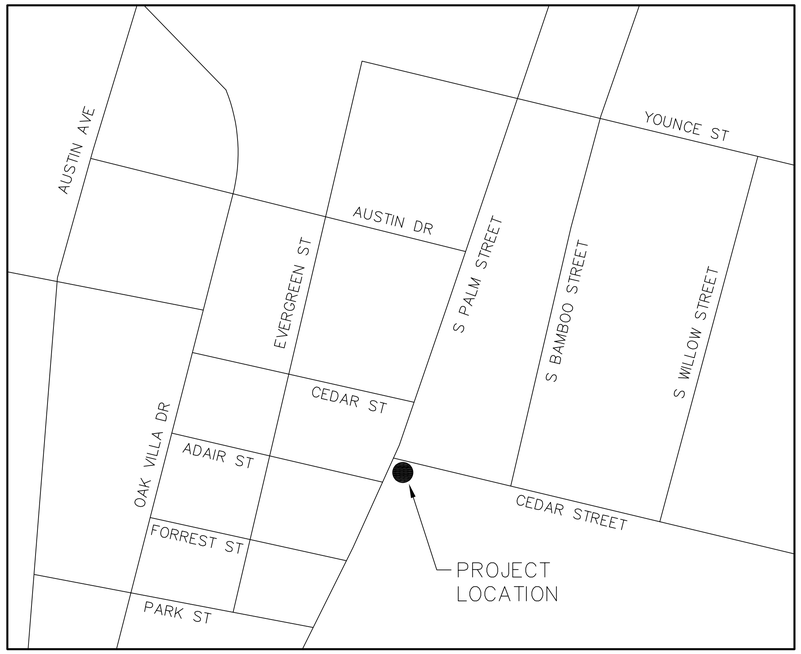
PALM STREET & CEDAR STREET
PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

OWNER
CITY OF JESUP
162 EAST CHERRY STREET
JESUP, GEORGIA 31546
(912) 427-1313

24-HOUR CONTACT
BILL SHUMAN
(912) 427-1313
BSHUMAN@JESUPGA.GOV

Sheet List Table	
Sheet Number	Sheet Title
C1.0	TITLE SHEET
C1.1	GENERAL NOTES
C2.1	EXISTING CONDITIONS
C2.2	PUMP STATION EXISTING CONDITIONS
C5.1	PUMP STATION PLAN SHEET
C5.2	PUMP STATION DETAIL SHEET
C5.3	DEMOLITION PLAN
C6.1	INITIAL EROSION CONTROL PLAN
C6.2	INTERMEDIATE EROSION CONTROL PLAN
C6.3	FINAL EROSION CONTROL PLAN
C6.4	EROSION CONTROL NOTES
C6.5	EROSION CONTROL NOTES
C6.6	EROSION CONTROL DETAILS
C6.7	EROSION CONTROL DETAILS
C7.1	SITE DETAILS
C7.2	SITE DETAILS
C7.3	SITE DETAILS
C7.4	SITE DETAILS
E1.1	ELECTRICAL PLAN



VICINITY MAP N.T.S.

START PROJECT: N31° 35' 29.79", W81° 52' 39.46"
END PROJECT: N31° 35' 30.34", W81° 52' 40.25"
DISTURBED ACREAGE: 0.16 AC.
TOTAL SITE ACREAGE: 0.034 AC.

ENGINEER
T. R. LONG ENGINEERING, P.C.
114 NORTH COMMERCE STREET
HINESVILLE, GEORGIA 31313
(912) 368-5664

DRAWING LEGEND		
DESCRIPTION	PROPOSED	EXISTING
RIGHT OF WAY	R/W	R/W
EDGE OF PAVEMENT		
DITCH CENTERLINE		
SANITARY SEWER	8"S	
WATER LINE	10"W	10"W
FORCE MAIN	FM	FM
UNDERGROUND GAS LINE	8"G	8"G
CONTOURS	81	81
STORM DRAINAGE PIPE		
ELEVATION	FG: 78.15	X 81.90
SILT FENCE NON-SENSITIVE	Sdf-NS	
SILT FENCE SENSITIVE	Sdf-S	
INLET PROTECTION	Sdz-F	
CHECK DAM- HAY BALE	Cd-Hb	
CHECK DAM - RIP RAP	Cd-Rp	
CONSTRUCTION EXIT	Cx	
STORM OUTLET PROTECTION	St	
SILT FENCE		
MULCHING	Ds1	
TEMPORARY GRASSING	Ds2	
PERMANENT GRASSING	Ds3	
FIRE HYDRANT		
SEWER MANHOLE		
WATER VALVE		
DRAINAGE FLOW		
WATER METER		
BENCHMARK		
WELL		
GUY POLE		
IRON PIN	SET O I.P.S	FOUND O I.P.F
TELEPHONE PEDESTAL		TEL
POWER POLE		

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S. Edgewood Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET
PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: 134-5-1-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
TITLE SHEET

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C1.0

G:\ACTIVE PROJECTS\2024-182 H - PALM AND CEDAR PUMP STATION\900-DRAWINGS\DWG\CONST\2024-182 GEN.DWG

PAVING NOTES

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS, AND/OR LOCAL STANDARDS IMPOSED BY LOCAL UTILITY, CITY, COUNTY, AND STATE. IT IS THE CONTRACTOR'S RESPONSIBILITY THAT ALL THE CONSTRUCTION BE IN ACCORDANCE WITH THE **CITY OF JESUP** AND GDOT STANDARD DETAILS AND SPECIFICATIONS.
2. CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY AGC OF AMERICAN INC., AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
3. CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL METHODS AS MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC AND SHALL BE PROVIDED AND MAINTAINED THROUGHOUT ALL CONSTRUCTION ADJACENT TO AND WITHIN ALL ROADWAYS. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLAN TO CITY FOR APPROVAL.
4. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO SEPARATE WORK AREAS FROM PEDESTRIAN TRAFFIC AND TO INSURE SAFE PEDESTRIAN PASSAGE AT ALL TIMES.
5. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. A MINIMUM CLEARANCE OF TWO FEET SHALL BE MAINTAINED BETWEEN THE FACE OF CURB AND ANY PART OF A TRAFFIC SIGN OR LIGHT POLE. CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES WITH OTHER CONTRACTORS ON SIGNS OR LIGHT POLES.
6. CONTRACTOR SHALL SAW–CUT TO PROVIDE SMOOTH TRANSITIONS AT TIE–INS TO EXISTING EDGES OF PAVEMENT AND AT COLD JOINTS OF RECENTLY PAVED ASPHALT.
7. JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINTING TOOL.
8. CONTRACTOR SHALL SAW–CUT TIE–INS AT EXISTING CURBS AS NECESSARY TO ENSURE SMOOTH TRANSITIONS, CONTRACTOR SHALL SAW–CUT AND TRANSITION TO MEET EXISTING PAVEMENT AS NECESSARY AND AS DIRECTED BY INSPECTOR TO INSURE POSITIVE DRAINAGE. (TYPICAL AT ALL INTERSECTIONS)
9. PAVING CONTRACTOR SHALL INSTALL PAPER BREAKAWAY EDGES AT COLD JOINTS OR SAW–CUT AS REQUIRED TO INSURE A STRAIGHT, FULL–DEPTH JOINT FACE IMMEDIATELY PRIOR TO INSTALLING ABUTTING HOT ASPHALT.
10. ALL DIMENSIONS ARE TO BACK OF CURB OR EDGE PF PAVEMENT UNLESS INDICATED OTHERWISE.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF PAVEMENT REPLACEMENT WHERE UTILITY LINES ARE EXTENDED ACROSS EXISTING ASPHALT.
12. ASPHALT SURFACE COURSE SHALL BE LAID WITH THE DIRECTION OF TRAFFIC IN ALL DRIVE LANES WITHIN PARKING FIELDS.
13. BASE AND ASPHALT THICKNESS ARE MINIMUM REQUIRED. REFER TO SPECIFICATIONS FOR TYPE OF PAVING AND BASE TO BE USED.
14. ALL CONCRETE SHALL BE CLASS A 4000 P.S.I. UNLESS NOTED OTHERWISE. DO NOT POUR ANY CONCRETE BEFORE FORMS ARE INSPECTED AND APPROVED BY THE INSPECTOR.
15. ALL RAMPS CONSTRUCTED ARE NOT TO EXCEED A SLOPE OF 1:12. ALL SIDEWALKS SHALL NOT HAVE A CROSS–SLOPE GREATER THAN 1:50
16. CONCRETE DUMPSTER PADS TO BE FLUSH WITH PAVEMENT UNLESS INDICATED OTHERWISE.
17. SEE DETAIL SHEETS FOR ADDITIONAL DETAILS ON STRIPING, SIGNS, ETC.

INSPECTION NOTES

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. THE PRIMARY PERMITTEE WILL 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 5:00 PM ON ANY FRIDAY HOLIDAY IN WHICH CASE 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 WATERS(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 WATERS(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 RESULT 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 THAT INCLUDES 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 RELATING 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 READY 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 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 2013 NPDES STAND ALONE PERMIT.

SITE GRADING NOTES

1. DIMENSIONS ON BUILDINGS ARE FOR GRADING PURPOSES ONLY AND ARE NOT TO BE USED TO LAY–OUT FOOTINGS. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION INFORMATION.
2. GRADING CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES. CONTRACTOR SHALL PAY ALL COSTS IN CONNECTION WITH THE ALTERATION OF OR RELOCATION OF THE FACILITIES. CONTRACTORS SHALL RAISE OR LOWER TOPS OF EXISTING MANHOLES TO REMAIN AS REQUIRED TO MATCH FINISHED GRADES.
3. GRADING CONTRACTOR SHALL COOPERATE AND WORK WITH ALL OTHER CONTRACTORS PERFORMING WORK ON THIS PROJECT TO INSURE PROPER AND TIMELY COMPLETION OF THIS PROJECT.
4. THE GRADING CONTRACTOR SHALL USE WHATEVER MEASURES ARE REQUIRED TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL COMPLY WITH ALL LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. CONTRACTORS SHALL REMOVE ALL TEMPORARY EROSION CONTROL STRUCTURES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND NOT BEFORE THE ESTABLISHMENT OF A STAND OF GRASS SUFFICIENT TO PREVENT EROSION.
5. FOR ANY WORK ON THE STATE OR COUNTY RIGHT–OF–WAY, THE GRADING CONTRACTOR SHALL:
   A. NOT STORE MATERIAL, EXCESS DIRT, OR EQUIPMENT IN THE RIGHT–OF–WAY. THE PAVEMENT SHALL BE KEPT FREE FROM ANY MUD OR EXCAVATION WASTE FROM TRUCKS OR OTHER EQUIPMENT. ON COMPLETION OF THE WORK, ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE RIGHT–OF–WAY.
   B. PROVIDE ALL NECESSARY AND ADEQUATE SAFETY PRECAUTIONS SUCH AS SIGNS, FLAGS, LIGHT BARRICADES, AND FLAG–MEN AS REQUIRED BY THE LOCAL AUTHORITIES AND IN ACCORDANCE WITH SOLELY RESPONSIBLE FOR AND HOLD HARMLESS THE CITY, STATE, ARCHITECT, ENGINEER, AND OWNER FROM ANY CLAIMS FOR DAMAGE DONE TO EXISTING PRIVATE PROPERTY, PUBLIC UTILITIES, OR TO THE TRAVELING PUBLIC.
   C. COMPLETE WORK TO THE SATISFACTION OF THE CITY PUBLIC WORKS DEPARTMENT AND OBTAIN A LETTER FROM THE DEPARTMENT STATING THAT THE WORK IS ACCEPTABLE.
7. GRADING CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING, OR BY OTHER METHODS AS DIRECTED BY ENGINEER AND/OR OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO OWNER.
8. SITE GRADING CONTRACTOR SHALL TERMINATE ALL STORM DRAIN PIPES FIVE FEET MAXIMUM FROM BUILDING UNLESS OTHERWISE NOTED.
9. STORM SEWER LEAD–INS TO BUILDING SHALL NOT BE INSTALLED UNTIL BUILDING PLANS ARE COMPLETED AND LOCATIONS ESTABLISHED ON THE ARCHITECTURAL PLANS. LEAD–INS MAY CHANGE 15' HORIZONTALLY AND 3' VERTICALLY PRIOR TO INSTALLATION AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL REQUEST AND RECEIVE WRITTEN APPROVAL FROM PRIME CONTRACTOR PRIOR TO INSTALLATION OF LEAD–INS. CONTRACTOR SHALL COORDINATE LOCATIONS, SIZE, AND INVERT ELEVATIONS OF STORM SEWERS WITH APPROVED BUILDING PLUMBING PLANS.
10. ALL EXCAVATING IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED.
11. BEFORE ANY MACHINE WORK IS DONE, CONTRACTOR SHALL STAKE OUT AND MARK THE ITEMS ESTABLISHED BY THE SITE PLAN, CONTROL POINTS SHALL BE PRESERVED AT ALL TIMES DURING THE COURSE OF THE PROJECT. LACK OF PROPER WORKING POINTS AND GRADE STAKES MAY REQUIRE SATISFACTION OWNER MUST APPROVED STAKED ITEMS PRIOR TO CONSTRUCTION.
12. TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO BEGINNING OF GRADING. CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION CONTROL DEVICES AND SHALL REMOVE SILT CONTRACTOR AT LEAST ONCE A WEEK.
13. CONTRACTOR TO COORDINATE ALL WORK WITH OTHER UTILITY INSTALLATIONS NOT COVERED IN THESE PLANS, (ELECTRIC, TELEPHONE, GAS, CABLE, ETC.) AND ALLOW FOR THEIR OPERATIONS AND CONSTRUCTION TO BE PERFORMED.
14. CUT AND FILL SLOPES ARE NOT TO EXCEED 3:1 UNLESS OTHERWISE NOTED.
15. IN NO CASE SHALL ANY PAVED AREAS BE LESS THAN A SLOPE OF 1.0%. ALL ACCESSIBLE SIDEWALKS AND AISLE SLOPES NOT TO EXCEED 2% CROSS–SLOPE.
16. CONTRACTOR SHALL REPAIR OR REPLACE IN–KIND ANY DAMAGE THAT OCCURS AS RESULT OF HIS WORK.
17. ALL LINEAR FOOTAGE FOR ALL UTILITY PIPES ARE APPROXIMATE, ACTUAL INSTALLED QUANTITIES MAY VARY.
18. GRADING CONTRACTOR SHALL RESTORE TO GRADE AND COMPACTION ALL AREAS DISTURBED BY BUILDING CONSTRUCTION PRIOR TO BASE AND PAVING OPERATIONS COMMENCING.
19. GRADING CONTRACTOR SHALL MAINTAIN ALL WEATHER CONSTRUCTION ACCESS ROADS AS REQUIRED BY GENERAL CONTRACTOR.

SITE UTILITY NOTES

1. THE SITE UTILITY PLAN IS FOR SANITARY SEWER AND WATER LINE CONSTRUCTION ONLY. DO NOT USE FOR GRADING OR STORM SEWER CONSTRUCTION.
2. ALL PIPE LENGTHS ARE HORIZONTAL DISTANCES AND ARE APPROXIMATE.
3. ALL DOMESTIC WATER AND SANITARY SEWER STUBS TO BE TERMINATED 5 FEET OUTSIDE OF THE BUILDING UNLESS OTHERWISE NOTED. THE END OF THESE SERVICE LINES SHALL BE TIGHTLY PLUGGED OR CAPPED AND MARKED UNTIL SUCH TIME AS CONNECTION IS MADE INSIDE BUILDING BY PLUMBING CONTRACTOR.
4. SITE UTILITY CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF THE UTILITIES. ALL PIPE AND FITTINGS SHALL BE INSPECTED BY THE WATER DEPARTMENT INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING PRESSURE TESTING AND DISINFECTION OF LATERALS AND HIS SIGNATURE OF APPROVAL IS REQUIRED.
5. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS, AND/OR LOCAL STANDARDS IMPOSED BY LOCAL UTILITY AND **CITY OF JESUP**.
6. THE SITE UTILITY CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE LOCAL UTILITY AUTHORITIES FOR CONNECTION TO THE EXISTING MAINS AND PAY ALL APPLICABLE FEES.
7. ALL WATER LINES SHALL HAVE A MINIMUM COVER OF 36" ABOVE TOP OF PIPE.
8. CONTRACTOR SHALL ADJUST LOCATION OF PROPOSED WATER LINES AS REQUIRED TO AVOID CONFLICTS WITH STORM SEWER OR OTHER UTILITIES AT NO EXTRA COST.
9. BASED ON THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE, CLEANOUTS ARE REQUIRED AT A MAXIMUM SPACING OF 100 FEET ON UTILITY LEAD–INS TO BUILDING. CONTRACTOR TO PROVIDE A CLEANOUT WITHIN 5 FEET OF BUILDING AND AT ALL BENDS.
10. THE SITE UTILITY CONTRACTOR SHALL COOPERATE AND WORK WITH ALL OTHER CONTRACTORS ON THE SITE.
11. ALL MATERIALS SHALL BE U.L. LISTED AND APPROVED BY THE LOCAL UTILITY COMPANY UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
12. THE EXISTING UTILITY FACILITIES AND LOCATIONS SHOWN ON THE DRAWINGS ARE TAKEN FROM READILY AVAILABLE INFORMATION. THE ACTUAL LOCATIONS OF THE UTILITY FACILITIES MAY VARY SOMEWHAT FROM THE LOCATIONS SHOWN OR INDICATED ON THE DRAWINGS. THE SITE UTILITY CONTRACTOR SHALL CONTACT ALL AGENCIES WITH UTILITY FACILITIES IN THE VICINITY OF THE WORK AND SHALL LOCATE ALL UNDERGROUND FACILITIES BEFORE BEGINNING WORK. THE CONTRACTOR SHALL PROJECT ALL UTILITY FACILITIES AND REPAIR ANY DAMAGES RESULTING FROM THEIR WORK, IN CONFORMANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS AND RELOCATE IF REQUIRED.
13. ALL SANITARY SEWER PIPE SHALL BE SDR–26 MEETING ASTM D3034 WITH GASKET TYPE JOINTS MEETING ASTM F477.
14. UTILITY LEAD–INS TO BUILDING SHALL NOT BE INSTALLED UNTIL BUILDING PLANS ARE COMPLETED AND LOCATIONS ESTABLISHED ON THE ARCHITECTURAL PLUMBING PLANS. LEAD–INS MY CHANGE 15' HORIZONTALLY AND 3' VERTICALLY PRIOR TO INSTALLATIONS AT NO ADDITIONAL COST TO THE OWNER. UTILITY CONTRACTOR SHALL REQUEST AND RECEIVE WRITTEN APPROVAL FROM PRIME CONTRACTOR PRIOR TO INSTALLATION OF LEAD–INS. LOCATION, SIZE AND INVERT ELEVATIONS OF SANITARY SEWER SHALL BE COORDINATED WITH THE APPROVED PLUMBING PLANS FOR THE BUILDING.
15. BUILDING PLUMBING CONTRACTOR SHALL PAY ALL COST FOR WATER METERS, METER BOXES, VALVES, ETC. TO PROVIDE A COMPLETE JOB PER LOCAL AUTHORITY REQUIREMENTS.
16. THRUST BLOCKS SHALL BE PROVIDED AT ALL TEES, ELBOWS, AND BENDS OF SUFFICIENT SIZE TO COMPLY WITH MINIMUM STANDARDS OF N.F.P.A. – EXISTING SOIL CONDITIONS.
17. SHOULD LATENT SOIL CONDITIONS NECESSITATE, CONTRACTOR SHALL INSTALL SPECIAL SUPPORTS FOR PIPING AND/OR APPURTENANCES INCLUDING THE REMOVAL OF UNSUITABLE MATERIAL AND BACKFILLING WITH GRAVEL OR OTHER MATERIAL. CONTRACTOR SHALL PERFORM ANY SUCH WORK AS DIRECTED BY THE CIVIL ENGINEER AND/OR SOILS ENGINEER AT NO COST TO OWNER.
18. CONTRACTOR TO COORDINATE ALL WORK WITH OTHER UTILITY INSTALLATIONS NOT COVERED IN THESE PLANS (ELECTRIC, TELEPHONE, GAS, CABLE, ETC.) AND ALLOW FOR THEIR OPERATIONS AND CONSTRUCTION TO BE PREPARED.
19. THE SITE UTILITY CONTRACTOR SHALL COORDINATE AND PAY FOR ALL SANITARY SEWER CONNECTIONS. SANITARY SEWER CONNECTION FINAL TIE–IN TO THE EXISTING MANHOLE(S) SHALL NOT BE MADE UNTIL COMPLETION OF THE PROPOSED SYSTEM AND ALL MANHOLES HAVE BEEN BROUGHT ABOVE GROUND TO INSURE SEDIMENT DOES NOT ENTER SYSTEM. LINES SHALL BE PROPERLY CLEANED, IF NEEDED.
20. SITE UTILITY CONTRACTOR TO COORDINATE WITH IRRIGATION CONTRACTOR TO PROVIDE POWER IN CONDUIT TO IRRIGATION CONTROLLER PER MANUFACTURERS RECOMMENDATIONS. VERIFY EXACT LOCATION OF CONTROLLER WITH OWNER PRIOR TO INSTALLATION.

UTILITIES PROTECTION CENTER 1-800-282-7411 CALL BEFORE YOU DIG

GEORGIA811.COM DIAL 811

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

GEORGIA REGISTERED PROFESSIONAL ENGINEER TRENT R. LONG NO. 27744

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET
PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

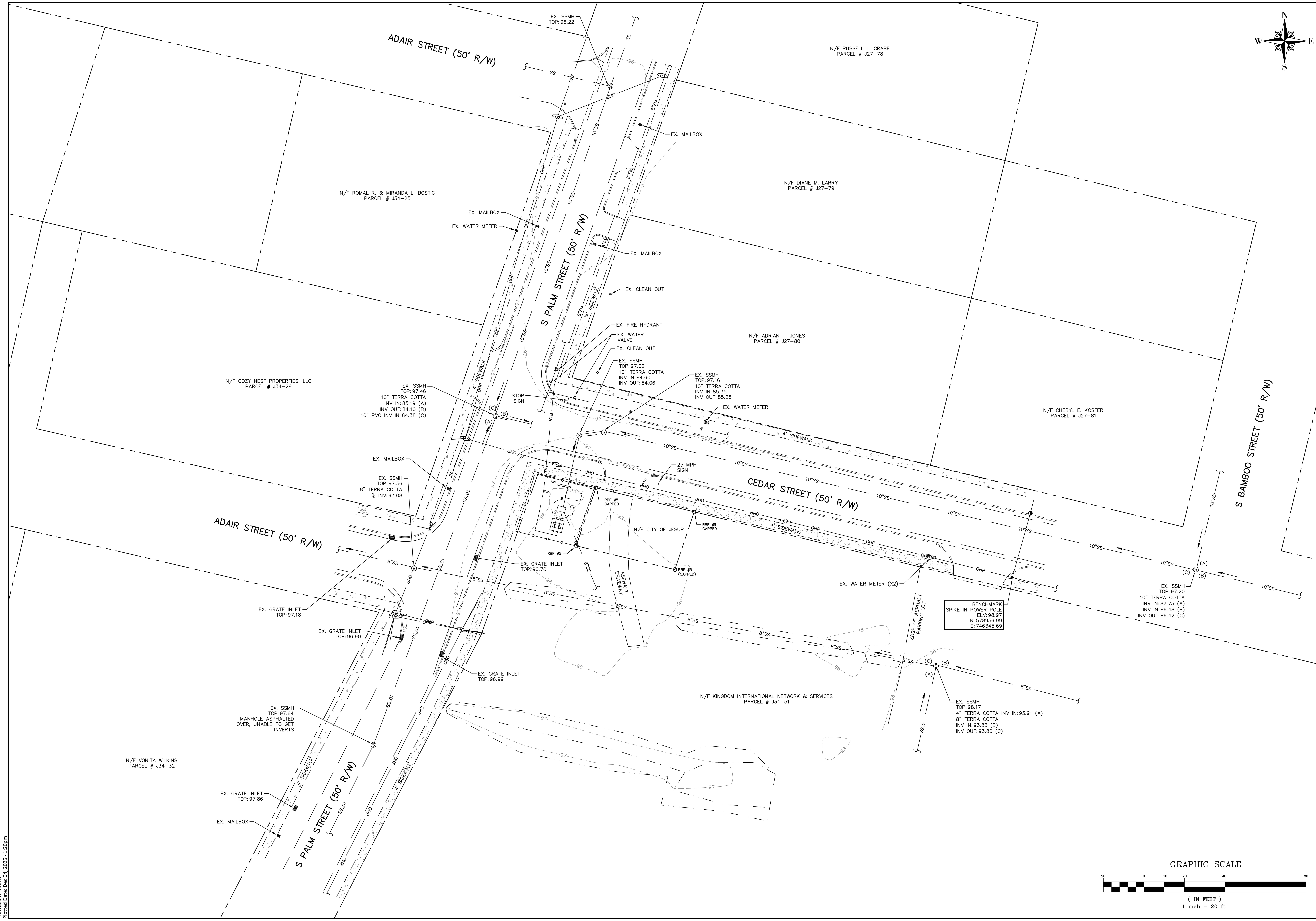
SHEET NAME:
GENERAL NOTES

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C1.1

Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWG\CONST\2024-182 GEN.dwg
Plotted by: rdavis
Plotted Date: Dec 04, 2025 - 1:20pm



Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWG\CONST\2024-182 EX.dwg
Plotted by: rdavis
Plotted Date: Dec 04, 2025 - 1:20pm

GEORGIA811.COM DIAL 811

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

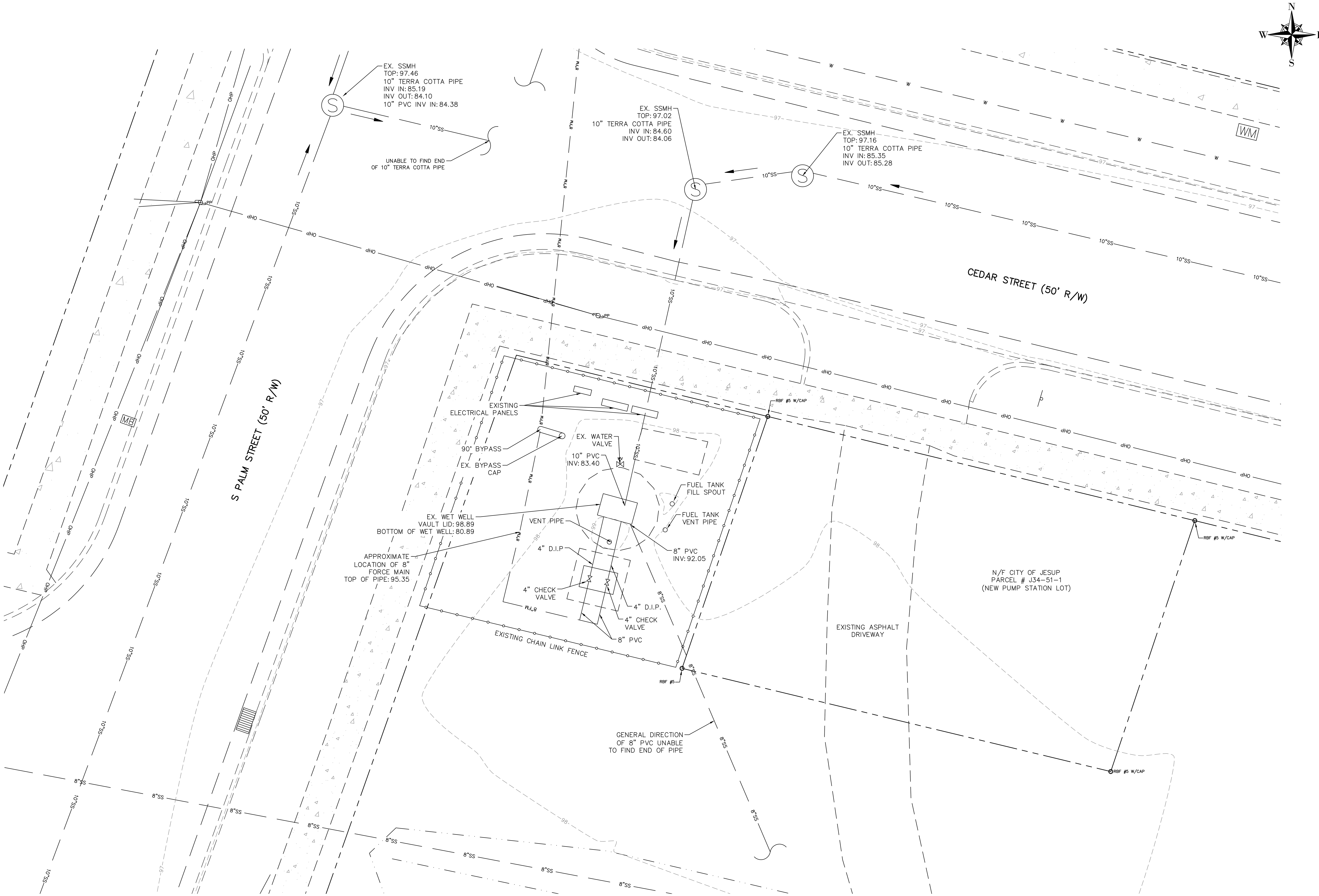
TAX PARCEL NUMBER: J34-51-1   CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
EXISTING CONDITIONS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C2.1



GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

GEORGIA811.COM DIAL 811

UTILITIES PROTECTION CENTER 1-800-282-7411 CALL BEFORE YOU DIG

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 27744 TRENT R. LONG

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
PUMP STATION EXISTING CONDITIONS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C2.2

NOTE:
INSTALL TEMPORARY PLUG IN EACH DOGHOUSE MANHOLE UNTIL NEW PUMP STATION IS OPERATIONAL. THEN PLUG LINE TO OLD PUMP STATION WITH WATER TIGHT PLUG.

INSTALL DOGHOUSE MANHOLE
OVER 10" SEWER MAIN
RIM = 97.37
EX–INV IN 10" = 84.00
EX–INV OUT 10" = 83.90 (TO BE PLUGGED)
INV OUT 10" = 83.60
PLUG TO DIVERT FLOW TO NEW PS
AFTER STARTUP COMPLETE

REMOVE & REPLACE
5 L.F. OF
CURB AND GUTTER
FOR INSTALLATION
OF WATER LINE

INSTALL
1 EA – 8"X 1" SADDLE
1 EA – 1" CURB STOP
CONTRACTOR TO VERIFY LOCATION
OF EXISTING WATER MAIN

PROTECT EXISTING
WATER MAIN

REMOVE EXISTING
10" TERRA COTTA PIPE
AND INSTALL NEW
10" PVC GRAVITY MAIN

EX. SSMH
TOP: 97.46
10" TERRA COTTA PIPE
INV IN: 85.19
INV OUT: 84.10
10" PVC INV IN: 84.38

UNABLE TO FIND END
OF 10" TERRA COTTA PIPE
CONTRACTOR TO VERIFY
LOCATION OF SEWER MAIN

EX. SSMH
TOP: 97.02
10" TERRA COTTA PIPE
INV IN: 84.60
INV OUT: 84.06

EX. SSMH
TOP: 97.16
10" TERRA COTTA PIPE
INV IN: 85.35
INV OUT: 85.28

CONNECT TO EXISTING
8" FORCEMAIN
WITH SLEEVE AND
45° FITTINGS MAX. ANGLE

REMOVE & REPLACE
69 L.F. OF
CURB AND GUTTER

REMOVE/REPLACE
ASPHALT 235 SY
2" 12.5MM ASPHALT
8" GAB BASE

INSTALL 38 LF 10" PVC
SEWER MAIN @ 0.53 % SLOPE
INV OUT = 83.60
INV IN = 83.40

INSTALL 45 L.F. OF
1" WATER SERVICE TUBING

REMOVE & REPLACE
EXISTING DRIVEWAY
TURNOUT 22 S.Y.

REMOVE/REPLACE
SIDEWALK/DRIVE
6" THICK 8.5 SY

INSTALL
1 EA – 1" WATER METER
1 EA – 1" BACKFLOW DEVICE (RPZ)

REMOVE/REPLACE
4" SIDEWALK 28 SY

EXISTING
ELECTRICAL PANELS

90° BYPASS

EX. BYPASS
CAP

EX. WATER
VALVE

10" PVC
INV: 83.40

FUEL TANK
FILL SPOUT

FUEL TANK
VENT PIPE

EX. WET WELL
VAULT LID: 98.89
BOTTOM OF WET WELL: 80.89

VENT PIPE

4" D.I.P

8" PVC
INV: 92.05

APPROXIMATE
LOCATION OF 8"
FORCE MAIN
TOP OF PIPE: 95.35

4" CHECK
VALVE

4" D.I.P.

4" CHECK
VALVE

8" PVC

EXISTING CHAIN LINK FENCE

INSTALL
DOUBLE 6' GATE

INSTALL
8"X6" REDUCER

1" FREEZE PROOF YARD HYDRANT
USE MERRILL MANUFACTURING
C–1000 FROST PROOF YARD HYDRANT

6" CONCRETE
SLAB

8' ø WET WELL
TOP = 99.00
INV IN =83.40
INV = 77.00

PUMP STATION AREA WITHIN FENCE
8" GAB WITH GEOTEXTILE FABRIC

CONTROL PANELS
SEE ELECTRICAL DRAWING

INSTALL DOGHOUSE MANHOLE
OVER 8" SEWER MAIN
RIM: 98.50
INV OUT: 92.50
(ESTIMATED)

GENERAL DIRECTION
OF 8" PVC UNABLE
TO FIND END OF PIPE

CONTRACTOR TO VERIFY
LOCATION OF EXISTING
8" SEWER MAIN

INSTALL 30 L.F. OF
8" PVC SEWER MAIN
PUMP STATION INV: 91.00
UPPER INV: 92.50

INSTALL
6' CHAIN LINK FENCE

CEDAR STREET (50' R/W)

S PALM STREET (50' R/W)

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

GEORGIA811.COM DIAL 811

GSWCC# 00000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S. College Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
PUMP STATION PLAN SHEET

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C5.1

Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWGS\CONST\2024-182 Utility.dwg
Plotted By: Kelsie
Plotted Date: Dec 04, 2025 - 1:21pm

PUMP STATION NOTES:

1.01 CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSION AND ELEVATIONS BEFORE STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCY.

1.02 CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONDITION ENCOUNTERED IN THE FIELD CONTRADICTORY TO THOSE SHOWN ON THE CONSTRUCTION PLANS.

1.03 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. THE STRUCTURAL ELEMENTS ARE NOT STABLE UNTIL THE STRUCTURE IS COMPLETE.

1.04 REVIEW OF SHOP DRAWINGS AND OTHER SUBMITTALS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

1.05 CHAMBER OR ROUND ALL EXPOSED CORNERS MINIMUM 1".

1.06 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:

CONCRETE CASE AGAINST EARTH (NOT FORMED) ____ 3 "
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER
#6 THROUGH #18 BARS ____ 2 "
#5 BARS AND SMALLER ____ 1 ½
CONCRETE NOT EXPOSED TO EARTH OR WEATHER
SLABS, JOISTS AND WALLS ____ 1"
BEAMS (STIRRUPS) ____ 1 ½

1.07 PRECAST CONCRETE DESIGN, MANUFACTURE AND ERECTION SHALL CONFORM TO THE FOLLOWING:
A. ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION.
B. PCI MNL-117 "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF PRECAST CONCRETE PRODUCTS", LATEST EDITION.
C. PCI DESIGN HANDBOOK, LATEST EDITION.

1.08 CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI.

1.09 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 UNLESS NOTED OTHERWISE.

1.10 PRECAST WET WELL MANUFACTURER IS TO PREPARE AND SUBMIT TO THE ENGINEER SHOP DRAWINGS SHOWING DESIGN DETAILS AND CALCULATIONS FOR THE STRUCTURES SHOWN BASED ON THE DESIGN CRITERIA SPECIFIED. THE DESIGN SHALL BE PREFORMED UNDER THE DIRECT SUPERVISION AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA EXPERIENCED IN THE DESIGN OF PRECAST CONCRETE. AT A MINIMUM THE SHOP DRAWINGS SHOULD SHOW WALL AND SLAB THICKNESS, STRUCTURAL REINFORCING, AND OPENING LOCATIONS. THE DESIGN ANALYSIS AND CALCULATIONS SHALL SHOW THAT ALL SECTIONS HAVE BEEN DESIGNED FOR THE BURIAL DEPTHS SHOWN ONT HE CONSTRUCTION PLANS AS WELL AS STRESSES INCURRED DURING TRANSPORTATION, HANDLING, AND CONSTRUCTION. REPRODUCED COPIES OF ASTM C1433 "STANDARD SPECIFICATION FOR PRECAST REINFORCED CONCRETE MONOLITHIC BOX SECTIONS FOR CULVERTS, STORM DRAINS AND SEWERS" WILL NOT BE ACCEPTED AS A SUBSTITUTE FOR DESIGN.

PUMP STATION DESIGN CRITERIA

CONCRETE:	f'c	5,000 PSI	
REINFORCING:	f'y	60,000 PSI	
SOIL LOADING:	yd	= 100 PCF	
	YS	= 60 PCF	

SUBSURFACE WATER LEVEL: ±2 FT. BELOW GROUND LEVEL

1.11 THE SOILS TO BE USED AS STRUCTURAL FILL SHALL BE FREE OF ORGANICS, ROOTS, OR OTHER DELETERIOUS MATERIALS. IT SHALL BE NON-PLASTIC GRANULAR MATERIAL CONTAINING LESS THAN 25 PERCENT FINES PASSING THE NO. 200 SIEVE.

1.12 ALL THE STRUCTURAL FILLS SHALL BE PLACED IN THIN (EIGHT TO TEN INCHES LOOSE) LIFTS AND COMPACTED TO A MINIMUM OF 95% IF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY OR DENSITY (ASTM D-1557).

1.13 FILL BROUGHT TO THE SITE SHALL BE WITHIN THREE PERCENT (WET OR DRY) OF THE OPTIMUM MOISTURE CONTENT. SOME MANIPULATION OF THE MOISTURE CONTENT (SUCH AS WETTING, DRYING) WILL BE REQUIRED DURING THE FILLING OPERATION TO OBTAIN THE REQUIRE DEGREE OF COMPACTION.

1.14 CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS FOR ALL FILL MATERIAL WITHIN AREA OF THE WETWELL. A MINIMUM OF TWO (2) TESTS SHALL BE PERFORMED AND RESULTS SUBMITTED TO ENGINEER PRIOR TO CONSTRUCTION OF SLABS.

1.15 WET WELL AND RECEIVING MANHOLE SHALL BE LINED WITH A FACTORY-INSTALLED HDPE/PP-R MOISTURE CHEMICAL BARRIER DEVELOPED SPECIFICALLY TO WITHSTAND THE SEVER EFFECTS OF HYDROGEN SULFIDE WITHIN THE WET WELL. THE LINER SHALL BE A MINIMUM OF 80 MILS THICK AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE LINER SYSTEM SHALL BE EQUIVALENT TO AGRUSURE-GRIP. ALL CONCRETE SURFACES SHALL BE CLEANED PRIOR TO INSTALLATION. COLOR SHALL BE SAFETY YELLOW.

1.16 EXTERIOR OF WET WELL SHALL BE COATED WITHIN CS55 COATING MIN. 2 COATS, ONE SPRAYED, ONE ROLLED/BRUSHED.

1.17 ALL BOLTS, GUIDE RAILS, HANGERS, LIFTING APPARATUS, METAL HARDWARE, PANELS, BRACING, ETC. INSIDE WET WELL AND PUMP STATION SITE SHALL BE 316 STAINLESS STEEL UNLESS OTHERWISE NOTED.

1.18 DO NOT PAINT ALUMINUM QUICK CONNECT COUPLINGS.

1.19 PROVIDE SENSOR PROBE, FLOATS, CABLES AND WIRE AS REQUIRED FOR THE MONITORING AND CONTROL SYSTEM. SECURE FLOAT CABLES TO MONOFILAMENT WITH WEIGHTED FLEXIBLE BOTTOM TO PREVENT TANGLING, NO SPLICING ALLOWED.

1.20 ALL CONDUIT ENTERING THE PUMP STATION SHALL BE SEALED AIR TIGHT AT THE MOTOR JUNCTION BOXES WITH DUCT SEAL.

1.21 BYPASS SUCTION PIPE INTAKE ELEVATION SHALL BE PLACED 6" BELOW LOW WATER LEVEL. INTAKE ELEVATION SHALL BE A MINIMUM OF ONE (1) FOOT FROM THE BOTTOM OF THE WETWELL.

1.22 DISCHARGE PIPING, BYPASS SUCTION PIPING, AND FITTINGS OUTSIDE THE WETWELL SHALL BE FLANGED (CLASS 53) DUCTILE IRON PIPE. ALL DUCTILE IRON PIPING SHALL BE PRIMED AND COATED WITH RAVEN 405 ON THE OUTSIDE AND PROTECTO 401 ON THE INSIDE.

1.23 ALL PIPING WITHIN THE WET-WELL WILL BE HDPE.

1.24 THE CONTRACTOR SHALL COORDINATE WITH PUMP SUPPLIER/MANUFACTURER ON PUMP PLACEMENT WITHIN WET-WELL. CONTRACTOR TO CONFIRM BASE ELBOW ANCHOR BOLT LAYOUT WITH PUMP MANUFACTURER AND VERIFY ECCENTRIC AND/OR OFF-SET FITTINGS TO ALLOW PROPER PUMP/BASE ELBOW PLACEMENT FROM WET-WELL WALL.

1.26 CONTRACTOR SHALL COORDINATE WITH PUMP SUPPLIER/MANUFACTURER TO ENSURE ADEQUATE MINIMUM LOW WATER LEVEL AND SPACING BETWEEN PUMP INTAKE AND WET-WELL BOTTOM IS PROVIDED. REVISE PLANS AS NECESSARY.

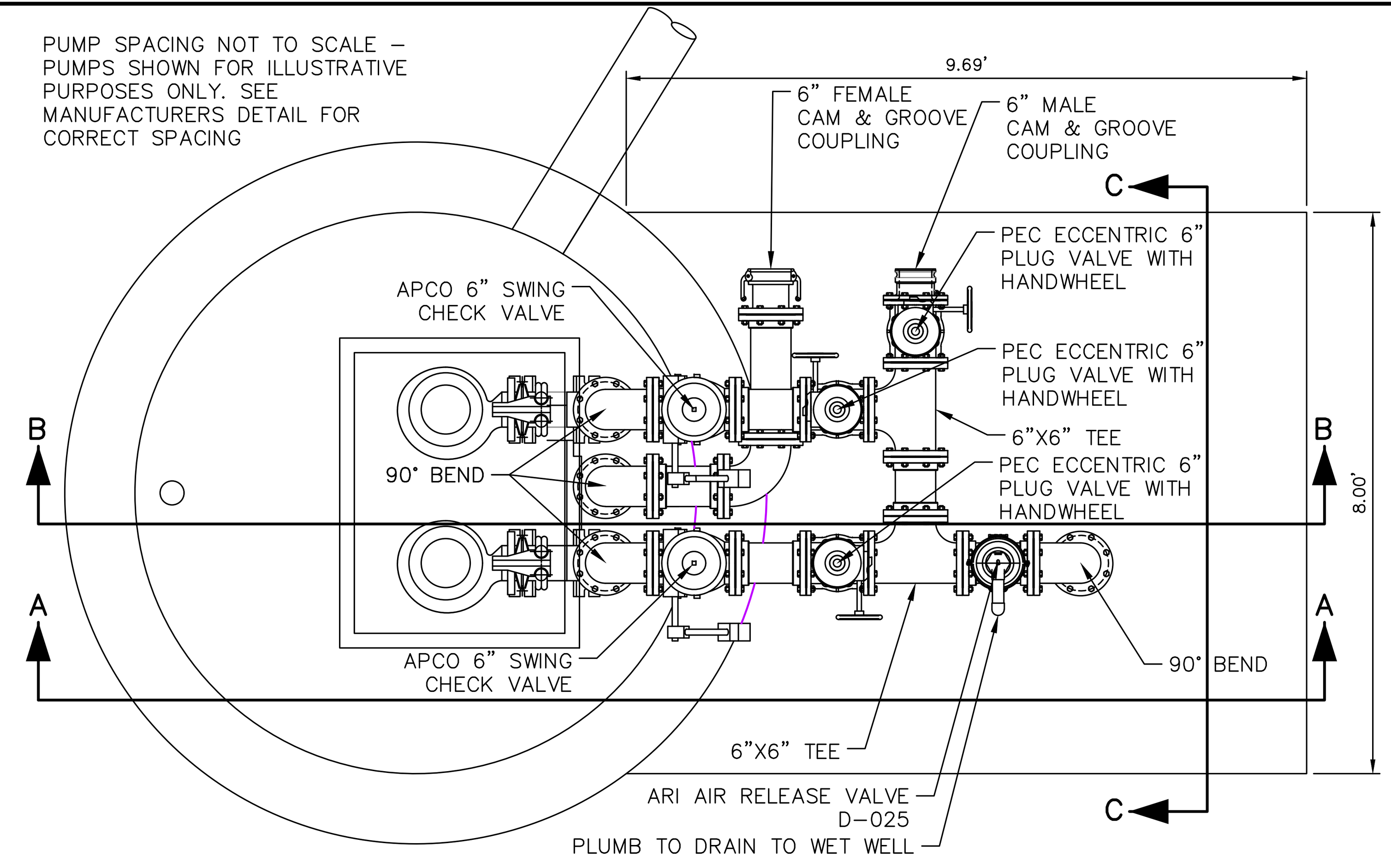
WETWELL DESIGN SCHEDULE

DESCRIPTION	ELEVATION
TOP ELEVATION	99.00
H.W.L. ALARM	82.75
LAG ON	82.25
LEAD ON	81.75
L.W.I. PUMPS OFF	78.57
BOTTOM	76.57
WETWELL DIA.	8'-0"

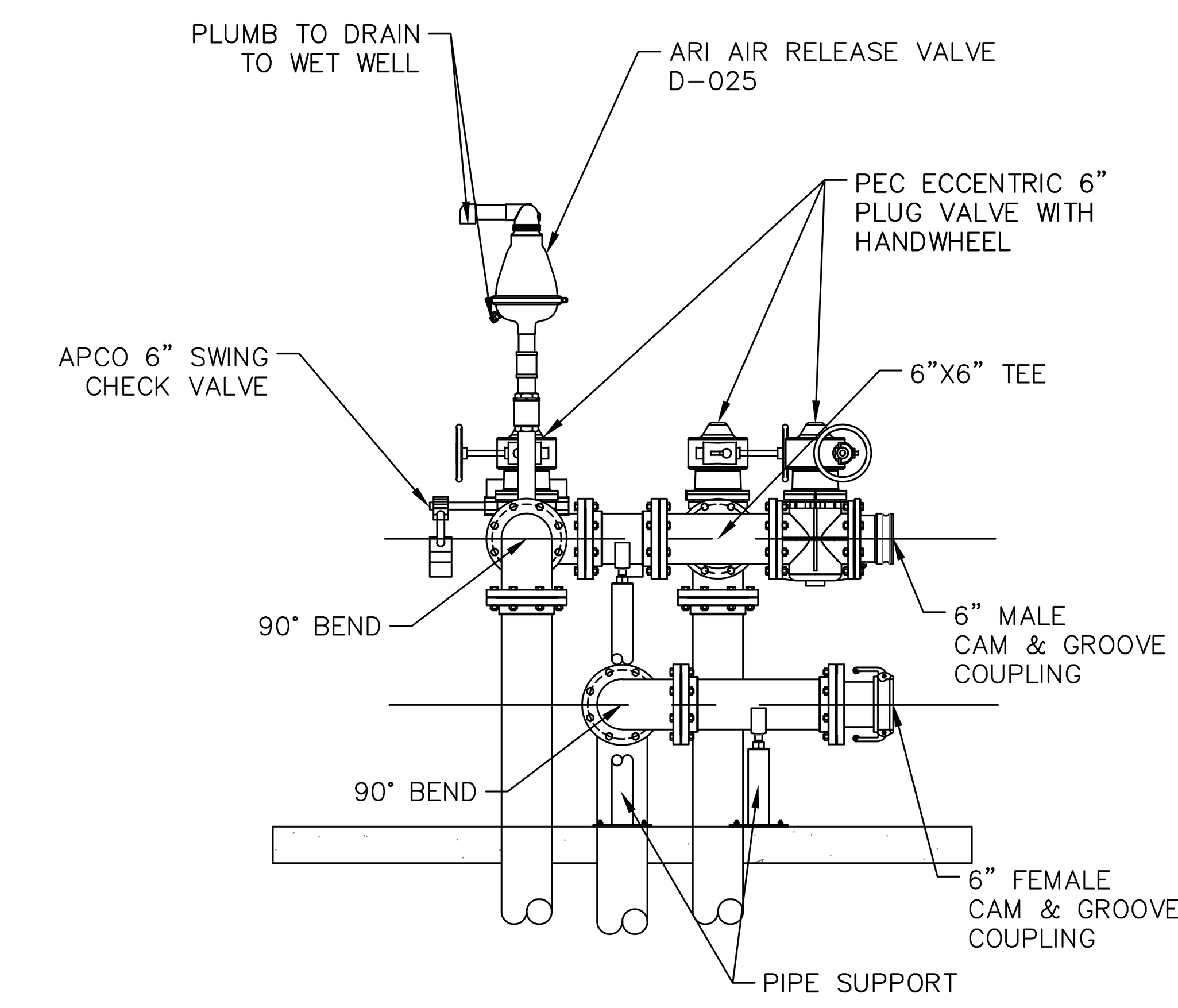
PUMP STATION DESIGN SCHEDULE

DESCRIPTION	INITIAL
NO. OF PUMPS	2
PHASE	3
VOLTAGE	230/460
MIN. HP	33.5
MIN. PUMPING RATE	897.73 GPM
TDH	95.78

NOTE
PUMPS SHALL BE EQUIVALENT TO FLYGT MODEL SE.A40.335.2.52S.EX.61R.A. NO OTHER PUMPS SHALL BE USED UNLESS ACCEPTED BY ENGINEER.

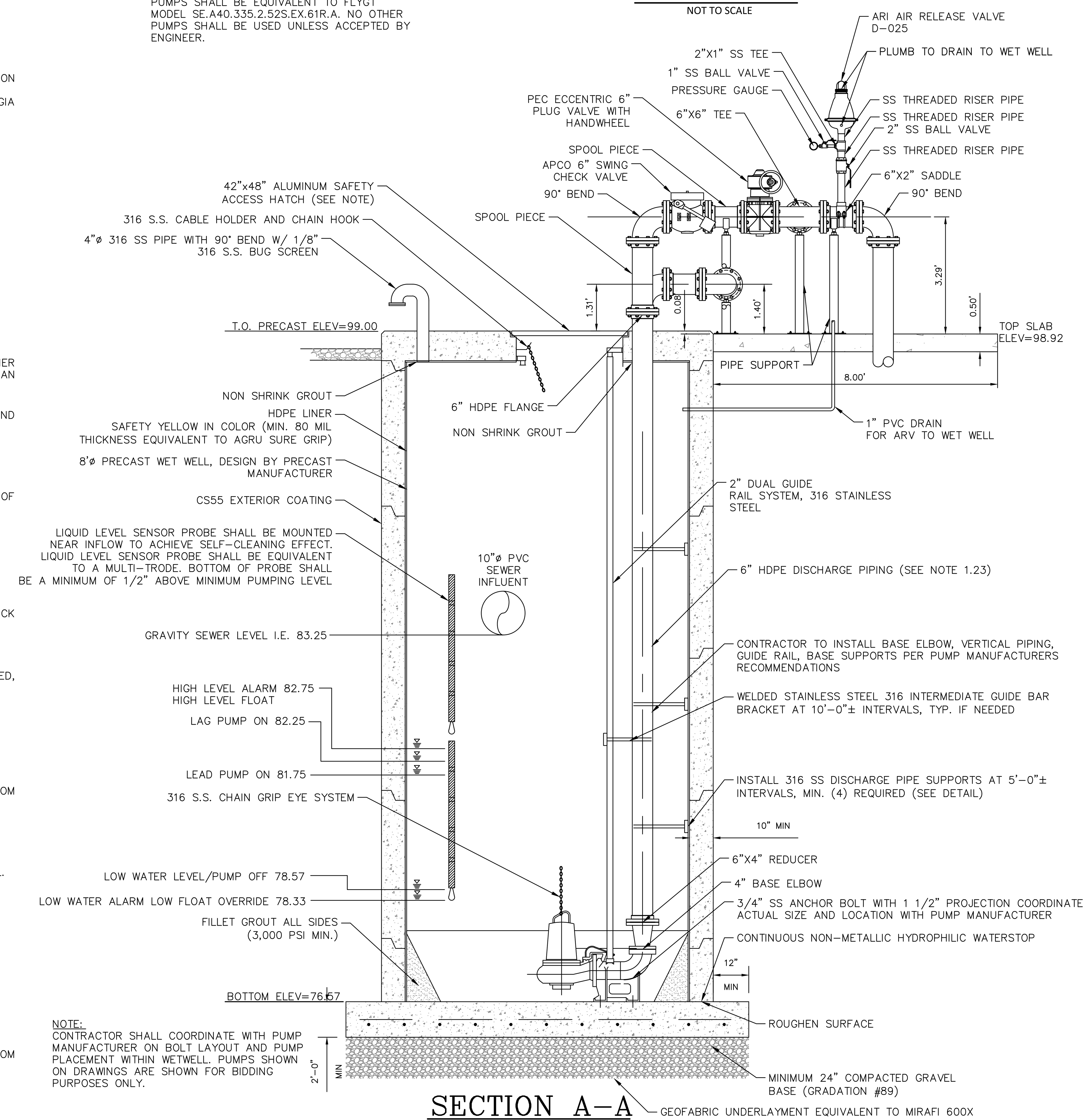


PLAN VIEW
NOT TO SCALE



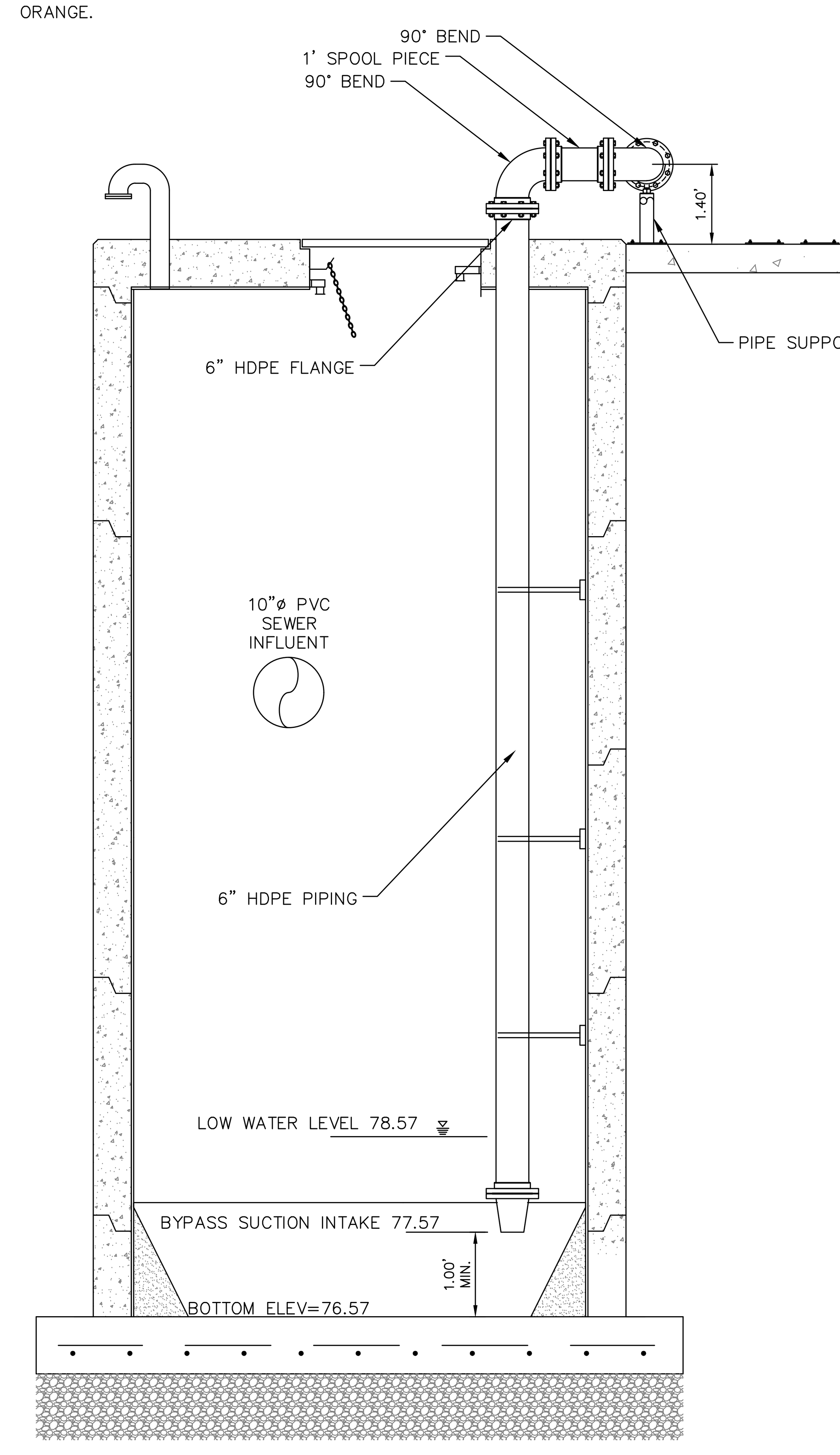
SECTION C-C
NOT TO SCALE

NOTE:
1. HATCHES SHALL BE ALUMINUM ALLOY 6063-TS AND T6, MINIMUM 1" THICK PLATE, FLUSH-TYPE LOCK, WATER TIGHT AND 300 PSF RATED EQUIVALENT TO HALLIDAY PRODUCTS.
2. WET-WELL HATCH SHALL INCLUDE STEEL SAFETY GRATING EQUIVALENT TO FLYGT "SAFETY HATCH". SAFETY GRATING SHALL CONFORM TO THE LATEST REVISIONS OF OSHA STANDARDS 1910.23 AND 1910.146 AND SHALL BE PAINTED SAFETY ORANGE.



NOTE:
CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER ON BOLT LAYOUT AND PUMP PLACEMENT WITHIN WETWELL. PUMPS SHOWN ON DRAWINGS ARE SHOWN FOR BIDDING PURPOSES ONLY.

SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

GEORGIA811.COM DIAL 811
GSWCC# 0000002134

THIS DRAWING IS THE PROPERTY OF T. R. LONG ENGINEERING, P.C. AND MAY NOT BE REPRODUCED , EITHER IN PART OR WHOLLY, IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION OF T. R. LONG ENGINEERING, P.C.
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664
STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046
TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET
PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J14-31-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

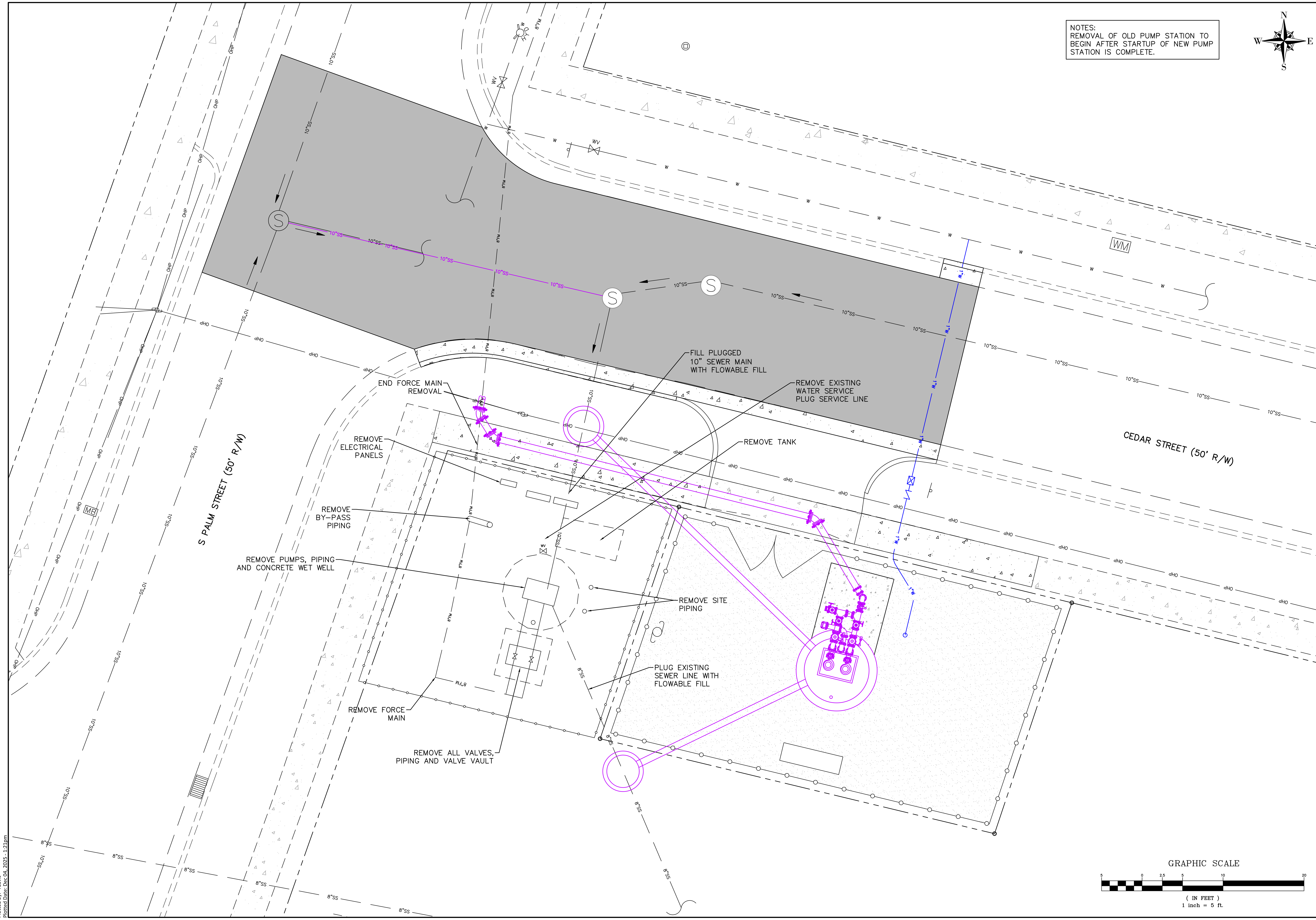
SHEET NAME:
PUMP STATION DETAIL SHEET

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C5.2

Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWG\CONST\2024-182 Utility.dwg
Plotted by: rdavis
Plotted Date: Dec 04, 2025 - 1:21pm



GEORGIA811.COM DIAL 811

UTILITIES PROTECTION CENTER 1-800-282-7411 CALL BEFORE YOU DIG

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 37441 TRENT R. LONG

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

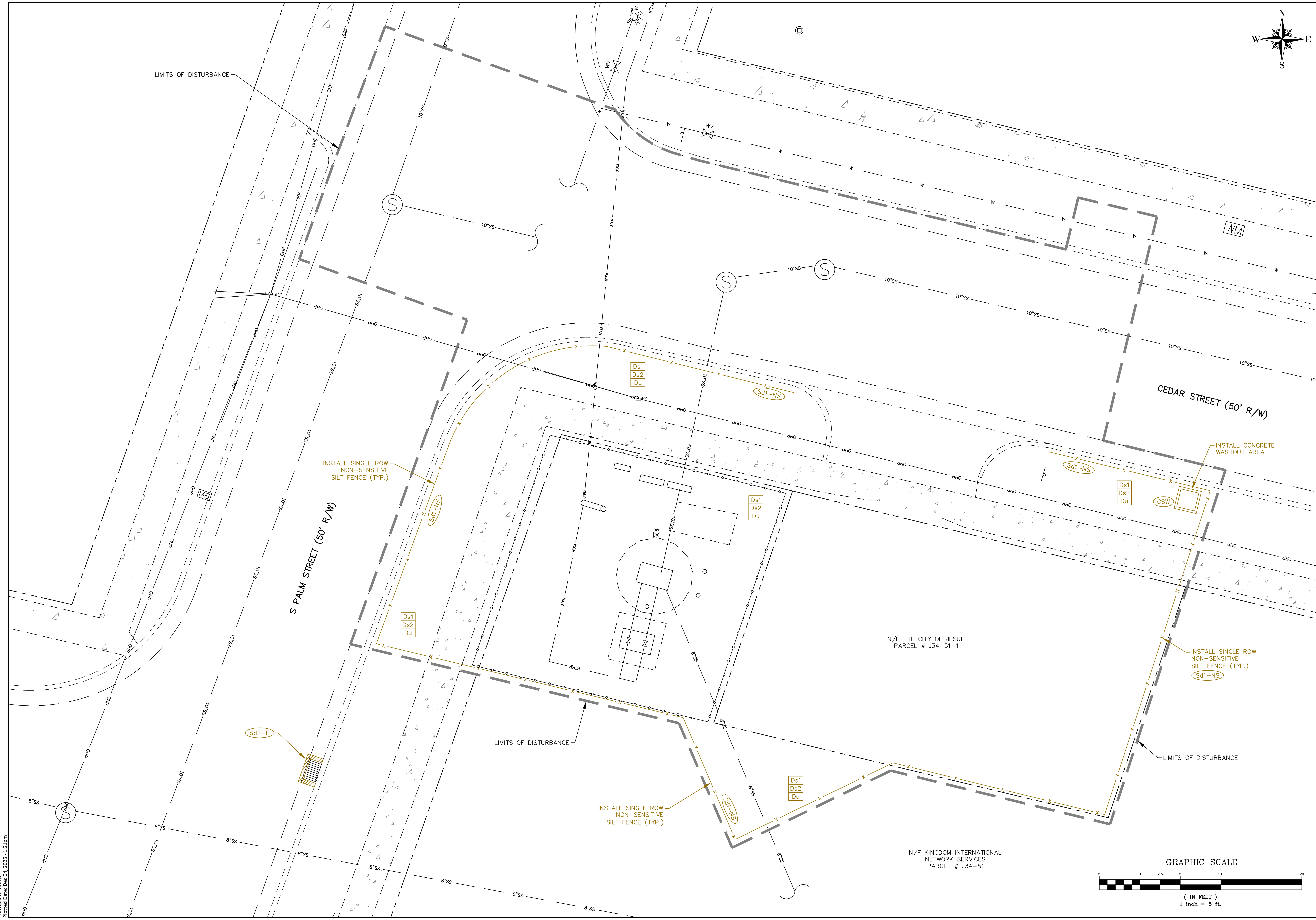
SHEET NAME:
DEMOLITION PLAN

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C5.3

Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWG\CONST\2024-182 Utility.dwg
Plotted by: rdavis
Plotted Date: Dec 04, 2025 - 1:21pm



GEORGIA811.COM DIAL 811

UTILITIES PROTECTION CENTER 1-800-282-7411 CALL BEFORE YOU DIG

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

GEORGIA REGISTERED PROFESSIONAL ENGINEER TRENT R. LONG

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:

INITIAL EROSION CONTROL PLAN

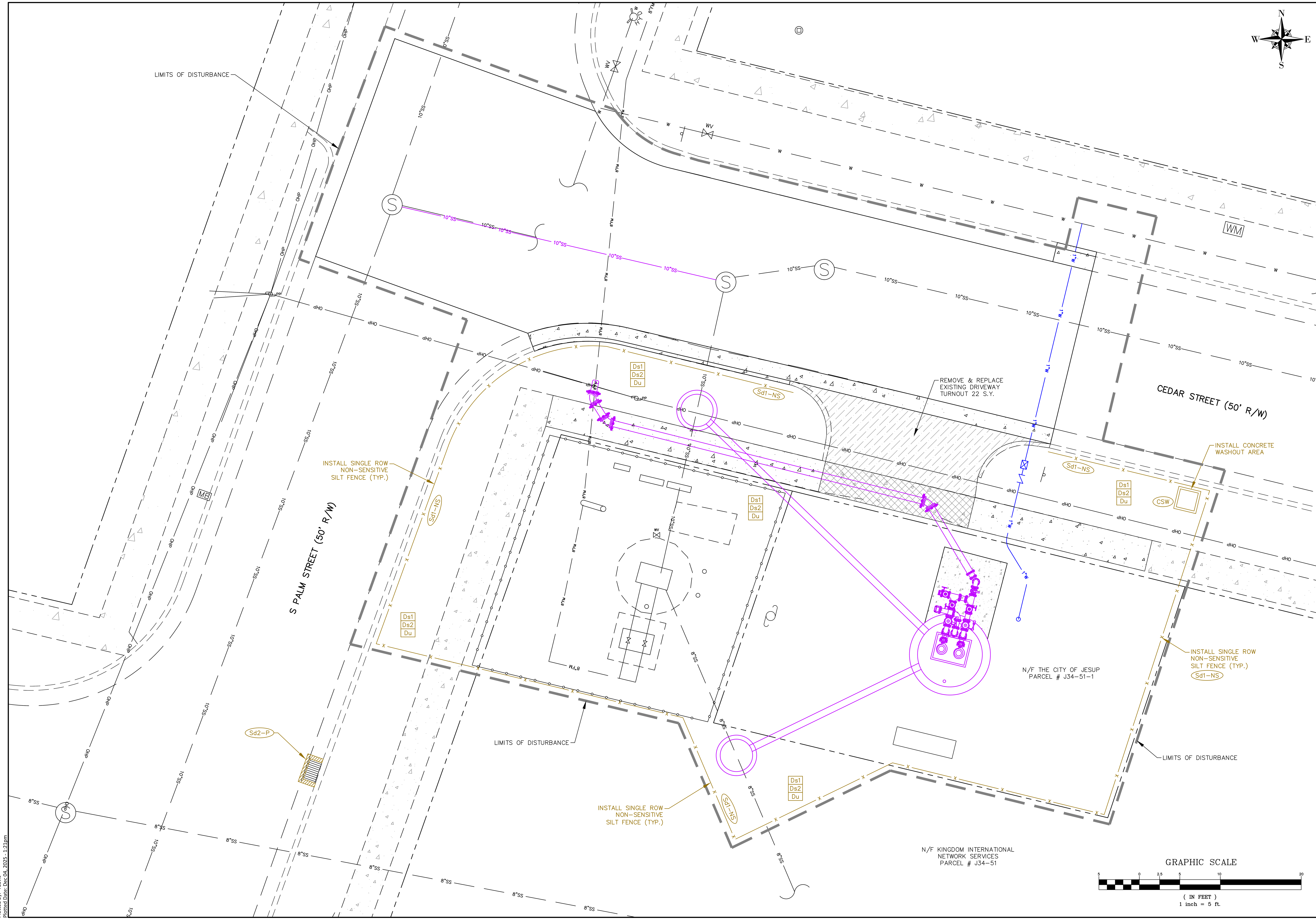
REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:

C6.1

Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWG\CONST\2024-182 ESPCP.dwg
Plotted by: rdavis
Plotted Date: Dec 04, 2025 - 1:21pm



UTILITIES PROTECTION CENTER 1-800-282-7411 CALL BEFORE YOU DIG
GEORGIA811.COM DIAL 811

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

GEORGIA REGISTERED PROFESSIONAL ENGINEER TRENT R. LONG
GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

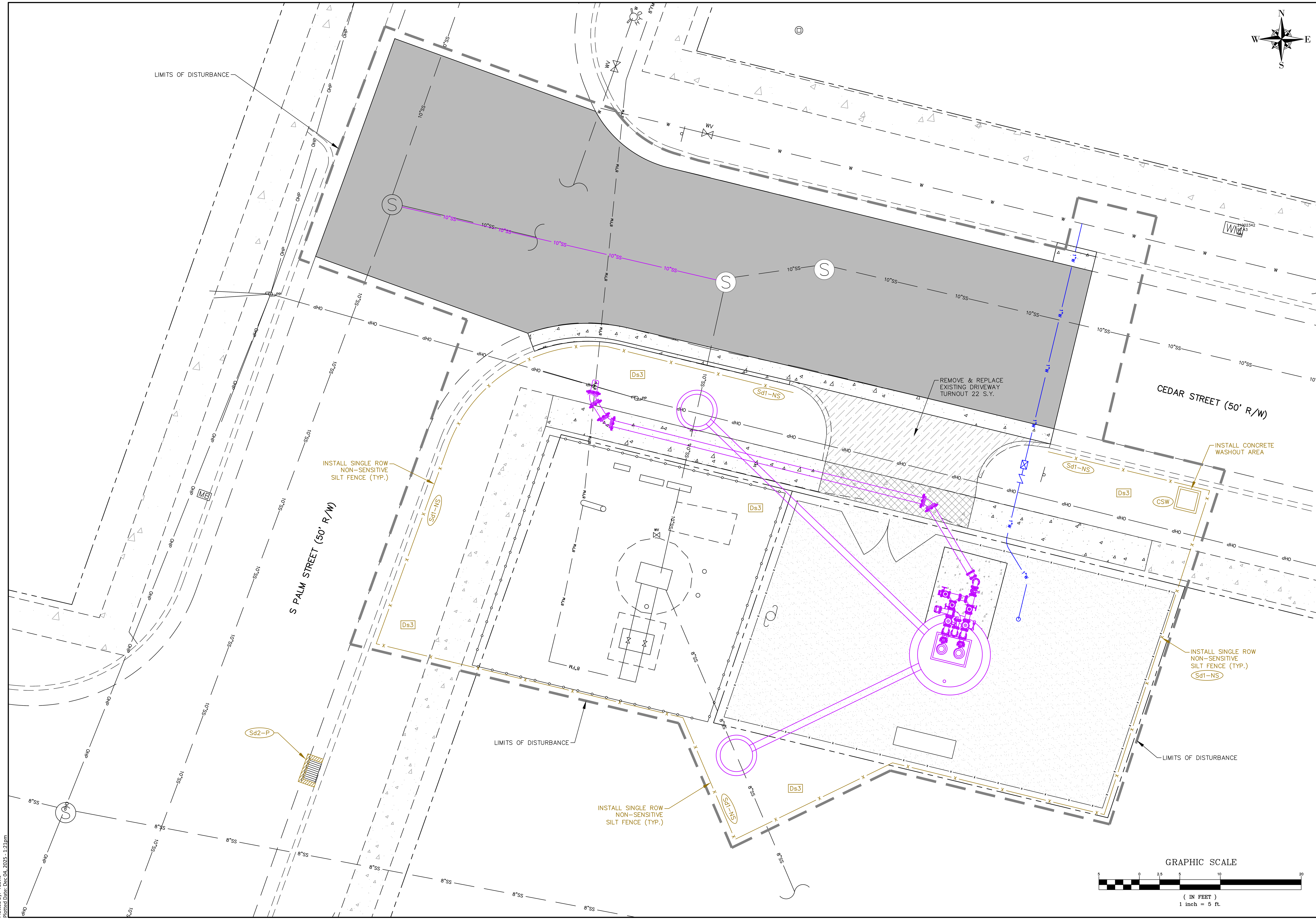
TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
INTERMEDIATE EROSION CONTROL PLAN

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C6.2



Drawing File: G:\ACTIVE PROJECTS\2024-182 H - Palm and Cedar Pump Station\900-DRAWINGS\DWG\CONST\2024-182 ESPCP.dwg
Plotted by: rdavis
Plotted Date: Dec 04, 2025 - 1:21pm

GEORGIA811.COM DIAL 811

UTILITIES PROTECTION CENTER 1-800-282-7411 CALL BEFORE YOU DIG

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

GEORGIA REGISTERED PROFESSIONAL ENGINEER TRENT R. LONG

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
FINAL EROSION CONTROL PLAN

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C6.3

PROJECT INFORMATION

PROJECT TITLE:	PALM STREET & CEDAR STREET PUMP STATION
OWNER:	CITY OF JESUP 162 EAST CHERRY STREET JESUP, GEORGIA 31546 (912) 427-1313
24 HOUR CONTACT:	BILL SHUMAN (912) 427-1313 BSHUMAN@JESUPGA.GOV
ENGINEER:	T.R. LONG ENGINEERING, P.C. 114 NORTH COMMERCE ST. HINESVILLE, GEORGIA 31313 (912) 368-5664
GOVERNING AUTHORITY:	CITY OF JESUP 162 EAST CHERRY STREET JESUP, GEORGIA 31546 (912) 427-1313

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD: COASTAL GEORGIA
PROJECT NAME: PALM STREET & CEDAR STREET ADDRESS: CEDAR STREET
CITY/COUNTY: CITY OF JESUP / WAYNE COUNTY DATE ON PLANS: 10/15/2024
NAME & EMAIL OF PERSON FILLING OUT CHECKLIST: TRENT LONG, trlong@trlongeng.com

EROSION, SEDIMENT, & POLLUTION CONTROL PLAN CHECKLIST

1. *REQUIREMENT: THE APPLICABLE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN CHECKLIST ESTABLISHED BY THE COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED.*

   RESPONSE**: THE 2025 EROSION, SEDIMENT AND POLLUTION CONTROL PLAN CHECKLIST FOR INFRASTRUCTURE WAS USED FOR THIS PROJECT.**

2. *REQUIREMENT: LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL.*

   RESPONSE**: THE LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL, AFTER COMPLETION OF A GSWCC APPROVED COURSE, IS FOUND ON THE UPPER RIGHT HAND SIDE OF ALL SHEETS.**

3. *REQUIREMENT: THE NAME AND PHONE NUMBER OF THE 24-HOUR LOCAL CONTACT RESPONSIBLE FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS.*

   RESPONSE**: THE NAME AND PHONE NUMBER OF THE 24-HOUR LOCAL CONTACT IS SHOWN IN THE ABOVE "PROJECT INFORMATION" SECTION.**

4. *REQUIREMENT: PROVIDE THE NAME, ADDRESS, EMAIL ADDRESS AND PHONE NUMBER OF THE PRIMARY PERMITTEE.*

   RESPONSE**: THE NAME, ADDRESS AND PHONE NUMBER OF THE PRIMARY PERMITTEE IS SHOWN ABOVE ON THE "PROJECT INFORMATION" SECTION.**

5. *REQUIREMENT: NOTE TOTAL AND DISTURBED ACREAGE OF THE PROJECT OR PHASE UNDER CONSTRUCTION.*

   RESPONSE**:** THE TOTAL ACREAGE OF THE SITE IS 0.034 AND THE DISTURBED ACREAGE IS 0.16.

6. *REQUIREMENT: PROVIDE THE GPS LOCATIONS OF THE BEGINNING AND END OF THE INFRASTRUCTURE PROJECT. GIVE THE LATITUDE AND LONGITUDE IN DECIMAL DEGREES.*

   RESPONSE**: THE GPS LOCATIONS OF THE BEGINNING OF THE PROJECT IS N31.591608°, W81.877628° AND END OF THE PROJECT IS N31.591761°, W81.877847° .**

7. *REQUIREMENT: INITIAL DATE OF THE PLAN AND THE DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS.*

   RESPONSE**: THE INITIAL DATE AND ANY REVISIONS ARE ON THE BOTTOM RIGHT SIDE OF ALL SHEETS**

8. *REQUIREMENT: DESCRIPTION OF THE NATURE OF CONSTRUCTION ACTIVITY AND EXISTING SITE CONDITIONS..*

   RESPONSE**: THE PROJECT CONSIST OF INSTALLING A NEW PUMP STATION, SEWER MANHOLES, SEWER GRAVITY LINES AND REMOVING SEWER LINES. THE PROJECT ALSO INCLUDES REMOVING AND REPLACING ASPHALT, SIDEWALK, AND DRIVEWAY.**

9. *REQUIREMENT: PROVIDE VICINITY MAP SHOWING SITE'S RELATION TO SURROUNDING AREAS. INCLUDE DESIGNATION OF SPECIFIC PHASE, IF NECESSARY.*

   RESPONSE**: A VICINITY MAP IS SHOWN ON THE TITLE SHEET OF THESE PLANS.**

10. *REQUIREMENT: IDENTIFY THE PROJECT RECEIVING WATERS AND DESCRIBE ALL SENSITIVE ADJACENT AREAS INCLUDING STREAMS, LAKES, RESIDENTIAL AREAS, WETLANDS, ETC. WHICH MAY BE AFFECTED.*

    RESPONSE**: THE SITE CURRENTLY DRAINS TO THE EXISTING STORM STRUCTURES LOCATED ON S PALM STREET AND CEDAR STREET, WHICH DRAINS TO WALKER CREEK. THE PROPOSED SITE'S DRAINAGE PATTERN WILL REMAIN THE SAME AND WILL CONTINUE TO DISCHARGE STORM WATER TO S PALM STREET AND CEDAR STREET.**

11. *REQUIREMENT: DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE SITE WAS VISITED PRIOR TO DEVELOPMENT OF THE ES&PC PLAN AS STATED ON PART IV PAGE 21 OF THE PERMIT.*

    RESPONSE**: PLEASE SEE THE DESIGN PROFESSIONAL'S CERTIFICATION SECTION ON THIS SHEET.**

12. *REQUIREMENT: DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ES&PC PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BMPS AND SAMPLING TO MEET PERMIT REQUIREMENTS AS STATED ON PART IV PAGE 20 OF THE PERMIT.*

    RESPONSE**: PLEASE SEE THE DESIGN PROFESSIONAL'S 7 DAY VISIT CERTIFICATION ON SECTION ON THIS SHEET.**

13. *REQUIREMENT: DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ES&PC PLAN PROVIDES REPRESENTATIVE SAMPLING AS STATED ON PART IV.D.6.c(3) PAGE 37 OF THE PERMIT AS APPLICABLE.*

    RESPONSE**: PLEASE SEE THE DESIGN PROFESSIONAL'S 7 DAY VISIT CERTIFICATION ON SECTION ON THIS SHEET.**

14. *REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT AND CERTIFY THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION." IN ACCORDANCE WITH PART IV.A.5 PAGE 26 OF THE PERMIT AND PRIOR TO COMMENCING WITH CONSTRUCTION ACTIVITIES AS REQUIRED BY PART III.D.2 OF THE PERMIT.*

    RESPONSE**: PLEASE SEE THE DESIGN PROFESSIONAL'S 7 DAY VISIT CERTIFICATION ON SECTION ON THIS SHEET.**

15. *REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "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."*

    RESPONSE**: 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 WITH 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.**

16. *REQUIREMENT: PROVIDE A DESCRIPTION OF ANY BUFFER ENCROACHMENTS AND INDICATE WHETHER A BUFFER VARIANCE IS REQUIRED.*

    RESPONSE**: THIS PROJECT SHOULD NOT ENCROACH ON ANY BUFFERS.**

17. *REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "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."*

    RESPONSE: **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.**

18. *REQUIREMENT: CLEARLY NOTE THE STATEMENT THE "WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT."*

    RESPONSE: **WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.**

19. *REQUIREMENT: CLEARLY NOTE THE STATEMENT THAT "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."*

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

20. *REQUIREMENT: CLEARLY NOTE STATEMENT THAT "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."*

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

21. *REQUIREMENT: CLEARLY NOTE THE STATEMENT "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."*

    RESPONSE**: ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING. SEE MULCHING AND VEGETATIVE PLAN REQUIREMENTS ON DETAIL SHEETS.**

22. *REQUIREMENT: ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C.. OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX 1 LISTING ALL THE BMPS THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT.*

    RESPONSE**: NO CONSTRUCTION ACTIVITY WILL DISCHARGE IN STORM WATER INTO AN IMPAIRED STREAM OR 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATER SHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT. THE SITE IS NOT LOCATED WITHIN ONE MILE OF AN IMPAIRED STREAM.**

23. *REQUIREMENT: IF A TMDL IMPLEMENTATION PLAN FOR SEDIMENT HAS BEEN FINALIZED FOR THE IMPAIRED STREAM SEGMENT (IDENTIFIED IN ITEM 22 ABOVE) AT LEAST SIX MONTHS PRIOR TO SUBMITTAL OF NOI, THE ES&PC PLAN MUST ADDRESS ANY SITE SPECIFIC CONDITIONS OR REQUIREMENTS INCLUDED IN THE TMDL IMPLEMENTATION PLAN.*

    RESPONSE**: NO TMDL IMPLEMENTATION PLAN IS NEEDED FOR THIS SITE.**

24. *REQUIREMENT: BMPS FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.*

    RESPONSE**: A CONCRETE WASHOUT AREA HAS BEEN ILLUSTRATED ON EACH EROSION CONTROL SHEET. NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON-SITE.**

25. *REQUIREMENT: PROVIDE BMPS FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS.*

    RESPONSE:

    - **CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.**
    - **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.**
    - **SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.**
    - **ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.**
    - **FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.**
    - **FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.**
    - **FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.**
    - **FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.**
    - **THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ON-SITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.**

26. *REQUIREMENT: DESCRIPTION OF THE MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.*

    RESPONSE**:**

    - **DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)**
      - **a. USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.**
      - **b. FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES.**
      - **c. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PERENNIAL VINES; A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON A 70% COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED**
      - **d. USE CONVENTIONAL PLANTING METHODS WHEN POSSIBLE.**
      - **e. WHEN MIXED PLANTINGS ARE DONE DURING MARGINAL PLANTING PERIODS, COMPANION CROPS SHALL BE USED.**
      - **f. IRRIGATION SHOULD BE USED WHEN THE SOIL IS DRY OR WHEN SUMMER PLANTINGS ARE DONE.**
      - **g. LOW MAINTENANCE PLANTS, AS WELL AS NATIVES, SHOULD BE USED TO ENSURE LONG-LASTING EROSION CONTROL.**
      - **h. MOWING SHOULD NOT BE PERFORMED DURING QUAIL NESTING SEASON (MAY TO SEPTEMBER).**
      - **i. WILDLIFE PLANTINGS SHOULD BE INCLUDED IN CRITICAL AREA PLANTINGS.**
      - **j. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.**
      - **k. 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 ALLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED.**
      - **l. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE. LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE" AND LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHALL BE "FINELY GROUND LIMESTONE."**
      - **m. WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INNOCULANT, 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.**
      - **n. 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 SEEDLING.**
      - **o. MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.**
      - **p. MOW SERICEA LESPEDEZA ONLY AFTER FROST TO ENSURE THAT THE SEEDS ARE MATURE. MOW BETWEEN NOVEMBER AND MARCH. BERMUDAGRASS, BAHIAGRASS AND TALL FESCUE MAY BE MOWED AS DESIRED. MAINTAIN AT LEAST 6 INCHES OF TOP GROWTH UNDER ANY USE AND MANAGEMENT. MODERATE USE OF TOP GROWTH IS BENEFICIAL AFTER ESTABLISHMENT. EXCLUDE TRAFFIC UNTIL THE PLANTS ARE WELL ESTABLISHED. BECAUSE OF THE QUAIL NESTING SEASON, MOWING SHOULD NOT TAKE PLACE BETWEEN MAY AND SEPTEMBER.**
      - **q. APPLY ONE TON OF AGRICULTURAL LIME EVERY 4 TO 6 YEARS OR AS INDICATED BY SOIL TESTS. SOIL TESTS CAN BE CONDUCTED TO DETERMINE MORE ACCURATE REQUIREMENTS IF DESIRED.**
    - **VEGETATED WATERWAY OR STORMWATER CONVEYANCE**
      - **a. A NATURAL OR CONSTRUCTED CHANNEL THAT IS SHAPED OR GRADED TO REQUIRED DIMENSIONS AND ESTABLISHED IN SUITABLE VEGETATION FOR THE STABLE CONVEYANCE OF RUNOFF WITHOUT CAUSING DAMAGE EITHER BY EROSION OR BY FLOODING.**
      - **b. THIS STANDARD APPLIES TO ALL SITES WHERE ADDED CHANNEL CAPACITY AND/OR STABILIZATION IS REQUIRED TO CONTROL EROSION RESULTING FROM CONCENTRATED RUNOFF AND WHERE SUCH CONTROL CAN BE ACHIEVED BY THIS PRACTICE ALONE OR IN COMBINATION WITH OTHERS**
      - **c. THE MINIMUM CAPACITY SHALL BE THAT REQUIRED TO CONVEY THE PEAK RUNOFF EXPECTED FROM A 25-YEAR, 24-HOUR STORM OR THE STORM SPECIFIED IN THE GSWCC EROSION AND SEDIMENT CONTROL MANUAL.**
      - **d. CONSTRUCTION SPECIFICATIONS**
        - **d.1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.**
        - **d.2. THE WATERWAY OR OUTLET SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN. IT WILL BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW. IF THE CHANNEL MUST HAVE EROSION PROTECTION OTHER THAN VEGETATION, THE LINING SHALL NOT COMPROMISE THE CAPACITY OF THE EMERGENCY SPILLWAY, I.E. THE CHANNEL SHALL BE OVER-EXCAVATED SO THAT THE LINING WILL BE FLUSH WITH THE SLOPE SURFACE.**
        - **d.3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED WATERWAY.**
        - **d.4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH WATERWAY FUNCTIONING.**
        - **d.5. STABILIZATION: APPLICABLE VEGETATIVE STANDARDS SHALL BE FOLLOWED FOR TIME OF SEEDING, SPRIGGING OR SODDING, LIMING AND FERTILIZING, AND SITE AND SEEDBED PREPARATION. EROSION CONTROL BLANKETS OR MATTING OR SOD SHALL BE USED TO AID IN THE ESTABLISHMENT OF VEGETATION. INSTALLATION METHODS SHOULD FOLLOW MANUFACTURER RECOMMENDATIONS.**

26. *CONT'D :*

    - **VEGETATED WATERWAY OR STORMWATER CONVEYANCE**
      - **e. MULCHING SHALL BE A REQUIREMENT FOR ALL SEEDED OR SPRIGGED CHANNELS. TEMPORARY PROTECTION DURING ESTABLISHMENT SHOULD BE PROVIDED WHEN CONDITIONS PERMIT THROUGH TEMPORARY DIVERSIONS OR OTHER MEANS TO DISPOSE OF WATER.**

27. DESCRIPTION OF PRACTICES TO PROVIDE COVER FOR BUILDING MATERIALS AND BUILDING PRODUCTS ON SITE.

    RESPONSE: **PLASTIC SHEETING OR TEMPORARY ROOFS TO BE UTILIZED TO COVER BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTE, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS IN ORDER TO MINIMIZE EXPOSURE TO PRECIPITATION AND TO STORMWATER.**

28. REQUIREMENT: DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES.

    RESPONSE:

    PRODUCT SPECIFIC PRACTICES

    - **PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.**
    - **POINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.**
    - **CONCRETE TRUCK WASHING - A CONCRETE WASHOUT AREA HAS BEEN DETAILED FOR THIS SITE.**
    - **FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR THE EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.**
    - **BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES**
    - **PRIOR TO THE LAND DISTURBING CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.**

    OTHER PRACTICES

    - **THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO INSURE THAT LAND STRIPPED OF IT'S NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.**
    - **A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.**
    - **PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE AND ALL STREAM BUFFERS SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.**
    - **THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY.**
      - **a. THE CONSTRUCTION EXIT, CONSISTING OF A MINIMUM PAD SIZE OF 20 FEET BY 50 FEET WITH A MINIMUM OF 6" THICK STONE, SHALL BE PLACED AS SHOWN ON THE PLAN. THE STONE SIZE SHOULD CONSIST OF COURSE AGGREGATE BETWEEN 1-1/2" & 3-1/2" IN DIAMETER AND OVERLAID ON A GEOTEXTILE UNDERLINER. THE GEOTEXTILE UNDERLINER SHALL MEET THE REQUIREMENTS OF AASHTO M288-96, SECTION 7.3 SEPARATION REQUIREMENTS.**
      - **b. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCE/EXITS, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE INITIAL PHASE EROSION CONTROL PLAN.**
      - **c. SILT FENCE SHOULD BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA AS SHOWN ON THE PLAN. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA. THE SILT FENCE SHOULD BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT SHOULD BE REMOVED WHEN ACCUMULATION REACHES 1/2 HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.**
    - **AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT DESIGN PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTION.**
    - **AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS CLEARING PERMITS, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT PONDS AND DIVERSION DIKES AS SHOWN ON THE INITAL PHASE PLAN TO CONTROL EROSION AND STORM WATER RUN OFF.**
    - **NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT WRITTEN PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.**
    - **ADDITIONAL SILT BARRIERS MUST BE PLACED AS SHOWN ON THE PLAN AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL TAKE PLACE UNTIL SILT BARRIER INSTALLATION AND SEDIMENT PONDS ARE CONSTRUCTED AS SHOWN ON THE INITAL PHASE EROSION CONTROL PLAN.**
    - **MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.**
    - **ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.**
    - **SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.**
    - **THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.**
    - **CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.**
    - **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 AS DIRECTED BY THE ON-SITE INSPECTOR OR THE CIVIL ENGINEER.FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.**
    - **THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE PRELIMINARY GRADING PHASE OF CONSTRUCTION:**
    - **INLET SEDIMENT TRAPS WILL BE INSTALLED AROUND ALL NEW INLETS.**
    - **EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.**
    - **STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.**
    - **ALL DRAINAGE SWALES SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.**
    - **MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.**
    - **SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.**
    - **INSTALL TEMPORARY SEDIMENT TRAP.**

29. *REQUIREMENT: DESCRIPTION AND CHART OR TIMELINE OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH DISTURB SOILS FOR THE MAJOR PORTION OF THE SITE (I.E., INITIAL PERIMETER AND SEDIMENT STORAGE BMPS, CLEARING AND GRUBBING ACTIVITIES, EXCAVATION ACTIVITIES, UTILITY ACTIVITIES, TEMPORARY AND FINAL STABILIZATION).*

    RESPONSE:

INFRASTRUCTURE	MONTHS					
	1	2	3	4	5	6
INSTALLATION OF CONSTRUCTION EXIT, PERIMETER SILT FENCE, TEMPORARY SEDIMENT BASIN & TREE PROTECTION	▬					
CLEARING & GRUBBING		▬				
PRELIMINARY GRADING		▬				
BUILDING			▬			
INSTALL GRADING PHASE EROSION MEASURES		▬	▬			
INSTALLATION OF UTILITY LINES (S.S./WATER/STORM)		▬	▬			
FINE GRADING			▬	▬		
PAVEMENT				▬		
FINAL LANDSCAPING						
REMOVE TEMPORARY EROSION MEASURES AND TREE PROTECTION FENCING					▬	▬
MAINTENANCE OF EROSION BMPs	▬	▬	▬	▬	▬	▬

DESIGN PROFESSIONAL'S CERTIFICATION:

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

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORMWATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR100001."

"I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

______________________________ 000002134
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

THE DESIGN PROFESSIONAL WHO PREPARED THE EX&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION

DATE OF INSPECTION ____________________

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

______________________________ 000002134
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

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

____

____

____

____

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

GEORGIA811.COM DIAL 811

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

TRENT R. LONG
GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TR LONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET
PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
EROSION CONTROL NOTES

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C6.4

G:\ACTIVE PROJECTS\2024-182 H - PALM AND CEDAR PUMP STATION\900-DRAWINGS\DWG\CONST\2024-182 ESPCP.DWG

EROSION, SEDIMENT, & POLLUTION CONTROL PLAN CHECKLIST (CONTINUED)

30. *REQUIREMENT: PROVIDE COMPLETE REQUIREMENTS OF INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE.**

RESPONSE:

- **EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTE 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.**

- **MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. 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.**

- **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 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE 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.**

- **CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECTED AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING 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).**

- **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.**

- **A REPORT OF EACH INSPECTION THAT INCLUDES 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 RELATING 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 END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE 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**

31. *REQUIREMENT: PROVIDE COMPLETE REQUIREMENTS OF SAMPLING FREQUENCY AND REPORTING OF SAMPLING RESULTS.**

RESPONSE: N/A

32. *REQUIREMENT: PROVIDE COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F. OF THE PERMIT.**

RESPONSE: **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.

- **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**

33. *REQUIREMENT: DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION.**

RESPONSE: **ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED), THE GUIDANCE DOCUMENT TITLED "NPDES STORMWATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.**

a. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
b. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
c. LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
d. MANUAL, AUTOMATIC, OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFIED EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
e. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV. E.

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATION. 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 CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING 50, THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT NO. GAR100002. THE NTU IS BASED UPON THE SITE ACERAGE OF 1.96 ACRES FOR THE PROJECT SITE, THE SURFACE WATER DRAINAGE AREA OF 0.003 SQUARE MILES, AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.

34. REQUIREMENT: APPENDIX B RATIONALE FOR NTU VALUES AT ALL OUTFALL SAMPLING POINTS WHERE APPLICABLE.*

RESPONSE: N/A

35. *REQUIREMENT: DELINEATE ALL SAMPLING LOCATIONS ON ALL PHASES OF THE PLAN, PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED. ALSO PROVIDE A SUMMARY CHART OF THE JUSTIFICATION AND ANALYSIS FOR THE REPRESENTATIVE SAMPLING AS APPLICABLE.**

RESPONSE: N/A

36. *REQUIREMENT:A DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE INCLUDING: (1) INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS, (2) INTERMEDIATE GRADING AND DRAINAGE BMPS, AND (3) FINAL BMPS. FOR CONSTRUCTION SITES WHERE THERE WILL BE NO MASS GRADING AND THE INITIAL PERIMETER CONTROL BMPS, INTERMEDIATE GRADING AND DRAINAGE BMPS, AND FINAL BMPS ARE THE SAME, THE PLAN MAY COMBINE ALL OF THE BMPS INTO A SINGLE PHASE.**

RESPONSE: **SEE ITEM 28 FOR A DESCRIPTION OF ALL INITIAL AND INTERMEDIATE BMPS AND ITEM 26 FOR A DESCRIPTION OF ALL FINAL BMPS. PLEASE SEE THE EROSION CONTROL PLAN TO SEE WHERE THESE BMPS ARE TO IMPLEMENTED.**

37. *REQUIREMENT: GRAPHIC SCALE AND NORTH ARROW.*

RESPONSE: **THE CORRECT GRAPHIC SCALE AND NORTH ARROW ARE SHOWN ON ALL SHEETS WHERE APPLICABLE.**

38. REQUIREMENT: EXISTING AND PROPOSED CONTOUR LINES WITH CONTOUR LINES DRAWN AT AN INTERVAL IN ACCORDANCE WITH THE FOLLOWING:

RESPONSE: **CONTOURS ARE SHOWN IN 1' INTERVALS.**

EXISTING CONTOURS	USGS 1" : 2000' TOPOGRAPHICAL SHEETS
PROPOSED CONTOURS	1" : 400' CENTERLINE PROFILE

39. *REQUIREMENT: USE OF ALTERNATIVE BMPS WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMPS AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY GAEPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT FOUND AT WWW.GASWCC.ORG.*

RESPONSE: **NO ALTERNATIVE BMPS WILL BE USED.**

40. *REQUIREMENT: USE OF ALTERNATIVE BMP FOR APPLICATION TO THE EQUIVALENT BMP LIST. PLEASE REFER TO APPENDIX A-2 OF THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA 2016 EDITION.**

RESPONSE: **NO ALTERNATIVE BMPS WILL BE USED.**

41. *REQUIREMENT: DELINEATION OF THE APPLICABLE 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS ADJACENT TO STATE WATERS AND ANY ADDITIONAL BUFFERS REQUIRED BY THE LOCAL ISSUING AUTHORITY. CLEARLY NOTE AND DELINEATE ALL AREAS OF IMPACT.*

RESPONSE: **THERE ARE NO 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS REQUIRED FOR THE SITE. THERE ARE NO STATE WATERS ADJACENT TO THE SITE AND NO ADDITIONAL BUFFERS ARE REQUIRED BY THE LOCAL ISSUING AUTHORITY.**

42. *REQUIREMENT: DELINEATION OF ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE.*

RESPONSE: **THERE ARE NO ON-SITE WETLANDS AND STATE WATERS LOCATED ON AND WITHIN 200' OF THE SITE.**

43. *REQUIREMENT: DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE.*

RESPONSE: **ALL DRAINAGE BASIN INFORMATION IS SHOWN IN THE HYDROLOGY STUDY PROVIDED WITH THESE PLANS.**

44. *REQUIREMENT: DELINEATE ON-SITE DRAINAGE AND OFF-SITE WATERSHEDS USING USGS 1"=2000' TOPOGRAPHICAL SHEETS.*

RESPONSE: **A HYDROLOGY REPORT INCLUDING A DRAINAGE NARRATIVE, DRAINAGE CALCULATIONS AND DELINEATION OF PRE AND POST DEVELOPED CONDITIONS IS PROVIDED WITH THESE PLANS ALONG WITH THE USGS TOPOGRAPHICAL SHEET.**

45. *REQUIREMENT: AN ESTIMATE OF THE RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED.*

RESPONSE: **THE PRE-DEVELOPMENT RUNOFF COEFFICIENT IS 73. THE POST-DEVELOPMENT RUNOFF COEFFICIENT IS 73.**

46. *REQUIREMENT: STORM-DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION. IDENTIFY/DELINEATE ALL STORM WATER DISCHARGE POINTS.*

RESPONSE: **THE STORM-DRAIN PIPE AND WEIR VELOCITIES ARE SHOWN ON THE EROSION CONTROL PLAN AS WELL AS APPROPRIATE OUTLET PROTECTION FOR EACH.**

47. *REQUIREMENT: SOIL SERIES FOR THE PROJECT SITE AND THEIR DELINEATION*

RESPONSE: **THE SOIL SERIES IS SHOWN ON THE INITIAL EROSION CONTROL PLAN.**

48. *REQUIREMENT: THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION.*

RESPONSE: **THE LIMITS OF DISTURBANCE ARE SHOWN ON EACH EROSIONS CONTROL SHEET.**

49. *REQUIREMENT: PROVIDE A MINIMUM OF 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINED USING A TEMPORARY SEDIMENT BASIN, RETROFITTED DETENTION POND, AND/OR EXCAVATED INLET SEDIMENT TRAPS FOR EACH COMMON DRAINAGE LOCATION. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBANCE ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED. A WRITTEN JUSTIFICATION EXPLAINING THE DECISION TO USE EQUIVALENT CONTROLS WHEN A SEDIMENT BASIN IS NOT ATTAINABLE MUST BE INCLUDED IN THE PLAN FOR EACH COMMON DRAINAGE LOCATIN IN WHICH A SEDIMENT BASIN IS NOT PROVIDED. A WRITTEN JUSTIFICATION AS TO WHY 67 CUBIC YARDS OF STORAGE IS NOT ATTAINABLE MUST ALSO BE GIVEN. WORKSHEETS FROM THE MANUAL INCLUDED FOR STRUCTURAL BMPs AND ALL CALCULATIONS USED BY THE STORAGE DESIGN PROFESSIONAL TO OBTAIN THE REQUIRED SEDIMENT WHEN USING EQUIVALENT CONTROLS. WHEN DISCHARGING FROM SEDIMENT BASINS AND IMPOUNDMENTS, PERMITEES ARE REQUIRED TO UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE, UNLESS INFEASIBLE. IF OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE ARE NOT FEASABLE, A WRITTEN JUSTIFICATION EXPLAINING THIS DECISION MUST BE INCLUDED IN THE PLAN.*

RESPONSE: THE REQUIRED SEDIMENT STORAGE IS (0.16 ACRES)(67CY/ACRE) = 10.72CY. THE SEDIMENT STORAGE IS PROVIDED BEHIND THE SILT FENCE, 241 L.F. X 0.3 CY/LF = 72.30 CY/LF.

50. *REQUIREMENT: LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. USE UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6, WITH LEGEND.*

RESPONSE: THE BMPS SHOWN AND DESCRIBED IN THIS PANS ARE CONSISTENT AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA CALLS FOR.

51. *REQUIREMENT: PROVIDE DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES. SPECIFICATIONS MUST, AT A MINIMUM, MEET THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.*

RESPONSE: DETAILED DRAWINGS ARE PROVED ON THE SHEETS LABELED "DETAILS" IN THIS PLAN.

52. *REQUIREMENT: PROVIDE VEGETATIVE PLAN, NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES. INCLUDE SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. VEGETATIVE PLAN SHALL BE SITE SPECIFIC FOR APPROPRIATE TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR THE APPROPRIATE GEOGRAPHIC REGION OF GEORGIA.*

RESPONSE: PLEASE SEE THE DETAILS SHEET FOR THE VEGETATIVE PLAN.

OTHER EROSION CONTROL NOTES

1. SHADED AREAS SHOWN ON GRADING PHASE EROSION CONTROL PLANS REPRESENT CRITICAL WORK ZONES. AT THE END OF EACH WORK DAY ALL SLOPES 2:1 OR STEEPER AND HIGHER THAN 5 FEET SHALL RECEIVE SURFACE ROUGHENING, POLYMERS, AND EROSION CONTROL MATTING. ADDITIONALLY, ALL FILL SLOPES SHALL RECEIVE A DIVERSION DIKE AND TEMPORARY DOWN DRAINS ALONG THE TOP OF THE SLOPE PREVENTING DRAINAGE SPILLING OVER THE EDGE AND DOWN THE FACE OF THE SLOPE. THE TEMPORARY DOWN DRAINS SHALL BE CONSTRUCTED WITH PERFORATED STAND PIPES AT THE TOP OF THE SLOPE AND RECONSTRUCTED EACH DAY AS THE SLOPE INCREASES IN HEIGHT.

2. THIS PLAN HAS BEEN PREPARED TO MEET THE REQUIREMENTS UNDER THE STATE OF GEORGIA, DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION (EPD), GENERAL PERMIT NO. GAR 100002-INFRASTRUCTURE DEVELOPMENT FOR AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR INFRASTRUCTURE.

AUTHORIZED DISCHARGES:

- ALL DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT WILL RESULT IN LAND DISTURBANCE EQUAL TO OR GREATER THAN ONE ACRE. PART I.C.1.4.C
- ALL DISCHARGES COVERED BY THIS PERMIT SHALL BE COMPOSED ENTIRELY OF STORMWATER EXCEPT AS PROVIDED IN PART I.C.2 AND PART III.A.2 OF THE PERMIT. PART III.A.1
- AUTHORIZED MIXED STORMWATER DISCHARGES: PART I.C.2
  a. THE INDUSTRIAL SOURCE OR ACTIVITY OTHER THAN CONSTRUCTION IS LOCATED ON THE SAME SITE AS THE CONSTRUCTION ACTIVITY AND IS AN INTEGRAL PART OF THE CONSTRUCTION ACTIVITY.
  b. THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES ARE OCCURRING ARE IN COMPLIANCE WITH THE TERMS OF THIS PERMIT.
  c. STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION ARE OCCURRING ARE COVERED BY A DIFFERENT NPDES GENERAL PERMIT OR INDIVIDUAL PERMIT AUTHORIZING SUCH DISCHARGES AND THE DISCHARGES ARE IN COMPLIANCE WITH A DIFFERENT NPDES PERMIT.
- AUTHORIZED NON-STORMWATER DISCHARGES: PART III.A.2
  a. FIRE FIGHTING ACTIVITIES
  b. FIRE HYDRANT FLUSHING
  c. POTABLE WATER SOURCES INCLUDING WATER LINE FLUSHING
  d. IRRIGATION DRAINAGE
  e. AIR CONDITIONING CONDENSATE
  f. SPRINGS
  g. UNCONTAMINATED GROUND WATER
  h. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS OR POLLUTANTS

LIMITATIONS ON COVERAGE PART I.C.3:

- THE FOLLOWING STORMWATER DISCHARGES FROM CONSTRUCTION SITES ARE NOT AUTHORIZED BY THIS PERMIT:
  i. STORMWATER DISCHARGES ASSOCIATED WITH AN INDUSTRIAL ACTIVITY THAT ORIGINATES FROM THE SITE AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION.
  j. DISCHARGES THAT ARE MIXED WITH SOURCES OF NON-STORMWATER OTHER THAN DISCHARGES WHICH ARE IDENTIFIED IN PART III.A.2 OF THIS PERMIT AND WHICH ARE IN COMPLIANCE WITH PART IV.D.6 (NON-STORMWATER DISCHARGES) OF THIS PERMIT.
  k. STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY THAT ARE SUBJECT TO AN EXISTING NPDES INDIVIDUAL OR GENERAL PERMIT. SUCH DISCHARGES MAY BE AUTHORIZED UNDER THIS PERMIT AFTER AN EXISTING PERMIT EXPIRES PROVIDED THE EXISTING PERMIT DID NOT ESTABLISH NUMERIC LIMITATIONS FOR SUCH DISCHARGES.
  l. STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT THE DIRECTOR (EPD) HAS DETERMINED TO BE OR MAY REASONABLY BE EXPECTED TO BE CONTRIBUTING TO A VIOLATION OF A WATER QUALITY STANDARD.
  m. WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTING QUANTITY ESTABLISHED UNDER EITHER GEORGIA'S OIL OR HAZARDOUS MATERIAL SPILLS OR RELEASES ACT (O.C.G.A. §§12-14-2, ET SEQ.) 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24-HOUR PERIOD, THE PERMITTEE IS REQUIRED TO NOTIFY THE FOLLOWING AGENCIES IN ACCORDANCE WITH THE ABOVE-MENTIONED REGULATIONS AS SOON AS HE HAS KNOWLEDGE OF THE DISCHARGE: EPD AT (404) 656-4863 OR (800) 241-4113, OR THE NATIONAL RESPONSE CENTER (NRC) AT (800) 424-8802. PART III.B.1
  n. THIS PERMIT DOES NOT AUTHORIZE THE DISCHARGE OF HAZARDOUS SUBSTANCES OR OIL RESULTING FROM AN ON-SITE SPILL. PART III.B.2

WATER QUALITY COMPLIANCE PART I.C.4:

- ALL DISCHARGES AUTHORIZED BY THIS PERMIT SHALL NOT CAUSE VIOLATIONS OF GEORGIA'S IN-STREAM WATER QUALITY STANDARDS AS PROVIDED BY THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL. CHAPTER 391-3-6-03.

3. CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION THAT 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 CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT 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.

4. RETROFIT STRUCTURES SHALL BE KEPT CLEAR OF TRASH AND DEBRIS. THIS WILL REQUIRE CONTINUOUS MONITORING AND MAINTENANCE, WHICH INCLUDES SEDIMENT REMOVAL WHEN ONE-THIRD OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST.

5. SEDIMENT SHALL BE REMOVED FROM SILT FENCES ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS).

6. SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION.

7. SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET, AGAIN.

8. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

9. REPAIR ALL DAMAGES CAUSED TO TEMPORARY SEDIMENT BASINS BY SOIL EROSION OR CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE SPECIFIED DISTANCE BELOW THE TOP OF THE RISER. SEDIMENT SHALL NOT ENTER ADJACENT STREAMS OR DRAINAGE WAYS DURING SEDIMENT REMOVAL OR DISPOSAL. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO A STREAM OR FLOODPLAIN.

10. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

11. ROUGHENED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO OBTAIN OPTIMUM SEED GERMINATION AND SEEDING GROWTH.

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

13. PERMANENT VEGETATION 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, AT LEAST 70% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OR RIP RAP, GABIANS, PERMANENT MULCHES, OR GEOTEXTILES) HAVE BEEN EMPLOYED. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PERENNIAL VINES; 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. 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.

14. THE CONTRACTOR WILL OBTAIN COPIES OF ANY AND ALL LOCAL AND STATE REGULATIONS THAT ARE APPLICABLE TO STORM WATER MANAGEMENT, EROSION CONTROL, AND POLLUTION MINIMIZATION AT THIS JOB SITE AND WILL COMPLY FULLY WITH SUCH REGULATIONS. THE CONTRACTOR WILL SUBMIT WRITTEN EVIDENCE OF SUCH COMPLIANCE IF REQUESTED BY THE OWNER OR ANY AGENT OF A REGULATORY BODY. THE CONTRACTOR WILL COMPLY WITH ALL CONDITIONS OF ANY AND ALL LOCAL, STATE, AND FEDERAL AGENCIES THAT HAVE GOVERNING AUTHORITY, INCLUDING THE CONDITIONS RELATED TO MAINTAINING THE ESPCP AND EVIDENCE OF COMPLIANCE WITH THE ESPCP AT THE JOB SITE AND ALLOWING REGULATORY PERSONNEL ACCESS TO THE JOB SITE AND TO RECORDS IN ORDER TO DETERMINE COMPLIANCE.

15. EACH SECONDARY PERMITTEE WILL BE PROVIDED WITH A COPY OF THE EROSION CONTROL PLANS OR PORTIONS OF THE PLAN APPLICABLE TO THEIR SITE AND EACH SECONDARY PERMITTEE SHALL SIGN THE PLAN OR PORTION OF THE PLAN APPLICABLE TO THEIR SITE.

16. AFTER CONSTRUCTION, EROSION AND SEDIMENTATION WILL BE MANAGED BY STABILIZED LOT CONSISTING OF PAVED DRIVEWAY, GRASSING, LANDSCAPING AND HOME SITE.

17. MINIMIZING WIND EROSION AND CONTROLLING DUST WILL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
    a. COVERING 30% OR MORE OF THE SOIL SURFACE WITH NON-ERODIBLE MATERIAL.
    b. ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND.
    c. FREQUENT WATERING OF EXCAVATION AND FILL AREAS
    d. PROVIDING GRAVEL OR PAVING AT ENTRANCE / EXIT DRIVES

18. ALL NON-STORM WATER DISCHARGES WILL BE ROUTED THROUGH ON-SITE BMPS AND THE STORM WATER MANAGEMENT SYSTEM WHERE POSSIBLE. THESE DISCHARGES INCLUDE FLUSHING OF WATER AND FIRE LINES, IRRIGATION WATER, GROUND WATER, DEWATERING OF PITS OR DEPRESSIONS WITHIN THE CONSTRUCTION SITE AND RINSE OFF WATER OF NON-TOXIC MATERIALS.

19. NO WASTE WILL BE DISPOSED OF INTO STORM WATER INLETS OR WATERS OF THE STATE.

20. ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ON-SITE.

21. ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURES FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOBSITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

22. ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

23. THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THIS ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORM WATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORM WATER DISCHARGE WILL BE CONTAINED ON-SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORM WATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN.

24. A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

25. ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORM WATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN, BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED.

26. SANITARY SEWER WILL BE PROVIDED BY MUNICIPAL AUTHORITY/SEPTIC SYSTEM AT THE COMPLETION OF THIS PROJECT.

27. A STABILIZED CONSTRUCTION EXIT HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENT. THE PAVED STREET ADJACENT TO THE SITE EXIT WILL BE INSPECTED DAILY FOR TRACKING OF MUD, DIRT, OR ROCK. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH TARPAULIN.

28. THE FOLLOWING MATERIALS ARE EXPECTED ON-SITE DURING CONSTRUCTION: CONCRETE PRODUCTS, ASPHALT, PETROLEUM BASED FUELS AND LUBRICANTS FOR EQUIPMENT, TAR, METAL BUILDING MATERIALS, LUMBER, SHEET ROCK, FLOOR COVERINGS, ELECTRICAL WIRE AND FIXTURES, PAINTS/STAINS/FINISHING TREATMENTS, PAINTS, PAINT SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CLEANING SOLVENTS, PESTICIDES, FERTILIZERS, HERBICIDES, CRUSHED STONE, PLASTIC AND METAL PIPES.

29. PRACTICES SUCH AS GOOD HOUSEKEEPING, PROPER HANDLING OF HAZARDOUS PRODUCTS AND PROPER SPILL CONTROL PRACTICES WILL BE FOLLOWED TO REDUCE THE RISK OF SPILLS AND SPILLS FROM DISCHARGING INTO STORM WATER RUNOFF.

30. QUANTITIES OF PRODUCTS STORED ON-SITE WILL BE LIMITED TO THE AMOUNT NEEDED FOR THE JOB.
31. PRODUCTS AND MATERIALS WILL BE STORED IN A NEAT, ORDERLY MANNER IN APPROPRIATE CONTAINERS PROTECTED FROM RAINFALL, WHERE POSSIBLE.

32. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH MANUFACTURER LABELS LEGIBLE AND VISIBLE.

33. PRODUCT MIXING, DISPOSAL AND DISPOSAL OF PRODUCT CONTAINERS WILL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

34. THE CONTRACTOR WILL INSPECT SUCH MATERIALS TO ENSURE PROPER USE, STORAGE AND DISPOSAL.

UTILITIES PROTECTION CENTER
1-800-282-7411
CALL BEFORE YOU DIG
GEORGIA811.COM DIAL 811

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

TRENT R. LONG
GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
EROSION CONTROL NOTES

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C6.5

CONCRETE WASHOUT AREA

PURPOSE – PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE, OR PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA TO PREVENT POLLUTANTS FROM ENTERING SURFACE WATERS OR GROUNDWATER.

CONDITIONS OF USE – CONCRETE WASHOUT AREA BEST MANAGEMENT PRACTICES ARE IMPLEMENTED ON CONSTRUCTION PROJECTS WHERE:

- CONCRETE IS USED AS A CONSTRUCTION MATERIAL
- IT IS NOT POSSIBLE TO DISPOSE OF ALL CONCRETE WASTEWATER AND WASHOUT OFFSITE (READY MIX PLANT, ETC.).
- CONCRETE TRUCKS, PUMPERS, OR OTHER CONCRETE COATED EQUIPMENT ARE WASHED ONSITE.

DESIGN AND INSTALLATION SPECIFICATIONS

IMPLEMENTATION – THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE WASTES:
- PERFORM WASHOUT OF CONCRETE TRUCKS OFFSITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY.
- DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
- DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS.
- CONCRETE WASHOUT AREAS MAY BE PREFABRICATED CONCRETE WASHOUT CONTAINERS, OR SELF–INSTALLED STRUCTURES (ABOVE–GRADE OR BELOW–GRADE).
- PREFABRICATED CONTAINERS ARE MOST RESISTANT TO DAMAGE AND PROTECT AGAINST SPILLS AND LEAKS. COMPANIES MAY OFFER DELIVERY SERVICE AND PROVIDE REGULAR MAINTENANCE AND DISPOSAL OF SOLID AND LIQUID WASTE.
- IF SELF–INSTALLED CONCRETE WASHOUT AREAS ARE USED, BELOW–GRADE STRUCTURES ARE PREFERRED OVER ABOVE–GRADE STRUCTURES BECAUSE THEY ARE LESS PRONE TO SPILLS AND LEAKS.
- SELF–INSTALLED ABOVE–GRADE STRUCTURES SHOULD ONLY BE USED IF EXCAVATION IS NOT PRACTICAL.

EDUCATION – THE FOLLOWING EDUCATION PRACTICES ARE RECOMMENDED:
- DISCUSS THE CONCRETE MANAGEMENT TECHNIQUES DESCRIBED IN THIS BEST MANAGEMENT PRACTICE WITH THE READY–MIX CONCRETE SUPPLIER BEFORE ANY DELIVERIES ARE MADE.
- EDUCATE EMPLOYEES AND SUBCONTRACTORS ON THE CONCRETE WASTE MANAGEMENT TECHNIQUES DESCRIBED IN THIS SECTION.
- ARRANGE FOR CONTRACTOR'S SUPERINTENDENT OR LEVEL 1A CERTIFIED PERSONNEL TO OVERSEE AND ENFORCE CONCRETE WASTE MANAGEMENT PROCEDURES.
- A SIGN SHOULD BE INSTALLED ADJACENT TO EACH TEMPORARY CONCRETE WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

CONTRACTS – INCORPORATE REQUIREMENTS FOR CONCRETE WASTE MANAGEMENT INTO CONCRETE SUPPLIER AND SUBCONTRACTOR AGREEMENTS.

LOCATION AND PLACEMENT – THE FOLLOWING GUIDELINES SHALL BE USED WHEN LOCATING AND PLACING THE CONCRETE WASH–OUT AREA:
- LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE AREAS SUCH AS STORM DRAINS, OPEN DITCHES, OR WATER BODIES, INCLUDING WETLANDS.
- ALLOW CONVENIENT ACCESS FOR CONCRETE TRUCKS, PREFERABLY NEAR THE AREA WHERE THE CONCRETE IS BEING POURED.
- IF TRUCKS NEED TO LEAVE A PAVED AREA TO ACCESS WASHOUT, PREVENT TRACK–OUT WITH A CONSTRUCTION EXIT.
- THE NUMBER OF FACILITIES YOU INSTALL SHOULD DEPEND ON THE EXPECTED DEMAND FOR STORAGE CAPACITY.
- ON LARGE SITES WITH EXTENSIVE CONCRETE WORK, WASHOUTS SHOULD BE PLACED IN MULTIPLE LOCATIONS FOR EASE OF USE BY CONCRETE TRUCK DRIVERS.

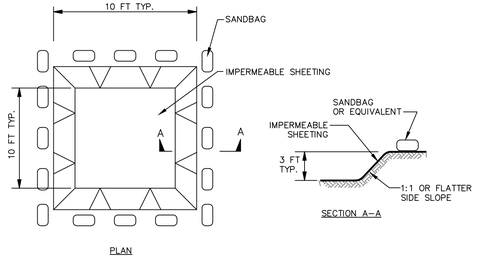
ONSITE TEMPORARY CONCRETE WASHOUT FACILITY, TRANSIT TRUCK WASHOUT PROCEDURES:
- TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 50 FT. FROM SENSITIVE AREAS INCLUDING STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES.
- CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
  APPROXIMATELY 7 GALLONS OF WASH WATER ARE USED TO WASH ONE TRUCK CHUTE.
  APPROXIMATELY 50 GALLONS ARE USED TO WASH OUT THE HOPPER OF A CONCRETE PUMP TRUCK
- WASHOUT OF CONCRETE TRUCKS SHALL BE PERFORMED IN DESIGNATED AREAS ONLY.
- CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE.
- ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF PER APPLICABLE SOLID WASTE REGULATIONS. DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.

TEMPORARY ABOVE–GRADE CONCRETE WASHOUT FACILITY
- TEMPORARY CONCRETE WASHOUT FACILITY (TYPE ABOVE GRADE) SHOULD BE CONSTRUCTED AS SHOWN ON THE DETAILS WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT., BUT WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
- PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

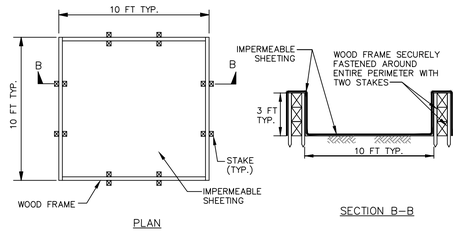
TEMPORARY BELOW–GRADE CONCRETE WASHOUT FACILITY
- TEMPORARY CONCRETE WASHOUT FACILITIES (TYPE BELOW GRADE) SHOULD BE CONSTRUCTED WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT. THE QUANTITY AND VOLUME SHOULD BE SUFFICIENT TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
- PLASTIC LINING MATERIAL SHALL BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
- LINER SEAMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- SOIL BASE SHALL BE PREPARED FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE PLASTIC LINING MATERIAL.

INSPECTION AND MAINTENANCE
- INSPECT AND VERIFY THAT CONCRETE WASHOUT BMPS ARE IN PLACE PRIOR TO THE COMMENCEMENT OF CONCRETE WORK.
- DURING PERIODS OF CONCRETE WORK, INSPECT DAILY TO VERIFY CONTINUED PERFORMANCE.
- CHECK OVERALL CONDITION AND PERFORMANCE.
- CHECK REMAINING CAPACITY (% FULL).
- IF USING SELF–INSTALLED WASHOUT FACILITIES, VERIFY PLASTIC LINERS ARE INTACT AND SIDEWALLS ARE NOT DAMAGED.
- IF USING PREFABRICATED CONTAINERS, CHECK FOR LEAKS.
- WASHOUT FACILITIES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 12 INCHES.
- WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
- IF THE WASHOUT IS NEARING CAPACITY, VACUUM AND DISPOSE OF THE WASTE MATERIAL IN AN APPROVED MANNER.
- DO NOT DISCHARGE LIQUID OR SLURRY TO WATERWAYS, STORM DRAINS OR DIRECTLY ONTO GROUND.
- DO NOT USE SANITARY SEWER WITHOUT LOCAL APPROVAL.
- PLACE A SECURE, NON–COLLAPSING, NON–WATER COLLECTING COVER OVER THE CONCRETE WASHOUT FACILITY PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION.
- REMOVE AND DISPOSE OF HARDENED CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL CONDITION. CONCRETE MAY BE REUSED ONSITE OR HAULED AWAY FOR DISPOSAL OR RECYCLING.
- WHEN YOU REMOVE MATERIALS FROM THE SELF–INSTALLED CONCRETE WASHOUT, BUILD A NEW STRUCTURE; OR, IF THE PREVIOUS STRUCTURE IS STILL INTACT, INSPECT FOR SIGNS OF WEAKENING OR DAMAGE, AND MAKE ANY NECESSARY REPAIRS. RE–LINE THE STRUCTURE WITH NEW PLASTIC AFTER EACH CLEANING.

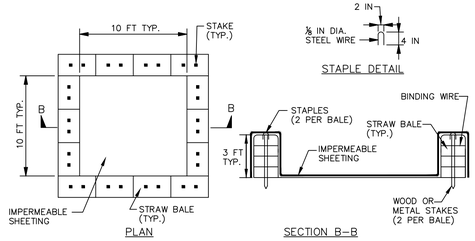
REMOVAL OF TEMPORARY CONCRETE WASHOUT FACILITIES
- WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE REMOVED AND PROPERLY DISPOSED OF.
- MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
- HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.



EXCAVATED WASHOUT STRUCTURE



WASHOUT STRUCTURE WITH WOOD PLANKS



NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

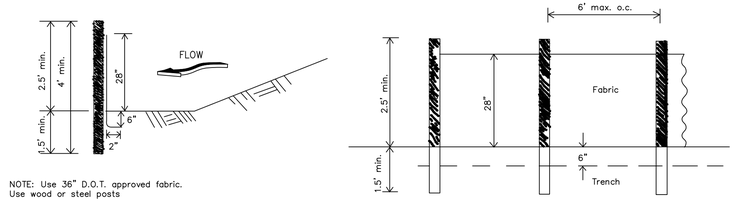
WASHOUT STRUCTURE WITH STRAW BALES

CONSTRUCTION SPECIFICATIONS

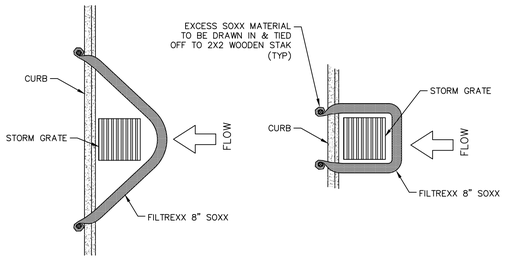
1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET–VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

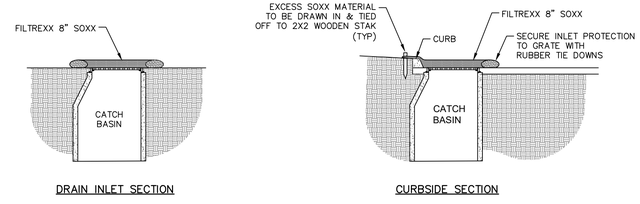
NOTE: WASHOUT OF THE CONCRETE TRUCK DRUM AT THE CONSTRUCTION SITE IS PROHIBITED

CONCRETE WASHDOWN AREA DETAIL (CSW)
NOT TO SCALE



SILT FENCE – TYPE NS (Sd1–NS)
Non–Sensitive – Type A
NOT TO SCALE





NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECTIFICATIONS
2. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

INLET PROTECTION (Sd2–P)
NOT TO SCALE

GEORGIA811.COM DIAL 811

GSWCC# 00000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S. Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-5I-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
EROSION CONTROL DETAILS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C6.6

G:\ACTIVE PROJECTS\2024-182 H – PALM AND CEDAR PUMP STATION\900–DRAWINGS\DWG\CONST\2024–182 ESPCP.DWG

DS1
DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

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

PURPOSE
1. TO REDUCE RUNOFF EROSION
2. TO CONSERVE MOISTURE
3. TO PREVENT SURFACE COMPACTION OR CRUSTING
4. TO CONTROL UNDESIRABLE VEGETATION
5. 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 AN AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED.

SPECIFICATIONS
MULCHING WITHOUT SEEDING
THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION
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 REUSED.

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.
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20–30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
3. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH
1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER–TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS AND HYDRAULIC MULCH WITH TACKIFIERS SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULISFIED ASPHALT. PLEASE REFER TO SPECIFICATION TACKIFIERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

APPLICATION RATE FOR EACH TYPE OF SOIL ENCOUNTERED ON THE SITE.

MULCHING: MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCHING APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED.
1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT A RATE OF 500 LBS PER ACRE. DRY STRAW R DRY HAY SHALL BE APPLIED AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OF WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES GREATER THAN 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3" FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITIES MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCHING IS NOT REQUIRED.

MULCHING
NOT TO SCALE
Ds1

DS2
DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

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

PURPOSE:
1. TO REDUCE RUNOFF AND SEDIMENT DAMAGE OF DOWN STREAM RESOURCES
2. TO PROTECT THE SOIL SURFACE FROM EROSION
3. TO IMPROVE WILDLIFE HABITAT
4. TO IMPROVE AESTHETICS
5. 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 DISTUR– BANCE. 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.

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

SPECIFICATIONS
GRADING AND SHAPING
EXCESSIVE WATER RUN–OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND–SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION
WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL.
WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

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

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

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

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

SEEDING RATES FOR TEMPORARY SEEDING.

SPECIES	RATE PER 1,000 SQ.FT.	RATE PER ACRE.*	PLANTING DATES**
RYE	3.9 LBS.	3 BU	9/1 – 3/1
RYE GRASS	0.9 LBS.	40 LBS.	8/15 – 4/1
ANNUAL LESPEDEZA	0.9 LBS.	40 LBS.	1/15 –9/15
WEEPING LOVEGRASS	0.1 LBS.	4 LBS.	2/15 – 6/15
SUNDANGRASS	1.4 LBS.	60 LBS.	3/1 – 8/1
BROWN MILLET	0.9 LBS.	40 LBS.	4/1 – 7/15
WHEAT	4.1 LBS.	3 BU	9/15 – 2/1

* UNUSUAL SITE CONDTIONS MAY REQUIRE HEAVIER SEEDING RATES.
** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TMPERATURE VARIATIONS AND CONDITIONS.

GRASSING TEMPORARY
NOT TO SCALE
Ds2

DU
DUST CONTROL ON DISTURBED AREAS

DEFINITION
CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

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

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 STANDARD TB–TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- VEGETATIVE COVER. SEE STANDARD 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 STANDARD TB–TACKIFIERS AND BINDERS.
- 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, SNOW FENCES, 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.

PERMANENT METHODS
- PERMANENT VEGETATION. SEE STANDARD DS3–DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
- TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP–TOPSOILING.
- STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR–CONSTRUCTION ROAD STABILIZATION.

DUST CONTROL
NOT TO SCALE
Du

DS3
DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

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

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

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

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

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

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

PLANTING
HYDRAULIC SEEDING
MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.

CONVENTIONAL SEEDING
SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO ¼ INCH OF SOIL FOR SMALL SEED AND ½ TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.

NO–TILL SEEDING
NO–TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO–TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO–TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.

INDIVIDUAL PLANTS
SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE. WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLE.

MULCHING
MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:
1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 ½ TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES ¾:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

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

ANCHORING MULCH
ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:
1. EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE BLOWER MACHINE OR (B) SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT.

THE COMBINATION F ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF GRADE SS–1H OR CSS–1H EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH.
CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY, PAVEMENTS, CURBS, SIDEWALKS, AND ALL OTHER STRUCTURES FROM ASPHALT DISCOLORATION.

2. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
3. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. REFER TO TB–TACKIFIERS AND BINDERS.
4. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE–QUARTER TO ONE HALF BUSHEL PER ACRE.
5. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

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

GRASSING PERMANENT
NOT TO SCALE
Ds3

TABLE 6–5.1 FERTILIZER REQUIREMENTS

TYPE OF SPECIES	YEAR	ANALYSIS FOR EQUIVALENT N–P–K	RATE	N TOP DRESSING RATE
1. 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
2. COOL 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.	0–50 LBS./AC. 1/ – –
3. GROUND COVERS	FIRST SECOND MAINTENANCE	10–10–10 10–10–10 10–10–10	1300 LBS./AC. 1300 LBS./AC. 1100 LBS./AC.	– – –
4. PINE SEEDLINGS	FIRST	20–10–6	ONE 21–GRAM PELLET PER SEEDING PLACED IN THE CLOSING HOLE	–
5. SHRUB LESPEDEZA	FIRST MAINTENANCE	0–10–10 0–10–10	700 LBS./AC. 700 LBS./AC.4/	– –
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10/10/2010	500 LBS./AC.	30 LB./ACRE/ 5/
7. WARM 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. 2/6/ 50–100 LBS./AC. 2/ 30 LBS./AC.
8. 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.

Month	Temporary Cover Ds2	Rate per Acre Seeded Alone	Rate per Acre Added To Mix	Permanent Cover Ds3	Rate per Acre Seeded Alone	Rate per Acre Added To Mix
January	Rye grass Rye	40 lbs. 3 bu.	–– .5 bu.	Unhulled Bermuda Sericea Lespedeza (1)	10 lbs. 75 lbs.	6 lbs. ––
February	Annual Lespedeza Rye grass Rye	40 lbs. 40 lbs. 3 bu.	10 lbs. –– .5 bu.	Unhulled Bermuda Sericea Lespedeza (1)	10 lbs. 75 lbs.	6 lbs. ––
March	Weeping Lovegrass Annual Lespedeza	4 lbs. 40 lbs.	2 lbs. 10 lbs.	Pensacola Bahia Hulled Bermuda Sericea Lespedeza (2)	60 lbs. 10 lbs. 60 lbs.	30 lbs. 6 lbs. ––
April	Weeping Lovegrass Sudan Grass	4 lbs. 60 lbs. 40 lbs.	2 lbs. –– 10 lbs.	Pensacola Bahia Weeping Lovegrass Hulled Bermuda Sericea Lespedeza (2)	60 lbs. 6 lbs. 10 lbs. 60 lbs.	30 lbs. 6 lbs. 6 lbs. ––
May	Weeping Lovegrass Sudan Grass	4 lbs. 60 lbs. 40 lbs.	2 lbs. –– 10 lbs.	Pensacola Bahia Weeping Lovegrass Hulled Bermuda Sericea Lespedeza (2)	60 lbs. 6 lbs. 10 lbs. 60 lbs.	30 lbs. 6 lbs. 6 lbs. ––
June	Pearl Millet Sudan Grass	50 lbs. 60 lbs. 40 lbs.	–– –– 10 lbs.	Pensacola Bahia Hulled Bermuda	60 lbs. 10 lbs.	30 lbs. 6 lbs.
July	Pearl Millet Sudan Grass	50 lbs. 60 lbs. 40 lbs.	–– –– 10 lbs.	Pensacola Bahia	60 lbs.	30 lbs.
August	Pearl Millet Rye	50 lbs. 3 bu.	–– .5 bu.	Pensacola Bahia	60 lbs.	30 lbs.
September	Rye grass Oats Wheat	40 lbs. 4 bu. 3 bu.	–– 1 bu. .5 bu.	Sericea Lespedeza (1)	75 lbs.	––
October	Rye grass Oats Wheat Rye Barley	40 lbs. 4 bu. 3 bu. 3 bu. 3 bu.	–– 1 bu. .5 bu. .5 bu. .5 bu.	Sericea Lespedeza (1)	75 lbs.	––
November	Rye grass Oats Wheat Rye Barley	40 lbs. 4 bu. 3 bu. 3 bu. 3 bu.	–– 1 bu. .5 bu. .5 bu. .5 bu.	Sericea Lespedeza (1) Unhulled Bermuda	75 lbs. 10 lbs.	–– 6 lbs.
December	Rye grass Oats Wheat Rye Barley	40 lbs. 4 bu. 3 bu. 3 bu. 3 bu.	–– 1 bu. .5 bu. .5 bu. .5 bu.	Sericea Lespedeza (1) Unhulled Bermuda	75 lbs. 10 lbs.	–– 6 lbs.

FERTILIZER:

YEAR	ANALYSIS N–P–K	RATE	N TOP DRESSING RATE
FIRST	6–12–12	1500 LBS/AC	50–100 LBS.AC
SECOND	6–12–12	800 LBS/AC	50–100 LBS/AC
MAINTENANCE	10–10–10	400 LBS/AC	30 LBS/AC

FOR BEST RESULTS TAKE AT LEAST ONE SAMPLE OF SOIL TO THE COUNTY EXTENSION AGENT FOR ANALYSIS TO DETERMINE THE BEST FERTILIZER

1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRYSTRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS. 6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED

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

UTILITIES PROTECTION CENTER
1–800–282–7411
CALL BEFORE YOU DIG
GEORGIA811.COM DIAL 811

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS CONTAINED WITHIN THIS SET OF DOCUMENTS AND SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

TRENT R. LONG
NO. 27744
GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TR LONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

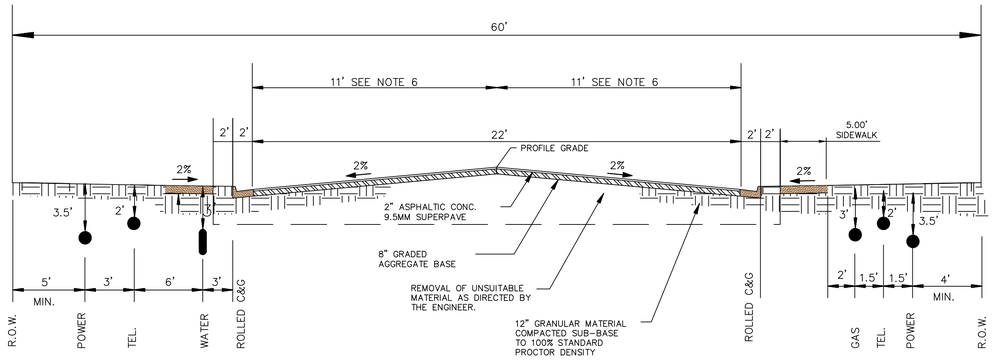
TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
EROSION CONTROL DETAILS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C6.7

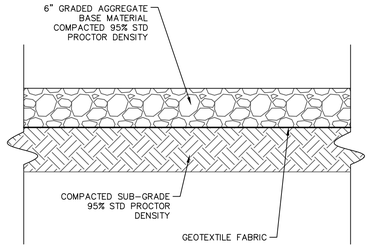


NOTES:

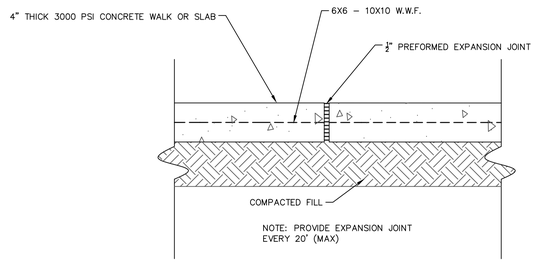
1. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PREPARE THE SUBGRADE IN ACCORDANCE WITH SECTION 209 SUBGRADE CONSTRUCTION AS WRITTEN IN THE HINESVILLE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY. THE PREPARATION AND COMPACTION OF THE SUBGRADE SHALL BE INCLUDED IN THE UNIT PRICE FOR THE BASE.
2. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO BACK OUT THE SUBGRADE TO A DEPTH AS DIRECTED BY THE ENGINEER. THE BACK OUT MATERIAL WILL BE USED IN THE CONSTRUCTION OF THE SHOULDERS.
3. THE GRADED AGGREGATE BASE SHALL BE IN ACCORDANCE WITH SECTION 815.01 OF THE GDOT STANDARD SPECIFICATIONS.
4. THE CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT, MAINTENANCE, AND INSPECTION OF TRAFFIC CONTROL DEVICES.
5. ADDITIONAL LIFTS BELOW THE FIRST 12 INCHES OF SUB-BASE SHALL BE COMPACTED TO A 95% STANDARD PROCTOR DENSITY OR GREATER.
6. WHEN ROAD IS ADJACENT TO A FIRE HYDRANT, THE LANE WIDTH SHALL INCREASE TO 13' (EXCLUDING CURB AND GUTTER). THE EXTRA LANE WIDTH SHALL EXTEND A DISTANCE OF 20 FEET ON EACH SIDE OF THE HYDRANT.

TYPICAL ROADWAY SECTION

N.T.S.

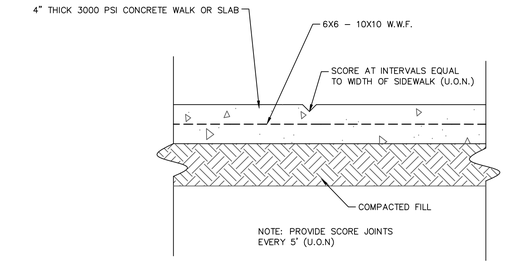


PUMP STATION YARD TYPICAL SECTION



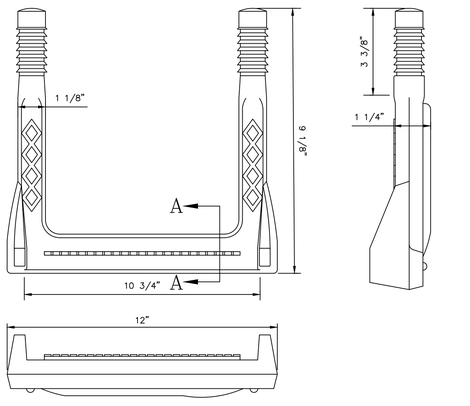
EXPANSION JOINT

N.T.S.



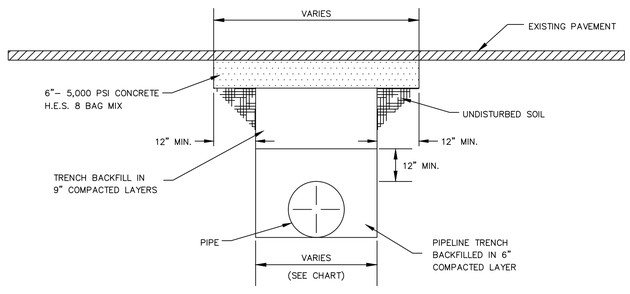
WALK CONTROL JOINT

N.T.S.



POLYPROPYLENE MANHOLE STEP

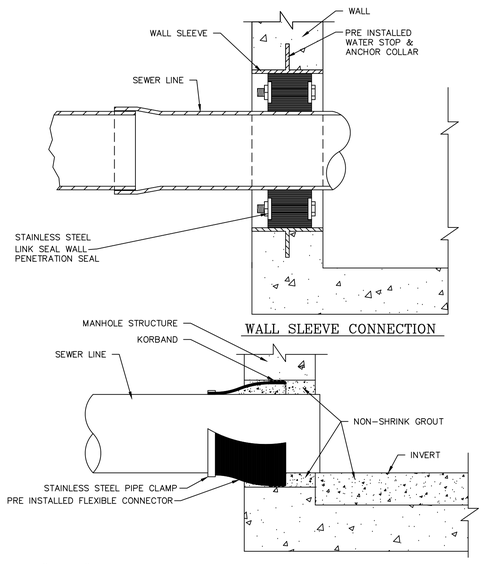
N.T.S.



PIPE DIAMETER	MAXIMUM TRENCH WIDTH	MAXIMUM PAYMENT WIDTH
6" TO 15"	16" + DIA.	40" + DIA.
18" TO 21"	20" + DIA.	44" + DIA.
24" TO 30"	24" + DIA.	48" + DIA.
33" TO 42"	36" + DIA.	60" + DIA.
48"+	36" + DIA.	60" + DIA.

PAVEMENT REMOVAL & REPLACEMENT

N.T.S.



NOTE:
WALL SLEEVE CONNECTIONS ARE REQUIRED FOR VALVE PITS & WETWELLS

PRECAST STRUCTURE PIPE CONNECTIONS

N.T.S.

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

POOLER:
1000 Towne Center Blvd
Suite 304
Pooler, Georgia 31322
(912) 335-1046

TRLONG ENGINEERING, P.C.

www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-5L-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

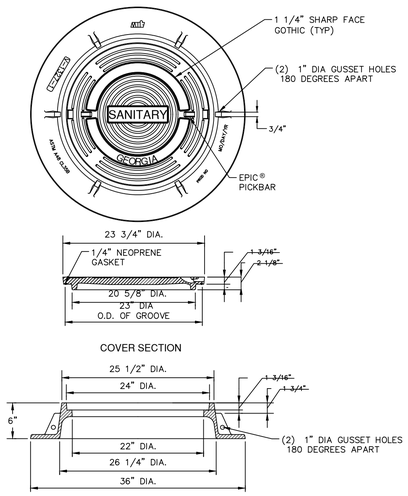
SHEET NAME:
SITE DETAILS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C7.1

G:\ACTIVE PROJECTS\2024-182 H - PALM AND CEDAR PUMP STATION\900-DRAWINGS\DWG\CONST\2024-182 DET.DWG

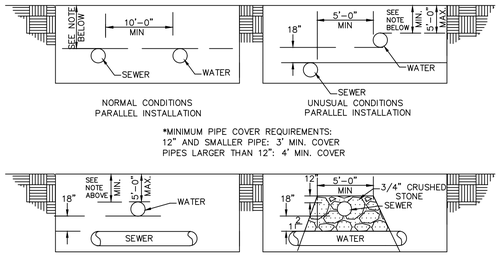


NOTE:

1. MANHOLE RING AND COVER SHALL BE IN COMPLIANCE TO THE CITY OF JESUP'S SPECIFICATIONS.
2. MANHOLE RING AND COVER SHALL BE U.S. FOUNDRY 195-E-ORS
3. LID MUST BE LABELED "CITY OF JESUP"

MANHOLE RING AND COVER

N.T.S.



NOTES:

THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION MINIMUM STANDARDS FOR PUBLIC WATER SYSTEMS (12.6.2(c)), WHICH ARE GENERALLY AS FOLLOWS:

A. PARALLEL INSTALLATION:

1. NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER LINE SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
2. UNUSUAL CONDITIONS: WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, AND WHEN APPROVED BY THE ENGINEER, THE INSIDE EDGE OF A WATER MAIN MAY BE LAID A MINIMUM OF 5 FEET FROM THE INSIDE EDGE OF A SEWER PROVIDED THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER (SEE DETAIL), AND THE WATER MAIN IS LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF.

B. CROSSINGS:

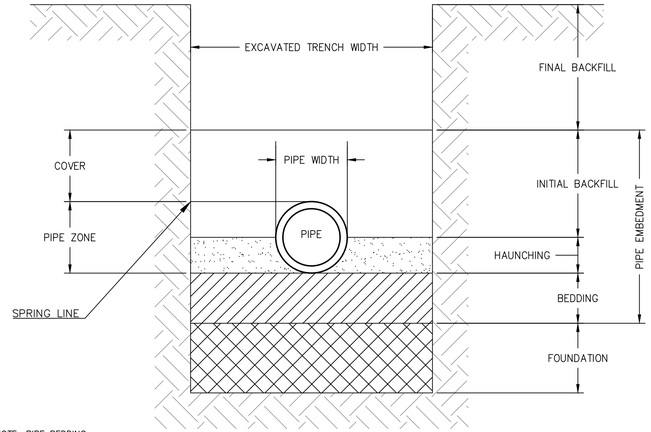
1. NORMAL CONDITIONS: WHENEVER POSSIBLE, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
2. UNUSUAL CONDITIONS: IF A WATER MAIN MUST CROSS UNDER A SEWER, THE TOP OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES LOWER THAN THE BOTTOM OF THE SEWER, THE WATER MAIN PIPE SHALL BE CENTERED AT THE CROSSING SO THAT THE JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER, AND ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF THE SEWER AT THE CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL INCLUDE BACKFILLING THE ENTIRE UTILITY CROSSING AREA WITH 3/4" CRUSHED STONE AS SHOWN IN THE DETAIL

C. WHEN THE WATER MAIN CROSSES UNDER SEWER, BOTH THE SEWER AND WATER MAIN MUST ALSO BE CONSTRUCTED OF WATER MAIN MATERIALS EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES AND BE SUBJECTED TO PRESSURE TESTS AS PRESCRIBED IN THE MINIMUM STANDARDS. OTHER OPTIONS THAT ARE ACCEPTABLE INCLUDE:

1. ENCASEMENT OF THE WATER MAIN OR SEWER MAIN IN A CASING PIPE CONSTRUCTED OF WATER MAIN MATERIALS, EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.
2. THE SEWER HAS A STRUCTURAL LINING THAT MEETS ASTM F1216 EXTENDING ON EACH SIDE OF THE CROSSING UNTIL AT LEAST 10 FEET SEPARATES THE TWO PIPES.

MINIMUM WATER AND SEWER PIPE SEPARATION REQUIREMENTS

N.T.S.



NOTE: BACKFILL

A. THE SOIL AT THE SIDES OF A PIPE AND ABOVE IT IS THE BACKFILL.
B. PRIOR TO BACKFILLING ANY EXCAVATION, ALL PIPING AND STRUCTURES, THE ENGINEER AND GOVERNING AUTHORITY'S INSPECTOR SHALL BE NOTIFIED FOR OBSERVATION.
C. AFTER PIPES HAVE BEEN TESTED AND APPROVED, BACKFILLING SHALL BE DONE WITH APPROVED MATERIAL FREE FROM LARGE CLODS OR STONES.
D. BACKFILL SHALL BE PLACED IN UNIFORM LAYERS, FOUR INCHES THICK, ON BOTH SIDES OF THE PIPE AND THOROUGHLY COMPACTED WITH PNEUMATIC OR HAND TAMPERS. THE BACKFILL SHALL BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF THE PIPE AND COMPACTED TO AN ELEVATION OF ONE FOOT ABOVE THE TOP OF THE PIPE, AFTER WHICH THE FILL SHALL BE PLACED IN EIGHT INCH LIFTS. NO ROCK WILL BE ALLOWED IN THE BACKFILL WITHIN A DISTANCE OF ONE FOOT FROM THE PIPE, AND ROCK LARGER THAN SIX INCHES IN THE GREATEST DIMENSION WILL NOT BE PERMITTED IN ANY PART OF THE TRENCH OR BACKFILL.
   1. BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY WEIGHT PER CUBIC FOOT AS DETERMINED BY AASHTO METHOD T_99 (STANDARD PROCTOR TEST).
   2. THE TOP 18 INCHES OF BACKFILL UNDER ANY PAVED AREA SHALL BE COMPACTED TO 100% STANDARD PROCTOR.
   3. WATER SETTLING WILL NOT BE PERMITTED IN CLAY SOILS. IT MAY BE ALLOWED AT THE OPTION OF THE GOVERNING AUTHORITY'S INSPECTOR AND DESIGN ENGINEER IN SANDY SOILS

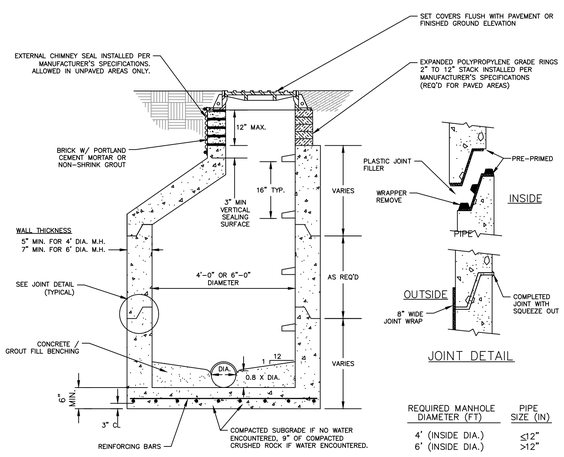
NOTE: WATER MAIN 36" BURY MINIMUM.

NOTE: PIPE BEDDING

A. THE CONTACT BETWEEN A PIPE AND THE FOUNDATION ON WHICH IT RESTS IS THE PIPE BEDDING.
B. CLASSES OF BEDDING: FOUR TYPICAL CLASSES OF BEDDING TO BE USED FOR PIPES IN TRENCHES ARE DESCRIBED AS FOLLOWS:
   1. CLASS A _ CONCRETE CRADLE OR CONCRETE ARCH BEDDING: THIS CLASS OF BEDDING MAY TAKE EITHER OF TWO FORMS.
      a. CONCRETE CRADLE_ THE PIPE SHALL BE BEDDED IN A MONOLITHIC CRADLE OF PLAIN OR REINFORCED CONCRETE HAVING A MINIMUM THICKNESS OF 1/4 THE INSIDE PIPE DIAMETER OF A MINIMUM OF 4 INCHES UNDER THE BARREL AND EXTENDING UP THE SIDES FOR A HEIGHT EQUAL TO 1/4 THE OUTSIDE DIAMETER. THE CRADLE SHALL HAVE WIDTH AT LEAST EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE BARREL PLUS 8 INCHES. BACKFILL ABOVE THE CRADLE AND EXTENDING TO 12 INCHES ABOVE THE CROWN OF THE PIPE SHALL BE COMPACTED CAREFULLY.
      b. CONCRETE ARCH– THE PIPE SHALL BE EMBEDDED IN A CAREFULLY COMPACTED GRANULAR MATERIAL HAVING A MINIMUM THICKNESS OF 1/4 THE OUTSIDE DIAMETER BETWEEN BARREL AND BOTTOM OF TRENCH EXCAVATION AND EXTENDING HALFWAY UP THE SIDES OF THE PIPE. THE TOP HALF OF THE PIPE SHALL BE COVERED WITH MONOLITHIC PLAIN OR REINFORCED CONCRETE ARCH HAVING A MINIMUM THICKNESS OF 1/4 THE INSIDE DIAMETER AT THE CROWN AND HAVING A MINIMUM WIDTH EQUAL TO THE OUTSIDE PIPE DIAMETER PLUS 8 INCHES.
   2. CLASS B_ FIRST _CLASS BEDDING _ CLASS B BEDDING MAY BE ACHIEVED BY EITHER OF TWO CONSTRUCTION METHODS.
      a. SHAPED BOTTOM WITH TAMPED BACKFILL. THE BOTTOM OF THE TRENCH EXCAVATION SHALL BE SHAPED TO CONFORM TO A CYLINDRICAL SURFACE WITH A RADIUS AT LEAST 2 INCHES GREATER THAN THE RADIUS TO THE OUTSIDE OF THE PIPE AND WITH A WIDTH SUFFICIENT TO ALLOW 6/10 OF THE WIDTH OF THE PIPE BARREL TO BE BEDDED IN FINE GRANULAR FILL PLACED IN THE SHAPED EXCAVATION. CAREFULLY COMPACTED BACKFILL SHALL BE PLACED AT THE SIDES OF THE PIPE TO A THICKNESS OF AT LEAST 12 INCHES ABOVE THE TOP OF THE PIPE. SHAPED TRENCH BOTTOMS SHALL BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
      b. COMPACTED GRANULAR BEDDING WITH TAMPED BACKFILL. THE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL PLACED ON A FLAT TRENCH BOTTOM. THE GRANULAR BEDDING SHALL HAVE A MINIMUM THICKNESS OF 1/4 THE OUTSIDE PIPE DIAMETER AND SHALL EXTEND HALFWAY UP THE PIPE BARREL AT THE SIDES. THE REMAINDER OF THE SIDE FILLS AND MINIMUM DEPTH OF 12 INCHES OVER THE TOP OF THE PIPE SHALL BE FILLED WITH CAREFULLY COMPACTED, SELECT MATERIAL.
   3. CLASS C _ ORDINARY BEDDING: CLASS C ORDINARY BEDDING MAY BE ACHIEVED BY EITHER OF TWO CONSTRUCTION METHODS:
      a. SHAPED BOTTOM. THE PIPE SHALL BE BEDDED WITH "ORDINARY" CARE IN AN EARTH FOUNDATION FORMED IN THE TRENCH BOTTOM BY A SHAPED EXCAVATION WHICH WILL FIT THE PIPE BARREL WITH REASONABLE CLOSENESS FOR A WIDTH OF AT LEAST 50% OF THE OUTSIDE PIPE DIAMETER. THE SIDE FILLS AND AREA OVER THE PIPE TO A MINIMUM DEPTH OF 6 INCHES ABOVE THE TOP OF THE PIPE SHALL BE FILLED WITH LIGHTLY COMPACTED FILL. THE SHAPED BOTTOM BEDDING SHALL BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
      b. COMPACTED GRANULAR BEDDING WITH A TAMPED BACKFILL. THE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL PLACED ON A FLAT TRENCH BOTTOM. THE GRANULAR BEDDING SHALL HAVE A MINIMUM THICKNESS OF 4 INCHES UNDER THE BARREL AND SHALL EXTEND 1/10 TO 1/6 OF THE OUTSIDE DIAMETER UP THE PIPE BARREL AT THE SIDES. THE REMAINDER OF THE SIDE FILLS AND TO A MINIMUM DEPTH OF 6 INCHES OVER THE TOP OF THE PIPE SHALL BE FILLED WITH LIGHTLY COMPACTED BACKFILL.
   4. CLASS D _ CLASS D BEDDING IS NOT PERMISSIBLE. FLAT BOTTOM TRENCH. IN THIS CLASS OF BEDDING THE BOTTOM IS LEFT FLAT, AND NO CARE IS TAKEN TO SECURE COMPACTION OF BACKFILL AT THE SIDES IMMEDIATELY OVER THE PIPE.
C. GRANULAR PIPE BEDDING MATERIAL SHALL BE WELL GRADED CRUSHED STONE OR CRUSHED GRAVEL MEETING THE REQUIREMENTS OF ASTM C33, GRADATION 67 (3/4 INCH TO NO. 4). A WELL_GRADED GRAVEL MEETING THESE SAME REQUIREMENTS CAN ALSO BE USED.
D. WHERE LEDGE ROCK, COMPACT ROCKY OR GRAVELLY SOIL, OR OTHER UNYIELDING FOUNDATION MATERIAL IS ENCOUNTERED, THE PIPES SHALL BE BEDDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOREGOING CLASSES OF BEDDING, BUT WITH THE FOLLOWING ADDITIONS: THE HARD UNYIELDING MATERIAL SHALL BE EXCAVATED TO THE ELEVATION OF THE BOTTOM OF THE CONCRETE CRADLE (CLASS A BEDDING) OR BELOW THE BOTTOM OF THE PIPE AND THE PIPE BELL (CLASS B OR C BEDDING), TO DEPTH OF AT LEAST 6 INCHES (15CM). THE WIDTH OF THE EXCAVATION SHALL BE AT LEAST 5/4 THE OUTSIDE DIAMETER OF THE PIPE AND IT SHALL BE REFILLED WITH GRANULAR MATERIAL AS IDENTIFIED ABOVE.

PIPE BEDDING

N.T.S.

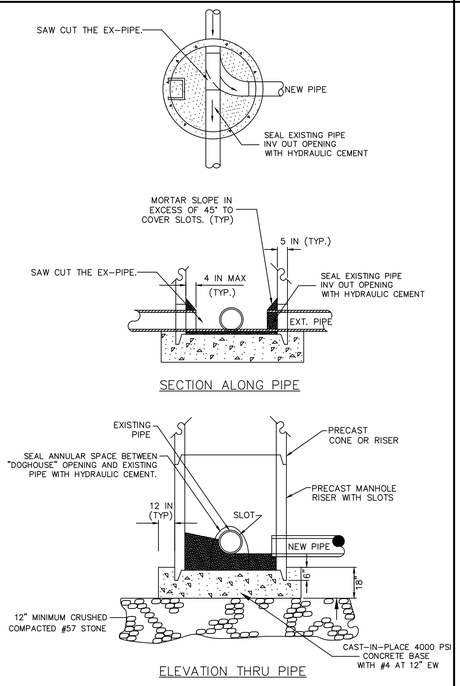


NOTES:

1. PRECAST REINFORCED CONCRETE TOPS, RISERS, BASES AND REBARS SHALL CONFORM TO LATEST ASTM C-478 STD. SPECIFICATIONS.
2. INTERIOR AND EXTERIOR OF MANHOLE SHALL BE COATED IN ACCORDANCE WITH TR LONG ENGINEERING OF STD. SPECIFICATIONS.
3. MANUFACTURER CERTIFICATION THAT MANHOLE MEETS ASTM SPECIFICATION SHALL BE SUBMITTED TO TR LONG ENGINEERING
4. FOR MANHOLE RING AND COVER, SEE DETAIL S10.
5. FOR MANHOLE STEPS SEE DETAIL S15. STEPS TO BE INSTALLED IN A VERTICAL ROW ON 16" CENTERS.
6. CHECK FOR BUOYANCY.
7. ALL PIPE PENETRATIONS SHALL HAVE A BOOT CONNECTION.

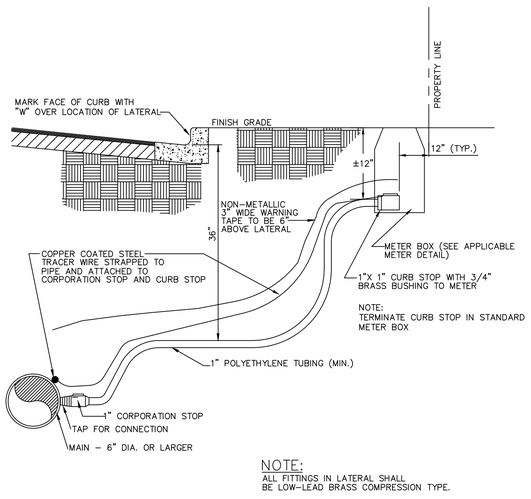
STANDARD PRECAST MANHOLE

N.T.S.



STANDARD PRECAST DOGHOUSE MANHOLE

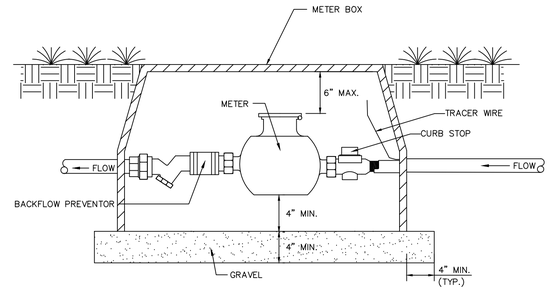
N.T.S.



NOTE:
ALL FITTINGS IN LATERAL SHALL BE LOW-LEAD BRASS COMPRESSION TYPE.

WATER SERVICE LATERAL (6" OR LARGER MAIN)

N.T.S.



NOTE:

1. APPLICABLE TO ALL NEW RESIDENTIAL SERVICES ONLY.
2. APPLICABLE TO 3/4", 5/8" AND 1" ONLY.
3. DOES NOT APPLY TO COMMERCIAL FACILITIES.

RESIDENTIAL WATER METER BACKFLOW PREV. WITHIN GRASS OR LANDSCAPED AREAS

N.T.S.

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

POOLER:
1000 Towne Center Blvd
Suite 304
Pooler, Georgia 31322
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-5A-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

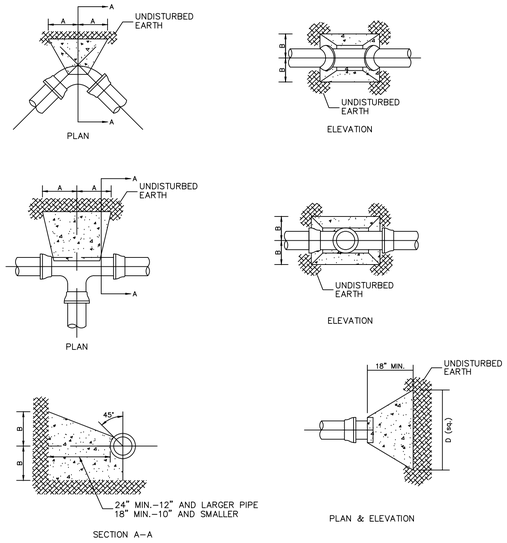
SHEET NAME:
SITE DETAILS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C7.2

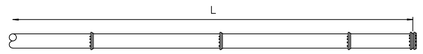
G:\ACTIVE PROJECTS\2024-182 H - PALM AND CEDAR PUMP STATION\900-DRAWINGS\DWG\CONST\2024-182 DET.DWG



TYPE	SIZE	1/4 BENDS		1/8 BENDS		1/16 BENDS		TEES		PLUGS	
		A	B	A	B	A	B	A	B	C	D
TYPE 1 4,000 PSF SOIL	6"	8"	10"	6"	8"	3"	8"	8"	8"	10"	15"
	8"	12"	12"	8"	10"	5"	9"	9"	12"	12"	20"
	10"	16"	14"	10"	12"	6"	10"	11"	14"	14"	25"
	12"	19"	16"	12"	14"	8"	11"	14"	16"	16"	30"
	14"	23"	18"	14"	16"	10"	12"	16"	18"	18"	34"
	16"	26"	20"	16"	18"	11"	13"	18"	20"	20"	38"
TYPE 1 2,000 PSF SOIL	6"	16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
	8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
	10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
	12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
	14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
	16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

STANDARD THRUST BLOCKS FOR WATER MAIN & FORCE MAINS

N.T.S.



POLYETHYLENE WRAPPED DUCTILE IRON LINE

PIPE DIA.	L
4	58
6	82
8	107
10	128
12	151
16	193
20	234
24	273

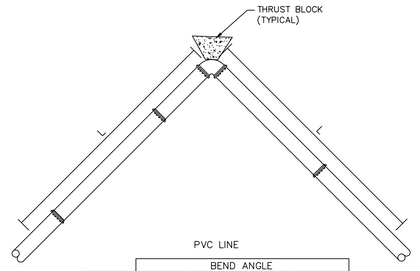
PVC LINE

PIPE DIA.	L
4	39
6	55
8	72
10	87
12	102
16	131
20	159
24	185

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. FOR LINE STUBS, THE LENGTH OF RESTRAINT (L) SHALL BE FROM THE VALVE AND NOT THE CAP.
4. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

DEAD END RESTRAINT

N.T.S.



PVC LINE

PIPE DIA.	BEND ANGLE			
	11 1/4°	22 1/2°	45°	90°
4	2	4	8	18
6	3	5	11	25
8	4	7	14	33
10	4	8	16	39
12	5	9	19	45
16	5	9	19	45
20	6	11	23	54
24	8	16	26	62

DUCTILE IRON LINE

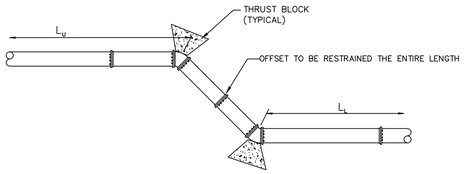
PIPE DIA.	BEND ANGLE			
	11 1/4°	22 1/2°	45°	90°
4	3	5	9	20
6	3	6	12	28
8	4	8	16	36
10	5	9	19	43
12	6	11	22	51
16	7	14	28	65
20	8	16	33	79
24	9	19	38	92

MINIMUM RESTRAINED LENGTH (L)

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

HORIZONTAL BEND RESTRAINT

N.T.S.



PVC LINE

PIPE DIA.	BEND ANGLE					
	11 1/4°		22 1/2°		45°	
	L_U	L_L	L_U	L_L	L_U	L_L
4	4	1	8	2	17	3
6	6	1	11	2	23	4
8	8	2	15	3	30	6
10	9	2	18	4	36	7
12	11	2	21	4	43	8
16	10	3	21	5	42	10
20	13	3	25	6	51	12
24	15	4	29	7	60	15

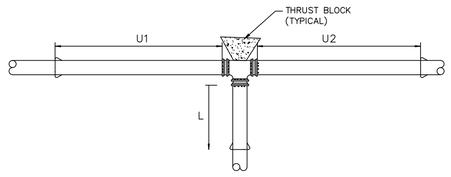
POLYETHELYNE WRAPPED DUCTILE IRON LINE

PIPE DIA.	BEND ANGLE					
	11 1/4°		22 1/2°		45°	
	L_U	L_L	L_U	L_L	L_U	L_L
4	6	1	12	2	24	4
6	9	2	17	3	34	5
8	11	2	22	3	45	7
10	13	2	26	4	53	8
12	15	3	30	5	63	9
16	19	3	39	6	80	12
20	23	4	47	7	97	15
24	27	4	55	8	113	17

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

VERTICAL BEND RESTRAINT

N.T.S.



NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. Ur = THE SMALLER OF U1 OR U2
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
6. WHERE Ur IS LESS THAN 5', RESTRAIN TEE AS A 90° HORIZONTAL BEND.
7. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

PVC LINE

TEE \ Ur	5'–10'	11'–20'	21'–35'	> 35'
4X4	43	28	4	*
6X4	38	17	*	*
6X6	64	49	25	*
8X4	34	6	*	*
8X6	61	42	10	*
8X8	87	72	48	12
10X4	29	*	*	*
10X6	58	34	*	*
10X8	84	66	35	*
10X10	106	91	67	31
12X4	24	*	*	*
12X6	54	26	*	*
12X8	82	60	23	*
12X10	104	86	57	13
12X12	126	112	87	51

MINIMUM RESTRAINED LENGTH (L)

*RESTRAIN AT TEE ONLY.

TEE RESTRAINT (PVC PIPE)

N.T.S.

HINESVILLE:
114 Northill Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

POOLER:
1000 Towne Center Blvd
Suite 304
Pooler, Georgia 31322
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-5L-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
SITE DETAILS

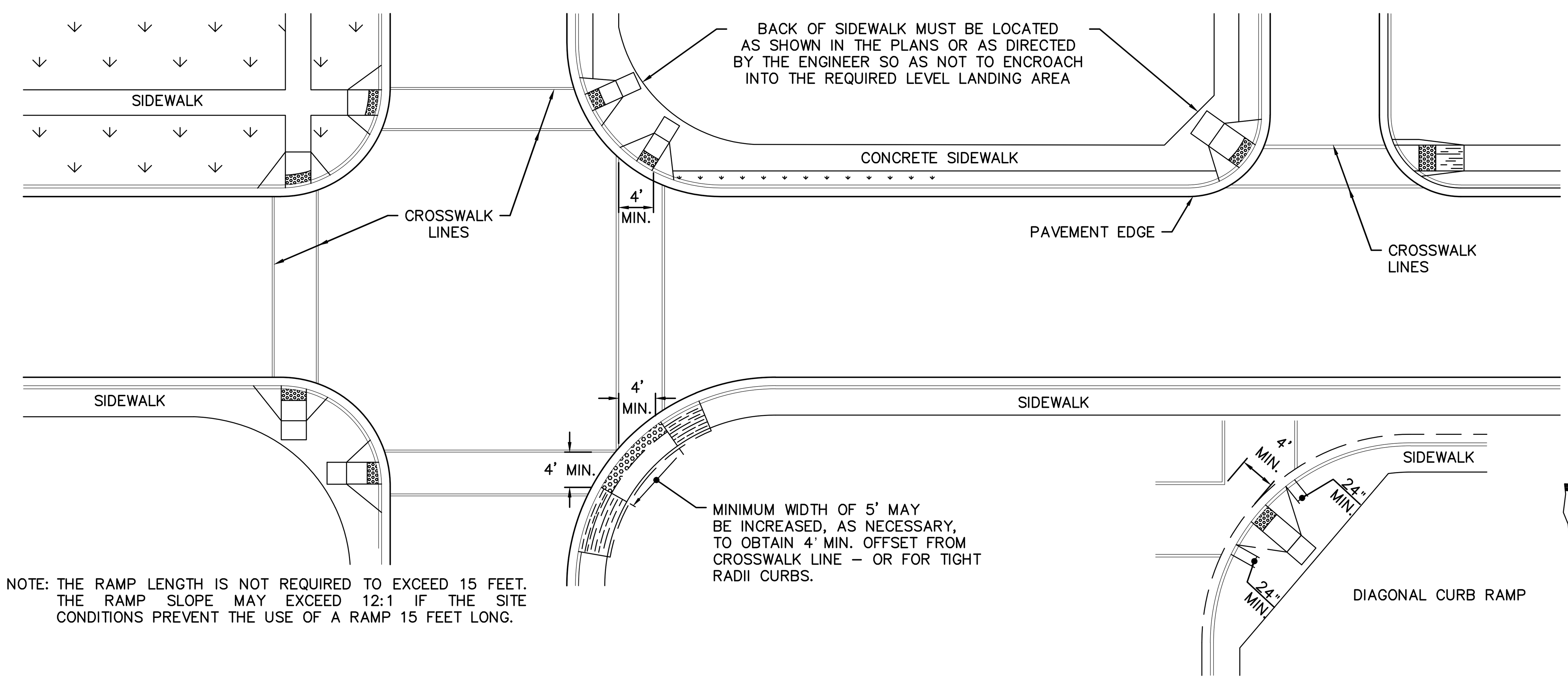
REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C7.3

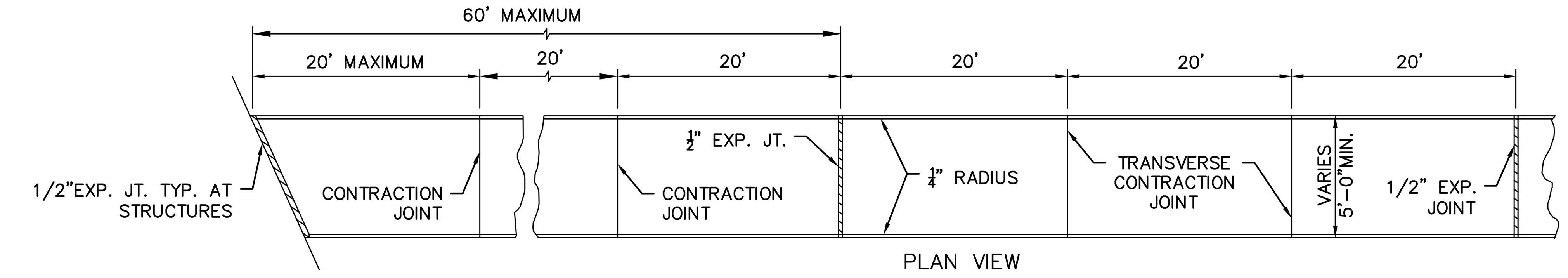
G:\ACTIVE PROJECTS\2024-182 H - PALM AND CEDAR PUMP STATION\900-DRAWINGS\DWG\CONST\2024-182 DET.DWG

TYPICAL LOCATIONS FOR CURB CUT RAMPS- PLAN VIEW

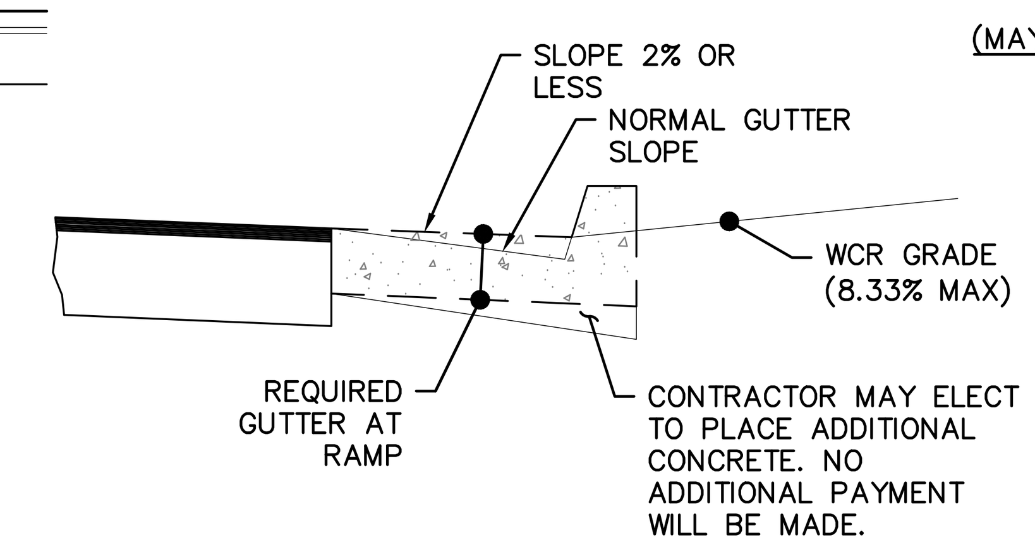


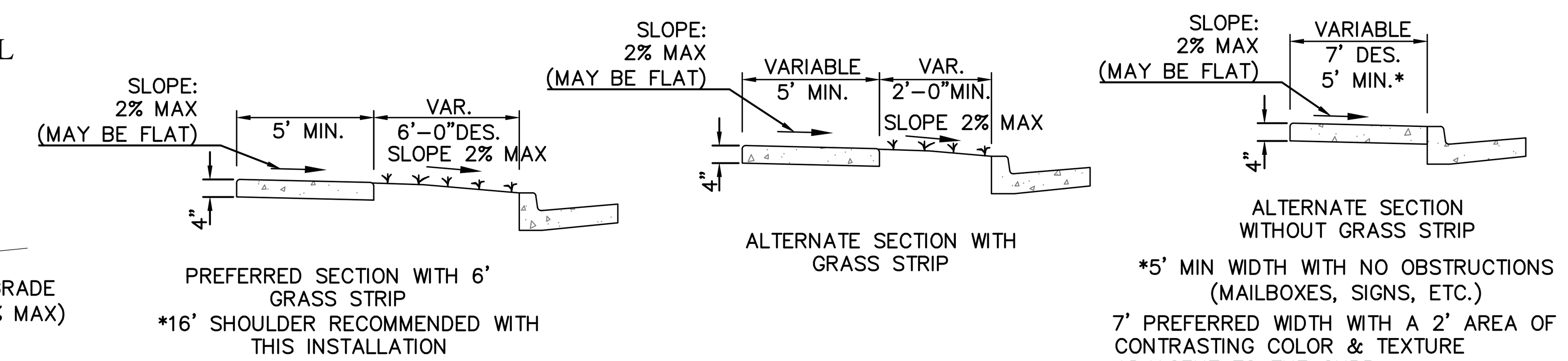
NOTE: THE RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. THE RAMP SLOPE MAY EXCEED 12:1 IF THE SITE CONDITIONS PREVENT THE USE OF A RAMP 15 FEET LONG.

CONCRETE SIDEWALK DETAILS



GUTTER TRANSITION DETAIL

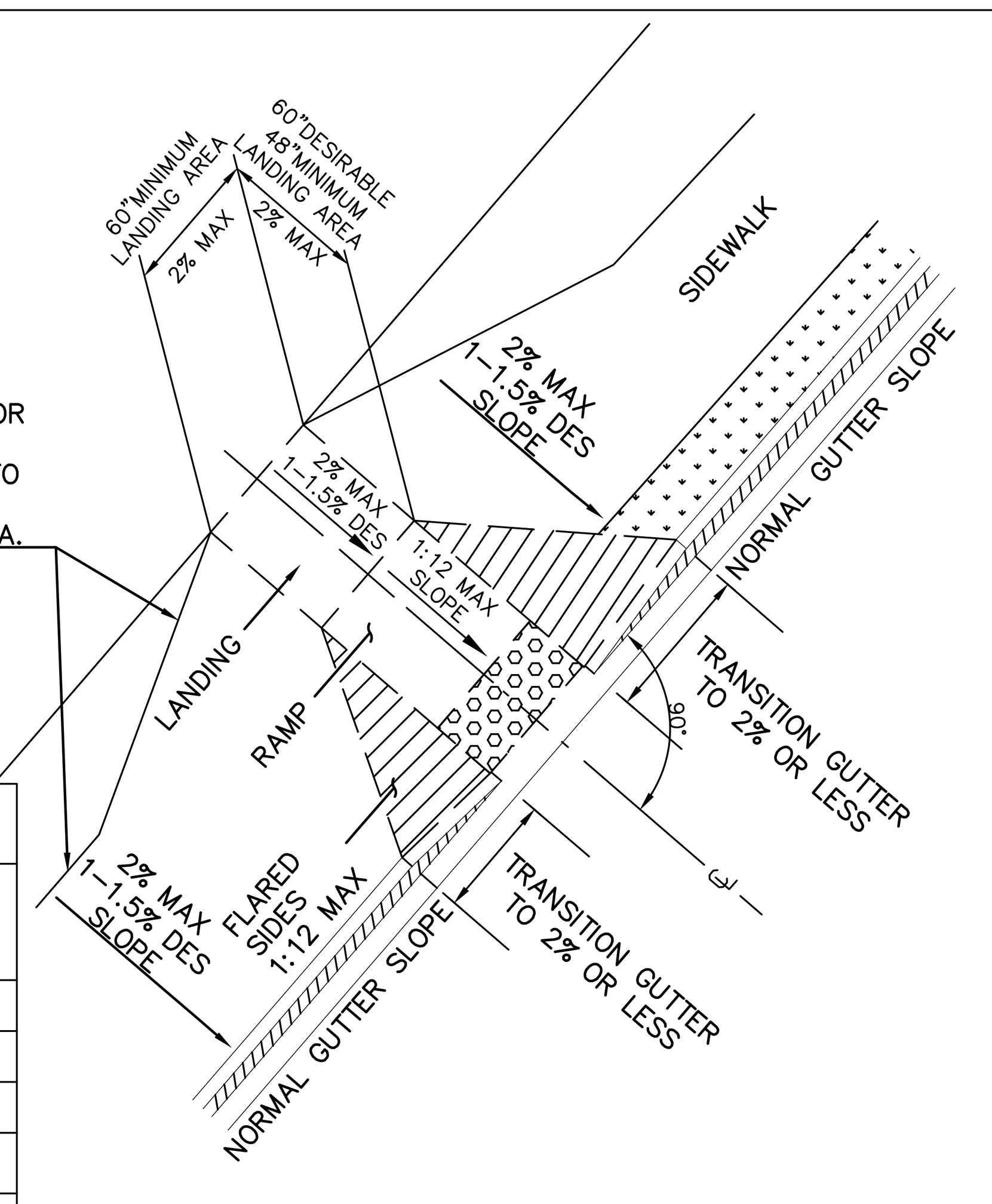




*5' MIN WIDTH WITH NO OBSTRUCTIONS (MAILBOXES, SIGNS, ETC.)
7' PREFERRED WIDTH WITH A 2' AREA OF CONTRASTING COLOR & TEXTURE ADJACENT TO THE CURB.
(COST OF TEXTURE. COLORING & HOLES REQUIRED FOR MAILBOX AND SIGN POST SHALL BE INCLUDED IN THE PRICE BID FOR SIDEWALK)

TYPE A

(PERPENDICULAR)

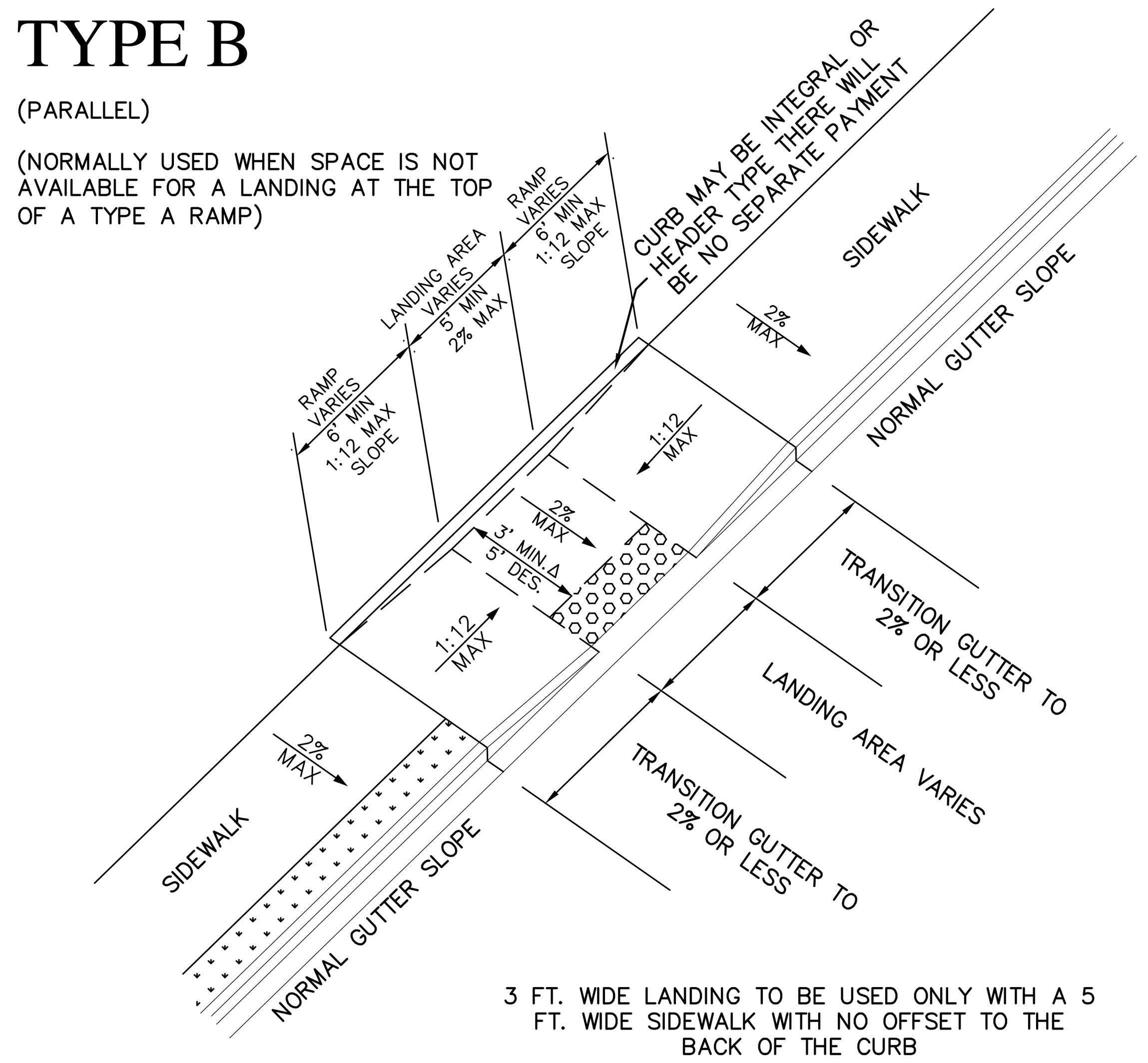


LENGTH REQUIRED FOR A 1:10 SLOPE	
DIFFERENCE IN HEIGHT	LENGTH REQUIRED
1 INCH	10 INCHES
2 INCHES	1'-8"
3 INCHES	2'-6"
4 INCHES	3'-4"
5 INCHES	4'-2"
6 INCHES	5 FEET

TYPE B

(PARALLEL)

(NORMALLY USED WHEN SPACE IS NOT AVAILABLE FOR A LANDING AT THE TOP OF A TYPE A RAMP)



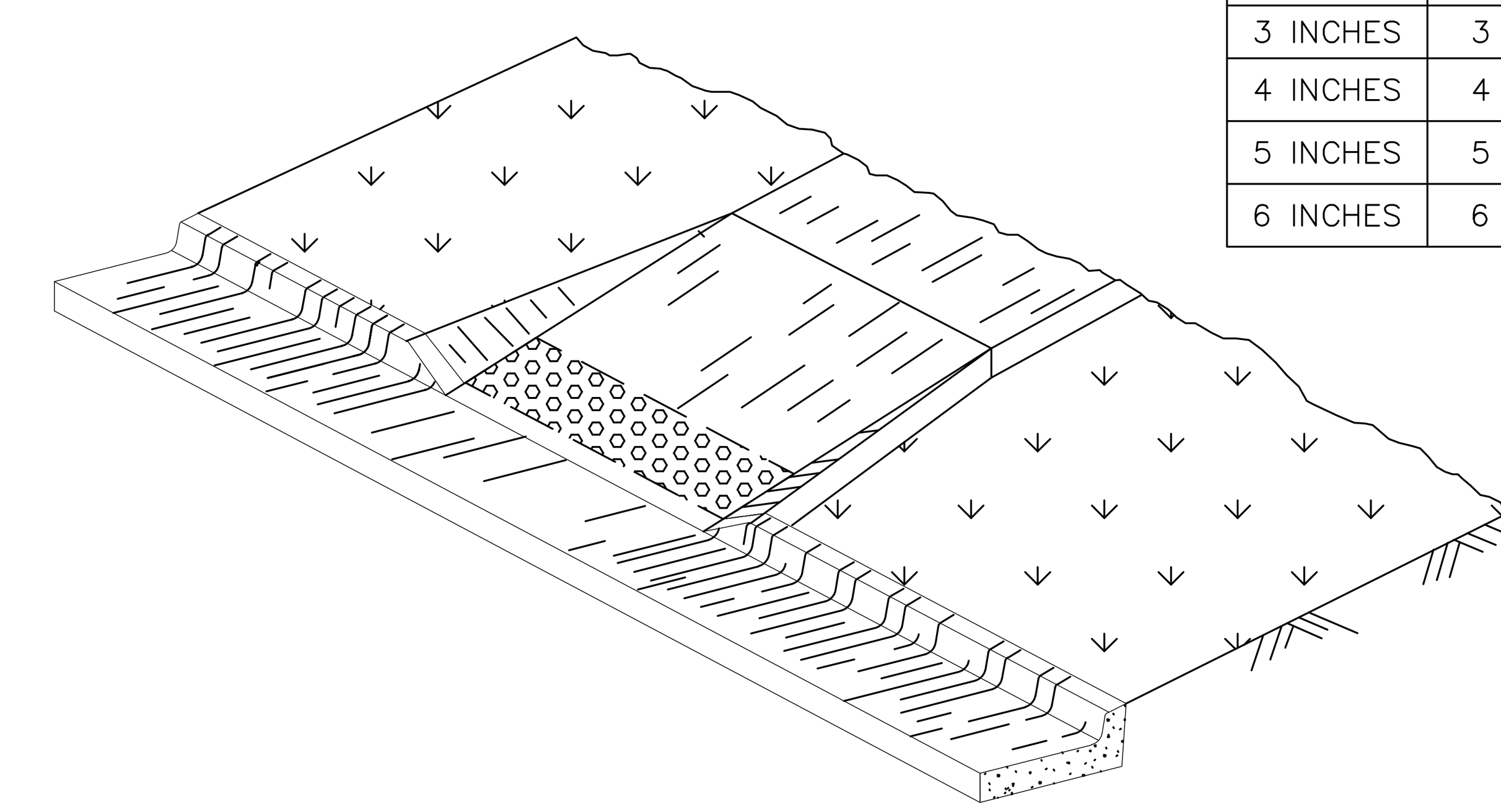
3 FT. WIDE LANDING TO BE USED ONLY WITH A 5 FT. WIDE SIDEWALK WITH NO OFFSET TO THE BACK OF THE CURB

TYPE D

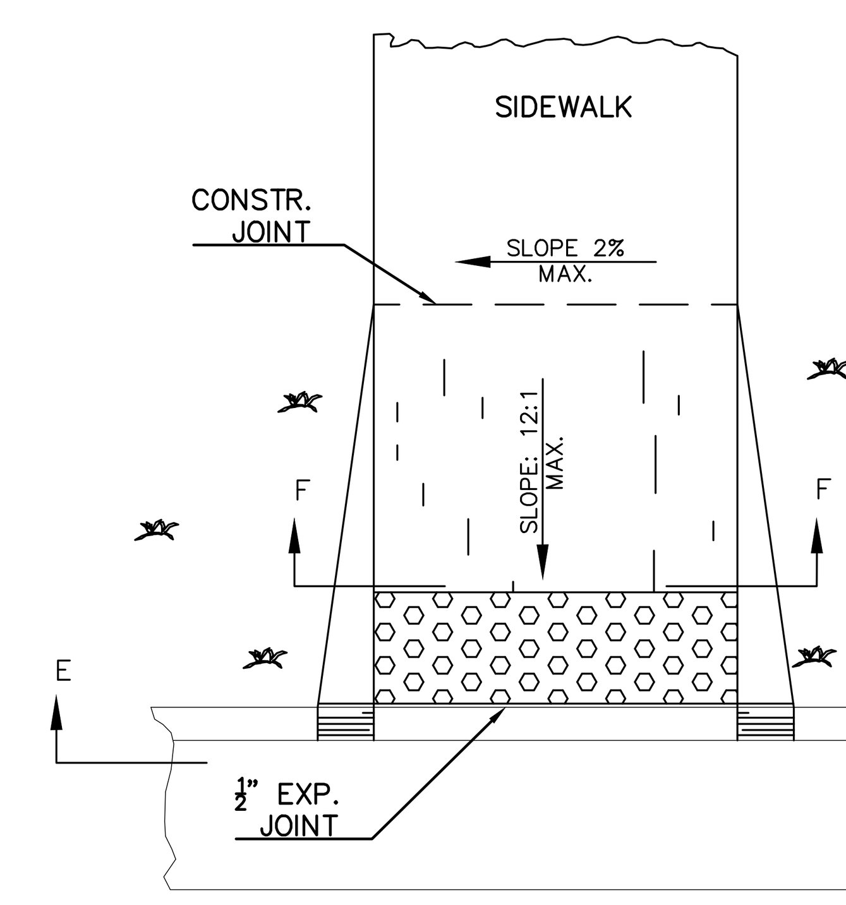
(PERPENDICULAR)

(NORMALLY USED WHEN THE SIDEWALK TIES DIRECTLY INTO THE CROSSWALK)

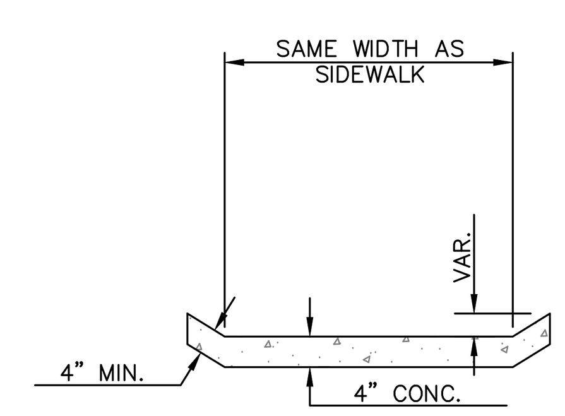
LENGTH REQUIRED FOR A 1:12 SLOPE	
DIFFERENCE IN HEIGHT	LENGTH REQUIRED
1 INCH	1 FOOT
2 INCHES	2 FEET
3 INCHES	3 FEET
4 INCHES	4 FEET
5 INCHES	5 FEET
6 INCHES	6 FEET



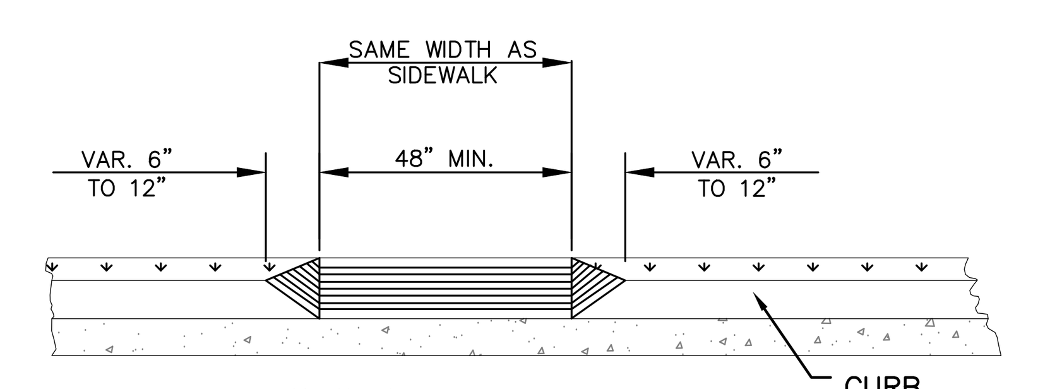
IN AREAS WHERE THE GUTTER HAS A SLOPE 1" IN 1' END NORMAL GUTTER SLOPE AT A DISTANCE OF 6 TO 10 FEET FROM THE RAMP AND BEGIN TRANSITION TO A FLAT GUTTER SLOPE. NORMAL GUTTER SLOPE SHALL BE RESUMED AT A SIMILAR DISTANCE BEYOND THE RAMP.



PLAN VIEW



SECTION F–F



SECTION E–E

NOTES FOR CONCRETE SIDEWALK:

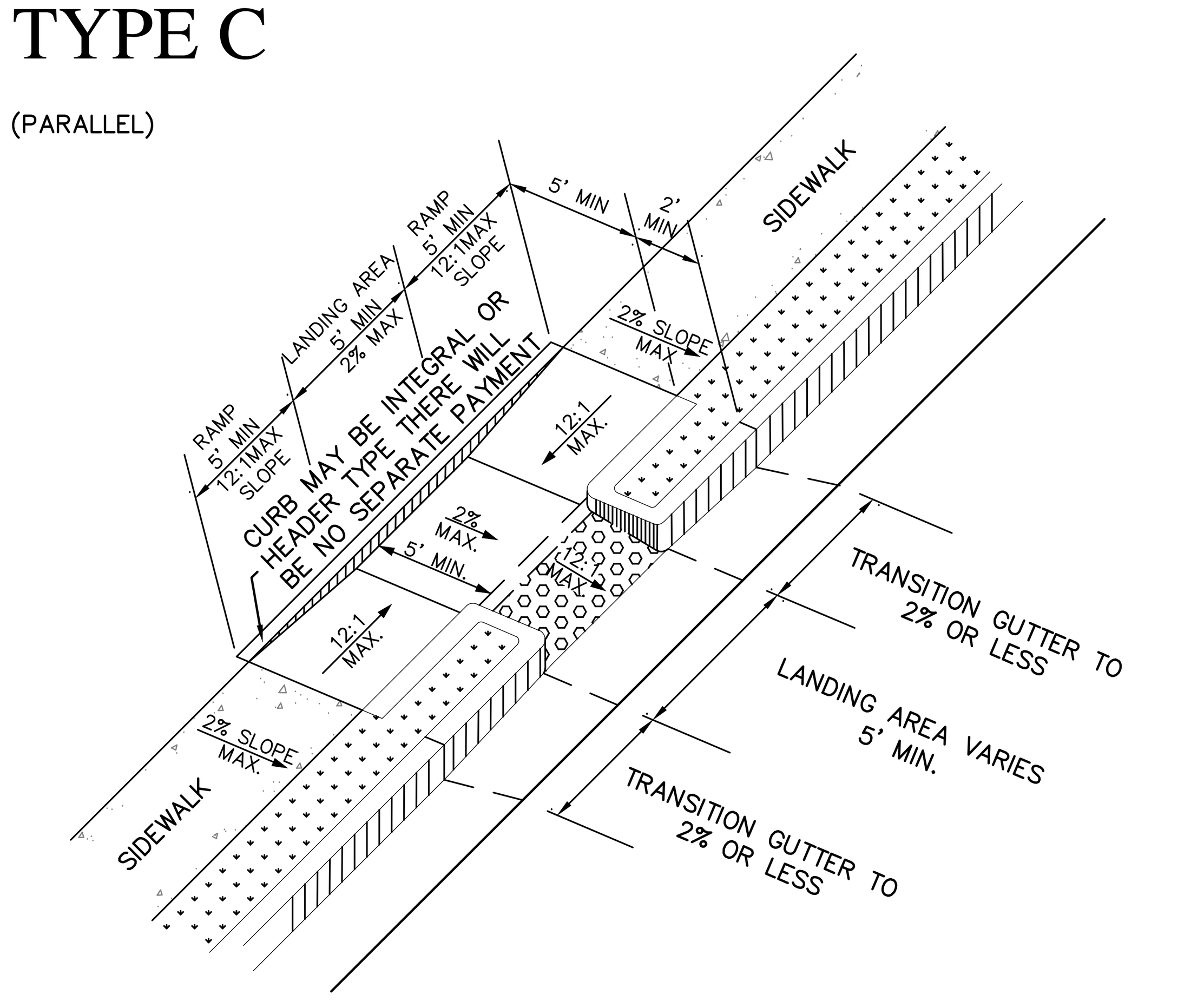
A. CONCRETE TO BE PLACED 4" THICK AND FINISHED WITH TAMPS, WOOD FLOATS AND STIFF–BRISTLE BROOMS.
B. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED AT 20 FT. INTERVALS. ALL EDGES TO BE ROUNDED TO ¼" RADIUS.
C. ½" EXPANSION JOINTS SHALL BE PLACED, WHERE SIDEWALK TIE INTO A STRUCTURE OR TERMINATE AT CURB, RAMPS OR DRIVEWAYS AND AT 60' INTERVALS.

NOTES FOR CURB CUT RAMPS:

1. 1. CURB CUT RAMPS WILL BE LOCATED AS FOLLOWS UNLESS PLANS OR CONTRACT SPECIFY OTHERWISE.
 a. AT ALL PEDESTRIAN CROSSWALKS WHERE CURB IS CONSTRUCTED OR REPLACED.
 b. WHERE THE SIDEWALK, CONCRETE OR UNPAVED, IS INTERRUPTED BY THE CURB AT TURNOUTS OR AT INTERSECTIONS.
 c. AT OTHER LOCATIONS SUCH AS HOSPITALS, NURSING HOMES, REST AREAS, ETC., WHERE THE CURB WOULD OTHERWISE BE AN OBSTRUCTION TO THE PHYSICALLY DISABLED.
2. RAMPS WILL BE CONSTRUCTED FROM CONCRETE. SPECIFICATIONS FOR RAMPS WILL BE THE SAME AS FOR CONCRETE SIDEWALK. RAMPS SHALL HAVE EITHER A ROUGH OR A TEXTURED FINISH.
3. DROP INLETS ARE NOT TO BE LOCATED DIRECTLY IN FRONT OF RAMPS. CATCH BASINS SHOULD BE LOCATED AT LEAST 10 FT. FROM RAMPS WHEN FEASIBLE.
4. WHERE RAMPS ARE LOCATED IN RADII, THE DIMENSIONS SHOWN FOR RAMP WIDTHS AND TAPERS ARE MEASURED PERPENDICULAR TO THE RAMP AND NOT ALONG THE CURVE.
5. WHERE UTILITY STRUCTURES CONFLICT, WHERE SIDEWALK GEOMETRY VARIES, AT SKEWED INTERSECTIONS, OR IN OTHER SPECIAL CASES, THE RAMP DESIGNS MAY BE MODIFIED BY THE DESIGNER OR ENGINEER, PROVIDED THAT THE WIDTH REMAINS A MINIMUM OF 48 INCHES, AND NO SLOPE ON THE ACCESSIBLE PART OF THE RAMP IS STEEPER THAN 12:1.
6. LINEAR FEET OF CURB AND GUTTER WILL INCLUDE THE TRANSITIONED CURB IN FRONT OF RAMPS. SQ. YDS. OF CONCRETE SIDEWALK AND CONCRETE MEDIAN PAVING WILL INCLUDE RAMPS. NO ADDITIONAL PAYMENT WILL BE MADE FOR CURB RAMPS. NO ADDITIONAL PAYMENT WILL BE MADE FOR SAWING AND REMOVING EXISTING SIDEWALK OR CURB WHERE NECESSARY FOR RAMP CONSTRUCTION.
7. WHEN A CURB RAMP IS PLACED ON EXISTING PAVEMENT. THE PAVEMENT SHALL BE REMOVED TO PROVIDE A MINIMUM THICKNESS OF 3 INCHES OF CONCRETE AT ALL LOCATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL OF THE PAVEMENT.
8. DETECTABLE WARNING SURFACES ARE REQUIRED ON ALL INTERSECTIONS WITH PUBLIC STREETS. SIGNALIZED COMMERCIAL DRIVEWAYS. ANO COMMERCIAL DRIVEWAYS WITH AN AADT OF 25 VPD.

TYPE C

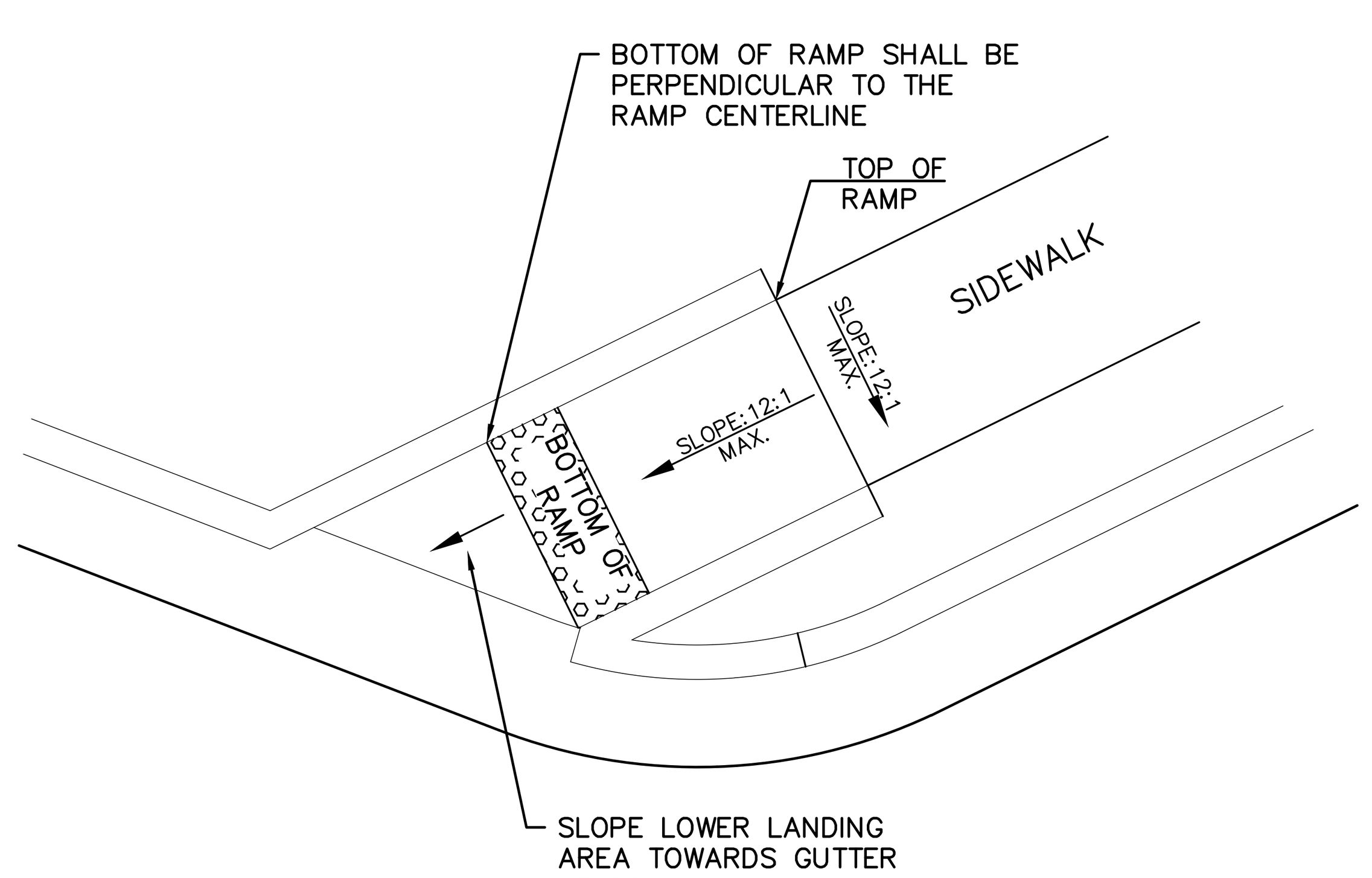
(PARALLEL)



SKEWED RAMP DETAILS

(APPLIES TO TYPE A TYPE D RAMPS ONLY)

WHEN THE RAMP CENTERLINE IS NOT PERPENDICULAR TO THE CURB A LEVEL LANDING AREA WITH SLOPES LESS THAN 2% MUST BE PROVIDED AT THE BOTTOM OF THE RAMP.



GEORGIA811.COM DIAL 811

GSWCC# 0000002134

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

POOLER:
1000 Towne Center Blvd
Suite 304
Pooler, Georgia 31322
(912) 335-1046

TRLONG ENGINEERING, P.C.
www.trlongeng.com

PALM STREET & CEDAR STREET
PUMP STATION REPLACEMENT
CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51-1 CITY OF JESUP, WAYNE COUNTY, GEORGIA

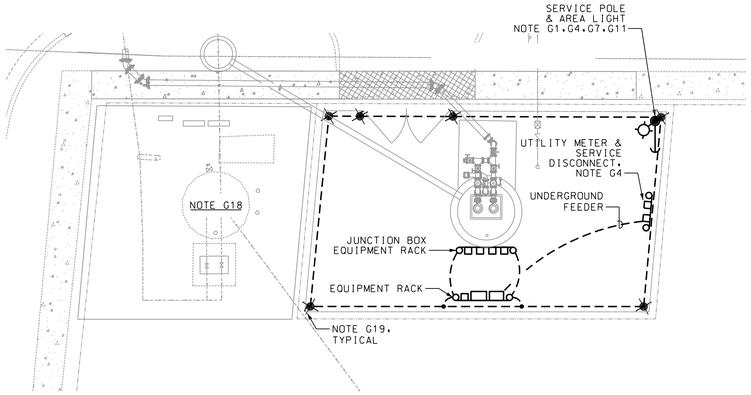
SHEET NAME:
SITE DETAILS

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: 10/15/2024
DRAWN BY: KRC
CHECKED BY: TRL
PROJECT #: 2024-182

SHEET NUMBER:
C7.4

G:\ACTIVE PROJECTS\X024-182 H – PALM AND CEDAR PUMP STATION\900–DRAWINGS\DWG\CONST\2024–182 DET.DWG



PALM ST & CEDAR ST DUPLEX PUMP STATION ONE LINE SCHEDULE

ITEM#	PUMPS 460V 3PH: 45HP 52FLA
1	2 1/2"C W/4NO.3/O
1A	2 1/2"C W/3NO.3/O. 1NO.6(G)
2	200A/3P MAIN CIRCUIT BREAKER W/ SERVICE LABEL. 18 000 MIN. A.I.C. @ 480V. LOCKABLE
3	200A/3P EMERGENCY CIRCUIT BREAKER W/ MECHANICAL WALKING BEAM INTERLOCK 18 000 MIN. A.I.C. @ 480V
4	3/4"SCH 80 PVC W/ 1 NO.4(G)
5	1 1/2"C W/3NO.4. 1NO.6(G), 6NO.12(CNTLS)
6	C-H TYPE ES SEALING HUB
7	3/4"C.W/2NO.12. 1NO.12(G)
8	125A/3P MOTOR CIRCUIT BREAKER 18 000 MIN. A.I.C. @ 480V.
9	20A/1P CIRCUIT BREAKER. 10 000 MIN. A.I.C. @ 120V
10	30A/3P CIRCUIT BREAKER 18 000 MIN. A.I.C. @ 480V.
11	4NO.10. 1NO.10(G). CONDUCTORS SHALL NOT EXCEED 18" IN LENGTH
12	REDUCED VOLTAGE SOLID STATE STARTER W/ INTEGRAL SHORTING CONTACTOR FOR 45HP 460V 3PH 52FLA MOTOR
13	NEMA 4X STAINLESS STEEL JUNCTION BOX WITH POWER BLOCKS AND TERMINAL STRIPS AS REQUIRED SEE NOTE G10
14	2"C W/4NO.12. 1NO.12(G)
15	2"C W/PRESSURE TRANSDUCER CABLE
16	3/4"SCH.80 PVC W/ 1NO.10(G)
17	15A/2P CIRCUIT BREAKER 18 000 MIN. A.I.C. @ 480V.
18	3KVA TRANSFORMER 480V PRI/ 240/120V SEC.: SQ D 3S1FSS
19	3/4"C W/3NO.12. 1NO.12(G)
20	20A/2P CIRCUIT BREAKER 10 000 MIN. A.I.C. @ 240V.

LEGEND

- EQUIPMENT AS NOTED
- MOTOR CIRCUIT BREAKER AND RVSS MOTOR CONTROLLER
- 20A — DUPLEX RECEPTACLE. NEMA 5-20R
- WP — WEATHERPROOF
- GROUND TO GROUND ROD SYSTEM
- GF — GROUND FAULT CIRCUIT INTERRUPTER PROTECTION
- AIC — INTERRUPTING CAPACITY IN AMPS
- CONDUIT SYSTEM CONCEALED BELOW GRADE
- (10) — PUMP MOTOR. HORSEPOWER INDICATED
- EMERGENCY GENERATOR RECEPTACLE. NOTE G12
- CONDUIT TERMINATION WITH SEALING HUB. NOTE G9. G17
- AREA LIGHT: LITHONIA BARN GUARD LED AREA LIGHT. NOTE G7,G11
- SP — SURGE SUPPRESSION UNIT - SQUARE-D EMB SERIES MODEL 480Y/277V 3-PHASE 4-WIRE SYSTEM: EMB42F
- GROUND ROD LOCATION
- S(WP) — WEATHERPROOF SWITCH IN FS BOX: HUBBELL CAT. NO. HBL1221 WITH BELL OUTDOOR (HUBBELL) 5121-O WP PLATE
- GENERATOR RECEPTACLE: 200A/4W/4P RUSSELLSTOLL FOR BIDDING PURPOSES PROVIDE DF2504MRA00. PROVIDE MALE RECEPTACLE PENDING COORDINATION WITH THE OWNER'S GENERATOR. SEE SPECIFICATIONS.

GENERAL NOTES

G1. FIELD COORDINATE THE LOCATION OF THE AERIAL SERVICE WITH GEORGIA POWER. CONTACT JUSTIN DAVIS. ENGINEERING REPRESENTATIVE. (912) 314-7795.

G2. UNLESS NOTED OTHERWISE. ALL CONDUITS INSTALLED EXPOSED TO ATMOSPHERE SHALL BE RIGID ALUMINUM CONDUIT. ALL CONDUITS INSTALLED BELOW GRADE SHALL BE SCHEDULE 80 PVC. ALL ELBOWS BELOW GRADE TO BE RIGID ALUMINUM.

G3. SEAL BOTH ENDS OF EACH CONDUIT ENTERING THE CONTROL CABINET FROM THE WET WELL WITH ELECTRICAL DUCT SEAL. SEAL ALL CONDUITS ENTERING CONTROL PANEL FROM BELOW GRADE WITH DUCT SEAL.

G4. THE EXACT LOCATION OF THE METER AND SERVICE SHALL BE COORDINATED IN THE FIELD WITH THE UTILITY COMPANY AND WITH OTHER WORK ON THE PROJECT SITE.

G5. CIRCUIT BREAKER AND SWITCH OPERATING HANDLES SHALL BE A MAXIMUM OF 66" ABOVE FINISHED GRADE. LOCATE DUPLEX PUMP CONTROL PANEL AND ENCLOSED CIRCUIT BREAKER WHERE INDICATED.

G6. POSITION ELECTRICAL EQUIPMENT SO THAT ALARM LIGHT CAN BE SEEN FROM THE NEAREST ROAD. EXACT ORIENTATION AND LOCATION OF ELECTRICAL EQUIPMENT STRUCTURE SHALL BE DETERMINED IN FIELD FOR BEST VIEW OF ALARM LIGHT & ACCESS TO ELECTRICAL EQUIPMENT.

G7. MOUNT AREA LIGHT TO THE TOP OF THE WOOD POLE. PROVIDE 35' PRESSURE TREATED CLASS 5 POLE.

G8. ALL ATTACHMENT HARDWARE SHALL BE 304 STAINLESS STEEL.

G9. FOR THE CONDUITS BETWEEN THE CONTROL PANEL AND THE JUNCTION BOX(ES) ONLY. PROVIDE THE FOLLOWING AT THE CONDUIT TERMINATION TO THE JUNCTION BOX(ES):
A. MOTOR/PUMP AND FLOAT CONDUITS:
1. PROVIDE CROUSE-HINDS TYPE ES SEALING HUB FOR THE CONDUIT TERMINATION TO THE JUNCTION BOX(ES).
2. PROVIDE TWO SEALING LOCKNUTS (INSIDE/OUTSIDE ENCLOSURE) TO MAINTAIN THE 4X RATING OF THE JUNCTION BOX(ES).
3. PROVIDE A NYLON BUSHING ON THE HUB.
4. SEAT THE CONDUIT HUBS WITH CROUSE-HINDS TSC EPOXY SEALING COMPOUND.

B. TRANDUCER CONDUIT.
1. PROVIDE CROUSE-HINDS TYPE ES SEALING HUB FOR THE CONDUIT TERMINATION TO THE JUNCTION BOX(ES).
2. PROVIDE TWO SEALING LOCKNUTS (INSIDE/OUTSIDE ENCLOSURE) TO MAINTAIN THE 4X RATING OF THE JUNCTION BOX(ES).
3. PROVIDE A NYLON BUSHING ON THE HUB.
4. PACK HUB WITH DUCT SEAL AROUND CABLES. LEAVE BETWEEN 1/4" AND 3/8" OF SPACE AT THE TOP OF THE HUB (NOT BUSHING).
5. POUR 1/4" AND 3/8" OF EPOXY SEALING COMPOUND ONTO TOP OF SEALING HUB.

G10. 12"H X 12"W X 6"D MINIMUM NEMA 4X S.S. JUNCTION BOX W/ QUARTER-TURN LATCH DOOR AND ALUMINUM BACKPLATE. PROVIDE HOFFMAN MANUFACTURING CAT. NO. EJ12126SS.

G11. PROVIDE A LITHONIA BARN GUARD LED SERIES AREA LIGHT WITH A WOOD POLE BRACKET: CAT. NO. BGR-ALO-SWW2-MVOLT-PER-DNA-OMA.

G12. THE CONTRACTOR SHALL FIELD COORDINATE THE EXACT CONFIGURATION OF THE GENERATOR RECEPTACLE WITH THE OWNER'S GENERATOR. THE SUBMITTAL SHALL INDICATE THE CONTACTOR HAS COORDINATED WITH THE RECEPTACLE PRIOR TO SUBMITTING SHOP DRAWINGS. FOR BIDDING PURPOSES. PROVIDE 200A/4W/4P RUSSELLSTOLL MALE RECEPTACLE AND ANGLE ADAPTOR MOUNTED TO THE PUMP CONTROL PANEL.

G13. ALL METALLIC CONDUITS BELOW GRADE AND/OR ENCASED IN CONCRETE SHALL BE PROTECTED AGAINST CORROSION. APPLY TWO COATS OF 3M SCOTCHRAP PIPE PRIMER. ALLOWING EACH COAT TO DRY BETWEEN APPLICATIONS. THEN APPLY TWO OVERLAPPING LAYERS OF 3M SCOTCHRAP 51 TAPE (20 MILS). CORROSION PROTECTION SHALL EXTEND FROM 6" ABOVE GRADE TO THE END OF THE METALLIC CONDUIT.

G14. 2" SCH. 80 PVC STUBBED INTO THE WET WELL. PROVIDE STAINLESS STEEL SUPPORT HOOK AND NON-CONDUCTIVE. CLOSED MESH. ARAMID FIBER CABLE SUPPORT GRIPS FOR ALL CABLES. GRIPS SHALL BE SINGLE WEAVE. SINGLE EYE TYPE. COORDINATE GRIP SIZE WITH CABLES SUPPORTED. ATTACH GRIP WITH TWO HEAVY-DUTY PLASTIC ZIP TIES. PROVIDE PRODUCTS OF SLINGCO AMERICA. TYRONE. GA. CONTACT RENO HILTON. SALES ACCOUNT MANAGER. 770-461-3175 OR HUBBELL: CONTACT ALEX ZEIGHER. PRODUCT MANAGER. 203-610-7737.

G15. TO GROUNDING SYSTEM.

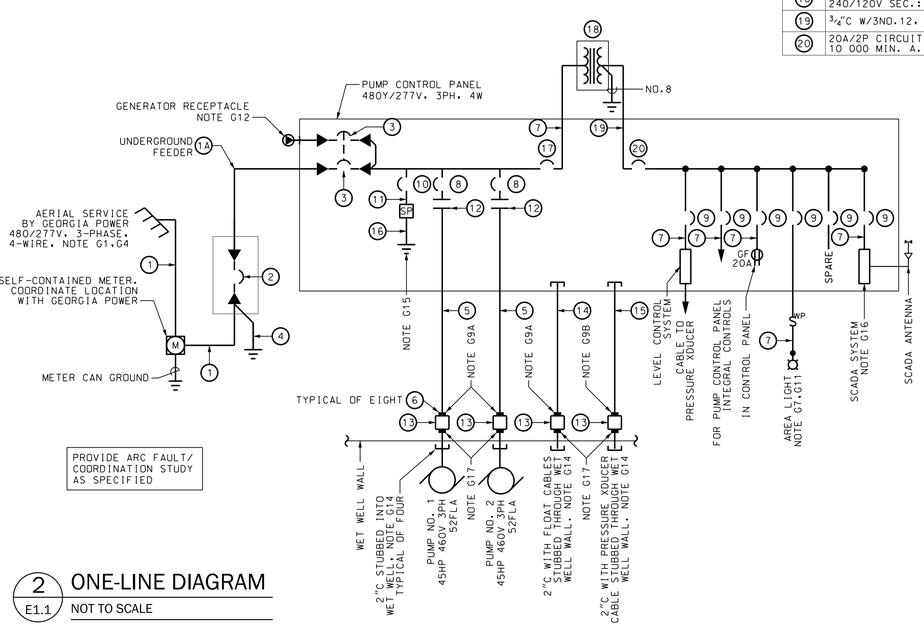
G16. THE SCADA SYSTEM FOR THE STATION SHALL BE PROVIDED AS AN INTEGRAL PART OF THE CONTROL PANEL. SCADA EQUIPMENT SHALL BE PART OF THE MULTISMART/XYLEM CONTROLLER. COORDINATE WITH FLYGT/XYLEM FOR PANEL CONTROL CONFIGURATION AND ANNUNCIATED ALARM POINTS. SCADA ANTENNA SHALL BE MOUNTED ON THE CONTROL PANEL.

G17. FOR THE CONDUITS BETWEEN THE WETWELL AND JUNCTION BOXES. PROVIDE THE FOLLOWING:
A. MOTOR. FLOAT AND TRANSDUCER CONDUITS
1. PROVIDE CROUSE-HINDS TYPE ES SEALING HUB FOR CONDUIT TERMINATION TO THE JUNCTION BOX(ES).
2. PROVIDE TWO SEALING LOCKNUTS (INSIDE/OUTSIDE ENCLOSURE) TO MAINTAIN 4X RATING OF THE JUNCTION BOX(ES).
3. PROVIDE NYLON BUSHING ON HUB.
4. PACK HUB WITH DUCT SEAL AROUND CABLES. LEAVE BETWEEN 1/4" AND 3/8" OF SPACE AT THE TOP OF THE HUB (NOT BUSHING).
5. POUR 1/4" AND 3/8" OF EPOXY SEALING COMPOUND INTO TOP OF SEALING HUB.

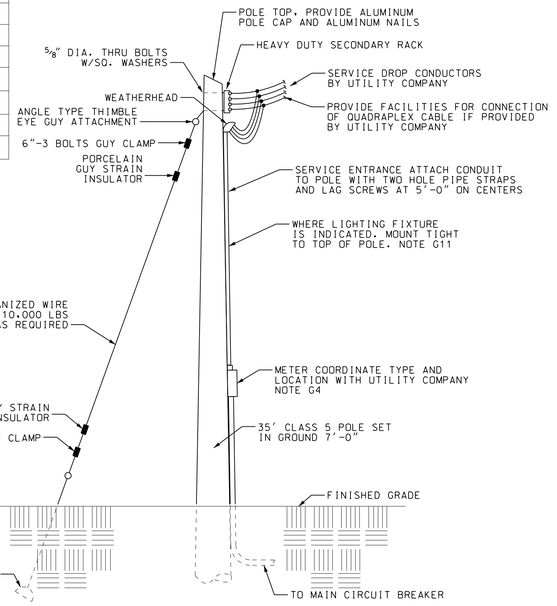
G18. THE EXISTING PUMP STATION SHALL BE DEMOLISHED AFTER THE NEW STATION IS OPERATIONAL AND ACCEPTED BY THE OWNER. COORDINATE WITH THE OWNER FOR WHAT ITEMS (PUMP CONTROL PANEL. SCADA PANEL. ETC.) ARE TO BE DELIVERED TO THE OWNER VS. DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE DISPOSAL COSTS IN THE BID.

G19. PROVIDE MECHANICAL LUG ON EQUIPMENT RACK POSTS. FENCE CORNER POST. AND GATE POSTS. EXTEND NO.6 BCU TO GROUND RING OR NEAREST GROUND ROD. MAKE CONNECTION TO GROUND ROD OR GROUND RING WITH EXOTHERMIC WELD.

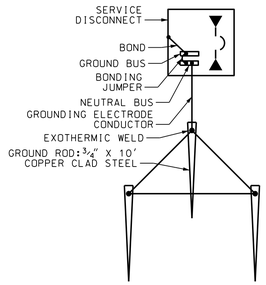
1 SITE PLAN - ELECTRICAL
E1.1 — SCALE: 1" = 10'-0"

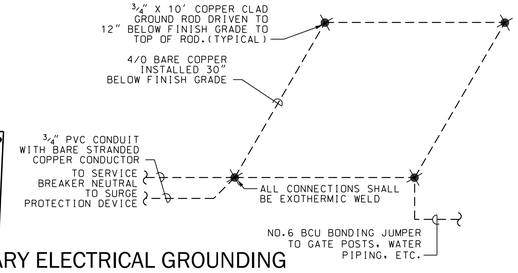


2 ONE-LINE DIAGRAM
E1.1 — NOT TO SCALE

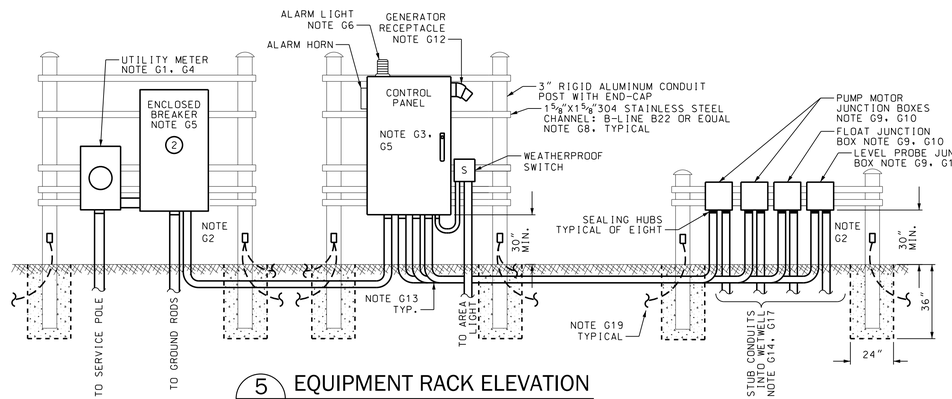


3 SERVICE POLE DETAIL
E1.1 — NOT TO SCALE

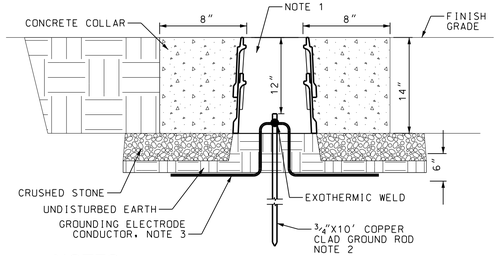




4 SECONDARY ELECTRICAL GROUNDING
E1.1 — NOT TO SCALE



5 EQUIPMENT RACK ELEVATION
E1.1 — NOT TO SCALE



NOTES:

1. THERM-O-WELD HEAVY DUTY GROUND ACCESS WELL WITH CAST IRON COVER. FLUSH-IN-GRADE. SCHEDULE 80 PVC. ROUND ENCLOSURE. 12" DIAMETER. 24" TALL. TIER 22 RATING. CAT. NO. 38-6344-24.
2. GROUND ROD SHALL BE DRIVEN TO 12" BELOW FINISH GRADE. GROUNDING ELECTRODE CONDUCTOR TERMINATION SHALL BE MADE WITH EXOTHERMIC WELD.
3. GROUNDING ELECTRODE CONDUCTOR SHALL BE BURIED 30" BELOW FINISH GRADE.

6 GROUND ROD TEST WELL DETAIL
E1.1 — NOT TO SCALE

HINESVILLE:
114 North Commerce Street
Hinesville, Georgia 31313
(912) 368-5664

STATESBORO:
302 S. Zetterower Avenue
Statesboro, Georgia 30458
(912) 335-1046

TRLONG ENGINEERING P.C.
www.trlongeng.com

GEORGIA BROOKS CHARLES B. No. 032192 PROFESSIONAL ENGINEER 04 DEC 2025

PALM STREET & CEDAR STREET PUMP STATION REPLACEMENT CITY OF JESUP, GEORGIA

TAX PARCEL NUMBER: J34-51 CITY OF JESUP, WAYNE COUNTY, GEORGIA

SHEET NAME:
ELECTRICAL PLAN

REVISIONS:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

INITIAL DATE: XX/XX/XXXX
DRAWN BY: LC
CHECKED BY: CC
PROJECT #: 2024-182

SHEET NUMBER:
EI.I

CADD PLOT
04-DEC-2025
15:08
RHUDSON

E:\Jesup Palm & Cedar PS - 00000.00\CADD\E1.1 PN2024-182.dgn