116230427		T.H. SNIPES & SONS INC.	4405 OLD YORK RD.		ROCK HILL	SC	SWRCY
29732	1008009157	110002181656	SLO-SMOKIN	4821 OLD YORK RD		ROCK HILL	SC	FINDS
29732	1012240624	110039563068	WAMART SUPERCENTER 4593	4875 OLD YORK RD		ROCK HILL	SC	FINDS
29732	1012188375	SCR000771352	WAMART SUPERCENTER 4593	4875 OLD YORK RD		ROCK HILL	SC	RCRAInfo-SQG
29732	1008010572	110008555955	WATER STONE DEVELOPMENT LLC	5010 OLD YORK RD		ROCK HILL	SC	FINDS
29732	1015070974			5168 OLD YORK RD		ROCK HILL	SC	EDR Historical Cleaners
29732	S106704459		NEWPORT CLEANERS	5168 OLD YORK RD		ROCK HILL	SC	DRYCLEANERS, SHWS
29732	U004016997	10550	MCCRAY'S CONVENIENT STORE #1	5275 OLD YORK RD		ROCK HILL	SC	LUST, UST
29732	U004019764	9420	S D SUPERETTE	5285 OLD YORK RD		ROCK HILL	SC	GWCI, UIC, RCR, LUST, UST
29732	1007230076	110017013042	S D SUPERETTE	5285 OLD YORK RD		ROCK HILL	SC	FINDS
29732	1015547335			5426 OLD YORK RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015547625			5434 OLD YORK RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007233165	110017044900	TREXLER LANE	605 OTTAWA DR		ROCK HILL	SC	FINDS
29732	S113913057		INTERSTATE SOLUTIONS	137 PENNINGTON RD.		ROCK HILL	SC	SWRCY

EDR ZIP Code Scan Report

ZIP	EDR-ID	Facility ID	Name	Address	Map/Dir/Dist	City	State	Databases
29732	1007257466	110017304406	CHARLOTTE RADIOLOGY BREAST CENTE	197 PIEDMONT BLVD STE 110		ROCK HILL	SC	FINDS
29732	1007243340	110017151062	THE SANGER CLINIC P A	197 PIEDMONT BLVD STE 111		ROCK HILL	SC	FINDS
29732	1007240454	110017120872	CAROLINA PODIATRY GROUP INC	197 PIEDMONT BLVD STE 205		ROCK HILL	SC	FINDS
29732	1014473349	SCR000772525	CHARLOTTE RADIOLOGY PA	197 PIEDMONT STE 110		ROCK HILL	SC	RCRA-CESQG
29732	1007236968	110017084395	INSIGHT HEALTH SERVICES CORPORATI	PIEDMONT MEDICAL CENTER		ROCK HILL	SC	FINDS
29732	1007227444	110016985985	RED ROCKET FIREWORKS STORE	1166 PORTER RD SE & I 77		ROCK HILL	SC	FINDS
29732	1007235418	110017068368	FEATHER STONE PROPERTIES INC	POST OFFICE BOX 2878		ROCK HILL	SC	FINDS
29732	1015328100			2155 POTPOURRI PT		ROCK HILL	SC	EDR Historical Auto Stations
29732	1008009193	110002199923	WHITMORE MHP	651 POWELL ST		ROCK HILL	SC	FINDS
29732	1007235522	110017069456	METROLINA DIAGNOSTIC CENTER	127 PROFESSIONAL PARK DR		ROCK HILL	SC	FINDS
29732	1015189497			1233 QUIET ACRES CIR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015171624			1166 RAGIN LN		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007232777	110017040913	CELANESE CORPORATION	114 RAWLINSON RD		ROCK HILL	SC	FINDS
29732	1007237405	110017089112	CORNERSTONE DEVELOPMENT	550 RAWLINSON RD		ROCK HILL	SC	FINDS
29732	1015477655			4093 RIDGEWOOD DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015127960			1015 RIVERVIEW RD	C, NNE, 0 - 1/8	ROCK HILL	SC	EDR Historical Auto Stations
29732	1014978080			1145 RIVERVIEW RD	H, NNW, 1/4 - 1/2	ROCK HILL	SC	EDR Historical Cleaners
29732	2000538720			1195 RIVERVIEW ROAD	L, NNW, 1/4 - 1/2	ROCK HILL	SC	ERNS
29732	1012092779	110038795578	COLUMBUS INDUSTRIES	ROCK HILL		ROCK HILL	SC	FINDS
29732	1007232585	110017038908	YORK COUNTY HOSPITAL	101 SEDGEWOOD DR		ROCK HILL	SC	FINDS
29732	2010941015			SEVEN STAR CONSTRUCTION	**	ROCK HILL	SC	ERNS
29732	1015230026			145 SILVER LEAF CIR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1007837867	110020018586	NEWPORT RECREATIONAL PROPERTIES	380 SILVER LN		ROCK HILL	SC	FINDS
29732	1014999144			1577 SPRINGPOINT RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1008230876	110020998385	C DOUGLAS SHORE & CO	308 STEWART ST		ROCK HILL	SC	FINDS
29732	S118177696		STURGIS EST SD/FLINT RLTY	STURIGS EST-1835 EBENEZER RD	**	ROCK HILL	SC	NPDES
29732	1015618752			730 SUMMERWOOD DR		ROCK HILL	SC	EDR Historical Auto Stations
29732	1015352573			2392 SWEETBRIAR LN		ROCK HILL	SC	EDR Historical Auto Stations
29732	1014992694			1416 THORNWELL AVE		ROCK HILL	SC	EDR Historical Cleaners
29732	S117884653			355 TREXLER LN		ROCK HILL	SC	
29732	1008009203	110002200038	SMITH CONSTRUCTION CO	1825 TUCKER ST		ROCK HILL	SC	FINDS
29732	U004127751		SMITH CONSTRUCTION CO INC OF YORK	1835 TUCKER ST		ROCK HILL	SC	UST
29732	U003521692	9417	GENERAL FABRICATORS INC	1565 TWIN LAKES RD		ROCK HILL	SC	UST
29732	1004654408		TWIN LAKES - LILY GLEN	TWIN LAKES RD AT HOMESTEAD RD		ROCK HILL	SC	SHWS
29732	1012043351	SCN000407373	TWIN LAKES - LILY GLEN	TWIN LAKES ROAD AT HOMESTEAD	**	ROCK HILL	SC	CERCLIS-NFRAP
29732	1015247252			1555 URBANA RD		ROCK HILL	SC	EDR Historical Auto Stations
29732	1014985609			127 WEATHERWOOD ST		ROCK HILL	SC	EDR Historical Cleaners
29732	1014835236	110043418469	RHPH LLC	700 WHITE ST		ROCK HILL	SC	FINDS
29732	1014401350	SCR000772467	RHPH LLC	700 WHITE ST	**	ROCK HILL	SC	RCRA-NonGen
29732	1007248237	110017201712	2C ENVIROMENTAL SERVICES INC	1551 WILDFLOWER CT		ROCK HILL	SC	FINDS
29732	1016240596	110007836119	CROWN CLEANERS	WINTHROP COMMONS CHERRY ROAD	**	ROCK HILL	SC	FINDS
29732	1000461984	SCD987579372	CROWN CLEANERS	WINTHROP COMMONS CHERRY ROAD		ROCK HILL	SC	RCRA-CESQG
29732	1014993434			1430 WOODHAVEN RD		ROCK HILL	SC	EDR Historical Cleaners
29732	1007651183	110019918393	EVERGREEN LAND LLC	1537 WORTHINGTON CROSSING		ROCK HILL	SC	FINDS
29732	1015504195			4543 YORK HWY		ROCK HILL	SC	EDR Historical Auto Stations
29732	U003629524	12369	AMOCO CHINA GARDEN EXPRESS	4605 YORK HWY		ROCK HILL	SC	LUST, UST
29732	1007234766	110017061506	AMOCO CHINA GARDEN EXPRESS	4605 YORK HWY		ROCK HILL	SC	FINDS
29732	1007236517	110017079784	MY PARENTS CARE FACILITY	2512 ZINKER RD		ROCK HILL	SC	FINDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/30/2015	Source: EPA
Date Data Arrived at EDR: 11/07/2015	Telephone: N/A
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 11/07/2015
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/30/2015	Source: EPA
Date Data Arrived at EDR: 11/07/2015	Telephone: N/A
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 11/07/2015
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/30/2015	Source: EPA
Date Data Arrived at EDR: 11/07/2015	Telephone: N/A
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 11/07/2015
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/08/2015	Telephone: 703-603-8704
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 01/06/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/18/2016
	Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 11/23/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 11/23/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 11/13/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 11/24/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 03/14/2016
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/11/2015	Telephone: 703-603-0695
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 11/24/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 03/14/2016
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 06/26/2015	Telephone: 202-267-2180
Date Made Active in Reports: 09/16/2015	Last EDR Contact: 12/29/2015
Number of Days to Update: 82	Next Scheduled EDR Contact: 04/11/2016
	Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Site Assessment Section Project List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/23/2015	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 03/25/2015	Telephone: 803-734-5376
Date Made Active in Reports: 04/07/2015	Last EDR Contact: 12/09/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 03/28/2016
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Landfills List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/23/2015	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 10/23/2015	Telephone: 803-734-5165
Date Made Active in Reports: 12/10/2015	Source: Department of Health and Environmental Control, GIS Section
Number of Days to Update: 48	Telephone: 803-896-4084
	Last EDR Contact: 12/09/2015
	Next Scheduled EDR Contact: 03/28/2016
	Data Release Frequency: Varies

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 07/29/2015	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 08/07/2015	Telephone: 803-898-4350
Date Made Active in Reports: 09/15/2015	Last EDR Contact: 10/22/2015
Number of Days to Update: 39	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/04/2015	Source: EPA, Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-7439
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 10/26/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/21/2015	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2015	Telephone: 206-553-2857
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 76	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015	Source: EPA Region 8
Date Data Arrived at EDR: 05/05/2015	Telephone: 303-312-6271
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 10/08/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015	Source: EPA Region 7
Date Data Arrived at EDR: 04/28/2015	Telephone: 913-551-7003
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 10/08/2015
Number of Days to Update: 55	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/13/2015	Source: EPA Region 6
Date Data Arrived at EDR: 08/03/2015	Telephone: 214-665-6597
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/24/2015	Source: EPA Region 4
Date Data Arrived at EDR: 12/01/2015	Telephone: 404-562-8677
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 10/26/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015	Source: EPA Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 10/27/2015
Number of Days to Update: 67	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/08/2015	Telephone: 415-972-3372
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 10/30/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 10/08/2015
Number of Days to Update: 55	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Varies

UST: Comprehensive Underground Storage Tanks

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/29/2015	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 08/07/2015	Telephone: 803-896-7957
Date Made Active in Reports: 09/15/2015	Last EDR Contact: 10/22/2015
Number of Days to Update: 39	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tank List

Registered Aboveground Storage Tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/25/2004
Date Data Arrived at EDR: 08/04/2004
Date Made Active in Reports: 09/23/2004
Number of Days to Update: 50

Source: Department of Health and Environmental Control
Telephone: 803-898-4350
Last EDR Contact: 11/30/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/28/2015
Date Data Arrived at EDR: 08/14/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 60

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/30/2015
Next Scheduled EDR Contact: 02/09/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/29/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 76

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/13/2015
Date Data Arrived at EDR: 08/03/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Semi-Annually

State and tribal institutional control / engineering control registries

RCR: Registry of Conditional Remedies

The Bureau of Land and Waste Management established this Registry to help monitor and maintain sites that have conditional remedies. A Conditional Remedy is an environmental remedy that includes certain qualifications. These qualifications are divided into two major categories: Remedies requiring Land Use Controls and Conditional No Further Actions.

Date of Government Version: 09/19/2012
Date Data Arrived at EDR: 09/20/2012
Date Made Active in Reports: 10/22/2012
Number of Days to Update: 32

Source: Department of Health & Environmental Control
Telephone: 803-896-4000
Last EDR Contact: 12/09/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

AUL: Land Use Controls

The term Land Use Controls or "LUCs" encompass institutional controls, such as those involved in real estate interests, governmental permitting, zoning, public advisories, deed notices, and other legal restrictions. The term also includes restrictions on access, whether achieved by means of engineered barriers (e.g., fence or concrete pad) or by human means (e.g., the presence of security guards). Additionally, the term includes both affirmative measures to achieve the desired restrictions (e.g., night lighting of an area) and prohibitive directives (e.g., restrictions on certain types of wells for the duration of the corrective action). Considered altogether, the LUCs for a facility will provide a tool for how the property should be used in order to maintain the level of protectiveness that one or more corrective actions were designed to achieve.

Date of Government Version: 09/14/2015
Date Data Arrived at EDR: 09/16/2015
Date Made Active in Reports: 11/11/2015
Number of Days to Update: 56

Source: Department of Health & Environmental Control
Telephone: 803-896-4049
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 10/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 12/28/2015
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/11/2016
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Sites

Sites participating in the Voluntary Cleanup Program. Once staff and a non-responsible party have agreed upon an approved scope of work for a site investigation and/or remediation, the party enters into a voluntary cleanup contract. Staff oversees the cleanup efforts to ensure that activities are performed to our satisfaction. Upon completion of the negotiated work in the voluntary cleanup contract, the non-responsible party receives State Superfund liability protection.

Date of Government Version: 09/08/2015	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 10/23/2015	Telephone: 803-896-4049
Date Made Active in Reports: 12/16/2015	Last EDR Contact: 12/22/2015
Number of Days to Update: 54	Next Scheduled EDR Contact: 03/28/2016
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites Listing

The Brownfields component of the Voluntary Cleanup Program allows a non-responsible party to acquire a contaminated property with State Superfund liability protection for existing contamination by agreeing to perform an environmental assessment and/or remediation.

Date of Government Version: 09/08/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 10/23/2015	Telephone: 803-896-4069
Date Made Active in Reports: 12/10/2015	Last EDR Contact: 12/22/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 03/28/2016
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/21/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/23/2015	Telephone: 202-566-2777
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 12/21/2015
Number of Days to Update: 103	Next Scheduled EDR Contact: 04/04/2016
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Solid Waste Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 07/01/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 08/17/2015	Telephone: 803-896-8985
Date Made Active in Reports: 09/15/2015	Last EDR Contact: 11/30/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 03/14/2016
	Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 11/06/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 02/15/2016
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/26/2015
Number of Days to Update: 137	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/04/2015	Telephone: 202-307-1000
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 08/31/2015
Number of Days to Update: 60	Next Scheduled EDR Contact: 12/14/2015
	Data Release Frequency: No Update Planned

ALLSITES: Site Assessment & Remediation Public Record Database
The South Carolina Department of Health and Environmental Control is pleased to have the Public Record for your review. The purpose of this database is two-fold. First, it will provide to communities another form of notice of cleanup activity, allowing them to have more information about assessment and cleanup activities in their area and in the State. Second, it can assist those seeking to redevelop brownfield properties within South Carolina.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/14/2015
Date Data Arrived at EDR: 09/16/2015
Date Made Active in Reports: 11/11/2015
Number of Days to Update: 56

Source: Department of Health & Environmental Control
Telephone: 803-896-4000
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Sites

A listing of clandestine drug lab site locations.

Date of Government Version: 01/24/2012
Date Data Arrived at EDR: 01/26/2012
Date Made Active in Reports: 02/24/2012
Number of Days to Update: 29

Source: Department of Health & Environmental Control
Telephone: 803-896-4288
Last EDR Contact: 12/07/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

CDL 2: Clandestine Drug Lab Listing

A listing of clandestine drug lab site locations.

Date of Government Version: 09/02/2015
Date Data Arrived at EDR: 09/22/2015
Date Made Active in Reports: 11/11/2015
Number of Days to Update: 50

Source: South Carolina Law Enforcement Division
Telephone: 803-896-7136
Last EDR Contact: 12/09/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/30/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS: Spill List

Spills and releases of petroleum and hazardous chemicals reported to the Oil & Chemical Emergency Response division.

Date of Government Version: 03/25/2015
Date Data Arrived at EDR: 03/26/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 12

Source: Department of Health and Environmental Control
Telephone: 803-898-4111
Last EDR Contact: 11/30/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/25/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 03/26/2001
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/16/2015
Next Scheduled EDR Contact: 01/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/16/2015
Next Scheduled EDR Contact: 01/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/10/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/26/2015	Telephone: 202-564-8600
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 10/26/2015
Number of Days to Update: 69	Next Scheduled EDR Contact: 02/08/2016
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/13/2015
Number of Days to Update: 3	Next Scheduled EDR Contact: 02/22/2016
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014	Source: EPA
Date Data Arrived at EDR: 10/15/2014	Telephone: 202-566-0500
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 10/29/2015
Number of Days to Update: 33	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/06/2015	Telephone: 202-564-5088
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 10/08/2015
Number of Days to Update: 31	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/10/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 95

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/07/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/29/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/16/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 11/19/2015
Number of Days to Update: 146	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/26/2014	Telephone: 703-603-8787
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 10/05/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/18/2016
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust.

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015	Source: EPA
Date Data Arrived at EDR: 10/27/2015	Telephone: 202-564-2496
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 12/22/2015
Number of Days to Update: 69	Next Scheduled EDR Contact: 04/11/2016
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/20/2015	Source: EPA
Date Data Arrived at EDR: 10/27/2015	Telephone: 202-564-2496
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 12/22/2015
Number of Days to Update: 69	Next Scheduled EDR Contact: 04/11/2016
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2015
Date Data Arrived at EDR: 09/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 125

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/03/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

AIRS: Permitted Airs Facility Listing

A listing of permitted air facilities.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/16/2015
Date Made Active in Reports: 11/11/2015
Number of Days to Update: 56

Source: Department of Health & Environmental Control
Telephone: 803-898-4279
Last EDR Contact: 11/30/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

A listing of sites with coal ash ponds.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 40

Source: Department of Health & Environmental Control
Telephone: 803-898-3964
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DRYCLEANERS: Drycleaner Database

The Drycleaning Facility Restoration Trust Fund database is used to access, prioritize and cleanup contaminated registered drycleaning sites.

Date of Government Version: 02/01/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 05/06/2015	Telephone: 803-898-3882
Date Made Active in Reports: 05/13/2015	Last EDR Contact: 11/08/2015
Number of Days to Update: 7	Next Scheduled EDR Contact: 02/15/2016
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/19/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 03/24/2015	Telephone: 803-896-4067
Date Made Active in Reports: 04/07/2015	Last EDR Contact: 12/09/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/28/2016
	Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

Hazardous waste financial assurance information.

Date of Government Version: 03/19/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 03/24/2015	Telephone: 803-898-3880
Date Made Active in Reports: 04/07/2015	Last EDR Contact: 12/09/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/28/2016
	Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Listing

UST financial assurance information.

Date of Government Version: 03/05/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 03/06/2015	Telephone: 803-898-3880
Date Made Active in Reports: 03/17/2015	Last EDR Contact: 11/30/2015
Number of Days to Update: 11	Next Scheduled EDR Contact: 03/14/2016
	Data Release Frequency: Varies

GWCI: Groundwater Contamination Inventory

An inventory of all groundwater contamination cases in the state.

Date of Government Version: 07/01/2008	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 11/06/2008	Telephone: 803-898-3798
Date Made Active in Reports: 11/19/2008	Last EDR Contact: 12/29/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/11/2016
	Data Release Frequency: Annually

NPDES: Waste Water Treatment Facilities Listing

A listing of waste water treatment facility locations.

Date of Government Version: 08/28/2015	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 09/03/2015	Telephone: 803-898-4300
Date Made Active in Reports: 11/11/2015	Last EDR Contact: 12/18/2015
Number of Days to Update: 69	Next Scheduled EDR Contact: 04/04/2016
	Data Release Frequency: Varies

UIC: Underground Injection Wells Listing

A listing of underground injection wells locations.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/21/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 12/10/2015
Number of Days to Update: 43

Source: Department of Health & Environmental Control
Telephone: 803-898-3799
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

Date of Government Version: N/A	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/03/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 186	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

Date of Government Version: N/A	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/15/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 198	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

Date of Government Version: N/A	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/03/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 186	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/19/2013	Telephone: 860-424-3375
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 11/16/2015
Number of Days to Update: 45	Next Scheduled EDR Contact: 02/29/2016
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/17/2015	Telephone: N/A
Date Made Active in Reports: 08/12/2015	Last EDR Contact: 10/13/2015
Number of Days to Update: 26	Next Scheduled EDR Contact: 01/25/2016
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/08/2015
Date Made Active in Reports: 12/09/2015
Number of Days to Update: 31

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/19/2015
Next Scheduled EDR Contact: 02/01/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/09/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Day Care List

Source: Department of Social Services

Telephone: 803-898-7345

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 803-734-9494

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

17.6 Interview Documentation

17.7 Special Contractual Conditions Between User and Environmental Professional

17.8 Qualifications of the Environmental Professional(s)

RICHARD CICCOLELLA PROJECT MANAGER

Mr. Ciccolella is a Biologist with experience in the environmental field since 1993. He has extensive experience in a variety of environmental areas including wetland delineation, biological assessments, Phase I and Phase II Environmental Site Assessments, NEPA Environmental Assessments, and soil and ground water assessments with respect to leaking underground storage tanks and/or other sources of potential subsurface contamination.

EDUCATION

B.S., Biology - Auburn University (1993)

CERTIFICATIONS

Niton XRF Lead Analyzer Manufacturer's Training Course

Lead Awareness Training Certificate

Wetland Delineation – Richard Chinn Environmental Training, Inc.

SPECIALIZED TRAINING

Environmental Site Assessments, Phase I and Phase II

Wetland Delineation

Biology / Ecology

Ecological Modeling

Environmental Assessment

PROFESSIONAL EXPERIENCE

1993 to Present: ARM Environmental Services, Inc. - Columbia, South Carolina

Mr. Ciccolella joined ARM in 1993 as a staff scientist. His responsibilities include Phase I and Phase II Environmental Site Assessments, highway corridor assessments for hazardous materials or waste sites, soil and ground water assessments, preparation of environmental assessment documentation pursuant to the National Environmental Policy Act (NEPA), wetland delineation, and biological assessments.

PROJECT EXPERIENCE

Environmental Site Assessments

Mr. Ciccolella has been the principal investigator for numerous Phase I Environmental Site Assessments (ESAs). Assessments have been conducted on a wide range of sites including vacant property, industrial facilities, potential SCDOT rights-of-way, and retail service station properties. Typical clientele has included highway design firms, lending institutions, law firms, real estate brokers, and individual clients.

Subsurface Assessments

Mr. Ciccolella has been involved with the assessment of numerous sites where the subsurface soils and/or ground water have been impacted from leaking underground storage tanks or other sources. His responsibilities on these projects have included the completion of numerous ground water quality assessments designed to characterize the subsurface contamination, determine the primary direction of ground water flow and aquifer characteristics, identify and evaluate potential exposure pathways, and model the fate and transport of the contaminated ground water plumes. His project experience includes numerous assessments conducted pursuant to South Carolina Department of Health and Environmental Control (DHEC) guidelines for assessment of petroleum underground storage tank (UST) releases. Other subsurface assessment work has included the completion of numerous Phase II Soil and/or Ground Water Quality Assessments for commercial real estate transactions and SCDOT right of way acquisitions.

Highway Corridor Assessments

Mr. Ciccolella has also been involved in numerous Highway Corridor Assessments. These Corridor Assessments have been conducted to evaluate the presence, or likely, presence, of hazardous waste or materials that may pose a threat of contamination to the potential highway corridor. Corridor Assessments typically include a site reconnaissance of the corridor area, a review of available regulatory information for sites that potentially are a source of contamination to the corridor, discussions with regulatory personnel regarding specific sites of concern, and the generation of a report summarizing the findings and providing specific recommendations. Typical clientele has included highway design firms involved in the preparation of environmental impact studies conducted pursuant to NEPA.

Environmental Assessment

Mr. Ciccolella was the principal author of the NEPA Environmental Assessment (EA) conducted for the proposed construction of a Ready Building for the 43rd Weapons of Mass Destruction – Civil Support Team of the South Carolina Army National Guard. The EA included an alternatives analysis of a variety of potential environmental impacts including natural resource impacts, cultural resource impacts and community impacts.

Biological Assessments

Mr. Ciccolella has performed numerous wetland delineations throughout South Carolina and has been the principal field technician on a number of wetland assessments, delineation, and wetland mitigation projects. His duties have included wetland delineation and monitoring of environmental conditions at wetland mitigation sites.

RICHARD J. PITTENGER
SENIOR PROJECT MANAGER / PRINCIPAL

Mr. Pittenger is an environmental engineer, and has worked in the environmental field since 1986. He has supervised and conducted a variety of environmental services for public and private clients located across the Southeast. Mr. Pittenger is also a licensed asbestos consultant, with extensive experience in the performance in building inspections for asbestos, lead based paint and radon. Mr. Pittenger's expertise is in Project Management, primarily in the areas of environmental assessments, site remediation and regulatory compliance.

EDUCATION

B.S., Engineering Technology, Louisiana State University, 1985

CERTIFICATIONS

OSHA Hazardous Waste Operation and Emergency Response
SCDHEC Licensed Asbestos Consultant/Management Planner

SPECIALIZED TRAINING

Environmental Site Assessor, Phase I and Phase II
Asbestos Abatement Supervision, Management Planning, and Building Inspection
Underground Storage Tank Management
Lead Based Paint – Inspection and Abatement Supervision

PROFESSIONAL EXPERIENCE

1991 to Present: ARM Environmental Services, Inc. - Columbia, South Carolina

Mr. Pittenger joined ARM in 1991 as Vice-President and Director of Environmental Assessment Services. He is responsible for project development, technical oversight and quality control.

1989 to 1991: Professional Service Industries, Inc. - Columbia, South Carolina

Mr. Pittenger was employed as Division Manager of the Columbia Environmental Services Division of PSI. His responsibilities included marketing, project development and division administration. While at PSI, Mr. Pittenger was also project manager for SCDOT Phase I and Phase II corridor assessment projects.

1986 to 1989: Environmental Technology Engineering, Inc. - Lexington, South Carolina

Mr. Pittenger served as staff engineer on a variety of projects, ranging from groundwater investigations to hazardous waste disposal facilities.

DIVISION III - SECTION 6

WATERS OF THE US PERMIT (SAC-2019-01397)



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT
69A HAGOOD AVENUE
CHARLESTON, SC 29403-5107

April 29, 2021

Regulatory Division

Mr. Sean Connolly
South Carolina Department of Transportation
P.O. Box 191, 955 Park Street
Columbia, South Carolina 29202
ConnollyMS@scdot.org

Dear Mr. Connolly:

This is in response to a Pre-Construction Notification (PCN) (SAC-2019-01397) and a mitigation modification request received and considered complete on March 8, 2022. In submitting the PCN, you requested verification the proposed project is authorized by a Department of the Army (DA), 2021 SCDOT Regional General Permit RGP 2-Road Widening.

The work affecting waters of the U.S. (WOUS) is part of an overall project known as the SCDOT Riverview Road (S-851) roadway improvements project across a tributary to Manchester Creek in York County, South Carolina (SCDOT Project ID# P029499). This project would include the widening of the existing roadway to provide a center turn lane. The widening will require the placement of a 22.81 linear foot culvert inlet extension to an existing 54-inch diameter culvert and placement of 50.12 linear feet of rock rip-rap armor at the culvert outlet. This culvert extension is directly adjacent to the existing Riverview Road and the culvert outlet is located approximately 350 feet west of the Riverview Road adjacent to Interstate 77 (I-77). The activities include impacts to not more than 73 linear feet of WOUS from the placement of the culvert extension and the rock armor rip rap. The project is located on and along an approximately one-mile-long segment of Riverview Road (S-851) across an unnamed tributary to Manchester Creek, from the intersection of Riverview Road and Celanese Road to the intersection of Riverview Road and Eden Terrace Road (S-284 in York County, South Carolina (Latitude: 34.972287 °, Longitude: -80.988543 °).

The PCN also includes the following supplemental information:

- a. Drawing sheets 1-7 of 7 titled "Riverview Road Improvements York County SCDOT Project: P029499 SAC 2019-01397" and dated September 2019.
- b. A mitigation plan/statement proposing the purchase or debit a total of 218 stream mitigation credits. Specifically, the purchase of 37 stream restoration credits from Taylors Creek Mitigation Bank and to purchase 72 stream restoration credits plus 109 stream preservation credits from Sandy Fork Mitigation Bank.

- c. A delineation of wetlands, other special aquatic sites, and other waters.
- d. SCDOT Impact Assessment which included: a Biological Survey for Threatened and Endangered Species, Archeological/ Historical review, Pre-Construction Notification Checklist dated September 24, 2021.

Based on a review of the PCN, including the supplemental information indicated above, the Corps has determined the proposed activity will result in minimal individual and cumulative adverse environmental effects and is not contrary to the public interest. Furthermore, the activity meets the terms and conditions of 2021 SCDOT RGP 2, (Roadway Widening).

For this authorization to remain valid, the project must comply with all conditions listed in the 2021 SCDOT General Permit and the following special conditions:

- a. **That prior to beginning the authorized work the permittee must obtain and provide the Corps with a copy of all appropriate state certifications and/or authorizations (e.g., Coastal Zone Management Act concurrence, State Navigable Waters Permit, etc.).**
- b. **That impacts to aquatic areas do not exceed those specified in the above mentioned PCN, including any supplemental information or revised permit drawings that were submitted to the Corps by the permittee.**
- c. **That the construction, use, and maintenance of the authorized activity is in accordance with the information given in the PCN, including the supplemental information listed above, and is subject to any conditions or restrictions imposed by this letter.**
- d. **That the permittee shall submit the attached signed compliance certification to the Corps within 30 days following completion of the authorized work.**
- e. **That as compensatory mitigation for impacts to aquatic resources, the permittee agrees to purchase or debit a total of 218 stream mitigation credits. Specifically, to purchase 37 stream restoration credits from Taylors Creek Mitigation Bank and to purchase 72 stream restoration credits plus 109 stream preservation credits from Sandy Fork Mitigation Bank, Corps approved mitigation banks.**
- f. **That in order to fulfill your responsibility to complete the required compensatory mitigation as set forth in Special Condition e, the permittee**

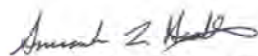
must submit evidence of the purchase or debit of the required mitigation credits to both the Corps of Engineers and SCDHEC prior to commencement of the authorized work.

This verification is valid until September 3, 2026, unless the district engineer modifies, suspends, or revokes the RGP authorization in accordance with 33 CFR 330.5(d). If prior to this date, the RGP authorization is reissued without modification or the activity complies with any subsequent modification of the RGP authorization, the verification continues to remain valid until September 3, 2026. If you commence, or are under contract to commence this activity before the RGP expires, or the RGP is modified, suspended, or revoked by the Chief of Engineers or division engineer in accordance with 33 CFR 330.5(b) or (c), respectively, in such a way that the activity would no longer comply with the terms and conditions of the RGP, you will have 12 months after the date the RGP expires or is modified, suspended, or revoked, to complete the activity under the present terms and conditions of this RGP.

This RGP is verified based on information you provided. It is your responsibility to read the attached DA SCDOT RGP, General Conditions and Special Conditions before you begin work. If you determine your project will not be able to meet the DA SCDOT RGP and the conditions, you must contact the Corps before you proceed.

In all future correspondence, please refer to file number SAC-2019-01397. A copy of this letter is forwarded to State and/or Federal agencies for their information. If you have any questions, please contact me at (803) 253-3445, or by email at Stephen.A.Brumagin@usace.army.mil.

Sincerely,



Amanda L. Heath
Chief, Special Projects Branch

Attachments

Permit Drawings
2021 SCDOT RGP
Compliance Certification Form

Copies Furnished:

Mr. Jackie Galloway
South Carolina Department of Transportation
P.O. Box 191, 955 Park Street
Columbia, South Carolina 29202
GallowayJA@scdot.org

SC DHEC - Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201
WQCWetlands@dhec.sc.gov



PERMITTED PLANS

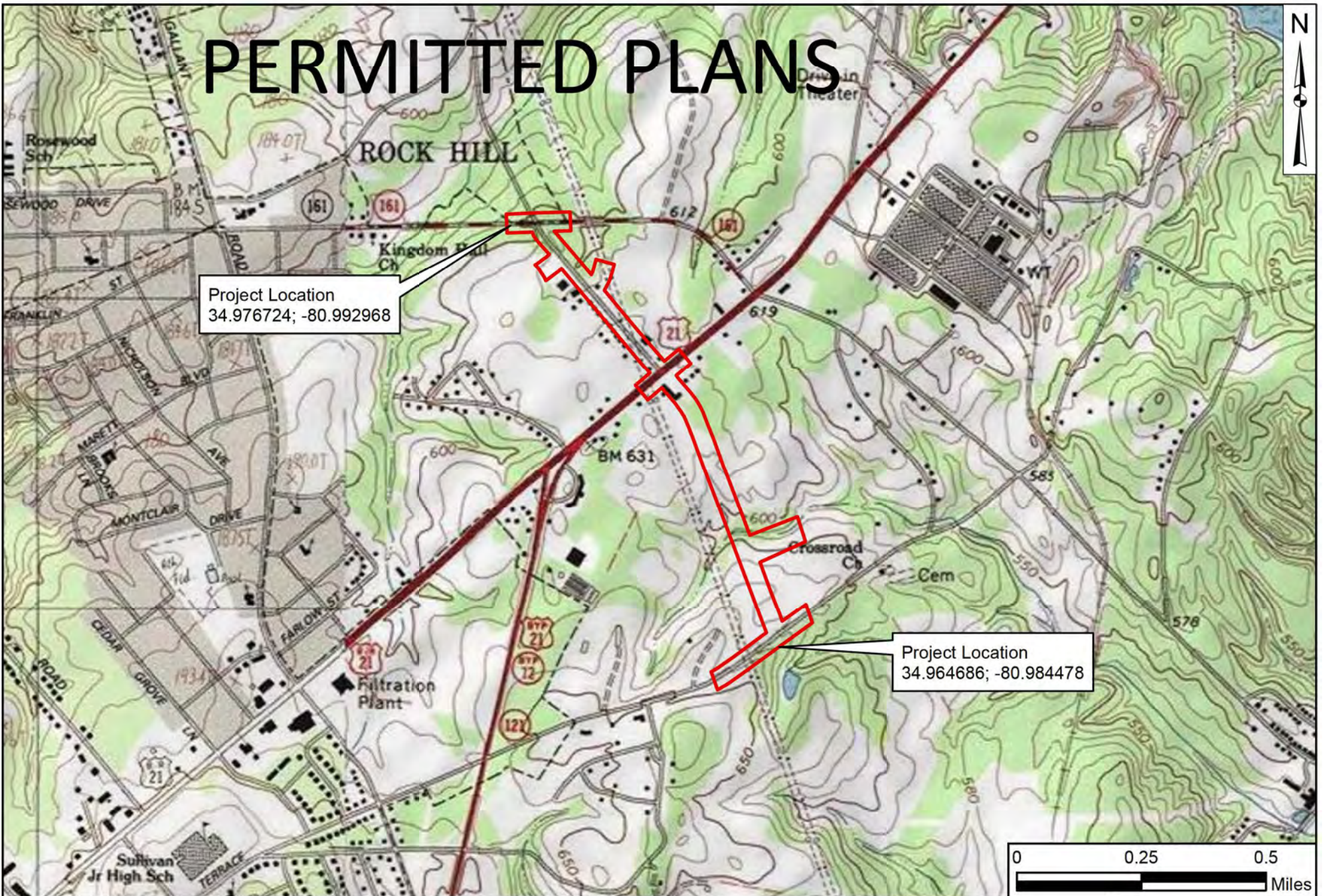


Riverview Road Improvements
 York County
 SCDOT Project: P029499
 SAC-2019-01397
 September 2019

Legend	
Interstate	Road
Study Area	Cities
Streams	US Route
SC Route	Project Study Area (38.73 Acres)

YORK COUNTY
Sheet 1 of 7
PROJECT LOCATION

PERMITTED PLANS




Project Location
34.976724; -80.992968

Project Location
34.964686; -80.984478



Riverview Road Improvements
York County
SCDOT Project: P029499
SAC-2019-01397
September 2019

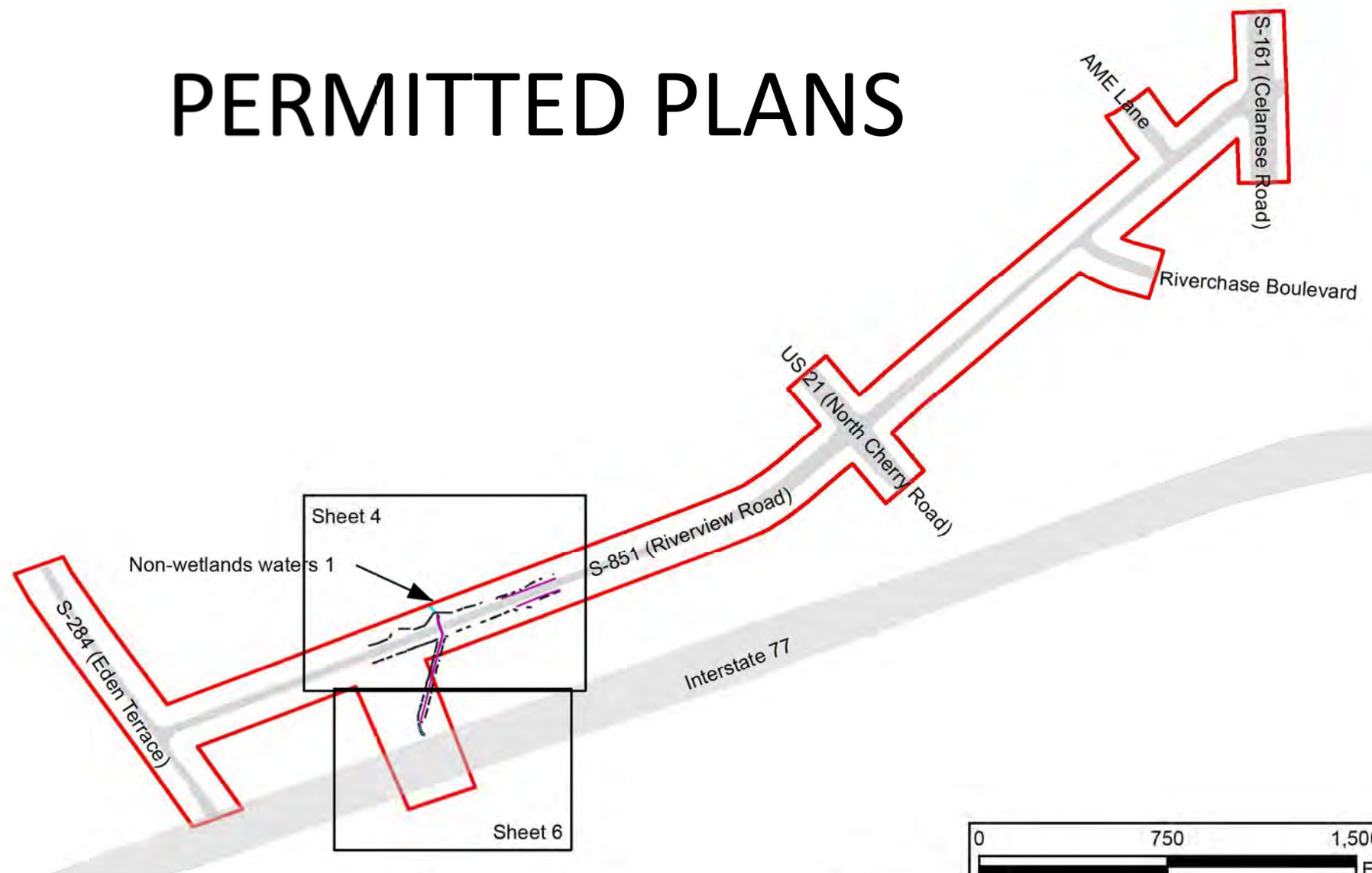
Legend

 Project Study Area (38.73 Acres)

YORK COUNTY
Sheet 2 of 7
TOPOGRAPHIC MAP



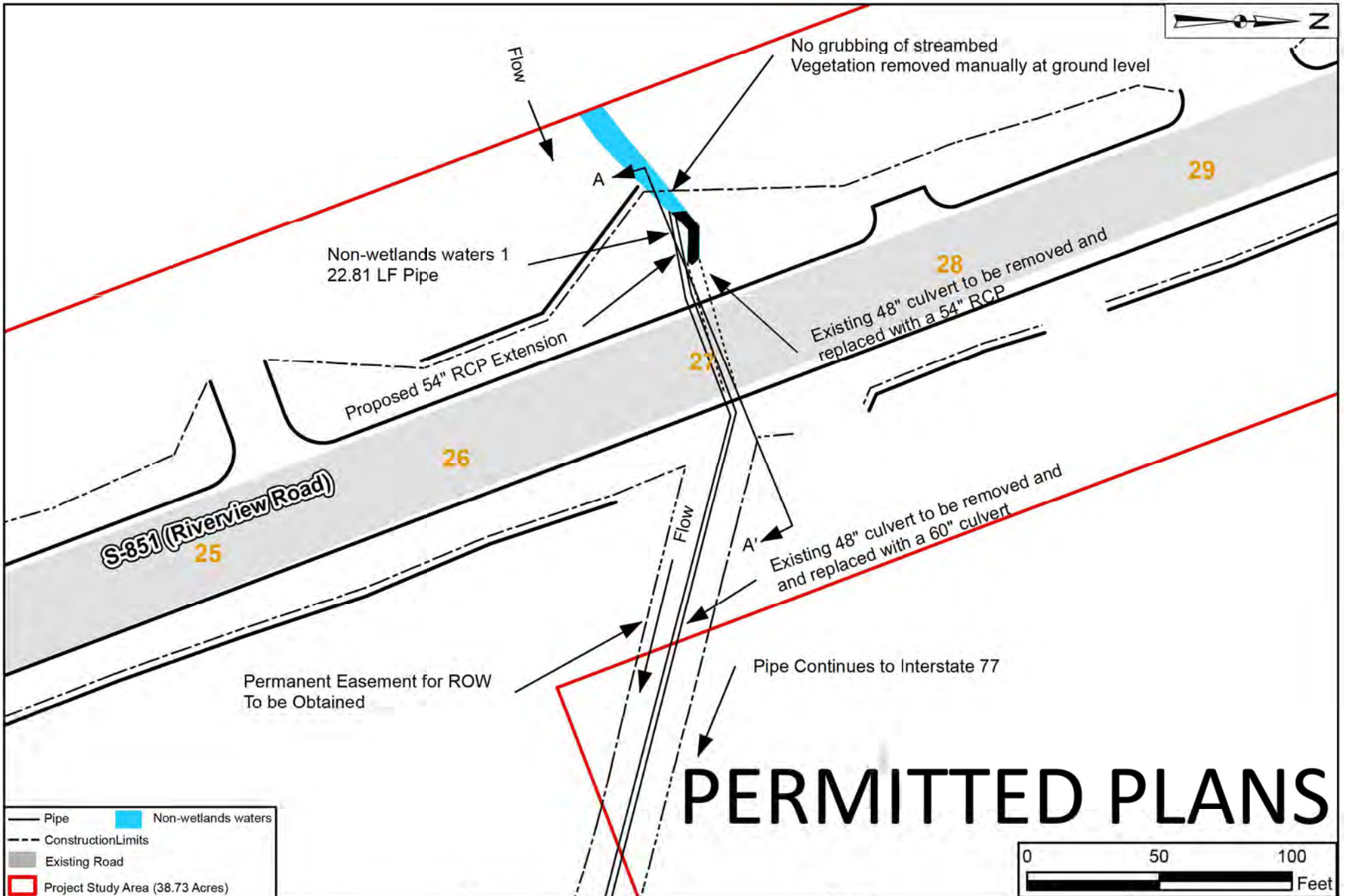
PERMITTED PLANS



Riverview Road Improvements
 York County
 SCDOT Project: P029499
 SAC-2019-01397
 September 2019

Legend	
	Pipe
	Non-wetlands waters
	Construction Limits
	Project Study Area (38.73 Acres)

YORK COUNTY
Sheet 3 of 7
PERMIT DRAWINGS OVERVIEW



- Pipe
- Non-wetlands waters
- Construction Limits
- Existing Road
- Project Study Area (38.73 Acres)

- Legend**
- Non-wetlands waters Pipe (22.81 LF / 0.002 Acres)



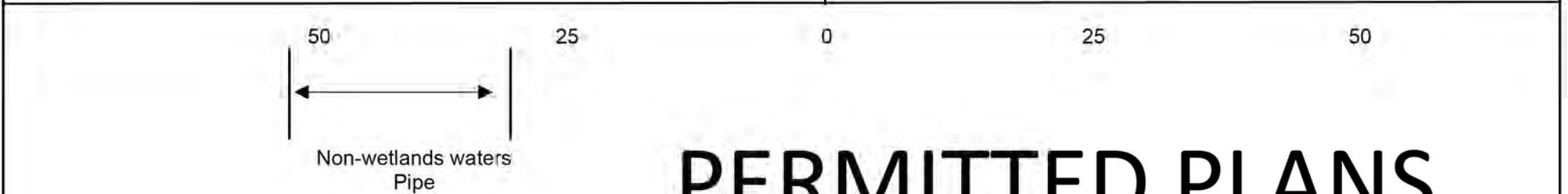
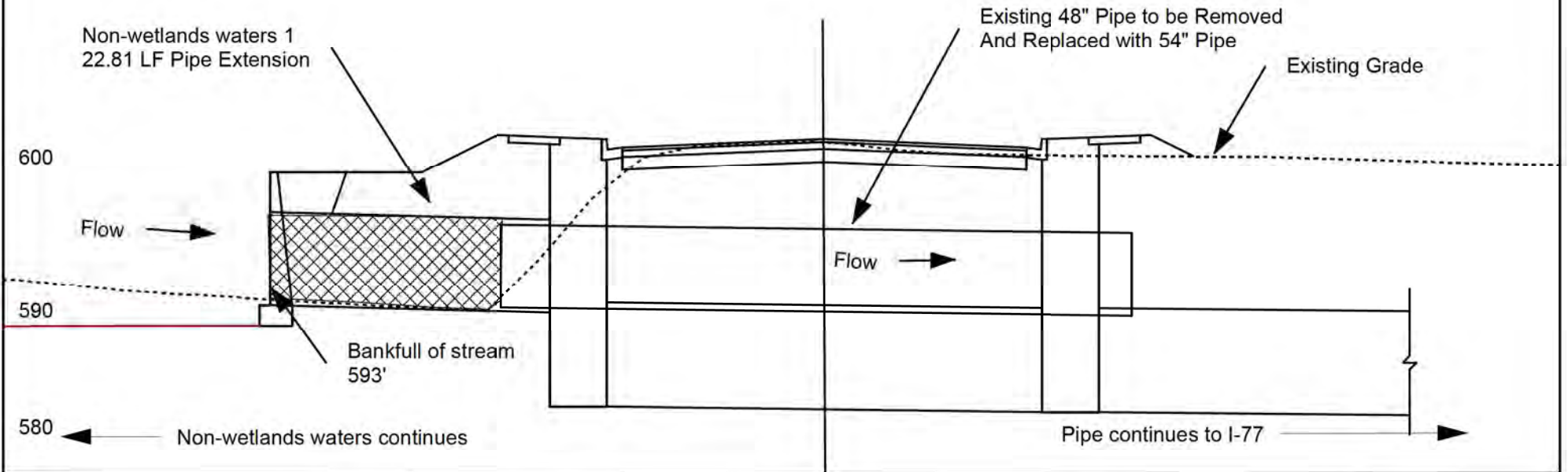
Riverview Road Improvements
 York County
 SCDOT Project: P029499
 SAC-2019-01397
 September 2019

YORK COUNTY

Sheet 4 of 7

PERMIT DRAWINGS
 PLAN VIEW

Sta. 27+00
SECTION A - A'
NON-WETLANDS WATERS 1




PERMITTED PLANS



Riverview Road Improvements
York County
SCDOT Project: P029499
SAC-2019-01397
September 2019

Legend

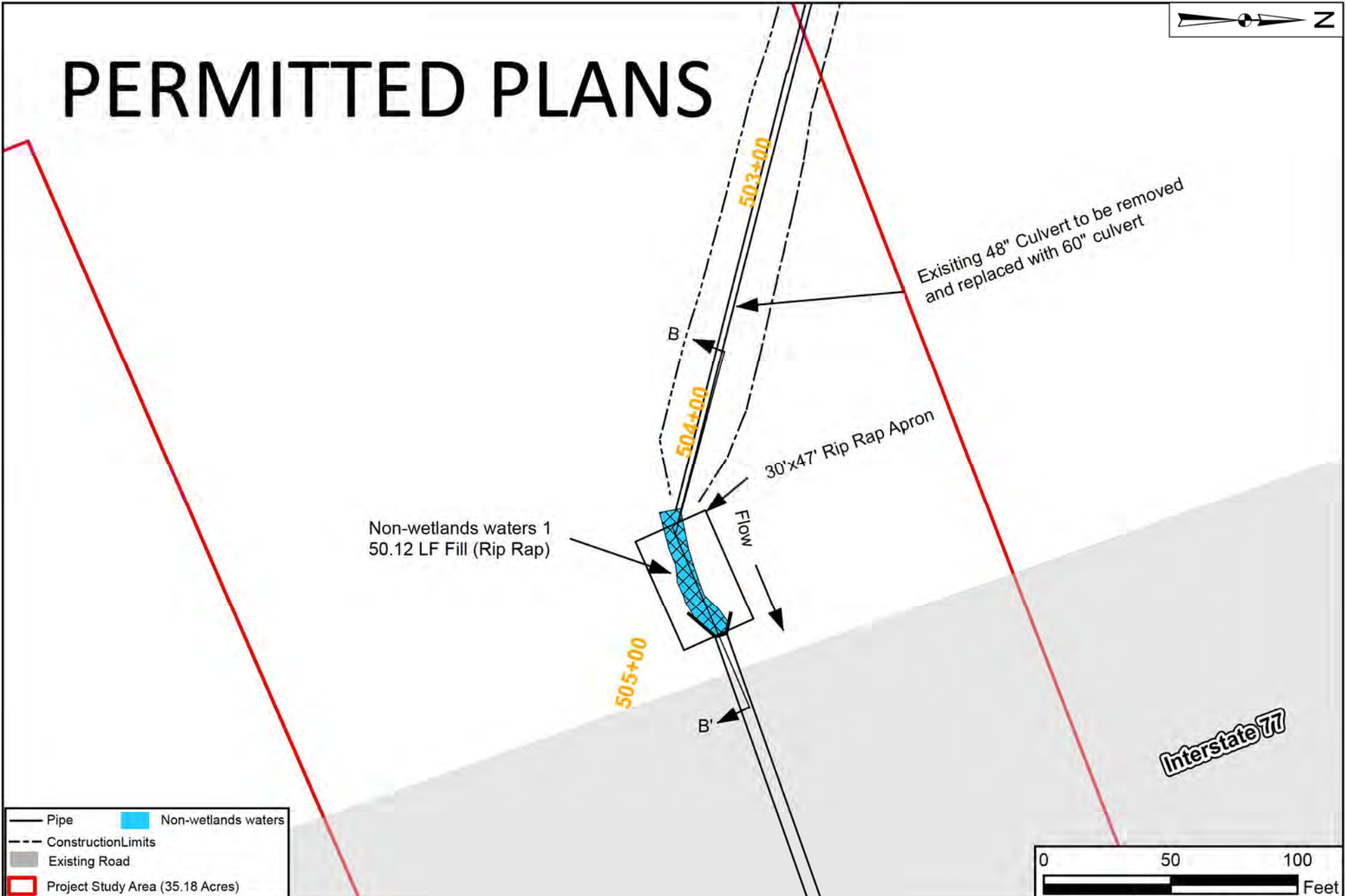
 Non-wetlands waters Pipe
(22.81 LF /0.002 Acres)

YORK COUNTY

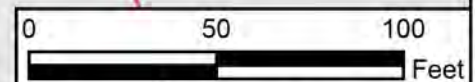
Sheet 5 of 7

PERMIT DRAWINGS
CROSS SECTION

PERMITTED PLANS



Pipe	Non-wetlands waters
Construction Limits	
Existing Road	
Project Study Area (35.18 Acres)	



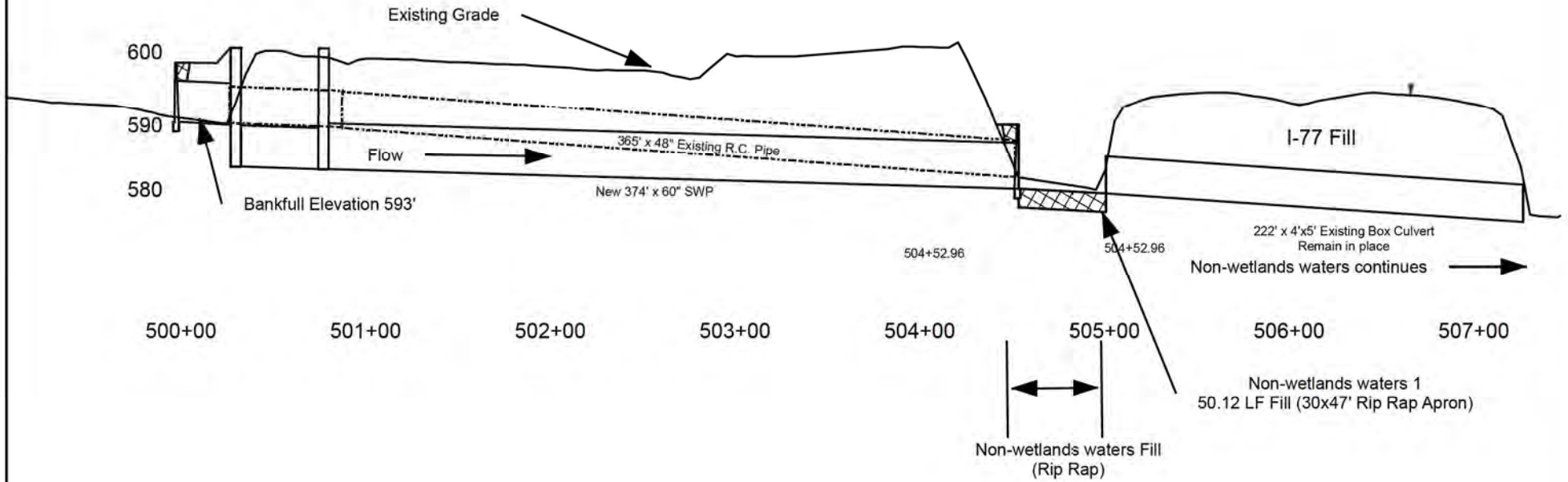
Riverview Road Improvements
 York County
 SCDOT Project: P029499
 SAC-2019-01397
 September 2019

Legend
 Non-wetlands waters Fill
 50.12 LF / 0.01 Acres)

YORK COUNTY
Sheet 6 of 7
PERMIT DRAWINGS PLAN VIEW


Sta. 504+99
SECTION B - B'
NON-WETLANDS WATERS 1

PERMITTED PLANS



Riverview Road Improvements
York County
SCDOT Project: P029499
SAC-2019-01397
September 2019

Legend

 Non-wetlands waters Pipe
(50.12 LF / 0.01 Acres)

YORK COUNTY

Sheet 7 of 7

PERMIT DRAWINGS
CROSS SECTION



**REGIONAL GENERAL PERMITS FOR ACTIVITIES ASSOCIATED WITH
LINEAR TRANSPORTATION PROJECTS
WITHIN WATERS OF THE U.S., LOCATED WITHIN THE STATE OF SOUTH
CAROLINA**

Authority: The Charleston District, U.S. Army Corps of Engineers (Corps) is authorizing the discharge of dredged and/or fill material in waters of the United States (U.S.), including navigable waters of the U.S. pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or to place structures or perform work in or affecting navigable waters of the U.S. pursuant to Section 10 of the Rivers and Harbors Act (33 U.S.C. 403), within the boundaries of the Charleston District in the State of South Carolina.

Purpose: The purpose of these Regional General Permits (RGPs) is to provide a simplified and expeditious means to authorize activities in waters of the U.S., including wetlands, that are similar in nature and cause only minimal individual and cumulative impacts, for specific transportation projects undertaken by the South Carolina Department of Transportation (SCDOT), within the State of South Carolina.

Description: These RGPs authorize the SCDOT to conduct activities required for the improvement, expansion, or maintenance of existing linear transportation projects in waters of the U.S., including navigable waters of the U.S., provided they meet the terms and conditions described herein. Only **one** RGP can be utilized for each single and complete project, defined by the stated purpose of the proposed project.

Charleston District Regional General Permits for Linear Transportation Projects		
RGP #	Project Purpose	Type of Project
RGP 2	Road Widening	Improvement
RGP 3	Intersection Improvements	Improvement
RGP 4	Bridge Replacements	Improvement
RGP 5	Roadway Improvements (to include shoulder improvements, addition of bike lanes, sidewalks or multi-use pathways, etc.)	Improvement
RGP 6	Roadway Maintenance Activities and Rip-Rap/ Scour Protection (roadway, causeway, bridge approaches, etc.)	Maintenance
RGP 7	Pipes and Culverts (replacements, extensions, etc.)	Maintenance
RGP 8	Cleaning and Repairing Existing Outfalls and Roadway Ditches	Maintenance

RGP 2 Road Widening

Activities required for the expansion of existing linear transportation projects for the purposes of widening an existing roadway for additional vehicular capacity (additional travel lanes) in waters of the U.S., including “navigable waters of the U.S.”, as well as the addition of bike lanes and pedestrian/multi-use pathways associated with road widening projects. Permanent and/or temporary impacts to waters of the U.S., including wetlands, for a single and complete project are not to exceed 3.0 acres of total impacts which can include up to 3.0 acres of non-tidal impacts, 0.5 acre of tidal water impacts, and 300 linear feet of non-tidal, waters of the US.

Authorized activities include the placement of fill in waters of the U.S. for suitable road base, pipe and culvert extensions, stabilization measures (i.e. rip-rap), etc. This RGP authorizes temporary structures, fills, and work necessary to expand the existing linear transportation project, in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties. This RGP also authorizes the installation of utility lines (when those utility lines are being installed due to the improvement, expansion, or maintenance of existing linear transportation projects) and the associated excavation, backfill, or bedding for the utility lines, in all waters of the U.S., provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the US, such as drainage tile or french drains.

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer and may only commence work upon written verification from the Corps of Engineers that the project is consistent with the terms and conditions of the RGP. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

RGP 3 Intersection Improvements

Activities required for the modification of existing transportation intersections for the purposes of improving the safety and/or traffic flow of vehicles at intersections to include the addition of turn lanes, slight shifts in alignment or alterations in the configuration of roadways or lanes, etc. in waters of the U.S., including “navigable waters of the U.S.” Permanent and/or temporary impacts to waters of the U.S., including wetlands, for a single and complete project are not to exceed 3.0 acres of total impacts, which can include up to 3.0 acres of non-tidal wetland/water impacts, 0.5 acre of tidal water impacts, and 300 linear feet of non-tidal, waters of the U.S.

Authorized activities include the placement of fill in waters of the U.S. for suitable road base, pipe and culvert extensions, stabilization measures (i.e. rip-rap), etc. This RGP authorizes temporary structures, fills, and work necessary to conduct construction activities, in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties. This RGP also authorizes the installation of utility lines (when those utility lines are being installed due to the improvement, expansion, or maintenance of existing linear transportation projects) and the associated excavation, backfill, or bedding for the utility lines, in all waters of the U.S., provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the U.S., such as drainage tile or french drains.

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer and may only commence work upon written verification from the Corps of Engineers that the project is consistent with the terms and conditions of the RGP. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

RGP 4 Bridge Replacements

Activities required for the replacement of existing bridges in waters of the U.S., including “navigable waters of the U.S.” and includes widening causeways and/or bridge abutments to allow for additional capacity (vehicular travel lanes and/or pedestrian access). This RGP includes bridge replacements on existing alignment, shifts in alignment, and includes improving existing bridges to allow for additional vehicular capacity (additional travel lanes). Permanent and/or temporary impacts to waters of the U.S., including wetlands, for a single and complete project are not to exceed 3.0 acres of total impacts which can include up to 3.0 acres of non-tidal wetland/water impacts, 0.5 acre of tidal water impacts, and 300 linear feet of non-tidal, waters of the US.

Authorized activities include the placement of fill in waters of the U.S. for suitable causeway, bridge approaches and/or bridge abutments, stabilization measures, (i.e. rip-rap), sheet pile walls, bulkheads, or other retaining walls, etc. This RGP authorizes temporary structures, fills, and work necessary to replace existing bridges in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties. This RGP also authorizes the installation of utility lines (when those utility lines are being installed due to the improvement, expansion, or maintenance of existing linear transportation projects) and the associated excavation, backfill, or bedding for the utility lines, in all waters of the U.S., provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the US, such as drainage tile or french drains.

For proposed bridge replacements that include shifts in alignment, it will be solely the Corps' discretion when a shift in alignment becomes such that an alternatives analysis is required (for example, a proposed alignment will adversely impact a tidal creek not currently impacted by the existing structure) and/or the proposed alignment is not considered an improvement or expansion of an existing linear transportation project, but a new alignment and as such will be evaluated for authorization via a Nationwide Permit or a Standard, Individual Permit.

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer and may only commence work upon written verification from the Corps of Engineers that the project is consistent with the terms and conditions of the RGP. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

RGP 5 Roadway Improvements (to include shoulder improvements, addition of bike lanes, sidewalks or multi-use pathways, etc.)

Activities required for the improvements of existing roadways, for purposes other than increasing vehicular capacity (additional travel lanes), which require fill in waters of the U.S., including “navigable waters of the U.S.” or where the project purpose is to improve an existing linear transportation project by the addition of bike lanes, sidewalks or multiuse pathways, shoulder improvement activities, etc. Permanent and/or temporary impacts to waters of the US, including wetlands, for a single and complete project are not to exceed 2.0 acres of total impacts, which can include up to 2.0 acres of non-tidal wetland/water impacts, 0.5 acre of tidal water impacts, and up to 300 linear feet of waters of the U.S.

This RGP can be used for the installation of bike lanes, sidewalks and/or multi-use pathways not associated with increasing vehicular capacity as well as shoulder improvement activities needed for safety purposes, the addition of turn lanes, the addition of guardrails, or other improvements to existing roadway shoulders.

This RGP also authorizes fill for the purposes of protecting side slopes from erosion/scour, etc., replacing or extending culverts and/or pipes, etc. This RGP also authorizes temporary structures, fills, and work necessary to conduct construction activities, in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties.

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer and may only commence work upon written verification from the Corps of Engineers that the project is consistent with the terms and conditions of the RGP. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

RGP 6 Roadway Maintenance Activities and Rip-Rap/ Scour Protection (roadway, causeway, bridge approaches, etc.)

Activities required for the protection and maintenance of existing roadway surfaces, to include existing causeways, bridge approaches, etc. which require fill in waters of the US, including “navigable waters of the U.S.” to include the installation of rip-rap (or other stabilization materials), sheet pile walls, bulkheads, or other retaining walls, as well as fill for road shoulder rehabilitation activities. Permanent and/or temporary impacts to waters of the U.S., including wetlands, for a single and complete project are not to exceed 2.0 acres of total impacts, which can include up to 2.0 acres of non-tidal wetland/water impacts, 0.5 acre of tidal water impacts, and up to 200 linear feet of waters of the U.S.

This RGP also authorizes temporary structures, fills, and work necessary to conduct construction activities, in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties.

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer prior to commencing the activity. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

RGP 7 Pipes and Culverts (replacements, extensions, etc.)

Activities required for the improvements or replacements of existing pipes and culverts associated with existing roadway shoulders which require fill in waters of the U.S., including “navigable waters of the U.S.” Permanent and/or temporary impacts to waters of the U.S., including wetlands, for a single and complete project are not to exceed 1.0 acre of total impacts which can include up to 1.0 acre of non-tidal wetland/water impacts, 0.5 acre of tidal water impacts, and up to 100 linear feet of waters of the U.S.

This RGP also authorizes the installation of rip-rap (or other erosion protection), wing walls, head walls, outfall aprons, etc. for the purposes of protecting areas around culverts and/or pipes and temporary fills associated with replacement or improvements of pipes and culverts during construction. This RGP authorizes temporary structures, fills, and work necessary to conduct construction activities, in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties.

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer prior to commencing the activity. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

RGP 8 Cleaning and Repairing Existing Structures and Roadway Ditches

Activities required for the cleaning and repairing existing structures in waters of the U.S. and roadway ditches (determined to be waters of the U.S.) associated with existing roadways, which require fill in waters of the U.S., including “navigable waters of the U.S.” Permanent and/or temporary impacts to waters of the U.S., including wetlands, for a single and complete project are not to exceed 1.5 acres of total impacts, which can include up to 1.5 acres of non-tidal wetland/water impacts, 0.5 acre tidal water impacts, and up to 300 linear feet of waters of the US.

Authorized activities include modifying the existing cross-sectional configuration of currently serviceable drainage ditches constructed in waters, the installation of rip-rap (or other erosion protection) for the purposes of protecting road base and areas around culverts and/or pipes and temporary fills associated with replacement or improvements of pipes and culverts during construction. This RGP authorizes temporary structures, fills, and work necessary to conduct construction activities, in accordance with all terms and conditions listed herein to ensure the project results in only minimal impacts within the project area, as well as to adjacent properties.

Note: Maintenance of existing ditches (to include excavations of accumulated sediments back to original contours, re-shaping of side slopes, armoring or piping previously armored or piped sections within the same footprint of previously authorized work, and/or the replacement of existing control structures, where the original function is not changed and the capacity is not increased) is considered an exempt activity under Section 404(f)(1)(C) of the Clean Water Act so long as the activity is consistent with Section 404(f)(2) and 33 CFR.323.4 and 40 CFR 232.3. These do not allow any discharges into a water of the U.S. that is:

- part of an activity whose purpose is to convert an area of the waters of the U.S. into a use to which it was not previously subject;
- where the flow or circulation of waters of the U.S. may be impaired;
- the reach of such waters reduced;
- where the proposed discharge will result in significant discernible alterations to flow or circulation (the presumption is that flow or circulation may be impaired by such alteration).

Notification: SCDOT must submit a pre-construction notification to the Charleston District Engineer prior to commencing the activity. (See Section III. Pre-Construction Notification Requirements) (Sections 10 and 404)

I. General Conditions

1. Activities which are not specified in these Regional General Permits or which exceed their limitations will require authorization under a Department of the Army Standard, Individual Permit or Nationwide Permit authorization from the Charleston District, US Army Corps of Engineers. The District Engineer may also require authorization under a Department of the Army Standard, Individual Permit on a case-by-case basis if it is determined that authorization under a Regional General Permit might be contrary to the public interest.
2. This General Permit does not authorize the interference with any existing or proposed Federal project and SCDOT will not be entitled to compensation for damages or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the U.S. in the public interest.
3. These Regional General Permits do not convey any property rights, either in real estate or material, or any exclusive privileges; and do not authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations, nor does it obviate the requirement to obtain other Federal, State, local assent or to comply with any applicable standards required by ordinance for the activities authorized herein. Other Federal, State, or local agencies are not limited by this document and may impose more stringent requirements than those stated herein as they see fit.
4. SCDOT shall allow the District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed under authority of these permits are in accordance with the terms and conditions prescribed herein. The Charleston District reserves the right to require post-construction engineering drawings and/or surveys of any work authorized by these Regional General Permits, as deemed necessary.
5. Upon receipt of a notice from the District Engineer for failure to comply with the terms, conditions, or standards of any given Regional General Permit, SCDOT must, within 60 days, without expense to the US, and in such manner as directed by the District Engineer or his authorized representative(s), effect compliance with the terms, conditions, and standards or remove the previously authorized structure/fill.
6. All activities identified and authorized herein shall be consistent with the terms and conditions of these Regional General Permits; any variance not specifically identified and authorized herein shall constitute a violation of the terms and conditions of these permits which may result in the modification, suspension, or revocation of the authorization, as set forth below and in the institution of such legal proceedings as the US Government may consider appropriate.

Authorization of a specific work or structure authorized herein may be summarily suspended in whole or in part upon a finding by the District Engineer that immediate suspension would be in the general public interest or there has been a violation of any terms and conditions of this permit. Such suspension shall be effective upon receipt by SCDOT of a written notice thereof, which shall indicate:

- (i) The extent of the suspension;
- (ii) The reasons for this action;
- (iii) Any corrective or preventative measures to be taken by SCDOT which are deemed necessary by the District Engineer to abate imminent hazards to the general public interest.

SCDOT shall take immediate action to comply with the provisions of this notice. Within ten (10) days following the receipt of this notice of suspension, SCDOT may request a meeting with the District Engineer or a public hearing to present information relevant to a decision whether their permit should be reinstated, modified, or revoked. If a public hearing is requested it shall be conducted pursuant to procedures prescribed by the Chief of Engineers. After completion of the public hearing or within a reasonable time after issuance of the suspension notice to SCDOT if no hearing is requested, the authorization of the specific work or structure will be reinstated, modified, or revoked. Any modification, suspension, or revocation of authorization under these Regional General Permits shall not be the basis for any claim for damages against the U.S.

7. As determined by the District Engineer, or his designee, there will be no unreasonable interference with navigation or the right of the public to riparian access by the existence or use of activities authorized by these Regional General Permits.
 - a. No authorized activity may cause more than a minimal adverse effect on navigation.
 - b. SCDOT understands and agrees that if future operations by the U.S. require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his/her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, SCDOT will be required, upon due notice from the Charleston District, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.
8. The Charleston District may impose other special conditions on a project authorized pursuant to these Regional General Permits that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including additional special conditions, constitutes a permit violation and may subject SCDOT, or his/her contractor, to criminal, civil, or administrative penalties and/or restoration.
9. Authorization under any of the Regional General Permits does not obviate the need to obtain other Federal, state or local authorizations required by law or to comply with all Federal, state, or local laws.
10. SCDOT will ensure that a copy of this Regional General Permit document, the accompanying authorization letter and all approved permit drawings are at the work site at all times. These copies must be made available to any regulatory representative upon request. Although SCDOT may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be expected to comply with all conditions of the Regional General Permits.

II. Special Conditions

The following Special Conditions are applicable to **ALL** the Regional General Permits (RGP) issued to SC Department of Transportation described in this document. This RGP contains certain limitations intended to protect the environment including natural and cultural resources. However, conformance with the conditions contained in the permit does not necessarily guarantee authorization. In cases where the District Engineer, or his designee, considers it necessary, a Standard, Individual Department of the Army permit will be required.

1. Water quality.
 - a. All activities authorized by these Regional General Permits that involve the discharge of dredged or fill material in waters of the US will be consistent with applicable water quality standards, effluent limitations, and standards of performance, prohibitions, pre-treatment standards and management practices established pursuant to the Clean Water Act (33 U.S.C. 1344) and applicable State and local law.
 - b. SCDOT must make every reasonable effort to conduct the work authorized herein in a manner to ensure that there is no more than a minimal adverse effect on water quality.
 - c. For projects potentially impacting impaired waters, Outstanding Resource Water (ORW), shellfish harvesting waters and other sensitive waters, the SCDOT must implement best management practices and post construction stormwater treatment to provide a reasonable assurance that the proposed project will not contribute to impairments or degrade water quality. A stormwater management plan must be submitted to SCDHEC in accordance with requirements of the SCDOT MS4 NPDES Stormwater Permit.
 - d. No activity may use unsuitable material (e.g. trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
2. Historic properties.
 - a. SCDOT must submit a statement to the Corps regarding the authorized activity's potential to cause effects to any historic properties (i.e. any prehistoric or historic district, site, building, structure, or object) listed in, or determined to be eligible for listing on, the National Register of Historic Places, including previously unidentified properties. The statement must say which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location or potential for the presence of historic resources can be sought from the South Carolina State Historic Preservation Office (SHPO) and the National Register of Historic Places. Where SCDOT has identified historic properties which the proposed activity may have the potential to cause effects and so notified the Charleston District, SCDOT shall not begin the activity until notified by the Charleston District that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.
 - b. SCDOT should be aware that Section 110(k) of the NHPA (16 U.S.C. § 470(h)-2(k)) prevents the Corps from granting a permit or other assistance to SCDOT who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effects created or permitted by the SCDOT. If circumstances justify granting the assistance, the Charleston District is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from SCDOT, SHPO, Tribal Historic Preservation Officer, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have legitimate interest in the impacts to the permitted activity on historic properties. If SCDOT, during construction or work authorized herein, encounters a previously unidentified

archaeological or other cultural resource, he/she must immediately stop work and notify the Charleston District of what has been found. Coordination with the SHPO and all appropriate consulting parties will commence and SCDOT will subsequently be advised when he/she may recommence work.

3. Endangered species.

a. No activity is authorized which:

- (i) Is likely to jeopardize the continued existence of any threatened or endangered species or threatened species, or species proposed for such designation, as identified under the Endangered Species Act of 1973, or which will result in the destruction or adverse modification of designated critical habitat of such species;
- (ii) "May affect" a listed species or critical habitat, unless Section 7 (Federal Endangered Species Act) consultation addressing the effects of the proposed activity has been completed.
- (iii) Involves the "take" of a threatened or endangered species as defined under the ESA without separate authorization (e.g., a Biological Opinion with "incidental take" provisions) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.

b. SCDOT shall include, in their permit applications, information regarding the presence of any federally listed threatened or endangered species or designated critical habitat in the vicinity of the project site that might be affected by the proposed work.

4. Essential Fish Habitat.

a. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297; 11 October 1996), requires all Federal agencies to consult with the National Marine Fisheries Services (NMFS) regarding any of their actions authorized, funded, or undertaken or proposed to be authorized, funded, or undertaken that may adversely affect Essential Fish Habitat (EFH). SCDOT must notify the District Engineer if the activity authorized by this General Permit may adversely affect EFH including indirect affects to EFH from actions outside the EFH. The activity is not authorized until the District Engineer determines that the requirements of the Magnuson-Stevens Fisheries Conservation and Management Act have been satisfied.

b. Any projects that involve activities, including structures, excavation, discharges of dredged or fill material, etc. that are proposed in tidal waters require early coordination with the Charleston Office of the NMFS Habitat Conservation Division located at 219 Fort Johnson Road, Charleston SC 29412. An EFH assessment and copies of all coordination must be provided as described in Section III. (3) SCDOT cannot begin work until written approval is received from the Corps.

5. Anadromous Fish. Activities authorized under these RGPs must be avoided to the maximum extent practicable during the months of February, March, April, May and June in waters where anadromous fish spawn or migrate. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of a spawning area are not authorized under these RGPs.

6. Migratory Bird Breeding Areas. Activities in waters of the US that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
7. Floodplains. SCDOT is advised that development activities in a 100-year floodplain, as designated in the Federal Emergency Management Agency's (FEMA) Flood Insurance Study Data, are subject to the floodplain management regulations of the National Flood Insurance Program [(NFIP) (44 CFR)]. The NFIP further prohibits any development within a designated floodway, including placement of fill that results in any increase in base flood elevations. SCDOT must also comply with the FEMA-U.S. Federal Highway Agreement on Floodplain Management. A statement ensuring compliance with applicable regulations must be included in the Pre-Construction Notification. See Section III (3).
8. SCDOT must coordinate with the appropriate state and/or federal agency when a project represents an intrusion into Outstanding Resource Waters, Wild and Scenic Rivers, Trout Streams (as defined by State Regulations 61-68 and 61-69), Wildlife Management Areas and National Estuarine Sanctuaries, Designated Shellfish Grounds, State Heritage Trust Preserves, State Parks, National Wildlife Refuge, or protected lands (previous mitigation/ restoration area). Detailed project information impacting these sensitive areas shall be presented at an interagency coordination meeting (or provided directly to appropriate agencies) during the early phases of development. The notification/application, as described in Section III.(3)(k) shall contain a summary and/or copy of the coordination that occurred.
9. Minimal impacts. SCDOT must make every reasonable effort to conduct the work authorized herein in a manner so as to avoid and minimize any adverse impact to fish, wildlife, and other environmental resources.
 - a. No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the water body, including those species that normally migrate through the area. Pipes or culverts placed in streams and wetlands must be appropriately sized and installed in a manner that prevents erosion and allows adequate passage of the aquatic community and provide unimpeded flow of flood waters. Culverts and pipes placed in tidal waters must be sized and positioned to maintain fish passage and allow for unimpeded tidal flow.
 - b. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, must avoid and minimize potential impacts to shellfish resources to the greatest extent possible. Activities should occur in areas with the least amount of shellfish or in areas void of shellfish resources, if possible. Direct encroachment on any natural shellfish beds should be avoided.
 - c. All activities or structures proposed in waters of the US must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates) in freshwaters. For activities in tidal waters, preconstruction bi-directional flow conditions must be maintained or improved. Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to pre-construction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is

part of a larger system designed to manage water flows. Tidal waters should not be channelized. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow.

- d. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary structures, fills, and/or work including the use of temporary mats are authorized for the minimum amount of time necessary to accomplish the work, which shall not exceed a period of 180 days without additional Corps approval. The temporary structures, fills, and/or work including the use of temporary mats, shall be removed as soon as the work is complete, and the disturbed areas be restored to pre-construction contours and conditions. The temporary mats include timber mates, metal, synthetic and/or artificial mats, or other materials that may serve the purpose of mats.
- e. All road crossings that utilize culverts must be appropriately sized and positioned to maintain flow. All permanent and temporary culverted road crossings shall be constructed to maintain low flow to sustain the movement of aquatic species and should be designed and constructed to minimize the adverse effects to aquatic life movements. This is a minimum requirement that does not replace local and State requirements for roadway design.
- f. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. SCDOT is encouraged to perform work within waters of the U.S. during periods of low-flow or no-flow conditions.
- g. Prior to the beginning of any construction activities, appropriate erosion control measures, such as silt fences, silt barriers or other suitable devices, must be placed between the construction area and affected waterways (including wetlands); and maintained in a functioning capacity until the area is permanently stabilized.
- h. All steps necessary must be taken to prevent oil, tar, trash, debris and other pollutants from entering adjacent wetlands and/or waterways. A spill response plan and all related spill materials should be on-site during all phases of construction.
- i. Construction access areas must be clearly identified in the permit application or, construction access must consist of minimal clearing for installation of elevated working platform(s), timber mat(s) or barge(s). Impacts will be temporary and minor in nature. All impacts for construction access count towards the thresholds allowed under these Regional General Permits.
- j. Construction activities must avoid encroachment into any waters of the US not designated as impact areas.
- k. Side slopes must be designed and constructed to minimize impacts to aquatic resources to the maximum extent practicable.
- l. SCDOT must ensure that the wetland boundaries are clearly identified (by flagging, fencing, or other means of identification) for the construction contractor.

- m. Once initiated, projects must be carried to completion in an expeditious manner in order to minimize the period of disturbance and upon completion, all disturbed areas must be permanently stabilized with vegetative cover and/or rip-rap, as appropriate.
10. Mitigation. SCDOT will submit a mitigation plan in accordance with the 2008 Mitigation Rule and the *2010 SAC Guidelines for Preparing a Mitigation Plan* (or the current documents superseding either of these two documents).
- a. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the US to the maximum extent practicable at the project site.
 - b. Mitigation in all forms (avoiding, minimizing, rectifying, reducing, or compensating for resources losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.
 - c. Compensatory mitigation will be required in accordance with the *2010 SAC Guidelines for Preparing a Mitigation Plan* (or the current SAC Guidance/Proceedures superseding this document), for all wetland losses that exceed 1/10-acre unless the District Engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less, the District Engineer may determine on a case by case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment.
 - d. These Regional General Permits allow for SCDOT to perform stream and/or wetland restoration activities associated with a project-specific mitigation plan approved and authorized by the Corps, provided all work in waters of the U.S. is included in the pre-construction notification. SCDOT will not have to submit for a separate permit for activities in waters of the U.S. associated with the restoration of former waters, the enhancement of degraded tidal and non-tidal wetlands and riparian areas, and the restoration and enhancement of tidal/ non-tidal streams and tidal/ non-tidal open waters if the work is part of an approved mitigation plan. These activities may include installation of ditch plugs, the placement of in-stream habitat structures, modifications of stream bed and/or banks to restore or create meanders, or the creation of riffle and pool stream structures.
11. Single and complete project. All projects authorized under a Regional General Permit must be a single and complete project and meet the requirements for independent utility. A project that is determined to be single and complete will not be segmented or "piece mealed" in order to qualify for multiple Regional General Permits.
12. Wild and Scenic Rivers (Chattooga River)
- a. No activity is authorized that impacts the Chattooga River.

III. Pre-Construction Notification Requirements

- 1. The SCDOT shall submit a complete Pre-Construction Notification (PCN) package to the Corps, requesting verification that a proposed project is authorized under the terms and conditions of one of the Regional General Permits described herein. The PCN shall not be deemed complete until the Corps has verified that the delineation of waters of the U.S. is accurate.

2. SCDOT shall submit a PCN Form (Enclosure 1). This form is to assist the applicant in submitting complete and proper information. Please note that this is not an exhaustive list of information that may be required as each project has unique components; more information may be required to complete a PCN Form for any given project. All information provided in the form shall be succinct, accurate, and project specific.
3. Contents of a Complete PCN:
 - a. A complete Joint Federal and State Application Form;
 - b. Completed PCN Form;
 - c. A delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. (see PCN Form for additional details);
 - d. A statement as to whether the Federal Highway Administration has completed a NEPA document for the proposed project. If so, a copy should be provided;
 - e. Proposed Project Plans to include a location map, plan view and cross sectional diagrams depicting the existing transportation facility and the proposed activities. The proposed plans should depict the entire project with specific detail provided for impacts to waters of the U.S. Cross sectional diagrams should be provided for every typical wetland fill and all open water crossings. All proposed bridge replacement projects should also include bridge profile drawings. Appropriate dimensions of the project as well as acreages or linear feet of impacts should be depicted clearly on the plans, as well as a project specific title block.
 - f. A detailed discussion of how impacts were avoided and minimized from the initial phase of the project plans to the project plan that is currently being proposed.
 - g. Information pertaining to the presence and/or the projects potential affects to historic properties (to assist in complying with Section 106 of the National Historic Preservation Act of 1966). Copies of any coordination with SHPO should be provided, to include material submitted to SHPO for review, as well as response(s) received. Copies of screening forms and supplemental materials should also be provided if the project was reviewed under an existing Section 106 Programmatic Agreement with SHPO;
 - h. Biological Assessment Report to include an assessment of potential impacts to Federally Threatened and Endangered Species and copies of habitat surveys. Copies of any coordination with USFWS and/or NMFS should be provided, to include material submitted to USFWS and/or NMFS for review, as well as the response(s) received;
 - i. Essential Fish Habitat (EFH) Assessment or statement stating why no EFH Assessment was conducted. Copies of any coordination with NMFS should be provided, to include material submitted to NMFS for review, as well as the response(s) received;
 - j. Mitigation Plan (to comply with the 2008 Mitigation Rule and the 2010 SAC Guidelines for Preparing a Mitigation Plan or the current documents superseding either of these two documents);

- k. Documentation of coordination that occurred with resource agencies, as required by II. Special Condition 6.

4. Pre-Construction Notification Timing.

- a. For projects considered Improvement Projects (see table above): SCDOT shall not begin work on a proposed project until receipt of written verification from the Corps that the activity may proceed under one of the Regional General Permits described herein.
- b. For projects considered Maintenance Projects (see table above): If the Corps has not requested additional information, nor approved a request for authorization for one of the RGPs, the applicant may commence work 45 calendar days past the date from the District Engineer's receipt of the complete PCN.

Note: It is SCDOT's responsibility (through FHWA, as appropriate) to determine and document that the project will have "no effect" on listed species or that consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) is complete; **and** that the project has "no potential to cause effects" on historic properties or that consultation required under Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) is complete **and** that the project will cause "no adverse effects" to EFH, or that consultation under the Magnuson-Stevens Act is complete. If the PCN is considered incomplete due to potential impacts to federally threatened or endangered species and/or critical habitat (Federal Endangered Species Act), historic properties (Section 106 of the National Historic Preservation Act of 1966, or essential fish habitat (EFH), SCDOT cannot begin the activity until receiving written notification from the Corps that consultation requirements have been met.

In addition, if the District Engineer notifies SCDOT in writing (within 45 calendar days of receipt of a PCN) that an individual permit is required, SCDOT cannot begin the activity in waters of the US until an individual permit has been obtained.

IV. PROHIBITED ACTIVITIES:

All work that exceeds the terms and conditions specified herein is prohibited unless an Individual or Nationwide Department of the Army Permit has been obtained from the Corps of Engineers. All work for purposes other than those specified herein is expressly not authorized by this document.

V. REQUIRED AUTHORIZATIONS:

Prior to performing any of the work authorized herein, the permittee shall obtain all necessary state permits from the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management and any other required Federal, State, or local authorizations.

VI. PENALTIES FOR VIOLATIONS:

Authorization obtained under these Regional General Permits limits the size, length and use of structures. Any deviation from the specifications, or other terms or conditions of the General Permit shall constitute a violation of Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act, and may result in the District Engineer seeking judicial relief to have SCDOT remove the structure or work and/or restore the project area to its former condition, as well as the imposition of penalties as provided by law.

VII. LIMITS OF FEDERAL LIABILITY:

In issuing these permits, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the US in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

VIII. REVOCATION OF THE GENERAL PERMIT:

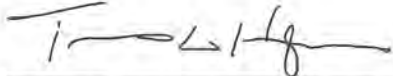
These permits may be revoked by issuance of a public notice at any time the District Engineer determines that the cumulative effects of the activities authorized herein have an adverse effect on the public interest. Following such revocation, any future activities in areas covered by these General Permits will be processed as Individual or Nationwide Permits.

IX. DURATION OF THE GENERAL PERMIT.

These Regional General Permits will cover activities started within five (5) years and completed within six (6) years after the initial date of issuance, unless these RGPs are revoked in the interim. At the end of the first year and every succeeding year, the Corps of Engineers will review activities authorized by these Regional General Permits to determine if significant cumulative impacts have resulted. If the District Engineer determines revocation of this permit, in whole or in part, may be in order due to cumulative impacts, a public notice of the intention will be issued and after a review of all additional data submitted, action will be taken to amend, modify or revoke this permit as appropriate. Revocation of the General Permit will not affect the work that had been authorized when the General Permit was in effect if such work is in accordance with the provisions contained herein.

These Regional General Permits shall become effective on the date of the District Engineer's signature.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:



Andrew C. Johannes, PhD PE PMP
Lieutenant Colonel, U.S. Army
Commander and District Engineer
or their Designee
Travis G. Hughes
Chief, Regulatory Division

3 September 2021
Date

Permit Number: _____

Name of Permittee: _____

Date of Issuance: _____

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Regulatory Division
69A Hagood Avenue
Charleston, South Carolina 29403-5107

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

=====

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee