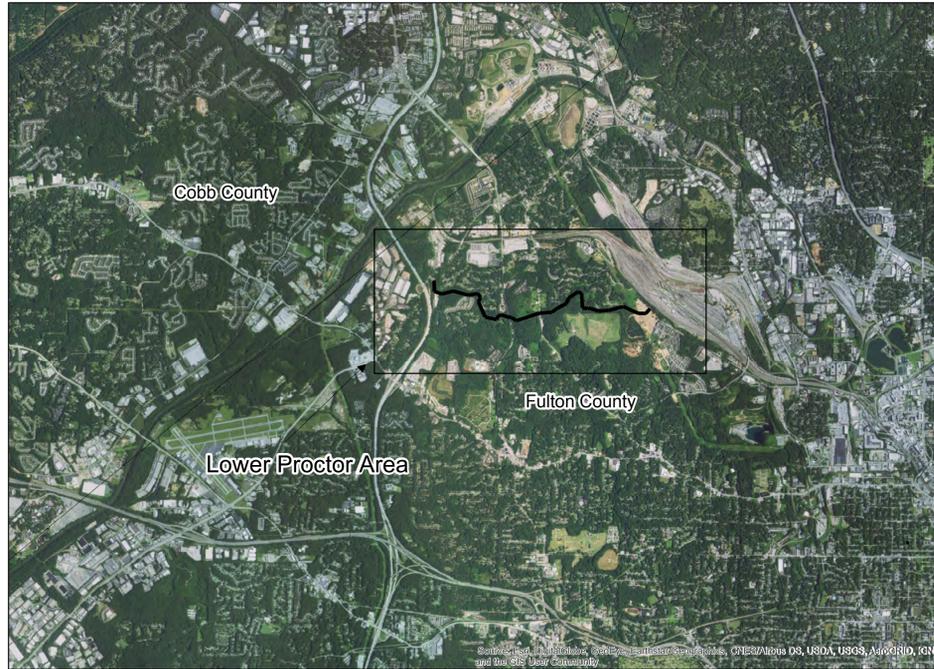


CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT OFFICE OF ENGINEERING SERVICES

**CITY OF ATLANTA
KEISHA LANCE BOTTOMS
MAYOR**

**DEPARTMENT OF WATERSHED MANAGEMENT
KISHIA L. POWELL
COMMISSIONER**



LOCATION MAP



SHT#	DWG #	TITLE
1	G-1000	COVER SHEET
2	G-2000	GENERAL NOTES
3	G-3000	OVERALL PROJECT AREA
4	C-300	PROJECT SUMMARY SHEET
5	C-301	PROJECT PLAN VIEW
6	C-302	PROJECT PLAN VIEW
7	C-303	PROJECT PLAN VIEW
8	C-304	PROJECT PLAN VIEW
9	C-305	EROSION AND SEDIMENT CONTROL PLAN
10	C-306	EROSION AND SEDIMENT CONTROL PLAN
11	C-307	EROSION AND SEDIMENT CONTROL PLAN
12	C-308	EROSION AND SEDIMENT CONTROL PLAN
13	C-309	EROSION AND SEDIMENT CONTROL PLAN
14	C-310	EROSION AND SEDIMENT CONTROL PLAN
15	C-311	EROSION AND SEDIMENT CONTROL PLAN
16	C-312	STANDARD DETAILS

CONSTRUCTION PLANS FOR LOWER PROCTOR CREEK TRUNK SEWER REHABILITATION OCTOBER 26, 2018

PROJECT DESCRIPTION:

THIS PROJECT WILL PROVIDE FOR THE INTERNAL REPAIR OF DEFECTS IN THE EXISTING 54" LOWER PROCTOR CREEK GRAVITY SANITARY TRUNK SEWER BY THE USE OF A FIBER-REINFORCED POLYMER PRODUCT (QUAKEWRAP OR APPROVED EQUAL).

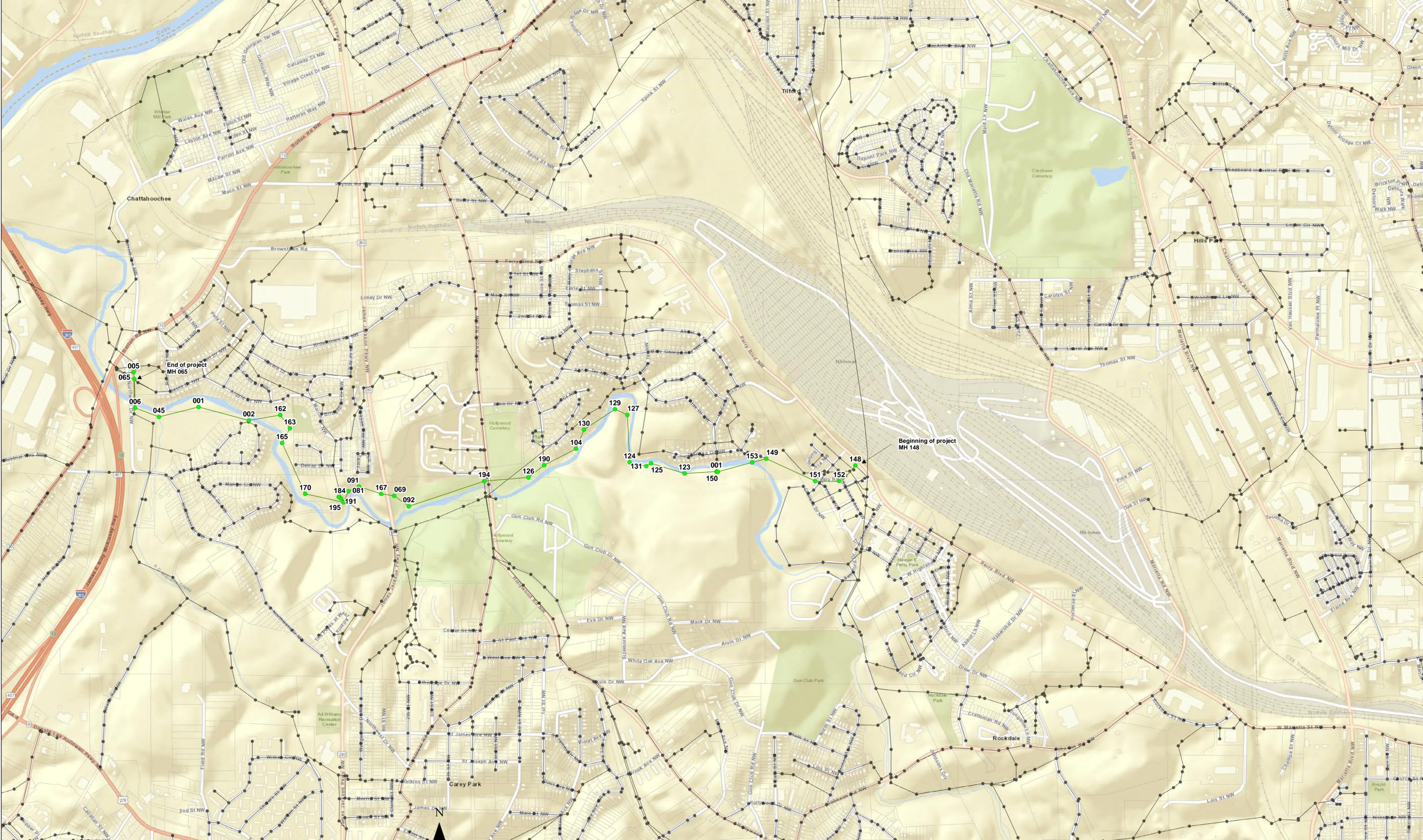
THE DEFECTS TO BE ADDRESSED IN THIS PROJECT HAVE BEEN IDENTIFIED FROM PREVIOUS, INTERNAL CCTV INSPECTIONS OF THE TRUNK SEWER. THESE INSPECTIONS WERE CONDUCTED IN 2004 BY THE CITY OF ATLANTA, AND IN 2017 FOR THE CITY OF ATLANTA BY AMTEC SURVEYING INC. THE DEFECTS IDENTIFIED INCLUDE DETERIORATED AND LEAKING JOINTS, LONGITUDINAL CRACKING AND RADIAL CRACKING.

THE PROJECT INCLUDES THE FOLLOWING WORK: BYPASS PUMPING OF EXISTING SEWER FLOWS; INTERNAL CLEANING OF APPROXIMATELY 13,670 LINEAR FEET OF 54" GRAVITY SANITARY SEWER; REMOVAL AND DISPOSAL OF DEBRIS REMOVED FROM THE SEWER; PRE- AND POST-REHABILITATION CCTV INSPECTION; INTERNAL LINING OF APPROXIMATELY 2,778 FEET OF 54" GRAVITY SEWER WITH FIBER REINFORCED POLYMER (FRP)-MANHOLE TO MANHOLE SEMI-STRUCTURAL REPAIR; INTERNAL LINING OF APPROXIMATELY 345 FEET OF 54" GRAVITY SEWER WITH FIBER REINFORCED POLYMER (FRP)-MANHOLE TO MANHOLE (STRUCTURAL REPAIR); SEALING OF 54" LEAKING JOINT/POINT REPAIR WITH FIBER REINFORCED POLYMER (FRP) REPAIR, AT FORTY-FIVE (45) LOCATIONS (NON STRUCTURAL); EROSION AND SEDIMENTATION CONTROL; TRAFFIC CONTROL AS NECESSARY; ANY OTHER WORK NECESSARY TO PROVIDE THE OWNER WITH A COMPLETED PROJECT.

EROSION NOTE:

EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) WILL BE EMPLOYED AND ENFORCED PURSUANT TO AN EROSION AND SEDIMENT CONTROL PLAN PREPARED BY A GEORGIA SOIL AND WATER CONSERVATION COMMISSION LEVEL-2 DESIGN PROFESSIONAL. **PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA EROSION CONTROL INSPECTOR. CALL (404) 546-1300 TO CONTACT THE INSPECTOR.**

 Know what's below. Call before you dig.		REVISIONS			CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT OFFICE OF ENGINEERING SERVICES				
		NO.	DATE	DESCRIPTION					
					LOWER PROCTOR SEWER REPAIRS				
					SURVEYOR	FIELD BOOKS	L.L. DIST.	COUNTY	SCALE
					DRAWN BY G. BBOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
ENGINEER OF RECORD					PROJECT NUMBER 674854			Sheet : G-1000	1 SHEET 16 OF 16



- Legend**
- LOWER PROCTOR MANHOLES
 - SANITARY SEWER STRUCTURES
 - LOWER PROCTOR PIPES
 - SANITARY SEWER PIPES
 - ▭ PARCELS

0 625
Feet

CH2M | ROHADFOX



REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
OFFICE OF ENGINEERING SERVICES

LOWER PROCTOR SEWER REPAIRS
OVERALL PROJECT AREA

SURVEYOR	FIELD BOOKS	L.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854		Sheet: G-3000		3 SHEET OF 16

ENGINEER OF RECORD

LOWER PROCTOR CREEK TRUNK : IDENTIFIED MAINLINE REPAIRS

Trunk/Outfall	SEWERSHED	SEWER GROUP	US MH ID	DS MH ID	US MH	DS MH	LENGTH (LF)	DEPTH (FT)	EXISTING DIAMETER (INCH)	Quakewrap Recommendations
Lower Proctor Creek Trunk	PRC03	3	23080414801	23080415201	148	152	329.6	14.0	54	RELINING with FRP, Semi-Structural ; Stagnant, murky water. Invert not visible. Heavy debris in the pipe. Mild corrosion upstream. Inspection in reverse order (from downstream to upstream)
Lower Proctor Creek Trunk	PRC03	3	23080415201	23080415101	152	151	352.2	8.5	54	No Lining required; Heavy debris (boulders) at 23080415201. MSA at 120 ft.
Lower Proctor Creek Trunk	PRC03	3	23080415101	23080414901	151	149	789.4	17.2	54	Reline with FRP/semi structural
Lower Proctor Creek Trunk	PRC03	3	23080414901	23080415301	149	153	215.0	17.9	54	FRP Point repair at 129, 210 ft; Stagnant, murky water (~2 ft)invert not visible.Inspection in reverse order (from downstream to upstream). Heavy debris, MSA at 207 ft.
Lower Proctor Creek Trunk	PRC03	3	23080415301	23080415001	153	150	524.5	18.3	54	FRP Point repair at 187, seal joint at 463 ft; Stagnant, murky water (~ 2 ft). Heavy debris in the pipe
Lower Proctor Creek Trunk	PRC03	3	23080415001	23080400106	150	1	20.2	NA	54	NA
Lower Proctor Creek Trunk	PRC03	3	23080400106	23080412301	1	123	509.0	8.3	54	FRP Point repair 62, 72, seal leak at 413 ft; Invert Not visible.
Lower Proctor Creek Trunk	PRC17_18E	3	23080412301	23080412501	123	125	514.6	8.3	54	FRP Point repair at 25 and 54 ft.
Lower Proctor Creek Trunk	PRC17_18E	3	23080412501	23080413101	125	131	81.1	NA	54	NA; Mild Corrosion
Lower Proctor Creek Trunk	PRC17_18E	3	23080413101	23080412401	131	124	250.1	9.7	54	NA
Lower Proctor Creek Trunk	PRC17_18E	3	23080412401	23080412701	124	127	715.4	18.6	54	Reline with FRP / semi-structural
Lower Proctor Creek Trunk	PRC17_18E	3	23080412701	23080412901	127	129	200.9	18.1	54	NA; ~ 2 ft of water in the pipe with high velocity. Invert not visible. Potential corrosion below the water line due to scour.
Lower Proctor Creek Trunk	PRC17_18E	3	23080412901	23080413001	129	130	544.5	16.5	54	FRP Point repair at 98, 238; Picture not clear, invert not visible beyond 450 ft. Mild corrosion noted at 500+ ft. at 4-5 o'clock.
Lower Proctor Creek Trunk	PRC17_18E	3	23080413001	23080410401	130	104	303.1	15.4	54	NA; Inspection in reverse order (from downstream to upstream). Mild corrosion noted after 250 ft.
Lower Proctor Creek Trunk	PRC17_18E	3	23080410401	23080419003	104	190	530.7	8.1	54	FRP Point repair at 205 and 446 ft. Survey abandoned at protruding tap at 531 ft; Invert Not Visible.
Lower Proctor Creek Trunk	PRC17_18E	3	23080419003	23080412601	190	126	290.1	NA	54	Reline with FRP / semi-structural; Video mislabeled as 23080419001 (US)
Lower Proctor Creek Trunk	PRC17_18E	3	23080412601	23080319403	126	194	653.0	7.9	54	Reline with FRP / semi-structural; Corroded from 4 o'clock to 8 o'clock (SAV/SAP). Leaks (including a couple of gushers) at multiple joints.
Lower Proctor Creek Trunk	PRC17_18E	3	23080319403	990804092A06	194	092A	584.2	NA	54	FRP Point repair at 38 ft., seal joint at 54, 97, 150, 500, 545, 576, 820 ft. Point repair 630-640 ft., 940-955, 978-986 ft; ~ 2 ft of water in the pipe with high velocity. Invert not visible. Potential corrosion below the water line due to scour.
Lower Proctor Creek Trunk	PRC17_18E	3	990804092A06	23080309201	192A	92	584.2	NA	54	FRP Repairs listed in segment above.
Lower Proctor Creek Trunk	PRC17_18E	3	23080309201	23080306901	92	69	264	13.66	54	FRP Point repair at 28 ft; ~ 2 ft of water in the pipe with high velocity. Invert not visible. Potential corrosion below the water line due to scour.
Lower Proctor Creek Trunk	PRC17_18E	3	23080306901	23080316701	69	167	192.216	13.7	54	FRP Point repair at 12, 116, 185 ft; ~ 2 ft of water in the pipe with high velocity. Invert not visible. Potential corrosion below the water line due to scour.
Lower Proctor Creek Trunk	PRC17_18E	3	23080316701	23080309101	167	91	344.4	9.59	54	Reline / structural; Continuous cracking along 12 o'clock.
Lower Proctor Creek Trunk	PRC17_18E	3	23080309101	23080308101	91	81	167.237	19.335	54	FRP Point repair at 12, 40 ft; ~ 2 ft of water in the pipe with high velocity. Invert not visible. Potential corrosion below the water line due to scour.
Lower Proctor Creek Trunk	PRC17_18E	3	23080308101	23080319503	81	195	178.526	17.515	54	Point Repair at 10.9 ft.
Lower Proctor Creek Trunk	PRC17_18E	3	23080319503	23080317001	195	170	592.5	7.7	54	FRP, Seal joint at 86, 468, point repair at 216 ft; ~ 2 ft of water in the pipe with high velocity. Invert not visible. Potential corrosion below the water line due to scour.
Lower Proctor Creek Trunk	PRC17_18E	3	23080317001	23080316501	170	165	820.4	7.32	54	FRP, Seal joints at 130, and 256 ft; ~ 1 ft of water in the pipe with high velocity. Invert not visible. Scour/corrosion possible below water line.
Lower Proctor Creek Trunk	PRC17_18E	3	23080316501	23080316301	165	163	242.828	15.22	54	NA; ~ 1 ft of water in the pipe with high velocity. Invert not visible. Scour/corrosion possible below water line.
Lower Proctor Creek Trunk	PRC17_18E	3	23080316301	23080316201	163	162	241.125	16.17	54	FRP, Seal joint at 115, 154 ft; ~ 1 ft of water in the pipe with high velocity. Invert not visible. Scour/corrosion possible below water line.
Lower Proctor Creek Trunk	PRC17_18E	3	23080316201	23080300201	162	2	468.5	18.94	54	FRP, IPR- 2 locations, verify in field.
Lower Proctor Creek Trunk	PRC17_18E	3	23080300201	23080300101	2	1	764.7	20.24	54	FRP, IPR-4 Locations, Repair at 120' and 407' Seal Joints at 97' and 120'
Lower Proctor Creek Trunk	PRC17_18E	3	23080300101	13980404501	2	45	601.3	18.47	54	FRP, IPR-1 Location, Seal Joint at 42'
Lower Proctor Creek Trunk	PRC17_18E	3	13980404501	13980400601	45	6	374.9	8.9	54	FRP, IPR-2 Locations, Seal Joint at 6' and 28'
Lower Proctor Creek Trunk	PRC17_18E	3	13980400601	13980406501	6	65	423.9	19.2	54	FRP, IPR-1 Location, Seal Joint at 167'

Existing Manhole Table

Manhole	Work	US MH ID	Northing	Easting	DEPTH (FT)	EXISTING SEWER MAIN DIAMETER (INCH)
148	RETAIN	23080414801	1381234.253	2209931.84	14.0	54
152	RETAIN	23080415201	1381279.297	2209694.458	8.5	54
151	RETAIN	23080415101	1381004.724	2209342.246	17.2	54
149	RETAIN	23080414901	1381332.376	2208624.088	17.9	54
153	RETAIN	23080415301	1381279.297	2208415.776	18.3	54
150	RETAIN	23080415001	1381140.425	2207910.006	NA	54
1	RETAIN	23080400106	NA	NA	8.3	54
123	RETAIN	23080412301	1381114.799	2207420.542	8.3	54
125	RETAIN	23080412501	1381265.146	2206928.363	NA	54
131	RETAIN	23080413101	NA	NA	9.7	54
124	RETAIN	23080412401	1381279.235	2206613.718	18.6	54
127	RETAIN	23080412701	1381973.899	2206579.6	18.1	54
129	RETAIN	23080412901	1382056.905	2206396.663	16.5	54
130	RETAIN	23080413001	1381758.286	2205941.367	15.4	54
104	RETAIN	23080410401	1381478.255	2205825.365	8.1	54
190	RETAIN	23080419003	NA	NA	NA	54
126	RETAIN	23080412601	1381058.064	2205124.787	7.9	54
194	RETAIN	23080319403	NA	NA	NA	54
192A	RETAIN	990804092A06	NA	NA	NA	54
92	RETAIN	23080309201	1380636.346	2203365.109	13.66	54
69	RETAIN	23080306901	1380789.606	2203150.124	13.7	54
167	RETAIN	23080316701	1380817.197	2202959.899	9.59	54
91	RETAIN	23080309101	1380923.498	2202632.269	19.335	54
81	RETAIN	23080308101	1380857.63	2202478.117	17.515	54
195	RETAIN	23080319503	NA	NA	7.7	54
170	RETAIN	23080317001	1380817.369	2201842.422	7.32	54
165	RETAIN	23080316501	1381563.312	2201501.001	15.22	54
163	RETAIN	23080316301	1381776.882	2201616.558	16.17	54
162	RETAIN	23080316201	1381971.746	2201474.539	18.94	54
2	RETAIN	23080300201	1381892.725	2201012.724	20.24	54
2	RETAIN	23080300101	1382089.582	2200273.78	18.47	54
45	RETAIN	13980404501	1381944.773	2199690.207	8.9	54
6	RETAIN	13980400601	1382075.741	2199338.913	19.2	54



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REVISIONS

NO.	DATE	DESCRIPTION

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
OFFICE OF ENGINEERING SERVICES

LOWER PROCTOR SEWER REPAIRS
PROJECT SUMMARY SHEET

ENGINEER OF RECORD

SURVEYOR

FIELD BOOKS

L.L. DIST.

COUNTY

SCALE

DRAWN BY
G. BOQUIN

DESIGNED BY
C. NORRIS

CHECKED BY
A. BOYD

APPROVED BY
T. KELLEY

DATE

PROJECT NUMBER 674854

Sheet: O-2000

4

SHEET 16 OF

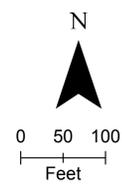


GENERAL NOTES:

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- THE CONTRACTOR WILL BE REQUIRED TO PROVIDE ENGINEERING DRAWINGS, DETAILS, AND SPECIFICATIONS GOVERNING THE REPAIR. THESE ARE TO BE STAMPED BY AN ENGINEER REGISTERED IN THE STATE OF GEORGIA.
- THE CONTRACTOR WILL BE REQUIRED TO CLEAR AND OBTAIN ACCESS TO THE SEWER LINES FOR THIS WORK.
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- THE FINAL DETERMINATION OF THE SPECIFIC LOCATION AND TYPES OF THE REPAIRS WILL BE DETERMINED BASED ON THE INSPECTION OF THE SEWER LINE AND CONVERSATIONS WITH THE CITY OF ATLANTA.
- BYPASS PUMPING WILL BE REQUIRED IN ORDER TO COMPLETE THIS WORK. UPSTREAM OF THE TERRELL CREEK INTERCEPTOR (MH 194) THE CITY OF ATLANTA HAS THE CAPABILITY TO REDUCE WASTEWATER FLOWS TO THE LOWER PROCTOR SEWER CREEK TRUNK SEWER.

SEE SPECIFICATIONS

- THIS PROJECT WILL PROVIDE FOR THE INTERNAL REPAIR OF DEFECTS IN THE EXISTING 54" GRAVITY SEWER LINE BY THE USE OF A FIBER REINFORCED POLYMER (FRP) PRODUCT (QUAKEWRAP) OR APPROVED EQUAL.
- THE PROJECT WILL ALSO REQUIRE BYPASS PUMPING OF THE EXISTING SEWER FLOWS AS NECESSARY TO COMPLETE THE WORK ALONG WITH SEWER CLEANING AND CCTV INSPECTION OF THE LINES AND ANY OTHER WORK NECESSARY TO PROVIDE THE OWNER WITH A COMPLETED PROJECT.
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Legend

● LOWER PROCTOR MANHOLES	— AccessPoints
● SANITARY SEWER STRUCTURE	— LOWER PROCTOR PIPES
★ CAST IRON	— SANITARY SEWER MAIN
★ DUCTILE IRON	□ PARCEL
◄ FLOW	□ LIMITS OF CONSTRUCTION
— PROCTOR CREEK	
- - - MATCHLINE	

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a joint venture

REVISIONS		
NO.	DATE	DESCRIPTION

**CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
OFFICE OF ENGINEERING SERVICES**

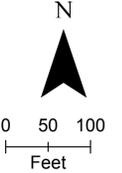
**LOWER PROCTOR SEWER REPAIRS
PROJECT PLAN VIEW**

SURVEYOR	FIELD BOOKS	L.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854		Sheet: C-301		5 SHEET OF 16

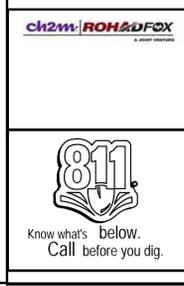


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 - PROCTOR CREEK
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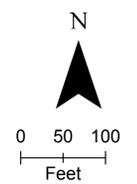
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LOWER PROCTOR SEWER REPAIRS PROJECT PLAN VIEW				
SURVEYOR	FIELD BOOKS	S.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854			Sheet: C-302	6 OF 16 SHEET

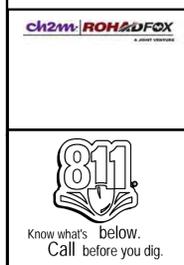


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REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT OFFICE OF ENGINEERING SERVICES				
LOWER PROCTOR SEWER REPAIRS PROJECT PLAN VIEW				
SURVEYOR	FIELD BOOKS	LL. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
ENGINEER OF RECORD		PROJECT NUMBER 674854	Sheet: C-303	7 SHEET OF 16



GENERAL NOTES:

- SEE OVERALL SHEET FOR SPECIFIC REPAIR LOCATIONS AND DETAILS. THE REPAIRS ARE TO BE MADE USING AN INTERNAL REPAIR PROCEDURE USING A FIBERGLAS REINFORCED POLYMER (FRP) PRODUCT USING FIBERGLASS, RESIN AND CARBON FIBER, (IF NEEDED) TO EFFECT PERMANENT REPAIRS TO THE EXISTING 54" GRAVITY SEWER LINE.
- THE CONTRACTOR WILL BE REQUIRED TO PROVIDE ENGINEERING DRAWINGS, DETAILS, AND SPECIFICATIONS GOVERNING THE REPAIR. THESE ARE TO BE STAMPED BY AN ENGINEER REGISTERED IN THE STATE OF GEORGIA.
- THE CONTRACTOR WILL BE REQUIRED TO CLEAR AND OBTAIN ACCESS TO THE SEWER LINES FOR THIS WORK.
- THE CITY HAS LIMITED PRIOR CCTV INSPECTION DATA FOR THESE LINE SEGMENTS THAT CAN BE PROVIDED FOR REVIEW.
- THE FINAL DETERMINATION OF THE SPECIFIC LOCATION AND TYPES OF THE REPAIRS WILL BE DETERMINED BASED ON THE INSPECTION OF THE SEWER LINE AND CONVERSATIONS WITH THE CITY OF ATLANTA.
- BYPASS PUMPING WILL BE REQUIRED IN ORDER TO COMPLETE THIS WORK. UPSTREAM OF THE TERRELL CREEK INTERCEPTOR (MH 194) THE CITY OF ATLANTA HAS THE CAPABILITY TO REDUCE WASTEWATER FLOWS TO THE LOWER PROCTOR SEWER CREEK TRUNK SEWER.

SEE SPECIFICATIONS

- THIS PROJECT WILL PROVIDE FOR THE INTERNAL REPAIR OF DEFECTS IN THE EXISTING 54" GRAVITY SEWER LINE BY THE USE OF A FIBER REINFORCED POLYMER (FRP) PRODUCT (QUAKEWRAP) OR APPROVED EQUAL.
- THE PROJECT WILL ALSO REQUIRE BYPASS PUMPING OF THE EXISTING SEWER FLOWS AS NECESSARY TO COMPLETE THE WORK ALONG WITH SEWER CLEANING AND CCTV INSPECTION OF THE LINES AND ANY OTHER WORK NECESSARY TO PROVIDE THE OWNER WITH A COMPLETED PROJECT.
- THE DESIGN OF THE SPECIFIC REPAIR SHALL BE PROVIDED BY THE CONTRACTOR. THE SPECIFIC DESIGN FOR THE INDIVIDUAL FRP INTERNAL REPAIRS TO THE PIPELINE SHALL BE DESIGNED AND STAMPED BY AN ENGINEER REGISTERED IN THE STATE OF GEORGIA. THE DETAILED DESIGN CALCULATIONS AND DESIGN ASSUMPTIONS SHALL BE PROVIDED FOR EACH SPECIFIC REPAIR AND SHALL BE SUBMITTED FOR DOCUMENTATION.

Legend

- LOWER PROCTOR MANHOLES
- SANITARY SEWER STRUCTURE
- ★ CAST IRON
- ★ DUCTILE IRON
- ◄ FLOW
- PROCTOR CREEK
- - - MATCHLINE

AccessPoints

- LOWER PROCTOR PIPES
- SANITARY SEWER MAIN
- ▭ PARCEL
- ▭ LIMITS OF CONSTRUCTION

0 50 100 Feet

N

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REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
OFFICE OF ENGINEERING SERVICES

LOWER PROCTOR SEWER REPAIRS
PROJECT PLAN VIEW

SURVEYOR	FIELD BOOKS	S.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854		Sheet: C-304		SHEET 16 OF 16

CERTIFICATIONS

DESIGN PROFESSIONAL

1. I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

NAME: CHRISTOPHER S. HAMBLEN

GEORGIA REGISTERED ENGINEER NO: 038034

LEVEL II CERTIFIED DESIGN PROFESSIONAL NO: 0000069253

SIGNATURE: _____

PROJECT INFORMATION

1. **PRIMARY PERMITTEE:**
NAME: REGINALD CRAYTON
COMPANY: CITY OF ATLANTA, DEPARTMENT OF WATERSHED MANAGEMENT
ADDRESS: 72 MARIETTA STREET NW
CITY/STATE/ZIP: ATLANTA, GA 30303
PHONE: (404) 798-5612
2. ENGINEER:
CH2M
6600 PEACHTREE DUNWOODY ROAD
400 EMBASSY ROW, SUITE 600
ATLANTA GA 30328
3. 24-HR CONTACT: REGINALD CRAYTON, (404) 798-5612
4. TOTAL PROJECT AREA: 6.4 ACRES
TOTAL DISTURBED AREA: 0.1 ACRES
5. GPS LOCATIONS OF PROJECT(WGS84)
BEGINNING OF PROJECT: (33.796778°, -084.451943°)
END OF PROJECT: (33.800443°, -084.486886°)
6. PROJECT DESCRIPTION
THIS PROJECT WILL PROVIDE FOR THE INTERNAL REPAIR OF DEFECTS IN THE EXISTING 54" GRAVITY SEWER LINE BY THE USE OF A FIBER REINFORCED POLYMER (FRP) PRODUCT (QUAKEWRAP) OR APPROVED EQUAL. ALL WORK PERFORMED WILL BE THROUGH EXISTING MANHOLES WITHIN CITY EASEMENTS, WITH LIMITED LAND DISTURBANCES. THE PROJECT WILL ALSO REQUIRE BYPASS PUMPING OF THE EXISTING SEWER FLOWS AS NECESSARY TO COMPLETE THE WORK ALONG WITH SEWER CLEANING AND CCTV INSPECTION OF THE LINES AND ANY OTHER WORK NECESSARY TO PROVIDE THE OWNER WITH A COMPLETED PROJECT.
7. RECEIVING WATERS
• THE RECEIVING WATERS OF THIS PROJECT IS PROCTOR CREEK, WHICH IS PART OF THE UPPER CHATTAHOOCHEE WATERSHED (HUC-03130001).
• PROCTOR CREEK IS AN IMPAIRED STREAM SEGMENT AS DEFINED IN THE 2016 GEORGIA EPD 305(B)/303(D) LIST.
• A TMDL IMPLEMENTATION PLAN FOR FECAL COLIFORM WAS DEVELOPED FOR PROCTOR CREEK IN 2003, REVISED 2008. A TMDL IMPLEMENTATION PLAN FOR SEDIMENT HAS NOT BEEN DEVELOPED FOR PROCTOR CREEK.
8. BASE FLOOD INFORMATION
MAP NUMBER: 13121C
PANEL NUMBER: 0236F, 0237F
REVISED: SEPTEMBER 18, 2013
9. SOILS TYPE
AS PER NRCS WEB SOIL SURVEY, SOIL TYPES FOR THIS PROJECT ARE DELINEATED IN THE C SERIES SHEETS. SOIL TYPE LEGEND (WITH DESCRIPTIONS) IS PROVIDED ON SHEET C-305.
10. WETLANDS
THE PRESENCE OF ON-SITE WETLANDS HAS BEEN INVESTIGATED AND IT WAS DETERMINED THERE ARE NO WETLANDS WITHIN THE PROJECT AREA.
11. STATE WATERS
STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN IDENTIFIED AND WILL BE PROTECTED BY ASSOCIATED STATE AND CITY PROTECTION REGULATIONS AND BUFFERS.
12. RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOWS OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED SHALL STAY THE SAME. THE PROPOSED WORK DOES NOT ALTER THE HYDROLOGY OF THE SITE.
13. WRITTEN JUSTIFICATION AGAINST SEDIMENT BASIN IMPLEMENTATION: THE TOPOGRAPHY OF THE SITE, AS WELL CONSTRUCTION TECHNIQUES, LIMITS THE LAND DISTURBANCE ACTIVITIES TO A NARROW AND NON-CONTINUOUS LINEAR AREAS. THIS ELIMINATES THE OPPORTUNITY TO USE A CENTRALIZED SEDIMENT STORAGE BMP TO ADEQUATELY TREAT SEDIMENT POLLUTION. TO MEET THE GOALS OF LIMITING SEDIMENT POLLUTION, THE SEDIMENT CONTROL PROGRAM WILL BE EXECUTED BY THE CONTRACTOR IN COORDINATION WITH LIMITING LAND DISTURBANCE AS SPECIFIED IN THIS PLAN SET AT ANY GIVEN TIME: BEFORE, DURING, AND AFTER CONSTRUCTION.

REQUIRED ES&CP NOTES (CITY OF ATLANTA REQUIRED NOTES INCLUDED AS SHOWN IN BOLD>)

1. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FOOT OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
2. **SPILL CLEANUP AND CONTROL PRACTICES**
- 2.1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE TO SITE PERSONNEL.
- 2.2. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
- 2.3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
- 2.4. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- a. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- b. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
- c. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
- 2.5. THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1,320 GALLONS OF PETROLEUM IS STORED ON-SITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

19. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

20. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

21. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING. ANY DISTURBED AREAS REMAINING IDLE FOR 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.

- PERIMETER EROSION AND SEDIMENT CONTROL DEVICES AND ORANGE BARRIER FENCE SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF SITE WORK AND REMAIN UNTIL COMPLETION OF WORK. CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE DAMAGED ITEMS. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN, AND REPAIRED AS NECESSARY. ACCUMULATED SILT SHALL BE REMOVED AS SOON AS PRACTICAL, BUT NO LATER THAN WHEN FENCE IS HALF FULL.

- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON-SITE INSPECTION.

- SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 - TYPE C TEMPORARY SILT FENCE, OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 1993 EDITION, AND BE WIRE REINFORCED.

- THE PROPERTY OWNER AND CONTRACTOR ARE EQUALLY RESPONSIBLE FOR ALL EROSION CONTROL ACTIVITIES.

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES, NOT THE CITY OF ATLANTA.

- ALL TEMPORARY AND PERMANENT SEEDING MUST BE PERFORMED AT THE APPROPRIATE SEASON. IN SUCH INSTANCES WHERE THE ESTABLISHMENT OF VEGETATION IS INOPPORTUNE DUE TO SEASON OR DROUGHT, DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED USING 2" 4" OF MULCH (DS1). ADDITIONAL PLANTINGS WILL BE NECESSARY IF A SUFFICIENT STAND OF GRASS FAILS TO GROW.

- THE CITY'S DESIGNEE WILL VERIFY ADEQUATE COVER (100% COVER, 70% DENSITY) OF PERMANENT STABILIZATION (DS3, DS4).

- SILT FENCES SHALL NOT BE PLACED IN STREAM BUFFER OR FLOODPLAINS, UNLESS UTILIZED FOR THE CONSTRUCTION OF AN EXEMPT ACTIVITY (I.E. ROADWAY DRAINAGE STRUCTURES, SEWER/WATER CROSSINGS, OR DRAINAGE STRUCTURES) PER THE APPROVED PLANS. FOR SUCH DISTURBANCES WITHIN THE BUFFER, THE AREA SHALL BE IMMEDIATELY STABILIZED USING EROSION CONTROL MATTING AND/OR BLANKETS ONCE THE ACTIVITY IS COMPLETE.

- SUBCONTRACTORS INVOLVED WITH LAND DISTURBANCE ACTIVITIES SHALL MEET THE EDUCATION REQUIREMENTS (LEVEL 1) DESCRIBED IN O.C.G.A 12-7-19.

- EROSION CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

- SOIL DISTURBING ACTIVITIES WILL INCLUDE: PLACEMENT OF EROSION AND SEDIMENT CONTROL, DEMOLITION, SITE CLEARING AND GRUBBING, GRADING OPERATIONS, FACILITIES CONSTRUCTION, TRENCH EXCAVATION AND BACKFILL, AND SURFACE RESTORATION.

- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES INSTALLED IN GOOD WORKING ORDER FOR THE FULL DURATION OF THIS CONTRACT.

- EROSION, SEDIMENT AND POLLUTION CONTROL MEASURES SHALL BE PROVIDED AS SHOWN AND ARE THE MINIMUM REQUIRED. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON-SITE INSPECTION. ADDITIONAL DEVICES MAY BE REQUIRED AS NECESSARY DURING CONSTRUCTION.

- CONTRACTOR SHALL INSTALL AND ADD TO EROSION CONTROL MEASURES AS DETERMINED BY THE ENGINEER, OWNER OR THE CITY.

- PROVISIONS TO PREVENT EROSION OF SOIL FROM THE SITE SHALL BE, AT A MINIMUM, IN CONFORMANCE WITH THE REQUIREMENTS OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, CURRENT EDITION. THIS DESIGN SHALL CONFORM TO AND ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THIS PUBLICATION.

- CONSTRUCTION EXITS (Co) SHALL BE REQUIRED AT ALL LOCATIONS USED FOR INGRESS/EGRESS FROM THE CONSTRUCTION AREA. CONSTRUCTION MATERIAL STORAGE AREAS WILL REQUIRE THE INSTALLATION OF A CONSTRUCTION EXIT TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE AREA. SILT FENCE SHALL ALSO BE INSTALLED TO PREVENT SEDIMENT FROM LEAVING THE MATERIAL STORAGE AREA. AFTER DEMOBILIZATION, THE MATERIAL STORAGE AREA SHALL BE SEEDED AND MULCHED, AND THE SILT FENCE SHALL REMAIN UNTIL THE AREA IS PERMANENTLY STABILIZED.

- CONSTRUCTION DEBRIS (INCLUDING CONCRETE WASHOUT) SHALL BE PROPERLY DISPOSED OF OFFSITE IN LICENSED LANDFILLS OR LOCATIONS THAT ARE APPROVED BY FEDERAL, STATE, AND LOCAL AUTHORITIES. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

- NO BURN OR BURY PITS SHALL BE PERMITTED ON THE SITE WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF THE SITE OWNER AND/OR THE ENGINEER OF RECORD.

- A TEMPORARY COVER OF HEAVY MULCH OR MULCH WITH TEMPORARY SEEDING SHALL BE PLACED ON ALL AREAS WHERE PERMANENT COVER CAN NOT BE ESTABLISHED IMMEDIATELY DUE TO SEASONAL LIMITATIONS.

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.

- ALL EROSION CONTROL DEVICES, THAT ARE NOT DIRECTLY SPECIFIED AS TO INSTALLATION AND MATERIALS, SHALL MEET THE REQUIREMENTS OF THE GA. DEPT. OF TRANSPORTATION, SPECIFICATIONS FOR THE CONSTRUCTION OF ROADS AND BRIDGES, CURRENT EDITION, AND LATEST SUPPLEMENT IN EFFECT AT THE TIME OF BID OPENING OR THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, CURRENT EDITION.

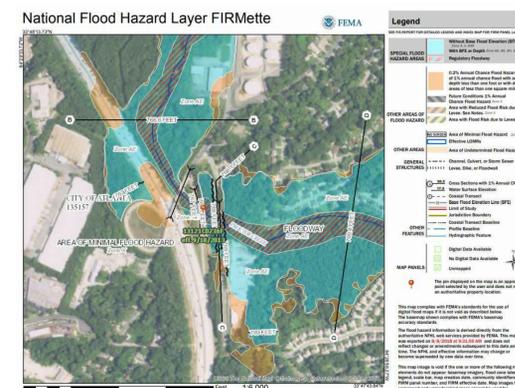
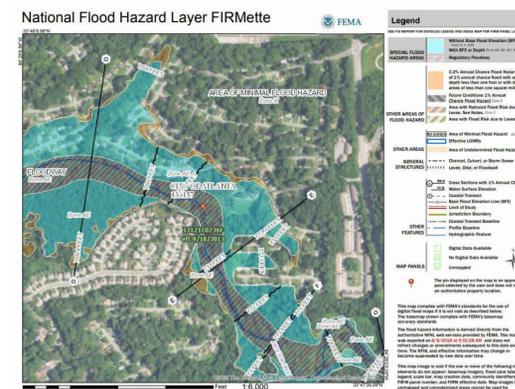
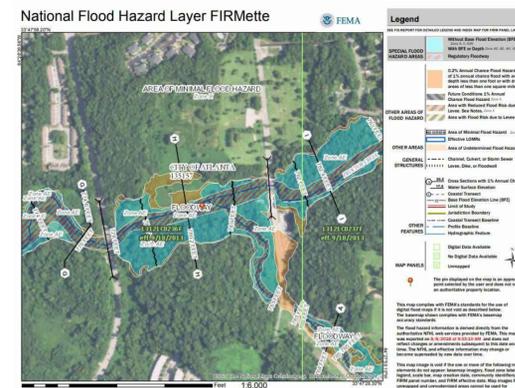
- ACCEPTANCE AND/OR SUBSEQUENT ACCEPTANCE OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY COA OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS, JURISDICTIONAL WATERS OF THE STATE, AREAS OF THREATENED/ENDANGERED SPECIES, OR AREAS OF HISTORICAL SIGNIFICANCE. IT IS THE OWNER'S RESPONSIBILITY TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR ANY REQUIRED APPROVALS.

- A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.

SOIL INFORMATION NOTES

1. SOILS INFORMATION IS FROM THE USDA NATURAL RESOURCES CONSERVATION SERVICE'S WEB SOIL SURVEY. SPATIAL EXTENTS OF SOIL LAYERS ARE SHOWN ON SHEETS C-308 AND C-309.
2. SOIL SERIES ARE GROUPINGS OF SIMILAR SOILS THAT WITH THE ALLOWABLE EXCEPTIONS FOR TEXTURE OF SURFACE LAYER OR THE UNDERLYING SUBSTRATUM, HAVE MAJOR HORIZONS THAT ARE SIMILAR IN COMPOSITION, THICKNESS, AND ARRANGEMENT IN THE PROFILE. THE SOIL PROFILE MAPPED IN THE SURVEY ONLY DESCRIBES THE HORIZONS UP TO A DEPTH OF 80-INCHES.

MAP UNIT SYMBOL	MAP UNIT NAME	SLOPE (%)
AaC	Altavista sandy loam	6-10
AgC	Appling-Hard Labor complex	6-10
BaA	Buncombe loamy sand	0-3
CaA	Cartecay-Toccoa complex	0-2
CpA	Congaree sandy loam	0-2
ReD	Rion sandy loam	10-15
ReE	Rion sandy loam	15-25
Ub	Urban land	N/A
UeE	Urban land-Ashlar-Rion complex	10-25
UfC2	Urban land-Cecil complex	2-10
UgE	Urban land-Grover-Mountain Park complex	10-25
UmC2	Urban land-Madison-Bethlehem complex	2-10
Ure	Urban land-Rion complex	10-25
W	Water	N/A

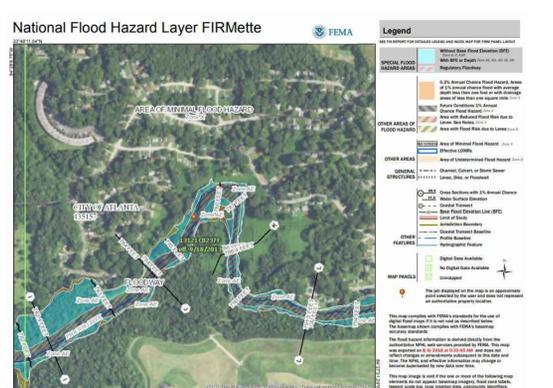


FEMA FIRMETTE FLOOD INSURANCE MAPS

NOTE: SCALE DEPICTED AS SHOWN DOES NOT REFLECT PRINTED SCALE.

ANTICIPATED CONSTRUCTION SCHEDULE

ACTIVITY	MONTH				
	1	2	3	4	5
INITIAL PHASE BMP'S					
CLEARING & GRUBBING					
TEMPORARY VEGETATION					
INFRASTRUCTURE REHABILITATION					
REMOVE TEMP. EROSION CONTROL					
MAINTENANCE OF BMP'S					



GSWCC Georgia Soil and Water Conservation Commission

Christopher Hamblen
Level II Certified Design Professional

Certification Number: 0000069253 Expires: 08-21-2019
Issued: 08-21-2015

REVISIONS			CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT OFFICE OF ENGINEERING SERVICES				
NO.	DATE	DESCRIPTION					
			LOWER PROCTOR SEWER REPAIRS EROSION AND SEDIMENT CONTROL PLAN				
SURVEYOR		FIELD	BOOKS	L.L.	DIST.	COUNTY	SCALE
DRAWN BY D CORBETT		DESIGNED BY A KINSEY	CHECKED BY C HAMBLEN	APPROVED BY T KELLEY	FULTON		NTS
PROJECT NUMBER: 674854			SHEET: C-305			SHEET OF 16	

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Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

DEFINITION

APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS, PRODUCED ON THE SITE IF POSSIBLE, TO THE SOIL SURFACE.

CONDITIONS

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS. IF AN AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED.

SPECIFICATIONS

MULCHING WITHOUT SEEDING

THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION

- GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.
- LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCHING MATERIALS

SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:

- DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
- WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
- CUTBACK ASPHALT (SLOW CURING) SHALL BE APPLIED AT 1200 GALLONS PER ACRE (OR 1/4 GALLON PER SQ. YD.).
- POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND REUSED.

APPLYING MULCH

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

- DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
- IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
- CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF "TRACKING IN" OR DAMAGE TO SHOES, CLOTHING, ETC.
- APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH

- STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFIERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TB -TACKIFIERS AND BINDERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
- POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION

THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

CONDITIONS

TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED.

SPECIFICATIONS

GRADING AND SHAPING

EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS.

NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION

WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL.

WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

LIME AND FERTILIZER

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

SEEDING

SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER), DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND.

MULCHING

TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO DS1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

IRRIGATION

DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

MULCHING RATE		
MATERIAL	RATE	DEPTH
STRAW	2.0 TON/ACRE	2" - 4"
HAY	2.5 TON/ACRE	2" - 4"
WOOD WASTE: CHIPS, SAWDUST, BARK	---	2" - 3"
POLYETHYLENE FILM	SECURE W/ SOIL AND ANCHORS	---

Georgia Soil & Water Conservation Commission																
Manual for Erosion and Sediment Control in Georgia (amended 2014)																
Table 6-4.1 - Plants, planting rates and planting dates for TEMPORARY COVER or COMPANION CROPS																
Major Land Resource Area (MLRA): <i>Southern Piedmont (P)</i> , per Figure 6-4.1																
Species	Broadcast Rates		Planting Dates*											Remarks		
	per acre (lbs.)	per 1000 sq.ft. (lbs.)	J	F	M	A	M	J	J	A	S	O	N		D	
Lovegrass, weeping (<i>Eragrostis curvula</i>)																
alone	4	0.1					X	X	-							1,500,000 seed per pound. May last for several years.
in mixtures	2	0.05														Mix with <i>Setaria lespedeza</i> .
Millet, browntop (<i>Panicum fasciculatum</i>)																
alone	40	0.9					X	X	-							137,000 seed per pound. Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.
in mixtures	10	0.2														
Millet, pearl (<i>Pennisetum glaucum</i>)																
alone	50	1.1					X	X	X	-						88,000 seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
Ryegrass, annual (<i>Lolium temulentum</i>)																
alone	40	0.9	-	-	-	-						X	X	X	X	227,000 seed per pound. Dense cover. Very competitive and is not used in mixtures.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING)

DEFINITION

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

CONDITIONS

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

SPECIFICATIONS

GRADING AND SHAPING

- GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.
- WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION.
- CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

SEEDBED PREPARATION

- SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS:

BROADCAST PLANTINGS

- TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
- TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
- TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
- ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

INDIVIDUAL PLANTS

- WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR DIBBLE PLANTING.
- FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING.
- WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

PLANTING

- HYDRAULIC SEEDING
MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.
- CONVENTIONAL SEEDING
SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.
- NO-TILL SEEDING
NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.
- INDIVIDUAL PLANTS
SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE. WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLE.

MULCHING

- MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED: DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
- WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
- ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
- SERICA LESPEDeza HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
- PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
- WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
- BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
- WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH

- STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.
- WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH

- ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS: EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE BLOWER MACHINE OR (B) SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT.
- THE COMBINATION OF ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF GRADE SS-1H OR CSS-1H EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH.
- CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY, PAVEMENTS, CURBS, SIDEWALKS, AND ALL OTHER STRUCTURES FROM ASPHALT DISCOLORATION.
- HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
- SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. REFER TO TB - TACKIFIERS AND BINDERS.
- RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE HALF BUSHEL PER ACRE.
- PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

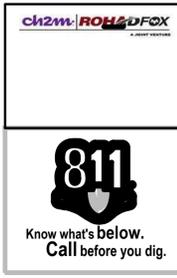
IRRIGATION

- IRRIGATION SHALL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

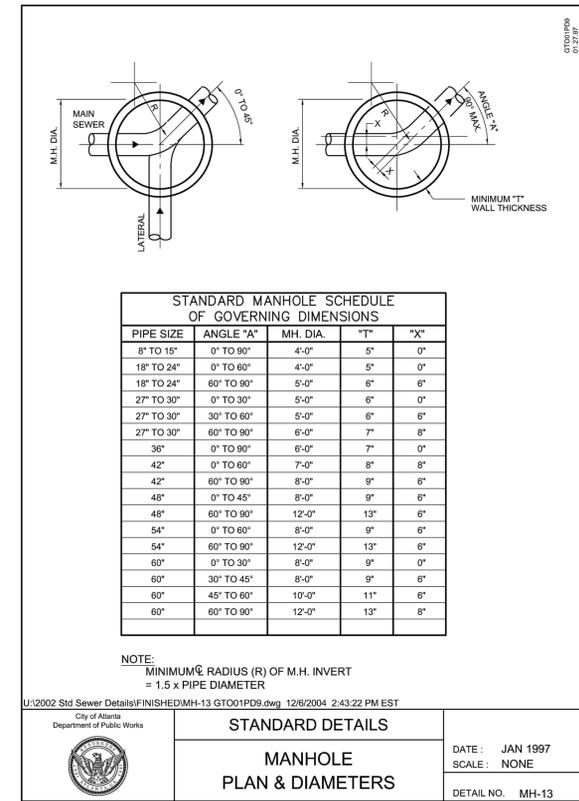
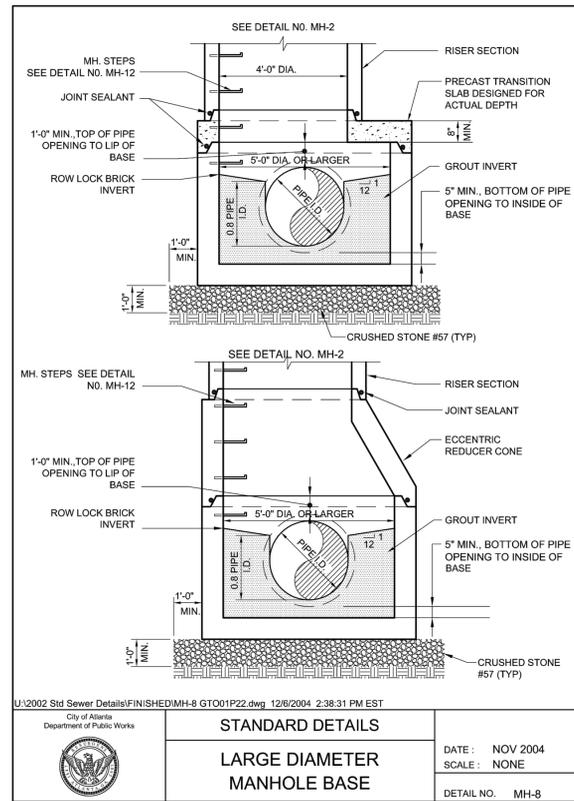
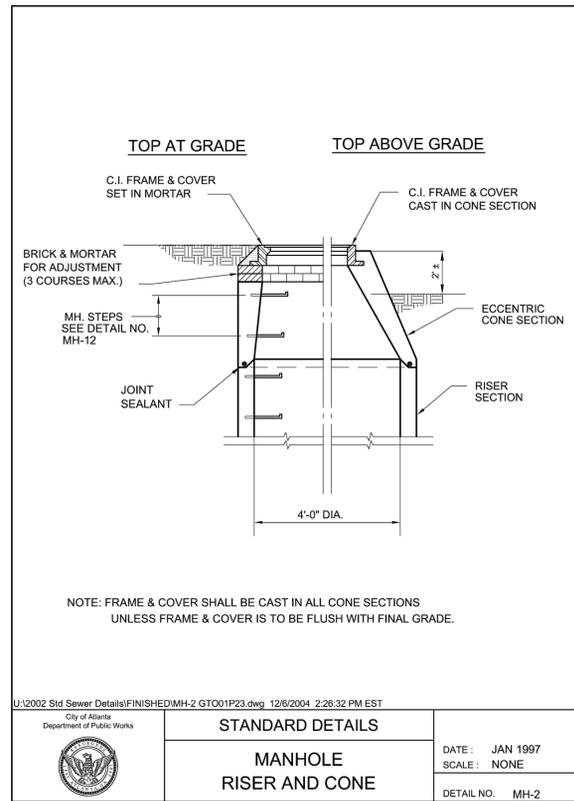
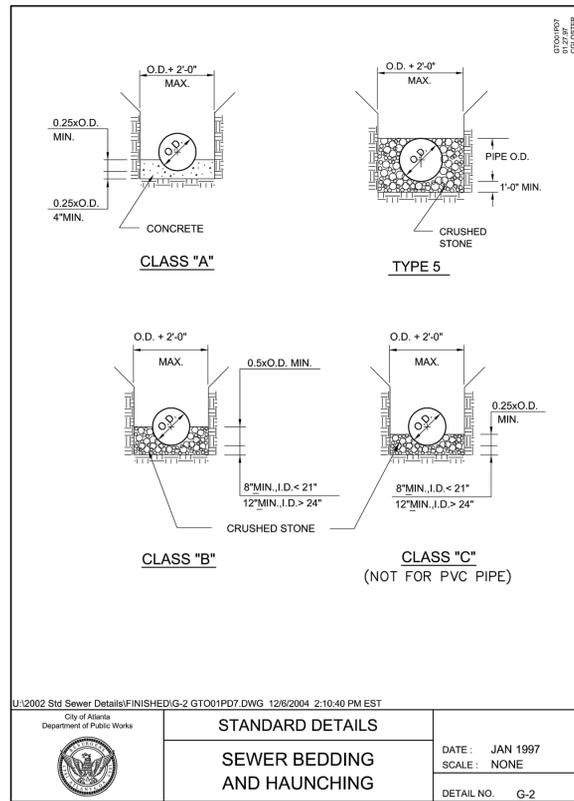
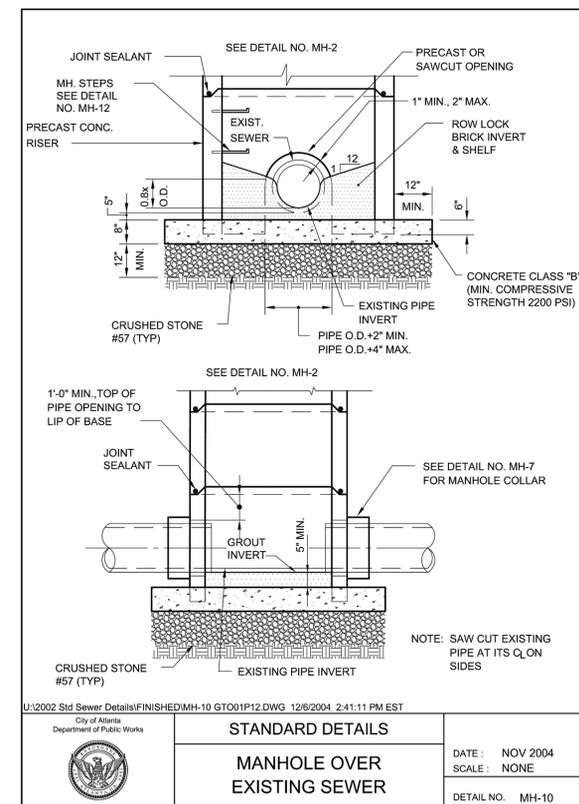
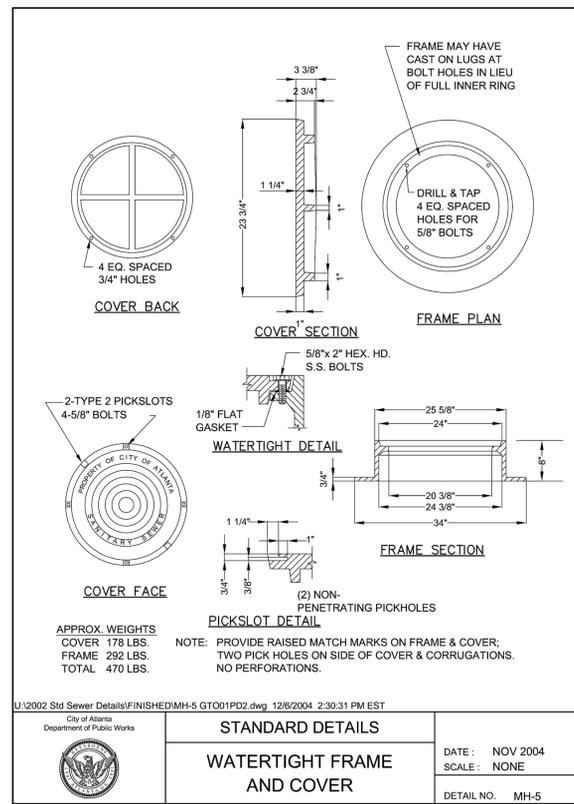
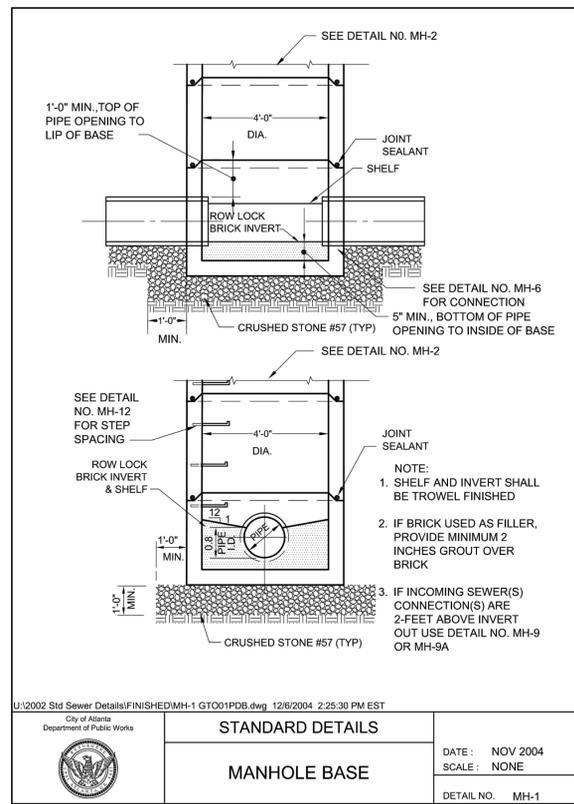
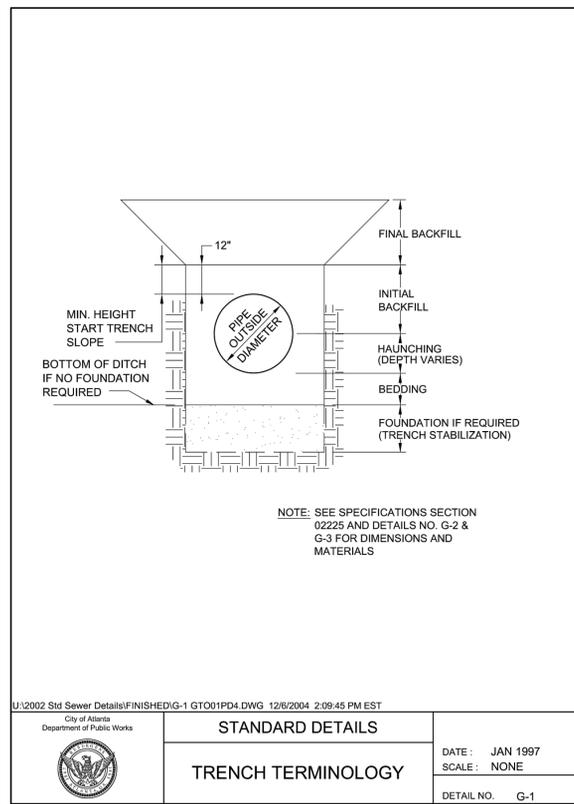
Lime Application for PERMANENT COVER - Ds3
Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate otherwise.

Georgia Soil & Water Conservation Commission																
Manual for Erosion and Sediment Control in Georgia (amended 2000)																
Table 6-5.2 - Plants, planting rates and planting dates for PERMANENT COVER																
Major Land Resource Area (MLRA): <i>Southern Piedmont (P)</i> , per Figure 6-4.1																
Species	Broadcast Rates		Planting Dates*											Remarks		
	per acre (lbs.)	per 1000 sq.ft. (lbs.)	J	F	M	A	M	J	J	A	S	O	N		D	
Bermuda, common (<i>Cynodon dactylon</i>) - Hulled																
alone	10	0.2					X	X	-							1,787,000 seed per pound. Quick cover. Low growing and soil forming. Full sun. Good for athletic fields.
with other perennials	6	0.1														
Bermuda, common (<i>Cynodon dactylon</i>) - Unhulled																
alone	10	0.2	X	X							X	X	X			Plant with winter annuals.
with other perennials	6	0.1														Plant with fall fescue.
Fescue, tall (<i>Festuca arundinacea</i>)																
alone	50	1.1									X	X	X			227,000 seed per pound. Use alone only on better sites. Not for droughty soils. Mix with perennial lespedeza or Crowsfoot. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic fields.
with other perennials	30	0.7														
Lovegrass, weeping (<i>Eragrostis curvula</i>)																
alone	4	0.1								X	X	-				1,500,000 seed per pound. May last for several years. Grows well with <i>Setaria lespedeza</i> on road banks.
in mixtures	2	0.05														

* "X" are optimum dates; "-" are permissible but marginal dates



	REVISIONS			CITY OF ATLANTA					
	NO.	DATE	DESCRIPTION	DEPARTMENT OF WATERSHED MANAGEMENT OFFICE OF ENGINEERING SERVICES					
				LOWER PROCTOR SEWER REPAIRS EROSION AND SEDIMENT CONTROL PLAN					
SURVEYOR		FIELD BOOKS	L.L.	DIST.	COUNTY	SCALE			
DRAWN BY D CORBETT		DESIGNED BY A KINSEY	CHECKED BY C HAMBLEN	APPROVED BY T KELLEY	DATE OCT 2018				
ENGINEER OF RECORD				PROJECT NUMBER: 674854		SHEET: C-307		11 OF 16	



REVISIONS

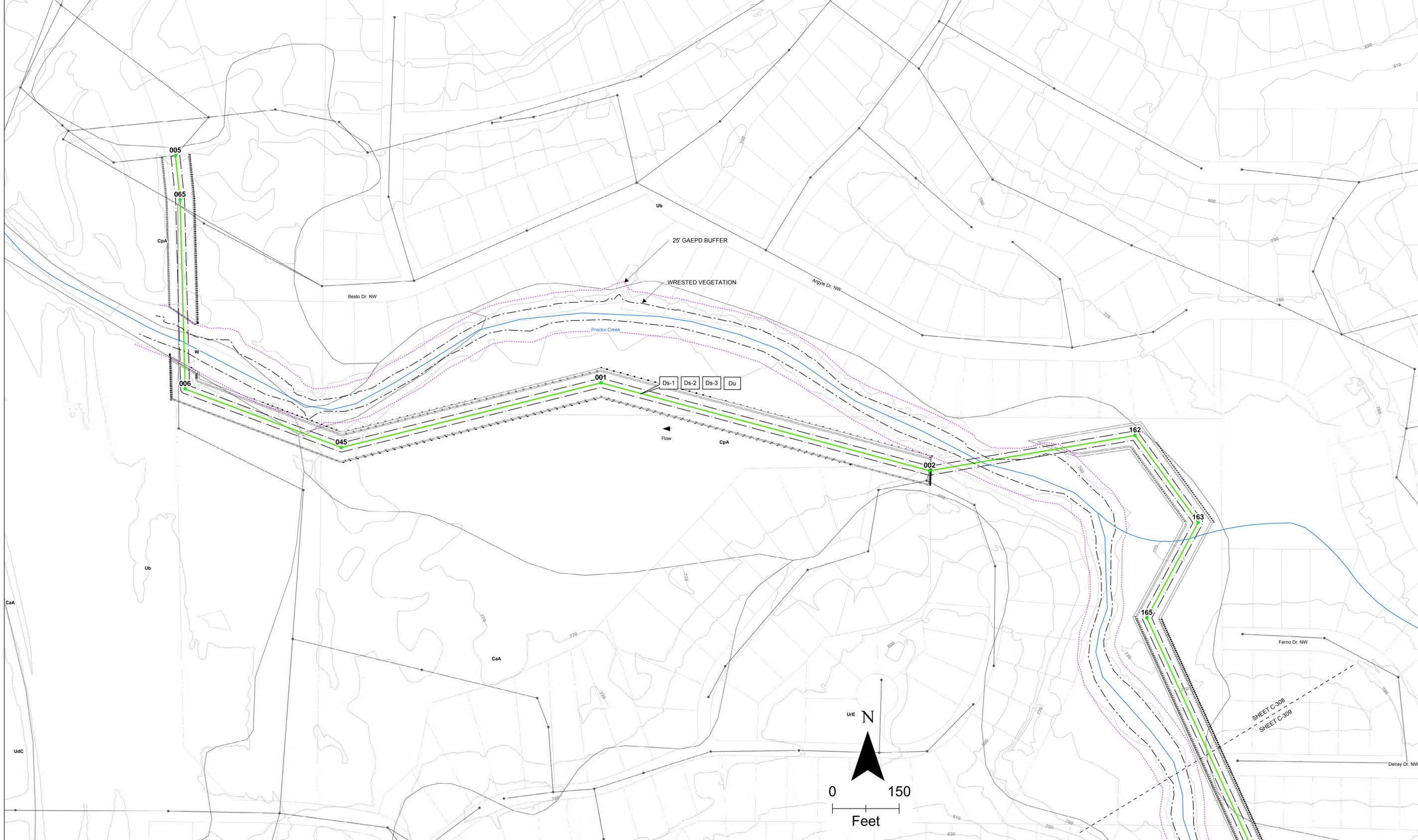
NO.	DATE	DESCRIPTION

CITY OF ATLANTA
DEPARTMENT OF WATERSHED MANAGEMENT
OFFICE OF ENGINEERING SERVICES

LOWER PROCTOR SEWER REPAIRS
STANDARD DETAILS

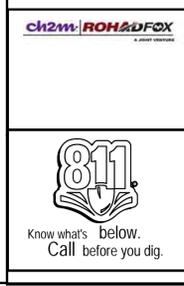
SURVEYOR	FIELD BOOKS	L.L.	DIST.	COUNTY	SCALE
DRAWN BY D CORBETT	DESIGNED BY C NORRIS	CHECKED BY A BOYD	APPROVED BY T KELLEY	DATE OCT 2018	

PROJECT NUMBER: 674854 SHEET: C-312 16 OF 16



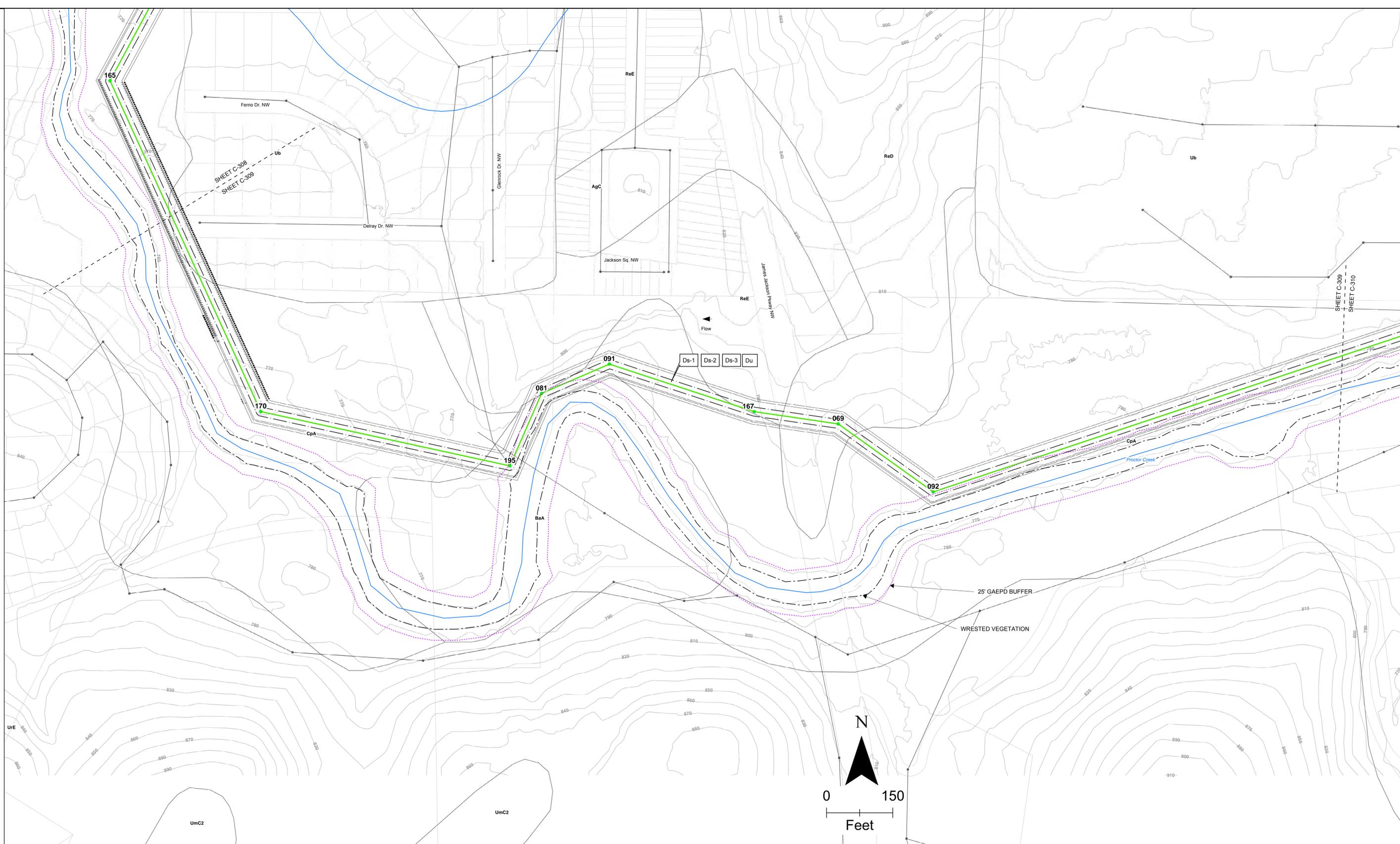
GENERAL NOTES:
 1. PLANS BASED ON ASSUMPTION THAT ALL WORK IS PERFORMED IN EXISTING INFRASTRUCTURE MANHOLES. NO LAND DISTURBANCE WILL OCCUR.
 2. SEDIMENT AND EROSION CONTROLS AND ACCESS ROUTES SHOWN ON THIS DRAWING MAY BE FIELD ADJUSTED IF APPROVED BY BOTH THE ENGINEER AND THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE PROPOSED LOCATIONS OF ALL CONSTRUCTION ACCESS ROUTES. THE ENGINEER, THE CITY, AND AFFECTED PROPERTY OWNERS SHALL BE IN AGREEMENT WITH THE CONTRACTOR'S PROPOSED ACCESS ROUTES PRIOR TO PROCEEDING WITH ANY ACTIVITIES.
 3. ALL CLEARING ACTIVITIES WITHIN THE CONSTRUCTION AREA WILL BE CLEARED BY HAND TO AVOID ANY LAND DISTURBANCES.
 4. CONTRACTOR TO MAINTAIN A 25-FOOT BUFFER FROM WRESTED VEGETATION, OR APPLY FOR A STREAM BUFFER VARIANCE.
 5. SEDIMENT BARRIERS HAVE BEEN DELIBERATELY OFFSET FROM THE LIMITS OF CONSTRUCTION FOR VISUALIZATION PURPOSES. SILT FENCE AND ORANGE BARRIER FENCE SHALL BE PLACED 2' INSIDE OF LIMITS OF CONSTRUCTION OR 1' INSIDE EDGE OF PAVEMENT AS NEEDED TO PROTECT FROM RUNOFF.

Legend	
◄	FLOW
●	LOWER PROCTOR MANHOLES
•	SANITARY SEWER STRUCTURE
- - -	MATCHLINE
—	PROCTOR CREEK
—	ELEVATION CONTOUR
▬▬▬	DOUBLE SILT FENCE
×××	SILT FENCE
—●—	ORANGE SAFETY FENCE
- - -	WRESTED VEGETATION
—	LOWER PROCTOR SEWER PIPES
—	SANITARY SEWER MAIN
⋯	APPROXIMATE 25' GAEPD UNDISTURBED BUFFER, AS MEASURED FROM POINT OF WRESTED VEGETATION
▭	LIMITES OF CONSTRUCTION
▭	PARCELS
▭	SOILS



REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF ATLANTA				
DEPARTMENT OF WATERSHED MANAGEMENT				
OFFICE OF ENGINEERING SERVICES				
LOWER PROCTOR SEWER REPAIRS				
EROSION AND SEDIMENT CONTROL NOTES				
SURVEYOR	FIELD BOOKS	L.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854			Sheet: C-308	
ENGINEER OF RECORD				12 SHEET OF 16



GENERAL NOTES:
 1. PLANS BASED ON ASSUMPTION THAT ALL WORK IS PERFORMED IN EXISTING INFRASTRUCTURE MANHOLES. NO LAND DISTURBANCE WILL OCCUR.
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Legend	
◄ FLOW	DOUBLE SILT FENCE
● LOWER PROCTOR MANHOLES	××× SILT FENCE
○ SANITARY SEWER STRUCTURE	--- ORANGE SAFETY FENCE
- - - MATCHLINE	- - - WRESTED VEGETATION
— PROCTOR CREEK	— LOWER PROCTOR SEWER PIPES
— ELEVATION CONTOUR	— SANITARY SEWER MAIN
	APPROXIMATE 25' GAEPD UNDISTURBED BUFFER, AS MEASURED FROM POINT OF WRESTED VEGETATION
	LIMITES OF CONSTRUCTION
	PARCELS
	SOILS

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 a joint venture

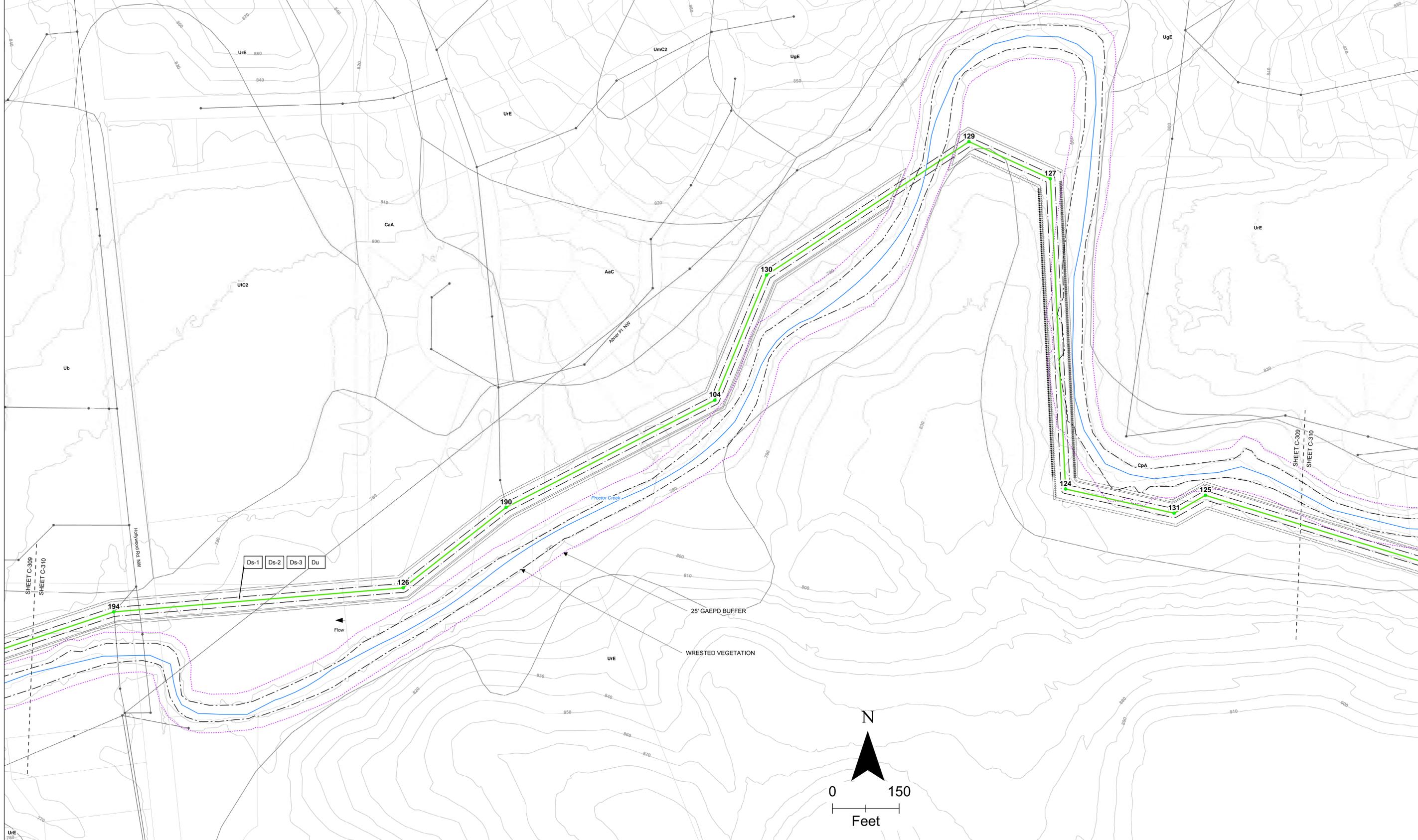
ENGINEER OF RECORD

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CITY OF ATLANTA
 DEPARTMENT OF WATERSHED MANAGEMENT
 OFFICE OF ENGINEERING SERVICES

LOWER PROCTOR SEWER REPAIRS
 EROSION AND SEDIMENT CONTROL NOTES

SURVEYOR	FIELD BOOKS	L.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854			Sheet: C-309	13 SHEET OF 16



GENERAL NOTES:
 1. PLANS BASED ON ASSUMPTION THAT ALL WORK IS PERFORMED IN EXISTING INFRASTRUCTURE MANHOLES. NO LAND DISTURBANCE WILL OCCUR.
 2. SEDIMENT AND EROSION CONTROLS AND ACCESS ROUTES SHOWN ON THIS DRAWING MAY BE FIELD ADJUSTED IF APPROVED BY BOTH THE ENGINEER AND THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE PROPOSED LOCATIONS OF ALL CONSTRUCTION ACCESS ROUTES. THE ENGINEER, THE CITY, AND AFFECTED PROPERTY OWNERS SHALL BE IN AGREEMENT WITH THE CONTRACTOR'S PROPOSED ACCESS ROUTES PRIOR TO PROCEEDING WITH ANY ACTIVITIES.
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 5. SEDIMENT BARRIERS HAVE BEEN DELIBERATELY OFFSET FROM THE LIMITS OF CONSTRUCTION FOR VISUALIZATION PURPOSES. SILT FENCE AND ORANGE BARRIER FENCE SHALL BE PLACED 2' INSIDE OF LIMITS OF CONSTRUCTION OR 1' INSIDE EDGE OF PAVEMENT AS NEEDED TO PROTECT FROM RUNOFF.

Legend	
◄ FLOW	DOUBLE SILT FENCE
● LOWER PROCTOR MANHOLES	×××× SILT FENCE
• SANITARY SEWER STRUCTURE	— — — — ORANGE SAFETY FENCE
- - - - MATCHLINE	- - - - WRESTED VEGETATION
— PROCTOR CREEK	— LOWER PROCTOR SEWER PIPES
— ELEVATION CONTOUR	— SANITARY SEWER MAIN
	APPROXIMATE 25' GAEPD UNDISTURBED BUFFER, AS MEASURED FROM POINT OF WRESTED VEGETATION
	LIMITES OF CONSTRUCTION
	PARCELS
	SOILS

ch2m | ROHADFOX
 a joint venture

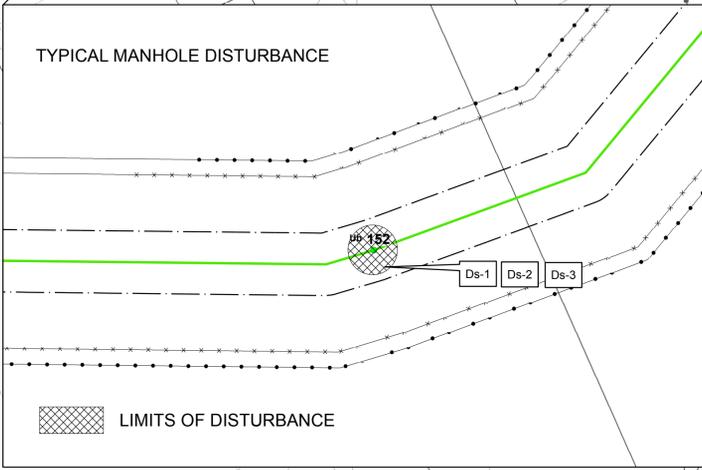
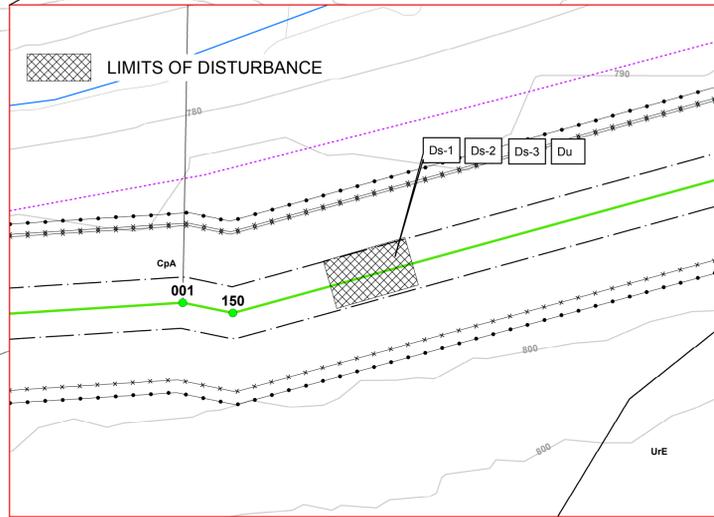
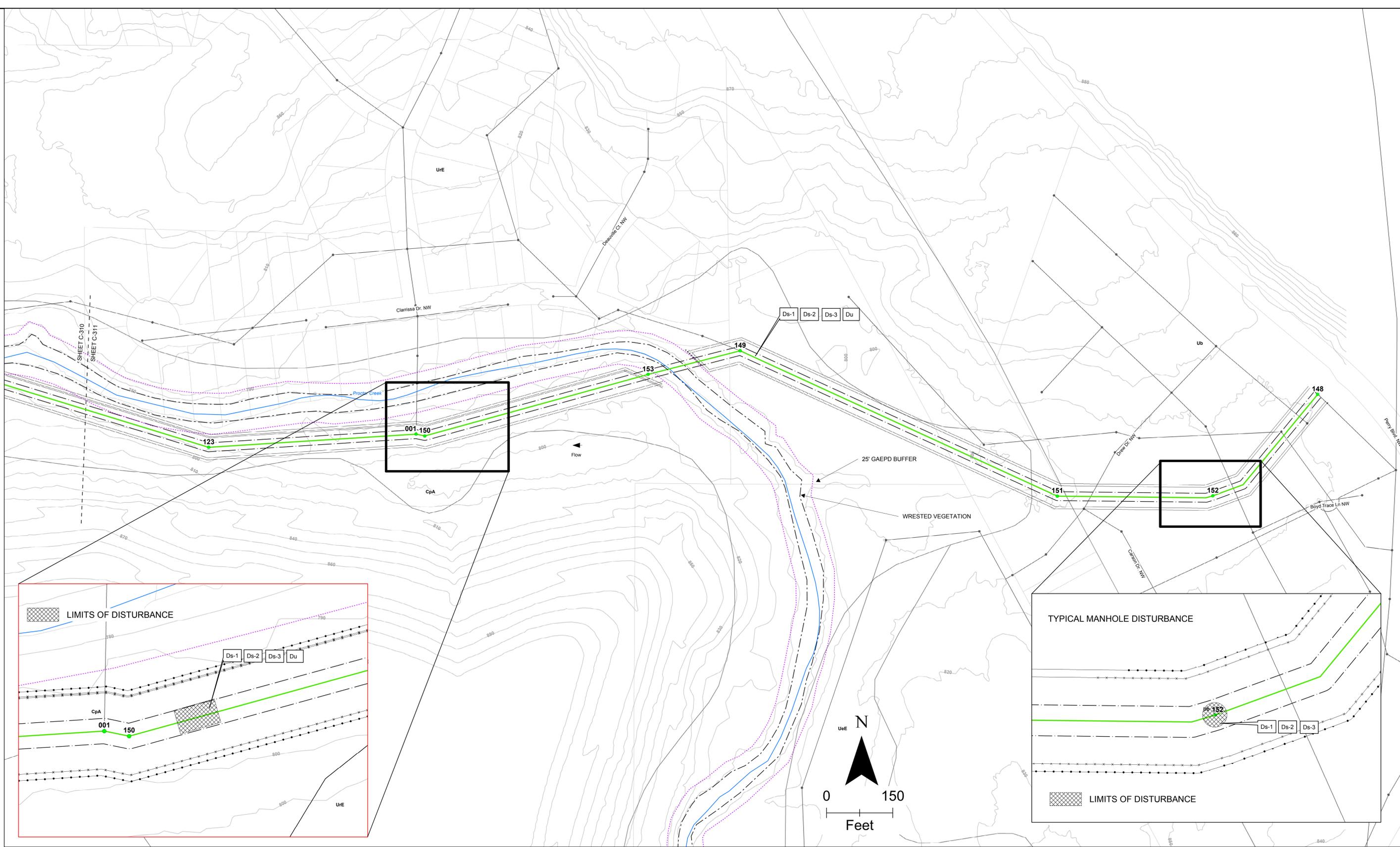
ENGINEER OF RECORD

REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF ATLANTA
 DEPARTMENT OF WATERSHED MANAGEMENT
 OFFICE OF ENGINEERING SERVICES

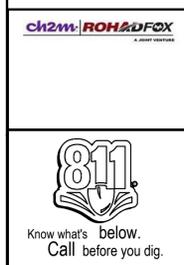
LOWER PROCTOR SEWER REPAIRS
 EROSION AND SEDIMENT CONTROL NOTES

SURVEYOR	FIELD BOOKS	L.L. DIST.	COUNTY	SCALE
DRAWN BY G. BOQUIN	DESIGNED BY C. NORRIS	CHECKED BY A. BOYD	APPROVED BY T. KELLEY	DATE
PROJECT NUMBER 674854			Sheet: C-310	14 SHEET OF 16



GENERAL NOTES:
 1. PLANS BASED ON ASSUMPTION THAT ALL WORK IS PERFORMED IN EXISTING INFRASTRUCTURE MANHOLES. NO LAND DISTURBANCE WILL OCCUR.
 2. SEDIMENT AND EROSION CONTROLS AND ACCESS ROUTES SHOWN ON THIS DRAWING MAY BE FIELD ADJUSTED IF APPROVED BY BOTH THE ENGINEER AND THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE PROPOSED LOCATIONS OF ALL CONSTRUCTION ACCESS ROUTES. THE ENGINEER, THE CITY, AND AFFECTED PROPERTY OWNERS SHALL BE IN AGREEMENT WITH THE CONTRACTOR'S PROPOSED ACCESS ROUTES PRIOR TO PROCEEDING WITH ANY ACTIVITIES.
 3. ALL CLEARING ACTIVITIES WITHIN THE CONSTRUCTION AREA WILL BE CLEARED BY HAND TO AVOID ANY LAND DISTURBANCES.
 4. CONTRACTOR TO MAINTAIN A 25-FOOT BUFFER FROM WRESTED VEGETATION, OR APPLY FOR A STREAM BUFFER VARIANCE.
 5. SEDIMENT BARRIERS HAVE BEEN DELIBERATELY OFFSET FROM THE LIMITS OF CONSTRUCTION FOR VISUALIZATION PURPOSES. SILT FENCE AND ORANGE BARRIER FENCE SHALL BE PLACED 2' INSIDE OF LIMITS OF CONSTRUCTION OR 1' INSIDE EDGE OF PAVEMENT AS NEEDED TO PROTECT FROM RUNOFF.

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	PARCELS
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ENGINEER OF RECORD		REVISIONS			CITY OF ATLANTA DEPARTMENT OF WATERSHED MANAGEMENT OFFICE OF ENGINEERING SERVICES				
		NO.	DATE	DESCRIPTION	LOWER PROCTOR SEWER REPAIRS EROSION CONTROL NOTES				
		SURVEYOR		FIELD BOOKS	LL. DIST.	COUNTY	SCALE		
		DRAWN BY G. BOQUIN		DESIGNED BY C. NORRIS		CHECKED BY A. BOYD		APPROVED BY T. KELLEY	
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