



Georgetown County, South Carolina

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E-Mail • purch@gtcounty.org
Website • <http://www.gtcounty.org>

ADDENDUM #1 TO BID #23-028

BID NUMBER: 23-028

ISSUE DATE: Wednesday, July 12, 2023

OPENING DATE: Wednesday, July 20, 2023

OPENING TIME: 3:00 PM ET

Pre-Bid Conference/Site Inspection: [Closed]

PROCUREMENT FOR: East Andrews Drainage Improvements-Phases 1 & 2

This addendum will amend **Bid #23-028, East Andrews Drainage Improvements-Phases 1 & 2** originally issued on Tuesday, June 20, 2023. This clarification is being provided to all known and registered correspondents in response to questions received. All addenda and original bid documents are also available online at: www.gtcounty.org, select “Bid Opportunities” from the Quick Links section.

On Wednesday, June 28, 2023, Georgetown County Purchasing and Capital Projects staff held a public pre-bid conference and site inspection for the East Andrews Drainage Improvements-Phases 1 & 2 project in Andrews, SC. Attached is a copy of the agenda from that meeting as well as a copy of the sign-in sheet.

Questions from Pre-bid meeting:

Question 1: Are you expecting utility conflicts? Are you going to hold Contractor’s liable to hold the schedule?

Response: **It is the Contractor’s responsibility for coordinating any utility conflicts and maintaining the schedule as listed.**

Question 2: Do you have an estimated dollar value for this project?

Response: \$3,467,905.

Question 3: Would you entertain cast-in-place?

Response: There are certain SCDOT requirements so if you want to submit a request then we can look at it further and either approve or deny.

Update: We have received the attached substitution request and as listed on the attached, this material substitution request has been denied.

Question 4: Railroad flaggers around CSX-who is responsible for this cost?

Response: The contractor is responsible, and a pay item is included in the bid tab.

Question 5: Can we have a contact for CSX?

Response: The CSX permit has not been approved. We are currently coordinating with Anthony Gilmore for the review. Email: Anthony_gilmore@csx.com.

Question 6: I saw in the bid document that there is a 33% DBE goal plus a 9% WBE goal? Those seem really high and would be very hard to achieve on the project. Will a good faith effort suffice?

Response: Those goals are requirements of the grant, but they are goals. You will have to document all good faith efforts and provide the DBE Committal Sheet mandatory bid form as listed on page 42 as part of your bid submittal.

Question 7: What are you doing with all debris? Are we to remove it off-site?

Response: Debris material shall be handled per the plans and specifications for clearing requirements as well as requirements to remove and dispose of deleterious items.

Question 8: Do you have any plans for a detour? How many days are we allowed to close for?

Response: See plan sheets for detours. From SCDOT: In reference to a time frame for the detours, we ask that your contractor does not set up the detour until they are ready to begin working. Also, when they are able to work diligently and get the job done as quickly and safely as possible. In other words, we want to

minimize the time of the detour to the shortest time it takes to get the work accomplished.

CHANGES: - Contractors must quote vac-truck, not shovel, for potholing.
- Water & sewer relocates shall include associated equipment such as but not limited to valves, meters, etc.

Questions from Emails:

Question 9: The Project Manual Volume 2, Special Provision 40 requires the Contractor to complete all work in accordance with the SCDHEC NPDES and CZC Determination in Appendix D. Please provide the project SWPPP document as indicated in Supplemental Specification 810.

Response: See attached SWPPP for information only. Follow plan SWPPP requirements.

Question 10: The SWPPP Narrative on Sheet No. IL1 indicates “Sediment control will be provided through installation of temporary silt fence around the project perimeter and sediment tubes along the roadside ditches.” Sheet No. EC1 quantifies temporary erosion control blanket and sediment tube quantities. Please provide a Payment Item on the Mandatory Bid Form to account for the quantity and costs of silt fence and sediment tubes

Response: See updated plans and revised bid form attached. Silt fence is not required. A pay item has been added for sediment tubes.

Question 11: Instructions to Bidders, Article 20 states “Inclusion and participation of disadvantaged, small, and local business entities is strongly encouraged, but minimum participation standards are not in effect for this project.” Please confirm this means Disadvantaged Business Enterprise (DBE) participation is encouraged, but a DBE % Goal is not a requirement on the project

Response: Item number 20 under the Instructions to Bidders shall be removed in its entirety. This project does require goals as stated in the bid document on page 5 and by the mandatory bid submittal form on page 42 of the bid document.

Question 12: Project Manual, Volume 1, Section 01320 Construction Progress and Documentation, Part 1.08 states, “The Project Schedule shall employ the Critical Path Method (CPM) and may utilize Microsoft Project or equal.” Please confirm the required schedules are intended to meet the Supplemental Specification, Construction Schedules, Level 1 Requirement. The Construction Schedule, Level 2 Requirement utilizes Primavera Project Management 5.0 or Primavera Contractor 5.0.

Response: Does not matter what PM program is used as long as it can report a clear comprehensive schedule.

Question 13: Project Manual, Volume 1, Section 01320 Construction Progress and Documentation states, “It is the Owner’s intention to own and control all float time indicated in the Project CPM Schedule.” Supplemental Specification, Construction Schedules, Level 2 Requirements states, “Float is not for the exclusive use or benefit of either the Department or the Contractor.” Please confirm Float is for the use and benefit of the Project and not the County or Contractor.

Response: That is correct float time is for the benefit of the project and not the county or contractor.

Question 14: Project Manual, Volume 1, Section 01100, Article 1.07 identifies Liquidated Damages of \$500 for each calendar day of delay by the Contractor. Project Manual, Volume 1, Section 01320 Construction Progress and Documentation states, “It is the Owner’s intention to own and control all float time indicated in the Project CPM Schedule.” It is unjust for an Owner to benefit from the Contractor’s float and to impose Liquidated Damages. Please reconsider one of the following revisions: 1) the intention of the Owner to control the float and remove the Liquidated Damages provision, or 2) implement an Incentive of \$1,000 per day for each calendar day the Contractor improves upon the milestone activities.

Response: The \$500 liquidated damages shall remain as listed.

Question 15: Project Manual, Volume 1, Section 01320 Construction Progress and Documentation, Part 1.09 states, “Any request for adjustment of time for completion because of changes or alleged delays shall be accompanied by a complete and comprehensive Time Impact Analysis Proposal, which shall be submitted for approval within five (5) calendar days of the event causing delay. Failure to provide the proper notice within this time frame shall be construed as the Contractor’s acceptance that the event causing delay can be absorbed into the Construction Activities Schedule (Project Schedule) without causing a delay to the project completion or any Key Contract milestone date.” Please consider revising this clause to read “Any request for adjustment of time for completion because of changes or alleged delays shall be accompanied by a written notices which shall be submitted within five (5) calendar days of the event causing delay. Failure to provide the proper notice within this time frame shall be construed as the Contractor’s acceptance that the event causing delay can be absorbed into the Construction Activities Schedule (Project Schedule) without causing a delay to the project completion or any Key Contract milestone date. A Time Impact Analysis shall be submitted within five (5) calendar days following the conclusion of the change or alleged delay.”

Response: Wording as is shall remain as listed in the original Project Manual.

Question 16: As required by Special Provision 38, CSX DESIGN & CONSTRUCTION STANDARD SPECIFICATIONS FOR PIPELINE OCCUPANCIES, and Appendix B, CSX DESIGN AND CONSTRUCTION STANDARD SPECIFICATIONS, please confirm the Owner has submitted all design plans and documents required by the Application for Occupancy package, received approval of the Application, and has fully executed the facility encroachment permit to allow the Contractor to proceed with the Outside Party Request Form and schedule construction activities.

Response: CSX design permit has not been completed and is ongoing. County to provide final design permit approval to contractor when received.

Question 17: Section A-A on Sheet S8 identifies weep holes 8' O.C. for the box culvert on Route NO. S-20. There are no weep holes shown on other box culverts, please confirm this is the only box culvert with weep holes.

Response: Weep holes are only required for box culvert below S-20 (Gapway Rd.) as shown in the plans.

Question 18: Are there shut down restrictions/durations for Domestic Water Relocation Items NO. S000011 & S000012?

Response: We are awaiting information from others and will issue a response in a 2nd addendum.

Question 19: Could you please provide testing specifications for the Domestic Water Relocation? Specifically will the line be required to be testing prior to tie-in and then tested again after tie-in is complete?

Response: We are awaiting information from others and will issue a response in a 2nd addendum.

Question 20: Traffic Control Sheets identify full detours for Gapway, US-521 and CR-383, are there duration restrictions or time of year restrictions for the complete road closures?

Response: See response to question #8.



Pre-Bid Conference (Voluntary)

Bid # 23-028, East Andrews Drainage Improvements-Phases 1 & 2

Wednesday, June 28, 2023 at 9:00 AM Eastern NIST

PLEASE PRINT CLEARLY

No.	Company Name	Representative's Name	Email	Phone Number	GC or Sub?
1.	SANTEE ELECTRIC COOP	KEN MASON	kmason@santee.org	843-426-5667	
2.	Public works	Erven Williams	erwilliams@gtcounty.org	843-344-2704	
3.	Public works	Amarie Franklin	amariefranklin2@gmail.com	843-356-0214	
4.	COASTAL ASPHALT	RODNEY WOOD	RODNEYWOOD@COASTALASPHALT.COM	814-887-9776	GC/SUB
5.	PSI of Conway	Taylor Roth	taylor@psiconservices.com	920-238-1380	
6.	L & L CONTRACTORS	STEVE MORCE	Stephen morce 321 @ gmail	321-557 8835	
7.	WRCOG	Marsha Smith	msmith@wrco.org	843-436-6441	
8.	Kiewit	John Krupilis	John.Krupilis@kiewit.com	574-339-0804	GC
9.	Kiewit	Caleb Reddick	Caleb.Reddick@kiewit.com	478-232-3640	GC
10.	Davis + Floyd	Lindsey Keziah	lkeziah@davisfloyd.com	843-554-8602	
11.	DAVIS + FLOYD	CHRISTOPHER MAJOR	cmajor@davisfloyd.com	843-554-8602	
12.	Thomas Bone const. inc	Anthony Bone	ANTBone@hotmail.com	(41)-833-9851	
13.	THOMAS J. W. WRCOG	Thomas J. Wrayley	twrayley@wrco.org	843-436-6133	
14.	ANDREA KULLER	GTC	areachy@gtc	X 3083	
15.	JACOB EVERHARDT DJE	GTC	Jeverhard@davisfloyd.com	843-494-4089	
16.	DARREN ROLSTON	GTC	drolston@gtcounty.org	893-833-1157	
17.	JOEL GOFF	GTC	jgoff@gtcounty.org	843-833-1425	
18.	James Chapman - Green Wave Contracting	GTC	jchapman@greenwavecontracting.com	704-650-4381	
19.	Steve Susak	Spectrum	Stephen.Susak@chtr.com	843-655-7524	
20.	Jacob At Georgetown County	Jacob Nesmith	jnesmith@gtcounty.org	843-545-3438	

No.	Company Name	Representative's Name	Email	Phone Number	GC or Sub?
21.	Ben Cox Company	Rick Bryant	rick@bencoxllc.com	843-345-4366	GC
22.	Town of Andrews	Jawana McCray	Jmccray@townofandrews	843-485-1288	
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Date: Wednesday, June 28, 2023 at 9:00 AM ET

To: All Attending

From: Nancy Silver, Georgetown County

Re: **Pre-Bid Conference & Site Inspection-AGENDA**
Bid# 23-028, East Andrews Drainage Improvements-Phases 1 & 2

- 1) Attendance Record-Sign-In Sheet
- 2) Introduction of Parties
 - a. Georgetown County Representatives
 - i. Nancy Silver, Purchasing Officer
 1. Office: (843) 545-3076
 2. Email: nsilver@gtcounty.org or purch@gtcounty.org
 - ii. Darren Rolston, Project Planner
 - iii. Jacob Nesmith, Public Works & Construction Services Manager
 - iv. Kevin Stimpson, Senior Construction Projects Manager
 - b. Davis & Floyd Representatives
 - i. Lindsey E. Keziah
 - ii. Chris Major
- 3) 00010 Calendar of Events (see pg. 4)
 - a. Inquiry Cut-Off Time: Wed., July 5, 2023 (3:00 PM)
 - i. All questions/requests for clarification IN WRITING to Nancy Silver.
 - b. Public Bid Opening & Tabulation: Thurs., July 20, 2023 (3:00 PM)
 - i. Bids must be submitted electronically through our Vendor Registry e-procurement system.
 - ii. Emailed/faxed bids will not be accepted.
- 4) Scope of Work & Specifications (Summarized-pg. 5)
 - a. Project involves roadway and railway drainage crossings, channel clearing and stabilization, minor channel re-grading, and clearing adjacent to Lester Creek. Work is from the crossing of Lester Creek and North Street to the crossing of Old Cemetery Rd. and Lester Creek.
- 5) **00300 Mandatory Items**
 - a. Exhibits A-L
 - b. Bid Bond - 5% of total base bid
- 6) Performance Bond [100% from awarded bidder]
- 7) Labor and Materials Bond [100% from awarded bidder]
- 8) 01100 Summary
 - a. Liquidated Damages (\$500.00 per calendar day)
 - b. Substantial Completion (486 calendar days from NTP, not to exceed date of 12/20/2024)
 - c. Final Completion (517 calendar days from NTP, not to exceed date of 1/20/2025)
- 9) Davis & Floyd, Inc.-Discussion of Design/Project Details.
- 10) Open to Questions
- 11) Site Inspection
- 12) Dismissal

EXHIBIT G

**UNIT PRICE SCHEDULE (REVISED 7/12/2023)
MANDATORY BID SUBMISSION FORM**

BID # 23-028, EAST ANDREWS DRAINAGE IMPROVEMENTS-PHASES 1 & 2

When changes in the work are ordered by the Owner, and such changes involve the following items, the following unit prices will be used to calculate adjustments to the Contract Sum. These unit prices shall be for the Work as specified, including all labor, materials, equipment, accessories, shipping, preparation, insurance, testing, overhead, profit, applicable taxes, permits, fees, warranties and all other associated costs for the finished and completed Work. All unit prices for utility conduits shall include sweeps, bends, couplings, caps, fittings, etc. which shall be included in the unit price per linear foot. Unit prices for undercut soils shall include material in place, surveyed and compacted pursuant to the Contract Documents.

Submit unit price and proposal amount for the following items. This list may not include all components necessary to provide a completed product, therefore any applicable items necessary to provide a completed product should be considered in your unit price response.

In case of errors in the extension of prices, unit price governs. In case of error in summations, corrected bid amounts will be totaled and will govern.

Contractor shall be responsible for all necessary electric and water hookups.

Contractor shall make quantity take-offs using drawings to determine quantities to his satisfaction, reporting promptly any discrepancies which may affect bidding. This is not a comprehensive list of items included in the contract documents, and represents only a portion of the project total.

UNIT PRICE SCHEDULE

ITEM NO.	PAY ITEM	UNIT	QUANT-ITY	UNIT COST	TOTAL COST
1031000	MOBILIZATION	LS	NEC	\$	\$
1050800	CONSTRUCTION STAKES, LINES & GRADES	EA	1	\$	\$
1071000	TRAFFIC CONTROL	LS	1	\$	\$
1071401	CSX RAILROAD INSURANCE AND FLAGGING	LS	1	\$	\$
1090200	AS-BUILT CONSTRUCTION PLANS	LS	1	\$	\$
2023000	REMOVAL & DISPOSAL OF EXISTING PAVEMENT	SY	115	\$	\$
2031000	UNCLASSIFIED EXCAVATION	CY	210	\$	\$
2033000	BORROW EXCAVATION	CY	376	\$	\$

2036000	GEOTEXTILE FOR SEPARATION OF SUBGRADE&SUBBASE/BASE CR	SY	910	\$	\$
2041000	STRUCTURE EXCAVATION FOR CULVERTS	CY	868	\$	\$
3050104	GRADED AGGREGATE BASE COURSE (4" UNIFORM)	SY	100	\$	\$
3050106	GRADED AGGREGATE BASE COURSE (6" UNIFORM)	SY	469	\$	\$
4010005	PRIME COAT	GAL	31.05	\$	\$
4013200	MILLING EXISTING ASPHALT PAVEMENT 2.0"	SY	779	\$	\$
4030320	HOT MIX ASPHALT SURFACE COURSE TYPE B	TON	83	\$	\$
5021011	FULL DEPTH CONCRETE PAVEMENT PATCH - 8"	SY	115	\$	\$
6020005	PERMANENT CONSTRUCTION SIGNS (GROUND MOUNTED)	SF	584	\$	\$
6062000	CONSTRUCTION ZONE ELECTRIC CHANGEABLE MESSAGE SIGN (TRAILER-MOUNTED)	EA	2	\$	\$
6250010	4" WHITE SOLID LINES (PVT. EDGE LINES)-FAST DRY PAINT	LF	730	\$	\$
6250110	4"YELLOW SOLID LINE(PVT.EDGE&NO PASSING ZONE)-FAST DRY PAINT	LF	730	\$	\$
6271010	4" WHITE SOLID LINES (PVT. EDGE LINES) THERMO.- 90 MIL.	LF	730	\$	\$
6271074	4" YELLOW SOLID LINES(PVT.EDGE LINES) THERMO-90 MIL.	LF	730	\$	\$
6301100	PERMANENT YELLOW PAVEMENT MARKERS BI-DIR.- 4"X4"	EA	18	\$	\$
7011402	CONC. FOR STRUCTURES - CLASS 4000(CULVERT)	CY	74.2	\$	\$
7031100	REINF. STEEL FOR STRUCTURES (ROADWAY)	LB	12,595	\$	\$
7120195	CONSTRUCTION CASING - 66" DIAMETER	LF	50	\$	\$

7141114	24" RC PIPE CUL.-CLASS III	LF	246	\$	\$
7141146	29"X 45" HORIZONTAL ELLIPTICAL(HE) RC PIPE CUL.- CLASS HE-III	LF	100	\$	\$
7141891	48" REINFORCED CONCRETE PIPE (CLASS V SPECIAL)TRENCHLESS	LF	50	\$	\$
8011450	AGGREGATE UNDERDRAIN (AGGR.NO. 57)	TON	555	\$	\$
8041020	RIP-RAP (CLASS B)	TON	410	\$	\$
8042800	GEOTEXTILE FABRIC FOR EROSION CONTROL UNDER RIPRAP (CLASS 2)	SY	524	\$	\$
8100100	PERMANENT COVER	ACRE	0.363	\$	\$
8151102	TURF REINFORCEMENT MATTING (TRM) TYPE 2	MSY	0.239	\$	\$
8151112	TEMPORARY EROSION CONTROL BLANKET (CLASS B)	MSY	4.153	\$	\$
8152007	SEDIMENT TUBES FOR DITCH CHECKS	LF	265.0	\$	\$
S000001	CLEARING DITCHES	LF	5,750	\$	\$
S000002	6" STEEL NATURAL GAS VERTICAL OFFSET (N. ROW OF GAPWAY RD)	LS	1	\$	\$
S000003	2" STEEL (ASSUMED) NATURAL GAS VERTICAL OFFSET (N. ROW OF US521)	LS	1	\$	\$
S000004	16" DIP SEWER FORCE MAIN VERTICAL OFFSET (N. ROW OF GAPWAY RD)	LS	1	\$	\$
S000005	12" PVC GRAVITY SEWER MAIN REPLACEMENT WITH C900 PVC (N. ROW OF GAPWAY RD)	LS	1	\$	\$
S000006	12" PVC GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF GAPWAY RD)	LS	1	\$	\$
S000007	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (N. ROW OF OLD CEMETARY RD)	LS	1	\$	\$

S000008	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF OLD CEMETARY RD)	LS	1	\$	\$
S000009	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF US521)	LS	1	\$	\$
S000010	UGT RELOCATION COORDINATION (S. ROW OF OLD CEMETARY RD)	LS	1	\$	\$
S000011	10" DIP (ASSUMED) DOMESTIC WATER VERTICAL OFFSET (N. ROW OF GAPWAY RD)	LS	1	\$	\$
S000012	10" DIP (ASSUMED) DOMESTIC WATER VERTICAL OFFSET (N. ROW OF US521)	LS	1	\$	\$
S000013	UTILITY COORDINATION	LS	1	\$	\$
S000014	5'X4' PRECAST DOUBLE BOX CULVERT	LF	48	\$	\$
S000015	7'X6' PRECAST BOX CULVERT	LF	56	\$	\$
S000016	6'X3' PRECAST DOUBLE CULVERT	LF	100	\$	\$
S000017	6'X3' PRECAST DOUBLE HEADWALLS/WINGWALLS	EA	4	\$	\$
S000018	7'x3' PRECAST CULVERT	LF	36	\$	\$
S000019	7'x3' PRECAST CULVERT HEADWALLS/WINGWALLS	EA	2	\$	\$
S000020	5' CLEARING ADJACENT TO DITCH BANK	LF	7,410	\$	\$
S000021	REMOVAL & DISPOSAL OF DELETERIOUS ITEMS	TON	5	\$	\$
TOTAL					\$

Bidder/Proposer: _____

Signature: _____

Title: _____

Dated: _____

END OF EXHIBIT G



MATERIAL SUBSTITUTION REQUEST

Bid# 23-028, EAST ANDREWS DRAINAGE IMPROVEMENTS-PHASES 1 & 2

Date: July 7, 2023

We hereby submit for your review the following PRODUCT SUBSTITUTION of the specified material for the above listed project.

Section: Plan and Profile Sheets 20, 21, 23, 24; Culvert Plan Sheets S1, S6, S13, S20

Paragraph: See Plan Sheet Notes

Specified Material: Cast-in-Place Box Culvert sections; Cast-in-Place Top Slabs, Bottom Slabs/Aprons and Wing Walls

Attached is complete technical data of the PRODUCT SUBSTITUTION, highlighted or underlined for easy reading, including laboratory test, as necessary, in duplicate. Included is complete information on changes to the Project Manual Documents required by the proposed PRODUCT SUBSTITUTION for its proper installation.

A) The Trade Contractor, under whose transmittal this information is sent, has reviewed the PRODUCT SUBSTITUTION and agrees it is applicable to this project in the location described and agrees to warrant/guarantee the use of the PRODUCT SUBSTITUTION in the same manner he would the Specified Product.

Yes No

If not, explain: _____

B) Does the PRODUCT SUBSTITUTION affect the dimensions shown on the Drawings in ANY WAY?

Yes No

If so, how? _____

C) Does the undersigned have the approval of the Manufacturer/Supplier to pay for any changes to the building design, including engineering and detailing costs, caused by the requested PRODUCT SUBSTITUTION?

Yes No

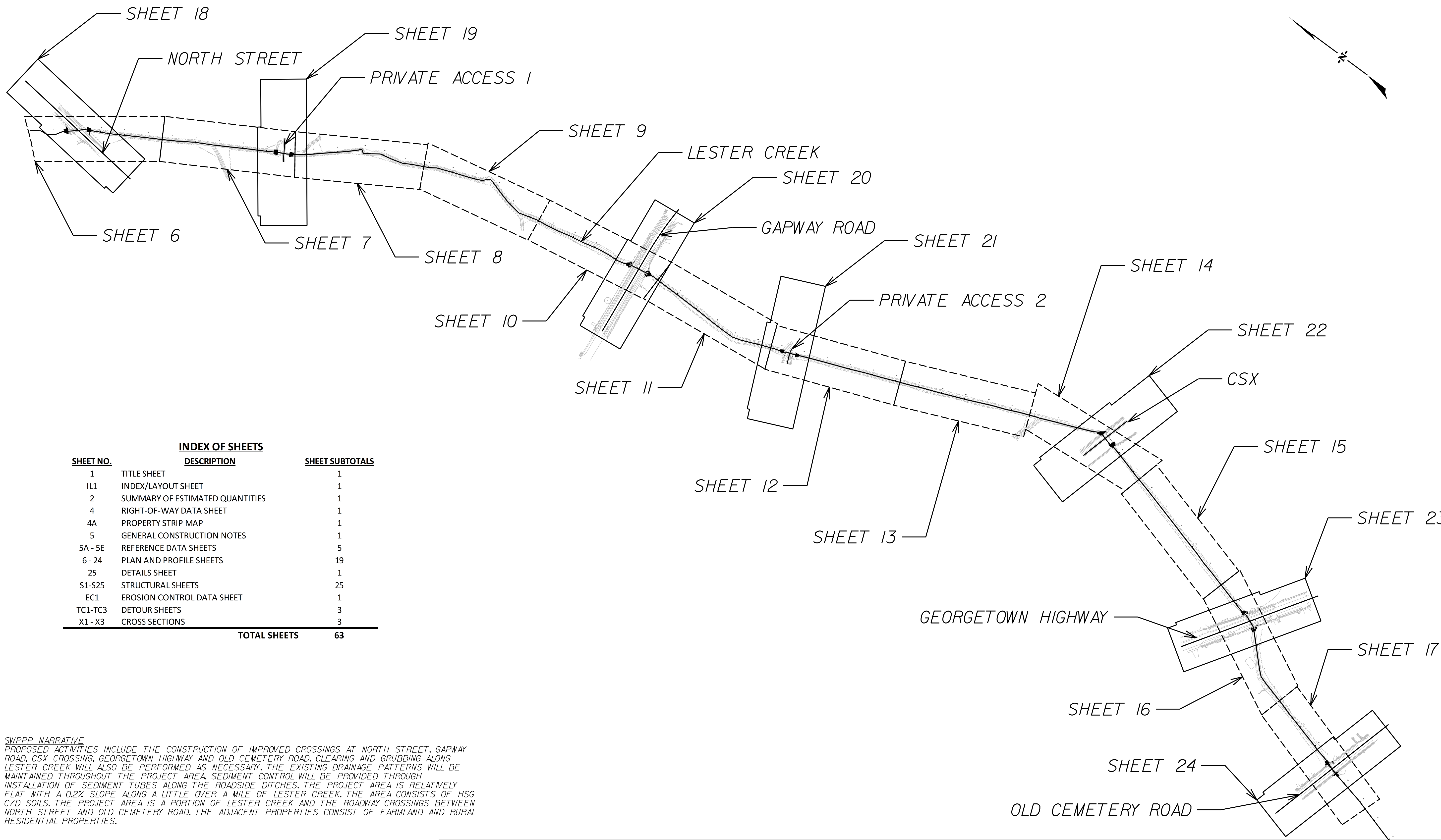
If so, to what extent? Manufacturer/Supplier TBD. Costs included in Precast products cost.

D) What effect does the PRODUCT SUBSTITUTION acceptance have on other trades?

None Don't Know As follows:

Reduced labor, material and equipment costs for rebar placement, formwork fabrication, backfill and grading; reduced traffic control due to overall reduced construction duration per location.

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT ID	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	GEORGETOWN			IL1	

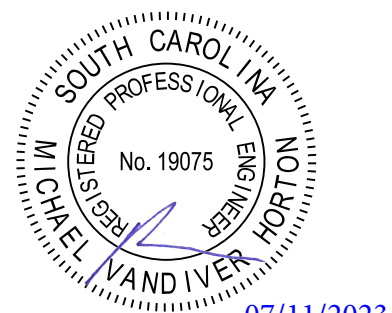
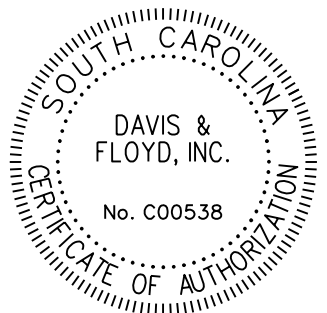
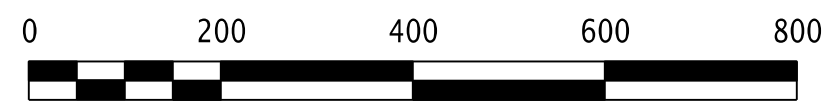


INDEX OF SHEETS		
SHEET NO.	DESCRIPTION	SHEET SUBTOTALS
1	TITLE SHEET	1
IL1	INDEX/LAYOUT SHEET	1
2	SUMMARY OF ESTIMATED QUANTITIES	1
4	RIGHT-OF-WAY DATA SHEET	1
4A	PROPERTY STRIP MAP	1
5	GENERAL CONSTRUCTION NOTES	1
5A - 5E	REFERENCE DATA SHEETS	5
6 - 24	PLAN AND PROFILE SHEETS	19
25	DETAILS SHEET	1
S1-S25	STRUCTURAL SHEETS	25
EC1	EROSION CONTROL DATA SHEET	1
TC1-TC3	DETOUR SHEETS	3
X1-X3	CROSS SECTIONS	3
TOTAL SHEETS		63

SWPPP NARRATIVE

PROPOSED ACTIVITIES INCLUDE THE CONSTRUCTION OF IMPROVED CROSSINGS AT NORTH STREET, GAPWAY ROAD, CSX CROSSING, GEORGETOWN HIGHWAY AND OLD CEMETERY ROAD. CLEARING AND GRUBBING ALONG LESTER CREEK WILL ALSO BE PERFORMED AS NECESSARY. THE EXISTING DRAINAGE PATTERNS WILL BE MAINTAINED THROUGHOUT THE PROJECT AREA. SEDIMENT CONTROL WILL BE PROVIDED THROUGH INSTALLATION OF SEDIMENT TUBES ALONG THE ROADSIDE DITCHES. THE PROJECT AREA IS RELATIVELY FLAT WITH A 0.2% SLOPE ALONG A LITTLE OVER A MILE OF LESTER CREEK. THE AREA CONSISTS OF HSG C/D SOILS. THE PROJECT AREA IS A PORTION OF LESTER CREEK AND THE ROADWAY CROSSINGS BETWEEN NORTH STREET AND OLD CEMETERY ROAD. THE ADJACENT PROPERTIES CONSIST OF FARMLAND AND RURAL RESIDENTIAL PROPERTIES.

SCALE: 200.000 ft / in.
 PEN TABLE: East Andrews-SCDOT Levels 2015 B&W Plan-PDF.tbl
 PLOT DRIVER: PDF.pltctg
 FILE: C:\Jobs\0dd\31969-00\Production\Transportation\East Andrews SHEET IL.dgn
 7/11/2023



DAVIS & FLOYD
SINCE 1954

1940 ALCONQUIN ROAD, SUITE 301
CHARLESTON, SC 29405
(843) 554-8602

5			
4			
3			
2			
1	JJG	7/11/2023	REMOVED SILT FENCE FROM SWPPP NARRATIVE
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DESIGNED BY		DRAWN BY	CHECKED BY

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

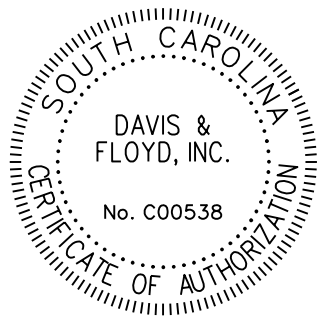
INDEX AND LAYOUT SHEET
EAST ANDREWS DRAINAGE IMPROVEMENTS

SCALE 1" = 200'
PLOT SIZE = 22" x 34"

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT ID	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	GEORGETOWN			2	

ITEM NO.	PAY ITEM	QUANTITY	PAY UNIT	ITEM NO.	PAY ITEM	QUANTITY	PAY UNIT
				1031000	MOBILIZATION		NEC
				1050800	CONSTRUCTION STAKES, LINES & GRADES	1.000	EA
				1071000	TRAFFIC CONTROL	1.000	LS
				1071401	CSX RAILROAD INSURANCE AND FLAGGING	1.000	LS
				1090200	AS-BUILT CONSTRUCTION PLANS	1.000	LS
				2023000	REMOVAL & DISPOSAL OF EXISTING PAVEMENT	115.000	SY
				2031000	UNCLASSIFIED EXCAVATION	210.000	CY
				2033000	BORROW EXCAVATION	376.000	CY
				2036000	GEOTEXTILE FOR SEPARATION OF SUBGRADE&SUBBASE/BASE CR	910.000	SY
				2041000	STRUCTURE EXCAVATION FOR CULVERTS	868.000	CY
				3050104	GRADED AGGREGATE BASE COURSE (4" UNIFORM)	100.000	SY
				3050106	GRADED AGGREGATE BASE COURSE (6" UNIFORM)	469.000	SY
				4010005	PRIME COAT	31.050	GAL
				4013200	MILLING EXISTING ASPHALT PAVEMENT 2.0"	779.000	SY
				4030320	HOT MIX ASPHALT SURFACE COURSE TYPE B	83.000	TON
				5021011	FULL DEPTH CONCRETE PAVEMENT PATCH - 8"	115.000	SY
				6020005	PERMANENT CONSTRUCTION SIGNS (GROUND MOUNTED)	584.000	SF
				6062000	CONSTRUCTION ZONE ELECTRIC CHANGEABLE MESSAGE SIGN (TRAILER-MOUNTED)	2.000	EA
				6250010	4" WHITE SOLID LINES (PVT. EDGE LINES)-FAST DRY PAINT	730.000	LF
				6250110	4"YELLOW SOLID LINE(PVT.EDGE&NO PASSING ZONE)-FAST DRY PAINT	730.000	LF
				6271010	4" WHITE SOLID LINES (PVT. EDGE LINES) THERMO. - 90 MIL.	730.000	LF
				6271074	4" YELLOW SOLID LINES(PVT.EDGE LINES) THERMO-90 MIL.	730.000	LF
				6301100	PERMANENT YELLOW PAVEMENT MARKERS BI-DIR - 4"x4"	18.000	EA
				7011402	CONC. FOR STRUCTURES - CLASS 4000(CULVERT)	74.200	CY
				7031100	REINF. STEEL FOR STRUCTURES (ROADWAY)	12595.000	LB
				7120195	CONSTRUCTION CASING - 66" DIAMETER	50.000	LF
				7141114	24" RC PIPE CUL.-CLASS III	246.000	LF
				7141146	29"X 45" HORIZONTAL ELLIPTICAL(HE) RC PIPE CUL.-CLASS HE-III	100.000	LF
				7141891	48" REINFORCED CONCRETE PIPE (CLASS V SPECIAL)TRENCHLESS	50.000	LF
				8011450	AGGREGATE UNDERDRAIN (AGGR.NO. 57)	555.000	TON
				8041020	RIP-RAP (CLASS B)	410.000	TON
				8042800	GEOTEXTILE FABRIC FOR EROSION CONTROL UNDER RIPRAP (CLASS 2)	524.000	SY
				8100100	PERMANENT COVER	0.363	ACRE
				8151102	TURF REINFORCEMENT MATTING (TRM) TYPE 2	0.239	MSY
				8151112	TEMPORARY EROSION CONTROL BLANKET (CLASS B)	4.153	MSY
				8152007	SEDIMENT TUBES FOR DITCH CHECKS	265.000	LF
				S000001	CLEARING DITCHES	5750.000	LF
				S000002	6" STEEL NATURAL GAS VERTICAL OFFSET (N. ROW OF GAPWAY RD)	1.000	LS
				S000003	2" STEEL (ASSUMED) NATURAL GAS VERTICAL OFFSET (N. ROW OF US521)	1.000	LS
				S000004	16" DIP SEWER FORCE MAIN VERTICAL OFFSET (N. ROW OF GAPWAY RD)	1.000	LS
				S000005	12" PVC GRAVITY SEWER MAIN REPLACEMENT WITH C900 PVC (N. ROW OF GAPWAY RD)	1.000	LS
				S000006	12" PVC GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF GAPWAY RD)	1.000	LS
				S000007	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (N. ROW OF OLD CEMETARY RD)	1.000	LS
				S000008	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF OLD CEMETARY RD)	1.000	LS
				S000009	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF US521)	1.000	LS
				S000010	UGT RELOCATION COORDINATION (S. ROW OF OLD CEMETARY RD)	1.000	LS
				S000011	10" DIP (ASSUMED) DOMESTIC WATERVERTICAL OFFSET (N. ROW OF GAPWAY RD)	1.000	LS
				S000012	10" DIP (ASSUMED) DOMESTIC WATER VERTICAL OFFSET (N. ROW OF US521)	1.000	LS
				S000013	UTILITY COORDINATION	1.000	LS
				S000014	5'X4' PRECAST DOUBLE BOX CULVERT	48.000	LF
				S000015	7'X6' PRECAST BOX CULVERT	56.000	LF
				S000016	6'X3' PRECAST DOUBLE CULVERT	100.000	LF
				S000017	6'X3' PRECAST DOUBLE HEADWALLS/WINGWALLS	4.000	EA
				S000018	7'X3' PRECAST CULVERT	36.000	LF
				S000019	7'X3' PRECAST CULVERT HEADWALLS/WINGWALLS	2.000	EA
				S000020	5' CLEARING ADJACENT TO DITCH BANK	7410.000	LF
				S000021	REMOVAL & DISPOSAL OF DELETERIOUS ITEMS	5.000	TON

20,000 ft / in.
 East Andrews--SCDOT Levels 2015 B&W Plan--PDF.tbl
 PEN TABLE: PDF.plt
 PLOT DRIVER: C:\Jobs\0dd\31969-00\Production\Transportation\F.dgn\Const\plpr\East Andrews SHEET 2.dgn
 FILE: 7/11/2023



1940 ALCONQUIN ROAD, SUITE 301
 CHARLESTON, SC 29405
 (843) 554-8602

DAVIS & FLOYD
 SINCE 1954

5			
4			
3			
2			
1	JJG	7/5/2023	PAY ITEM FOR SEDIMENT TUBES ADDED.
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DES. BY	DRAWN BY	REVIEWED BY	CHECKED BY

SOUTH CAROLINA
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES SHEET
 EAST ANDREWS DRAINAGE IMPROVEMENTS

N.T.S.

FED. ROAD DIST. NO.	STATE	COUNTY	PROJECT ID	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	GEORGETOWN			5	

DRAINAGE NOTES:

ALL EXISTING DRAINAGE PIPING NOT SPECIFIED TO BE REPLACED AS A PART OF THIS PROJECT WHICH IS DAMAGED, DESTROYED, OR DISPLACED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED IN LIKE SIZE WITH CLASS III WALL B RCP OR CLASS III RCEP IF THE DAMAGED PIPE IS ELLIPTICAL. ALL REINFORCED CONCRETE PIPE (RCP) SHALL MEET ASTM C76 SPECIFICATIONS. ALL JOINTS SHALL HAVE GASKETS MEETING ASTM C443 SPECIFICATIONS, AND ALL JOINTS SHALL BE WRAPPED WITH FILTER FABRIC, MINIMUM 24" IN WIDTH, UNLESS NOTED OTHERWISE. ALL CONNECTIONS BETWEEN STORMWATER PIPELINES AND NEW DRAINAGE STRUCTURES OR BOX CULVERTS, SHALL BE MADE WITH A BOOT MEETING ASTM C923. BOOTS SHALL PROVIDE A WATER-TIGHT SEAL BETWEEN THE PIPE AND THE STRUCTURE OR BOX CULVERT. AS REQUIRED, GRAVITY STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SCDOT SPECIFICATIONS AND REQUIREMENTS. THE GRADE OF THE GRAVITY STORM SEWER SHALL BE MAINTAINED AT A CONSTANT SLOPE BETWEEN THE GIVEN INVERT ELEVATIONS SHOWN ON THE PLAN/PROFILE AS APPLICABLE.

UTILITY NOTES:

CONTRACTOR IS TO CONTACT UTILITY OWNERS PRIOR TO CONSTRUCTION.

COST OF UTILITY LINES IS TO BE FULLY INCLUSIVE, ACCOUNTING FOR CONNECTIONS, FITTINGS, ETC.

GEORGETOWN COUNTY NOTES:

WITHIN 30 DAYS OF CONSTRUCTION COMPLETION AND FINAL STABILIZATION, PROVIDE GEORGETOWN COUNTY WITH THE COMPLETED CLOSEOUT APPLICATION, SITE AS-BUILTS, AS-BUILT CERTIFICATION FORM, AND SCDHEC NOT.

AS-BUILT NOTES:

DRAINAGE DITCHES AND SWALES WITH CROSS SECTION ELEVATIONS AT MAXIMUM 100-FOOT INTERVALS.

PROVIDE AN AUTOCAD DIGITAL DWG AND PDF FILE OF THE AS-BUILT DRAWING ON SC STATE PLANE COORDINATE SYSTEM NAD 83 DATUM.

PROVIDE A COPY OF THE SCDOT RELEASE LETTER WHERE ENCROACHMENT PERMIT(S) WERE ISSUED.

ADDITIONAL INFORMATION MAY BE NECESSARY AS DEEMED APPROPRIATE BY GEORGETOWN COUNTY STORMWATER MANAGER.

UPON COMPLETION OF THE WORK, A FINAL INSPECTION WILL BE CONDUCTED BY THE DEPARTMENT TO DETERMINE IF THE COMPLETED WORK HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE STORMWATER PLAN.

NOTE: AS-BUILT SURVEY AND/OR ANALYSIS MUST BE SUBMITTED AND ACCEPTED BY THE DEPARTMENT BEFORE NOTICE OF TERMINATION (NOT) IS SUBMITTED.

CLEARING NOTES:

CONTRACTOR IS TO CONTACT THE COUNTY PRIOR TO CHANNEL CLEARING/CLEANING.

ALL DEBRIS FROM CLEARING WITHIN CHANNEL AND OUTSIDE OF BANKS SHALL BE MULCHED IN-PLACE, ALONG, AND OUTSIDE OF CHANNEL, OR REMOVED AND DISPOSED OF OFF-SITE IN AN APPROVED MANNER. ALL COSTS ASSOCIATED WITH MULCHING IN-PLACE OR HAULING AND DISPOSAL SHALL BE INCLUDED IN PRICE OF CLEARING.

NO GRUBBING IS TO BE PERFORMED.

CULVERT STAGING NOTES:

CONTRACTOR TO SUBMIT MAINTENANCE OF TRAFFIC CONTROL AND CONSTRUCTION STAGING PLANS TO THE COUNTY FOR REVIEW AND APPROVAL TO INSTALL BOX CULVERT FOR NORTH STREET CROSSING.

EDA NOTES:

IF ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, THE PROCEDURES CODIFIED AT 36 CFR 800.13(b) WILL APPLY AND THE SC DEPARTMENT OF ARCHIVES AND HISTORY AND THE EDA SHALL BE CONTACTED IMMEDIATELY. ARCHAEOLOGICAL MATERIALS CONSIST OF ANY ITEMS, FIFTY YEARS OLD OR OLDER, WHICH WERE MADE OR USED BY MAN. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, STONE PROJECTILE POINTS (ARROWHEADS), CERAMIC SHERDS, BRICKS, WORKED WOOD, BONE AND STONE, METAL AND GLASS OBJECTS, AND HUMAN SKELETAL MATERIALS.

NO EXCAVATED MATERIAL SHALL BE PLACED WITHIN AREAS OF MAPPED 100-YEAR OR 500-YEAR FLOODPLAIN.

SCDOT GENERAL CONSTRUCTION NOTES:

THE DEPUTY SECRETARY FOR ENGINEERING MUST SPECIFICALLY AUTHORIZE CHANGES INVOLVING INCREASED COST OF THE PROJECT OR CHANGES IN ALIGNMENT. THE DISTRICT ENGINEERING ADMINISTRATOR IS PERMITTED UNDER THE DIRECTION OF THE DEPUTY SECRETARY FOR ENGINEERING TO AUTHORIZE MINOR ALTERATIONS NOT IN CONFLICT WITH THE STANDARDS PRACTICES OF THE DEPARTMENT. FORWARD INFORMATION ON ANY PROPOSED CHANGES IN ALIGNMENT TO THE COLUMBIA OFFICE AS SOON AS POSSIBLE.

SEE INDIVIDUAL CURVES ON REFERENCE DATA SHEET FOR SUPERELEVATION RATE AND DESIGN SPEED, AS APPLICABLE.

THE QUANTITIES ON THIS SHEET ARE NOT SHOWN IN DETAIL ON THE PLANS BUT ARE INCLUDED IN THE SUMMARY OF ESTIMATED QUANTITIES AND MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.

PROJECT CONTACTS	NAME	TELEPHONE
	Project Manager Design Engineer	Darren Rolston Mike Horton

14. ALL PERMANENT SIGNAGE SHALL BE INSTALLED ON BREAKAWAY POSTS PER SCDOT STANDARD DRAWING 651-110-00 AND SHALL HAVE A 7 VERTICAL FOOT CLEARANCE FROM THE GROUND TO THE BOTTOM OF THE SIGN.

15. DRIVEWAYS SHALL BE CONSTRUCTED TO HAVE A MINIMUM OF A 2 FOOT GRASSED SHOULDER ON EACH SIDE OF THE DRIVEWAY THROAT.

16. DITCH SLOPES SHALL BE NO STEEPER THAN 3H:1V.

17. ALL DRIVEWAY CULVERTS SHALL BE INSTALLED AND SEALED ACCORDING TO SCDOT TYPICAL 714-205-01 DETAIL 4 AND 5 WITH AN AASHTO M 315 RUBBER GASKET SEAL, ON PROPER GRADE TO ALLOW FOR POSITIVE STORM WATER FLOW WITHIN THE PIPE AND TO/FROM ADJACENT PIPES/CROSS LINES.

18. ALL CULVERTS INSIDE OF THE SCDOT R/W ARE TO BE INSTALLED WITH BEVELED ENDS PER SCDOT STANDARD DRAWING 719-610-00 AND SEALED PER SCDOT STANDARD DRAWING 714-205-01 AND CANNOT BE COVERED UNTIL AFTER AN INSPECTION BY THE SCDOT INSPECTOR ASSIGNED TO THE PROJECT AT THE REQUIRED SCDOT PRECONSTRUCTION MEETING.

19. LANE CLOSURES ARE REQUIRED FOR ALL WORK WITHIN ONE FOOT OF THE TRAVEL WAY. SEE SCDOT LOCAL MAINTENANCE WORK RESTRICTIONS FOR ADDITIONAL INFORMATION.

20. SHOULDER CLOSURES ARE REQUIRED FOR ALL WORK IN THE SCDOT R/W BEYOND ONE FOOT FROM THE TRAVEL WAY.

21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE ALL REQUIRED INSPECTIONS IN ADVANCE. IF WORK REQUIRING INSPECTION IS PERFORMED WITHOUT PRIOR NOTICE BEING GIVEN TO SCDOT, THAT INSTALLATION SHALL BE SUBJECT TO REMOVAL AT THE APPLICANT'S EXPENSE. SEVERAL MEANS OF CONTACT WILL BE GIVEN AT THE PRECONSTRUCTION MEETING. FAILURE TO OBTAIN CONTACT IS NOT AN APPROVAL TO PROCEED WITH ANY WORK.

22. NO VEGETATION INSTALLED ON PRIVATE PROPERTY SHALL BLOCK THE SCDOT SIGHT TRIANGLES OR SIGHT DISTANCES FOR MOTORISTS INGRESS OR EGRESS FROM APPROVED DRIVEWAYS AND OR ROADWAY INTERSECTIONS. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR KEEPING OFFSITE LANDSCAPINGS PROPERLY MAINTAINED TO IMPROVE ALL SIGHT DISTANCES. THE PROPERTY OWNER SHALL ALSO BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO SIDEWALK, DRIVEWAY OR ROADWAY, UTILITY, DRAINAGE OR OTHER STRUCTURES DAMAGED DUE TO THE INSTALLATION OR EXISTENCE OF OFFSITE LANDSCAPING.

23. THE DEPARTMENT SHALL NOT BE RESPONSIBLE FOR DAMAGE TO ANY UTILITY STRUCTURES LOCATED WITHIN THE RIGHT-OF-WAY AS A RESULT OF ROUTINE HIGHWAY MAINTENANCE OPERATIONS. THESE STRUCTURES INCLUDE BUT ARE NOT LIMITED TO ARV, METERS, VALVES, MANHOLES, ALL TYPE OF PEDESTALS AND UTILITY LINES (OVERHEAD AND/OR UNDERGROUND). THE APPLICANT SHOULD USE MECHANICAL MOWERS TO CUT AROUND THESE TYPE STRUCTURES TO INCREASE VISIBILITY FOR HIGHWAY MAINTENANCE WORKERS.

24. APPLICANT IS RESPONSIBLE FOR THE INSTALLATION AND SECURING OF ANY VALVE OR MANHOLE RISERS AS NEEDED.

25. THE DEPARTMENT SHALL BE HELD HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES AND LOSSES ASSOCIATED WITH WORK AS APPROVED UNDER THIS PERMIT APPLICATION, ANY SUCH DAMAGE CLAIMS RECEIVED BY THE DEPARTMENT SHALL BE THE RESPONSIBILITY OF THE APPLICANT TO PROCESS ACCORDINGLY. THE HOLD HARMLESS AGREEMENT SHALL BE FOR THE LIFE OF THE FACILITY, STRUCTURE(S) OR ENCROACHMENT AS IT REMAINS WITHIN PUBLIC RIGHT-OF-WAY.

26. APPLICANT IS RESPONSIBLE FOR THE REPAIR OF ANY TRAFFIC SIGNAL LOOPS/WIRES/HEAD/CABINETS IF DAMAGED DUE TO THIS INSTALLATION. ALL WORK SHALL BE APPROVED UNDER THE DIRECTION OF THE SCDOT DISTRICT SIGNAL SHOP AND PERFORMED BY A SCDOT APPROVED SIGNAL CONTRACTOR, AT NO EXPENSE TO THE DEPARTMENT.

27. IF REQUIRED UNDER THE APPROVED SCDOT ENCROACHMENT PERMIT, A THIRD PARTY TESTER SHALL BE REQUIRED AT THE APPLICANT'S EXPENSE TO PERFORM COMPACTION ANALYSIS AND WITNESS A PASSING PROOF ROLL ON ALL SUB-GRADE, BASE, AND ASPHALT. ONE THIRD PARTY INSPECTOR SHALL TAKE DENSITY READINGS AT RANDOM STATION NUMBERS. A SECOND (2ND) THIRD PARTY INSPECTOR/TESTER SHALL BE AT THE ASPHALT PLANT TESTING THE ASPHALT AT THE TIME THAT SURFACE ASPHALT IS BEING PRODUCED AND PUT DOWN ON THE JOB. ONE CORE SAMPLE (LOCATIONS TO BE DETERMINED) SHALL BE TAKEN AND WEIGHED BY THE THIRD PARTY INSPECTOR. ALL RESULTS TO BE SUBMITTED IN WRITING TO SCDOT FOR REVIEW THE FOLLOWING DAY. WINTER WORK RESTRICTIONS AND HOLIDAY WORK RESTRICTIONS MUST BE ADHERED TO. SEE PERMIT FOR MORE DETAILS.

28. AN INSPECTION DATE SHALL BE SET UP IN ADVANCE FOR WHICH THE INSPECTOR WILL COME OUT AND INSPECT THE SIDEWALK FORMS BEFORE POURING CONCRETE. DO NOT LEAVE MORE THAN A 2" DROP OFF UNATTENDED. NO MORE THAN A 2" DROP OFF OR A 3:1 DITCH SLOPE IS PERMITTED ANYWHERE WITHIN THE RIGHT OF WAY DUE TO THE CONSTRUCTION ASSOCIATED WITH THIS SIDEWALK. THE INSTALLATION OF SIDEWALK SHALL BE FLUSH WITH SHOULDER OR HAVE A DRAINAGE INLET BUILT UNDERNEATH TO ALLOW FOR PROPER STORM WATER FLOW. NO WATER SHALL POND IN SHOULDER, ROADWAY, DRIVEWAYS, OR RIGHT OF WAY DUE TO THIS INSTALLATION.

29. ADA MATS (RAISED DETECTABLE WARNING PADS) SHALL BE INSTALLED AS WET INSETS AND AT ROADWAY INTERSECTIONS ONLY.

30. NO VALVES OR OTHER APPURTENANCES IN ROADWAY ASPHALT, WITHIN 5 FEET OF EDGE OF PAVEMENT, OR WITHIN DITCH LINE OR SWALE LINE. APPLICANT SHALL INSTALL 8-16 FEET OF NEW, UNMATERIALIZED RCP ON PROPER GRADE, FACING THE PROPER DIRECTION, MATCHING THE DIAMETER OF DRIVEWAY AND/OR CROSS LINE UPSTREAM, BUT NOT EXCEEDING THE PIPE DIAMETER DOWNSTREAM, IF THE ABOVE CANNOT BE AVOIDED. INSTALL RIP RAP AROUND ANY EXPOSED PIPES, COVER AND SOD TO MEET SCDOT MINIMUM STANDARDS. CALL SCDOT ENCROACHMENT OFFICE FOR INSPECTION OF PIPE BEFORE COVERING.

31. PROPOSED UTILITY INSTALLATION LOCATED IN SHOULDER AREA SHALL HAVE A MINIMUM COVER OF 42" ACCORDING TO FIGURE 6 OF APPENDIX B. ANY EXPOSED ROOTS TO BE REMOVED OR TRIMMED FLUSH WITH SHOULDER/DITCH.

ITEM NO.	PAY ITEM	QUANTITY	PAY UNIT	USE DESCRIPTION	
1031000	MOBILIZATION		NEC	LS	PER CONTRACT DOCUMENTS
1050800	CONSTRUCTION STAKES, LINES & GRADES	1,000	EA	PER CONTRACT DOCUMENTS	
1071000	TRAFFIC CONTROL	1,000	LS	PER CONTRACT DOCUMENTS	
1071401	CSX RAILROAD INSURANCE AND FLAGGING	1,000	LS	PER CSX REQUIREMENTS	
1090200	AS-BUILT CONSTRUCTION PLANS	1,000	LS	PER CONTRACT DOCUMENTS	
2031000	UNCLASSIFIED EXCAVATION	134.000	CY	WHERE DIRECTED BY ENGINEER	
2033000	BORROW EXCAVATION	188.000	CY	WHERE DIRECTED BY ENGINEER	
8100100	PERMANENT COVER	0.400	ACRE	WHERE DIRECTED BY ENGINEER	
8151112	TEMPORARY EROSION CONTROL BLANKET (CLASS B)	4.200	MSY	WHERE DIRECTED BY ENGINEER	
S000002	6" STEEL NATURAL GAS VERTICAL OFFSET (N. ROW OF GAPWAY RD)	1,000	LS	AS NECESSARY	
S000003	2" STEEL (ASSUMED) NATURAL GAS VERTICAL OFFSET (N. ROW OF US521)	1,000	LS	AS NECESSARY	
S000004	16" DIP SEWER FORCE MAIN VERTICAL OFFSET (N. ROW OF GAPWAY RD)	1,000	LS	AS NECESSARY	
S000005	12" PVC GRAVITY SEWER MAIN REPLACEMENT WITH C900 PVC (N. ROW OF GAPWAY RD)	1,000	LS	AS NECESSARY	
S000006	12" PVC GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF GAPWAY RD)	1,000	LS	AS NECESSARY	
S000007	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (N. ROW OF OLD CEMETARY RD)	1,000	LS	AS NECESSARY	
S000008	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF OLD CEMETARY RD)	1,000	LS	AS NECESSARY	
S000009	8" PVC (ASSUMED) GRAVITY SEWER HORIZONTAL OFFSET (S. ROW OF US521)	1,000	LS	AS NECESSARY	
S000010	UGT RELOCATION COORDINATION (S. ROW OF OLD CEMETARY RD)	1,000	LS	AS NECESSARY	
S000011	10" DIP (ASSUMED) DOMESTIC WATER VERTICAL OFFSET (N. ROW OF GAPWAY RD)	1,000	LS	AS NECESSARY	
S000012	10" DIP (ASSUMED) DOMESTIC WATER VERTICAL OFFSET (N. ROW OF US521)	1,000	LS	AS NECESSARY	
S000013	UTILITY COORDINATION	1,000	LS	AS NECESSARY	
S000021	REMOVAL & DISPOSAL OF DELETERIOUS ITEMS	5.000	TON	AS NECESSARY	

SCDHEC STANDARD NOTES:

1. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.

2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
- WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
- WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING DRAINAGE CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE STORM DRAINAGE INSTALLATION. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.

5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 ET SEQ. AND SCR100000.

8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.

10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORMWATER DISCHARGES.

11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.

12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.

13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING. WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.

15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).

16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
- WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
- WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
- SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES.

SCDOT STANDARD NOTES:

1. THERE CAN BE NO WORK PERFORMED IN THE SCDOT R/W BEFORE AN ENCROACHMENT PERMIT HAS BEEN ISSUED AND A PRECONSTRUCTION MEETING HAS BEEN HELD. THE PROPERTY OWNER AND CONTRACTOR MUST SCHEDULE AND ATTEND THE PRECONSTRUCTION MEETING.

2. ANY WORK PERFORMED BEFORE THE PRECONSTRUCTION MEETING WILL HAVE TAKEN PLACE WITHOUT SCDOT KNOWLEDGE, OVERSIGHT, AND CONSENT AND SHALL BE SUBJECT TO REMOVAL BY THE APPLICANT AND/OR AT THE APPLICANT'S EXPENSE.

3. ANY REVISIONS TO THIS APPROVED PLAN SET MUST HAVE PRIOR, WRITTEN APPROVAL FROM SCDOT OR ARE SUBJECT TO REMOVAL AT THE APPLICANT'S EXPENSE.

4. THE CONSTRUCTION ENTRANCE MUST BE ESTABLISHED AT THE LOCATION DESIGNATED IN THIS PLAN SET AND ACCORDING TO SCDOT TYPICAL 815-505-00. NO ADDITIONAL ENTRANCES OR LOCATIONS OTHER THAN SHOWN IN THIS PLAN SET ARE ALLOWED WITHOUT WRITTEN NOTICE FROM SCDOT. APPROVED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PROPERLY AND SHALL BE MAINTAINED AT ALL TIMES. KEEP ROADWAY PROTECTED AND SWEEP OFF AT ALL TIMES. ANY ADDITIONAL, EXISTING DRIVEWAYS OR CONSTRUCTION ENTRANCES, IF ANY, SHALL BE REMOVED FROM SCDOT RIGHT OF WAY AT NO EXPENSE TO SCDOT.

5. NO DEWATERING ACTIVITIES SHALL BE PERFORMED WITHIN SCDOT R/W OR BRING FORTH WATER TO THE SCDOT RIGHT OF WAY BY DIRECT OR INDIRECT METHODS.

6. POST DEVELOPMENT STORMWATER FLOWS TO THE SCDOT R/W CANNOT EXCEED PREDEVELOPMENT FLOW RATES AT ANY TIME FOR ANY REASON.

7. THE APPLICANT IS SOLELY RESPONSIBLE FOR REPAIRS OF ANY AND ALL DAMAGE TO THE TRAVEL WAY DUE TO ANY WORK ALONG THE FRONTAGE OF THIS SITE, AT NO EXPENSE TO SCDOT AND ALL REPAIRS MUST MEET CURRENT SCDOT STANDARDS.

8. ANY DAMAGE TO THE TRAVEL LANE WILL REQUIRE A FULL DEPTH ASPHALT PATCH AND TOTAL ROADWAY (ALL ADJACENT TRAVEL LANES) ASPHALT OVERLAY. PATCHES LARGER THAN A FEW SQUARE FEET OR EXTENDING PAST 1 FOOT INTO THE TRAVEL LANE SHALL REQUIRE AN OVERLAY OF THE ENTIRE WIDTH OF THE EXISTING TRAVEL WAY FOR 50 FEET BEYOND EACH SIDE OF THE FULL DEPTH PATCH. ALL OF THIS WORK WILL BE SOLELY AT THE EXPENSE OF THE APPLICANT AND MUST MEET CURRENT SCDOT STANDARDS.

9. BEFORE INSTALLATION OF ANY NEW DRIVEWAY, THE EXISTING TRAVEL EDGE MUST BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM EDGE ALONG THE MOUTH OF THE PROPOSED DRIVEWAY. CARE MUST BE TAKEN TO NOT TO DAMAGE THE EDGE ONCE CUT. ANY DAMAGE TO THE TRAVEL LANE MUST BE REPAIRED AT THE APPLICANT'S EXPENSE.

10. PAVEMENT SECTION IN THE SCDOT R/W SHALL BE, AT A MINIMUM:
a. 6 INCHES OF COMPACTED GABC
b. 4 INCHES OF COMPACTED TYPE B BINDER COURSE HOT MIX ASPHALT
c. 2 INCHES OF COMPACTED TYPE B SURFACE COURSE HOT MIX ASPHALT

SEE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION FOR SURFACE COURSE HOT MIX ASPHALT INSTALLATION TIME AND TEMPERATURE RESTRICTIONS AND THERMO PLASTIC TIME AND TEMPERATURE RESTRICTIONS.

OR

d. 8 INCHES OF COMPACTED GABC
e. 4 INCHES OF 4,000 PSI CONCRETE

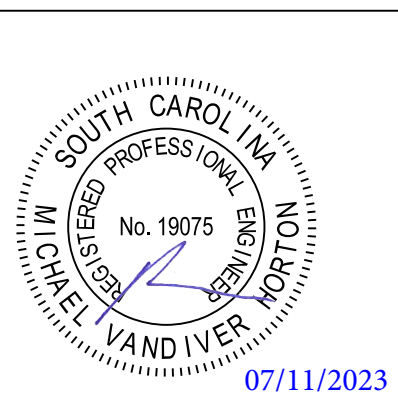
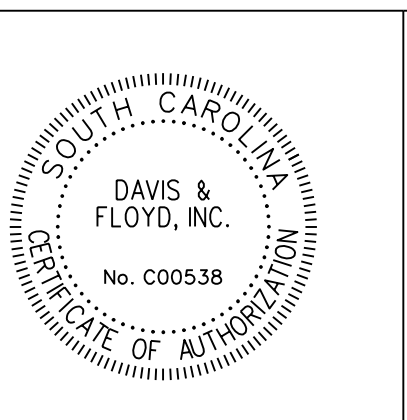
NO REINFORCEMENT WIRE, REBAR, OR METAL OF ANY KIND IS PERMITTED

11. DRIVEWAY LANES SHALL BE A MINIMUM OF 12 FEET IN WIDTH MEASURED FROM EDGE TO EDGE OF ASPHALT.

12. DRIVEWAY RADII SHALL BE 30 FEET. (UNLESS NOTED OTHERWISE ON THE SCDOT APPROVED PLANS.)

13. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC WITH REFLECTIVE BEADS PER SECTION 627 OF THE SCDOT STANDARD SPECIFICATIONS:

a. ALL WHITE MARKINGS SHALL BE 125 MIL MINIMUM THICKNESS
b. ALL YELLOW MARKINGS SHALL BE 90 MIL MINIMUM THICKNESS



07/11/2023

DAVIS & FLOYD
SINCE 1954

1940 ALCONQUIN ROAD, SUITE 301
CHARLESTON, SC 29405
(843) 554-8602

5			
4			
3			
2			
1	JJG	7/05/2023	CORRECTED TYPO IN DRAINAGE NOTES.
REV. NO.	BY	DATE	DESCRIPTION OF REVISION
DES. BY	DRAWN BY	REVIEWED BY	CHECKED BY

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION	
GENERAL CONSTRUCTION NOTES EAST ANDREWS DRAINAGE IMPROVEMENTS	
N.T.S.	PLOT SIZE = 22" x 34"

20,000 ft / in.
 SCALE: PEN TABLE: East Andrews - SCDOT Levels 2015 B&W Plan - PDF.tbl
 PLOT DRIVER: PDF.pltctg
 FILE: C:\Jobs\0dd\31969-00\Production\Transportation\East Andrews SHEET 5.dgn
 7/11/2023

Comprehensive Stormwater Pollution Prevention Plan (C-SWPPP) For Construction Activities:

Project/Site Name:

East Andrews Drainage Improvements

Primary Permittee:

Georgetown County

Project Address/Location:

Lester Creek
Andrews, SC 29510

Permittee/Owner Contact:

Tracy Jones
129 Screven Street
Georgetown, SC 29440
843-545-3524
tjones@gtcounty.org

SWPPP Preparer:

Davis & Floyd, Inc.
Joseph Garrison
1940 Algonquin Suite #301
Charleston, SC 29405
843-554-8602
jgarrison@davisfloyd.com

Day-to-Day Operator:

C-SWPPP Preparation Date:

9 / 13 / 2022

Modification Dates:

Modification I: ___/___/____

Modification II: ___/___/____

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**C-SWPPP is acronym for Comprehensive Storm Water Pollution Prevention Plan*

***OS-SWPPP is acronym for On-Site Storm Water Pollution Prevention Plan*

Section 1

PROJECT OVERVIEW

1.1 Narrative (CGP Section 3.2.1)

Construction Activities and BMP Summary

This construction site consists of drainage improvements to Lester Creek from North Street to Old Cemetery Road. The improvements will consist of updates to existing crossings at North Street, Gapway Road, a CSX line, Georgetown Highway, Old Cemetery Road and two private access roads. As part of the crossing updates the roadway shoulders will be extended to meet standards when needed. In addition to the updates at the creek crossings, clearing and grubbing along Lester Creek will be performed as necessary within the project area. The total disturbed acreage for these improvements will be 0.40 acres.

Perimeter Control BMPs and a sediment basin will be installed prior to the initiation of the mass clearing/grubbing and grading of the site.

The construction activities at this site will be implemented in 3 distinct Erosion Prevention and Sediment Control Phases. The first phase includes the initial installation of perimeter controls, sediment control BMPs. The second phase includes the bulk of the construction activities and the implementation of internal stormwater management BMPs. The final phase, Phase 3, includes the final stabilization of the site.

Pre-Development Conditions

The existing project site consists of a portion of Lester Creek from North Street to Old Cemetery Road totaling approximately 6,400 LF. As shown on the Hydrologic Soil Group Map in **Appendix A**, the site is composed of Bladen Loam that is categorized as a Group C/D hydrologic soil, and Wahee fine sandy loam which is also categorized as a Group C/D hydrologic soil. The project site includes 7 roadway crossings. North Street has two 36" x 72" CMP, the private access road south of North Street has one 36" RCP, Gapway Road has one 48" RCP, the private access road south of Gapway Road one 42" HDPE and one 42" RCP, the CSX crossing has one 48" RCP, Georgetown Highway has two 36" RCP, and Old Cemetery Road has two 24" RCP. Downstream of the project area Lester Creek continues to flow north until it merges with the Black River.

Post-Development Conditions

After construction, the project site drainage conditions will not be significantly changed from the pre-development conditions. Improvements will consist of removing existing roadway crossings and replacing with higher capacity pipes/culverts, and clearing and grubbing along the creek as necessary. The new crossings will be: North Street will have a dual 6' x 4' box culvert, the private access south of North Street will also have a dual 6' x 4' box culvert, Gapway Road will have a 7' x 6' box culvert, the private access south of Gapway Road will have a 7' x 4' box culvert, the existing 48" RCP at the CSX line will be retained and an additional 48" RCP will be installed, Georgetown Highway will have

dual 38" x 60" RCEP, Old Cemetery Road will have dual 29" x 45" RCEP. Drainage Map showing flow pattern is shown in **Appendix A**

Flooding Issues

In the pre-construction condition the communities along the project area and upstream have experienced significant flooding in the past several years. The intention of the project is to improve conveyance in the area to eliminate bottlenecks that prevent rainfall runoff from effectively reaching the Black River downstream.

1.2 Stormwater Management and Sediment Control (CGP Section 3.2.2)

Erosion Prevention BMPs

As the existing site is cleared, grubbed and graded to the proposed contours shown on the construction site plans, erosion prevention BMPs shall be placed throughout the construction site to aid in the prevention of sediment-laden stormwater runoff. These BMPs shall be focused in areas with high potential of erosion, areas preceding infiltration practices, and shall be applied to all steep slopes. That is slopes equal to or greater than 3H:1V.

Each erosion prevention measure shall be selected on a site-specific basis and details have been provided on the construction site plans. The plans identify all proposed Erosion Prevention BMPs and the recommended installation, maintenance, and inspection procedures.

Examples of Erosion Prevention BMPs are, but are not limited to, surface roughening, temporary seeding, erosion control blankets, turf reinforcement mats, sodding, riprap, outlet protection, dust control, and polyacrylamide (PAM). Information on the design and proper use of Erosion Prevention BMPs can be located in the [SC DHEC's BMP Handbook](#).

Sediment Control BMPs

Sediment Control BMPs are designed to remove some of the sediment accumulated within stormwater runoff, to the best extent practicable. These BMPs help prevent sediment impacts to adjacent properties and water bodies from stormwater discharges originating from construction sites.

Typically these BMPs are placed near each of the site's outfalls and are installed prior to clearing and grubbing of the site (before large areas of soil are exposed). However, these BMPs can also be located throughout the construction site and, in these circumstances, are installed after mass grading has occurred. Placement, sizing and modifications of Sediment Control BMPs should be left to the SWPPP preparer and/or the Site Engineer. **Contractors must consult the SWPPP Preparer as listed at the front of this SWPPP before making any significant changes to these BMPs.**

Each sediment control BMP shall be selected on a site-specific basis. Examples of Sediment Control BMPs are, but are not limited to sediment traps, sediment basins, silt fence, rock check dams, rock sediment dikes, sediment tubes, and inlet protection. Please consult [SC DHEC's BMP Handbook](#) for more information on Sediment Control BMPs.

Construction Entrances and Dust Control

All access areas into and out of the limits of disturbance, as shown on the construction site plans, are required to be equipped with a construction entrance. The use of this BMP will limit the amount of sediment being transported by construction vehicles onto existing roadways or other impervious areas. Any tracked sediment, along with any attached pollutants, deposited on impervious areas could be washed downstream during the next rain event. Each construction entrance must be installed as shown in the details section of the construction site plans.

If a new entrance or exit is required, that is not shown on the plans, install the construction entrance as noted by the construction entrance detail, mark the location on the plans and make a record of this minor modification in the SWPPP's modification log, which is located within one of the appendices of the On-site SWPPP.

Each stabilized construction entrance should be used in conjunction with Street Sweeping measures if it becomes apparent that sediment is still being tracked onto adjacent impervious areas, even with the use of the construction entrance.

During extremely dry conditions, drought, and/or excessive winds, the construction site should be treated for dust control to prevent the suspension of fine sediment particles into the air, being carried offsite, and deposited on adjacent properties or surface waters. This practice may not be directly called out for on the construction site plans. A water tanker used to spray the soil down may be an effective way to prevent excessive dust at a construction site.

Water Quality BMPs During Construction

Site-specific water quality BMPs (e.g., sediment basins, sediment traps, rock check dams, and rock sediment dikes) must be installed prior to the mass clearing, grubbing and grading of the site, and must be kept in functioning order throughout the lifespan of all construction activities. Each of these BMPs must be maintained and inspected until all areas draining to these BMPs have reached final stabilization, approved by the construction site inspector or the SWPPP Preparer, and recorded within the stabilization log located as an appendix of the On-site SWPPP.

The location, installation procedures, and maintenance procedures for each water quality BMP can be found within the approved construction site plans.

Post-Construction Water Quality

All construction sites disturbing 5 acres or more, including construction activities associated with Larger Common Plans disturbing 5 acres or more (for sites located within an MS4 this may be 1 acre or more), must be designed to treat water quality post-construction. These water quality controls must be installed and stabilized prior to

terminating coverage under the CGP. These controls will require routine maintenance to remain functional; this is to be conducted by the Primary Permittee or the entity that accepts responsibility for these structures once construction has been completed. Additional information, including permanent maintenance and inspection procedures, can be found in **Appendix C** of the OS-SWPPP or within the construction site plans.

Upon final stabilization, each construction site will have to make the transition from temporary BMPs to permanent BMPs. This transition may include the conversion of a sediment basin to a detention basin, a sediment trap to a bioretention area, or diversion swales to permanently vegetated swales. All post-construction (permanent) water quality and water quantity BMPs are identified in the final phase of the Erosion and Sediment Control located within the construction site plans.

Other Stormwater Management Procedures

Based on the nature, conditions, and/or procedures associated with this construction site, the following items must be followed and adopted by all those conducting land disturbing activities at this site:

- All construction debris must be stockpiled in designated areas, which have been provided with the proper BMPs to prevent the discharge of pollutants through stormwater runoff from building or other similar materials off-site or into surface waters.
- Any additional waste material or stockpile material (i.e., soil and mulch) must also be stored in the designated areas as shown on the Construction Site Plans or as the contractor, responsible for day-day activities at this site, deems appropriate. Silt fence or an approved equal shall surround all stockpiled materials.
- All parties conducting work at this construction site must be informed of and make note of pollutant sources, both industrial and construction, at this site, and be informed of all controls and measures that will be implemented to prevent the discharge of these pollutants in stormwater runoff.
- Any additional non-stormwater discharges, as referenced in the CGP, should be eliminated or reduced to the maximum extent feasible. All unpreventable non-stormwater discharges shall be treated through the approved stormwater management system before release off-site. Following is a list of allowable non-stormwater discharges:
 - Fire hydrant flushing
 - Wash water without detergents
 - Water used for dust control
 - Potable water
 - Building wash down water without detergents
 - Uncontaminated pavement wash water
 - Uncontaminated condensation from mechanical equipment
 - Uncontaminated ground or spring water
 - Water from foundation of footing drains
 - Uncontaminated excavation dewatering
 - Landscape irrigation.

1.3 Sequence of Construction

Construction Sequence

- Receive NPDES coverage from DHEC
- Georgetown County Land Disturbance Permit approval.
- Pre-construction meeting
- Notify DHEC EQC Regional office or OCRM office 48 hours prior to beginning land-disturbing activities
- Clearing & grubbing only as necessary for installation of perimeter controls
- Installation of perimeter controls (e.g., silt fence)
- Clearing & grubbing of site
- Mass grading and installation of sediment BMPs
- Permanent stabilization
- Submit required close out package to Georgetown County Stormwater Division
- File Notice of Termination with DHEC

1.4 Non-Numeric Effluent Limits

Stormwater Volume and Velocity Control

During the implementation of construction activities, all parties performing work at this construction site whose work may affect the implementation of the SWPPP must be informed of and directed on how to comply with this Non-Numeric Effluent Limit, which requires the management of stormwater runoff **within** the construction site and at **each outfall**. The purpose of this requirement is to control the stormwater volume and velocity at these locations to minimize erosion.

Specifically, each responsible party should be made aware of the practices that have been or should be implemented at the construction site to accomplish these particular stormwater management practices. Below is a list of practices that may be utilized within the disturbed area and at each outfall at construction sites to control stormwater volume and velocity:

Volume Control

- Limiting the amount of disturbed area and exposed soils
- Staging and/or Phasing of the Construction Sequence;
- Sediment Basins and Sediment Traps
- Diverting off-site flow around the construction site;
- Controlling the Drainage Patterns within the Construction Site;
- Temporary Stabilization of Disturbed Areas.

Velocity Control

- Surface Roughening and/or other Slope Stabilization Practices;
- Level Spreaders, Riprap Plunge Pools and/or other Velocity Dissipation BMPS located at the Construction Site's and Sediment Basin Outfalls.
- Use of Rock Checks, Sediment Tubes, Etc. in Temporary Diversions Swales and

Ditches.

- Use of Erosion Control Blankets, Turf Reinforcement Mats, and other Non-Vegetative BMPs that can be used to Quickly Stabilize Disturbed Areas.

The SWPPP Preparer/Engineer should approve any modifications (Additional BMPs or Changes to Existing BMPs) to address the management of stormwater volume and velocity prior to implementation. All approved SWPPPs that were issued coverage under the CGP should include ample BMPs and other control measures to address this specific Non-Numeric Effluent Limit.

Soil Exposure, Compaction and Preservation

Throughout construction activities, **the amount of soil exposed during construction should be kept to a minimum**. This may be accomplished by minimizing the amount the disturbed area within the permitted Limits of Disturbance (shown on the approved construction site plans) to only that which is necessary to complete the proposed work. For areas that have already been disturbed and where construction activities will not begin for a period of 14 days or more, temporary stabilization techniques must be implemented.

Prior to implementation of any major grading activities, **topsoil is to be preserved** by placing it in areas designated for stockpiling until final grades are reached. Each stockpile must be equipped with proper sediment and erosion controls to preserve the topsoil and protect adjacent areas from impacts. Once final grades have been reached, the preserved topsoil should be utilized to apply to areas identified for stabilization. Topsoil contains nutrients and organisms that aid in the growth of vegetation.

The **Compaction of Soil** should also be minimized to the degree practicable during grading activities. This is especially important during the replacement of topsoil to aid in a quick establishment of vegetative cover. Compaction of soil may also reduce rainfall's ability to infiltrate into the soil, increasing the amount of stormwater runoff.

Soil Stabilization

Throughout construction activities, soil stabilization techniques are to be initiated as soon as practicable whenever any clearing, grading, excavating, or other land-disturbing activities have permanently or temporarily ceased on any portion of the construction site and will not resume for a period exceeding 14 calendar days. For areas where initiating stabilization measures is infeasible, (e.g., where snow cover, frozen ground, or drought conditions preclude stabilization), initiate vegetative or non-vegetative stabilization measures as soon as practicable.

Steep Slopes (Slopes of 30% grade or greater)

All disturbed steep slopes (30% grade, ~3H:1V, or greater), and steep slopes to be created through grading activities must be managed in a fashion that limits the potential of erosion along the slopes. All parties whose work is/was responsible for the creation/disturbance of steep slopes must comply with the following items:

- **Minimize the Disturbance** of all steep slopes, when possible.
- **Divert Concentrated or Channelized Flows** of stormwater away from and around steep slope disturbances.
- **Use Specialized BMP Controls** including temporary and permanent seeding with soil binders, erosion control blankets, surface roughening, reducing continuous slope length with terracing or diversions, gradient terraces, interceptor dikes and swales, grass-lined channels, pipe slope drains, subsurface drains, level spreaders, check dams, seep berms, and triangular silt dikes to minimize erosion.
- **Initiate Stabilization Measures** as soon as practicable on any disturbed steep slope areas where construction activities have permanently or temporarily ceased, and will not resume for a period exceeding 7 calendar days.
- **A Vegetative and/or Non-Vegetative Cover** must be established within 3 working days from the time that stabilization measures were initiated.

Stabilization of steep slopes should be a priority for those performing work at the construction site. At the very least, runoff control BMPs should be implemented to transport stormwater runoff from the top of the slope to the toe of the slope. An example of this is to install diversion swales along the top of slope and direct the runoff towards pipe slope drains to transports the runoff to the toe of the slope. All pipe slope drain outlets are to be equipped proper outlet protection.

Sediment Discharge Minimization

Permittees, Contractors, and all other parties responsible for conducting land-disturbing activities are required to install and maintain all erosion and sediment BMPs that are identified on the approved construction site plans. These BMPs have been designed and approved to address such factors as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soils particle sizes expected to be present on the construction site. **Proper installation, inspection, and maintenance will allow these BMPs to operate at maximum efficiencies in order to minimize sediment discharges to the maximum extent practical.**

Pollutant Discharge Minimization

Permittees, Contractors, and all other parties responsible for conducting land-disturbing activities are required to install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, the following items must be implemented:

- **Minimize the discharge of pollutants from dewatering trenches and excavations** by managing runoff with the appropriate controls. Otherwise these discharges are prohibited;
- **Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters.** Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- **Minimize the exposure of building materials, building products,**

construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and

- Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

Prohibited Discharges

Permittees, Contractors, and all other responsible parties for conducting land-disturbing activities are prohibited to discharges, from the construction site, the following items:

- Wastewater from washout of concrete, unless managed by an appropriate control;
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- Soaps or solvents used in vehicle and equipment washing.

1.5 Buffer Zone Management

Per Section 3.2.4.C of the CGP, a buffer zone is required to be provided along the surface waters leading to the surrounding wetlands; however, an undisturbed buffer zone is not capable of being provided due to pre-existing development that has disturbed the majority of the required buffer zone area. For this reason Compliance Option C was selected for this project.

Compliance Option C was selected since the pre-existing development has stripped the buffer zone area from natural strands of vegetation. The pre-existing state of the project area was dirt and paved roads with grassed ditches that extended to within a few feet of the surface waters. For this reason, a buffer zone will not be provided as allowed through Compliance Option C listed in Section 3.2.4.C of the CGP.

In order to maintain the required erosion prevention and sediment control, BMPs such as sediment tubes and erosion control blankets will be installed in ditches, and silt fence will be installed along the perimeter of the affected wetlands. These BMPs are to be inspected at least once every 7 calendar days as well as after any storm event with greater than 0.5 inches of precipitation during any 24-hour period. All related calculations and drawings are located in the Appendices.

1.6 Certification Statement

"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 SCR100000."

Name _____

Title _____

Date _____

Section 2

SITE FEATURES AND SENSITIVE AREAS

2.1 Sources of Pollution

Throughout construction activities, each permittee, contractor, and person responsible for conducting work will need to ensure that sources of pollution are managed to prevent their discharge from the construction site. Expected pollution sources during construction have been identified in **Table 2.1-A**, but due to the nature of construction activities, it is often tough to predict all pollution sources that may appear throughout the life of a construction project. For that reason, the following table has also been provided to help all those performing work at this construction site identify possible sources of pollution

Stormwater runoff subjected to the identified pollution sources must be treated by the appropriate BMPs as directed by this SWPPP.

In the event that any additional sources of pollution are identified during construction, the person(s) with day-to-day operational control at the site is to add the new source(s) to **Table 2.1-A** and consult with the SWPPP Preparer to properly address this source and to prevent the discharge of it's pollutant through stormwater runoff.

Table 2.1-A: Potential Sources of Pollution

Source	Material or Chemical	Location*	Appropriate Control Measures
Loose soil exposed/disturbed during clearing, grubbing and grading activities	Sediment	All areas within the Limits of Disturbance	As directed by the construction Plans. This includes Silt Fence, sediment tubes, sediment basins, and sediment traps.
Areas where construction equipment are cleaned, a.k.a. concrete washout	Heavy Metals & pH	Located adjacent to each construction entrance	Concrete Washout Basin as shown on sheet C-8 of the plans.
Water encountered during trenching	Nutrients & Sediment	In and around any trenching activities.	Direct water into impoundments such as basins or traps to allow for the sedimentation of the listed pollutants.
Paving Operations	Sediment & Trash	All areas to be paved.	Inlet protection.
Material Delivery and Storage Areas	Nutrients, pH, Sediment, Heavy Metals, oils & grease	All areas used as storage areas	Silt fence and/or sediment dikes
Equipment fueling and maintenance areas	Metals, hydrocarbons, oils and greases	Areas surrounding fuel tanks	Provide secondary containments, locate in upland areas. Repair leaking and broken hoses.

Paints	Metal oxides, stoddard solvent, talc, calcium-carbonate, arsenic	Throughout site, primarily in areas of building construction	Washwater should be contained and is prohibited from being discharged

*Area where material/chemical is used on site.

2.2 Surface Waters

Stormwater runoff from the proposed construction sites discharges from 1 location as shown in the drainage map in **Appendix A**, which lies along the northwest boundary of the site. One outfall is located in the northwest corner.

The entire length of Lester Creek in the project area has been identified as a tributary. A Nationwide permit is being submitted to the USACOE.

2.3 Impairments and TMDLs

Some Waters of the State (WoS) have been identified as not meeting the State’s water quality standards for recreational swimming, fish consumption, aquatic life use, and/or shellfish harvesting for one or more pollutants even after controls for point and nonpoint source pollution have been put in place. These waterbodies have been classified as “impaired.” Once these waterbodies have been identified they are listed on the State’s 303(d) List of Impaired Waterbodies. South Carolina lists impairments as “stations” where samples were taken along a waterbody.

The most recently-approved 303(d) list can be found at the following link:

<http://www.scdhec.gov/environment/water/tmdl/index.htm#4>

After a pre-determined period of time, DHEC is obliged to develop a Total Maximum Daily Load (TMDL) for the pollutant of concern for each impaired station listed on the 303(d) List. A TMDL is the amount of a single pollutant (such as bacteria, nutrients, metals) that can enter a waterbody on daily basis and that waterbody still meet water quality standards. “TMDL” refers to both a calculation of a pollutant entering a

waterbody as well as the document containing this calculation along with source assessments, watershed and land use information, reductions and allocations information, implementation and other relevant information, maps, figures, and pictures.

Once a TMDL has been developed and approved by the EPA, the impaired WoS is removed from the 303(d) list. A separate list is maintained for WoS with approved TMDLs.

Any construction site whose discharges are released into a WoS listed on the 303(d) List or for which an EPA-approved TMDL has been developed must address the specific pollutant set forth in the TMDL and/or potential pollutants for the impairment. The SWPPP must include a description of BMPs to address these pollutants.

The primary permittee and/or contractor must ensure that the construction site discharges remain in compliance with the State's water quality standards. To do so, these parties will have to ensure the function of all approved BMPs to handle the specific pollutant.

Construction Stormwater Discharges are expected to contain pollutants that contribute and/or can cause the following impairments to receiving water bodies: BIO (Macroinvertebrate Community), Turbidity, TP (Total Phosphorus), TN (Total Nitrogen), CHLA (Chlorophyll-a), and Fecal Coliform in waters classified for Shellfish Harvesting in the coastal zone. The presence of any of these impairments in receiving waters will require approval control of the site's construction stormwater discharges. Information on each of these impairments and how to treat stormwater runoff for these impairments has been provided below.

Impairments Effected by Construction Site Discharges and Methods to Control Potential Pollutants Causing or Contributing to the Impairments

- 1. BIO (Macroinvertebrate Community):** A balanced and varied group of Macroinvertebrate organisms is an indicator of a healthy stream that supports aquatic life. A balanced community can be defined as a natural, diverse group of organisms (including Macroinvertebrate) characterized by the ability to sustain itself through season changes, presence of food chain species and a lack of domination by pollutant tolerant or invasive species. If these conditions do not exist, then the site may be considered impaired due to the presence of an undesirable or non-existent Macroinvertebrate community. Sediment from construction sites may further threaten the propagation of these organisms.

Address by: Examples include limiting the amount of disturbed area, designing sediment control BMPs to remove the maximum amount of sediment possible, immediate stabilization of disturbed areas, and other practices may be utilized to control the discharge of sediment from construction sites.

- 2. Turbidity:** Turbidity can be generally defined as the "cloudiness" of a waterbody and may be caused by the growth of aquatic phytoplankton and the presence of suspended solids in the water column. In SC, a water quality standard for turbidity is applicable to all waters of the State (see R. 61-68 D. 11. for numeric

targets by waterbody classification). Turbidity levels that exceed the water quality standard may reduce light penetration, thereby inhibiting aquatic flora growth, and may reduce the ability of fauna, such as fish, to absorb oxygen across their gills.

Address by: Examples include limiting the amount of disturbed area, designing sediment control BMPs to remove the maximum amount of sediment possible, immediate stabilization of disturbed areas, and other practices may be utilized to control the discharge of sediment from construction sites.

- 3. TP (Total Phosphorus):** Similar to total nitrogen, TP is an essential nutrient for the propagation of aquatic life. In SC, a water quality standard for TP is applicable to lakes greater than 40 acres (see R. 61-68 D. 11. for numeric and narrative targets). At acceptable levels, TP is assimilated by aquatic flora ensures the propagation of an overall balanced, indigenous aquatic community. TP levels that exceed the water quality standard are considered impaired and may cause negative impacts to the overall health of the aquatic community by promoting excessive algal growth in lakes. Phosphorous may enter a site's stormwater when excess amounts of the nutrient are applied to the site during temporary or final stabilization.

Address by: To prevent this soil should be tested to determine the quantity of the nutrient present in the soil and the correct amount that needs to be added so that it is absorbed by the vegetation.

- 4. TN (Total Nitrogen):** Similar to total phosphorus, TN is an essential nutrient for the propagation of aquatic life. In SC, a water quality standard for TN is applicable to lakes greater than 40 acres (see R. 61-68 D. 11. for numeric and narrative targets). At acceptable levels, TN is assimilated by aquatic flora and ensures the propagation of an overall balanced, indigenous aquatic community. TN levels that exceed the water quality standard are considered impaired and may cause negative impacts to the overall health of the aquatic community by promoting excessive algal growth in lakes. Nitrogen may enter a site's stormwater when excess amounts of the nutrient are applied to the site during temporary or final stabilization

Address by: Examples include that the soil should be tested to determine the quantity of the nutrient present in the soil and the correct amount that needs to be added so that it is absorbed by the vegetation.

- 5. Chlorophyll-a (CHLA):** CHLA is a pigment present in the cells of photosynthetic flora and some algal species. The presence of CHLA in an aquatic environment is a water quality indicator of the overall productivity in the aquatic system. CHLA is linked to the levels of TP, TN and light penetration in the water column. In SC, a water quality standard for CHLA is applicable to lakes greater than 40 acres (see R. 61-68 D. 11. for numeric and narrative targets). CHLA levels that exceed the water quality standard may suggest that other undesirable

water quality impacts are present as the aquatic system may be too productive to support the propagation of an overall balanced, indigenous aquatic community. Excess nutrients may discharge from a construction site during temporary and final stabilization. Limiting the amount of phosphorus and nitrogen applied while establishing vegetation will prevent excessive levels of CHLA in receiving waters.

Address by: Examples include that the soil should be tested to determine the quantity of the nutrients present in the soil and the correct amount that needs to be added so that it is absorbed by the vegetation.

- 6. Fecal Coliform (FC) in Shellfish Harvesting waters:** Fecal Coliform is an indicator bacteria for other pathogens which may be present in a waterbody. Shellfish Harvesting Waters are tidal salt waters protected for shellfish harvesting and must be protected to a higher standard than other waters because of the risk to human health posed by ingesting shellfish from areas with high levels of bacteria. Bacteria levels increase following rain events. Potential sources of bacteria on construction sites include improperly located porta-johns and litter that may attract rodents and other animals.

Address by: Porta-johns should be placed away from WoS and not placed on catch basins and other drainage structures. Litter and construction debris should be placed in identified areas and emptied on a routine basis.

Impairment Sources and Prevention

Construction sites can contribute to these impairments directly through the release of excess soil and/or nutrients within stormwater runoff. For this reason, proper sediment and erosion control BMPs should be implemented and the design of the stormwater management systems, during both construction and post-construction, should address the control of stormwater runoff. A reduction in the volume released or the rate at which this volume is released can significantly improve the quality of stormwater runoff and limit the amount of the pollutants that contribute to the above listed impairments.

As an example, sediment basins and/or traps should be used during construction to allow for sedimentation of soils/nutrients, and to control the release of stormwater into the impaired water body. Vegetated Detention and Infiltration structures should be implemented as post-construction BMPs to control stormwater volumes. Caution is advised when using fertilizers to reach Final Stabilization; excess fertilizer can contribute to each of the above listed impairments.

Site-Specific Requirements

This construction site discharges to Lester Creek which is not impaired and has no TMDL at this time.

Section 3

Compliance Requirements

3.1 SWPPP Availability

Section 3.1.6 of the CGP requires that a copy of the On-Site SWPPP (OS-SWPPP) must be retained at a location where the OS-SWPPP can be easily accessed during normal business hours from the date of commencement to the date that final stabilization is reached. As this project is linear in nature and it is not practical to have the OS-SWPPP on location of the construction site, the OS-SWPPP will be retained off-site by the Permittee or Operator. Notice of the plan's location and any updated contact information must be posted near the main entrance of the construction site.

The Permittee or Operator, upon request, must make the OS-SWPPP available by the end of normal business hours or by the following day under extenuating circumstances. The OS-SWPPP must be made available upon request and at the time of the construction site inspection by the EPA, SCDHEC, a tribal or an entity delegated under Regulation 72-300, and local government officials.

3.2 Pre-Construction Conferences

Section 4.1 of the CGP requires that a pre-construction conference be held to review and explain the requirements of the On-Site SWPPP (OS-SWPPP) before performing any land disturbing activities. The conference may be held either on-site or off-site. Details of how to address and process modifications of the OS-SWPPP, both major and minor, to maintain compliance under the General Construction Permit shall be covered during the conference.

The Permittee shall be responsible for conducting the pre-construction conference(s) and documenting the attendance. This documentation must remain with the OS-SWPPP. All contractors, subcontractors, blanket utility providers, etcetera performing work at the site shall attend the conference(s).

3.3 Inspection Requirements

Section 4.2 of the CGP requires that inspections be conducted on a routine basis of all areas disturbed by construction activity. These areas include perimeter BMPs and material storage areas exposed to precipitation. The purpose of the inspections is to look for evidence of, or potential for, inefficiencies within the On-Site SWPPP (OS-SWPPP), whether they are a direct result of improper design, installation, or maintenance. At a minimum, the inspections shall include the following:

- All areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation;

- All stormwater conveyance systems for any evidence of, or the potential for, pollutants entering these systems;
- All BMPs identified in the OS-SWPPP;
- All discharge locations to ascertain whether the implemented BMPs are effective in preventing the discharge of sediment from the site. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable; and
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

The Permittee shall provide qualified personnel and be responsible for inspections of the construction activity and performance of the BMPs.

Frequency

The frequency of the inspections shall be at least once every calendar week after the date of commencement until the date that final stabilization is reached. The frequency may be increased based on the frequency of storm events of 0.5 inches or greater and under the direction of SCDHEC. The frequency of inspections may be reduced to at least once every month for areas that have reached and maintain temporary or final stabilization with no additional disturbance. If a definable area reaches final stabilization, this may be marked on the inspection reports of the OS-SWPPP, and no further inspections of the area will be required.

Rainfall Data

Rainfall data for the days of inspection and rainfall events 0.5 inches or greater must be maintained in the OS-SWPPP. The Permittee may maintain an on-site rain gauge or use data from a certified weather record within a reasonable proximity of the construction site to record the rainfall amounts.

Inspector Qualifications

“Qualified personnel” means a person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact Stormwater quality and to assess the effectiveness of any BMPs selected to control the quality of Stormwater discharges from the construction site. This person must be either the preparer of the C-SWPPP or an individual who is under the direct supervision of the preparer of the approved C-SWPPP and who meets the requirements in this paragraph or an individual who has been certified through a Construction Site Inspector Certification Course that has been approved by DHEC. Inspections may also be conducted by a person with a registration equivalent to the registration of the preparer of the C-SWPPP and who meets the qualifications of this paragraph or an individual who is under the direct supervision of the person with an equivalent registration and who meets the requirements in this paragraph.

Inspection Reports

For each inspection required above, the Permittee, or designated personnel, must complete an inspection report. At a minimum, the inspection report must include:

- The inspection date;
- Names, titles, and, if not previously given in an inspection report, the qualifications of personnel making the inspection, unless those qualifications change;
- Weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether you know if any discharges occurred. At the very least, the total rainfall (in inches) since the time of the last inspection must be recorded;
- Weather information and a description of any discharges occurring at the time of the inspection;
- Location(s) of discharges of sediment or other pollutants from the Site;
- Location(s) of BMPs that need maintenance;
- Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
- Location(s) where additional BMPs are needed that did not exist at the time of inspection;
- Corrective action required including any changes to the OS-SWPPP necessary and implementation dates;
- Site Name, Operator Name and permit number; and.
- Verification that all BMPs and stormwater controls identified in the OS-SWPPP have been installed and are operating as designed.

A record of each inspection and of any actions taken in accordance with the Permit must be retained as part of the OS-SWPPP for at least three years from the date that permit coverage expires or is terminated and must be signed by the qualified inspector(s).

3.4 Maintenance Requirements

Construction Maintenance

While conducting construction activities, the BMPs and other protective measures identified on the plans and in the On-Site SWPPP (OS-SWPPP) must remain in effective operating condition. If inspections find BMPs that are not operating effectively, maintenance must be performed before the next scheduled inspection or as reasonably possible and before the next storm event whenever practicable.

If inspections reveal that a BMP has been used inappropriately or incorrectly, the Permittee must address the necessary replacement or modification required to correct the issue within 48 hours of identification of the issue. If existing BMPs need to be modified or additional BMPs are necessary to comply with the requirements of the General Construction Permit, the implementation must be before the next storm even whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the inspection report in the OS-SWPPP, and alternatives implemented as soon as reasonable possible.

Sediment collected by Silt Fence and other sediment control measures must be removed once the deposited sediment reaches 1/3 of the height of the above-ground portion of the BMP or lower height as specified by the manufacturer.

3.5 Record Keeping

In addition to and in accordance with Section 3.1.1.H.V. of the CGP, the On-Site SWPPP (OS-SWPPP) must contain appendices with the following documents:

- SC DHEC Construction General Permit. Provisions may be made for the copy of general permit to be accessed electronically as long as a hard copy can be made available by the end of the working day when required.
- Stamped and Approved Notice of Intent
- NPDES Coverage Approval Letter
- CZC Certification
- SCHEC 401 Certification
- USACOE Approvals

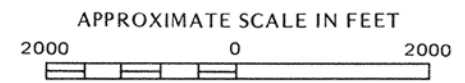
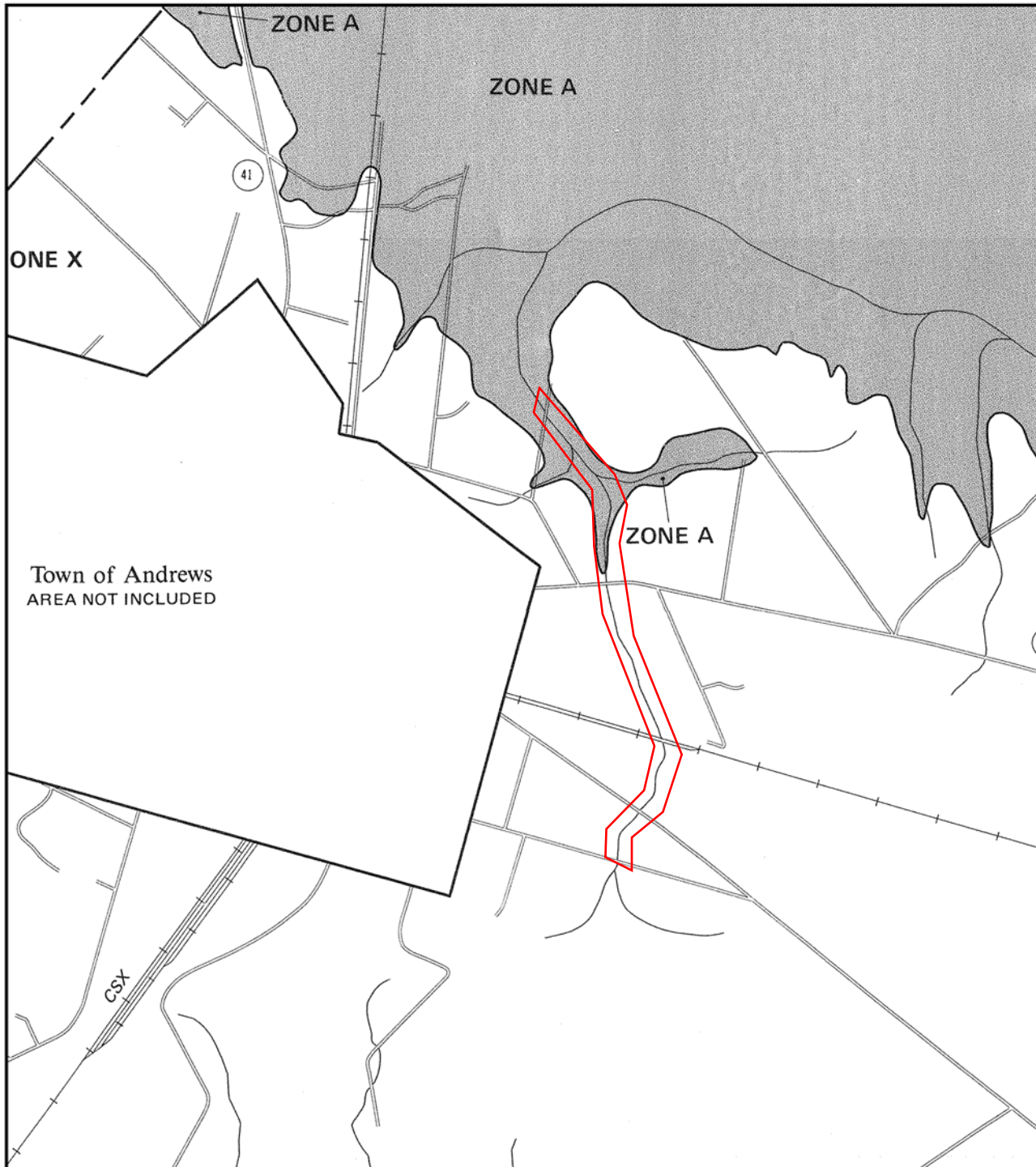
Any and all logs as deemed necessary to comply with the Permit which includes, but is not limited to, pre-construction attendance, inspections reports, and rainfall data.

3.6 Final Stabilization

As the final roadway base, shoulder, and ditch grades are established, the site will be transitioned to final stabilization. The roadway and driveways within the site will be stabilized by the application of asphalt over the base course. The shoulders and ditches will be stabilized through the use of HECF Type III, riprap at location detailed in the construction plan set and permanent seeding. Once the temporary BMPs have been removed and final stabilization has been reached on all disturbed areas, the Notice of Termination shall be submitted.

Appendix A

Site Maps

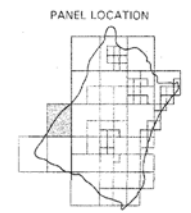


NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

GEORGETOWN
COUNTY,
SOUTH CAROLINA
(UNINCORPORATED AREAS)

PANEL 200 OF 490



COMMUNITY-PANEL NUMBER

450085 0200 D

MAP REVISED:

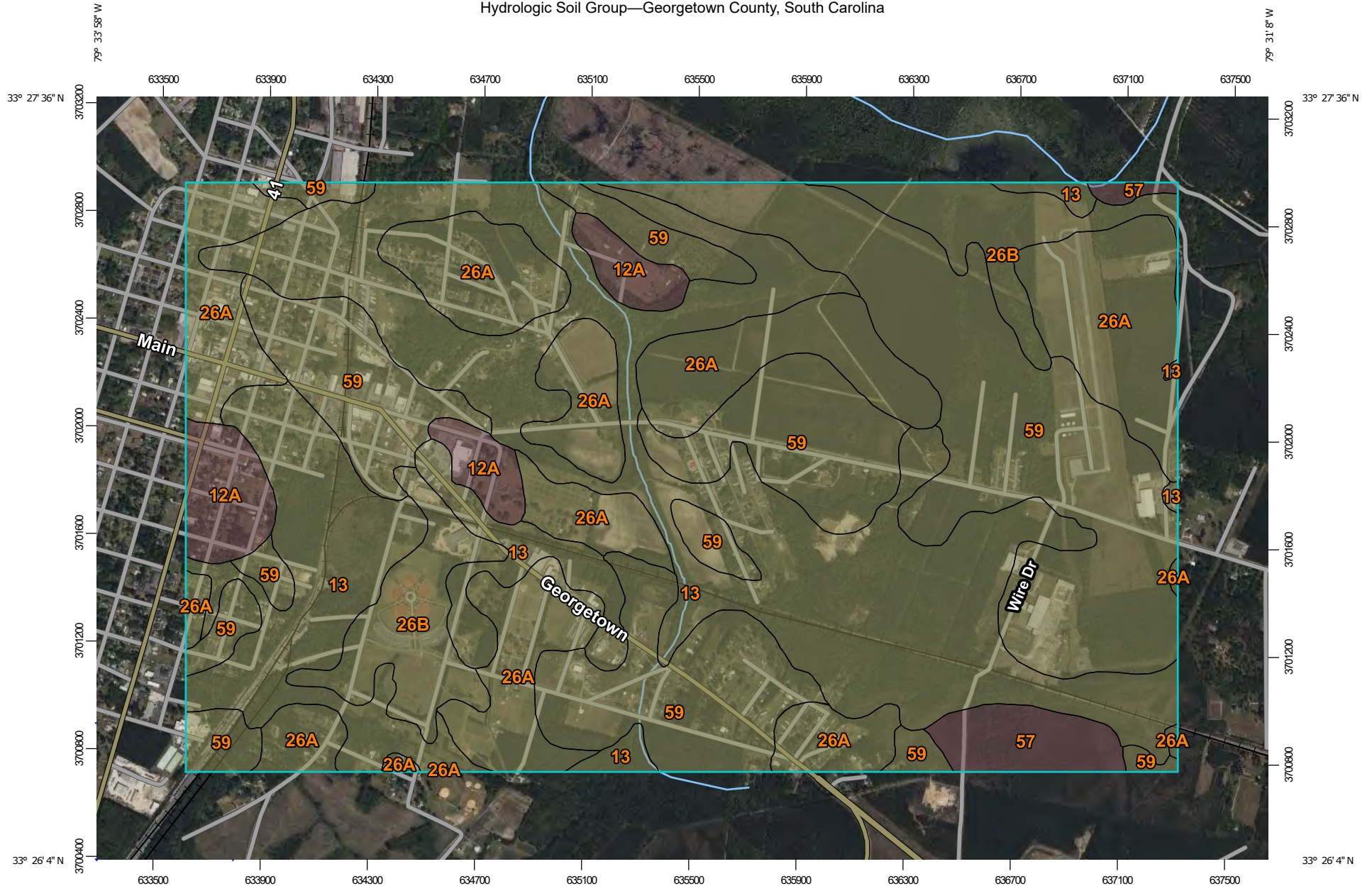
MARCH 16, 1989



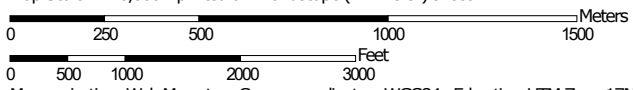
Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

Hydrologic Soil Group—Georgetown County, South Carolina



Map Scale: 1:20,000 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines


-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points






-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Georgetown County, South Carolina
 Survey Area Data: Version 19, Aug 30, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 11, 2022—Apr 15, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
12A	Yauhannah loamy fine sand, 0 to 2 percent slopes	B/D	75.2	3.7%
13	Bladen loam, 0 to 2 percent slopes	C/D	661.4	32.9%
26A	Eulonia loamy fine sand, 0 to 2 percent slopes	C/D	449.0	22.3%
26B	Eulonia loamy fine sand, 2 to 6 percent slopes	C/D	128.8	6.4%
57	Grifton loamy fine sand	B/D	42.4	2.1%
59	Wahee fine sandy loam	C/D	655.1	32.6%
Totals for Area of Interest			2,011.9	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix B

Drainage Maps

Legend

 Lester Creek Watershed



Document Path: C:\Users\cmajor\Desktop\PROJECTS\Projects - Active\031969.00 - East Andrews\Local Work\ArcPro\E Andrews_Drainage_Improvements\Map_Improvements.aprx

DAVIS & FLOYD
SINCE 1954



East Andrews Drainage Improvements Georgetown County, SC **USGS Map** June 2022



0 1,000 2,000 4,000 Feet

Appendix C

Additional Approvals/Certifications

Appendix D

Engineering Reports

Appendix E

Inspection Log and Reports

SWPPP Inspection Log

Name of Construction Site	Location of Construction Site		
Date of Inspection	Inspector Name	Does Inspection Report require maintenance of installed BMPs?	
		<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
		<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

SWPPP Inspection Log (Continued)

Date of Inspection	Inspector Name	Does Inspection Report require maintenance of installed BMPs?	
		<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
		<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

Appendix F

Rainfall Log and Reports

SWPPP Rainfall Records (January - June)										Year:	
January	Rainfall	February	Rainfall	March	Rainfall	April	Rainfall	May	Rainfall	June	Rainfall
1		1		1		1		1		1	
2		2		2		2		2		2	
3		3		3		3		3		3	
4		4		4		4		4		4	
5		5		5		5		5		5	
6		6		6		6		6		6	
7		7		7		7		7		7	
8		8		8		8		8		8	
9		9		9		9		9		9	
10		10		10		10		10		10	
11		11		11		11		11		11	
12		12		12		12		12		12	
13		13		13		13		13		13	
14		14		14		14		14		14	
15		15		15		15		15		15	
16		16		16		16		16		16	
17		17		17		17		17		17	
18		18		18		18		18		18	
19		19		19		19		19		19	
20		20		20		20		20		20	
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25		25		25		25		25		25	
26		26		26		26		26		26	
27		27		27		27		27		27	
28		28		28		28		28		28	
29		29		29		29		29		29	
30				30		30		30		30	
31				31				31			

SWPPP Rainfall Records (July - December)											Year:
July	Rainfall	August	Rainfall	September	Rainfall	October	Rainfall	November	Rainfall	December	Rainfall
1		1		1		1		1		1	
2		2		2		2		2		2	
3		3		3		3		3		3	
4		4		4		4		4		4	
5		5		5		5		5		5	
6		6		6		6		6		6	
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26		26		26		26		26		26	
27		27		27		27		27		27	
28		28		28		28		28		28	
29		29		29		29		29		29	
30		30		30		30		30		30	
31		31				31				31	

Appendix G

Additional Site Logs and Records

SWPPP Contractor & Sub-Contractor Log		
Name of Construction Site	Location of Construction Site	
Company/Individual Name	Work Responsibilities	
1.)		
Start Date:		
Completion Date:		
2.)		
Start Date:		
Completion Date:		
3.)		
Start Date:		
Completion Date:		
4.)		
Start Date:		
Completion Date:		
5.)		
Start Date:		
Completion Date:		
6.)		
Start Date:		
Completion Date:		
7.)		
Start Date:		
Completion Date:		
8.)		
Start Date:		
Completion Date:		
9.)		
Start Date:		
Completion Date:		
10.)		
Start Date:		
Completion Date:		

SWPPP Contractor & Sub-Contractor Log (Continued)	
11.)	
Start Date:	
Completion Date:	
12.)	
Start Date:	
Completion Date:	
13.)	
Start Date:	
Completion Date:	
14.)	
Start Date:	
Completion Date:	
15.)	
Start Date:	
Completion Date:	
16.)	
Start Date:	
Completion Date:	
17.)	
Start Date:	
Completion Date:	
18.)	
Start Date:	
Completion Date:	
19.)	
Start Date:	
Completion Date:	
20.)	
Start Date:	
Completion Date:	
21.)	
Start Date:	
Completion Date:	

SWPPP Modification Log		
Name of Construction Site	Location of Construction Site	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	

SWPPP Modification Log (Continued)		
Name of Construction Site	Location of Construction Site	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	
Type of Modification	Description of Modification	Location of Modification
<input type="checkbox"/> Major <input type="checkbox"/> Minor		
Start Date:		
Completion Date:		
Reason for Modifications:	Approved/Implemented By:	

SWPPP Soil Stabilization Log		
Name of Construction Site		Location of Construction Site
Type of Stabilization	Description of Stabilization	
<input type="checkbox"/> Final <input type="checkbox"/> Temporary		
Initiate Date:		
Completion Date:		
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:
Type of Stabilization	Description of Stabilization	
<input type="checkbox"/> Final <input type="checkbox"/> Temporary		
Initiate Date:		
Completion Date:		
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:
Type of Stabilization	Description of Stabilization	
<input type="checkbox"/> Final <input type="checkbox"/> Temporary		
Initiate Date:		
Completion Date:		
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:
Type of Stabilization	Description of Stabilization	
<input type="checkbox"/> Final <input type="checkbox"/> Temporary		
Initiate Date:		
Completion Date:		
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:
Type of Stabilization	Description of Stabilization	
<input type="checkbox"/> Final <input type="checkbox"/> Temporary		
Initiate Date:		
Completion Date:		
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:

SWPPP Modification Log (Continued)

Name of Construction Site		Location of Construction Site	
Type of Stabilization	Description of Stabilization		Location of Stabilization
<input type="checkbox"/> Final <input type="checkbox"/> Temporary			
Initiate Date:			
Completion Date:			
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:	
Type of Stabilization	Description of Stabilization		Location of Stabilization
<input type="checkbox"/> Final <input type="checkbox"/> Temporary			
Initiate Date:			
Completion Date:			
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:	
Type of Stabilization	Description of Stabilization		Location of Stabilization
<input type="checkbox"/> Final <input type="checkbox"/> Temporary			
Initiate Date:			
Completion Date:			
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:	
Type of Stabilization	Description of Stabilization		Location of Stabilization
<input type="checkbox"/> Final <input type="checkbox"/> Temporary			
Initiate Date:			
Completion Date:			
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:	
Type of Stabilization	Description of Stabilization		Location of Stabilization
<input type="checkbox"/> Final <input type="checkbox"/> Temporary			
Initiate Date:			
Completion Date:			
Additional work proposed for this area:		Inspection Frequency for Stabilized Area:	

Appendix H

Construction General Permit SCR100000

A copy of the NPDES General Permit for Stormwater Discharges from Construction Activities (SCR100000) can be found at the following address:

<http://www.scdhec.gov/environment/water/swater/docs/CGP-permit.pdf>