



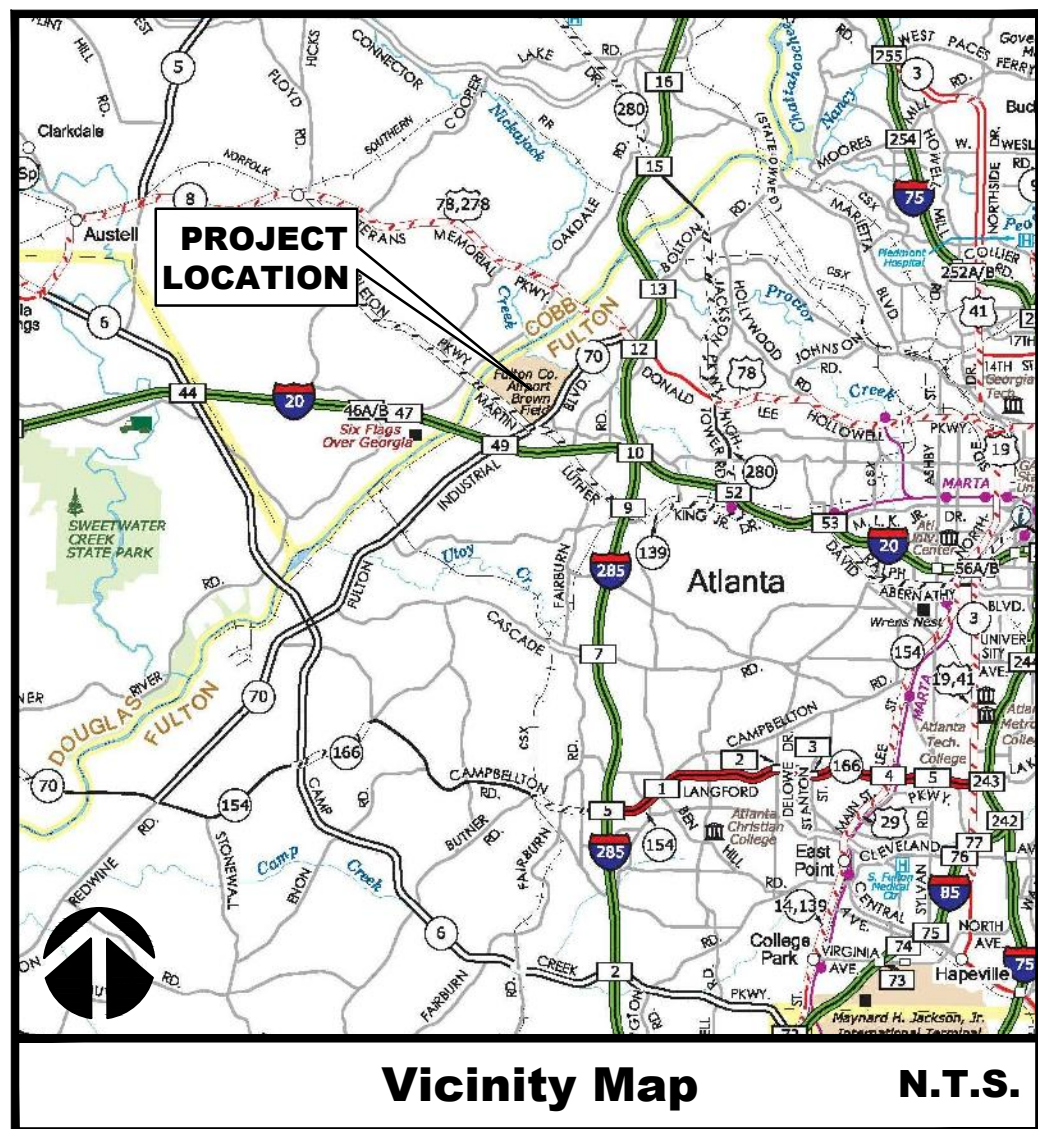
CONSTRUCTION PLANS

FOR

SANDY CREEK ROAD SANITARY SEWER  
IMPROVEMENTS PROJECT

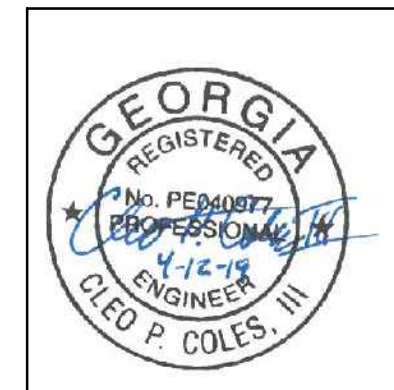
AT

FULTON COUNTY AIRPORT - BROWN FIELD



Vicinity Map N.T.S.

3952 AVIATION CIRCLE NW  
ATLANTA, GA 30336  
(404) 699-4200



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NORCROSS, GA 30092  
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REVISION SET

8/07/2019 CPC

PREPARED FOR

FULTON COUNTY BOARD OF COMMISSIONERS

MARCH, 2019

Michael Baker

INTERNATIONAL

SET NO. \_\_\_\_\_



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GENERAL NOTES

SAFETY AND SECURITY

- S-1.

THE CONTRACTOR WILL OBTAIN, HAVE KNOWLEDGE OF, AND INCORPORATE THE FOLLOWING SAFETY PROVISIONS INTO THE CONSTRUCTION PROJECT:
  - OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION - AC 150/5370-2G
  - AIRPORT SAFETY SELF-INSPECTION - AC 150/5200-18C
  - PAINTING, MARKING, AND LIGHTING OF VEHICLES USED ON AIRPORT - AC 150/5210-5D
- S-2.

CONTRACTORS SHALL MONITOR RADIO COMMUNICATION WITH AIRPORT GROUND CONTROL AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL HAVE WORKING RADIO(S) ON-SITE AT ALL TIMES DURING CONTRUCTION AND SHALL ASSIGN RESPONSIBLE PERSONNEL TO CONTINUOUSLY MONITOR THE GROUND CONTROL FREQUENCY (121.7 MHz). PROVIDE A RADIO AT EACH SEPARATE WORK LOCATION.
- S-3.

NOTICE TO AIRMEN (NOTAMS) - THE CONTRACTOR SHALL SCHEDULE AND PROVIDE THE NECESSARY INFORMATION ON CONSTRUCTION CONDITIONS SO THAT OWNER CAN ADVISE THE FLIGHT SERVICE STATION AND ISSUE NOTAM(S) IN ACCORDANCE WITH ESTABLISHED CRITERIA NO LESS THAN 72 HOURS PRIOR TO OPERATION BEGINNING.
- S-4.

ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE PROJECT AREA THROUGH THE PROJECT ACCESS GATES. CONTRACTOR WILL BE RESPONSIBLE FOR SECURITY OF ALL GATES IN ACCORDANCE WITH THE AIRPORT'S APPROVED SECURITY PROGRAM.
- S-5.

CONTRACTOR SHALL UTILIZE EXISTING GATES AS TEMPORARY ACCESS FOR THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL MAN THESE GATES WITH PERSONNEL OR LOCK GATES AT ALL TIMES DURING CONSTRUCTION ACTIVITIES AND SHALL LOCK THESE GATES DURING NON-CONSTRUCTION HOURS. THE SECURITY GUARD SHALL HAVE A CELL PHONE AND OPERATIONAL RADIO. THE GUARD'S DUTIES SHALL INCLUDE MONITORING TRAFFIC IN AND OUT OF THE GATE AND PREVENTING UNAUTHORIZED PERSONNEL FROM ENTERING THE SECURITY AREA.
- S-6.

AREAS OUTSIDE THE PROJECT LIMITS ARE DESIGNATED AS RESTRICTED AREAS. THE CONTRACTOR'S FORCES ARE PROHIBITED FROM ENTERING RESTRICTED AREAS AT ANY TIME, UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER OR AIRPORT OWNER. NO CONSTRUCTION MAY OCCUR WITHIN A SAFETY AREA WHILE THE ASSOCIATED RUNWAY OR TAXIWAY IS OPEN FOR AIRCRAFT OPERATIONS.
- S-7.

ALL VEHICLES USED ON THE AIRFIELD SHALL MEET AIRPORT REQUIREMENTS FOR MARKING AND LIGHTING.
- S-8.

FOR ADDITIONAL SAFETY AND SECURITY REQUIREMENTS, SEE SPECIFICATIONS (SECTION 01030).
- S-9.

OPEN TRENCHES OR EXCAVATIONS ARE NOT PERMITTED WITHIN THE RSA OR TSA WHILE THE RUNWAY OR TAXIWAY IS OPEN. IF POSSIBLE, BACKFILL TRENCHES BEFORE THE RUNWAY OR TAXIWAY IS OPENED. IF THE RUNWAY OR TAXIWAY MUST BE OPENED BEFORE EXCAVATIONS ARE BACKFILLED, COVER THE EXCAVATIONS APPROPRIATELY. COVERING FOR OPEN TRENCHES MUST BE DESIGNED TO ALLOW THE SAFE OPERATION OF THE HEAVIEST AIRCRAFT OPERATING ON THE RUNWAY OR TAXIWAY ACROSS THE TRENCH WITHOUT DAMAGE TO THE AIRCRAFT.
- S-10.

THE CONTRACTOR SHALL PROMINENTLY MARK OPEN TRENCHES AND EXCAVATIONS AT THE CONSTRUCTION SITE WITH RED OR ORANGE FLAGS, AS APPROVED BY THE ENGINEER, AND LIGHT THEM WITH RED LIGHTS DURING HOURS OF RESTRICTED VISIBILITY OR DARKNESS.

HAUL ROUTES, STAGING AREAS, AND CONSTRUCTION ACTIVITIES

- C-1.

THE CONTRACTOR SHALL CONDUCT HIS CONSTRUCTION OPERATIONS AS SHOWN ON THE PROJECT LAYOUT AND SAFETY PLAN AND HIS APPROVED PHASING PLAN. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE ENGINEER TO MINIMIZE DISRUPTION TO AIRPORT OPERATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH SAFETY REQUIREMENTS AND TO MINIMIZE INTERFERENCE TO AIRCRAFT OPERATIONS DURING CONSTRUCTION.
- C-2.

THE CONTRACTOR'S STAGING AREA AND HAUL ROUTES SHOWN ON THE PLANS ARE GENERAL AND FOR INFORMATION PURPOSES ONLY. THE ACTUAL SIZE AND LOCATION OF STAGING AREAS AND HAUL ROUTES WILL BE APPROVED BY OWNER PRIOR TO CONSTRUCTION.
- C-3.

ALL EXISTING GRASSED AREAS WHICH ARE DISTURBED AS PART OF THE CONTRACTOR'S ACCESS ROAD, CONTRACTOR'S STAGING AREA, AND HAUL ROUTES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AFTER COMPLETION OF THE PROJECT. IN ADDITION, ALL EXISTING ROADS, APRONS AND TAXIWAYS THAT WILL BE USED AS THE CONTRACTOR'S HAUL ROUTE SHALL BE MAINTAINED DURING CONSTRUCTION AND RESTORED TO THEIR PRE-CONSTRUCTION CONDITION. NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS ITEM.
- C-4.

EXCEPT WHERE DESIGNATED ON PLANS OR AS AUTHORIZED BY ENGINEER, CONTRACTOR WILL NOT BE ALLOWED TO USE ANY OF THE EXISTING RUNWAYS, TAXIWAYS, OR RAMPS AS PART OF THE HAUL ROAD.
- C-5.

ALL EQUIPMENT MUST BE RETURNED TO THE STAGING AREA AT THE END OF EACH WORK DAY AND WHEN NOT ENGAGED IN THE CONSTRUCTION DURING NON-WORKING DAYS AND NIGHTS. OWNER WILL DESIGNATE AREAS FOR CONTRACTOR'S EMPLOYEES' AUTO PARKING.
- C-6.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PROVIDING ALL PERMANENT AND TEMPORARY UTILITY CONNECTIONS TO THE STAGING AREA.
- C-7.

CONTRACTOR SHALL MAINTAIN ALL AIRFIELD SAFETY DEVICES, SUCH AS STAKED LIMIT LINES, FOR THE DURATION OF THE PROJECT AS REQUIRED. DAMAGED STAKES OR FLAGGING SHALL BE REPLACED IMMEDIATELY. CONTRACTOR TO SUBMIT PLAN SHOWING LOCATION OF LIMIT LINES FOR EACH PHASE AND FOR PROJECT DURATION TO THE ENGINEER FOR APPROVAL.
- C-8.

BURNING OF DEBRIS WILL NOT BE ALLOWED ON AIRPORT PROPERTY.
- C-9.

CONTRACTOR SHALL CONTROL DUST AT AN ACCEPTABLE LEVEL. THE CONTRACTOR SHALL BE REQUIRED TO KEEP A WATER TRUCK AT THE PROJECT SITE DURING HAULING OPERATIONS. IF ONE WATER TRUCK IS INADEQUATE TO CONTROL DUST PROPERLY, THE CONTRACTOR SHALL FURNISH THE PROPER NUMBER OF TRUCKS OR OTHER SUITABLE MEANS TO ACCOMPLISH THIS ITEM.
- C-10.

CONTRACTOR MUST COORDINATE WITH OWNER AND OTHERS INVOLVED WITH ALL CONSTRUCTION PROJECTS AT THE AIRPORT.
- C-11.

CONTRACTOR IS SOLEY RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THE PROJECT PRIOR TO ANY CONSTRUCTION ACTIVITIES.

EXISTING CONDITIONS/UNDERGROUND AND CONCEALED FACILITIES

- E-1.

CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND REPORT TO ENGINEER ANY VARIATIONS FROM THE INFORMATION SHOWN ON CONSTRUCTION PLANS.
- E-2.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND IDENTIFICATION OF ALL EXISTING UTILITIES AND PIPELINES IN THE CONSTRUCTION AREA. ANY EXISTING UTILITIES OR PIPELINES (ON OR OFF AIRPORT PROPERTY) DAMAGED BY CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR ALL UTILITIES/PIPELINES DAMAGED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL BE ASSESSED A CABLE CUT PENALTY OF \$1,000 PER OCCURRENCE.
- E-3.

FAA CABLES WILL BE LOCATED AND MARKED BY FAA PRIOR TO CONSTRUCTION. CONTRACTOR IS TO NOTIFY FAA 30 DAYS IN ADVANCE SO THAT FAA CAN SCHEDULE THE REQUIRED MARKING TO PROTECT CABLES DURING CONSTRUCTION. ANY CABLES DAMAGED DURING CONSTRUCTION WILL BE REPLACED BY CONTRACTOR. CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH THE REPAIR OF DAMAGED CABLES AT NO COST TO OWNER.
- E-4.

CONTRACTOR SHALL PROTECT ALL EXISTING LIGHTING SYSTEMS THAT ARE TO REMAIN, OR IF TO BE REMOVED, UNTIL THEY ARE DESIGNATED FOR REMOVAL.
- E-5.

ANY UNPLANNED, UNAPPROVED, OR ACCIDENTAL SHUTDOWN OR INTERRUPTION OF SERVICE TO ANY LIGHTING CIRCUIT OR NAVIGATIONAL AID REQUIRES IMMEDIATE NOTIFICATION OF THE AIRPORT MANAGER AND ENGINEER BY THE CONTRACTOR. ALL NECESSARY REPAIRS WILL BE MADE IMMEDIATELY AND AT CONTRACTOR'S EXPENSE.
- E-6.

THE CONTRACTOR WILL BE RESPONSIBLE FOR STAKING AND GRADE CONTROL OF ALL ELEMENTS OF THE CONSTRUCTION.

TEMPORARY MARKINGS, BARRICADES, TRAFFIC CONTROL

- T-1.

SEE SPECIFICATION SECTION 01030 AND 01530.

SPILL PREVENTION

ANY LEAKS OR SPILLS OF PETROLEUM PRODUCTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTAIN, CONTROL, AND REMEDIATE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL GUIDELINES, ORDINANCES, AND LAWS.

CONTROL OF POLLUTANTS: POLLUTANTS OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS FUELS, LUBRICANTS, LEAD PAINT, CHEMICALS OR BATTERIES, SHALL BE TRANSPORTED, STORED AND UTILIZED IN A MANNER TO PREVENT LEAKAGE OR SPILLAGE INTO THE ENVIRONMENT. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROPER AND LEGAL DISPOSAL OF ALL SUCH MATERIALS. EQUIPMENT, ESPECIALLY CONCRETE OR ASPHALT TRUCKS, SHALL NOT BE WASHED OR CLEANED OUT ON THE PROJECT EXCEPT IN AREAS WHERE UNUSED PRODUCT CONTAMINANTS CAN BE PREVENTED FROM ENTERING WATERWAYS.

AN SPCC PLAN WILL BE DEVELOPED BY THE CONTRACTOR AND APPROVED PRIOR TO INSTALLATION OF FUEL TANKS. THIS PLAN WILL REQUIRE THE FOLLOWING:

1.

ALL BARE SOIL AROUND FUELING AREA LINED TO PREVENT SEEPAGE INTO SOIL. IN ADDITION, A SPILL KIT WILL BE KEPT ON SITE IN CASE OF LEAKS.
2.

TERTIARY CONTAINMENT WILL BE PROVIDED IN THE MOBILE TRUCK AREA.
3.

SECONDARY CONTAINMENT WILL BE PROVIDED IN THE FORM OF A CONTAINMENT PAD WITH A VALVE SIZED (OR APPROVED EQUAL) FOR THE APPROPRIATE REFUELING TRUCK.



FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA

Michael Baker  
INTERNATIONAL

Designer: <b>RKK</b>	
Technician: <b>RKK</b>	
Checked by: <b>RKK</b>	
Project Number: <b>167728</b>	

REVISIONS			
No.	Description	Date	By
1	REVISION SET	8/07/2019	CPC

Project Name:  
**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:  
**GENERAL NOTES  
CIVIL**

FULTON COUNTY PROJECT NUMBER: <b>195-031</b>		
Date: <b>MARCH, 2019</b>	Sheet Number: <b>1</b> of <b>1</b>	
Scale: <b>N.T.S.</b>	Drawing Number: <b>GN-1</b>	



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SUMMARY OF QUANTITIES

ITEM NO	SPEC NO.	ITEM DESCRIPTION	UNIT	PLAN	FINAL
1	GDOT-151	MOBILIZATION	L. SUM	1	
2	33 05 13.16	AIRCRAFT RATED MANHOLE	EACH	8	
3	22 1313	8 IN CLASS 53 DUCTILE IRON PIPE	LIN. FT.	1,542	
4	22 1313	8 IN CLEANOUT	EACH	8	



FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA

Michael Baker  
INTERNATIONAL

Designer:  
**RKK**  
Technician:  
**RKK**  
Checked by:  
**CPC**  
Project Number:  
**167728**



Notes:

REVISIONS			
No.	Description	Date	By
1	REVISION SET	8/07/2019	CPC

Project Name:  
**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

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**SUMMARY OF  
QUANTITIES**

FULTON COUNTY PROJECT NUMBER: <b>195-031</b>		
Date: <b>MARCH, 2019</b>	Sheet Number: <b>1</b> of <b>1</b>	
Scale: <b>NONE</b>	Drawing Number: <b>SQ-1</b>	



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CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

GENERAL:

1. THIS CSPP HAS BEEN DEVELOPED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5370-2G AND IS CONSIDERED AN INTEGRAL PART TO THE CONTRACTOR'S WORK. THE FOLLOWING DRAWINGS ARE CONSIDERED PART OF THE CSPP:

• GN-1

• PSFN-1

• PSPL-1

• PSPP-1

• PSPD-1

GENERAL NOTES

PROJECT SAFETY & PHASING PLAN NOTES

PROJECT SAFETY & PHASING PLAN LAYOUT

PROJECT SAFETY & PHASING PLAN

PROJECT SAFETY & PHASING PLAN DETAILS

2. THE CSPP FOR THIS PROJECT WAS SUBMITTED TO THE FAA ON xxx xx, 2019 AND APPROVED BY THE FAA ON \_\_\_\_\_.

3. THE CONTRACTOR SHALL PREPARE AND SUBMIT FAA FORM 7460-1 DETAILING CONSTRUCTION EQUIPMENT AND PROPOSED PARKING AREAS FOR THIS EQUIPMENT (SUCH AS CRANES AND GRADING MACHINES). THE CONTRACTOR SHOULD SUBMIT THIS FORM AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE OR SUFFICIENTLY IN ADVANCE OF THE WORK TO ALLOW FOR FAA REVIEW AND APPROVAL.

4. THE CONTRACTOR SHALL SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) FOR REVIEW AND APPROVAL PRIOR TO NOTICE-TO-PROCEED. FOR INFORMATION PERTAINING TO THE REQUIREMENTS OF THIS DOCUMENT, REFER TO THE SECTION "CONTRACTOR RESPONSIBILITIES".

5. CONTACT INFORMATION:

• AIRPORT OWNER:

• ENGINEER:

• CONTRACTOR:

TIM BEGGERLY  
AIRPORT MANAGER  
404-699-4200  
MICHAEL BAKER INTERNATIONAL  
JAMES MIORIN, PROJECT MANAGER  
770-263-9118  
TBD

AIRPORT OPERATOR'S RESPONSIBILITIES:

THE AIRPORT OPERATOR WILL:

1. DEVELOP A CSPP THAT COMPLIES WITH THE SAFETY GUIDELINES OF FAA ADVISORY CIRCULAR 150/5370-2G.

2. REQUIRE THE REVIEW AND APPROVAL OF THE SPCD PROVIDED BY THE CONTRACTOR. THIS SPCD SHALL INDICATE HOW THE CONTRACTOR WILL COMPLY WITH THE CSPP AND PROVIDE DETAILS THAT CANNOT BE DETERMINED BEFORE CONTRACT AWARD.

3. CONVENE A PRECONSTRUCTION MEETING WITH THE CONSTRUCTION CONTRACTOR, ENGINEER, ATC PERSONNEL AIRPORT EMPLOYEES AND TENANT REPRESENTATIVES (IF APPROPRIATE) TO REVIEW AND DISCUSS PROJECT SAFETY BEFORE BEGINNING CONSTRUCTION ACTIVITY. THE FAA WILL BE INVITED TO ATTEND THIS MEETING.

4. ENSURE CONTACT INFORMATION IS ACCURATE FOR EACH REPRESENTATIVE/POINT OF CONTACT IDENTIFIED IN THE CSPP.

5. HOLD WEEKLY OR, IF NECESSARY, DAILY SAFETY MEETINGS WITH ALL AFFECTED PARTIES TO COORDINATE ACTIVITIES.

6. NOTIFY USERS, ARFF PERSONNEL, AND FAA ATO PERSONNEL OF CONSTRUCTION AND CONDITIONS THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT VIA NOTICES TO AIRMEN (NOTAM) AND OTHER METHODS, AS APPROPRIATE. CONVENE A MEETING FOR REVIEW AND DISCUSSION IF NECESSARY.

7. ENSURE CONSTRUCTION PERSONNEL KNOW OF ANY APPLICABLE AIRPORT PROCEDURES AND OF CHANGES TO THOSE PROCEDURES THAT MAY AFFECT THEIR WORK.

8. ENSURE CONSTRUCTION CONTRACTORS AND SUBCONTRACTORS UNDERGO TRAINING REQUIRED BY THE CSPP AND SPCD.

9. ENSURE VEHICLE AND PEDESTRIAN OPERATIONS ADDRESSED IN THE CSPP AND SPCD ARE COORDINATED WITH AIRPORT TENANTS, AIRPORT OPERATIONS, AND CONSTRUCTION CONTRACTORS.

10. AT CERTIFICATED AIRPORTS, ENSURE EACH CSPP AND SPCD IS CONSISTENT WITH PART 139.

11. CONDUCT INSPECTIONS SUFFICIENTLY FREQUENTLY TO ENSURE CONSTRUCTION CONTRACTORS AND TENANTS COMPLY WITH THE CSPP AND SPCD AND THAT THERE ARE NO ALTERED CONSTRUCTION ACTIVITIES THAT COULD CREATE POTENTIAL SAFETY HAZARDS.

12. RESOLVE SAFETY DEFICIENCIES IMMEDIATELY. AT AIRPORTS SUBJECT TO 49 CFR PART 1542, AIRPORT SECURITY, ENSURE CONSTRUCTION ACCESS COMPLIES WITH THE SECURITY REQUIREMENTS OF THAT REGULATION.

13. NOTIFY APPROPRIATE PARTIES WHEN CONDITIONS EXIST THAT INVOKE PROVISIONS OF THE CSPP AND SPCD (FOR EXAMPLE, IMPLEMENTATION OF LOW-VISIBILITY OPERATIONS).

14. ENSURE PROMPT SUBMITTAL OF A NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION (FORM 7460-1) FOR CONDUCTING AN AERONAUTICAL STUDY OF POTENTIAL OBSTRUCTIONS SUCH AS TALL EQUIPMENT (CRANES, CONCRETE PUMPS, ETC.), STOCK PILES, AND HAUL ROUTES. A SEPARATE FORM MAY BE FILED FOR EACH POTENTIAL OBSTRUCTION, OR ONE FORM MAY BE FILED DESCRIBING THE ENTIRE CONSTRUCTION AREA AND MAXIMUM EQUIPMENT HEIGHT. IN THE LATTER CASE, A SEPARATE FORM MUST BE FILED FOR ANY OBJECT BEYOND OR HIGHER THAN THE ORIGINALLY EVALUATED AREA/HEIGHT.

15. PROMPTLY NOTIFY THE ENGINEER OF ANY PROPOSED CHANGES TO THE CSPP PRIOR TO IMPLEMENTATION OF THE CHANGE. CHANGES TO THE CSPP REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.

CONTRACTOR RESPONSIBILITIES:

THE CONTRACTOR SHALL:

1. SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) TO THE AIRPORT OPERATOR DESCRIBING HOW IT WILL COMPLY WITH THE REQUIREMENTS OF THE CSPP AND SUPPLYING ANY DETAILS THAT COULD NOT BE DETERMINED BEFORE CONTRACT AWARD. THE SPCD MUST INCLUDE A CERTIFICATION STATEMENT BY THE CONTRACTOR THAT INDICATES IT UNDERSTANDS THE OPERATIONAL SAFETY REQUIREMENTS OF THE CSPP AND IT ASSERTS IT WILL NOT DEVIATE FROM THE APPROVED CSPP AND SPCD UNLESS WRITTEN APPROVAL IS GRANTED BY THE AIRPORT OPERATOR. ANY CONSTRUCTION PRACTICE PROPOSED BY THE CONTRACTOR THAT DOES NOT CONFORM TO THE CSPP AND SPCD MAY IMPACT THE AIRPORT'S OPERATIONAL SAFETY AND WILL REQUIRE A REVISION TO THE CSPP AND SPCD AND RE-COORDINATION WITH THE AIRPORT OPERATOR AND THE FAA IN ADVANCE.

2. HAVE AVAILABLE AT ALL TIMES COPIES OF THE CSPP AND SPCD FOR REFERENCE BY THE AIRPORT OPERATOR AND ITS REPRESENTATIVES, AND BY SUBCONTRACTORS AND CONTRACTOR EMPLOYEES.

3. ENSURE THAT CONSTRUCTION PERSONNEL ARE FAMILIAR WITH SAFETY PROCEDURES AND REGULATIONS ON THE AIRPORT. PROVIDE A POINT OF CONTACT WHO WILL COORDINATE AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION-RELATED ACTIVITY THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT. MANY PROJECTS WILL REQUIRE 24-HOUR COVERAGE.

4. IDENTIFY IN THE SPCD THE CONTRACTOR'S ON-SITE EMPLOYEES RESPONSIBLE FOR MONITORING COMPLIANCE WITH THE CSPP AND SPCD DURING CONSTRUCTION. AT LEAST ONE OF THESE EMPLOYEES MUST BE ON-SITE WHENEVER ACTIVE CONSTRUCTION IS TAKING PLACE.

5. CONDUCT INSPECTIONS SUFFICIENTLY FREQUENTLY TO ENSURE CONSTRUCTION PERSONNEL COMPLY WITH THE CSPP AND SPCD AND THAT THERE ARE NO ALTERED CONSTRUCTION ACTIVITIES THAT COULD CREATE POTENTIAL SAFETY HAZARDS.

6. RESTRICT MOVEMENT OF CONSTRUCTION VEHICLES AND PERSONNEL TO PERMITTED CONSTRUCTION AREAS BY FLAGGING, BARRICADING, ERECTING TEMPORARY FENCING, OR PROVIDING ESCORTS, AS APPROPRIATE AND AS SPECIFIED IN THE CSPP AND SPCD.

7. ENSURE THAT NO CONTRACTOR EMPLOYEES, EMPLOYEES OF SUBCONTRACTORS OR SUPPLIERS, OR OTHER PERSONS ENTER ANY PART OF THE AIR OPERATIONS AREA (AOA) FROM THE CONSTRUCTION SITE UNLESS AUTHORIZED.

8. ENSURE PROMPT SUBMITTAL THROUGH THE AIRPORT OPERATOR OF FORM 7460-1 FOR THE PURPOSE OF CONDUCTING AN AERONAUTICAL STUDY OF CONTRACTOR EQUIPMENT SUCH AS TALL EQUIPMENT (CRANES, CONCRETE PUMPS, AND OTHER EQUIPMENT), STOCK PILES, AND HAUL ROUTES WHEN DIFFERENT FROM CASES PREVIOUSLY FILED BY THE AIRPORT OPERATOR.

THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) SHALL INCLUDE A STATEMENT BY THE CONSTRUCTION CONTRACTOR THAT HE/SHE HAS READ AND WILL ABIDE BY THE CSPP. IN ADDITION, THE SPCD MUST INCLUDE ALL SUPPLEMENTAL INFORMATION THAT COULD NOT BE INCLUDED IN THE CSPP PRIOR TO THE CONTRACT AWARD. THE CONTRACTOR STATEMENT SHOULD INCLUDE THE NAME OF THE CONTRACTOR, THE TITLE OF THE PROJECT CSPP, THE APPROVAL DATE OF THE CSPP, AND A REFERENCE TO ANY SUPPLEMENTAL INFORMATION (THAT IS, "I , NAME OF CONTRACTOR , HAVE READ THE TITLE OF PROJECT CSPP, APPROVED ON DATE , AND WILL ABIDE BY IT AS WRITTEN AND WITH THE FOLLOWING ADDITIONS AS NOTED:"). THE SUPPLEMENTAL INFORMATION IN THE SPCD SHOULD BE WRITTEN TO MATCH THE FORMAT OF THE CSPP INDICATING EACH SUBJECT BY CORRESPONDING CSPP SUBJECT NUMBER AND TITLE. IF NO SUPPLEMENTAL INFORMATION IS NECESSARY FOR ANY SPECIFIC SUBJECT, THE STATEMENT, "NO SUPPLEMENTAL INFORMATION," SHOULD BE WRITTEN AFTER THE CORRESPONDING SUBJECT TITLE. THE SPCD SHOULD NOT DUPLICATE INFORMATION IN THE CSPP:

THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT SHALL CONFORM TO THE FOLLOWING FORMAT:

1. COORDINATION. DISCUSS DETAILS OF PROPOSED SAFETY MEETINGS WITH THE AIRPORT OPERATOR AND WITH CONTRACTOR EMPLOYEES AND SUBCONTRACTORS.

2. PHASING. DISCUSS PROPOSED CONSTRUCTION SCHEDULE ELEMENTS, INCLUDING:

A. DURATION OF EACH PHASE.

B. DAILY START AND FINISH OF CONSTRUCTION, INCLUDING "NIGHT ONLY" CONSTRUCTION.

C. DURATION OF CONSTRUCTION ACTIVITIES DURING NORMAL RUNWAY OPERATIONS, CLOSED RUNWAY OPERATIONS AND MODIFIED RUNWAY "AIRCRAFT REFERENCE CODE" USAGE.

3. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY. THESE AREAS ARE SHOWN ON THE CSPP.

4. PROTECTION OF NAVAIDS. DISCUSS SPECIFIC METHODS PROPOSED TO PROTECT OPERATING NAVAIDS.

5. CONTRACTOR ACCESS. PROVIDE THE FOLLOWING:

A. DETAILS ON HOW THE CONTRACTOR WILL MAINTAIN THE INTEGRITY OF THE AIRPORT SECURITY FENCE (GATE GUARDS, DAILY LOG OF CONSTRUCTION PERSONNEL, AND OTHER).

B. LISTING OF INDIVIDUALS REQUIRING DRIVER TRAINING (FOR CERTIFICATED AIRPORTS AND AS REQUESTED).

C. RADIO COMMUNICATIONS INCLUDING: TYPES OF RADIOS AND BACKUP CAPABILITIES; WHO WILL BE MONITORING RADIOS; WHOM TO CONTACT IF THE ATCT CANNOT REACH THE CONTRACTOR'S DESIGNATED PERSON BY RADIO.

D. DETAILS ON HOW THE CONTRACTOR WILL ESCORT MATERIAL DELIVERY VEHICLES.

6. WILDLIFE MANAGEMENT. DISCUSS THE FOLLOWING:

A. METHODS AND PROCEDURES TO PREVENT WILDLIFE ATTRACTION.

B. WILDLIFE REPORTING PROCEDURES.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT. DISCUSS EQUIPMENT AND METHODS FOR CONTROL OF FOD, INCLUDING CONSTRUCTION DEBRIS AND DUST.

8. HAZARDOUS MATERIAL (HAZMAT) MANAGEMENT. DISCUSS EQUIPMENT AND METHODS FOR RESPONDING TO HAZARDOUS SPILLS.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES. PROVIDE THE FOLLOWING:

A. CONTRACTOR'S POINTS OF CONTACT.

B. CONTRACTOR'S EMERGENCY CONTACT.

C. LISTING OF TALL OR OTHER REQUESTED EQUIPMENT PROPOSED FOR USE ON THE AIRPORT AND THE TIMEFRAME FOR SUBMITTING 7460-1 FORMS NOT PREVIOUSLY SUBMITTED BY THE AIRPORT OPERATOR.

D. BATCH PLANT DETAILS, INCLUDING 7460-1 SUBMITTAL.

10. INSPECTION REQUIREMENTS. DISCUSS DAILY (OR MORE FREQUENT) INSPECTIONS AND SPECIAL INSPECTION PROCEDURES.

11. UNDERGROUND UTILITIES. DISCUSS PROPOSED METHODS OF IDENTIFYING AND PROTECTING UNDERGROUND UTILITIES.

12. PENALTIES. PENALTIES SHOULD BE IDENTIFIED IN THE CSPP AND SHOULD NOT REQUIRE AN ENTRY IN THE SPCD.

13. SPECIAL CONDITIONS. DISCUSS PROPOSED ACTIONS FOR EACH SPECIAL CONDITION IDENTIFIED IN THE CSPP.

14. RUNWAY AND TAXIWAY VISUAL AIDS. INCLUDING MARKING, LIGHTING, SIGNS, AND VISUAL NAVAIDS. DISCUSS PROPOSED VISUAL AIDS INCLUDING THE FOLLOWING:

A. EQUIPMENT AND METHODS FOR COVERING SIGNAGE AND AIRFIELD LIGHTS.

B. EQUIPMENT AND METHODS FOR TEMPORARY CLOSURE MARKINGS (PAINT, FABRIC, OTHER).

C. TYPES OF TEMPORARY VISUAL GUIDANCE SLOPE INDICATORS (VGSi).

15. MARKING AND SIGNS FOR ACCESS ROUTES. DISCUSS PROPOSED METHODS OF DEMARCATING ACCESS ROUTES FOR VEHICLE DRIVERS.

16. HAZARD MARKING AND LIGHTING. DISCUSS PROPOSED EQUIPMENT AND METHODS FOR IDENTIFYING EXCAVATION AREAS.

17. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS INCLUDING OBJECT FREE AREAS, OBSTACLE FREE ZONES, AND APPROACH/DEPARTURE SURFACES. DISCUSS PROPOSED METHODS OF IDENTIFYING, DEMARCATING, AND PROTECTING AIRPORT SURFACES INCLUDING:

A. EQUIPMENT AND METHODS FOR MAINTAINING TAXIWAY SAFETY AREA STANDARDS.

B. EQUIPMENT AND METHODS FOR SEPARATION OF CONSTRUCTION OPERATIONS FROM AIRCRAFT OPERATIONS, INCLUDING DETAILS OF BARRICADES.

18. OTHER LIMITATIONS ON CONSTRUCTION SHOULD BE IDENTIFIED IN THE CSPP AND SHOULD NOT REQUIRE AN ENTRY IN THE SPCD.

FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA

Michael Baker  
INTERNATIONAL

Designer: <b>RKK</b>	
Technician:	
Checked by: <b>RKK</b>	
Project Number: <b>167728</b>	

Notes:

REVISIONS			
No.	Description	Date	By
	REVISION SET	8/07/2019	CPC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

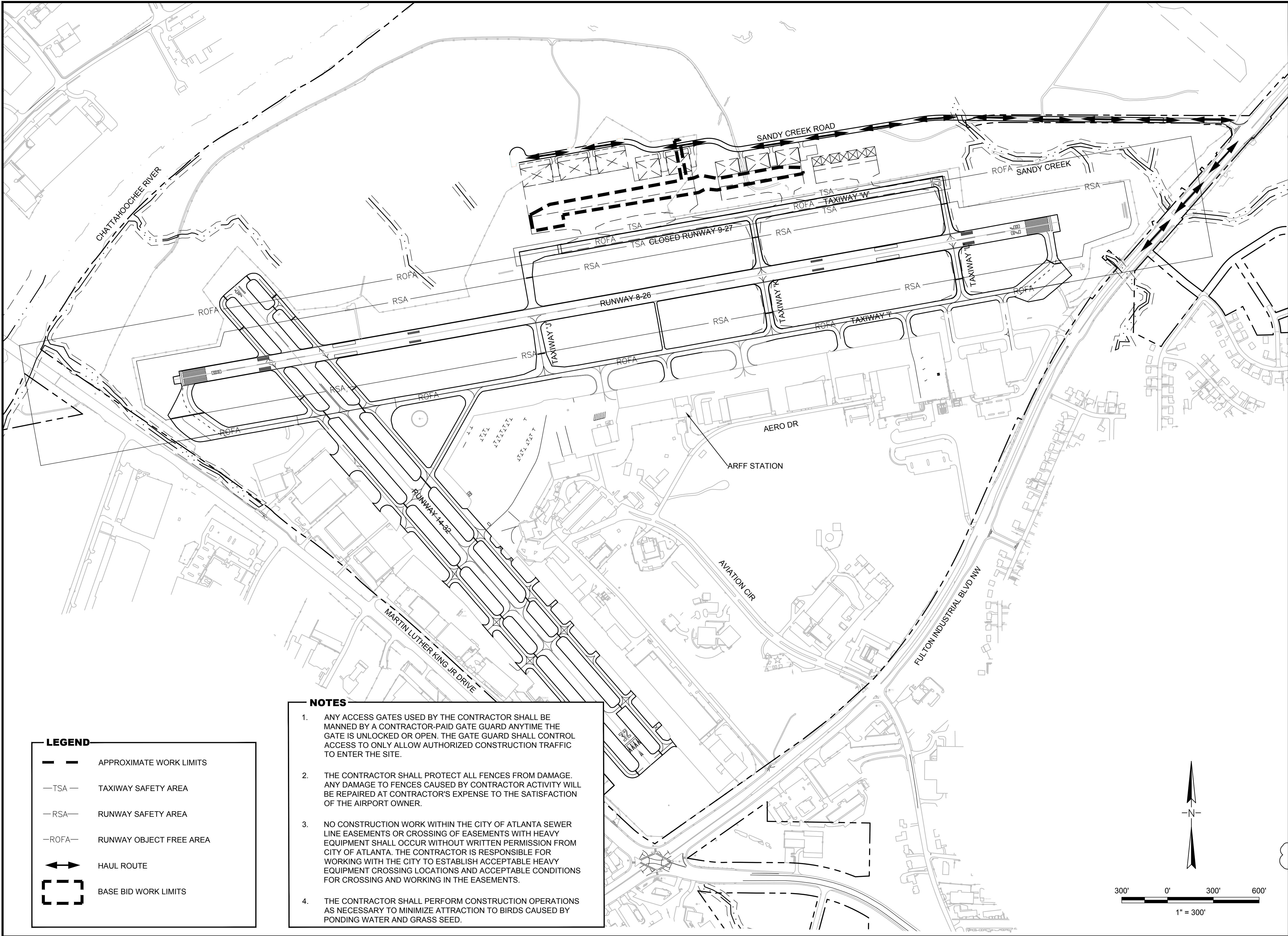
Drawing Name:

**PROJECT SAFETY  
AND PHASING PLAN  
NOTES**

FULTON COUNTY PROJECT NUMBER: <b>195-031</b>		
Date: <b>MARCH, 2019</b>	Sheet Number: <b>1</b> of <b>1</b>	
Scale: <b>N.T.S.</b>	Drawing Number: <b>PSPN-1</b>	



Y:\Airports\FTY\_Fulton County\167728 - TO 18-06\_NTA San Sewer Impr\Design\Drawings\PSPL.dwg Plotted on: Aug 07, 2019 - 2:34pm by CColes



#### LEGEND

- APPROXIMATE WORK LIMITS
- TSA— TAXIWAY SAFETY AREA
- RSA— RUNWAY SAFETY AREA
- ROFA— RUNWAY OBJECT FREE AREA
- ↔ HAUL ROUTE
- BASE BID WORK LIMITS

#### NOTES

1. ANY ACCESS GATES USED BY THE CONTRACTOR SHALL BE MANNED BY A CONTRACTOR-PAID GATE GUARD ANYTIME THE GATE IS UNLOCKED OR OPEN. THE GATE GUARD SHALL CONTROL ACCESS TO ONLY ALLOW AUTHORIZED CONSTRUCTION TRAFFIC TO ENTER THE SITE.
2. THE CONTRACTOR SHALL PROTECT ALL FENCES FROM DAMAGE. ANY DAMAGE TO FENCES CAUSED BY CONTRACTOR ACTIVITY WILL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE AIRPORT OWNER.
3. NO CONSTRUCTION WORK WITHIN THE CITY OF ATLANTA SEWER LINE EASEMENTS OR CROSSING OF EASEMENTS WITH HEAVY EQUIPMENT SHALL OCCUR WITHOUT WRITTEN PERMISSION FROM CITY OF ATLANTA. THE CONTRACTOR IS RESPONSIBLE FOR WORKING WITH THE CITY TO ESTABLISH ACCEPTABLE HEAVY EQUIPMENT CROSSING LOCATIONS AND ACCEPTABLE CONDITIONS FOR CROSSING AND WORKING IN THE EASEMENTS.
4. THE CONTRACTOR SHALL PERFORM CONSTRUCTION OPERATIONS AS NECESSARY TO MINIMIZE ATTRACTION TO BIRDS CAUSED BY PONDING WATER AND GRASS SEED.



**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer:  
**KJM**  
Technician:  
**KJM**  
Checked by:  
**CPC**  
Project Number:  
**167728**



#### Notes:

1. REFER TO DRAWING PSPN-1 FOR PROJECT SAFETY AND PHASING NOTES.
2. REFER TO DRAWING PSPD-1 FOR PROJECT SAFETY AND PHASING DETAILS.
3. THE ANTICIPATED START OF CONSTRUCTION IS JULY, 2019.

#### REVISIONS

No.	Description	Date	By
1	REVISION SET	8/07/2019	CPC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**PROJECT SAFETY  
AND PHASING PLAN  
LAYOUT**

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:  
**MARCH, 2019**

Scale:

**1" = 300'**

Sheet Number:

**1 of 1**

Drawing Number:

**PSPL-1**











PERMIT DOCUMENTS  
FOR  
SANDY CREEK ROAD SANITARY  
SEWER IMPROVEMENTS PROJECT

ALL EROSION AND SEDIMENTATION CONTROLS MEASURES SHALL BE INSTALLED  
PRIOR TO GRADING.

PRIOR TO LAND DISTURBING-ACTIVITIES, THE CONTRACTOR SHALL SCHEDULE  
A PRE-CONSTRUCTION MEETING WITH THE AREA EROSION CONTROL  
INSPECTOR.

WASTEWATER SERVICES PROVIDED BY FULTON COUNTY.



Sheet List Table	
Sheet Number	Sheet Title
C-0.0	COVER
C-0.1	GENERAL NOTES
C-0.2	EROSION & SEDIMENT CONTROL NOTES
C-0.3	EROSION & SEDIMENT CONTROL NOTES
C-0.4	EROSION & SEDIMENT CONTROL NOTES
C-1.0	EXISTING CONDITIONS
C-1.1	EXISTING CONDITIONS
C-2.0	UTILITY PLAN
C-2.1	UTILITY PLAN
C-3.0	PROFILES
C-3.1	PROFILES
C-4.0	EROSION & SEDIMENT CONTROL PLAN - INITIAL & INTERMEDIATE PHASES
C-4.1	EROSION & SEDIMENT CONTROL PLAN - INITIAL & INTERMEDIATE PHASES
C-4.2	EROSION & SEDIMENT CONTROL PLAN - FINAL PHASE
C-4.3	EROSION & SEDIMENT CONTROL PLAN - FINAL
C-5.0	EROSION & SEDIMENT CONTROL DETAILS
C-5.1	EROSION & SEDIMENT CONTROL DETAILS
C-5.2	EROSION & SEDIMENT CONTROL DETAILS
C-5.3	EROSION & SEDIMENT CONTROL DETAILS
C-6.0	CONSTRUCTION DETAILS



LOCATION MAP  
N.T.S.



STREET ADDRESS: 700 FULTON INDUSTRIAL BOULEVARD  
LAND LOT 14F, 21ST DISTRICT  
FULTON COUNTY, GA  
TAX PARCEL I.D. #14F0021 LL0084

CIVIL ENGINEER



2550 Heritage Ct. Suite 250  
Atlanta, Georgia 30339  
Tel 770.951.2495  
Fax 770.951.2496  
www.longeng.com

LEI PROJECT NO. 0452-0160

ISSUE DATE:  
07/24/2019

ZONING: M2; CLASS R-5 (FULTON INDUSTRIAL OVERLAY)  
FULTON COUNTY PROJECT NUMBER 195-031



OWNER/DEVELOPER  
FULTON COUNTY BOARD OF COMMISSIONERS,  
TIM BEGGERLY- AIRPORT MANAGER  
3925 AVIATION CIRCLE NW  
ATLANTA, GA 30336  
(404) 699-4200

24-HOUR EMERGENCY CONTACT  
TO BE DETERMINED



ABBREVIATIONS		
ABAND	ABANDONED	JT JOINT
APPROX	APPROXIMATE	L/S LANDSCAPE STRIP
BK	BACK	LT LEFT
B	BASE LINE	LF LINEAR FEET
BRG	BEARING	LOC LOCATION
BC	BOTTOM OF CURB	MH MANHOLE
BW	BOTTOM OF WALL (AT GRADE)	MAT MATERIAL
BRK	BRICK	MAX MAXIMUM
BLDG	BUILDING	MSL MEAN SEA LEVEL
C.I.	CAST IRON	MIN MINIMUM
CB	CATCH BASIN	MISC MISCELLANEOUS
C	CENTER LINE	MON MONUMENT
CC	CENTER TO CENTER	N NORTH
CIRCUM	CIRCUMFERENCE	N/A NOT APPLICABLE
CL	CLASS	NTS NOT TO SCALE
CO	CLEAN OUT	NO NUMBER
CLR	CLEAR	OD OUTSIDE DIAMETER
COL	COLUMN	PWMT PAVEMENT
COMB	COMBINED	PVC POLYVINYL CHLORIDE
CS	COMBINED SEWER	R RADIUS
CP	COMPUTED POINT	RP REFERENCE POINT
CONC	CONCRETE	RC REINFORCED CONCRETE
CE	CONSTRUCTION ESEMENT	RCP REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	RQD REQUIRED
CULV	CULVERT	REV REVISED OR REVISION
CG	CURB AND GUTTER	RT RIGHT
DIAG	DIAGONAL	R/W RIGHT-OF-WAY
DIA	DIAMETER	SS SANITARY SEWER
DIM	DIMENSION	SEC SECTION
DMY	DRIVEWAY	SHT SHEET
DWS	DRAWING	SW SIDEWALK
DI	DROP INLET	SPC SPECIFICATION
DIP	DUCTILE IRON PIPE	STM STEAM
ESMT	EASEMENT	STL STEEL
E	EAST	SD STORM DRAIN
EP	EDGE OF PAVEMENT	ST STREET
ELEV	ELEVATION	STA STATION
EXIST	EXISTING	STD STANDARD
F-F	FACE TO FACE	T TELEPHONE
F-F	FINISHED FLOOR ELEVATION	TEMP TEMPORARY
FG	FINISHED GRADE	TC TOP OF CURB
FH	FIRE HYDRANT	TW TOP OF WALL
FL	FLOW LINE	TYP TYPICAL
FT	FOOT OR FEET	UD UNDERDRAIN
G	GAS	UG UNDERGROUND
GM	GAS METER	VERT VERTICAL
GV	GAS VALVE	VCP VETRIFIED CLAY PIPE
GC	GRANITE CURB	W WATER
GRT	GRATE	WM WATER METER
HC	HEADER CURB	WT WATER TABLE
HP	HIGH POINT	WV WATER VALVE
HORIZ	HORIZONTAL	
IN	INCH	
ID	INSIDE DIAMETER	
INV	INVERT	

LEGEND		
EXISTING	DESCRIPTION	PROPOSED
	SANITARY SEWER w/size & type	
	CLEANOUT	
	SANITARY SEWER MANHOLE	
	STORM DRAIN PIPE	
	STORM DRAIN MANHOLE	
	STORM DRAIN DOUBLING CATCHBASIN	
	STORM DRAIN SINGLEWING CATCHBASIN	
	STORM DRAIN INLET	
	STEAM MANHOLE	
	STEAM LINE	
	UNDERGROUND TELEPHONE	
	AERIAL TELEPHONE	
	UNDERGROUND ELECTRIC	
	UNDERGROUND CABLE	
	OVERHEAD ELECTRIC	
	CTV	
	AERIAL CABLE TELEVISION	
	GAS MAIN w/size	
	WATER MAIN w/size	
	CURB AND GUTTER	
	CURB	
	EDGE OF PAVEMENT	
	HIGH POINT	
	LOW POINT	
	ELECTRIC BOX	
	TRANSFORMER	
	ELECTRIC MANHOLE	
	TELEPHONE MANHOLE	
	STREET LIGHT	
	TRAFFIC SIGNAL POLE	
	POWER POLE w/GUY WIRE	
	MAST ARM w/TRAFFIC SIGNAL	
	POWER POLE w/LIGHT	
	LIGHT POLE	
	WATER METER	
	WATER VALVE	
	FIRE HYDRANT	
	FIRE DEPARTMENT CONNECTION	
	GAS METER	
	GAS VALVE	
	TREE w/size and type	
	FENCE	
	TREE PROTECTION FENCE	
	CONTOUR LINE w/ELEVATION	
	SPOT ELEVATION	
	CONCRETE	

NOTE: PLANIMETRICS SHOWN ON THE EXISTING CONDITIONS SHEET WILL APPEAR NON-SCREENED

## CLEARING NOTES

- UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH UTILITY COMPANIES TO HAVE THEM RELOCATED AND/OR ADAPTED FOR THE TIE-INS. IN ADDITION, CONTRACTOR IS REQUIRED TO CONTACT THE UTILITIES PROTECTION CENTER OF GEORGIA AT 1-800-282-7411 (770-623-4344 IN METRO ATLANTA) PRIOR TO ANY EXCAVATION.
- CONTRACTOR SHALL CLEARLY MARK AND MAINTAIN PROPERTY CORNER MONUMENTATION AND BENCHMARKS WHENEVER POSSIBLE AND WILL BE RESPONSIBLE FOR THE COST OF REPLACING THEM IF DISTURBED OR DESTROYED.
- ALL VEGETATION (UNLESS OTHERWISE NOTED), EXISTING ASPHALT PAVEMENT, ORGANICS AND UNSUITABLE BEARING SOILS SHALL BE STRIPPED FROM THE SURFACE WITHIN THE CONSTRUCTION LIMITS AND DISPOSED OF LEGALLY OFFSITE. ALL WASTE FROM DEMOLITION OPERATIONS SHALL BE HAULED OFFSITE AND DISPOSED OF LEGALLY.
- PRIOR TO CLEARING, THE CONTRACTOR SHALL OBTAIN WRITTEN VERIFICATION FROM ALL UTILITY COMPANIES THAT ALL UTILITIES HAVE BEEN REMOVED. IF UTILITIES HAVE NOT BEEN REMOVED BUT HAVE BEEN ABANDONED, THE VERIFICATION LETTER SHALL STATE THAT THEIR FACILITIES LEFT ON SITE HAVE BEEN ISOLATED FROM THEIR SOURCE AND MAY BE REMOVED BY THE CONTRACTOR. IF UTILITIES ARE TO REMAIN AND HAVE BEEN LEFT ACTIVE, THE CONTRACTOR SHALL CAREFULLY PROTECT THEM AND IS RESPONSIBLE FOR RESTORING THEM TO THEIR PREVIOUS CONDITION OR BETTER IF DAMAGED.
- THE CONTRACTOR SHALL LEAVE THE SITE IN A CLEAN AND NEAT CONDITION. ALL DEBRIS, VEGETATION WHICH HAS BEEN REMOVED, LUMBER, CONCRETE, ETC., SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.
- CONTRACTOR SHALL HAVE THE LIMITS OF CLEARING AND ALL BUFFERS STAKED WITH FLAGGING STRUNG AT CLEARING LIMITS TO ENSURE THE PROPER LOCATION OF TREE SAVE FENCE AND PROPOSED IMPROVEMENTS.
- ALL VEGETATION, ROOT SYSTEMS, TOPSOIL, REFUSE AND OTHER DELETERIOUS, NON-SOIL MATERIAL SHALL BE STRIPPED FROM THE PROPOSED CONSTRUCTION AREAS. CLEAN TOPSOIL MAY BE STOCKPILED AND REUSED LATER IN LANDSCAPED AREAS.
- DISCONNECT AND SEAL OFF ABANDONED UTILITIES AND UTILITIES TO BE REMOVED PRIOR TO START OF DEMOLITION. UTILITIES SHALL BE DISCONNECTED BELOW EXISTING GRADE OR OUTSIDE OF CONTRACT LIMITS BY THE APPLICABLE PUBLIC UTILITY. ALL COSTS FOR THIS WORK SHALL BE BORNE BY THE CONTRACTOR.
- ALL STRUCTURES TO BE DEMOLISHED SHALL BE COMPLETELY REMOVED ABOVE AND BELOW GRADE. ABANDONED SERVICE LINES TO THE STRUCTURES SHALL ALSO BE REMOVED.
- ALL NECESSARY PERMITS FOR DEMOLITION SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL PROTECT ALL ADJACENT LANDS FROM DAMAGE DURING DEMOLITION WORK. ANY OFF-SITE AREAS DISTURBED SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION.
- NO DEMOLITION MATERIALS SHALL BE DISPOSED OF ON-SITE. ALL DEBRIS SHALL BE HAULED OFF-SITE TO A DISPOSAL AREA APPROVED BY FULTON COUNTY FOR THE HANDLING OF DEMOLITION DEBRIS.

## CONSTRUCTION NOTES

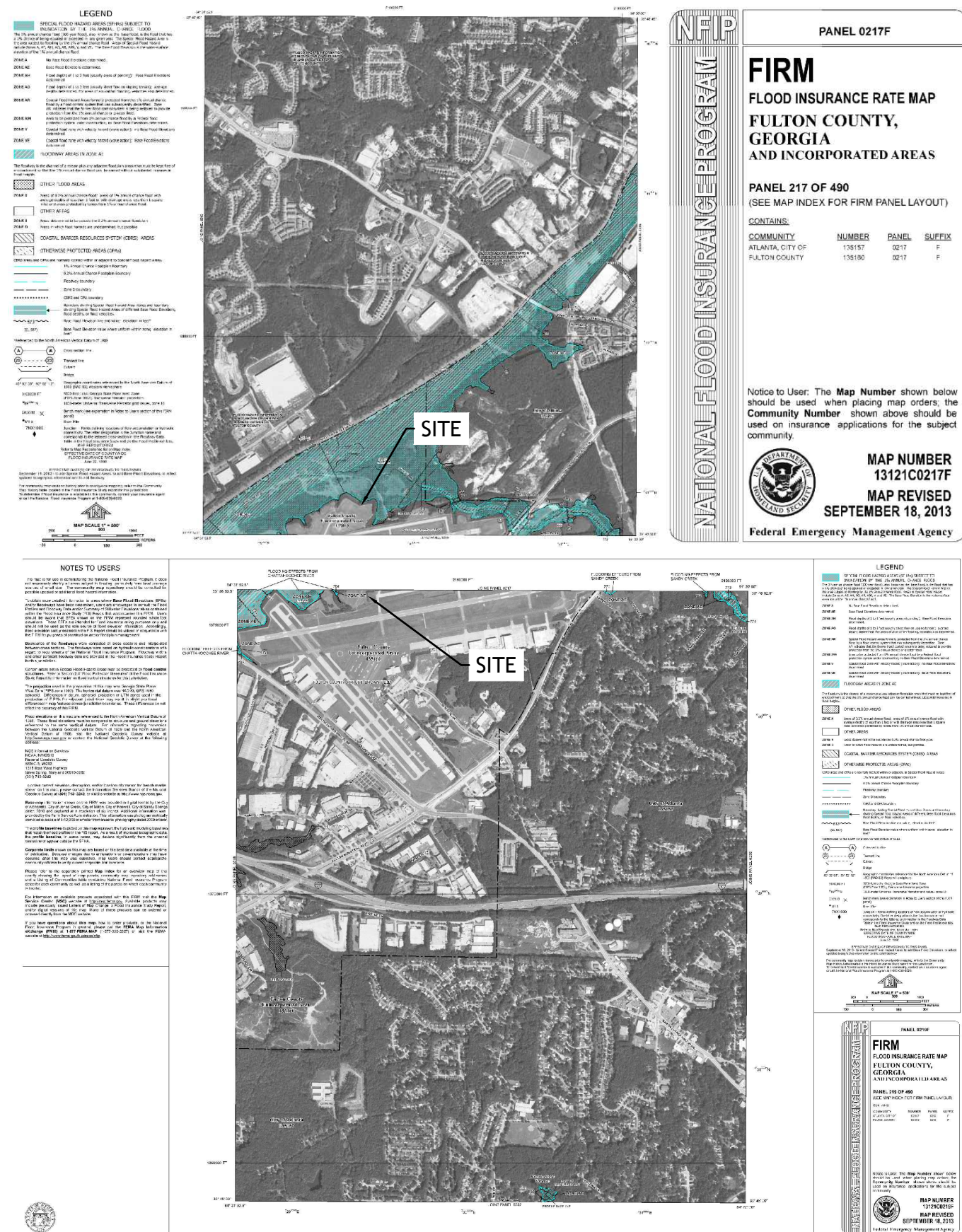
- DIRT FOR FILL SHALL BE CLEAN, COHESIVE CLAY OR SANDY CLAY FREE OF DEBRIS, ORGANICS, DELETERIOUS MATERIAL AND ROCKS GREATER THAN 3" DIA.
- MAX CUT OR FILL SLOPES SHALL BE 2:1 (H:V).
- EQUIPMENT AND MATERIALS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN. TREE SAVE AREAS SHALL NOT BE USED FOR STORAGE OR PARKING.
- ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III UNLESS OTHERWISE NOTED. CORRUGATED METAL PIPE SHALL BE 16 GA. MIN. AND ASPHALT OR ALUMINUM COATED.
- ALL CATCH BASINS SHALL BE FLUSH WITH THE NEW CURB.
- ALL MANHOLE TOPS SHALL BE SET FLUSH WITH FINISHED GRADE IN LANDSCAPED AND PAVED AREAS.
- CONTRACTOR TO VERIFY THE ELEVATIONS OF ALL TIE-IN POINTS FOR INSTALLATION OF UTILITIES, CURB & GUTTER, SIDEWALK AND PAVING.
- ALL BACKFILL MATERIAL SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE OPTIMUM COMPACTION OR AS REQUIRED IN EARTHWORK SPECIFICATION FOR ANY SOIL CLASSIFICATION AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-180 METHOD "A". BACKFILL MATERIAL SHALL BE CLEAN AND FREE OF ROOTS, ROCK OR DELETERIOUS MATTER. CONTRACTOR SHALL CORRECT ANY DAMAGE TO CURBING OR PAVING CAUSED BY TRENCH SETTLEMENT WHICH OCCURS WITHIN 12 MONTHS OF PROJECT ACCEPTANCE. REFER TO GEOTECH REPORT.
- MANHOLES & DROP INLETS ARE DIMENSIONED TO THE CENTER OF THE RISER. CATCH BASINS ARE DIMENSIONED TO THE CENTER OF THE CATCH BASIN AT THE FACE OF CURB. LAYOUT DIMENSIONS ARE TO FACE OF CURB. FACE OF WALL, CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PROMPTLY UPON DISCOVERY. ANY CONFLICT OR DISCREPANCIES DISCOVERED WITHIN THE CONSTRUCTION PLANS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REP AND ENGINEER OF RECORD FOR CLARIFICATION. FAILURE TO DO SO SHALL RESULT IN CONTRACTOR'S LIABILITY FOR ISSUES ARISING FROM SUCH CONFLICTS OR DISCREPANCIES.
- ALL EXISTING ELECTRICAL BOXES, WATER METER BOXES, AND VALVE BOXES, WHICH ARE TO REMAIN SHALL BE SET FLUSH WITH THE TOP OF THE PROPOSED GRADE.
- AREAS INTENDED TO SUPPORT PAVEMENT OR NEW FILL SHALL BE PROOFROLLED WITH A 20 TO 30 TON LOADED TRUCK OR OTHER PNEUMATIC-TIRED VEHICLE OF SIMILAR SIZE AND WEIGHT IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER TO LOCATE WEAK, SOFT OR EXCESSIVELY WET MATERIALS. AREAS WHICH PUMP WHILE PROOFROLLED SHALL BE UNDERCUT AND BACK-FILLED IN ACCORDANCE WITH CSI STANDARD EARTHWORK SPECIFICATIONS.
- CRUSHED STONE AGGREGATE IN ROADWAY/PARKING AREA PAVEMENT BASE SHALL CONFORM WITH SECTION 815 OF THE STATE OF GEORGIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL ASPHALT MATERIAL AND PAVING OPERATIONS SHALL MEET APPLICABLE SPECIFICATIONS OF THE ASPHALT INSTITUTE AND GEORGIA DEPARTMENT OF TRANSPORTATION.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM THE DETENTION PONDS AND RESTORE THE PONDS TO THEIR PROPOSED FINISHED GRADE. ALL STORM DRAIN PIPES ARE ALSO TO BE COMPLETELY CLEANED OF ALL SILT AND DEBRIS AT THE COMPLETION OF CONSTRUCTION.
- CONDUITS FOR SITE LIGHTING AND IRRIGATION SHALL BE INSTALLED, BACKFILLED AND PROPERLY COMPACTED PRIOR TO THE PLACEMENT OF BASE, PAVEMENT, AND CURB & GUTTER.

## REFERENCES

- A PORTION OF THE DISTURBED AREA IS WITHIN A FLOOD HAZARD ZONE (REFERENCE FLOOD INSURANCE RATE MAP FOR CITY OF ATLANTA, FULTON COUNTY, GEORGIA - PANEL 217 OF 490, REVISED 09-18-13)
  - A PORTION OF THE DISTURBED AREA IS WITHIN A FLOOD HAZARD ZONE (REFERENCE FLOOD INSURANCE RATE MAP FOR CITY OF ATLANTA, FULTON COUNTY, GEORGIA - PANEL 219 OF 490, REVISED 09-18-13)
- NOTE: SIGNIFICANT GRADING HAS OCCURRED IN THE FLOODPLAIN AS PART OF THE CONSTRUCTION OF SANDY CREEK ROAD. THE FLOOD HAZARD MAP HAS NOT BEEN UPDATED TO ACCOUNT FOR THESE CHANGES. THE HIGHEST FLOOD ELEVATION IN THE AREA OF INTEREST (ACCORDING TO THE REFERENCED 2013 FEMA MAP) IS 768, WHILE THE LOWEST GRADE ELEVATION WITHIN THIS PROJECT IS 800. THEREFORE, IT IS ASSUMED THAT NO WORK SHALL BE PERFORMED WITHIN THE NEW FLOOD ZONES.

## GENERAL NOTES

- PROJECT ADDRESS: 700 FULTON INDUSTRIAL BLVD. NW ATLANTA, GA 30336
  - OWNER: FULTON COUNTY BOARD OF COMMISSIONERS, TIM BEGGERLY- AIRPORT MANAGER 3925 AVIATION CIRCLE NW ATLANTA, GA 30336 (404) 699-4200
  - ENGINEER: LONG ENGINEERING, INC. 2550 HERITAGE COURT, SUITE 250 ATLANTA, GEORGIA 30339 770-951-2495
  - ZONING: M2; CLASS R-5 (FULTON INDUSTRIAL OVERLAY)
  - THE PROPOSED PROJECT CONSISTS OF INSTALLATION OF SEWER LINE TO SERVICE FUTURE HANGARS. THE TOTAL SITE AREA IS 360+ ACRES. THE APPROXIMATE DISTURBED AREA IS 3.62 ACRES.
  - UPON DISCOVERING ANY DISCREPANCIES BETWEEN THE ARCHITECTURAL AND THE ENGINEERING PLANS, CONTRACTOR TO STOP WORK IMMEDIATELY AND NOTIFY THE ARCHITECT.
  - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS SHOWN HEREON WITH THE ARCHITECTURAL DRAWINGS AND EXISTING BUILDINGS PRIOR TO ANY CONSTRUCTION AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
  - LANDSCAPING AND IRRIGATION TO BE COMPLETED AT THE DIRECTION OF THE OWNER/DEVELOPER.
  - PROPOSED ELEVATIONS ALONG CURB LINE ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED.
  - ALL CONSTRUCTION MUST CONFORM TO THE FULTON COUNTY STANDARDS, SPECIFICATIONS AND DETAILS WHETHER OR NOT REVIEW COMMENTS WERE MADE. THE CONTRACTOR SHALL OBTAIN THESE DOCUMENTS, BECOME FAMILIAR WITH THEM AND HAVE THEM ON THE JOB SITE AT ALL TIMES.
  - PROPOSED BUILDING LOCATIONS SHOWN ARE PROVIDED FOR GENERAL INFORMATION ONLY BASED ON PLANS REFERENCED (SEE THIS SHEET). CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSION SHOWN ON THE PLANS FOR ALL STRUCTURES AS WELL AS ALL UTILITY LOCATIONS WITH CURRENT ARCHITECTURAL, STRUCTURAL, AND PLUMBING PLANS AND ENSURING THERE ARE NO CONFLICTS.
  - CONTRACTOR'S VEHICLES SHALL ONLY USE THE LOCAL ROADWAYS IN THE DIRECTION OF EXISTING TRAVEL. NO WORK SHALL BE CONDUCTED DURING THE HOURS OF 6:30 TO 9:30 AM AND 4:00 TO 7:00 PM WHICH RESTRICT TRAFFIC FLOW ON THE HIGHWAY SYSTEM DURING THESE HOURS OR DURING SPECIAL EVENTS REQUIRING THE MAXIMUM ROADWAY CAPACITY.
  - NOTIFY FULTON COUNTY INSPECTOR 24 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.
  - SIGNING AND STRIPING TO BE PROVIDED BY THE CONTRACTOR ACCORDING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION WITH ALL REVISIONS INCLUDED.
  - ALL CONSTRUCTION VEHICLES SHALL PARK IN AREAS DESIGNATED BY THE OWNER.
  - OFF-STREET PARKING SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION. NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL DEVICES AS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION AND MAINTAINED WHEN WORKING IN CLOSE PROXIMITY TO PUBLIC ROADS.
  - THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN ENTERING MANHOLES, PIPES OR OTHER STRUCTURES SHOWN ON THE PLANS. AT A MINIMUM, THESE PIPES AND STRUCTURES SHALL BE PROPERLY VENTILATED AND ENTRY SHALL CONFORM TO OSHA REQUIREMENTS.
  - IF APPLICABLE, CONTRACTOR TO REMOVE THE EXISTING WASTEWATER LATERAL BACK TO THE TEE-WYE AT THE 8-INCHES WASTEWATER LINE. PROVIDE A PLUG AT THE TEE-WYE. POUR CONCRETE AROUND THE PLUG AND THE TEE-WYE. THE CONTRACTOR HAS THE OPTION OF ABANDONING THE LATERAL IN PLACE AND SLIP LINING THE 8-INCHES WASTEWATER LINE FROM MANHOLE TO MANHOLE. THE OPENINGS OF ALL LATERALS WOULD BE CUT OUT AS NORMAL EXCEPT FOR THE ABANDONED LATERAL. SLIP LINING TO BE IN ACCORDANCE WITH CURRENT FULTON COUNTY STANDARDS AND SPECIFICATIONS. IF THE LINE HAS ALREADY BEEN SLIP-LINED, THE CONTRACTOR HAS THE OPTIONS TO EITHER BURST THE LINE IN ACCORDANCE WITH CURRENT FULTON COUNTY STANDARDS AND SPECIFICATIONS OR REMOVE THE EXISTING LATERAL BACK TO THE TEE-WYE. ALL EXISTING ACTIVE LATERALS SHALL BE RESTORED TO FULL SERVICE.
- ### FULTON CO. REQUIRED WASTEWATER NOTES
- ALL WASTEWATER PIPE CONSTRUCTION SHOWN ON THESE PLANS MUST CONFORM TO FULTON COUNTY'S STANDARDS AND SPECIFICATIONS, INCLUDING SANITARY SEWER REPAIRS LATEST EDITION.
  - NO SANITARY SEWER SHALL BE ACCEPTED BY THE COUNTY WITHOUT AN AS-BUILT DRAWING SHOWING THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE SEWER SYSTEM, THE LOCATION OF ALL MANHOLES, SEWER CONNECTIONS, PIPING MATERIALS, REQUIRED EASEMENT LIMITS AND JUNCTIONS, AND PROPERTY LINES.
  - CONTRACTOR MUST FIELD VERIFY THE LOCATION AND ELEVATION OF ALL KNOWN AND UNKNOWN UNDERGROUND UTILITIES.
  - ALL TEMPORARY AND PERMANENT WASTEWATER EASEMENTS MUST BE DRESSED AND GRASSED TO CONTROL EROSION PRIOR TO ACCEPTANCE. TREES SHALL NOT BE PLANTED IN THE PERMANENT EASEMENT AREA, OR WITHIN 10-FEET OF A FULTON COUNTY SEWER MAIN.
  - AS-BUILT DRAWINGS AND MAINTENANCE BOND(S) MUST BE SUBMITTED AND ARE REQUIRED PRIOR TO INSPECTION AND ACCEPTANCE. DIGITAL AS-BUILT WILL BE REQUIRED. NOTE THAT DIGITAL AS-BUILTS WILL BE REQUIRED AT THE COMPLETION OF THE PROJECT. PLEASE SEE: [HTTP://WWW.FULTONCOUNTYGGA.GOV/IMAGES/STORIES/WR/DEVELOPMENT/CAD\\_STANDARDS.PDF](http://www.fultoncountygga.gov/images/stories/wr/development/cad_standards.pdf) FOR THE REQUIREMENTS. MAINTENANCE BONDS ARE DUE AT FINAL APPROVAL OF THE AS-BUILTS.
  - NEOPRENE COUPLINGS WITH STAINLESS STEEL BANDS AND SHEAR RINGS ARE REQUIRED FOR JOINING DIFFERENT TYPES OF SANITARY SEWER PIPES.
  - POOLS SHALL NOT DRAIN INTO WASTEWATER PIPE SYSTEMS. POOLS SHALL DRAIN INTO AN APPROVED INDIVIDUAL ONSITE WASTEWATER MANAGEMENT SYSTEM.
  - LOW PRESSURE AIR TESTING REQUIRED FOR ALL WASTEWATER PIPE SYSTEMS. THIS TEST MUST MEET ALL REQUIREMENTS AS OUTLINED IN UNI-B-06 OR CURRENT REVISION. A FULTON COUNTY INSPECTOR MUST BE PRESENT DURING TESTING.
  - CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERT ELEVATIONS OF WASTEWATER PIPES FOR A CONNECTION TO EXISTING WASTEWATER SYSTEMS.
  - CONTRACTOR IS TO CUT AND REMOVE THE PIPE ONLY UPON FINAL APPROVAL BY THE FULTON COUNTY INSPECTOR.
  - ALL WASTEWATER LINES AND LATERALS WITH LESS THAN ONE-FOOT OF CLEARANCE TO ANOTHER UTILITY LINE SHALL BE CONSTRUCTED WITH A CONCRETE SADDLE TO MAINTAIN SEPARATION.
  - NO FILL SHALL BE PLACED ON A SANITARY SEWER EASEMENT WITHOUT APPROVAL BY THE DIRECTOR OF PW. ALL SANITARY MANHOLES MUST EXTEND TO THE GROUND SURFACE.
  - FOR ALL PROJECTS UTILIZING INDIVIDUAL ONSITE WASTEWATER MANAGEMENT SYSTEMS DESIGN AND PROVISIONS SHALL BE IN CONFORMANCE WITH FULTON COUNTY DEPARTMENT OF HEALTH AND WELLNESS REGULATIONS.
  - EIGHT-INCHES (8") OR LARGER PIPE LINES SHALL BE TV INSPECTED. A VIRUS FREE PORTABLE STORAGE DRIVE (USB FLASH DRIVE) AND WRITTEN INSPECTION LOG IN COMPLIANCE WITH NASCCO REQUIREMENTS AND CERTIFIED BY A GEORGIA REGISTERED ENGINEER OR REGISTERED LAND SURVEYOR SHALL BE PROVIDED WHEN AS-BUILTS ARE SUBMITTED. ALL VIDEOS SHALL INCLUDE PACP AND MACP COMPLETED FORMS. A COPY OF THE OPERATOR'S CURRENT NASCCO CERTIFICATION SHALL BE SUBMITTED.
  - USF 7635 BOX REQUIRED FOR WASTEWATER CLEANOUTS IN PAVED AREA PER FULTON COUNTY STANDARD DETAIL 709.
  - COMPACTION OF THE BACK FILL OF ALL TRENCHES SHALL BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY. BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER FOREIGN DEBRIS, AND SHALL BE PLACED AT OR NEAR OPTIMUM MOISTURE CONTENT. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. COMPACTION OF THE BACK FILL OF ALL TRENCHES LOCATED UNDER PAVEMENT SHALL BE COMPACTED TO AT LEAST 95% STANDARD PROCTOR DENSITY.
  - SANITARY SEWER LATERALS SHOULD BE MARKED WITH 4"x4" POST WITH MIN. 4- FEET ABOVE GROUND. THE TOP 1" SHOULD BE PAINTED GREEN. EACH LATERAL IS TO BE BROUGHT TO THE GROUND SURFACE IN ACCORDANCE WITH FULTON COUNTY STANDARD 909.
  - ALL REQUIRED OFFSITE EASEMENTS SHALL BE DEDICATED TO FULTON COUNTY PRIOR TO UTILITY PERMITTING. ALL PUBLIC ON-SITE EASEMENTS FOR OTHER THAN SINGLE FAMILY RESIDENTIAL PROJECTS THAT WILL BE FINAL PLATTED SHALL BE DEDICATED TO FULTON COUNTY PRIOR TO WATER RESOURCES PERMIT APPROVAL.
  - FOR RESIDENTIAL PROJECTS WHERE ONSITE SANITARY SEWER EASEMENTS ARE TO BE DEDICATED TO FULTON COUNTY, THE FOLLOWING APPLIES: SANITARY SEWER EASEMENT INSIDE PROPERTY LINE TO BE SHOWN IN FINAL PLAT FOR RECORDING.
  - FOR ALL PROJECTS CONTAINING PVC WASTEWATER PIPES, ALSO INCLUDE THE FOLLOWING NOTES: (SEE ATTACHED CONDITION FOR PVC).
    - PIPE SHALL BE ASTM D3034, SDR35 IN 12.5 FOOT LAYING LENGTHS WITH ELASTOMERIC SEALED JOINTS IN ACCORDANCE WITH ASTM D3212.
    - PIPE BEDDING SHALL BE #57, SHARP, ANGULAR, CRUSHED STONE. BEDDING SHALL EXTEND A MINIMUM OF 4" BELOW THE PIPE AND EXTEND TO THE TOP OF THE PIPE. THE BEDDING SHALL BE COMPACTED BY "SLICING WITH A FLAT SHOVEL". THE WIDTH OF THE DITCH MUST BE IN ACCORDANCE WITH OSHA SAFETY STANDARDS.
    - INITIAL BACKFILL: AFTER BEDDING, COMPLETE INITIAL BACKFILL WITH #57 STONE. IF NO ROCK IS ENCOUNTERED, INITIAL BACKFILL SHALL EXTEND TO A HEIGHT 6" ABOVE OF THE TOP OF THE PIPE, OTHERWISE INITIAL BACKFILL SHALL EXTEND TO 12" ABOVE THE TOP OF THE PIPE.
    - FITTINGS FOR LATERAL CONNECTIONS SHALL BE 45° WYES AND BENDS. PROVIDE PVC PIPE STOPPERS FOR EACH LATERAL. PROVIDE SPECIAL WATERTIGHT CONNECTIONS AT MANHOLES AND TRANSITIONS TO DUCTILE IRON PIPE AS RECOMMENDED BY THE PIPE MANUFACTURER. E.
  - AFTER INSTALLATION, A DEFLECTION TEST IS REQUIRED. INITIAL DEFLECTION SHALL BE LIMITED TO 3% OF THE UNDEFLECTED DIAMETER. A SECOND TEST SHALL BE MADE AT LEAST 8 MONTHS AFTER THE INSTALLATION BUT BEFORE FINAL ACCEPTANCE. AT THAT TIME DEFLECTION SHALL BE LIMITED TO 5% OF THE UNDEFLECTED DIAMETER.
  - ALL MANHOLES LOCATED WITHIN A PAVED AREA SHALL HAVE CONCENTRIC CONE SECTIONS AND FLANGE DOWN FRAMES AND COVERS. ALL MANHOLES LOCATED WITHIN AN UNPAVED AREA SHALL HAVE ECCENTRIC CONE SECTIONS WITH BOLT DOWN FLANGE UP FRAME AND COVERS, OR HINGED CAST IN PLACE LOCKABLE COVERS. ALL MANHOLES LOCATED WITHIN A FLOOD PRONE AREA SHALL HAVE ECCENTRIC CONE SECTIONS WITH BOLT DOWN GASKETED FLANGE UP FRAME AND COVERS. RAISE TOP OF MANHOLES IN LANDSCAPE AREAS TO 0.5 FEET ABOVE GRADE.
  - ISSUANCE OF THIS PERMIT DOES NOT IN ANY WAY IMPLY THAT WASTEWATER TAPS FOR BUILDING PERMITS WILL BE ISSUED. CONTACT THE DEPARTMENT OF PUBLIC WORKS, WATER RESOURCES DIVISION AT (404) 612-7400 FOR FURTHER INFORMATION.
  - ANY CHANGES TO THE SEWER DRAWINGS MUST BE APPROVED BY FULTON COUNTY.
  - NOTIFY FULTON COUNTY INSPECTOR 24-HOURS PRIOR TO CONSTRUCTION.



## FULTON COUNTY AIRPORT BROWN FIELD ATLANTA, GEORGIA

## Michael Baker INTERNATIONAL

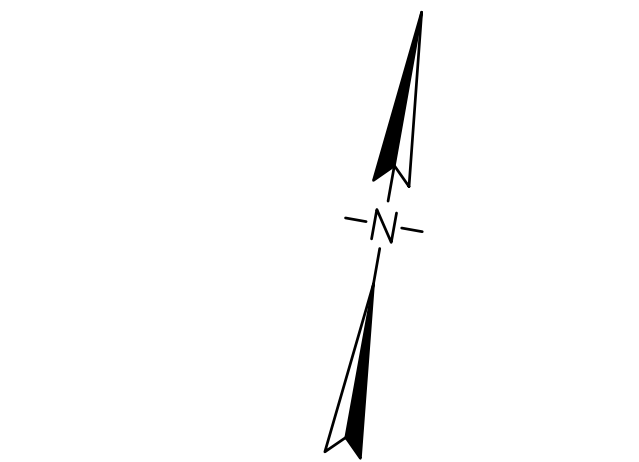
Designer:	<b>MBC</b>	
Technician:		
Checked by:	<b>MDJ</b>	
Project Number:	<b>167728</b>	

## LONG ENGINEERING

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ATLANTA, GA 30339 www.longeng.com

**LEI PROJECT #0452-0160**

Notes:



REVISIONS			
No.	Description	Date	By
<b>1</b>	<b>REVISION SET</b>	<b>7/24/19</b>	<b>MC</b>

Project Name:

## SANDY CREEK ROAD SANITARY SEWER IMPROVEMENTS PROJECT

Drawing Name:

## GENERAL NOTES

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:

**08/06/2019**

Scale:

Sheet Number:

2 of 20

Drawing Number:

**C-0.1**







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28 27 26 POLLUTION PREVENTION MEASURES

1. **GOOD HOUSEKEEPING PRACTICES:** AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT TO DO THE JOB. ALL MATERIALS ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER ONE ROOF OR ENCLOSURE. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINER WITH ORIGINAL MANUFACTURE LABEL. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURE. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
2. **HAZARDOUS PRODUCTS:**  
THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
- A. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
  - B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT INFORMATION.
  - C. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

28 26 SPILL PREVENTION PRACTICES

1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
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.
3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
4. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.
5. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER) THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
6. FOR SPILLS OF UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
7. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA E.P.D. WILL BE CONTACTED WITHIN 24 HOURS.
8. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THE THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (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.

APPROXIMATE ACTIVITY SCHEDULE

MONTH												
DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
INITIAL PHASE E&S&C INSTALLATION												
7-DAY VISIT CERTIFICATION												
SEDIMENT CONTROL												
DEMOLITION OF INFRASTRUCTURE												
CLEARING & GRUBBING												
GRADING												
MULCHING - TEMPORARY GRASSING												
UTILITY INSTALLATION												
BUILDING CONSTRUCTION												
FINAL PAVING												
MAINT. OF EROSION CONTROL DEVICES												
FINAL LANDSCAPING												
DISPOSITION OF SEDIMENT DEVICES												

ADDITIONAL ES&PC NOTES

- 39 1. USE OF ALTERNATIVE BMP'S WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMP'S AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT FOUND AT WWW.GASWCC.ORG.
- 40 2. USE OF ALTERNATIVE BMP FOR APPLICATION TO THE EQUIVALENT BMP LIST. PLEASE REFER TO APPENDIX A-2 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA 2016 EDITION.
3. STATE WATERS ARE PRESENT WITHIN THE SITE. STATE WATERS EXIST WITHIN 200 FEET OF THE SITE AS DEPICTED ON SHEETS C-0.1.
4. NO WETLANDS ARE PRESENT WITHIN THE SITE.
- 45 5. CURVE NUMBER: EXISTING CONDITIONS CN = 77, PROPOSED CONDITIONS CN = 77
6. SOILS:Ub, RoF, CpA

WATERS SUPPORTING WARM WATER FISHERIES

SURFACE WATER DRAINAGE AREA, (SQ. MILES)										
	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+		
1.00-10	75	150	200	400	750	750	750	750		
10.01-25	50	100	100	200	300	500	750	750		
25.01-50	50	50	100	100	200	300	750	750		
50.01-100	50	50	50	100	100	150	300	600		
100.01+	50	50	50	50	50	100	200	100		

BEST MANAGEMENT PRACTICES

- 27 1. BEST MANAGEMENT PRACTICES, AS SET FORTH IN THIS PERMIT, ARE REQUIRED FOR ALL CONSTRUCTION ACTIVITIES, AND MUST BE IMPLEMENTED IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS CONTAINED IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED TO PREVENT OR REDUCE THE POLLUTION OF WATERS OF GEORGIA. PROPER DESIGN, INSTALLATION, AND MAINTENANCE OF BEST MANAGEMENT PRACTICES SHALL CONSTITUTE A COMPLETE DEFENSE TO ANY ACTION BY THE DIRECTOR OR TO ANY OTHER ALLEGATION OF NONCOMPLIANCE WITH PART 111.D.3 AND PART 111.D.4 OF PERMIT #GAR 100001.
2. EXCEPT AS REQUIRED TO INSTALL THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS AS DESCRIBED IN PART IV.D.3., THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS MUST BE INSTALLED AND IMPLEMENTED PRIOR TO CONDUCTING ANY OTHER CONSTRUCTION ACTIVITIES (E.G., CLEARING, GRUBBING AND GRADING) WITHIN THE CONSTRUCTION SITE OR WHEN APPLICABLE, WITHIN PHASED SUB-PARTS OR SEGMENTS OF THE CONSTRUCTION SITE. FAILURE TO COMPLY SHALL CONSTITUTE A VIOLATION OF THIS PERMIT FOR EACH DAY ON WHICH CONSTRUCTION ACTIVITIES OCCUR. THE DESIGN PROFESSIONAL WHO PREPARED THE PLAN MUST INSPECT THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS IN ACCORDANCE WITH PART IV.A.5. WITHIN SEVEN (7) DAYS AFTER INSTALLATION.
3. FAILURE TO PROPERLY DESIGN, INSTALL, OR MAINTAIN BEST MANAGEMENT PRACTICES SHALL CONSTITUTE A VIOLATION OF THIS PERMIT FOR EACH DAY ON WHICH SUCH FAILURE OCCURS. BMP MAINTENANCE AS A RESULT OF THE PERMITTEE'S ROUTINE INSPECTIONS SHALL NOT BE CONSIDERED A VIOLATION FOR THE PURPOSES OF THIS PARAGRAPH. IF DURING THE COURSE OF THE PERMITTEE'S ROUTINE INSPECTION BMP FAILURES ARE OBSERVED WHICH HAVE RESULTED IN SEDIMENT DEPOSITION INTO WATERS OF THE STATE, THE PERMITTEE SHALL CORRECT THE BMP FAILURES AND SHALL SUBMIT A SUMMARY OF THE VIOLATIONS TO EPD, IN ACCORDANCE WITH PART V.A.2 OF PERMIT #GAR100001.
4. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH DISCHARGE RESULTS IN THE TURBIDITY OF RECEIVING WATER(S) BEING INCREASED BY MORE THAN TEN (10) NEPHELOMETRIC TURBIDITY UNITS FOR WATERS CLASSIFIED AS TROUT STREAMS OR MORE THAN TWENTY-FIVE (25) NEPHELOMETRIC TURBIDITY UNITS FOR WATERS SUPPORTING WARM WATER FISHERIES, REGARDLESS OF A PERMITTEE'S CERTIFICATION, UNDER PART II.B.1.I OF PERMIT #GAR100001.
5. WHEN THE PERMITTEE HAS ELECTED TO MONITOR OUTFALL(S), THE DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING THE VALUE SELECTED FROM APPENDIX B APPLICABLE TO THE CONSTRUCTION SITE. AS SET FORTH THEREIN, THE NEPHELOMETRIC TURBIDITY UNIT (NTU) VALUE SHALL BE SELECTED FROM APPENDIX B BASED UPON THE SIZE OF THE CONSTRUCTION SITE, THE SURFACE WATER DRAINAGE AREA AND WHETHER THE RECEIVING WATER(S) SUPPORTS WARM WATER FISHERIES OR IS A TROUT STREAM AS INDICATED IN THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL, CHAPTER 391-3-6 AT WWW.GAEPD.ORG

DESCRIPTION OF EROSION CONTROL BMP'S BY PHASE

**INITIAL PHASE** - INSTALL PERIMETER SILT FENCE, TEMPORARY SEDIMENT BASIN AND CONSTRUCTION EXIT PRIOR TO REMOVING EXISTING PAVEMENT THROUGHOUT SITE AND PRIOR TO STRIPPING TOPSOIL. UPON REMOVAL OF PAVEMENT, ESTABLISH DIVERSIONS TO TEMPORARY SEDIMENT BASIN.

**INTERMEDIATE PHASE** - INSTALLATION OF MAIN STORM SEWER LINE AND INSTALLATION OF INLET SEDIMENT TRAPS. MONITOR PREVIOUSLY INSTALLED PERIMETER SILT FENCE AND SEDIMENT BASIN. AFTER SEDIMENT TRAPS ARE INSTALLED AND FUNCTIONING, REMOVE SEDIMENT BASIN AND BEGIN BUILDING CONSTRUCTION.

**FINAL PHASE** - BUILDING CONSTRUCTION, INSTALLATION OF HARDSCAPES AND FINAL GRADING AND STABILIZATION. DISPOSITION OF ALL TEMPORARY SEDIMENT BMPS.

DESIGN PROFESSIONAL 7-DAY VISIT CERT.

DATE OF INSPECTION: .

I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE OF INSPECTION

MELISSA JOHNSON, PE CERTIFICATION #69256

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN:

THESE DISCREPANCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

30 INSPECTIONS (PERMITTEE REQUIREMENTS)

1. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
2. MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
3. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASSE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY, WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.A.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
4. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY, WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
5. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
6. A REPORT OF EACH INSPECTION AND THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATIVE TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5) OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY THE END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A CERTIFICATION THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

RECORDING AND RECORDS

- 30 32 1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:
- A. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
  - B. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
  - C. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
  - D. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
  - E. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;
  - F. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND
  - G. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2). OF THIS PERMIT.
2. COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION), OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.
3. OWNERS OR OPERATORS OR BOTH WHO INTEND TO OBTAIN COVERAGE UNDER THIS GENERAL PERMIT FOR STORM WATER DISCHARGES FROM A CONSTRUCTION SITE, SHALL SUBMIT A NOTICE OF INTENT (NOI) IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PART AT LEAST FOURTEEN (14) DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
4. NOIS ARE TO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO BOTH THE DISTRICT OFFICE OF THE EPD AND TO THE LOCAL ISSUING AUTHORITY.
5. WHERE AN OWNER OR AN OPERATOR OR BOTH CHANGES AFTER AN NOI HAS BEEN FILED, THE SUBSEQUENT OWNER OR OPERATOR OR BOTH MUST FILE A NEW NOI AT LEAST SEVEN (7) DAYS BEFORE BEGINNING OF WORK AT THE FACILITY/SITE.

STORMWATER MONITORING RATIONALE

- THE FOLLOWING FACTORS WERE CONSIDERED WHEN DETERMINING THE STORMWATER MONITORING POINT LOCATIONS:
- MONITORING POINTS CHOSEN WHERE MAJORITY OF SITE RUNOFF ENTERS CONVEYANCE LEAVING SITE AND AT LOCATION WITHIN RECEIVING CONVEYANCE JUST UPSTREAM OF WHERE THE MAJORITY OF SITE RUNOFF ENTERS THE CONVEYANCE. MONITORING POINT LOCATION ADJUSTED AS SHOWN ON PLAN AS CHANGES ARE MADE TO WHERE SITE RUNOFF ENTERS RECEIVING CONVEYANCE.

34 SAMPLING OF (OUTFALL/RECEIVING WATER)

- NUMBER OF OUTFALLS: 1
- APPENDIX B NTU VALUE: 75
- SURFACE WATER DRAINAGE AREA (SQ. MILES): 0.13

EROSION CONTROL & DRAINAGE NOTES

- 15 17 18 19 20 21 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-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
2. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
3. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
4. 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.
5. 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.
6. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
7. EROSION AND SILTATION CONTROL DEVICES MUST BE INSTALLED PRIOR TO START OF OTHER CONSTRUCTION AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
8. ANY FAILURE OF ANY EROSION CONTROL DEVICE TO FUNCTION AS INTENDED FOR ANY REASON SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
9. ALL DISTURBED AREAS ARE TO BE GRASSED AS SOON AS CONSTRUCTION PHASE PERMITS. TEMPORARY MULCHING SHALL BE UTILIZED DURING THE PERIOD OF GERMINATION OF GRASS SEEDINGS USING STRAW OR HAY MULCH, JUTE MATTING OR SYNTHETIC FIBERS.
10. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL CONFORM TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA AND ANY APPLICABLE LOCAL REGULATIONS.
11. EROSION CONTROL DEVICES WILL BE PROPERLY INSTALLED PRIOR TO SITE DISTURBANCE, MAINTAINED IN GOOD WORKING CONDITION UNTIL COMPLETION OF PROJECT, AND REPLACED WHEN EFFECTIVENESS IS REDUCED TO 50%.
12. ALL DISTURBED AREAS ARE TO BE STABILIZED WITH SUITABLE PERENNIAL VEGETATION, ACCORDING TO SOIL CONSERVATION SERVICE OR GEORGIA EXTENSION SERVICE SPECIFICATIONS, IMMEDIATELY FOLLOWING THE COMPLETION OF GRADING.
13. STRIPPING OF VEGETATION, GRADING OR OTHER DEVELOPMENT ACTIVITIES SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION.
14. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED.
15. ALL SEDIMENT COLLECTED DURING MAINTENANCE OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED FROM THE SITE OR SPREAD IN LANDSCAPED OR NATURALLY VEGETATED AREAS, SEEDED AND COVERED WITH STRAW.
16. DETENTION FACILITIES AND EROSION AND SILTATION CONTROL DEVICES MUST BE INSTALLED PRIOR TO START OF OTHER CONSTRUCTION AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. THE DEVICES SHALL BE MOVED AND ADJUSTED AS NEEDED TO KEEP A FUNCTIONING SYSTEM THROUGHOUT CONSTRUCTION. EROSION CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO CONSTRUCTION EXITS, SILT FENCE, STORM INLET/OUTLET PROTECTION, DIVERSION DIKE OR DOWNDRAINS ON LONG STEEP SLOPES AND TEMPORARY GRASSING.
17. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME.
18. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.
19. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.
20. SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.
21. SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 TEMPORARY SILT FENCE, OF THE GEORGIA STANDARD SPECIFICATIONS, 1993 EDITION AND BE WIRE REINFORCED.
22. THE PROPERTY OWNER AND CONTRACTOR ARE EQUALLY RESPONSIBLE FOR ALL EROSION CONTROL ACTIVITIES.
23. 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 TEMPORARY STABILIZED USING 2"-4" OF MULCH (D51). ADDITIONAL PLANTINGS WILL BE NECESSARY IF A SUFFICIENT STAND OF GRASS FAILS TO GROW.
24. THE CITY'S DESIGNEE WILL VERIFY ADEQUATE COVER (100% COVER, 70% DENSITY) OF PERMANENT STABILIZATION (D53, D54).
25. SEDIMENT STORAGE VOLUME @ 67 CY/ACRE MUST BE INSTALLED PRIOR TO ANY OTHER LAND DISTURBANCE ACTIVITY AND IN PLACE UNTIL FINAL STABILIZATION OCCURS.
26. ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C. OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX 1 LISTING ALL THE BMP'S THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT.



**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer: **MBC**

Technician:

Checked by: **MDJ**

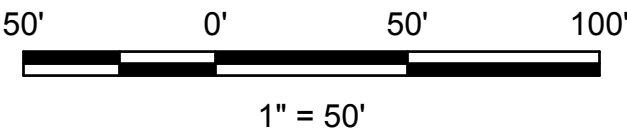
Project Number:  
**167728**



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SUITE 250 FAX 770.951.2496  
ATLANTA, GA 30339 www.longeng.com  
**LEI PROJECT #0452-0160**

Notes:



REVISIONS

No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**EROSION & SEDIMENT  
CONTROL NOTES**

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:

**08/06/2019**

Sheet Number:

4 of 20

Scale:

Drawing Number:

**C-0.3**



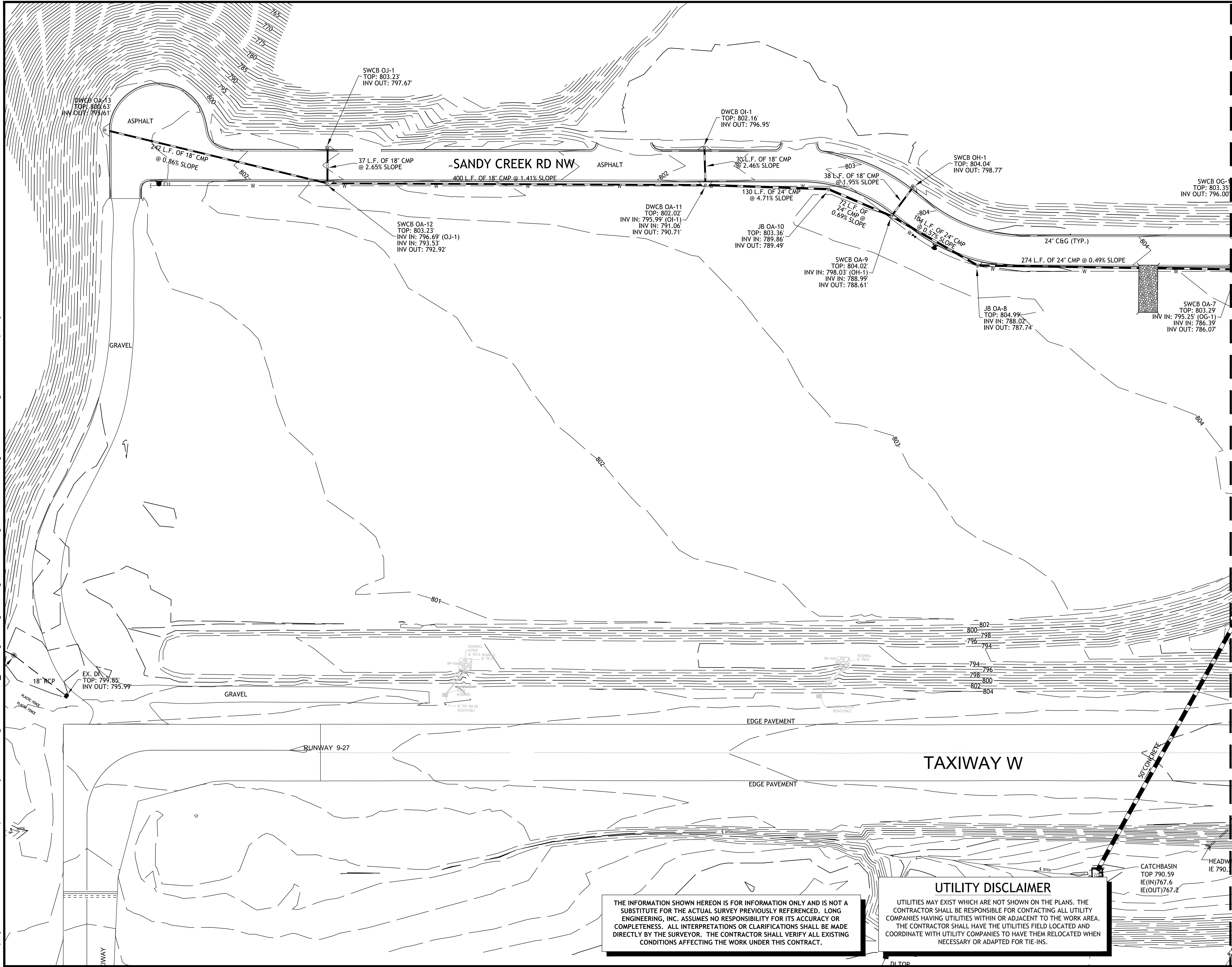
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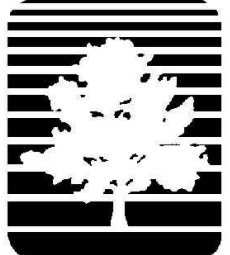
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**UTILITY DISCLAIMER**  
UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH UTILITY COMPANIES TO HAVE THEM RELOCATED WHEN NECESSARY OR ADAPTED FOR TIE-INS.



**FULTON COUNTY**

**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**


**Michael Baker  
INTERNATIONAL**

Designer: **MBC**

Technician:

Checked by: **MDJ**

Project Number: **167728**

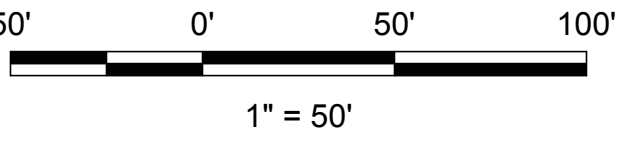
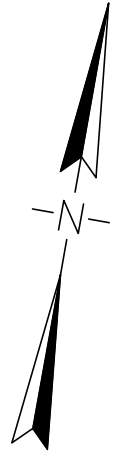


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**LEI PROJECT #0452-0160**

Notes:



REVISIONS			
No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**EXISTING CONDITIONS**

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date: **08/06/2019**

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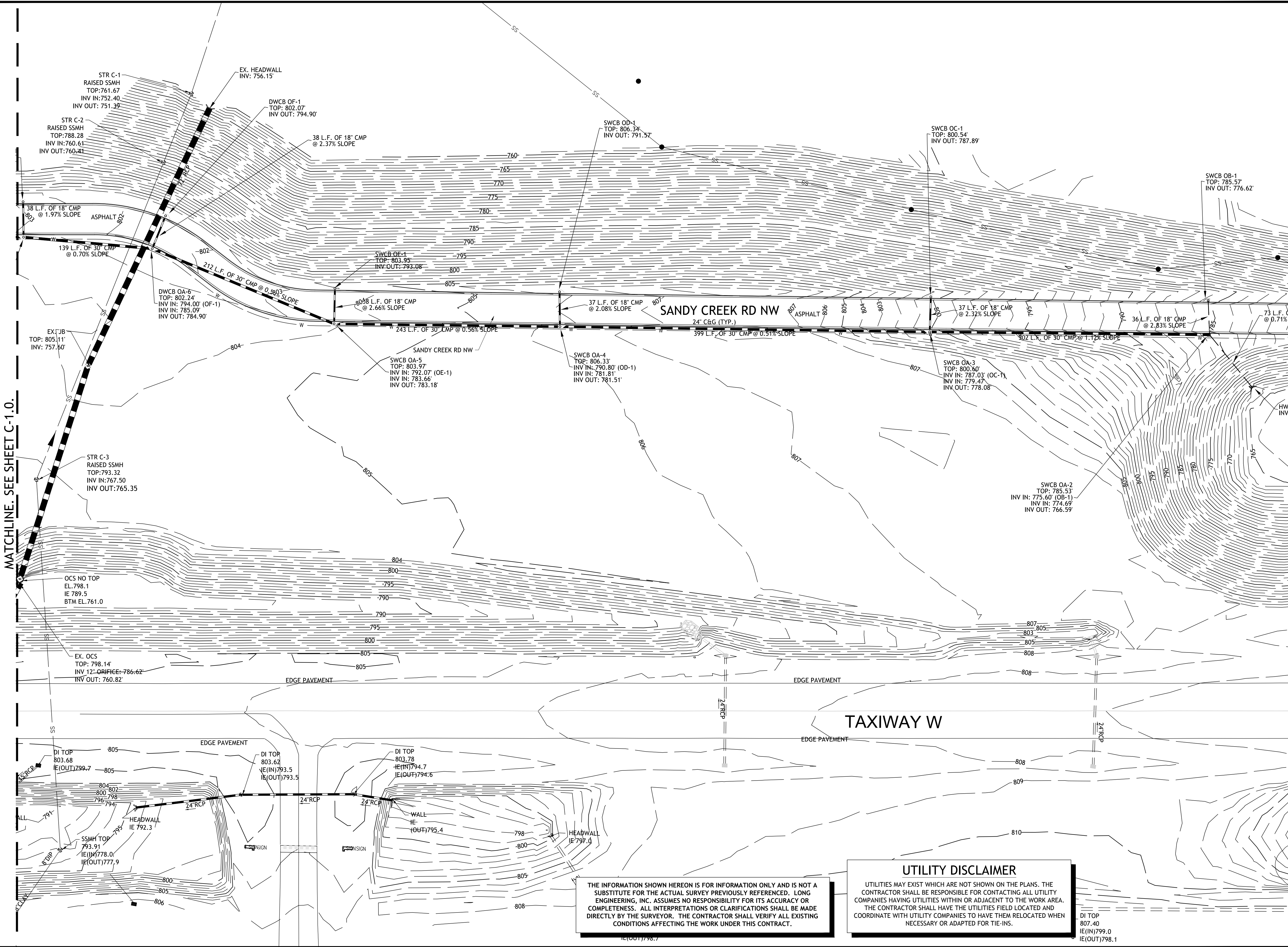
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#### UTILITY DISCLAIMER

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**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer:	<b>MBC</b>
Technician:	
Checked by:	<b>MDJ</b>
Project Number:	<b>167728</b>



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**LEI PROJECT #0452-0160**

Notes:



50' 0' 50' 100'  
1" = 50'

#### REVISIONS

No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**EXISTING CONDITIONS**

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date:  
**08/06/2019**

Scale:

**1"=50'**

Sheet Number:

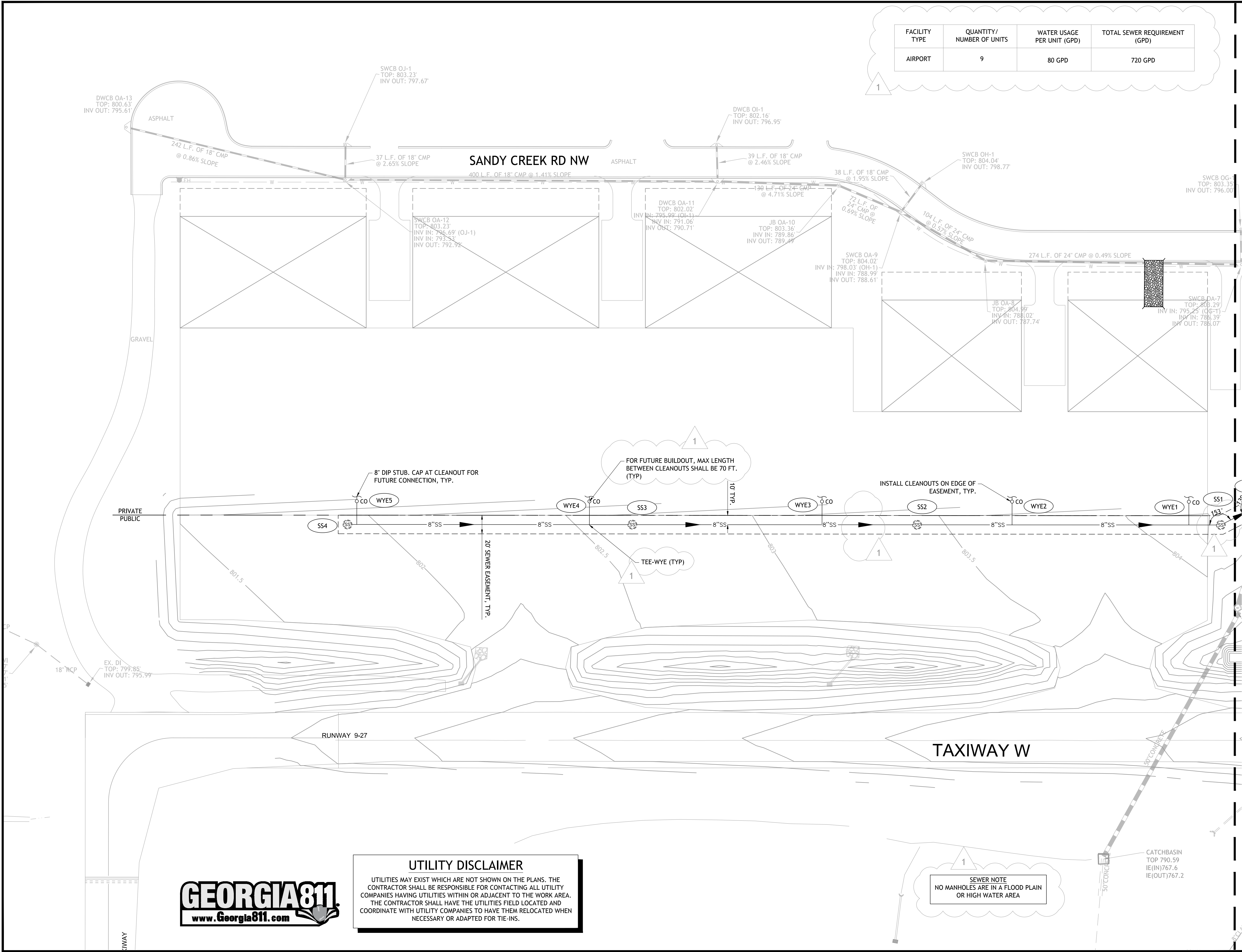
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Drawing Number:

**C-1.1**



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ATLANTA, GEORGIA

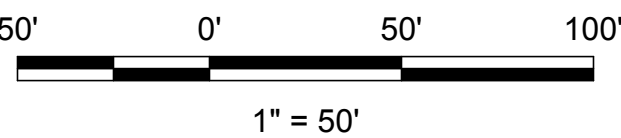
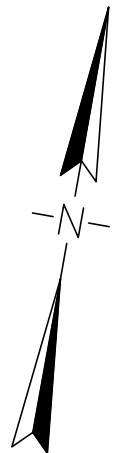
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INTERNATIONAL

Designer:	MBC	
Technician:		
Checked by:	MDJ	
Project Number:	167728	

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Notes:



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No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:  
**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

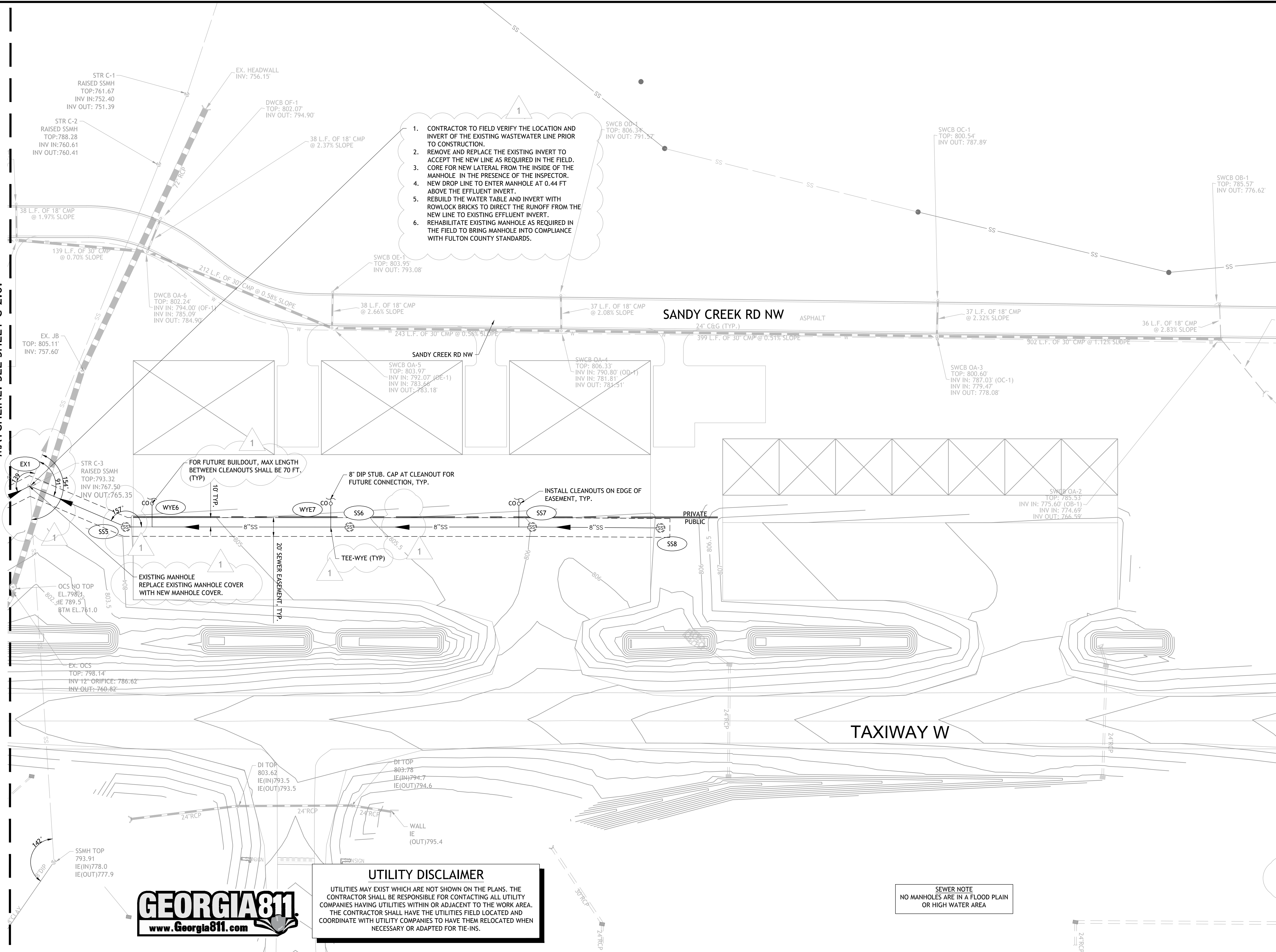
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FULTON COUNTY PROJECT NUMBER: <b>195-031</b>		
Date: <b>08/06/2019</b>	Sheet Number: 8 of 20	
Scale: <b>1"=50'</b>	Drawing Number: <b>C-2.0</b>	



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Designer: **MBC**

Technician:

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Project Number: **167728**



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Notes:



50' 0' 50' 100'  
1" = 50'

REVISIONS

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1	REVISION SET	7/24/19	MC

Project Name:

SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT

Drawing Name:

UTILITY PLAN

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date:  
**08/06/2019**

Scale:

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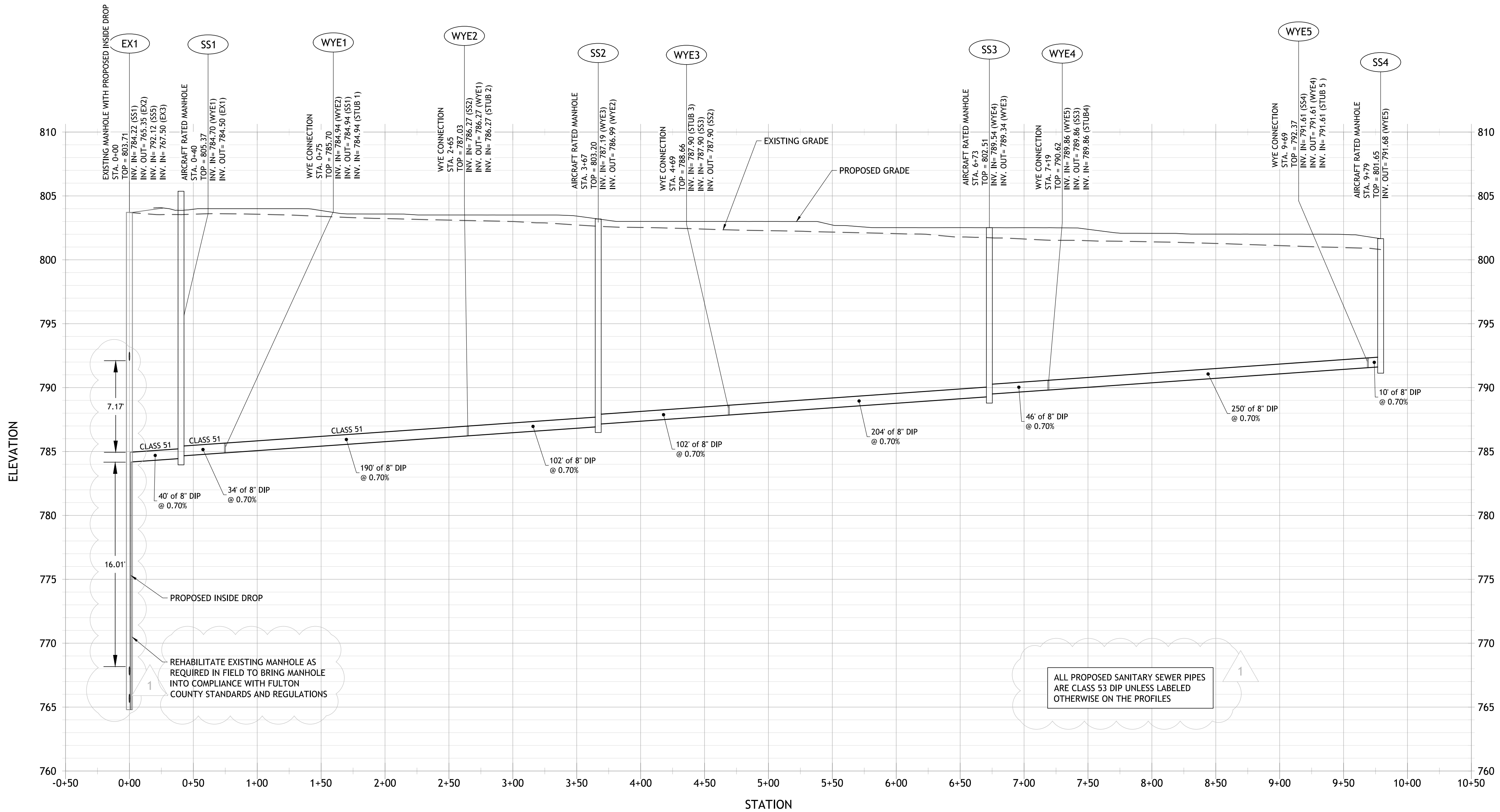
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SANITARY SEWER EX1-SS4  
SCALE: 1" = 50'H, 1" = 5'V



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BROWN FIELD  
ATLANTA, GEORGIA

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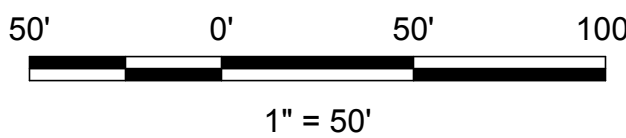
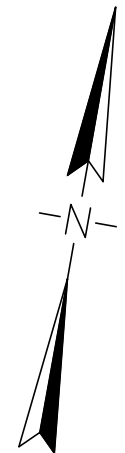
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Project Name:

SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT

Drawing Name:

PROFILES

FULTON COUNTY PROJECT NUMBER:

195-031

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08/06/2019

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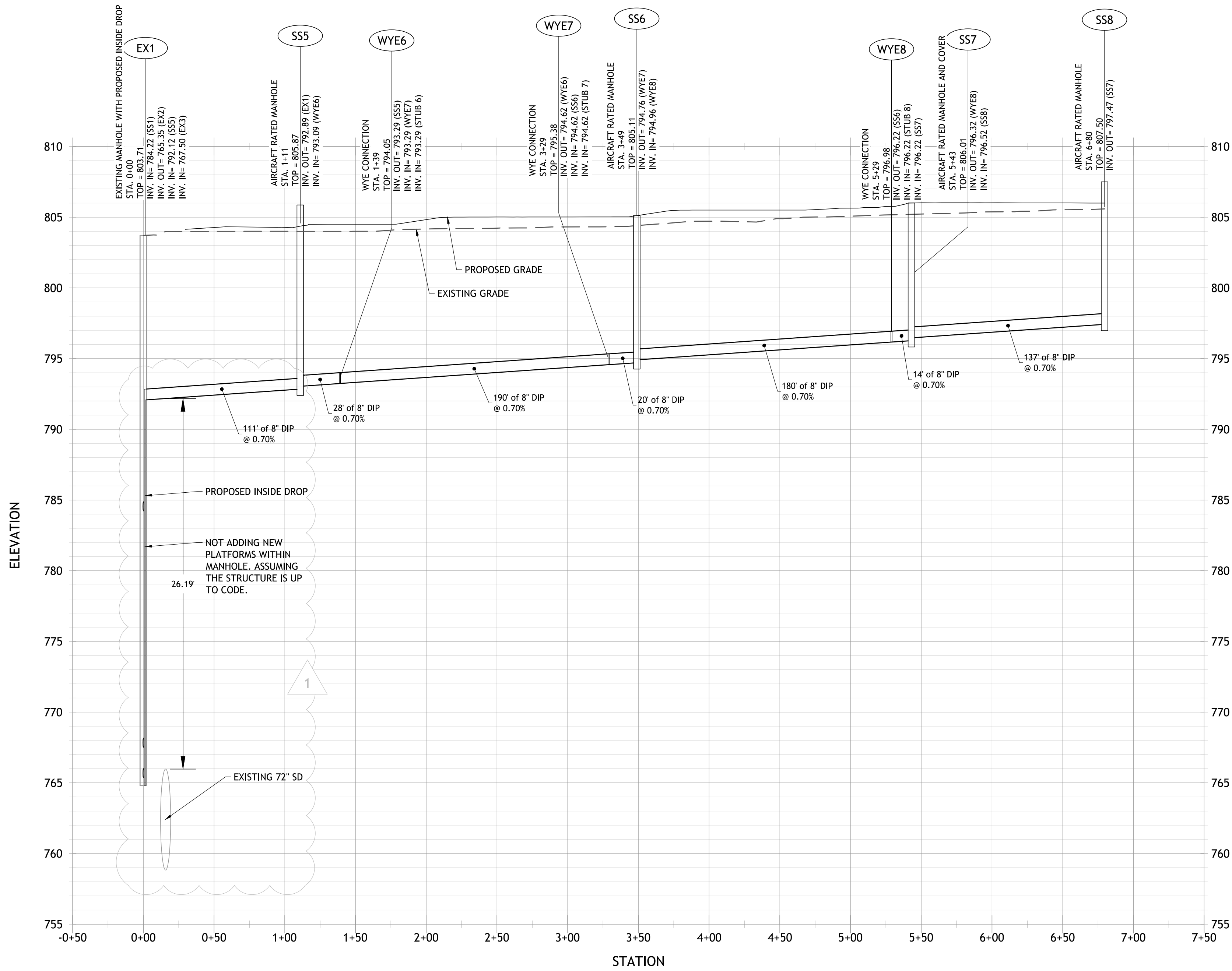
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C-3.0



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SANITARY SEWER EX1-SS8  
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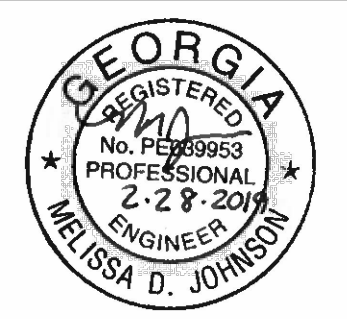
SEWER INSTALLATION NOTE  
A PROFESSIONAL ENGINEER SHALL  
BE ON SITE DURING CONSTRUCTION  
TO CERTIFY THE BEDDING AND  
COMPACTED FILL AS ACCORDING TO  
DIPRA INSTALLATION REQUIREMENTS



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BROWN FIELD  
ATLANTA, GEORGIA

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Designer:	MBC
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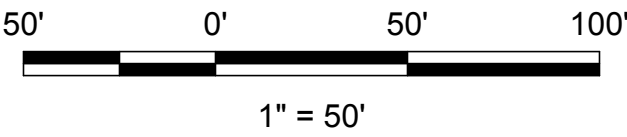
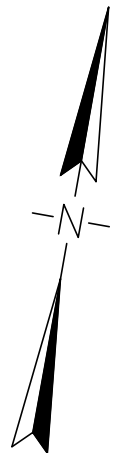


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Project Name:

SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT

Drawing Name:

PROFILES

FULTON COUNTY PROJECT NUMBER:  
195-031

Date:  
08/06/2019

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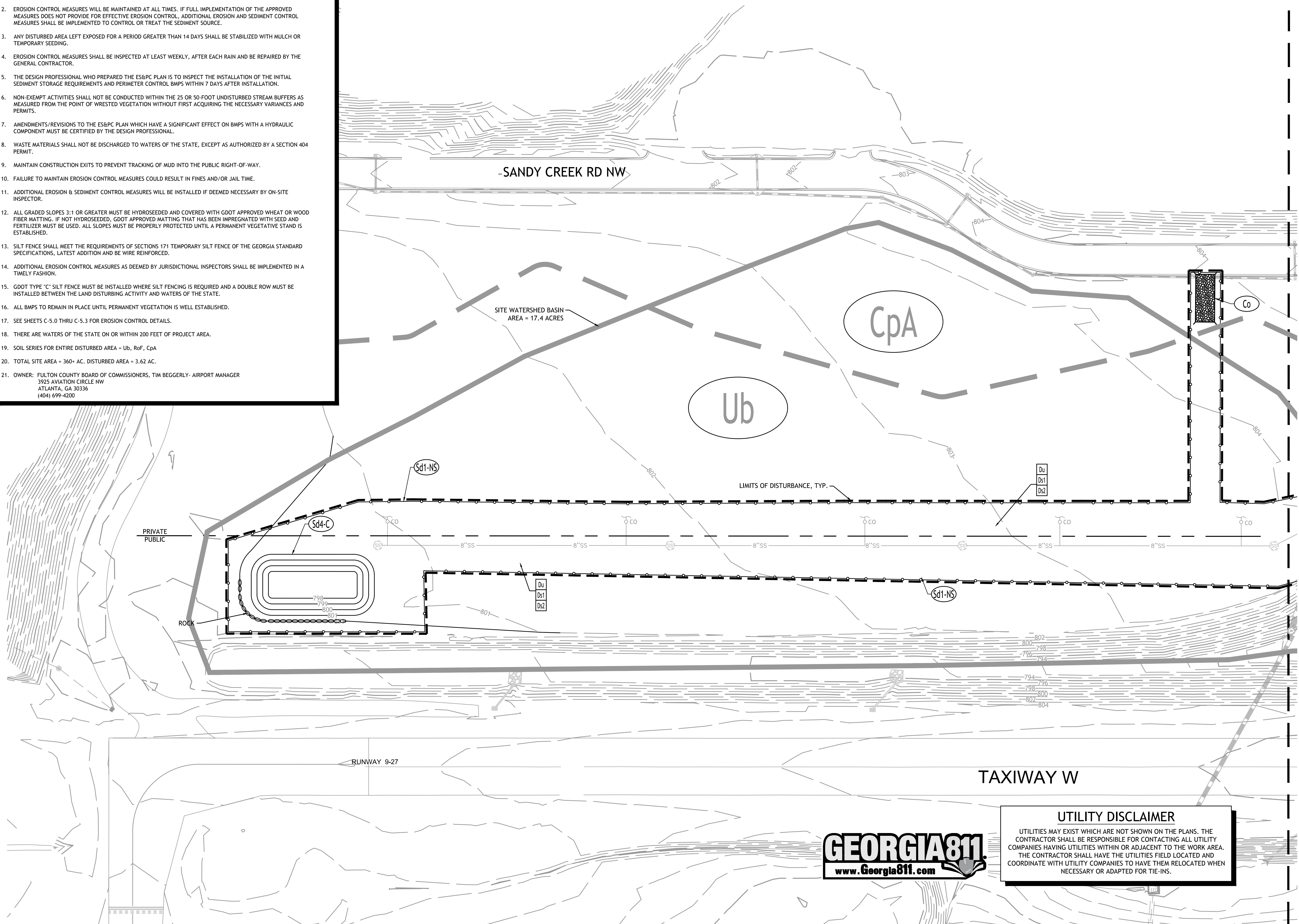
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Drawing Number:


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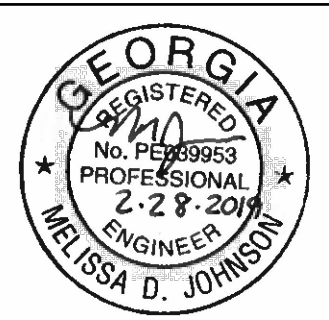


1. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
2. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED MEASURES DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
3. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
4. EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN AND BE REPAIRED BY THE GENERAL CONTRACTOR.
5. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION.
6. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
7. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
8. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
9. MAINTAIN CONSTRUCTION EXITS TO PREVENT TRACKING OF MUD INTO THE PUBLIC RIGHT-OF-WAY.
10. FAILURE TO MAINTAIN EROSION CONTROL MEASURES COULD RESULT IN FINES AND/OR JAIL TIME.
11. ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTOR.
12. ALL GRADED SLOPES 3:1 OR GREATER MUST BE HYDROSEEDED AND COVERED WITH GDOT APPROVED WHEAT OR WOOD FIBER MATTING. IF NOT HYDROSEEDED, GDOT APPROVED MATTING THAT HAS BEEN IMPREGNATED WITH SEED AND FERTILIZER MUST BE USED. ALL SLOPES MUST BE PROPERLY PROTECTED UNTIL A PERMANENT VEGETATIVE STAND IS ESTABLISHED.
13. SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTIONS 171 TEMPORARY SILT FENCE OF THE GEORGIA STANDARD SPECIFICATIONS, LATEST ADDITION AND BE WIRE REINFORCED.
14. ADDITIONAL EROSION CONTROL MEASURES AS DEEMED BY JURISDICTIONAL INSPECTORS SHALL BE IMPLEMENTED IN A TIMELY FASHION.
15. GDOT TYPE "C" SILT FENCE MUST BE INSTALLED WHERE SILT FENCING IS REQUIRED AND A DOUBLE ROW MUST BE INSTALLED BETWEEN THE LAND DISTURBING ACTIVITY AND WATERS OF THE STATE.
16. ALL BMPs TO REMAIN IN PLACE UNTIL PERMANENT VEGETATION IS WELL ESTABLISHED.
17. SEE SHEETS C-5.0 THRU C-5.3 FOR EROSION CONTROL DETAILS.
18. THERE ARE WATERS OF THE STATE ON OR WITHIN 200 FEET OF PROJECT AREA.
19. SOIL SERIES FOR ENTIRE DISTURBED AREA = Ub, RoF, CpA
20. TOTAL SITE AREA = 360+ A.C. DISTURBED AREA = 3.62 AC.
21. OWNER: FULTON COUNTY BOARD OF COMMISSIONERS, TIM BEGGERLY- AIRPORT MANAGER  
3925 AVIATION CIRCL NW  
ATLANTA, GA 30336  
(404) 699-4200



**Michael Baker**  
**INTERNATIONAL**

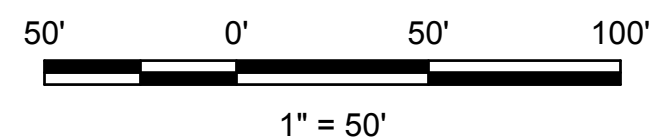
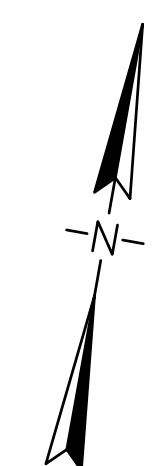
Designer:	<b>MBC</b>	
Technician:		
Checked by:	<b>MDJ</b>	
Project Number:	<b>167728</b>	



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**LEI PROJECT #0452-0160**

Notes:



## REVISIONS

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Project Name:

# SANDY CREEK ROAD SANITARY SEWER IMPROVEMENTS PROJECT

Drawing Name

## EROSION & SEDIMENT CONTROL PLAN - INITIAL & INTERMEDIATE PHASES

FULTON COUNTY PROJECT NUMBER:  
**195-031**

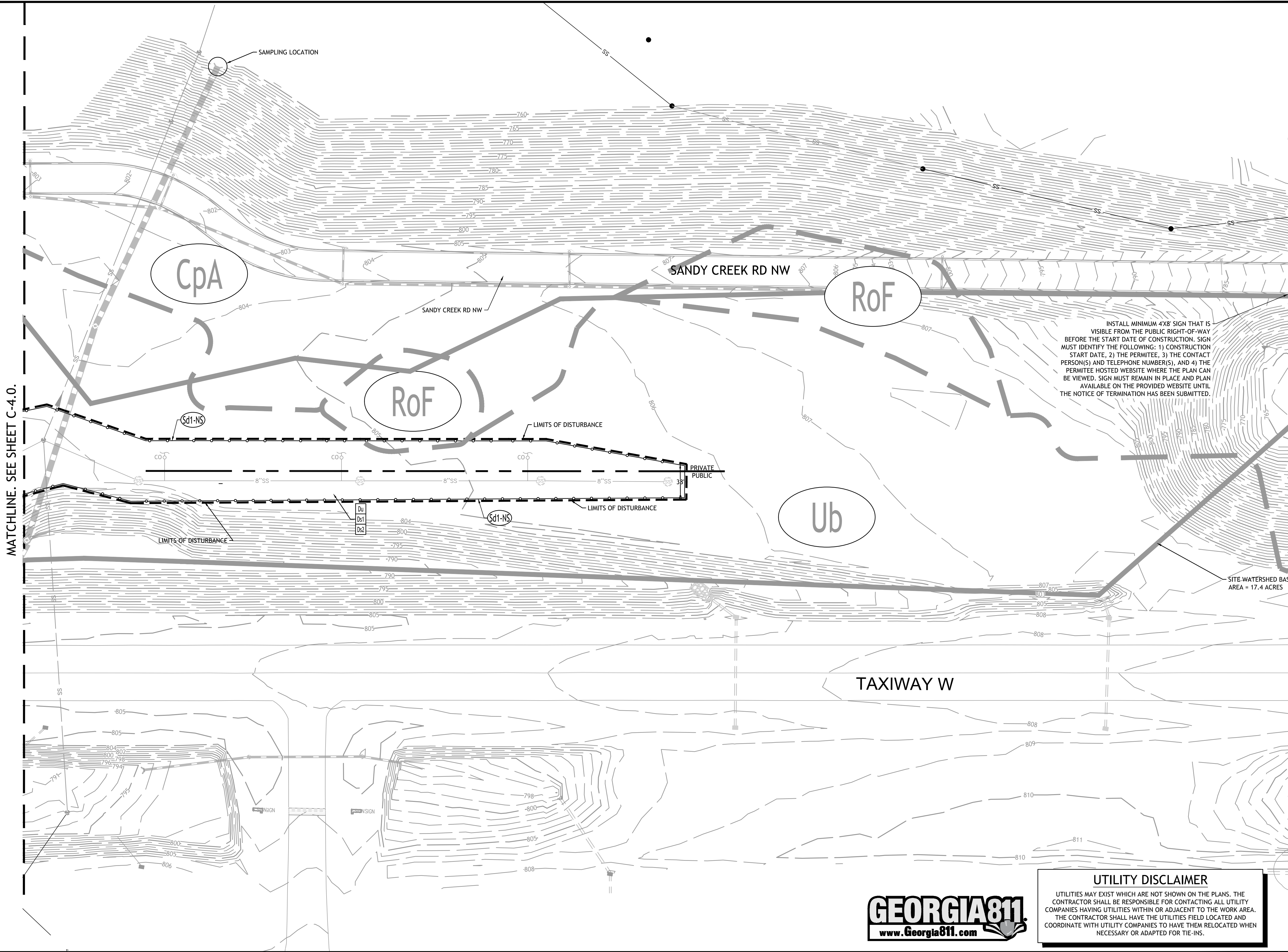
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08/06/2019	12 of 20

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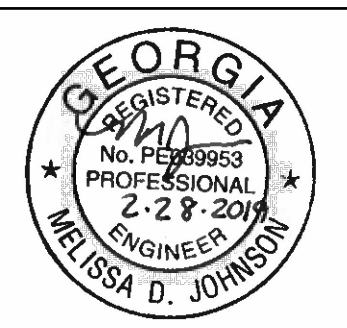
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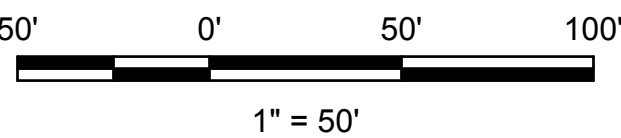
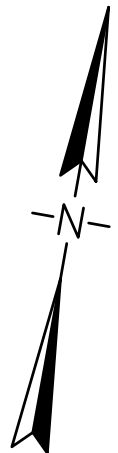
Designer:	MBC
Technician:	
Checked by:	MDJ
Project Number:	167728



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1	REVISION SET	7/24/19	MC

Project Name:

SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT

Drawing Name:

EROSION & SEDIMENT  
CONTROL PLAN - INITIAL &  
INTERMEDIATE PHASES

FULTON COUNTY PROJECT NUMBER:

195-031

Date:  
08/06/2019

Scale:

1"=50'

Sheet Number:

13 of 20

Drawing Number:

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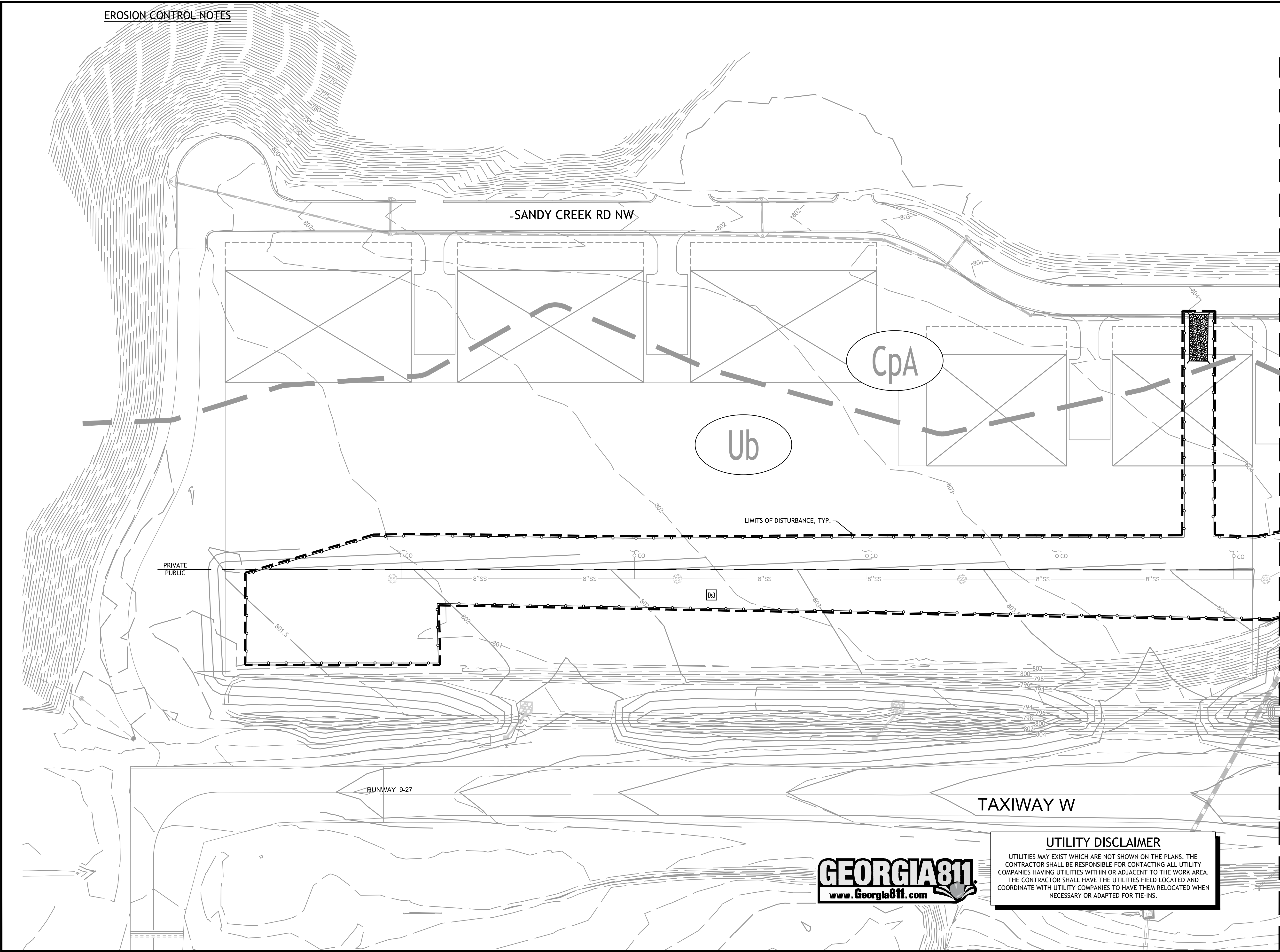
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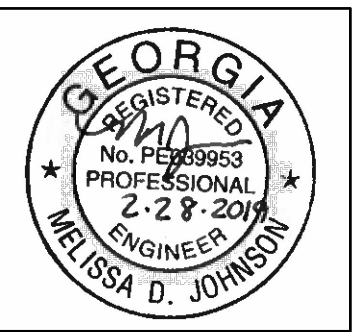
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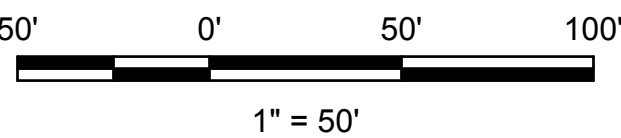
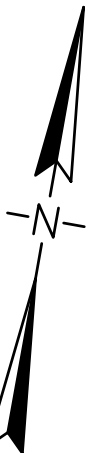
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1	REVISION SET	7/24/19	MC

Project Name:  
**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:  
**EROSION & SEDIMENT  
CONTROL PLAN - FINAL PHASE**

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date: <b>08/06/2019</b>	Sheet Number: 14 of 20
Scale: <b>1"=50'</b>	Drawing Number: <b>C-4.2</b>

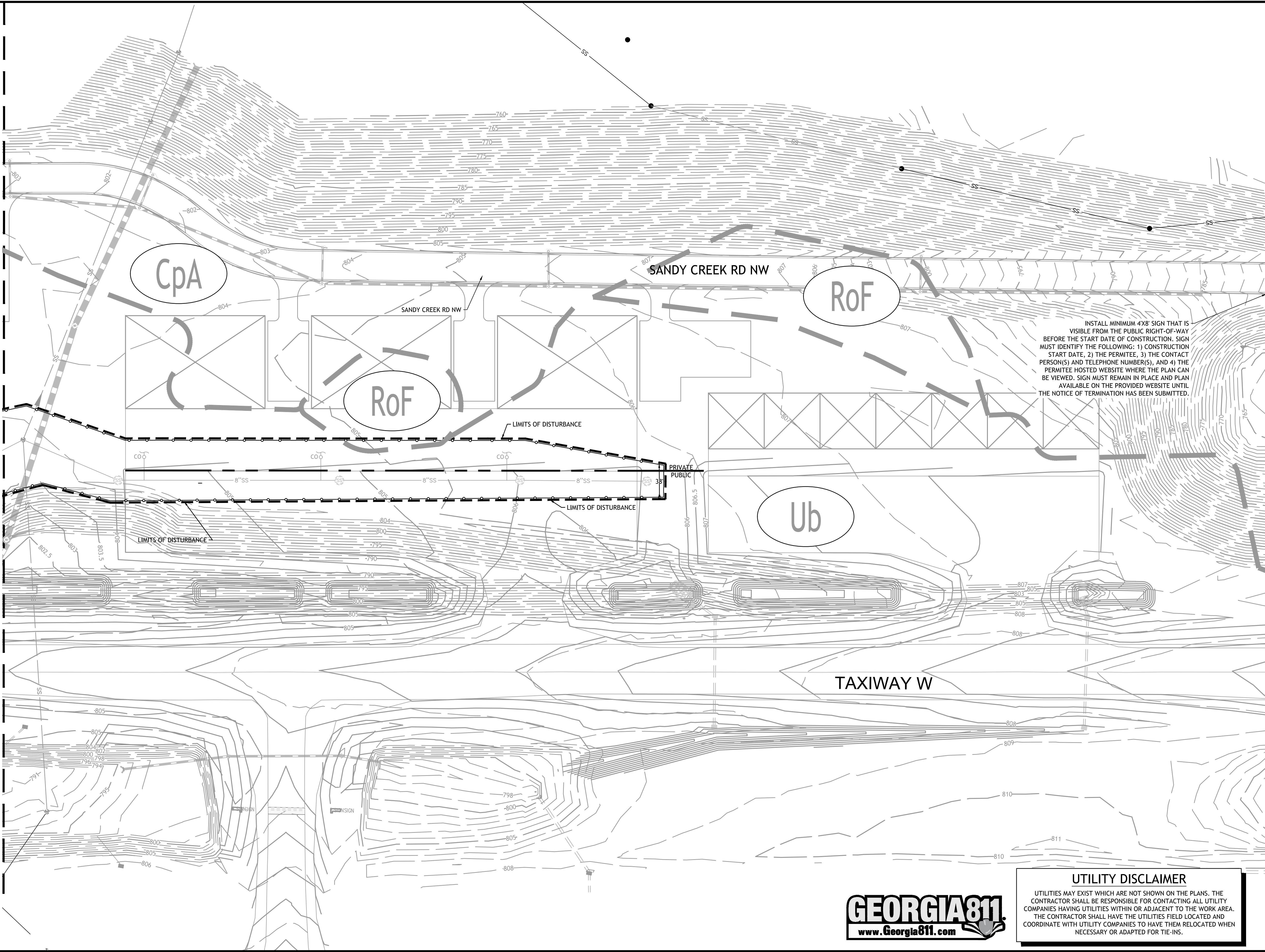


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MATCHLINE. SEE SHEET C-4.3.



INSTALL MINIMUM 4'X8' SIGN THAT IS VISIBLE FROM THE PUBLIC RIGHT-OF-WAY BEFORE THE START DATE OF CONSTRUCTION. SIGN MUST IDENTIFY THE FOLLOWING: 1) CONSTRUCTION START DATE, 2) THE PERMITEE, 3) THE CONTACT PERSON(S) AND TELEPHONE NUMBER(S), AND 4) THE PERMITEE HOSTED WEBSITE WHERE THE PLAN CAN BE VIEWED. SIGN MUST REMAIN IN PLACE AND PLAN AVAILABLE ON THE PROVIDED WEBSITE UNTIL THE NOTICE OF TERMINATION HAS BEEN SUBMITTED.



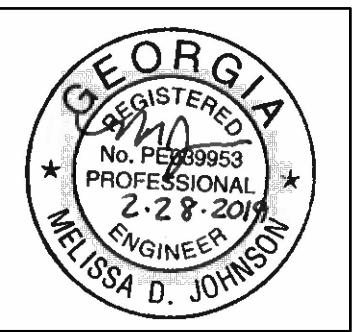
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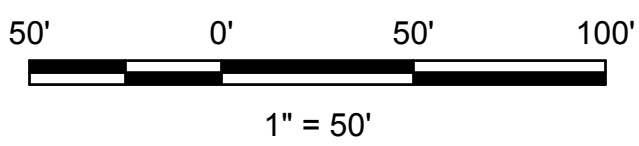
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Notes:



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No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:  
**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:  
**EROSION & SEDIMENT  
CONTROL PLAN - FINAL**

FULTON COUNTY PROJECT NUMBER:  
**195-031**  
Date: **08/06/2019** Sheet Number: 15 of 20  
Scale: **1"=50'** Drawing Number: **C-4.3**



### Disturbed Area Stabilization (With Temporary Seeding)



#### DEFINITION

The establishment of temporary vegetative cover with fast growing seedlings for seasonal protection on disturbed or denuded areas.

#### PURPOSE

- To reduce runoff and sediment damage of down stream resources
- To protect the soil surface from erosion
- To improve wildlife habitat
- To improve aesthetics
- To improve tilth, infiltration and aeration as well as organic matter for permanent plantings

#### REQUIREMENT FOR REGULATORY COMPLIANCE

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. If an area is expected to be undisturbed for longer than six months, permanent perennial vegetation shall be used. If optimum planting conditions for temporary grassing is lacking, mulch can be used as a singular erosion control device for up to six months but it shall be applied at the appropriate depth, anchored, and have a continuous 90% cover or greater of the soil surface. Refer to specification **Ds1-Disturbed Area Stabilization (With Temporary Seeding)**.

#### CONDITIONS

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. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWCD for more information.

#### 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 hand-seeding, 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 determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application. Soils must be tested to determine required amounts of fertilizer and amendments. Fertilizer should be applied before land preparation and incorporated with a disk, ripper, or chisel. On slopes too steep for, or inaccessible to equipment, fertilizer shall be hydraulically applied, preferably in the first pass with seed and some hydraulic mulch, then topped with the remaining required application rate.

#### 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, culti-packer-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or culti-packer 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. See Table 6-4.1

#### Mulching

Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. 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.

### Disturbed Area Stabilization (With Mulching Only)



#### DEFINITION

Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

#### PURPOSE

•To reduce runoff and erosion

•To conserve moisture

•To prevent surface compaction or crusting

•To control undesirable vegetation

•To modify soil temperature

•To increase biological activity in the soil

#### REQUIREMENT FOR REGULATORY COMPLIANCE

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 any area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed. Refer to **Ds2-Ds-**

### turbed Area Stabilization (With Temporary Seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding).

#### SPECIFICATIONS

##### Mulching Without Seeding

This standard applies to graded or cleared areas where seedlings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

##### Site Preparation

1. Grade to permit the use of equipment for applying and anchoring mulch.

2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.

3. Loosen compact soil to a minimum depth of 3 inches.

##### Mulching Materials

Select one of the following materials and apply at the depth indicated:

1. 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.
2. 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.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

##### Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment.

#### NOTES:

1. APPLY TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE.

2. IF DISTURBED AREAS ARE TO BE LEFT UNDISTURBED FOR LESS THAN 6 MONTHS USE TEMPORARY GRASSING, OTHERWISE USE PERMANENT GRASSING.

3. SOIL TO RECEIVE GRASSING IS TO BE SCARIFIED TO PROVIDE A PLACE FOR THE SEED TO LODGE AND GERMINATE.

4. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE.

5. FOR LOW FERTILITY SOILS, APPLY 500-700 LBS. OF 10-10-10 FERTILIZER PER ACRE. APPLY BEFORE LAND PREPARATION AND INCORPORATE WITH A DISK, RIPPER OR CHISEL.

6. APPLY SEED BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER-SEEDER OR HYDRAULIC SEEDER. RAKE SOIL LIGHTLY TO COVER SEED WHEN APPLIED BY HAND.

7. PROVIDE WATER AS REQUIRED TO GERMINATE AND MAINTAIN A HEALTHY, THICK COVER OF GRASS.

#### MAINTENANCE REQUIREMENTS:

INSPECT ALL AREAS WHERE TEMPORARY GRASSING HAS BEEN APPLIED. WHERE COVER IS SPARSE, SCARIFY THE AREA, TEST SOIL FERTILITY, APPLY FERTILIZER AS NECESSARY AND RESEED. WHERE EROSION HAS OCCURRED, REGRADE PRIOR TO ABOVE STEPS.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
(Cd)	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
(Ch)	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
(Co)	CONSTRUCTION EXIT			A crushed stone pad located at the construction exit to provide a place for removing mud from tires thereby protecting public streets.
(Cr)	CONSTRUCTION ROAD STABILIZATION			A travelway constructed as part of a construction plan including access roads, sub-division roads, parking areas and other on-site vehicle transportation routes.
(Dc)	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
(Di)	DIVERSION			An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.
(Dn1)	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. Temporary, and inexpensive.
(Dn2)	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, sectional conduit, pipe or similar material designed to safely conduct surface runoff down a slope.
(Fr)	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
(Ga)	GABION			Rock filter baskets which are hand-placed into position forming soil protecting structures.
(Gr)	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect natural or artificial channels or watersheds where otherwise the slope would be sufficient for the running water to form gullies.
(Lv)	LEVEL SPREADER			A structure to convert concentrated flow of waters into less erosive sheet flow. This should be constructed only on undisturbed soils.
(Rd)	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
(Re)	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
(Rt)	RETROFITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
(Sd1)	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, gravel or a sediment fence.
(Sd2)	SEDIMENT TRAP TEMPORARY			An impounding area created by excavating around a storm drain inlet. The excavated area will be filled and stabilized on completion of construction activities.
(Sd3)	SEDIMENT BASIN, TEMPORARY			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
(Sd4)	SEDIMENT TRAP, TEMPORARY			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
(Sk)	FLOATING SURFACE SKIMMER			A buoyant device that releases/ drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.

### GEORGIA UNIFORM CODING SYSTEM FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

FOR TEMPORARY PROTECTION OF CRITICAL AREAS WITHOUT SEEDING. THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHICH MAY BE SUBJECT TO EROSION FOR 6 MONTHS OR LESS. WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT WHICH CAN BE STABILIZED WITH A MULCH COVER.		
MATERIALS	RATE	APPLICATION
DRY STRAW OR HAY	2"-4" DEEP	APPLY UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT. ANCHOR HAY DISK HARROW OR PACKER DISK OR WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1) AT A RATE OF 100 GAL. PER 100 GAL. OF WATER FOR EACH TON OF MULCH
WOOD WASTE, CHIPS, SAWDUST OR BARK	2" TO 3" THICK	ANCHOR WITH NETTING OF THE APPROPRIATE SIZE. OPENINGS IN THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS
EROSION CONTROL MATTING OR NETTING	APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS	APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS
CUTBACK ASPHALT (SLOW CURING)	1200 GALLONS PER ACRE, OR 1/2 GALLON PER SQUARE YARD	APPLY UNIFORMLY
POLYETHYLENE FILM	SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL	ANCHOR TRENCH AT THE TOP OF SLOPE AS WELL AS INCREMENTALLY AS NECESSARY

MAINTENANCE REQUIREMENTS:  
INSPECT ALL MULCHED AREAS ON A DAILY BASIS AND AFTER EACH RAINFALL EVENT, REGRADE ERODED AREAS AND REMULCH AREAS IN WHICH THE COVER IS NO LONGER GREATER THAN 90% CONTINUOUS.

### Ds1 TEMPORARY MULCHING

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS AND SPECIFICATIONS.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
(Spb)	STEP BERM			A linear control device constructed as a diversion perpendicular to the direction of the runoff to enhance dissipation and infiltration of runoff, while creating multiple sedimentation chambers with the employment of intermediate dikes.
(Sr)	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
(St)	STORMDRAIN INLET/OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
(Su)	SURFACE ROUGHING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
(Tc)	TURBIDITY CURTAIN			A floating or stacked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
(Tp)	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
(Tr)	TREE PROTECTION			To protect desirable trees from injury during construction activity.
(Wt)	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes, or similar structures.

#### VEGETATIVE MEASURES

(Bf)	BUFFER ZONE		(Bf)	An undisturbed natural "green belt" separating the land-disturbing site from surrounding property and bordering streams. It serves to reduce water velocity and remove silt sediment. It is also a noise or vision pollution barrier.
(Cs)	COASTAL DUNE STABILIZATION		(Cs)	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished, retarding cover.
(Ds1)	DISTURBED AREA STABILIZATION (w/MULCHING ONLY)		(Ds1)	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion.
(Ds2)	DISTURBED AREA STABILIZATION (w/TEMPORARY SEEDING)		(Ds2)	Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
(Ds3)	DISTURBED AREA STABILIZATION (w/PERMANENT SEEDING)		(Ds3)	Establishing permanent vegetative cover such as trees, shrubs, vines, soil, grasses or legumes on disturbed areas.
(Ds4)	DISTURBED AREA STABILIZATION (WITH SODDING)		(Ds4)	A permanent vegetative cover using sods or highly erodible or critically eroded lands.
(Du)	DUST CONTROL ON DISTURBED AREAS		(Du)	Controlling surface and air movement of dust during construction site, roadways and similar sites.
(Fl-Co)	FLOCCULANTS AND COAGULANTS		(Fl-Co)	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
(Sb)	STREAMBANK STABILIZATION (WITH PERMANENT VEGETATION)		(Sb)	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
(Ss)	SLOPE STABILIZATION		(Ss)	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
(Tac)	TACKIFIERS AND BINDERS		(Tac)	Substance used to anchor straw or hay mulch by causing the organic material to bind together.



## Michael Baker INTERNATIONAL

Designer: **MBC**

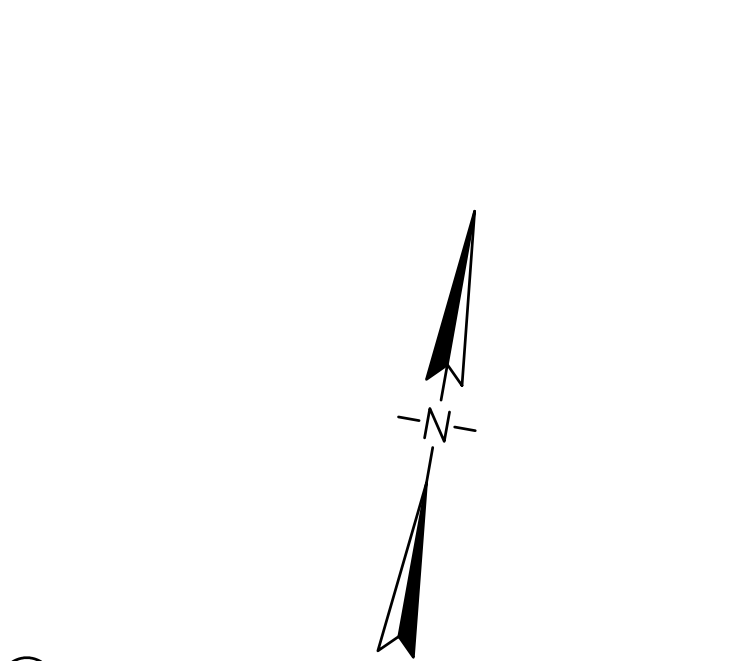
Technician: **MDJ**

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Project Number: **167728**

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Notes:



50' 0' 50' 100'  
1" = 50'

REVISIONS			
No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

### SANDY CREEK ROAD SANITARY SEWER IMPROVEMENTS PROJECT

Drawing Name:

### EROSION & SEDIMENT CONTROL DETAILS

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date: **08/06/2019**

Scale:

Sheet Number: 16 of 20

Drawing Number:

**C-5.0**



### Disturbed Area Stabilization (With Permanent Vegetation)

Ds3



#### 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.

#### PURPOSE

- To protect the soil surface from erosion
- To reduce damage from sediment and runoff to down-stream areas
- To improve wildlife habitat and visual resources
- To improve aesthetics

#### REQUIREMENT FOR REGULATORY COMPLIANCE

This practice shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice or sodding shall be applied immediately to all areas at final grade. **Final Stabilization** means that all soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by the GA EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures.

Permanent vegetation shall consist of, planted trees, shrubs, perennial vines; or a crop of perennial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall be achieved. Final stabilization applies to each phase of construction. For linear construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by stabilizing the disturbed land for its agricultural or silvicultural use. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures and temporary erosion and sedimentation control measures shall not be removed.

#### CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

#### PLANNING CONSIDERATIONS

1. Use conventional planting methods where possible.
2. When mixed plantings are done during marginal planting periods, companion crops shall be used.
3. No-till planting is effective when planting is done following a summer or winter annual cover crop. *Sericea lespedeza* planted no-till into stands of rye is an excellent procedure.
4. Block sod provides immediate cover. It is especially effective in controlling erosion adjacent to concrete flumes and other structures. Refer to Specification **Ds4-Disturbed Area Stabilization (With Sodding)**.
5. Irrigation should be used when the soil is dry or when summer plantings are done.
6. Low maintenance plants, as well as natives, should be used to ensure long-lasting erosion control.
7. Mowing should not be performed during the quail nesting season (May to September).
8. Wildlife plantings should be included in critical area plantings.

#### Wildlife Plantings

Commercially available plants beneficial to wildlife species include the following:

##### Mast Bearing Trees

Beech, Black Cherry, Blackgum, Chestnut, Chinkapin, Hackberry, Hickory, Honey Locust, Native Oak, Persimmon, Sawtooth Oak and Sweetgum.

All trees that produce nuts or fruits are favored by many game species. Hickory provides nuts used mainly by squirrels and bear.

##### Shrubs and Small Trees

Bayberry, Bicolor Lespedeza, Crabapple, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Native Holly, Red Cedar, Red Mulberry, Sumac, Wax Myrtle, Wild Plum and Blackberry.

Plant in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlife, except for *lespedeza* which produces seeds used by quail and songbirds.

##### Grasses, Legumes, Vines and Temporary Cover

Bahiagrass, Bermudagrass, Grass-Legume mixtures, Partridge Pea, Annual Lespedeza, Orchardgrass (for mountains), Browntop Millet (for temporary cover), and Native grapes.

Provides herbaceous cover in clearings for a game bird brood-rearing habitat. Appropriate legumes such as vetches, clovers, and *lespedeza*s may be mixed with grass, but they may die out after a few years.

#### CONSTRUCTION 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.

#### Lime and Fertilizer Rates and Analysis

Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate otherwise. Graded areas require lime application. If lime is applied within six months of planting permanent perennial vegetation, additional lime is not required. Agricultural lime shall be within the specifications of the Georgia Department of Agriculture.

Lime spread by conventional equipment shall be "ground limestone." Ground limestone is calcitic or dolomitic limestone ground so that 90 percent of the material will pass through a 10-mesh sieve, not less than 50 percent will pass through a 50-mesh sieve and not less than 25 percent will pass through a 100-mesh sieve.

Fast-acting lime spread by hydraulic seeding equipment should be "finely ground limestone" spanning from the 180 micron size to the 5 micron size. Finely ground limestone is calcitic or dolomitic limestone ground so that 95 percent of the material will pass through a 100-mesh sieve.

It is desirable to use dolomitic limestone in the Sand Hills, Southern Coastal Plain and Atlantic Coast Flatwoods MLRAs. (See Figure 6-4.1)

Agricultural lime is generally not required where only trees are planted.

Initial fertilization, nitrogen, topdressing, and maintenance fertilizer requirements for each species or combination of species are listed in Table 6-5.1.

#### Lime and Fertilizer Application

When hydraulic seeding equipment is used, the initial fertilizer shall be mixed with seed.

Inoculant (if needed), and wood cellulose or wood pulp fiber mulch and applied in a slurry. The inoculant, if needed, shall be mixed with the seed prior to being placed into the hydraulic seeder. The slurry mixture will be agitated during application to keep the ingredients thoroughly mixed. The mixture will be spread uniformly over the area within one hour after being placed in the

hydroseeder.

Finely ground limestone can be applied in the mulch slurry or in combination with the top dressing.

When *conventional planting* is to be done, lime and fertilizer shall be applied uniformly in one of the following ways:

1. Apply before land preparation so that it will be mixed with the soil during seedbed preparation.
2. Mix with the soil used to fill the holes, distribute in furrows.
3. Broadcast after steep surfaces are scarified, pitted or trenched.
4. A fertilizer pellet shall be placed at root depth in the closing hole beside each pine tree seeding.

#### Plant Selection

Refer to Tables 6-4.1, 6-5.2, 6-5.3 and 6-5.4 for approved species. Species not listed shall be approved by the State Resource Conservationist of the Natural Resources Conservation Service before they are used.

Plants shall be selected on the basis of species characteristics, site and soil conditions, planned use and maintenance of the area, time of year of planting, method of planting; and the needs and desires of the land user.

Some perennials species are easily established and can be planted alone. Examples of these are Common Bermuda, Tall Fescue, and Weeping Lovegrass.

Other perennials, such as Bahia Grass and *Sericea lespedeza*, are slow to become established and should be planted with another perennial species. The additional species will provide quick cover and ample soil protection until the target perennial species become established. For example, Common seeding combinations are 1) Weeping Lovegrass with *Sericea lespedeza* (scarified) and 2) Tall Fescue with *Sericea lespedeza* (unscarified).

Plant selection may also include annual companion crops. Annual companion crops should be used only when the perennial species are not planted during their optimum planting period. A common

mixture is Brown Top Millet with Common Bermuda in mid-summer. Care should be taken in selecting companion crop species and seeding rates because annual crops will compete with perennial species for water, nutrients, and growing space. A high seeding rate of the companion crop may prevent the establishment of perennial species.

**Ryegrass shall not be used in any seeding mixtures containing perennial species due to its ability to out-compete desired species chosen for permanent perennial cover.**

#### Seed Quality

The term "pure live seed" is used to express the quality of seed and is not shown on the label. Pure live seed, PLS, is expressed as a percentage of the seeds that are pure and will germinate. Information on percent germination and purity can be found on seed tags. PLS is determined by multiplying the percent of pure seed with the percent of germination; i.e.,

(PLS = % germination x % purity)

#### EXAMPLE:

Common Bermuda seed  
70% germination, 80% purity  
PLS = 70% germination x 80% purity  
PLS = 56%

The percent of PLS helps you determine the amount of seed you need. If the seeding rate is 10 pounds PLS and the bulk seed is 56 % PLS, the bulk seeding rate is:

10 lbs. PLS/acre = 17.9 lbs/acre  
56% PLS

You would need to plant 17.9 lbs/acre to provide 10 lbs/acre of pure live seed.

#### Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used (but is strongly recommended for any seeding process, when possible). When conventional seeding is to be used, seedbed preparation will be done as follows:

##### Broadcast plantings

1. Tillage, at a minimum, shall adequately

### Dust Control on Disturbed Areas

Du



#### DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

#### PURPOSE

- To prevent surface and air movement of dust from exposed soil surfaces.
- To reduce the presence of airborne substances which may be harmful or injurious to human health, welfare, or safety, or to animals or plant life.

#### CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

#### METHOD AND MATERIALS

##### A. Temporary Methods

**Mulches.** See standard **Ds1 - Disturbed Area Stabilization (With Mulching Only)**. Synthetic resins may be used instead of asphalt to bind mulch material. Refer to specification **Tac - Tackifiers**. Resins such as Curalcol or Terratac should be used according to manufacturer's recommendations.

**Vegetative Cover.** See specification **Ds2 - Disturbed Area Stabilization (With Temporary Seeding)**.

**Spray-on Adhesives.** These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification **Tac - Tackifiers**.

**Tillage.** This practice is designed to roughen

and bring clods to the surface. It is an emergency measure which should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

**Irrigation.** This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

**Barriers.** Solid board fences, snowfences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

**Calcium Chloride.** Apply at rate that will keep surface moist. May need retreatment.

##### B. Permanent Methods

**Permanent Vegetation.** See specification **Ds3 - Disturbed Area Stabilization (With Permanent Vegetation)**. Existing trees and large shrubs may afford valuable protection if left in place.

**Topsolling.** This entails covering the surface with less erosive soil material. See specification **Tp - Topsolling**.

**Stone.** Cover surface with crushed stone or coarse gravel. See specification **Cr-Construction Road Stabilization**.



**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer:

**MBC**

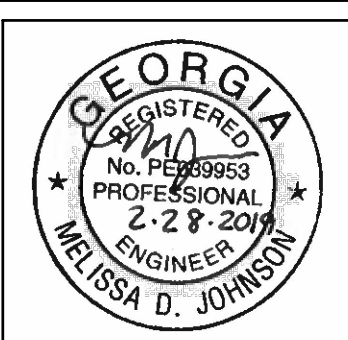
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Checked by:

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Project Number:

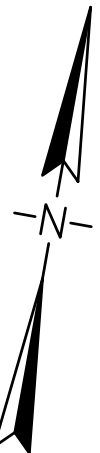
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**LEI PROJECT #0452-0160**

Notes:



50' 0' 50' 100'  
1" = 50'

#### REVISIONS

No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**EROSION & SEDIMENT  
CONTROL DETAILS**

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:

**08/06/2019**

Scale:

Sheet Number:

17 of 20

Drawing Number:

**C-5.1**

PG 1

PG 2

PG 3

PG 4

PG 5

PG 6



PLANTS, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER																			
SPECIES	BROADCAST		RESOURCE	PLANTING DATES												REMARKS			
	RATES 1/ - PLS 2/	PER 1000 S.F.		J	F	M	A	M	J	J	A	S	O	N	D				
BAHIA, PENSACOLA ( <i>Plaspium rotundum</i> ) ALONE OR W/ TEMPORARY COVER WITH OTHER PERENNIALS	60 LBS. OR 30 LBS.	1.4 LBS. OR 0.7 LBS.	P													166,000 SEED PER POUND, LOW GROWING, SOD FORMING, SLOW TO ESTABLISH. PLANT WITH A COMPANION CROP. WILL SPREAD INTO BERMUDA PASTURES AND LAWNS. MIX WITH SERICEA LESPEDEZA OR WEEPING LOVEGRASS.			
BAHIA, WILKINGTON ( <i>Plaspium rotundum</i> ) ALONE OR W/ TEMPORARY COVER WITH OTHER PERENNIALS	60 LBS. OR 30 LBS.	1.4 LBS. OR 0.7 LBS.	M-L P													166,000 SEED PER POUND, LOW GROWING, SOD FORMING, SLOW TO ESTABLISH. PLANT WITH A COMPANION CROP. WILL SPREAD INTO BERMUDA PASTURES AND LAWNS. MIX WITH SERICEA LESPEDEZA OR WEEPING LOVEGRASS.			
BERMUDA, COMMON ( <i>Cynodon dactylon</i> ) HULLED SEED ALONE WITH OTHER PERENNIALS	10 LBS. OR 6 LBS.	0.2 LBS. OR 0.1 LBS.	P C													1,787,000 SEED PER POUND, QUICK COVER, LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.			
BERMUDA, COMMON ( <i>Cynodon dactylon</i> ) UNHULLED SEED W/ TEMP COVER WITH OTHER PERENNIALS	10 LBS. OR 6 LBS.	0.2 LBS. OR 0.1 LBS.	P C													PLANT WITH WINTER ANNUALS. PLANT WITH TALL FESCUE.			
BERMUDA SPRIGS ( <i>Cynodon dactylon</i> ) COASTAL, COMMON, MIDLAND, OR TIFT 44 OR TIFT 78	40 C.F., 0.9 C.F. OR SOD PLUGS 3' x 3'		M-L P C C													A CLIMB FOOT CONTAINS APPROXIMATELY 450 SPRIGS. A BUSH CONTAINS 125 CLIMB FEET OR APPROXIMATELY 600 SPRIGS.  SAME AS ABOVE.  SOUTHERN COASTAL PLAIN ONLY.			
CENTPEDEE ( <i>Eremochloa ophioides</i> ) BLOCK SOD ONLY			P C													DROUGHT TOLERANT. FULL SUN OR PARTIAL SHADE. EFFECTIVE SUICIDE TO ONIC, AND IN CONCENTRATED FLOW AREAS. IRRIGATION IS NEEDED UNTIL FULLY ESTABLISHED. DO NOT PLANT NEAR PASTURES. WINTERBURY AS FAR NORTH AS ATLANTA AND ATLANTA.			
CROWMEYCH ( <i>Coronilla vicia</i> ) WITH WINTER ANNUALS OR COOL SEASON GRASSES	15 LBS.	0.3 LBS.	M-L P													100,000 SEED PER POUND, DENSE GROWTH, ATTRACTIVE ROSE, PINK, AND WHITE BLOSSOMS SPRING TO LATE FALL. MIX W/ 30 LBS. OF TALL FESCUE OR 15 LBS. OF RYE. INOCULATE SEED WITH INOCULANT. USE FROM NORTH ATLANTA AND NORTHWARD.			
FESCUE, TALL ( <i>Festuca arundinacea</i> ) ALONE W/ OTHER PERENNIALS	50 LBS. OR 30 LBS.	1.1 LBS. OR 0.7 LBS.	M-L P													227,000 SEED PER POUND. USE ALONE ONLY ON BETTER SITES. NOT FOR DROUGHTY SOILS. MIX WITH PERENNIAL LESPEDEZA OR CROWNVETCH. APPLY TOPDRESSING IN SPRING FOLLOWING FALL PLANTING NOT FOR HEAVY USE AREAS OR ATHLETIC FIELDS.			
LESPEDEZA Ambro virgata ( <i>Lespedeza virgata</i> ) or Appaloosa ( <i>Lespedeza cuneata</i> [Dumort] G. Don)			M-L P C M-L P C													300,000 SEED PER POUND. HEIGHT OF GROWTH IS 18 TO 24 INCHES. ADVANTAGE IN URBAN AREAS. SPREADING TYPE GROWTH. NEW GROWTH HAS BROWN COLORATION. MIX W/ WEEPING LOVEGRASS, COMMON BERMUDA BAHIA, TALL FESCUE, OR WINTER ANNUALS. DO NOT MIX W/ SERICEA LESPEDEZA. SLOW TO DEVELOP SOLID STANDS. INOCULATE SEED W/ EL INOCULANT.			
SCARIFIED	60 LBS.	1.4 LBS.	M-L P C																
UNSCARIFIED	75 LBS.	1.7 LBS.	M-L P C																

SPECIES	BROADCAST		RESOURCE	PLANTING DATES												REMARKS			
	RATES 1/ - PLS 2/	PER 1000 S.F.		J	F	M	A	M	J	J	A	S	O	N	D				
LESPEDEZA, SERICEA ( <i>Lespedeza cuneata</i> ) SCARIFIED	40 LBS.	1.4 LBS.	M-L P C													350,000 SEED PER POUND. WIDELY ADAPTED. LOW MAINTENANCE. MIX WITH WEEPING LOVEGRASS, COMMON BERMUDA, BAHIA, OR TALL FESCUE. TAKES 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED. EXCELLENT ON ROADWAYS. INOCULATE SEED W/ EL INOCULANT.			
UNSCARIFIED	75 LBS.	1.7 LBS.	M-L P C													MIX WITH TALL FESCUE OR WINTER ANNUALS.			
SEED-BEARING HAY	3 TONS	138 LBS.	M-L P C													CUT WHEN SEED IS MATURE, BUT BEFORE IT SHATTERS. ADD TALL FESCUE OR WINTER ANNUALS.			
LESPEDEZA, SHRUB ( <i>Lespedeza bicolor</i> ) ( <i>Lespedeza thunbergii</i> )			M-L P C													PROVIDE WILDLIFE FOOD AND COVER.			
PLANTS	3' x 3'		M-L P C																
LOVEGRASS, WEEPING ( <i>Eragrostis curvula</i> )	4 LBS.	0.1 LBS.	M-L P C													1,500,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT. GROWS WELL WITH SERICEA LESPEDEZA ON ROADWAYS.			
ALONE	2 LBS.	0.05 LBS.	M-L P C																
MAINTENANCE ( <i>Panicum hemitomon</i> )																FOR VERY WET SITES, MAY CLOG CHANNELS. DIG SPRIGS FROM LOCAL SOURCES. USE ALONG RIVER BANKS AND SHOULDERLINES.			
SPRIGS	2' x 3' SPACING		ALL																
WITH OTHER PERENNIALS																			
PANICGRASS, ATLANTIC COASTAL ( <i>Panicum amenum</i> var. <i>amarum</i> )	20 LBS.	0.5 LBS.	P C													GROWS WELL ON COASTAL SAND DUNES, BORROW AREAS, AND GRAVEL PITS. PROVIDES WINTER COVER FOR WILDLIFE. MIX WITH SERICEA LESPEDEZA EXCEPT ON SAND DUNES.			
REED CANARY GRASS ( <i>Polaris arundinacea</i> )	50 LBS.	1.1 LBS.	M-L P													GROWS SIMILAR TO TALL FESCUE.			
ALONE	30 LBS.	0.7 LBS.	M-L P																
WITH OTHER PERENNIALS																			
SUNFLOWER, AZTEC MAXIMILLIAN ( <i>Helianthus maximiliani</i> )	10 LBS.	0.2 LBS.	M-L P C													227,000 SEED PER POUND. MIX WITH WEEPING LOVEGRASS OR OTHER LOW-GROWING GRASSES OR LEGUMES.			

SOLID LINES INDICATE OPTIMUM DATES. DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.

- 1/ REDUCE SEEDING RATES BY 50% WHEN DRILLED.  
2/ PLS IS AN ABBREVIATION FOR PURE LIVE SEED. REFER TO SECTION V.E. OF THESE SPECIFICATIONS.  
3/ M-L REPRESENTS THE MOUNTAIN BLUE RIDGE, AND RIDGES AND VALLEYS M-LB'S  
P REPRESENTS THE SOUTHERN PIEDMONT M-LB'S  
C REPRESENTS THE SOUTHERN COASTAL PLAIN; SAND HILLS; BLACK LANDS; AND ATLANTIC COAST FLATWOODS M-LB'S

SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 1/ 2/ - 30
COOL SEASON GRASSES AND LEGUMES		6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	0-50 lbs./ac. 1/ - -
GROUND COVERS		10-10-10 10-10-10 10-10-10	1300 lbs./ac. 3/ 1300 lbs./ac. 3/ 1100 lbs./ac.	- - -
PINE SEEDLINGS	FIRST	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	-
SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10 0-10-10	700 lbs./ac. 700 lbs./ac. 4/	- -
TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 800 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 2/ 6/ 50-100 lbs./ac. 2/ 30 lbs./ac.
WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50 lbs./ac. 6/

- 1/ Apply in spring following seeding.  
2/ Apply in split applications when high rates are used.  
3/ Apply in 3 split applications.  
4/ Apply when plants are pruned.  
5/ Apply to grass species only.  
6/ Apply when plants grow to a height of 2 to 4 inches.

**MAINTENANCE REQUIREMENTS:**

PROVIDE PERIODIC INSPECTIONS AND AFTER EACH RAINFALL EVENT AND REGRASS AREAS  
THAT ARE BARE OR HAVE ERODED. EXCLUDE TRAFFIC ON GRASSSED AREAS UNTIL GRASS  
IS ESTABLISHED. MOW AS REQUIRED.

DS3

**PERMANENT GRASSING**

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT  
CONTROL IN GEORGIA" FOR FURTHER DETAILS AND  
SPECIFICATIONS.

**Construction Exit**



**DEFINITION**

A stone stabilized pad located at any point  
where traffic will be leaving a construction site  
to a public right-of-way, street, alley, sidewalk or  
parking area or any other area where there is a  
transition from bare soil to a paved area.

**PURPOSE**

To reduce or eliminate the transport of mud  
from the construction area onto public rights-of-  
way by motor vehicles or by runoff.

**CONDITIONS**

This practice is applied at appropriate points  
of construction egress. Geotextile underliners are  
required to stabilize and support the pad aggre-  
gates.

**DESIGN CRITERIA**

Formal design is not required. The following  
standards shall be used:

**Aggregate Size**

Stone will be in accordance with National  
Stone Association R-2 (1.5 to 3.5 inch stone).

**Pad Thickness**

The gravel pad shall have a minimum thickness  
of 6 inches.

**Pad Width**

At a minimum, the width should equal full  
width of all points of vehicular egress, but not  
less than 20 feet wide.

**Pad Length**

The gravel pad shall have a minimum length

of 50 feet. When the construction is less than 50'  
from the paved access, the length shall be from  
the edge of existing pavement to the permitted  
building being constructed.

**Washing**

If the action of the vehicle traveling over the  
gravel pad does not sufficiently remove the mud,  
the tires should be washed prior to entrance onto  
public rights-of-way. When washing is required, it  
shall be done on an area stabilized with crushed  
stone and provisions that intercept the sediment-  
laden runoff and direct it into an approved sedi-  
ment trap or sediment basin.

**Location**

The exit shall be located or protected to pre-  
vent sediment from leaving the site.

**CONSTRUCTION SPECIFICATIONS**

It is recommended that the egress area be  
excavated to a depth of 3 inches and be cleared  
of all vegetation and roots.

**Diversion Ridge**

On sites where the grade toward the paved  
area is greater than 2%, a diversion ridge 6 to 8  
inches high with 3:1 side slopes shall be con-  
structed across the foundation approximately 15  
feet above the road.

**Geotextile**

The geotextile underliner must be placed the  
full length and width of the entrance. Geotextile  
selection shall be based on AASHTO M288-98  
specification:

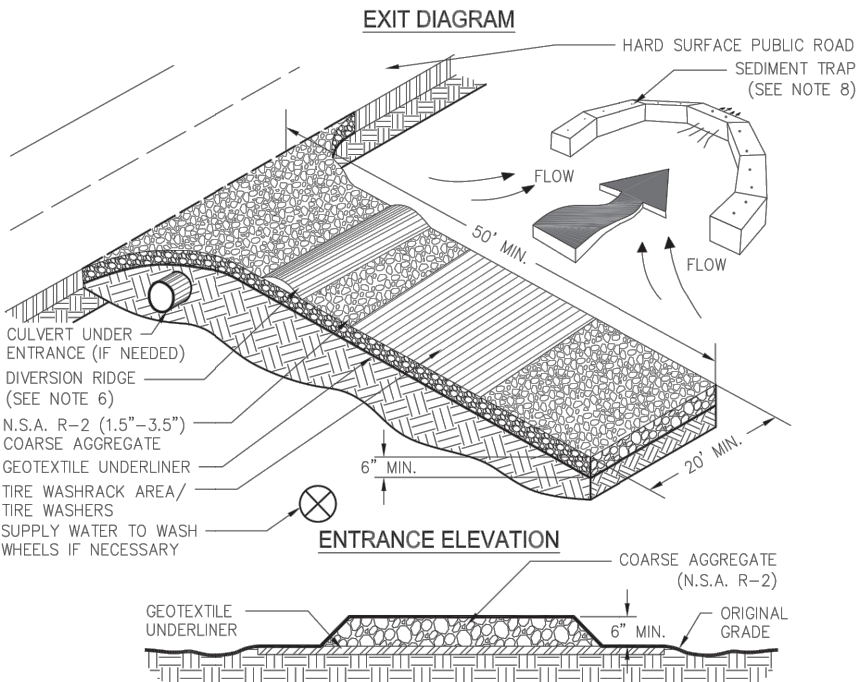
- For subgrades with a CBR greater than or  
equal to 3 or shear strength greater than  
90 kPa, geotextile must meet requirements  
of section AASHTO M288-96 Section 7.3,  
*Separation Requirements*.
- For subgrades with a CBR between 1 and 3  
or shear strength between 30 and 90 kPa,  
geotextile must meet requirements of section  
AASHTO M288-96 Section 7.4, *Stabilization  
Requirements*.

**MAINTENANCE**

The exit shall be maintained in a condition  
which will prevent tracking or flow of mud onto  
public rights-of-way. This may require periodic  
top dressing with 1.5-3.5 inch stone, as condi-  
tions demand, and repair and/or cleanup of any  
structures to trap sediment. All materials spilled,

dropped, washed, or tracked from vehicles or  
site onto roadways or into storm drains must be  
removed immediately.

**CRUSHED STONE CONSTRUCTION EXIT**



- NOTES:
- AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
  - REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND  
CROWN FOR POSITIVE DRAINAGE.
  - AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
  - GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
  - PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
  - A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
  - INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
  - WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT  
DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND  
DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
  - WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF  
NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT  
REMOVES MUD AND DIRT.
  - MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC  
RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANUP OF ANY MEASURES  
USED TO TRAP SEDIMENT.

Figure 6-14.1



**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer:

**MBC**

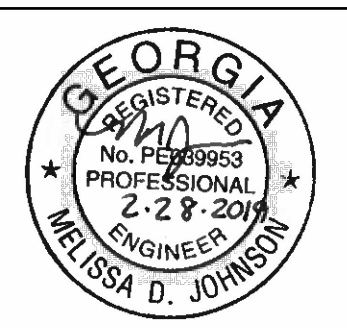
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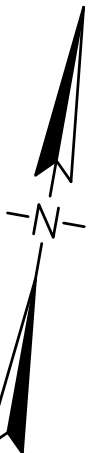
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Notes:



50' 0' 50' 100'  
1" = 50'

**REVISIONS**

No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**EROSION & SEDIMENT  
CONTROL DETAILS**

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:

**08/06/2019**

Scale:

Sheet Number:

18 of 20

Drawing Number:

**C-5.2**



### Sediment Barrier Sd1



**DEFINITION**  
Sediment Barriers are temporary structures made up of a porous material typically supported by steel or wood posts. Types of sediment barriers may include silt fence, brush piles, mulch berms, compost filter socks or other filtering material.

**PURPOSE**  
To minimize and prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways or storm drainage systems by slowing storm water runoff and causing the deposition and/or filtration of sediment at the structure. The barriers retain the soil on the disturbed land until the activities disturbing the land are completed and vegetation is established.

**CONDITIONS**  
Barriers should be installed where runoff can be stored behind the barrier without damaging the submerged area behind the barrier or the structure itself. Sediment barriers shall not be installed across streams, ditches, waterways, or other concentrated flow areas.

**DESIGN CRITERIA**  
Sediment barriers are designed to retain sediment transported by sheet flow from disturbed areas. It is important for the design professional to take into account the profile of the product for use on the site.

Sediment Barriers should also provide a riprap splash pad or other outlet protection device for any point where flow may overtop the sediment barrier. Ensure that the maximum height of the barrier at a protected, reinforced outlet does not exceed 1 foot and that the support spacing does not exceed 4 feet.

Where all runoff is to be stored behind the sediment barrier (where no storm water disposal system is present), maximum continuous slope length behind a sediment barrier shall not exceed those shown in Table 6-27.1. For longer slope lengths, slope interrupters must be used. The drainage area shall not exceed ¼ acre for every 100 feet of sediment barrier.

Table 6-27.1 Criteria for Sediment Barrier	
Land Slope	Maximum Slope Length Above Fence
Percent	Feet
< 2	100
2 to 5	75
5 to 10	50
10 to 20	25
>20*	15

\*In areas where the slope is greater than 20%, a flat area length of 10 feet between the toe of slope to the barrier should be provided.

**Placement**  
The type of sediment barrier depends on whether the area is sensitive or nonsensitive. Sensitive areas can be defined as any area that needs additional protection, these areas include but are not limited to, state waters, wetlands, or any area the design professional designates as sensitive.

When using multiple types of sediment barriers on a site in a single run, the barriers must be overlapped 18 inches or as specified by design professional. See Figure 6-27.5

#### CONSTRUCTION SPECIFICATIONS

##### Non-sensitive Areas \* Sd1-NS

Sediment barriers being used as Type NS shall have a support spacing of no greater than 6 feet on center, with each being driven into the ground a minimum of 18 inches.

##### Sensitive Areas\* Sd1-S

Sediment barriers being used as Type S shall have a support spacing of no greater than 4 feet on center, with each being driven into the ground a minimum of 18 inches.

\*As of January 1 2016, in the existing Georgia Department of Transportation Qualified Products list #36 (QPL- 36), Type A, B, or C will fall under sensitive and non-sensitive applications. **Type C will be classified as sensitive and Type A and B as non-sensitive.** Refer to Appendix A-2 and the Equivalent BMP List.

#### PRACTICE CLASSIFICATIONS

For silt fence Type A, B, or C, refer to Table 6-27.4.

**Type A Silt Fence**  
This 36-inch wide filter fabric shall be used on developments where the life of the project is great than or equal to six months. **Type A is classified as non-sensitive application.**

**Type B Silt Fence**  
Though only 22-inches wide, this filter fabric allows the same flow rate as Type A silt fence. Type B silt fence shall be limited to use on minor projects, such as residential home sites or small commercial developments where permanent stabilization will be achieved in less than six months. **Type B is classified as non-sensitive application.**

**Type C Silt Fence**  
Type C fence is 36-inches wide with wire reinforcement or equivalent. The wire reinforcement is necessary because this fabric allows almost three times the flow rate as Type A silt fence. Type C silt fence shall be used where runoff flows or velocities are particularly high or where slopes exceed a vertical height of 10 feet. **Type C is classified as sensitive application.**

**Filter Media Sock Specifications**  
Compost filter media used for sediment barrier filter material shall be weed free and derived from a well-decomposed source of organic matter. **Filter Media Sock is classified as a Type B, non-sensitive application.** The compost shall be produced using an aerobic composting

process meeting CFR 503 regulations including time and temperature data. The compost shall be free of any refuse, contaminants or other materials toxic to plant growth. Non-composted products will not be accepted without applicable water quality test results. Test methods for the items below should follow US Composting Council Test Methods for the Examination of Composting and Compost guidelines for laboratory procedures:

A. pH – 5.0-8.0 in accordance with TMECC 04.11-A, "Electrometric pH Determinations for Compost"

B. Particle size – 99% passing a 2 inch (50mm) sieve and a maximum of 40% passing a 3/8 inch (9.5mm) sieve, in accordance with TMECC 02.02-B, "Sample Sieving for Aggregate Size Classification". (Note: In the field, product commonly is between ½ in./12.5mm and 2 in./50 mm in particle size.)

C. Moisture content of less than 60% in accordance with standardized test methods for moisture determination.

D. Material shall be relatively free (<1% by dry weight) of inert or foreign manmade materials.

E. Sock containment system for compost filter media shall be a photodegradable or biodegradable knitted mesh material and should have 1/8 in. to 3/8 in. openings.

**Brush Barrier Sd1-BB**  
(Only during timber clearing operations)

Brush obtained from clearing and grubbing operations may be piled in a row along the perimeter of disturbance at the time of clearing and grubbing. Brush barriers should not be used in developed areas or locations where aesthetics are a concern.

Brush should be wind-rowed on the contour as nearly as possible and may require compaction. Construction equipment may be utilized to satisfy this requirement.

The minimum base width of the brush barrier shall be 5 feet and should be no wider 10 feet. The height of the brush barrier should be between 3 and 5 feet tall.

A brush barrier is a good tool to use in developing pasture in an agricultural situation to prevent sediment from leaving the site until the pasture is stabilized.

If greater filtering capacity is required, a commercially available sediment barrier may be placed on the side of the brush barrier receiving the sediment-laden runoff. The lower edge of the fabric must be buried in a 6-inch deep trench immediately uphill from the barrier. The upper edge must be stapled, tied or otherwise fastened to the brush barrier. Edges of adjacent fabric pieces must overlap each other. See Figure 6-27.5.

**Installation**  
Sediment barriers should be installed along the contour.

Temporary sediment barriers shall be installed according to the following specifications as shown on the plans or as directed by the design professional.

For installation of the barriers, See Figures 6-27.1, 6-27.2, 6-27.3 and 6-27.4, respectively. It is important to remember that not all sediment barriers need to be trenched into the ground but most taller sediment barriers do.

Post installation shall start at the center of a low point (if applicable) with the remaining posts spaced no greater than 6 feet apart for Type NS sediment barriers and no greater than 4 feet apart for Type C sediment barriers. For post size requirements, see Table 6-27.2. Fasteners for wood posts are listed in Table 6-27.3.

**Static Slicing Method**  
The static slicing machine pulls a narrow blade through the ground to create a silt 12" deep, and simultaneously inserts the silt fence fabric into this silt behind the blade. The blade is designed to slightly disrupt soil upward next to the silt and to minimize horizontal compaction, thereby creating an optimum condition for compacting the soil vertically on both sides of the fabric. Compaction is achieved by rolling a tractor wheel along both sides of the silt in the ground 2 to 4 times to achieve nearly the same or greater compaction as the original undisturbed

**TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN**  
**When a SEDIMENT BARRIER is used, show the product height in inches for each barrier being used on site.**

soil. This vertical compaction reduces the air spaces between soil particles, which minimizes infiltration. Without this compaction infiltration can saturate the soil, and water may find a pathway under the fence. When a silt fence is holding back several tons of accumulated water and sediment, it needs to be supported by posts that are driven 18 inches into the soil. Driving in the posts and attaching the fabric to them completes the installation.

**Trenching Method**  
Trenching machines have been used for over twenty-five years to dig a trench for burying part of the filter fabric underground. Usually the trench is about 2'-6" wide with a 6" excavation. Post setting and fabric installation often precede compaction, which make effective compaction more difficult to achieve. EPA supported an independent technology evaluation (ASCE 2001), which compared three progressively better variations of the trenching method with static slicing method. The static slicing method performed better than two lower performance levels of the trenching method, and was as good as or better than the trenching method's highest performance level. The best trenching method typically required nearly triple the time and effort to achieve results comparable to the static slicing method.

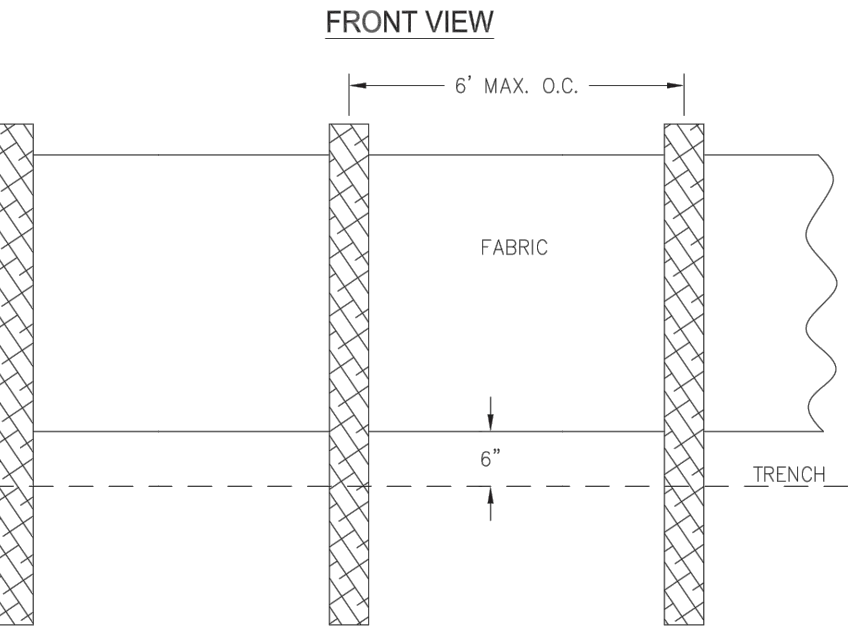
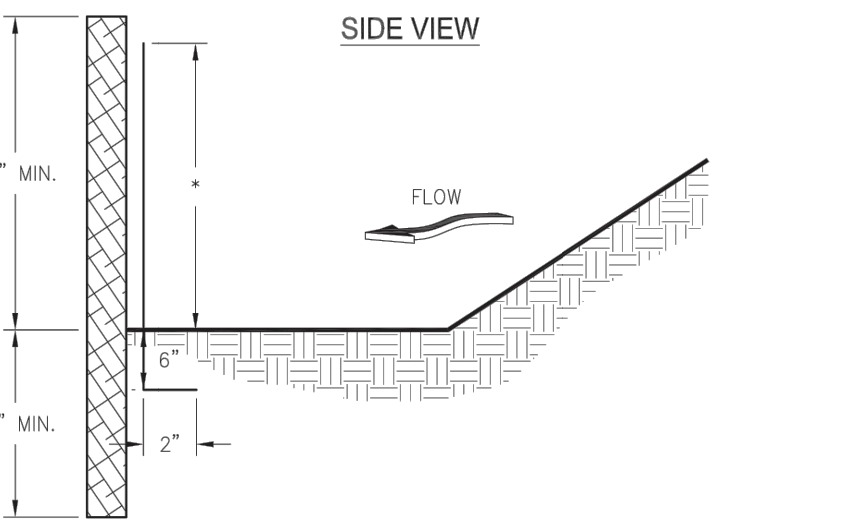
**Along all state waters and other sensitive areas, two rows of Type S sediment barriers shall be used. The two rows of Type S should be placed a minimum of 36 inches apart.**

**MAINTENANCE**  
Sediment shall be removed once it has accumulated to one-half the original height of the barrier.

Sediment barriers shall be replaced whenever they have deteriorated to such an extent that the effectiveness of the product is reduced (approximately six months) or the height of the product is not maintaining 80% of its properly installed height.

Temporary sediment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.

### SILT FENCE - TYPE A and B



- NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
  2. HEIGHT (\*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

Figure 6-27.1

### Temporary Sediment Trap Sd4



**DEFINITION**  
A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.

**PURPOSE**  
To collect and store sediment from uphill sites cleared and/or graded during construction. Intended for use on small tributary areas with no unusual drainage features. Effective against coarse sediment, but not against silt or clay particles that remain suspended.

**CONDITIONS**  
Temporary sediment traps are constructed early in the construction process at locations that will require minimal clearing and grading. Natural draws or swells are favorable locations that will require minimal clearing and grading. Temporary sediment traps shall never be placed in live streams.

**DESIGN CRITERIA**  
Design and construction shall comply with laws, ordinances, rules and regulations on the local, state and federal level.

The total drainage area of a temporary sediment trap is up to 5 acres, depending on type of construction.

The height of a temporary sediment trap embankment shall not exceed 5.5 feet as measured from the downstream toe of slope to the top of the berm. Top width of an embankment shall be

at least as wide as the height of the sediment trap embankment, with a minimum width of 3 feet.

Maximum pond depth of a sediment trap is 4 feet as measured from the bottom of the trap to the invert of the emergency spillway. Slopes shall not exceed 2:1 (H:V) for excavated areas and for compacted embankments. Side slopes should be (3:1) or flatter allowing people and equipment to safely negotiate slopes or to enter the sediment trap.

The length to width ratio must be greater than (2:1)(L:W) for the principal flowpaths in order to maximize residence time of stormwater within the sediment trap. Baffles may be required to prevent short-circuiting of the flow.

A typical baffle design uses 4'x8' sheets of exterior grade plywood 1/2 inch thick, mounted on 4"x4" hardwood posts.

**Volume**  
Minimum volume of a temporary sediment trap shall be 67 cubic yards per acre for the total drainage area. The volume shall be measured at an elevation equivalent to the spillway invert.

Volume of a temporary sediment trap in heavily disturbed areas should be 134 cubic yards per acre for the total drainage area. This includes an upper area with a minimum of 67 cubic yards per acre drained, which is dewatered using one of the outlet design methods provided, and a lower wet zone for sediment storage and settling.

The volume should be calculated from existing and proposed contours, or by measured cross sections. An approximate method for calculating the volume of traps using a natural draw is:

$V = 0.4 \times A \times D$   
V = Sediment storage volume (below invert of emergency spillway)  
A = Surface area (at level of emergency spillway)  
D = Maximum depth (from emergency spillway invert)

The cleanout volume for a temporary sediment trap is 1/3 of the total storage volume. Cleanout volume shall be calculated and marked with a stake at the outlet of the trap.

#### CONSTRUCTION SPECIFICATIONS

The basic design guidelines are applicable to the type of temporary sediment trap constructed. The main differences are with regards to the type of outlet structures. The following types of construction are acceptable under the designated conditions:

**Overflow (Sd4-A)**  
An overflow temporary sediment trap is limited to small areas less than 1 acre, typically with gentle slopes (1 or 2 percent) and without major grading operations. The maximum life span of an overflow trap is 6 months. If water enters the trap with very low velocities, the same amount of water will be slowly displaced and leave the other end of the sediment trap. Silt fence, straw bale barriers or grass filter strips are used to "polish" the overflow water as it leaves the sediment trap. See Figure 6-30.1

**Combination Straw Bale and Silt Fence Outlet (Sd4-B)**  
The combination outlet uses straw bales and silt fence to dewater the sediment trap. Proper installation and staking of the straw bales, and wire backing on the silt fence are required for the materials to resist 1 foot or more of ponded water. The combination straw bale and silt fence outlet is limited to 1 acre total drainage area, and has a life span of less than 1 year. This type of outlet requires frequent maintenance and adjustments to ensure the released stormwater is free from sediment. See Figure 6-30.2

**Rock Outlet (Sd4-C)**  
The rock outlet relies on filtering through layers of aggregate, rock or riprap material to dewater the sediment trap. It is the sturdiest of the sediment trap designs and generally requires less maintenance. It can be used for drainage areas up to 5 acres and has a life span of 1 year. See Figure 6-30.3

**Emergency Spillway**  
The emergency overflow outlet of a temporary sediment trap must be stabilized with rock, geotextile, vegetation, or another suitable material that is resistant to erosion. It must be installed to safely convey stormwater runoff for the 10-year storm event.

**REFERENCE:**  
City of Knoxville BMP Manual Best Management Practices, Knoxville, TN, May 2003

**APPENDIX 1 ITEM B: SEDIMENT STORAGE CALCULATION**  
**REQUIRED SEDIMENT STORAGE**  
3.62 ACRES X 134 CY/ACRE = **485.1 CY**  
**PROVIDED SEDIMENT STORAGE**  
STORAGE POND 1 = **559.5 CY**

### TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT

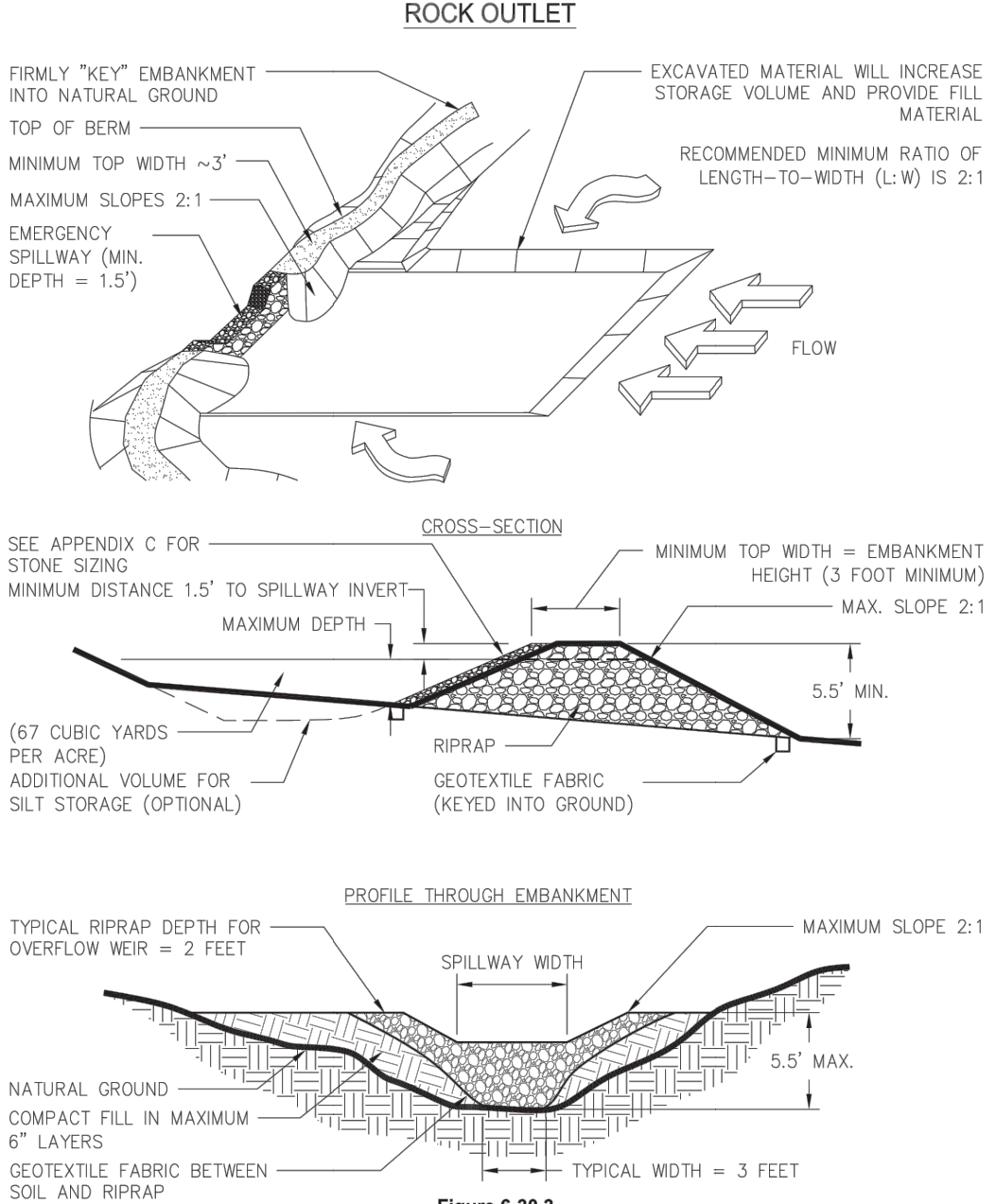


Figure 6-30.3



**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer: **MBC**

Technician:

Checked by: **MDJ**

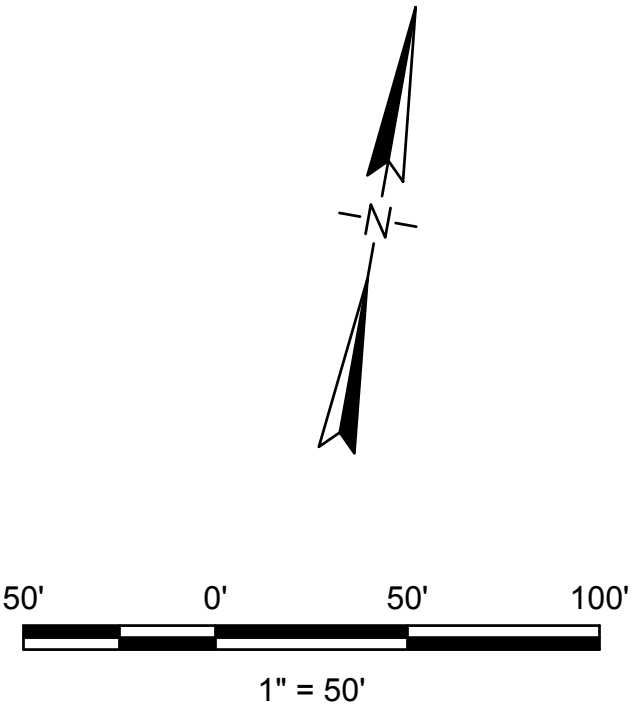
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#### REVISIONS

No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**EROSION & SEDIMENT  
CONTROL DETAILS**

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:

**08/06/2019**

Scale:

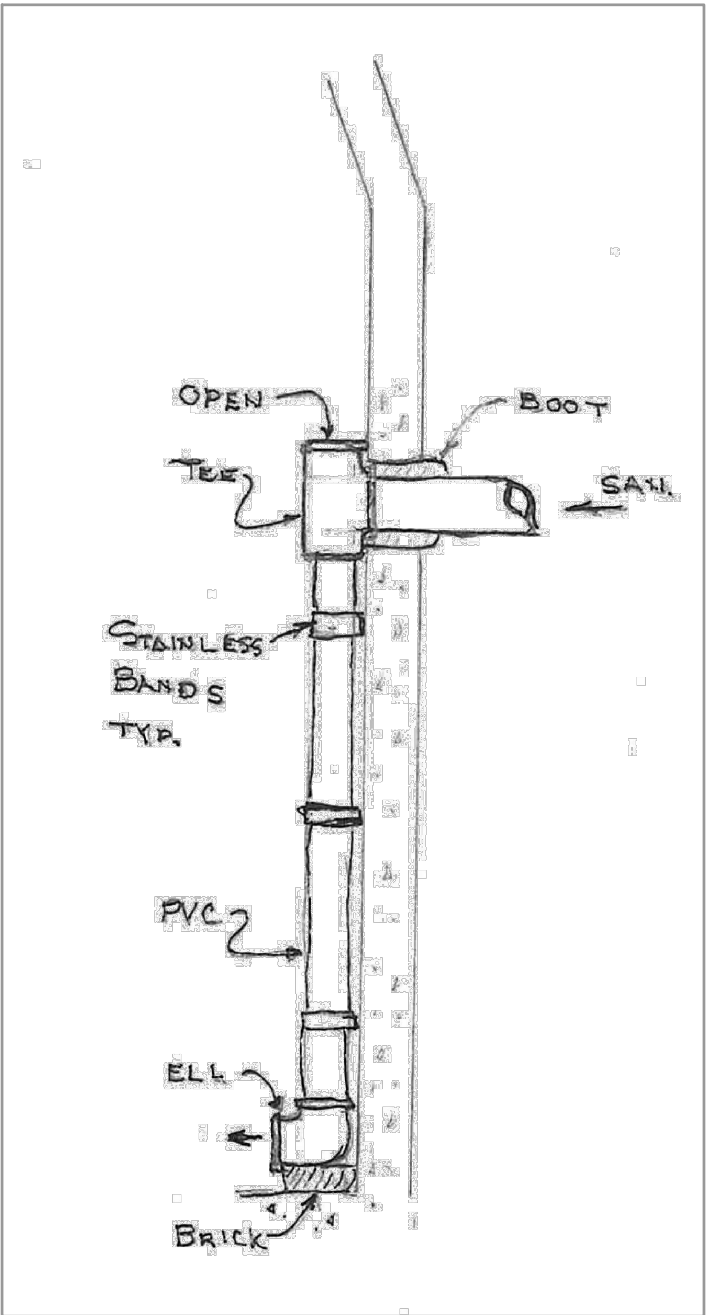
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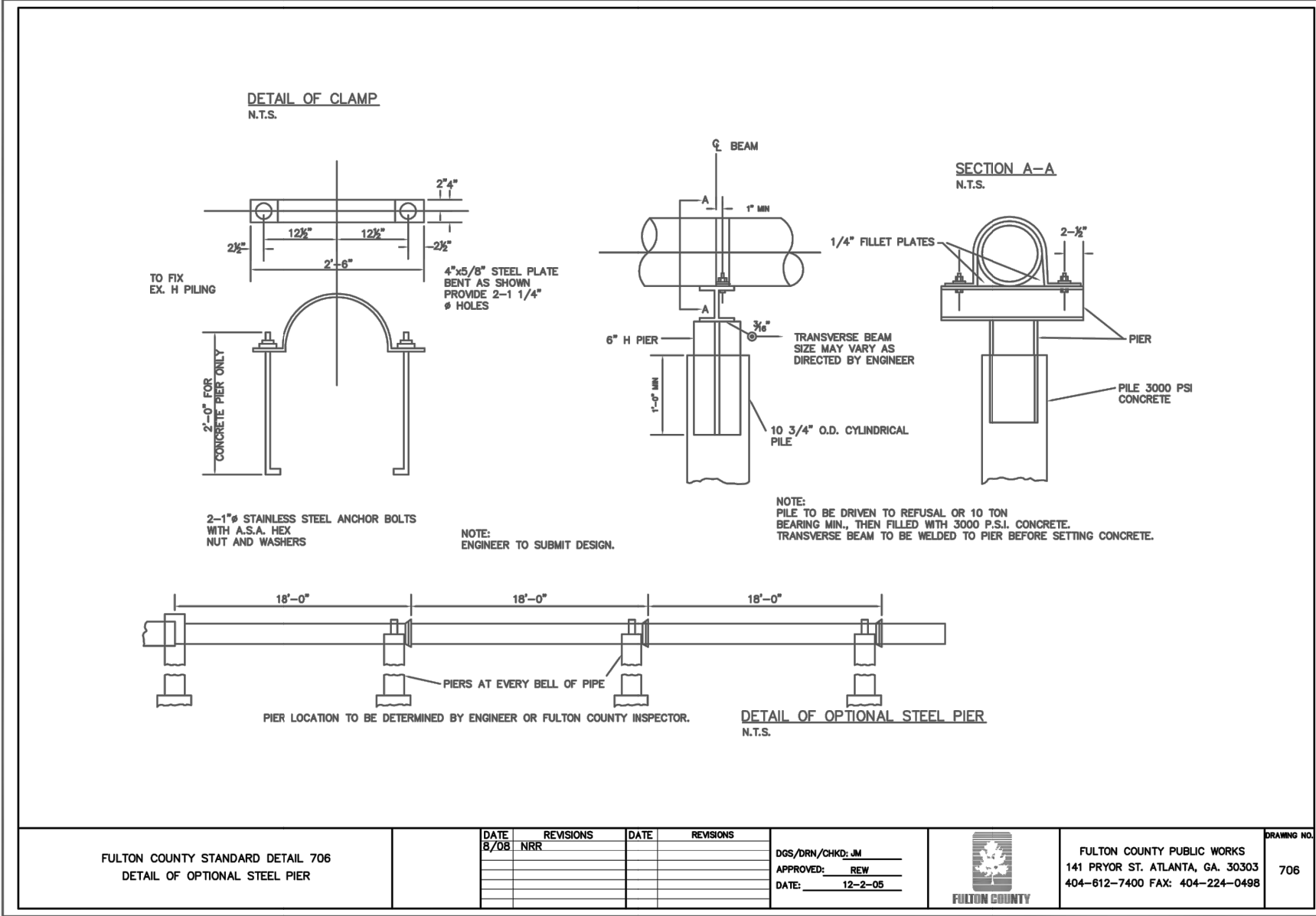
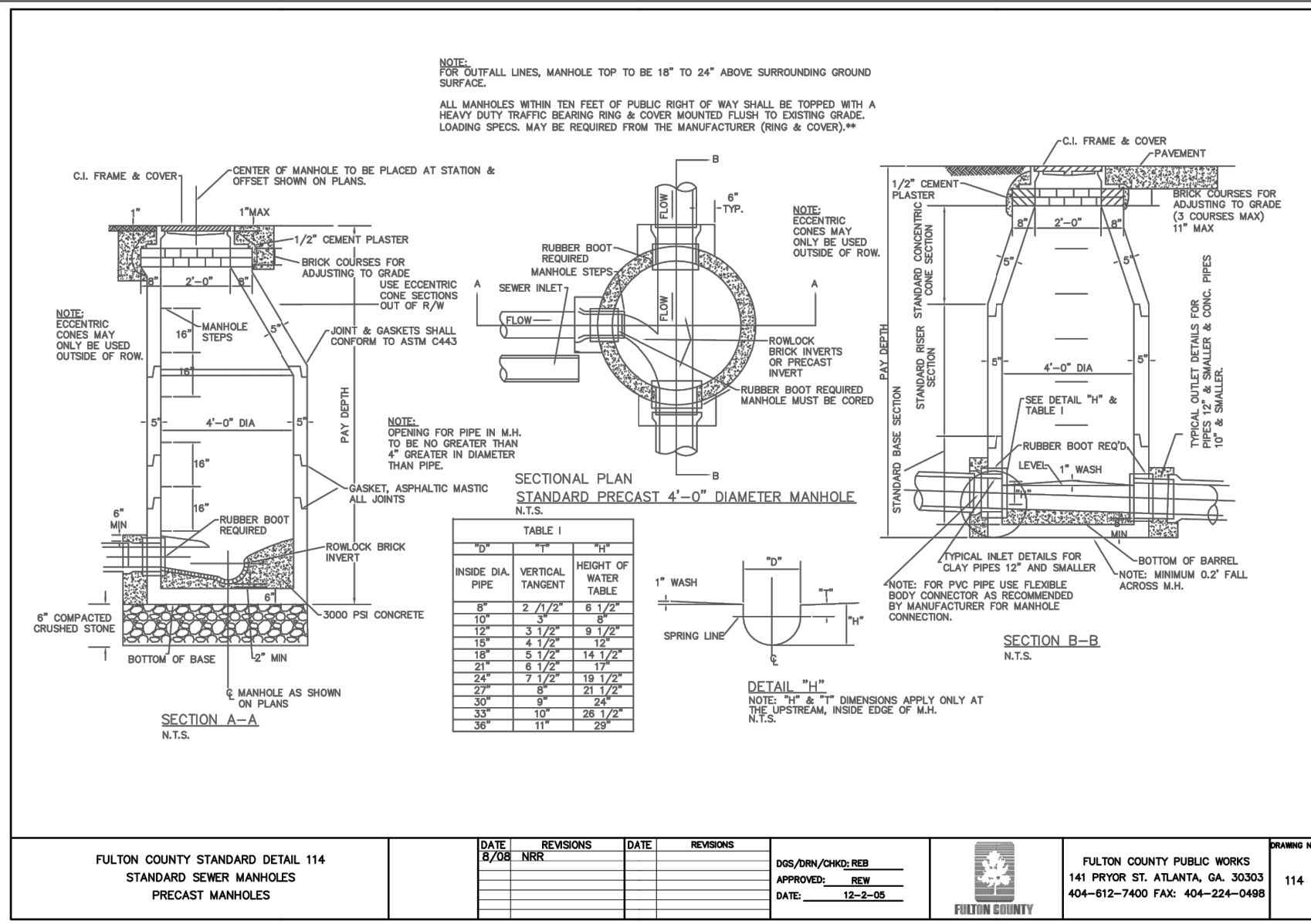
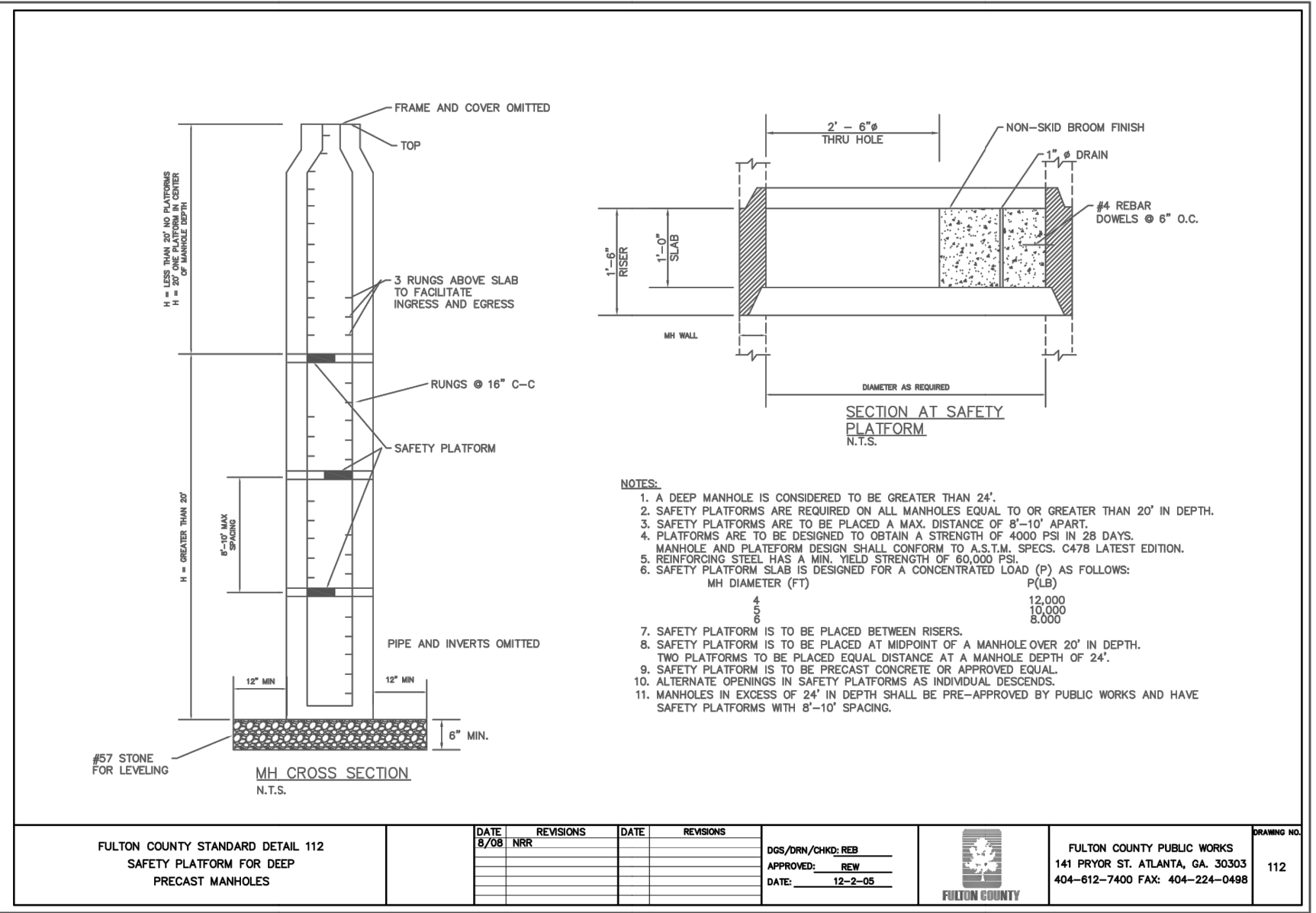
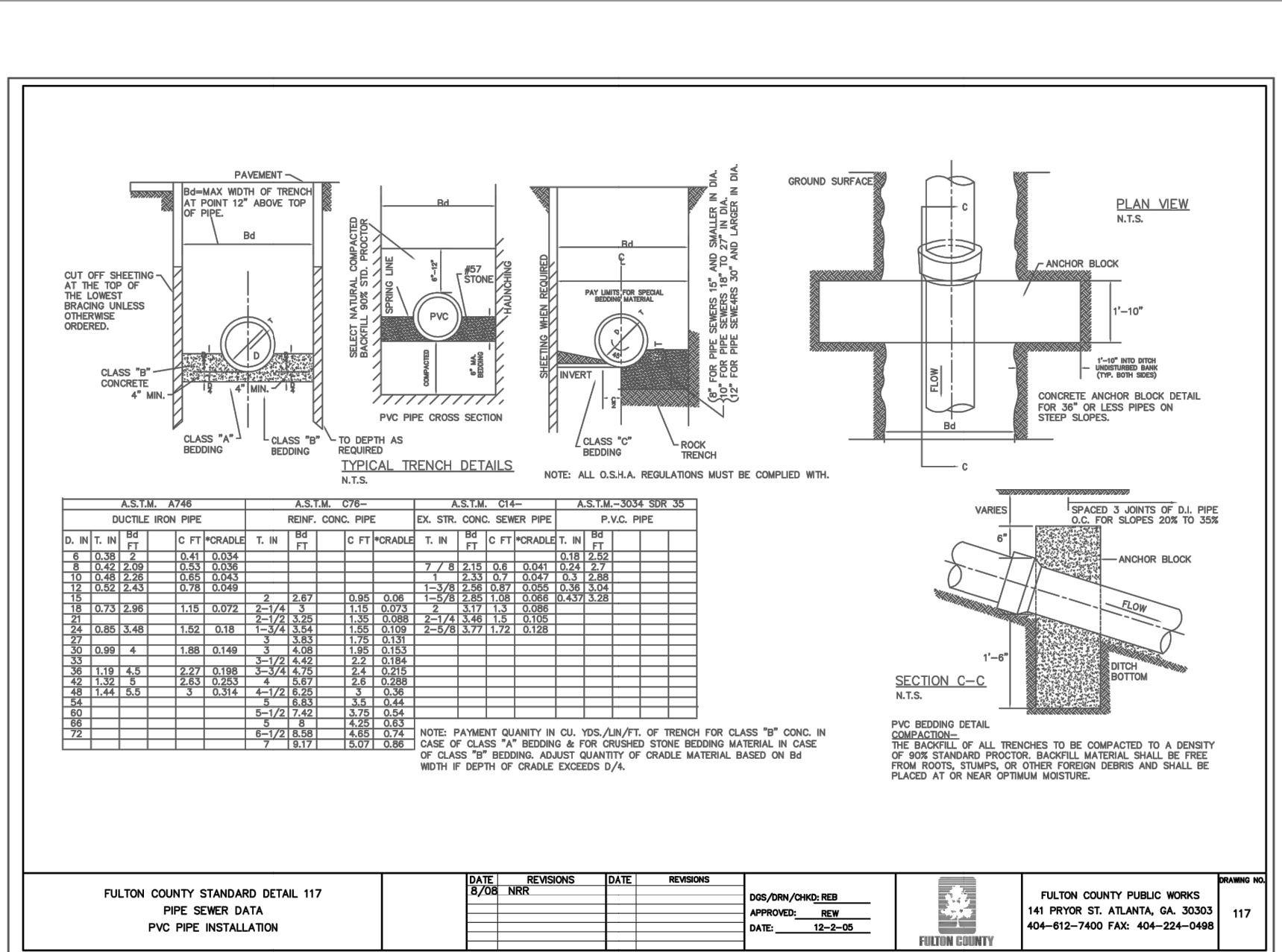
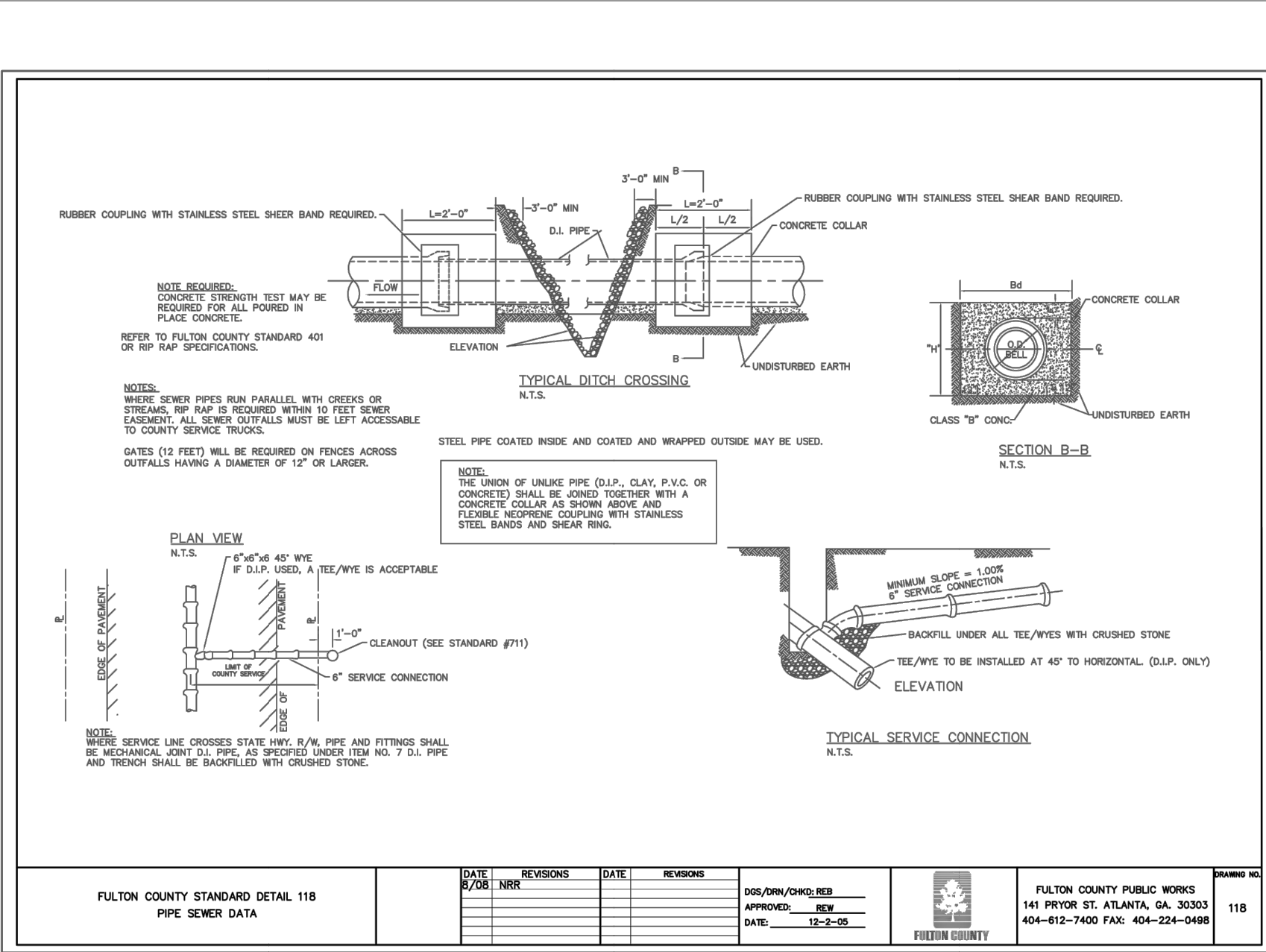
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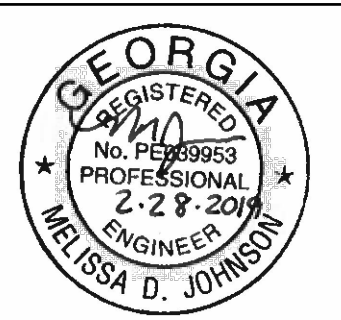


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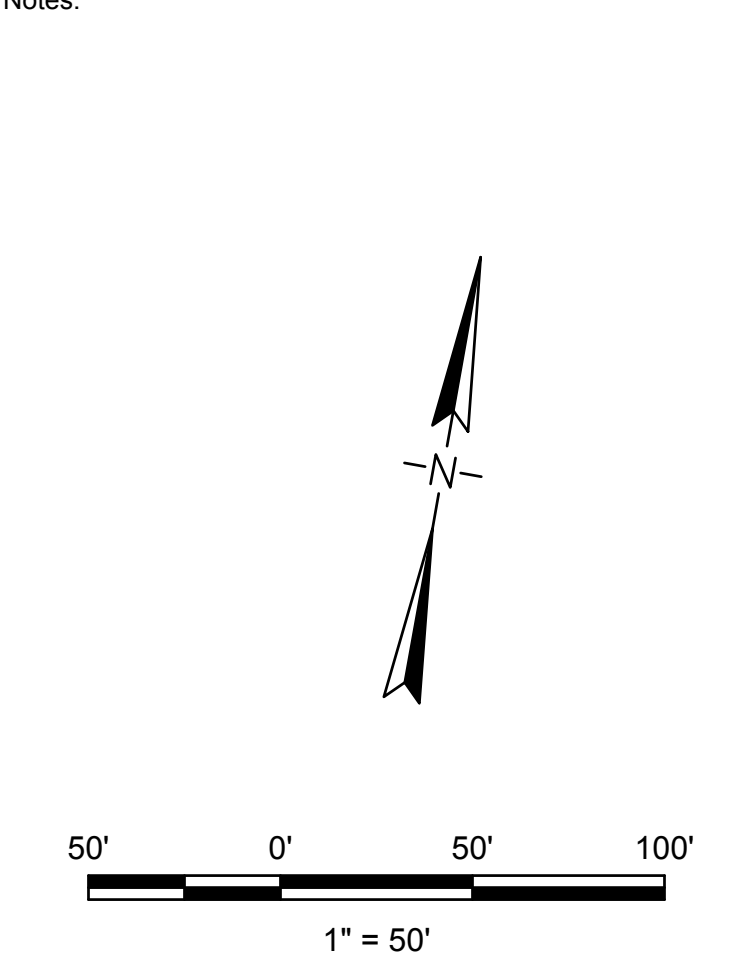


**Michael Baker**  
INTERNATIONAL

Designer: **MBC**  
Technician:  
Checked by: **MDJ**  
Project Number: **167728**



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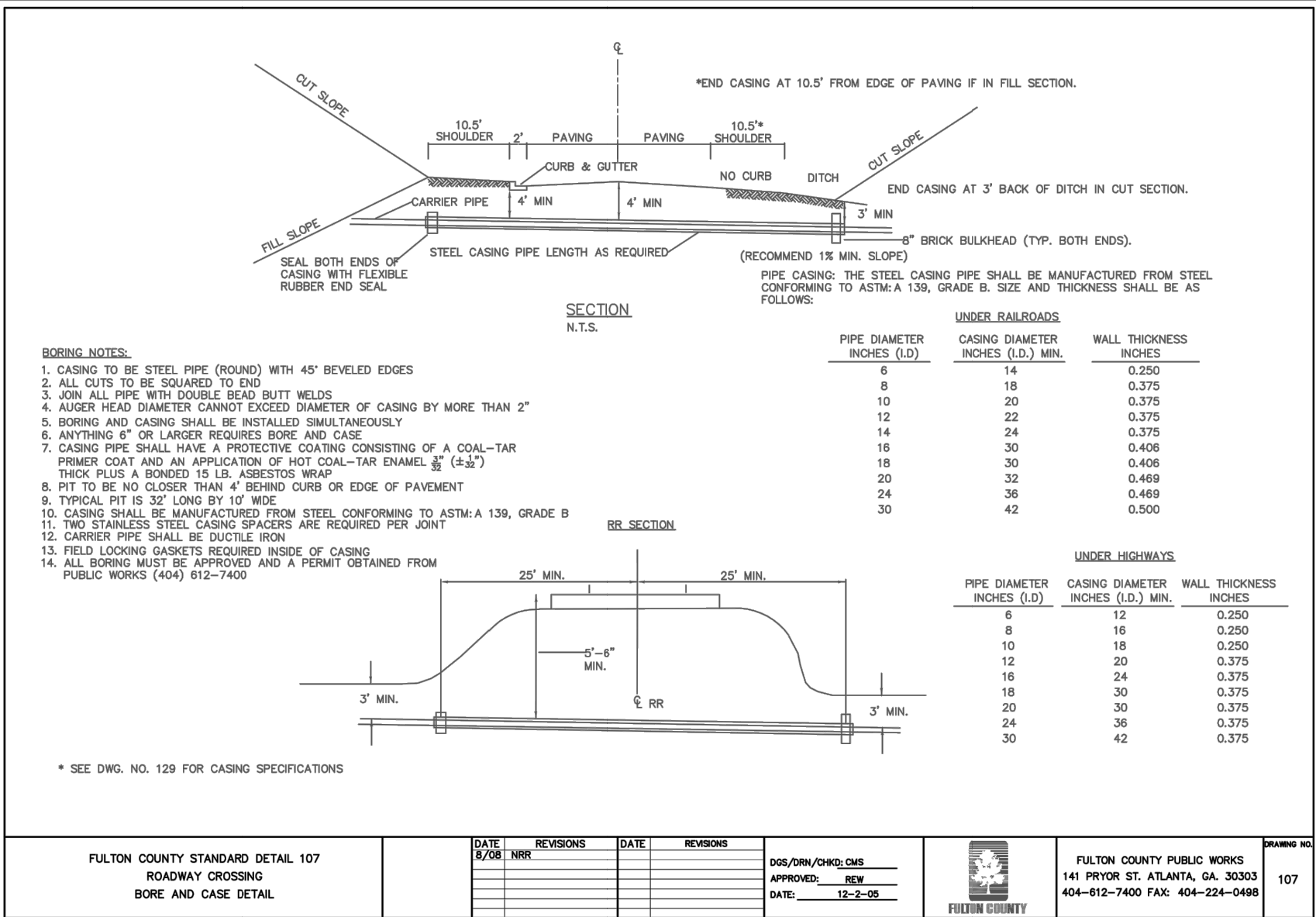
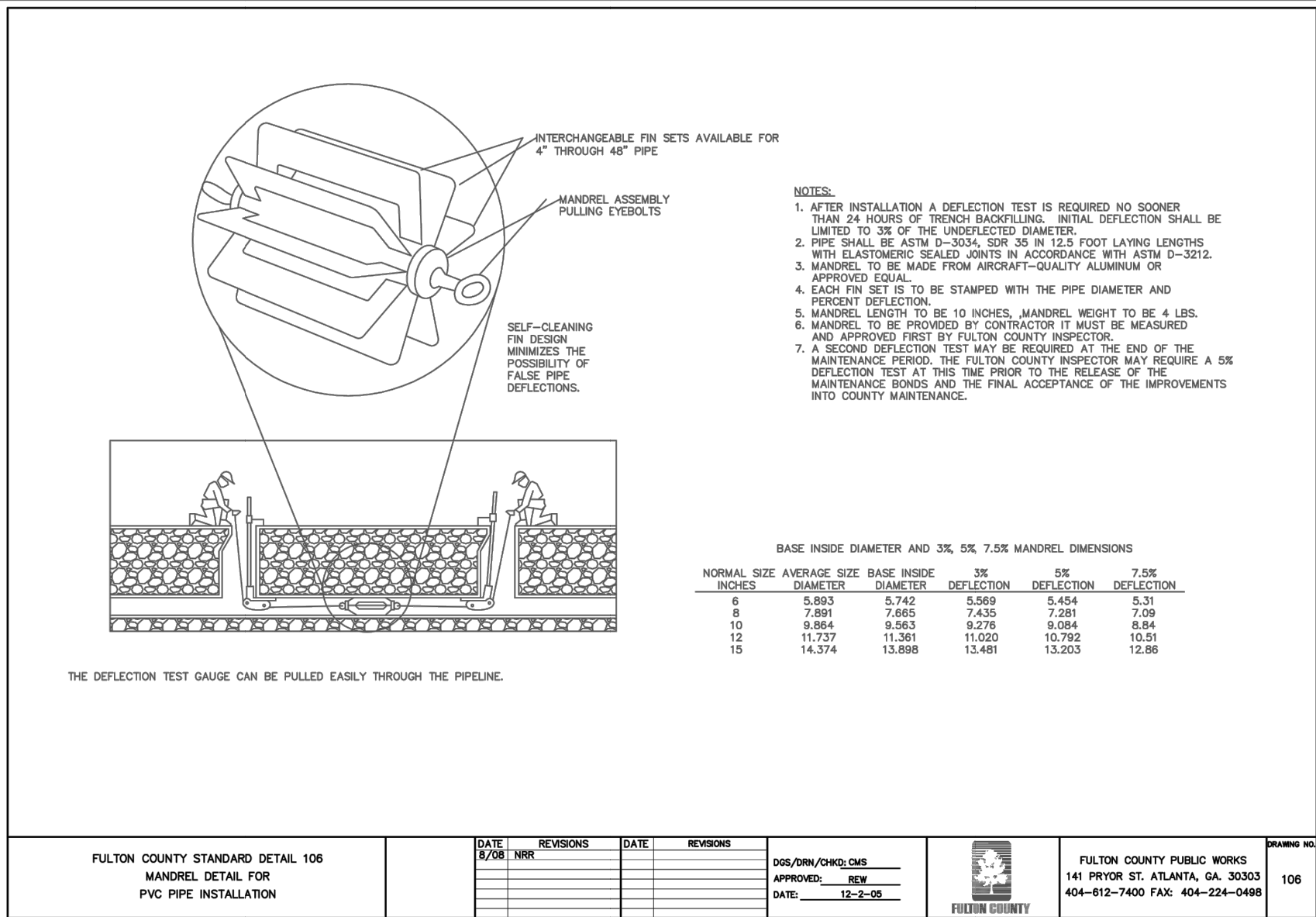
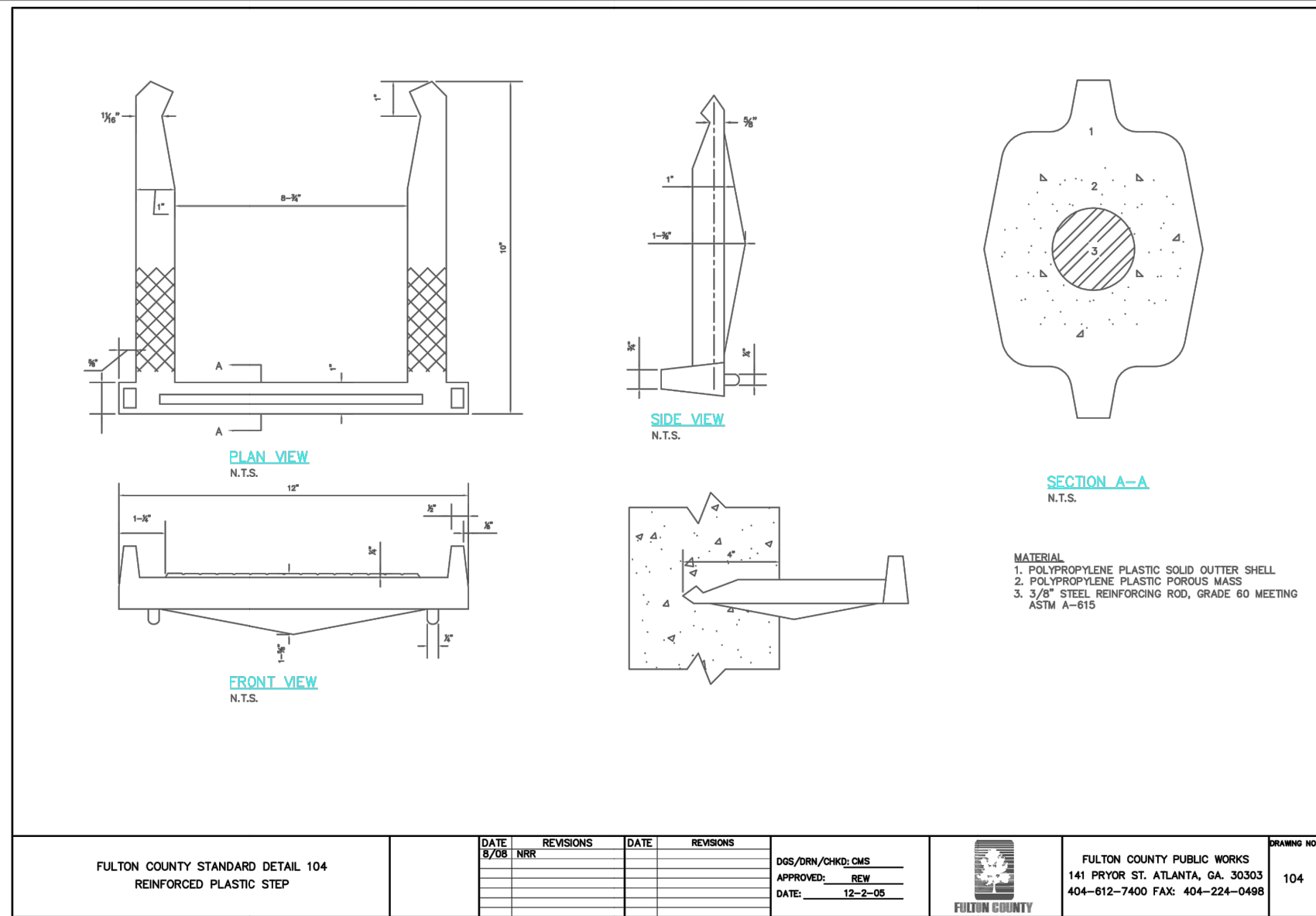
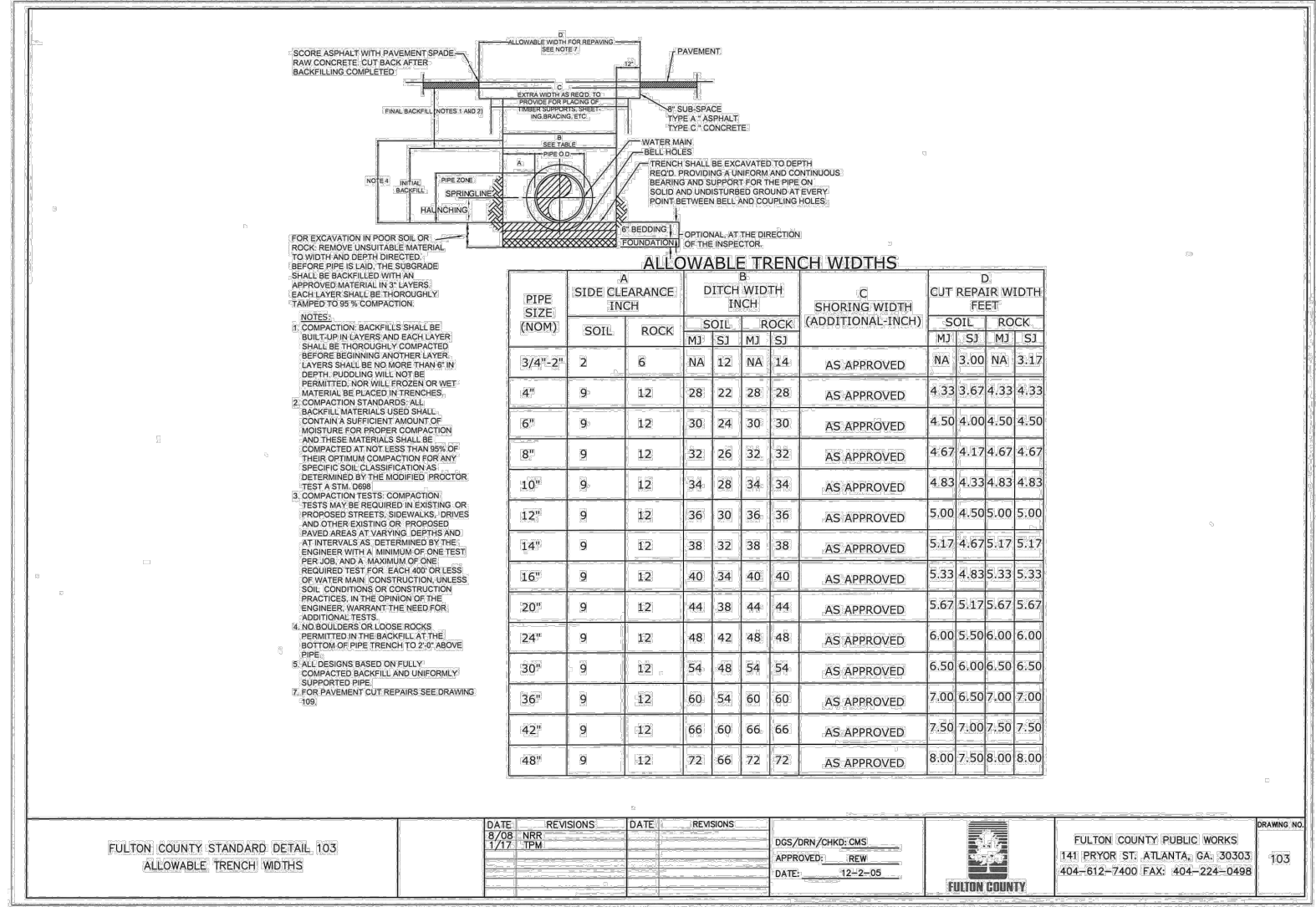
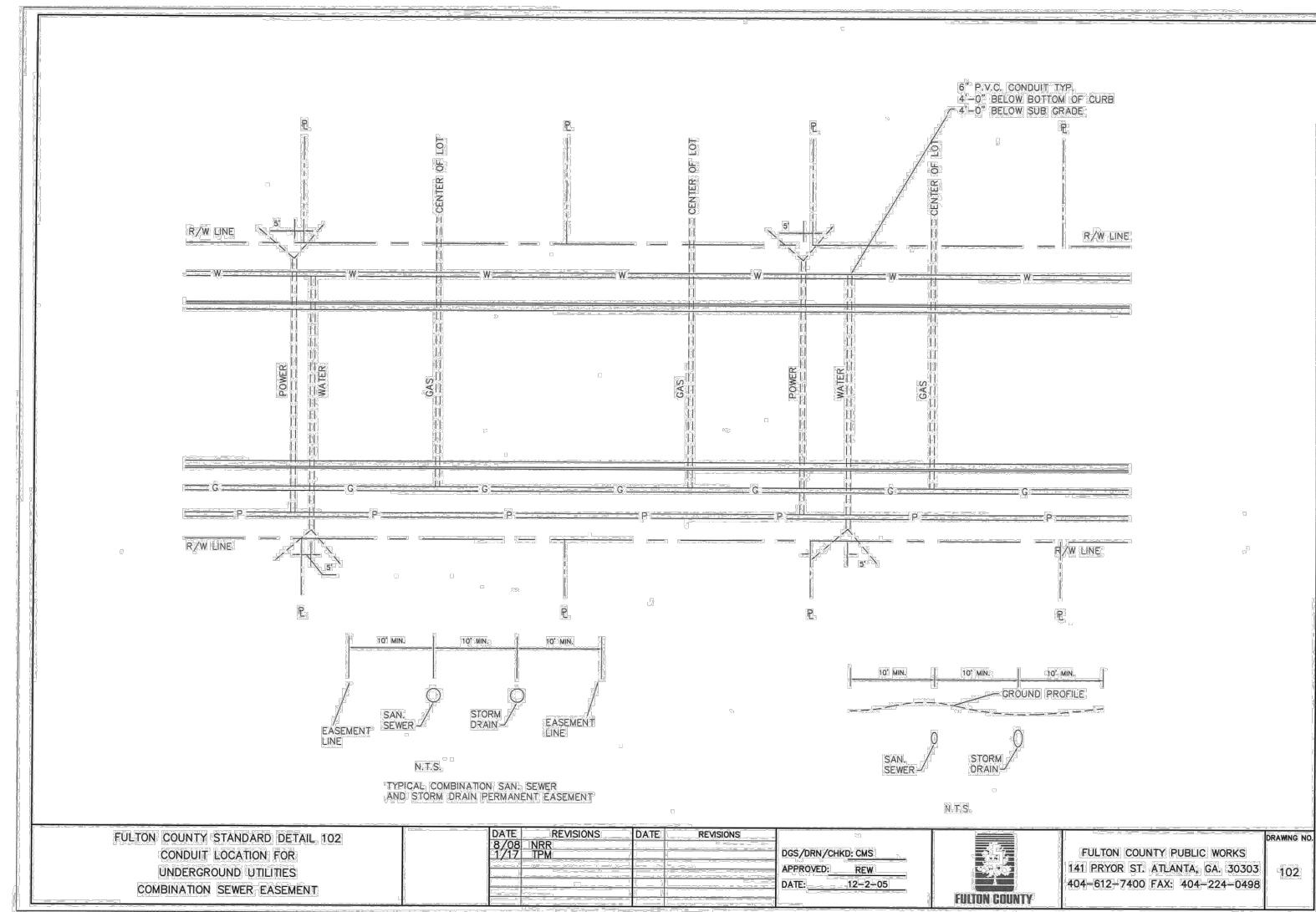
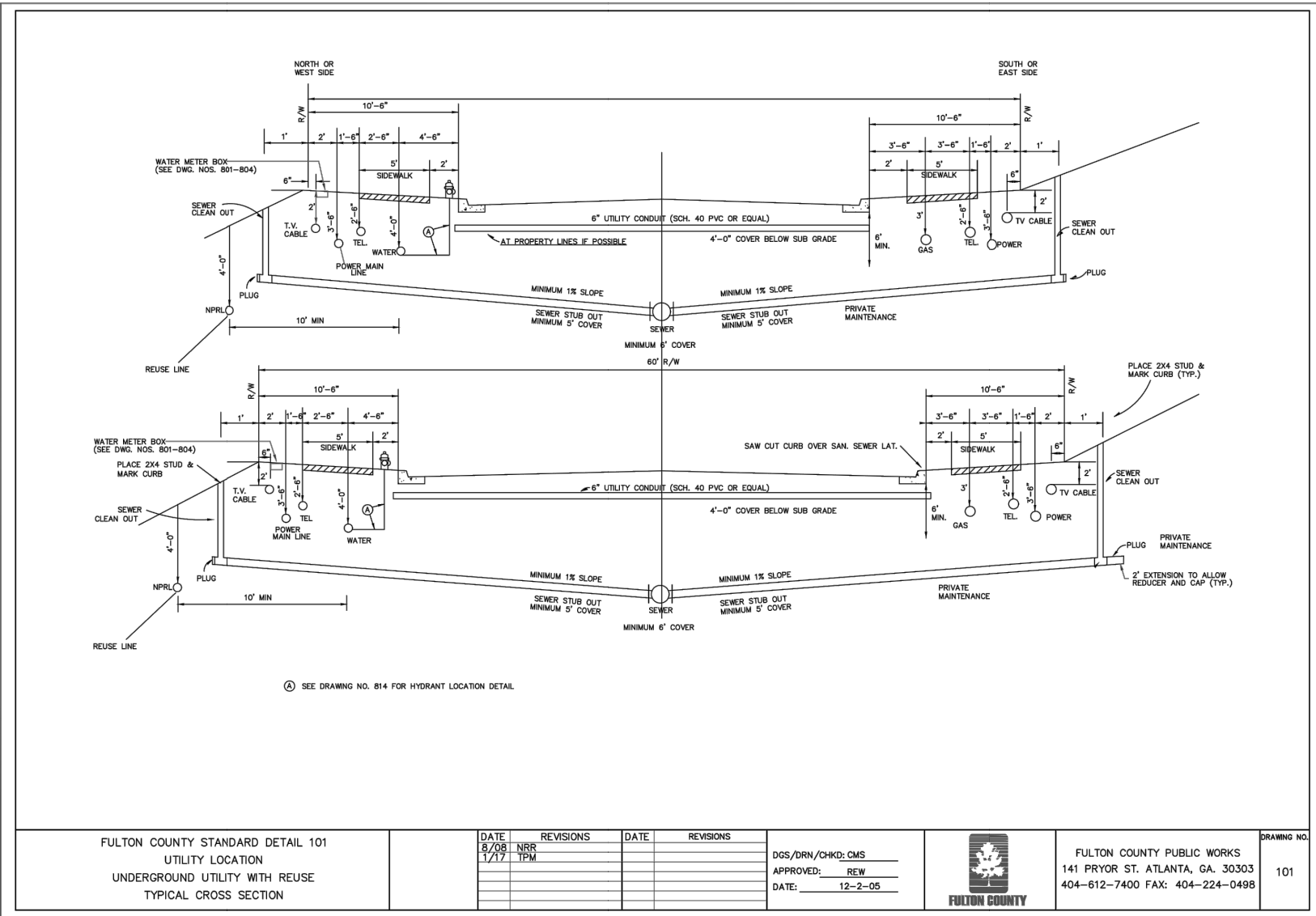
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SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:  
**CONSTRUCTION DETAILS**

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date: **08/06/2019** Sheet Number: 20 of 20  
Scale: Drawing Number: **C-6.0**





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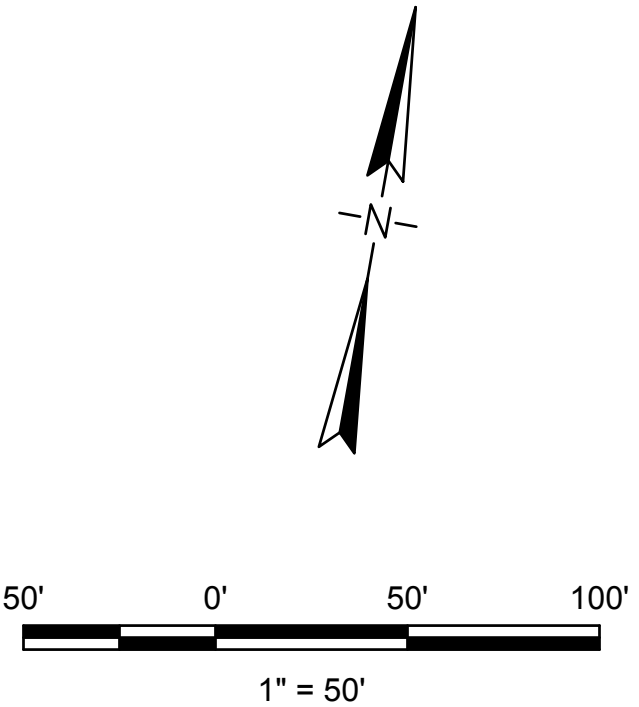
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Technician:  
Checked by: **MDJ**  
Project Number: **167728**



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1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

**CONSTRUCTION DETAILS**

FULTON COUNTY PROJECT NUMBER:

**195-031**

Date:

**08/06/2019**

Scale:

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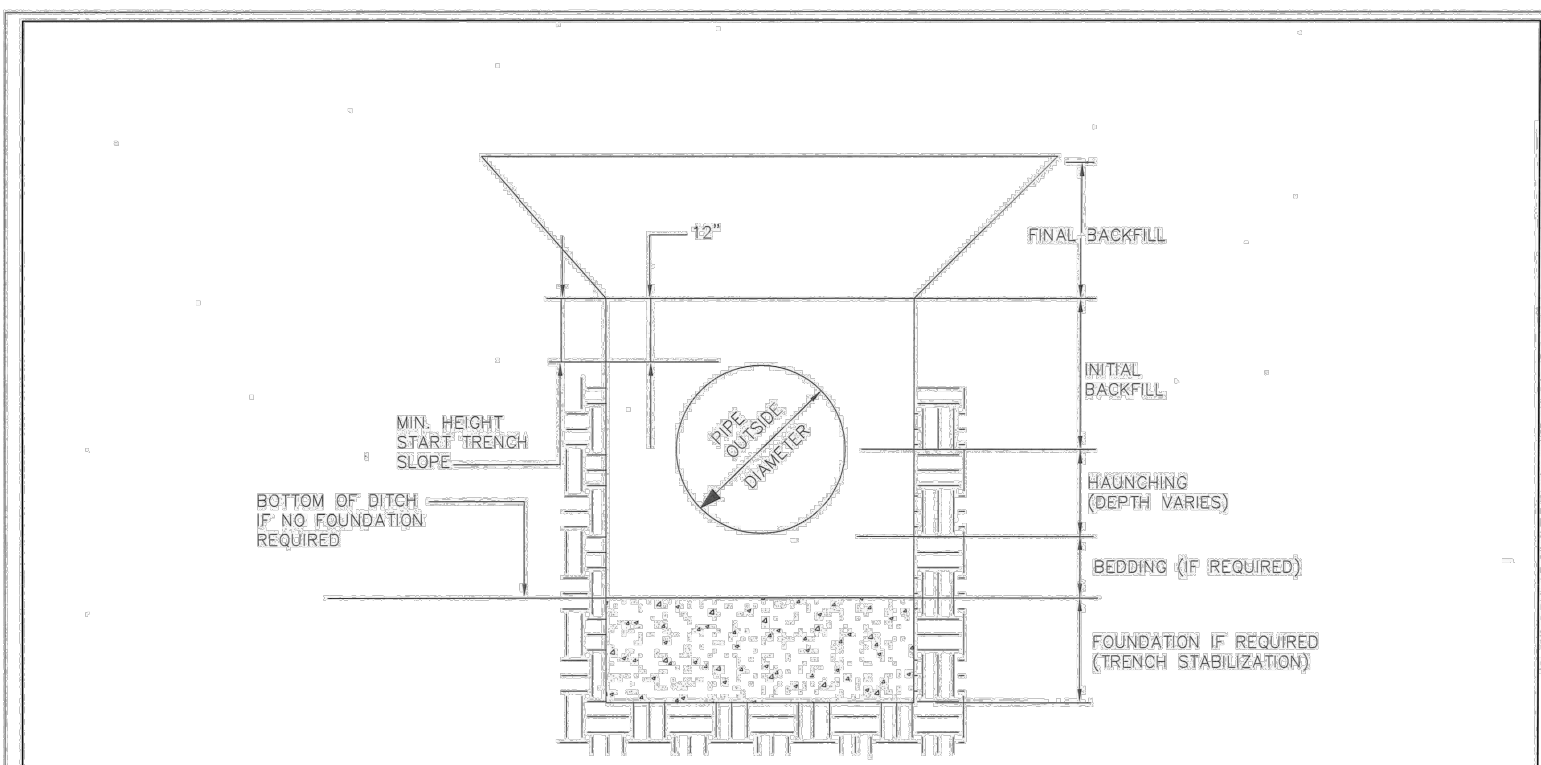
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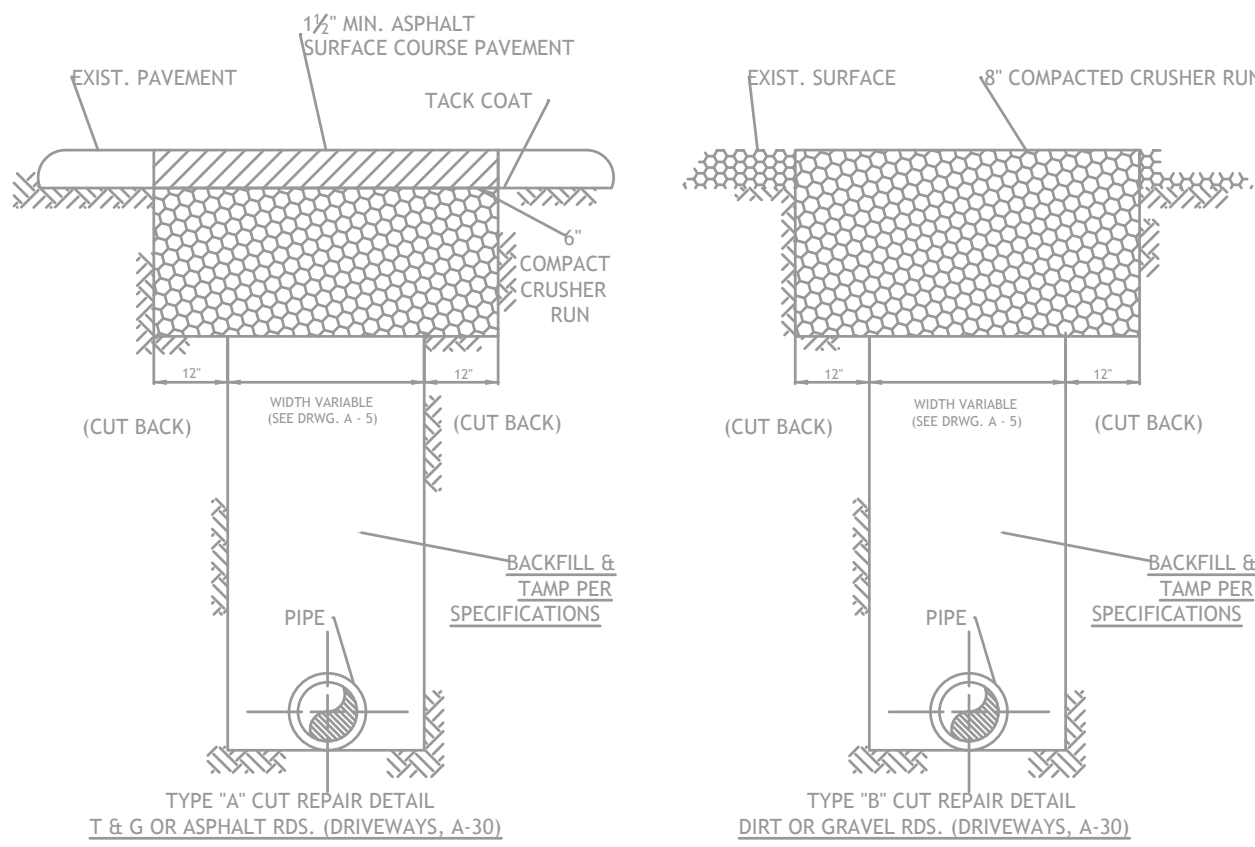
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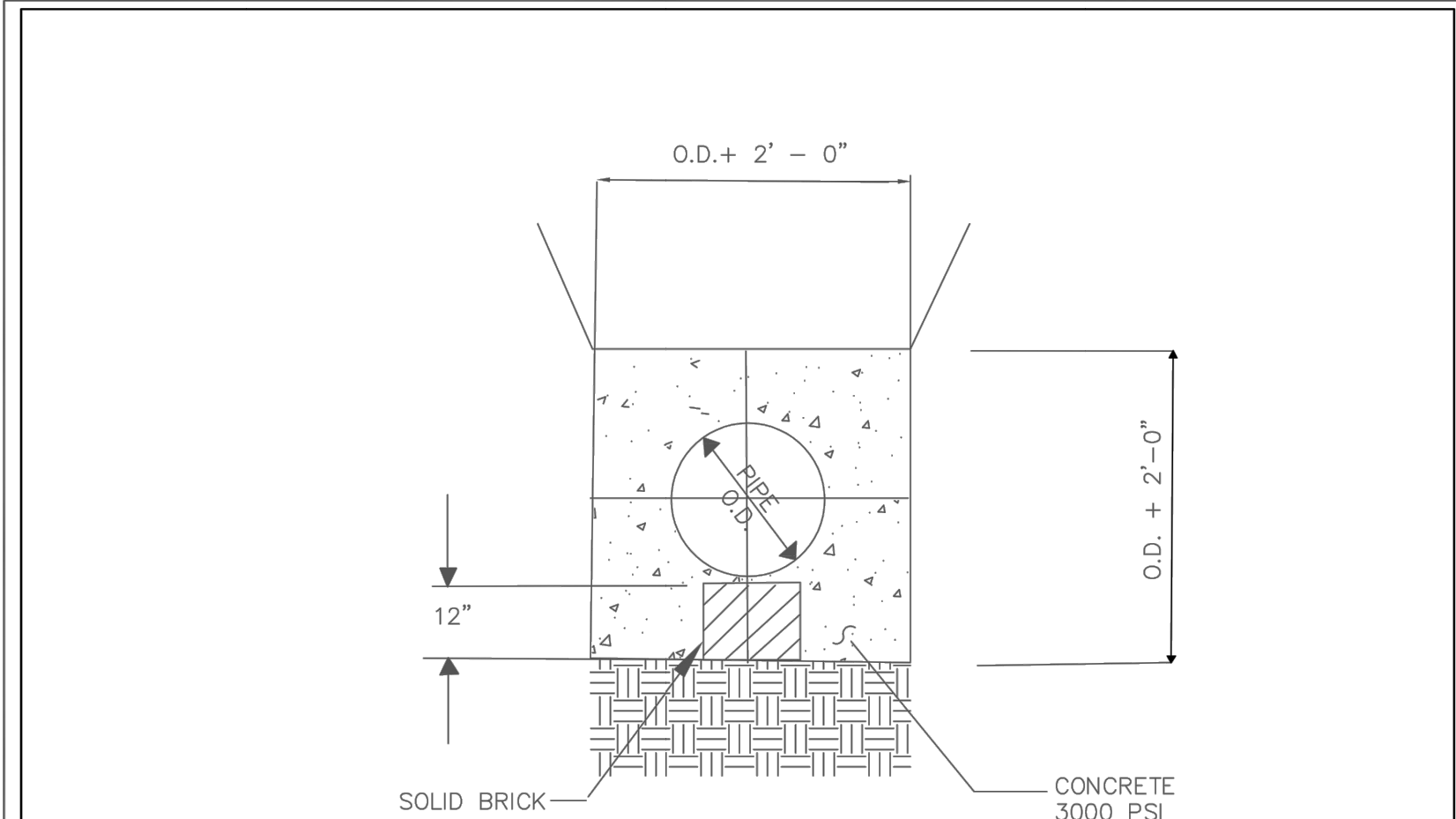
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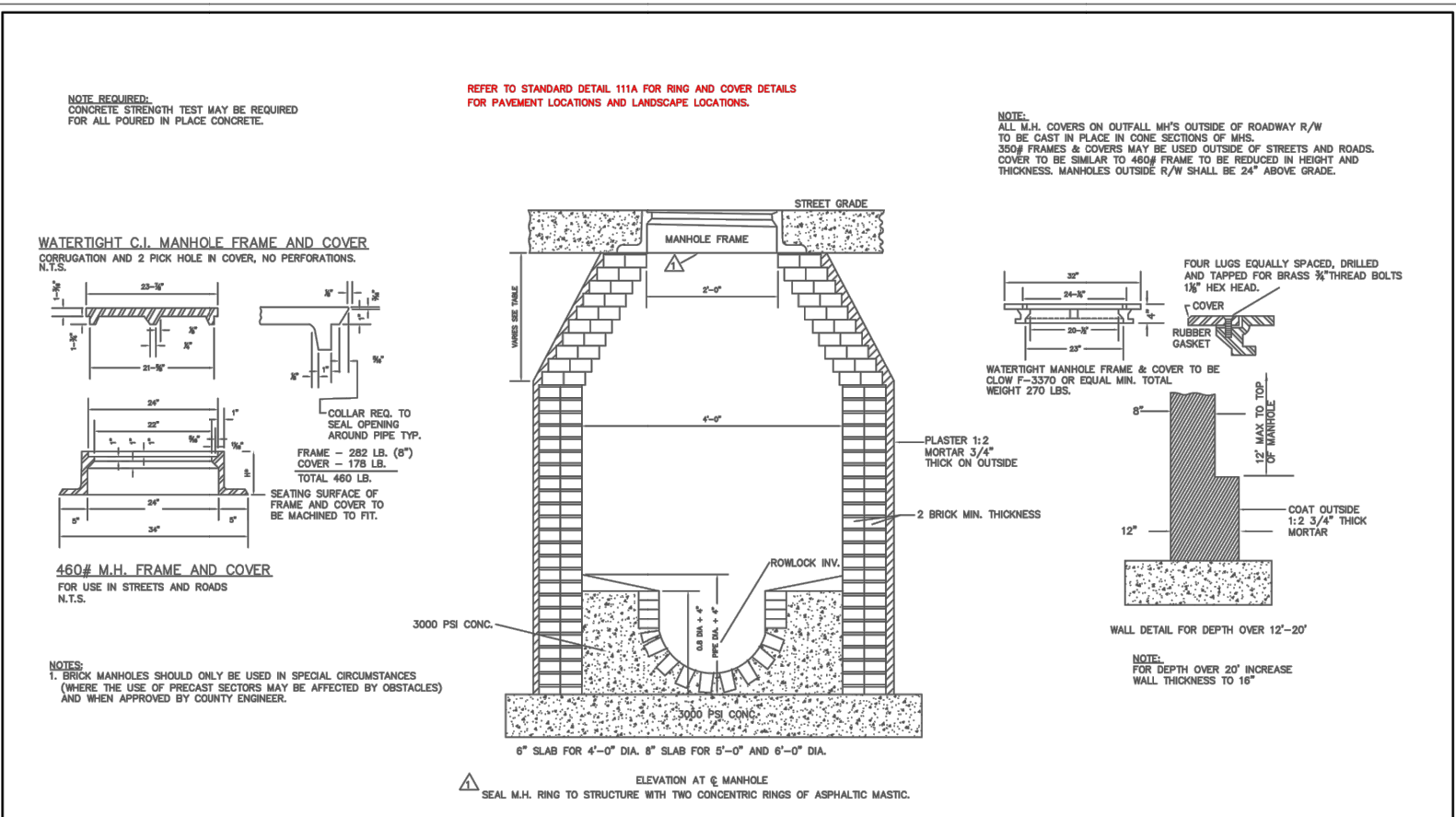
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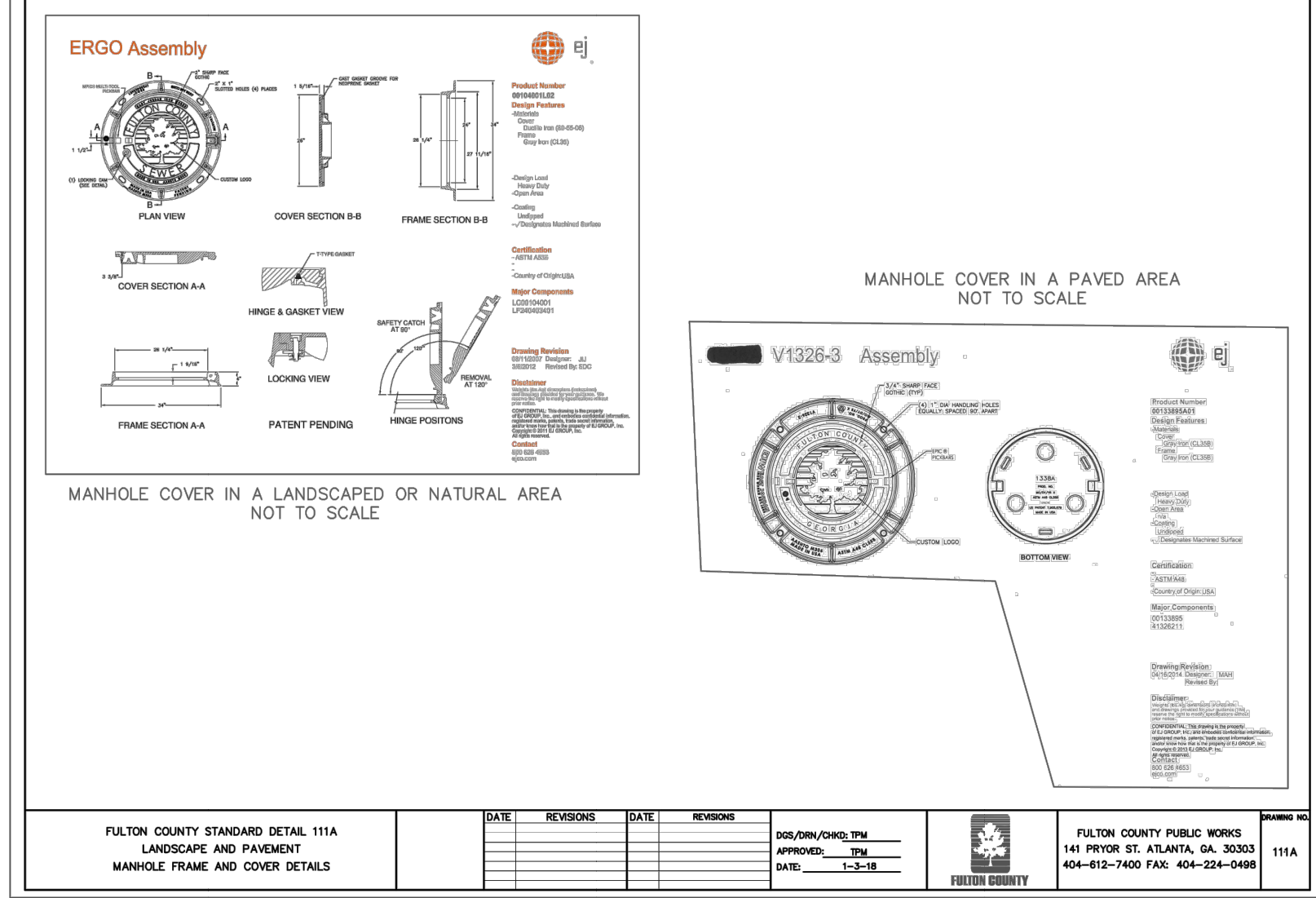
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T & G OR ASPHALT RDS. (DRIVEWAYS, A-30)
- TYPE "B" CUT REPAIR DETAIL  
DIRT OR GRAVEL RDS. (DRIVEWAYS, A-30)
- TYPE "C" CUT REPAIR DETAIL  
GEORGIA D.O.T. AND FULTON CO.
- PAVEMENT CUT REPAIRS/STANDARD UTILITY CUT  
TYPE A, B & C
- NOTES:
1. ALL MATERIALS AND METHODS OF INSTALLATION SHALL COMPLY WITH THE GA. D.O.T.'s "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", 1983 EDITION OR LATEST REVISION THERETO.
  2. FOR TYPE "C", THE CONTRACTOR SHALL COVER THE POURED CONCRETE WITH STEEL PLATES A MINIMUM OF 24 HOURS TO ALLOW ADEQUATE SET-UP.
  3. CONTRACTOR'S TRAFFIC CONTROL PLAN MUST BE APPROVED BY THE AUTHORITY HAVING JURISDICTION BEFORE WORK BEGINS.
  4. FINAL APPROVAL OF CONTRACTOR'S PAVEMENT CUT REPAIRS RESIDES WITH THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL MEET ALL REQUIREMENTS OF SAID AUTHORITY.
  5. FOR TRENCH AND CUT WIDTHS. SEE SEE DRAWING 103



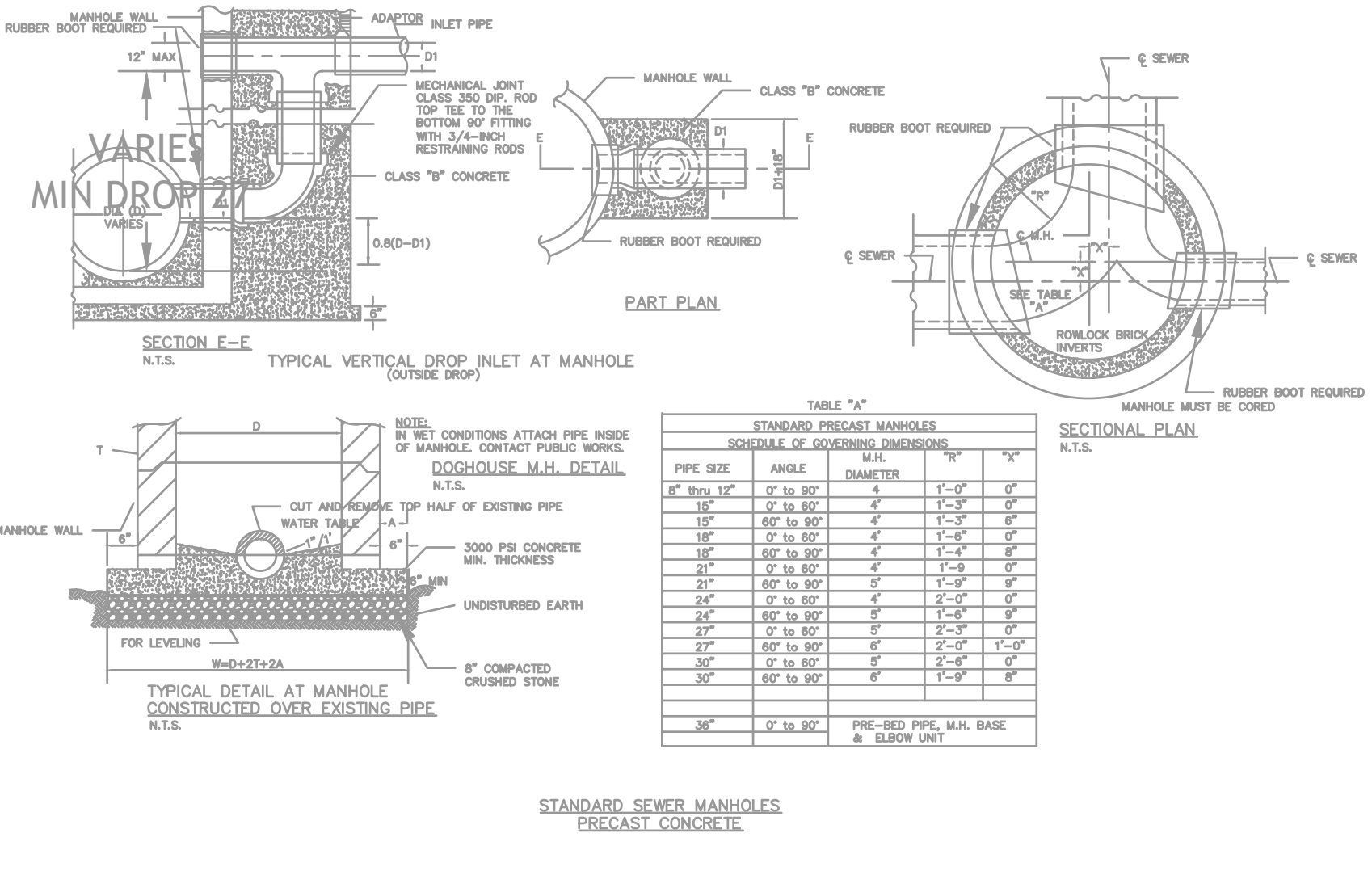
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FULTON COUNTY STANDARD DETAIL 111 BRICK MANHOLE DETAIL AND MANHOLE FRAME AND COVER	DATE: 12-2-05 BY: JPM REVISIONS: 1 DATE: 12-2-05	DESIGN/CHKD/APP: JPM APPROVED: JPM DATE: 12-2-05	FULTON COUNTY PUBLIC WORKS 141 PRYOR ST. ATLANTA, GA 30303 404-812-7400 FAX: 404-224-0488	111
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FULTON COUNTY STANDARD DETAIL 111A LANDSCAPE AND PAVEMENT MANHOLE FRAME AND COVER DETAILS	DATE: 12-2-05 BY: JPM REVISIONS: 1 DATE: 12-2-05	DESIGN/CHKD/APP: JPM APPROVED: JPM DATE: 12-2-05	FULTON COUNTY PUBLIC WORKS 141 PRYOR ST. ATLANTA, GA 30303 404-812-7400 FAX: 404-224-0488	111A
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STANDARD SEWER MANHOLES PRECAST CONCRETE	DATE: 12-2-05 BY: JPM REVISIONS: 1 DATE: 12-2-05	DESIGN/CHKD/APP: JPM APPROVED: JPM DATE: 12-2-05	FULTON COUNTY PUBLIC WORKS 141 PRYOR ST. ATLANTA, GA 30303 404-812-7400 FAX: 404-224-0488	110
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**FULTON COUNTY**

**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**

**Michael Baker  
INTERNATIONAL**

Designer: **MBC**

Technician:

Checked by: **MDJ**

Project Number: **167728**

GEORGIA REGISTERED PROFESSIONAL ENGINEER  
No. 269953  
2-2-2016  
MELISSA D. JOYNSON

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Notes:

50' 0' 50' 100'

1" = 50'

North Arrow

REVISIONS			
No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:

**SANDY CREEK ROAD  
SANITARY SEWER  
IMPROVEMENTS PROJECT**

Drawing Name:

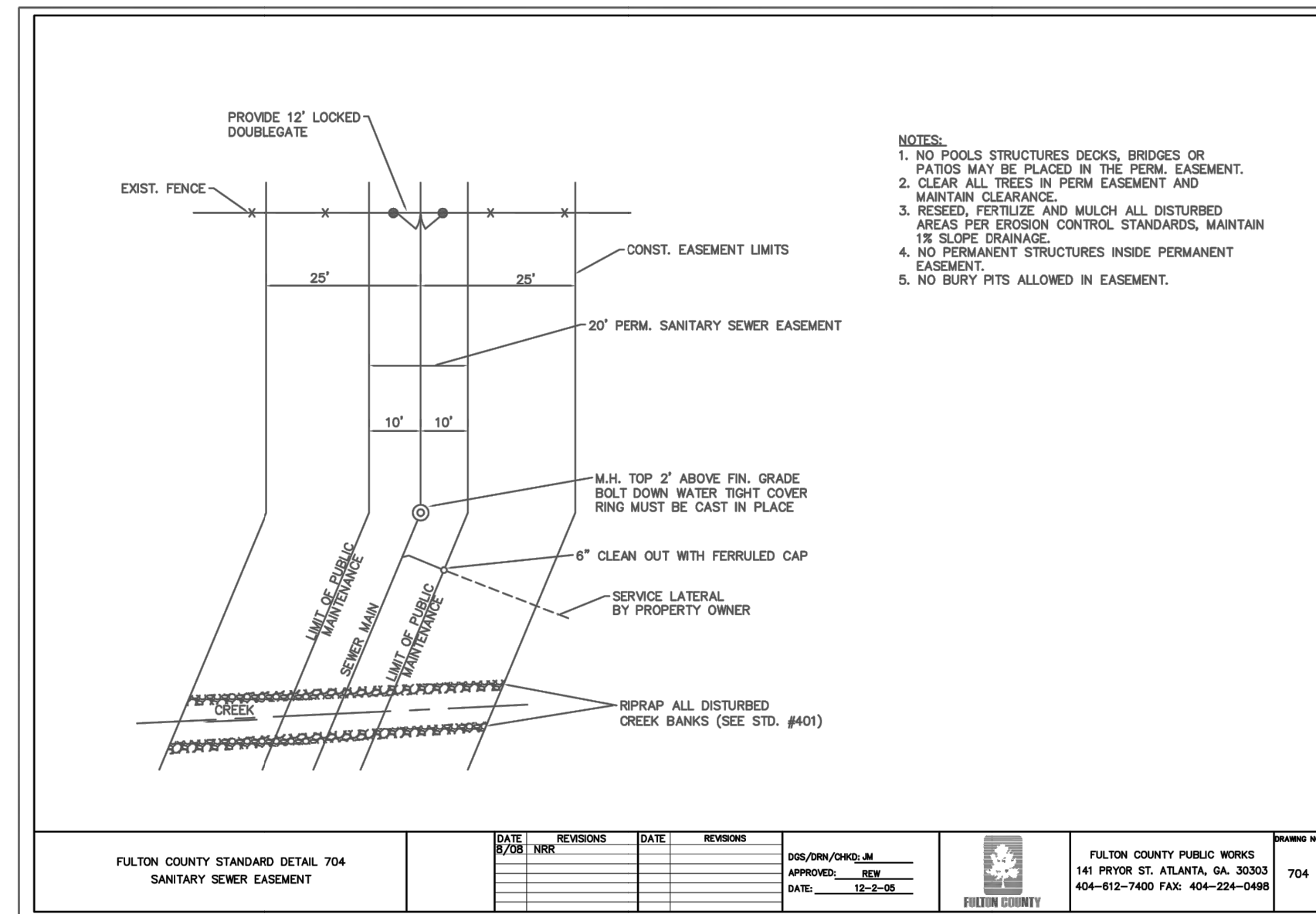
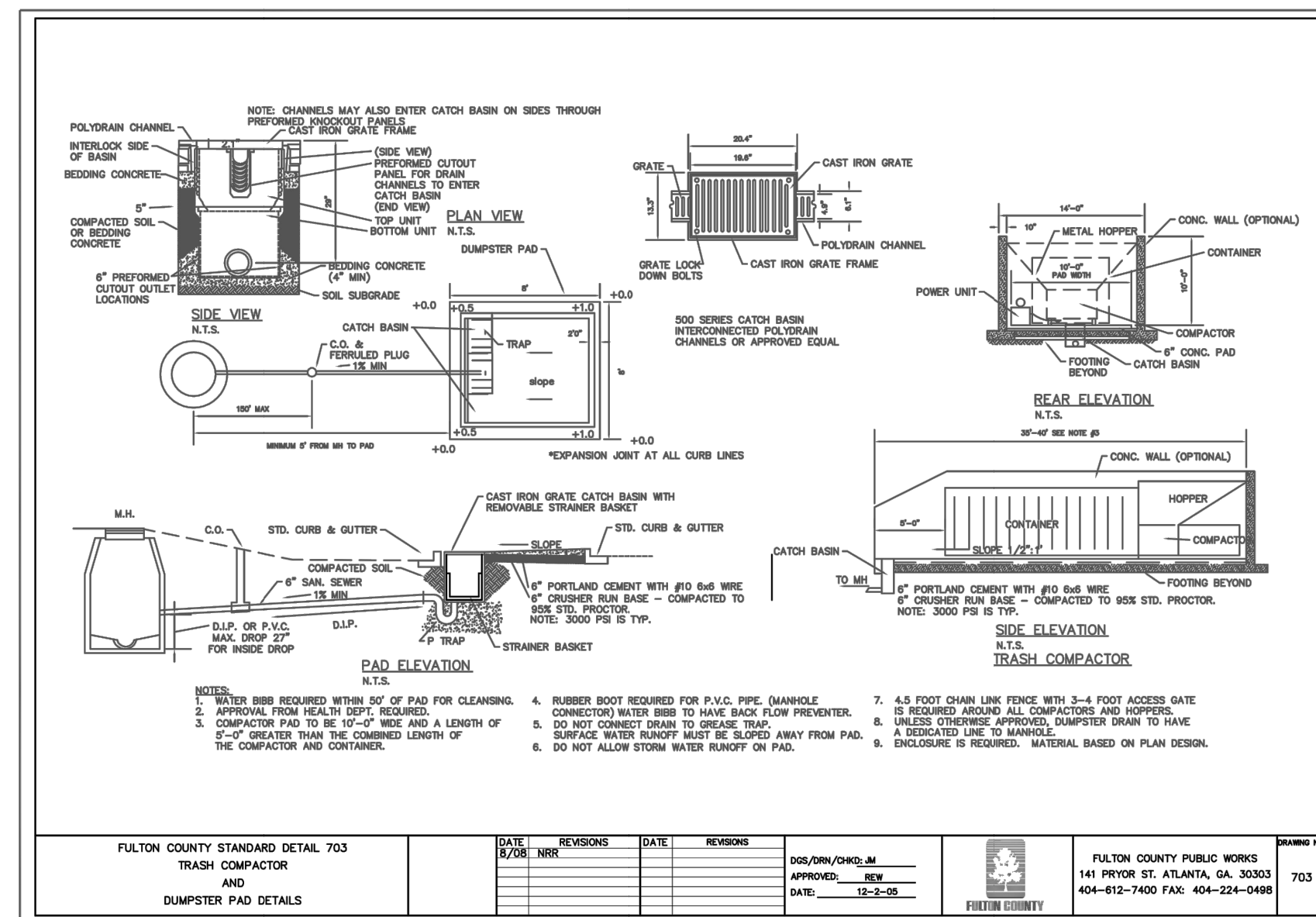
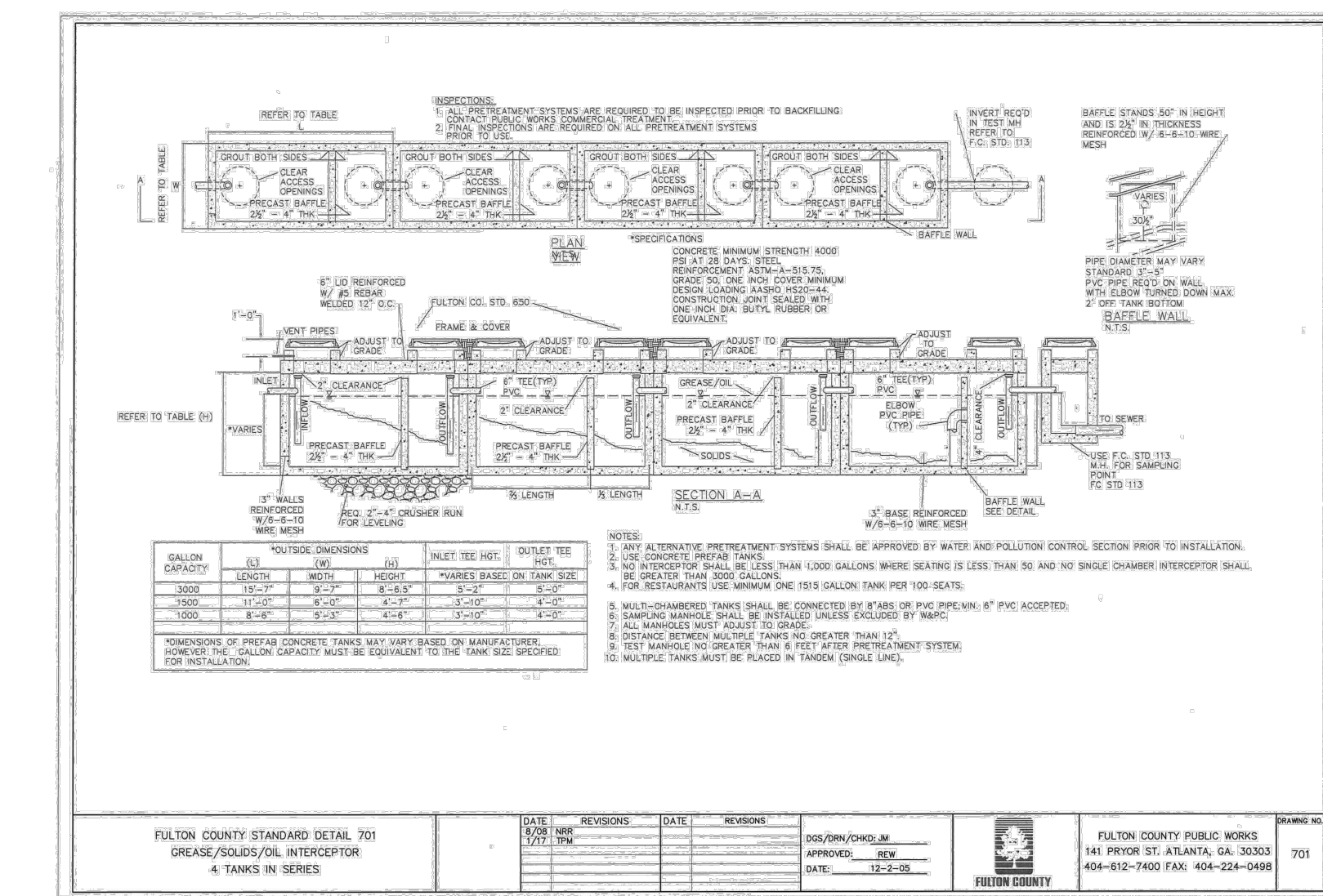
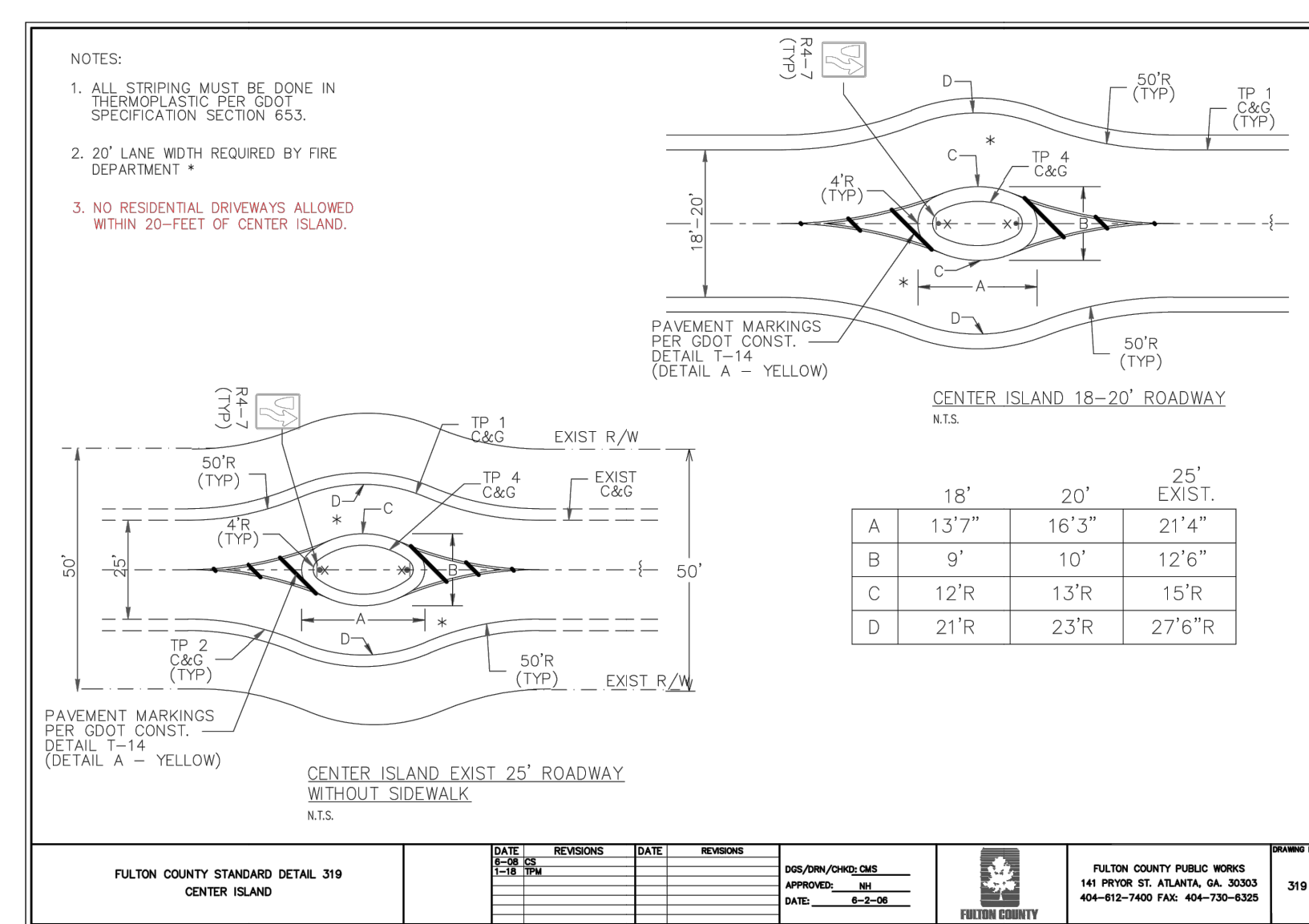
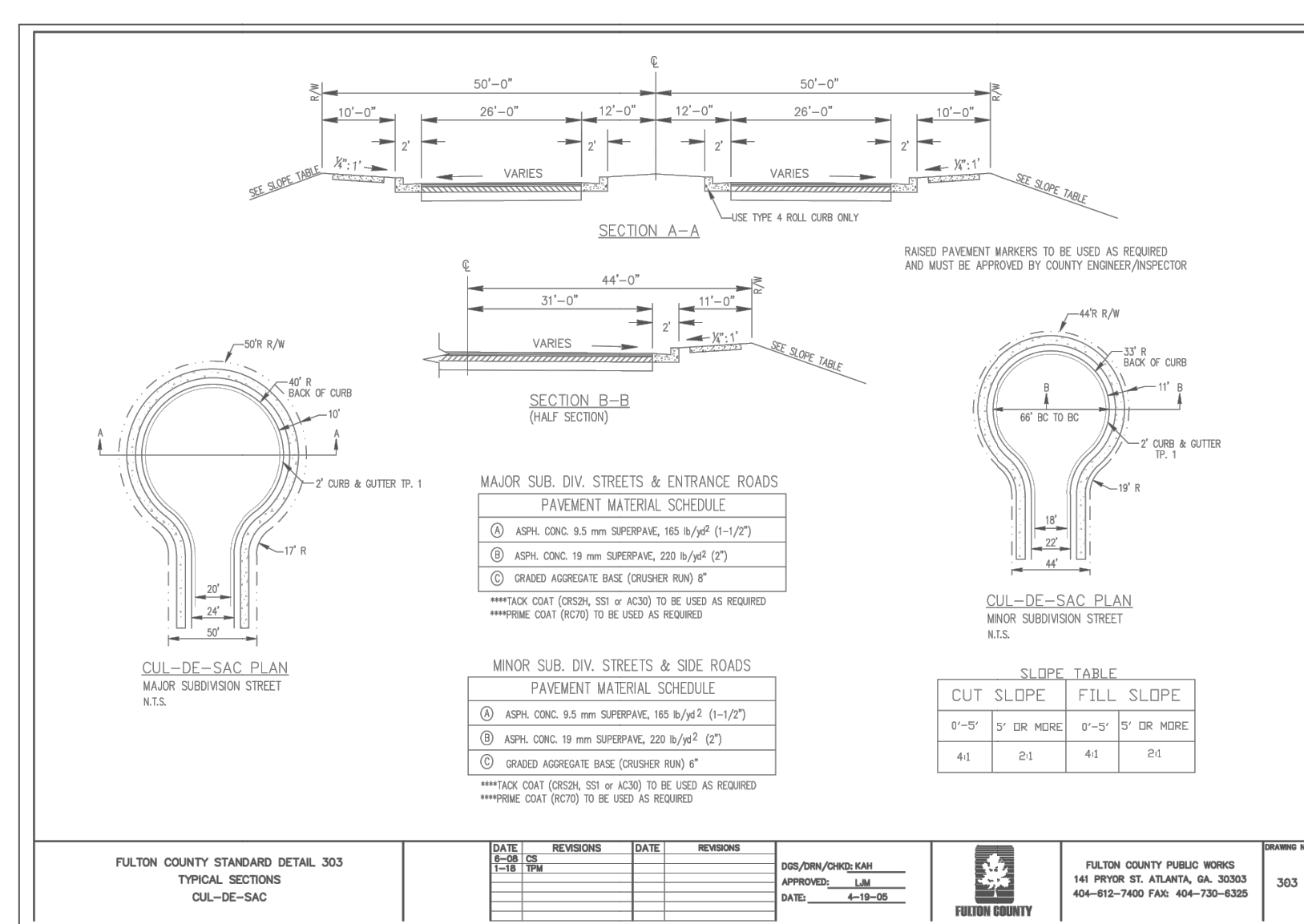
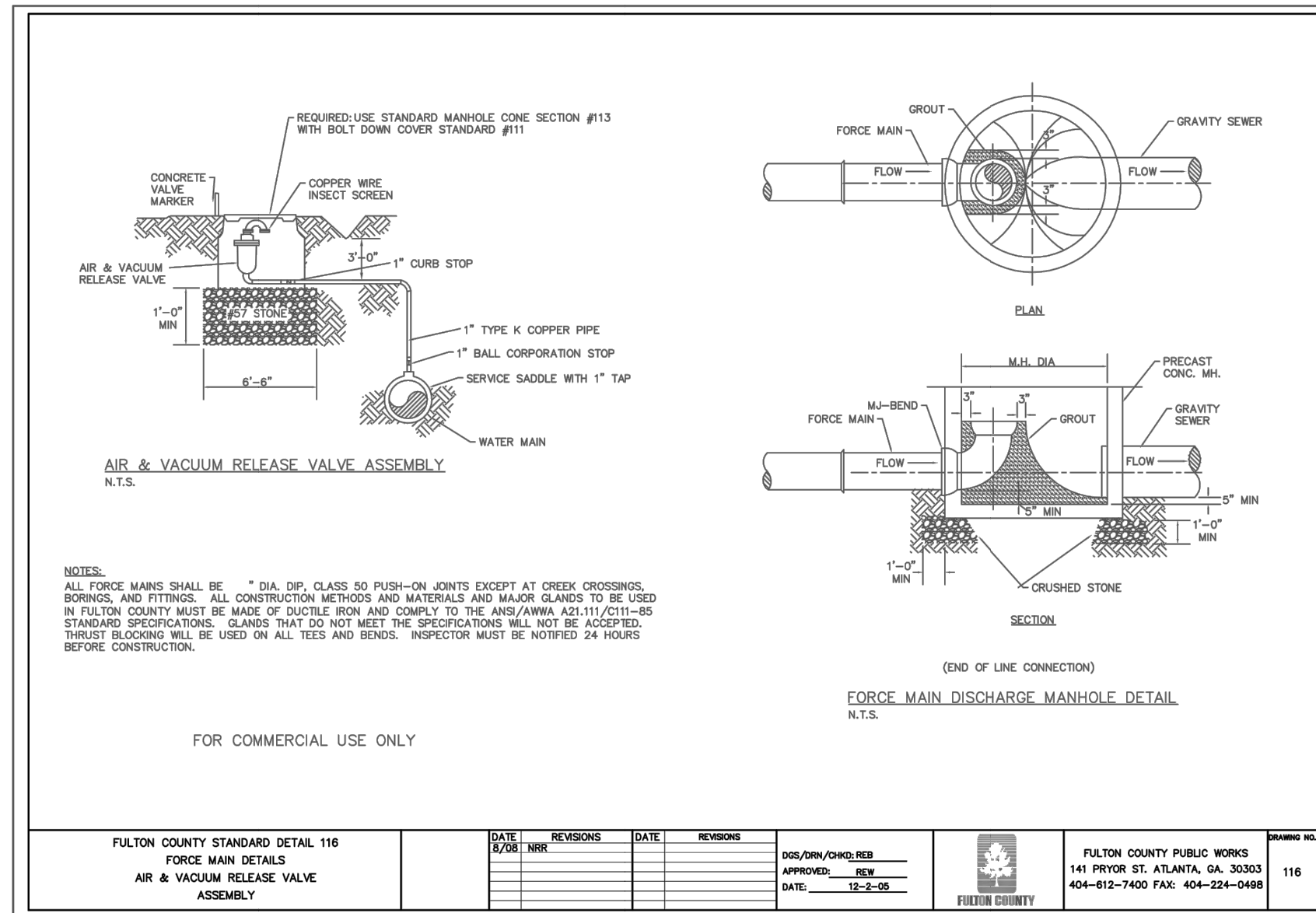
**CONSTRUCTION DETAILS**

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date: **08/06/2019** Sheet Number: 20 of 20

Scale: Drawing Number: **C-6.2**





**FULTON COUNTY AIRPORT  
BROWN FIELD  
ATLANTA, GEORGIA**



**Michael Baker**  
INTERNATIONAL

Designer: **MBC**

Technician:

Checked by:

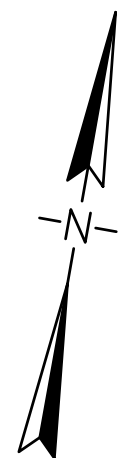
Project Number  
**167728**



2550 HERITAGE CT. TEL 770.951.2495  
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ATLANTA, GA 30339 [www.longeng.com](http://www.longeng.com)

**LEI PROJECT #0452-0160**

Notes:



50' 0' 50' 100'

1" = 50'

REVISIONS			
No.	Description	Date	By
1	REVISION SET	7/24/19	MC

Project Name:	
---------------	--

# SANDY CREEK ROAD SANITARY SEWER IMPROVEMENTS PROJECT

Drawing Name:

## CONSTRUCTION DETAILS

FULTON COUNTY PROJECT NUMBER:  
**195-031**

Date: **08/06/2019**

Sheet Number:

Scale:

	Drawing Number:
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## C-6.3