

GENERAL NOTES

pH: 6.1
 RESISTIVITY: 10001

PROJECT No. : CSNHS-0000-00(535) COUNTY: GRADY P. I. No. : 0000535

TYPE OF PIPE INSTALLATION		C O N C R E T E	CORRUGATED STEEL AASHTO M-36		CORRUGATED ALUMINUM AASHTO M-196	PLASTIC			
			ALUMINUM COATED (TYPE 2) CORR. STEEL	PLAIN ZINC COATED	PLAIN UNCOATED ALUMINUM	CORR. POLY-ETHYLENE AASHTO M-252	CORR. POLY-ETHYLENE SMOOTH LINED AASHTO M-294 TYPE 'S'	POLY VINYL CHLORIDE (PVC) PROFILE WALL AASHTO M-304	POLY VINYL CHLORIDE (PVC) CORRUGATED SMOOTH INTERIOR ASTM F-949
S T O R M D R A I N	LONGITUDINAL INTERSTATE AND TRAVEL BEARING	X							
	LONGITUDINAL NON-INTERSTATE AND NON-TRAVEL BEARING	X	X	X	X	X	X	X	X
	C R O S S D R A I N	ADT < 250	X	X	X	X	X	X	X
		GRADE ≤ 10% 250 < ADT < 1500	X		X	X	X	X	X
		1500 < ADT < 15,000	X			X	X	X	X
	I N	ADT > 15,000	X						
GRADE > 10% ADT > 250			X	X	X	X	X	X	
SIDE DRAIN		X	X	X	X	X	X	X	
PERMANENT SLOPE DRAIN			X	X	X	X	X	X	
PERFORATED UNDERDRAIN			X	X	X	X	X	X	

NOTE:

- ALLOWABLE MATERIALS ARE INDICATED BY AN "X".
- STRUCTURE REQUIREMENTS OF STORM DRAIN PIPE WILL BE IN ACCORDANCE WITH GEORGIA STANDARD 1030-D OR 1030-P, WHICHEVER IS APPLICABLE, AND THE STANDARD SPECIFICATIONS.
- GRADED AGGREGATE BACKFILL SHALL BE USED IN CROSS DRAIN APPLICATIONS FOR ALL PLASTIC PIPES (AASHTO M-294, HDPE PIPE; AASHTO M-304, PVC PIPE; ASTM F-949, PVC PIPE).
- THE CONTRACTOR SHALL PROVIDE ADDITIONAL STORM SEWER CAPACITY CALCULATIONS IF A PIPE MATERIAL OTHER THAN CONCRETE IS SELECTED.
- PIPE USED UNDER MECHANICALLY STABILIZED EARTH (MSE) WALLS, WITHIN MSE WALL BACKFILL, OR WITHIN FIVE FEET OF AN MSE WALL FACE SHALL BE CLASS V CONCRETE PIPE.
- PROJECT SPECIFIC pH AND RESISTIVITY VALUES ARE ENTERED INTO THE RESPECTIVE BOXES ABOVE TO DETERMINE ALLOWABLE PIPE MATERIALS.

REV. 03-22-10

CROSS DRAIN AND STORM DRAIN PIPE

UNLESS NOTED OTHERWISE IN THE PLANS, THE PIPE SIZES SPECIFIED FOR CROSS DRAIN PIPE AND STORM DRAIN PIPE ARE BASED ON A MANNING'S "N" DESIGN VALUE OF 0.012. ALTERNATE PIPE MATERIALS WITH MANNING'S N DESIGN VALUES LESS THAN OR EQUAL TO 0.012 MAY BE USED AS NOTED IN THE ALLOWABLE PIPE MATERIALS CHART.

THE CONTRACTOR MAY, AT HIS OWN EXPENSE, SUBMIT OTHER DESIGNS CONSIDERING ALTERNATIVE PIPE MATERIALS WITH MANNING'S N DESIGN VALUES GREATER THAN 0.012 TO THE PROJECT ENGINEER FOR APPROVAL. THE SUBMITTED DESIGN SHALL BE STAMPED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER.

SIDE DRAIN PIPE AND UNDER DRAIN PIPE

ALTERNATE PIPE MATERIALS MAY BE USED AS NOTED IN THE ALLOWABLE PIPE MATERIALS CHART. SIDE DRAIN PIPE IS NORMALLY DESIGNED USING A MANNING'S N VALUE FOR CORRUGATED METAL PIPE. SUBMISSION OF ALTERNATE DESIGNS WITH LESSER FRICTION COEFFICIENTS IS NOT REQUIRED.

1 ALL BORROW, STOCKPILE AND WASTE SITES FOR THIS PROJECT SHALL BE ENVIRONMENTALLY APPROVED PRIOR TO CONSTRUCTION ACTIVITIES. ALL COMMON FILL OR EXCESS MATERIAL DISPOSED OUTSIDE THE PROJECT RIGHT OF WAY SHALL BE PLACED IN EITHER A PERMITTED SOLID WASTE FACILITY, A PERMITTED INERT WASTE LANDFILL OR IN AN ENGINEERED FILL.

2 A NOTICE OF INTENT (NOI) FOR STORM WATER DISCHARGE IS REQUIRED FOR THIS PROJECT.

3 ALL DRIVEWAYS SHALL BE PAVED TO THE RIGHT OF WAY OR TIE-IN, WHICHEVER IS GREATER.

4 ALL EXISTING PIPES ARE TO BE RETAINED UNLESS NOTED OTHERWISE IN THE PLANS.

5 REMOVAL OF EXISTING PIPES WILL BE INCLUDED IN THE OVERALL COST OF GRADING COMPLETE.

6 REMOVAL OF THE FOLLOWING LIST OF ITEMS WILL BE INCLUDED IN THE OVERALL COST OF GRADING COMPLETE.

PARCEL	IMPROVEMENTS
A) 5	FENCE/GATE @ 15+75/121'L
B) 8	FIELD FENCE, 18+51/24'R
C) 7	FIELD FENCE, 18+66 TO 25+00/70'L
D) 14	DECORATIVE STONE WALL, 17+60/25'L

7 THE CONTRACTOR SHALL ENSURE THAT NO CONSTRUCTION RELATED ACTIVITIES OTHER THAN THOSE SHOWN ON THE APPROVED PLANS, INCLUDING THE USE OF EASEMENTS, STAGING, CONSTRUCTION, VEHICULAR USE, BORROW OR WASTE ACTIVITIES, AND TRAILER PLACEMENT OCCUR WITHIN THE ELIGIBLE NATIONAL REGISTER RESOURCE BOUNDARY.



Know what's below.
 Call before you dig.

THE FOLLOWING IS A LIST OF UTILITY OWNERS WITHIN THE CONSTRUCTION LIMITS.

UTILITY OWNER	FACILITY
WINDSTREAM COMMUNICATIONS	TELEPHONE
GRADY EMC	POWER
MEAG	POWER
GEORGIA TRANSMISSION CORP	POWER
GEORGIA POWER CO (TRANSMISSION)	POWER
CITY OF CAIRO (CNS)	CABLE AND WATER
BELLSOUTH/ATT	TELEPHONE

ENVIRONMENTAL RESOURCES IMPACT TABLE

RESOURCE NAME/TYPE	LOCATION		SIDE	CONSTRUCTION ACTIVITY	PERMITTED ACTIVITY	CONTROLLING CRITERIA	SPECIAL PROVISION?	COMMENTS INCLUDING ANY PERMIT EXPIRATION DATES
	BEGINNING STA	ENDING STA						
ESA	1+07.58 SR 112	17+32.67 SR 112	BOTH	ROADWAY CONSTRUCTION	REFER TO SPECIAL PROVISION 107.23 F	SECTION 106 COMMITMENT	107.23 F	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION.
STREAM 1 BUFFER	9+70 SR 112	11+30 SR 112	RT	ROADWAY CONSTRUCTION AND RIP RAP PLACEMENT	ACTIVITIES WITHIN 50 FT OF THE PROPOSED CROSSEDRAINS ARE EXEMPT	MEMO FROM EPD DATED 9/20/2010 RE: BUFFER VARIANCE ISSUES		NO COMMENT
STREAM 1 BUFFER	10+92 SR 112	12+80 SR 112	LT	ROADWAY CONSTRUCTION AND RIP RAP PLACEMENT	ACTIVITIES WITHIN 50 FT OF THE PROPOSED CROSSEDRAINS ARE EXEMPT	MEMO FROM EPD DATED 9/20/2010 RE: BUFFER VARIANCE ISSUES		NO COMMENT
STREAM 1 BUFFER	13+00 SR 112	14+50 SR 112	LT	REMOVAL OF EXISTING PIPES AND ROADWAY	BUFFER IMPACTS WITHIN BOUNDARY OF ORANGE BARRIER FENCE AS DISPLAYED ON PLANS	BUFFER VARIANCE DATED 10/21/2011	700	NO COMMENT
ELIGIBLE HISTORIC RESOURCE	7+47 17TH AVE	13+85 17TH AVE	LT	ROADWAY CONSTRUCTION	REFER TO GENERAL NOTE 7	SECTION 106 COMMITMENT		CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION.
STREAM 1	10+00	12+50	BOTH	PLACEMENT OF PIPES AND RIP RAP	151 LINEAR FEET OF IMPACT	SECTION 404 OF THE CWA-NHP 23		PERMIT EXPIRES MARCH 18, 2012

* NOTIFY THE OFFICE OF ENVIRONMENTAL SERVICES WITHIN FIFTEEN (15) DAYS OF COMPLETED CONSTRUCTION IN THE WATERS OF THE U.S.

GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: DISTRICT 4 DESIGN
GENERAL NOTES

DRAWING No.
4-001