SITE DEVELOPMENT PLANS
FOR
R.L. COUSINS COMMUNITY CENTER

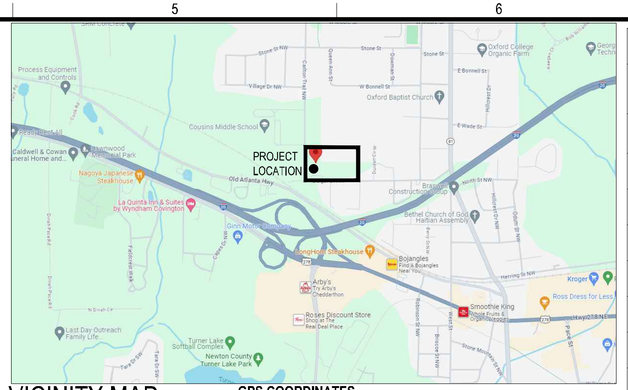
C062-001A
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING - NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

S H E E T I N D E X

BRAVO SITE SET 10-24-2024

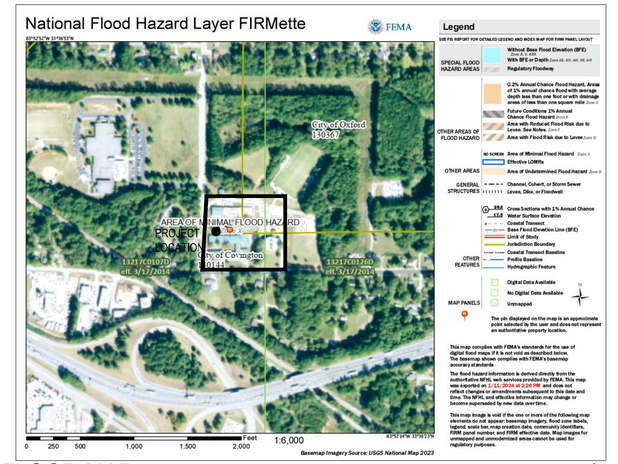
WATER SOURCE:

WSID NUMBER: 2170001
COVINGTON/NEWTON COUNTY WATER SYSTEM
CORNISH CREEK WTF
11905 ALCOVY RD.
COVINGTON, GA 30014
PHONE: 770-784-2128



VICINITY MAP
NOT TO SCALE

GPS COORDINATES
N 33°36'35.96" W -83°52'34.38"
N 33.609990 W -83.876219



FLOOD MAP
NOT TO SCALE

LEGEND

STANDARD ABBREVIATIONS

APPROX = APPROXIMATE	DIA = DIAMETER	GM = GAS METER	OHE = OVER HEAD POWER	SS = SANITARY SEWER
BLDG = BUILDING	DS = DOWNSPOUT	GP = GUY POLE	PB = PLAT BOOK	SSMH = SANITARY SEWER MANHOLE
BM = BENCH MARK	DWCB = DOUBLE WING CATCH BASIN	GV = GAS VALVE	PG = PAGE	SWCB = SINGLE WING CATCH BASIN
C&G = CURB AND GUTTER	ESMPC = EROSION, SEDIMENTATION, AND POLLUTION CONTROL	ICV = IRRIGATION CONTROL VALVE	P = PROPERTY LINE	TC = TRAFFIC CONTROL BOX
CI = CURB INLET	FDC = FIRE DEPARTMENT CONNECTION	IE = INVERT ELEVATION	POB = POINT OF BEGINNING	TMP = TAX MAP PARCEL
CL = CHAIN LINK	FFE = FINISH FLOOR ELEVATION	IMP = IMPERVIOUS	PP = POWER POLE	W = WATER
CMP = CORRUGATED METAL PIPE	FH = FIRE HYDRANT	IPF = IRON PIN FOUND	PVC = POLY VINYL CHLORIDE PIPE	WM = WATER METER
CO = CLEAN OUT	FO = FIBER OPTIC	JB = JUNCTION BOX	RBF = REBAR FOUND	WV = WATER VALVE
CPP = CORRUGATED PLASTIC PIPE	FT = FEET	LA = LOCAL ISSUING AUTHORITY	RCP = REINFORCED CONCRETE PIPE	
CTP = CRIMP TOP FOUND	GI = GRATED INLET	LP = LIGHT POLE	R/W = RIGHT OF WAY	
DB = DEED BOOK		NTS = NOT TO SCALE	SMH = STORM MANHOLE	

STANDARD SYMBOLS

BM = BM IDENTIFICATION; CO; DS; FDC; FENCE; FH; FO; GAS LINE; GM = GAS METER; GV = GAS VALVE; GATE; GP; GUY WIRE; H/C PARKING; ICV; IPF; LIGHT BOX; LP; POWER (OVERHEAD); POWER (UNDERGROUND); POWER BOX; POWER METER; PP; SIGN; SMH; SS LINE; SSMH; TC; TELECOMM STRUCTURE; TELE PEDESTAL; TRAFFIC WIRE; TRANSFORMER; WATER LINE; WM; WV

CONSTRUCTION SEQUENCE SCHEDULE

LAND DISTURBING ACTIVITY SHALL NOT COMMENCE PRIOR TO A PRECONSTRUCTION MEETING WITH THE LOCAL ISSUING AUTHORITY.
NOTIFY INSPECTOR 24 HOURS PRIOR TO CONSTRUCTION:

BMP'S	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	ACTIVITY
INITIAL								PRECONSTRUCTION MEETING WITH LOCAL ISSUING AUTHORITY
								PERFORM INITIAL MONITORING
								INSTALL CONSTRUCTION EXIT
								INSTALL INITIAL SILT FENCE (PERIMETER SILT FENCE LOCATIONS FIRST)
								PROVIDE ANY INITIAL MULCHING, GRASSING, OR OTHER GROUND COVER
								INSTALL TOPSOIL LOCATION SILT FENCE
								INSTALL APPROPRIATE VEGETATIVE AND STRUCTURAL BMP'S (INLET / OUTLET PROTECTION, FBCs, ETC.)
								INSTALL WHEEL WASH AND FUEL STORAGE LOCATION
								COORDINATE SITE REVIEW MEETING WITH ENGINEER AND LOCAL ISSUING AUTHORITY
INTERMEDIATE								INSTALL STORM PIPE SYSTEMS WITH PROTECTED IN LETS (SDS'S)
								THROUGHOUT LAND DISTURBANCE PROCESS, MAINTAIN EX. BMP'S (VEGETATIVE AND STRUCTURAL)
								THROUGHOUT LAND DISTURBANCE PROCESS, CONTINUE NPDES MONITORING AND REPORTING
								COORDINATE WITH UTILITY COMPANIES ON UTILITY / SLEEVE LOCATIONS
								BEGIN CLEARING, GRUBBING, TOPSOILING, AND GRADING OPERATIONS
								INSTALL STRIDE 6" STOCKPILE LOCATION, IMMEDIATELY GRADE TRENCH INSTA...(AFTER REMAINING TOPSOIL LOCATION) FENCE
								PERFORM REMAINING GRADING (ADJUST STORM RISERS WITH GRADE CHANGES) AND ADJUST ALL SDS'S)
								AT AREAS ARE BROUGHT TO FINAL GRADE (TASS, BUMPY AREAS THAT ARE THERE EVADE OR THAT WILL BE LEFT EASTFOR DAYS
								FAQ - FIL, SLOPE (3+ ALL AVAILABLE A DIVERSION AT THE TOP TH AT IS MAINTAINED AND RENSTALLED AS THE SLOPE IS CONSTRUCTED
								CONTINUE FLOCCULANT / COAGULANT APPLICATIONS (EVERY 7 DAYS THROUGH EOLT PROJECT)
								INSTALL REMAINING STORM SYSTEM(S) AS GRADES ARE ACHIEVED
								IMMEDIATELY INSTALL DRZ- STORM 'E' TEXTURE WITH ASSOCIATED SDS'S AND ADD FLOC LOGS TO EACH STORM STRUCTURE
								GRASS / MULCH / FBCs DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
								INSTALL SANITARY SEWER MAINS AND SERVICES
								GRASS / MULCH / FBCs DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
								INSTALL WATER SYSTEM
								GRASS / MULCH / FBCs DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
								INSTALL REMAINING UTILITIES (POWER, PHONE, CABLE, GAS, ETC.) WITH APPROPRIATE BMP'S
								INSTALL CA6 THROUGHOUT PARKING AREA UP TO DESIGNATED LINE
								INSTALL REMAINING GAS
								BUILDING CONSTRUCTION
								GRASS / MULCH / FBCs DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
								INSTALL CURB AND GUTTER
								GRASS / MULCH / FBCs DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
								INSTALL PAVEMENT
								FINISH GRADE SHOULDERS AND STABILIZE DISTURBED AREAS WITH PERMANENT VEGETATION
								CONTINUE TO APPLY FLOCCULATE / COAGULANT APPLICATIONS, MULCHING, AND GRATING AT EACH STEP TO LIMIT SOIL EXPOSURE
FINAL								THROUGHOUT LAND DISTURBANCE PROCESS, MAINTAIN EX. BMP'S (VEGETATIVE AND STRUCTURAL)
								THROUGHOUT LAND DISTURBANCE PROCESS, CONTINUE NPDES MONITORING AND REPORTING
								COMPLETE PAVING OPERATIONS
								ACHIEVE FINAL SITE STABILIZATION
								COORDINATE SITE REVIEW MEETING WITH ENGINEER AND OR LOCAL ISSUING AUTHORITY INSPECTOR
								CLEAN SILT FROM ALL STORM SYSTEMS DISTRIBUTED ON SITE AND ESTABLISH
								REMOVE ANY TEMPORARY BMP PRACTICES ONCE SITE STABILIZATION IS AC-HIEVED AND SIGNED OFF BY ENGINEER
								COORDINATE SITE REVIEW MEETING WITH ENGINEER FOR FINAL SITE APPROVAL

SITE INFORMATION

A PORTION OF THE 27.40 ACRES SITE WILL BE REDEVELOPED FOR A COMMUNITY CENTER AND STORAGE BUILDING WITH ASSOCIATED DRIVES, PARKING, STORM INFRASTRUCTURE, AND UTILITIES.

ZONING - (AS PER CITY OF COVINGTON ZONING)	NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT
PROPERTY AREA	27.40 ACRES
DISTURBED AREA	2.91 AC
MINIMUM LOT SIZE	N/A
MINIMUM LOT WIDTH	50'
MINIMUM FRONT SETBACK	N/A
MINIMUM SIDE SETBACK	7'
MINIMUM REAR SETBACK	20'
MINIMUM OPEN SPACE	N/A
IMPERVIOUS AREA	EXISTING IMPERVIOUS: 2.91 AC PROPOSED IMPERVIOUS: 2.78 AC NET IMPERVIOUS REDUCTION: 0.13 AC

MISCELLANEOUS INFORMATION

SIGNAGE	SIGNAGE SHALL BE HANDLED UNDER A SEPARATE PERMIT
SITE LIGHTING	SITE LIGHTING IS NOT A PART OF THE CIVIL PLANS (SITE WORK CONSTRUCTION DRAWINGS). SIGHT LIGHTING PROVIDED BY OTHERS UNDER SEPARATE COVER
SOIL SERIES	CuC: CECIL-URBAN LAND COMPLEX, 2% TO 10% SLOPES HdB: HIWASSEE SANDY LOAM, 2% TO 6% SLOPES
FLOOD PLAIN	THERE IS NO FLOODPLAIN ON THIS PROPERTY AS PER FIRM PANEL 13217C0107D DATED 03/17/2014. NO WORK IS BEING DONE WITHIN A FLOODPLAIN. THE PROPERTY SHOWN HEREON LIES WITHIN ZONE X AND IS NOT WITHIN A SPECIAL FLOOD HAZARD AREA.
STATE WATERS	THERE ARE NO STATE WATERS PRESENT ON THIS SITE. THERE ARE NO STATE WATERS PRESENT WITHIN 200' OF THIS SITE THERE ARE NO STREAM BUFFERS ON THIS PROPERTY
HYDROLOGY	RENOVATIONS ARE PROPOSED TO EXISTING DEVELOPMENT, AND STORM IMPROVEMENTS ARE DRAIN AND CONNECT TO THE EXISTING MUNICIPAL STORM SYSTEM. NET IMPERVIOUS DECREASE IS 0.13 AC
WETLAND	**THERE ARE NO WETLANDS BEING DISTURBED ON THIS SITE.** THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLANDS INVENTORY MAPS HAVE BEEN CONSULTED AND, 2) THE APPROPRIATE PLAN SHEET **DOES NOT** INDICATE WETLANDS AS SHOWN ON THE MAP, AND 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS APPROPRIATE FEDERAL WETLANDS ALTERATION (SECTION 404) PERMIT HAS BEEN OBTAINED. IF WETLANDS ARE IMPACTED BY THIS DEVELOPMENT, A CORPS OF ENGINEERS PERMIT SHALL BE OBTAINED PRIOR TO DISTURBANCE. ONCE ATTAINED, A COPY OF THE WETLAND PERMIT SHALL BE KEPT ON SITE AT ALL TIMES. UPON THE CORPS OF ENGINEERS APPROVAL, A SEPARATE COPY OF THE PERMIT SHALL BE SUBMITTED TO THE LIA.

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-952-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCRORY
404.644.2939

GEORGIA811 www.Georgia811.com
Contact 811 before you dig

Utilities Some are shown are for Contractors' convenience, items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. The site may no show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator form during the entire course of work, and shall pay for said services. Contractor shall locate utilities prior to any it startances (inducing field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

georgia civil
CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE029853 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/20/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

COVER SHEET

Sheet Number

CV-1.0

TOPOGRAPHICAL AND EXISTING CONDITIONS SURVEY

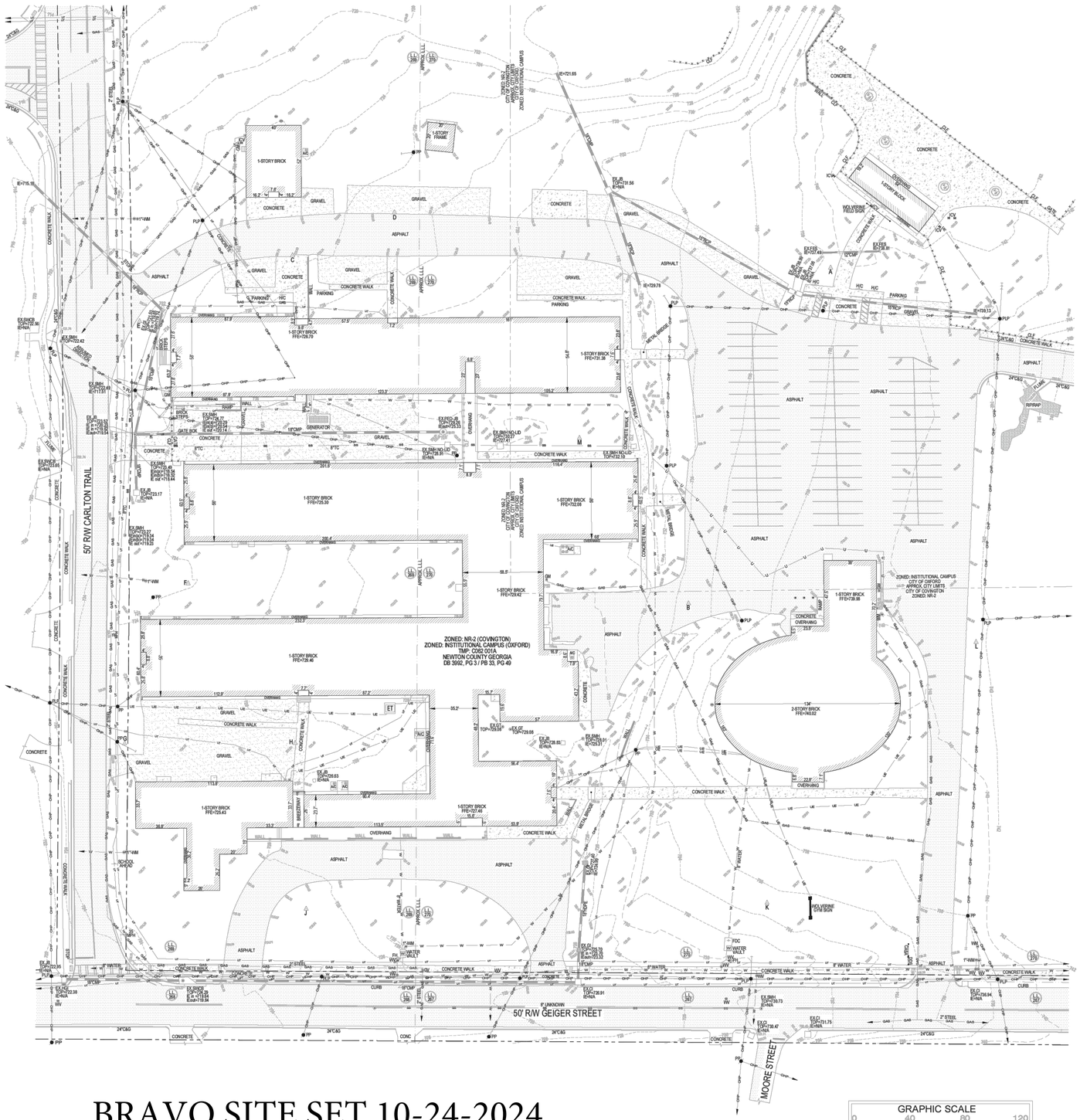
8134 GEIGER STREET
COVINGTON, GA. 30014

THIS PLAT CONSTITUTES A TOPOGRAPHICAL SURVEY ONLY AND DOES NOT CONSTITUTE A BOUNDARY SURVEY. THE SURVEYOR'S CERTIFICATION EXTENDS ONLY TO THE TOPOGRAPHIC ASPECTS. THIS PLAT SHALL NOT BE RECORDED NOR USED TO CONVEY PROPERTY. THE BOUNDARY INFORMATION, AS SHOWN, WAS TAKEN FROM A PLAT AND SURVEY BY LOUIE D. PATRICK, DATED 05/03/1999 AND RECORDED IN PLAT BOOK 33, PAGE 49, NEWTON COUNTY RECORDS. THIS IS AN EXISTING TRACT KNOWN AS TAX MAP PARCEL C092 001A, NEWTON COUNTY, GEORGIA. THE CURRENT OWNER, AS PER THE INDICATED TAX RECORDS IS NEWTON COUNTY GEORGIA. THE PROPERTY ADDRESS IS 8134 GEIGER STREET, COVINGTON, GEORGIA, 30014.

THIS BLOCK RESERVED FOR THE CLERK OF THE SUPERIOR COURT.

SURVEY NOTES:

1. THE DATUM FOR THIS SITE WAS ESTABLISHED UTILIZING GLOBAL POSITIONING SYSTEMS AND THE BASED REFERENCE FRAME ON POSITIONAL VALUES FOR THE VIRTUAL REFERENCE STATION NETWORK DEVELOPED BY EGPS SOLUTIONS. THE HORIZONTAL DATUM IS GEORGIA STATE PLANE WEST ZONE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83).
2. THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE. SUBJECT AND ADJACENT PROPERTY OWNERS' DEED AND PLAT REFERENCES WERE OBTAINED BY GEORGIA CIVIL, INC. AND ARE NOT GUARANTEED AS TO ACCURACY NOR COMPLETENESS.
4. ALL DEED AND PLAT BOOK REFERENCES AS SHOWN HEREON ARE RECORDED IN THE CLERK OF SUPERIOR COURTS OFFICE OF NEWTON COUNTY, GEORGIA.
5. STRUCTURES VISIBLE ON THE DATE OF THE SURVEY ARE AS SHOWN HEREON. ALL LOCATIONS ARE ACCURATE ONLY WHERE DIMENSIONED.
6. THIS PROPERTY IS LOCATED IN ZONE "X" AND IS NOT SHOWN TO BE LOCATED WITHIN THE LIMITS OF A SPECIAL FLOOD HAZARD AREA, PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP NO. 13217D197D & 13217D215D: EFFECTIVE DATE: 05/17/2014. THIS STATEMENT IS BASED ON GRAPHICALLY LOCATING THE SUBJECT PROPERTY ON SAID MAP. NO ADDITIONAL FIELD WORK HAS BEEN COMPLETED TO VERIFY THIS INFORMATION.
7. THE CERTIFICATION, AS SHOWN HEREON, IS PURELY A STATEMENT OF PROFESSIONAL OPINION BASED ON KNOWLEDGE, INFORMATION AND BELIEF, BASED ON EXISTING FIELD EVIDENCE AND DOCUMENTARY EVIDENCE AVAILABLE. THE CERTIFICATION IS NOT AN EXPRESSED OR IMPLIED WARRANTY OR GUARANTEE.
8. THE TERM "CERTIFICATION" AS USED IN RULE "180-6-.09(2) AND (3)" AND RELATING TO PROFESSIONAL ENGINEERING OR LAND SURVEYING SERVICES, AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11), SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED.
9. THIS SURVEY COMPLIES WITH BOTH THE RULES OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND THE OFFICIAL CODE OF GEORGIA ANNOTATED (OCGA) 15-6-67, IN THAT WHERE A CONFLICT EXISTS BETWEEN THOSE TWO SETS OF SPECIFICATIONS, THE REQUIREMENTS OF LAW PREVAIL.
10. UTILITIES, AS SHOWN HEREON, ARE BASED ON ABOVE GROUND VISIBLE EVIDENCE AND MARKINGS PROVIDED BY MC UTILITY SURVEYING, LLC: DATED 11/28/2023. THE SURVEYOR DOES NOT WARRANT THE EXACT SIZE, TYPE, LOCATION, ACCURACY OR THOROUGHNESS OF THE INFORMATION CONCERNING THE ABOVE/UNDERGROUND UTILITIES AND STRUCTURES. NO GUARANTEE IS MADE THAT OTHER UTILITIES MAY EXIST ON THE SITE, THAT MAY NOT BE SHOWN.
11. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS AN AVERAGE RELATIVE ACCURACY OF 0.03 FEET AT A 95% CONFIDENCE LEVEL AND HAS NOT BEEN ADJUSTED. THIS PLAT HAS NOT BEEN CALCULATED FOR CLOSURE. THE LINEAR AND ANGULAR MEASUREMENTS SHOWN ON THIS PLAT WERE OBTAINED BY UTILIZING A GEOMAX ROBOTIC TOTAL STATION AND A CARLSON BRX7 GPS UNIT (MFG#192.168.10.1) IN THE PREPARATION OF THIS PLAT. THE FIELD MEASUREMENTS WERE COMPLETED ON 12/07/2023.
12. THIS PROPERTY IS SUBJECT TO ALL RIGHT OF WAYS AND EASEMENTS OF RECORD.
13. IN MY OPINION, THIS IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND HAS BEEN PREPARED IN CONFORMITY WITH THE MINIMUM STANDARDS AND REQUIREMENTS OF LAW.
14. THIS PLAT HAS BEEN COMPLETED FOR THE USE AND PURPOSE OF THE CLIENT ASCRIBED AND CONTRACTED WITH HEREON. ALL OTHER PARTIES ARE SUBSEQUENTLY PUT ON NOTICE AS TO THE LIMITED DEGREE OF RELIANCE UPON THIS PLAT BY THIRD PARTIES.
15. THE TOPOGRAPHICAL INFORMATION, SHOWN HEREON, IS BASED ON FIELD SURVEYED DATA, ELEVATIONS SHOWN ARE BASED ON NAVD88 (COMPUTED USING GEOID18).



SITE MAP
N.T.S.

LEGEND

IC	= IRRIGATION CONTROL VALVE
	= HANDICAP PARKING
	= SINGLE WING CATCH BASIN
	= FIRE HYDRANT
	= COMMUNICATION POLE
	= TELEPHONE JUNCTION BOX
	= TELEPHONE PEDESTAL
	= BENCH MARK
	= GAS MARKER
	= GAS METER
	= GAS VALVE
	= GREASE TRAP
	= ELECTRIC BOX
	= ELECTRIC METER
PLP	= POWER/LIGHT POLE
PP	= POWER POLE
	= GUY ANCHOR/WIRE
	= SIGN
	= BOLLARD
ET	= ELECTRIC TRANSFORMER
	= SANITARY SEWER MAN HOLE
	= CLEAN OUT
	= DRAINAGE MANHOLE
	= GRATE INLET
	= DOWN SPOUT
	= FIRE DEPARTMENT CONNECTION
	= DECIDUOUS TREE
WV	=WATER VAULT
WM	= WATER METER
WV	= WATER VALVE
	= HOODED GRATE INLET
KP	= KEY PAD
	= STORM PIPE
--GAS--	= GAS LINE
--OHP--	= OVERHEAD POWER
--SS--	= SANITARY SEWER LINE
--T--	= UNDERGROUND TELEPHONE
--U--	= UNKNOWN UTILITY
--UE--	= UNDERGROUND ELECTRIC/POWER
--W--	= WATER LINE
--X--	= FENCE LINE
AC	= HEATING & AIR CONDITIONER UNIT
APPROX.	= APPROXIMATE
CI	= CURB INLET
CLF	= CHAIN LINK FENCE
CMP	= CORRUGATED METAL PIPE
CO	= CLEANOUT
DB	= DEED BOOK
EX.	= EXISTING
FDC	= FIRE DEPARTMENT CONNECTION
FES	= FLARED END STRUCTURE
FFE	= FINISH FLOOR ELEVATION
FH	= FIRE HYDRANT
GI	= GRATE INLET
GM	= GAS METER
GT	= GREASE TRAP
GV	= GAS VALVE
H/C	= HANDICAP
HDPE	= HIGH DENSITY POLYETHYLENE
HGI	= HOODED GRATE INLET
ICV	= IRRIGATION CONTROL VALVE
IE	= INVERT ELEVATION
JB	= JUNCTION BOX
L.L.	= LAND LOT
L.L.L.	= LAND LOT LINE
N/A	= NO ACCESS
NTS	= NOT TO SCALE
PB	= PLAT BOOK
PED	= PEDESTAL
PG	= PAGE
PLP	= POWER/LIGHT POLE
R/W	= RIGHT OF WAY
RCP	= REINFORCED CONCRETE PIPE
SMH	= SANITARY SEWER MANHOLE
SWCB	= SINGLE WING CATCH BASIN
TC	= TERRA COTTA CLAY PIPE
TMP	= TAX MAP PARCEL
WM	= WATER METER
WV	= WATER VALVE

COORDINATE TABLE

STATE PLANE COORDINATES-GA WEST-NAD 83

POINT	NORTHING	EASTING	ELEV.	DESC.
A	1313776.29410	2385434.45620	739.20	MAG NAIL
B	1313533.46300	2385331.60780	735.02	MAG NAIL
C	1313785.18800	2385045.17930	725.23	MAG NAIL
D	1313816.32910	2385116.91550	726.91	MAG NAIL
E	1313737.49600	2384934.85540	722.46	MAG NAIL
F	1313547.91860	2384969.73440	723.85	MAG NAIL
G	1313431.95600	2384923.79640	724.49	MAG NAIL
H	1313432.36460	2385047.07930	725.24	MAG NAIL
J	1313312.41860	2385055.07790	725.40	MAG NAIL
K	1313316.75530	2385388.46290	735.16	MAG NAIL
L	1313505.51270	2385539.67570	741.28	MAG NAIL
M	1313653.15650	2385252.78970	751.14	MAG NAIL

ELEVATIONS SHOWN IN FEET-NAVD 88-GEOID12A

GEORGIA 811 Utilities Protection Center, Inc.
Know what's below. Call before you dig.

BRAVO SITE SET 10-24-2024

GRAPHIC SCALE
0 40 80 120
(IN FEET) SCALE: 1" = 40'

N
GRID NORTH
GA WEST NAD 83

G Brian Slate
GEORGIA PROFESSIONAL LAND SURVEYOR, RLS#2629

georgia civil
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

311 North Main Street, Unit C, Suite 101
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | C: 706.201.0996
www.georgiacivil.com

GEORGIA PROFESSIONAL No. 2629 LAND SURVEYOR G BRIAN SLATE

SURVEYED BY:
G. BRIAN SLATE, RLS#2629
C: 706-201-0996
bslate@georgiacivil.com

"THE SURVEY WAS PREPARED IN CONFORMITY WITH THE TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN CHAPTER 180-7 OF THE RULES OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND THE OFFICIAL CODE OF GEORGIA ANNOTATED (OCGA) 15-6-67, AS AMENDED BY HB1004 (2018)".
CERTIFICATE OF AUTHORIZATION LSF001055

Project Information

SURVEY FOR:
NEWTON COUNTY GEORGIA
IN LAND LOTS 269 & 270 OF THE 9th LAND DISTRICT
IN THE CITY OF OXFORD AND THE CITY OF COVINGTON
NEWTON COUNTY, GEORGIA

CREW CHIEF:	TG
SURVEYED:	12/07/2023
PROJECT #:	23SBB009
DRAWING DATE:	12/15/2023
DRAWN BY:	GBS
CHECKED BY:	GBS

REVISIONS

DATE:	DESCRIPTION:

SCALE: 1"=40'

Sheet Title

TOPOGRAPHICAL AND EXISTING CONDITIONS SURVEY

Sheet Number

TS-1

GENERAL NOTES:

1. ALL UTILITY INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF COVINGTON WATER AND SEWER STANDARDS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND REVIEWING SAID STANDARDS AND SPECIFICATIONS.
2. NOTIFY CITY OF COVINGTON INSPECTION 24 HRS BEFORE BEGINNING OF CONSTRUCTION.
3. CONTRACTOR SHALL THOROUGHLY REVIEW CONSTRUCTION PLANS AND BE FAMILIAR WITH EXISTING CONDITIONS BY SITE VISITATION, PRIOR TO FORMULATING BID.
4. CONTRACTOR SHALL VERIFY CONDITIONS AND DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCY FOUND IN THIS SET SHALL BE REFERRED TO THE SITE DESIGN PROFESSIONAL BY THE CONTRACTOR FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR DISCREPANCIES WHICH ARE NOT REPORTED.
5. CONSTRUCTION SHALL MEET OR EXCEED CITY OF COVINGTON MINIMUM STANDARDS AND SPECIFICATIONS.
6. CONTRACTOR SHALL ADHERE TO NORMAL WORKING HOURS AS PER CITY OF COVINGTON ORDINANCES. CONSTRUCTION OUTSIDE OF NORMAL WORKING HOURS, MAY BE ALLOWED UPON PRIOR APPROVAL BY CITY OF COVINGTON .
7. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL ADHERE TO FEDERAL, STATE, COUNTY AND LOCAL LAWS, ORDINANCES, AND REGULATIONS WHICH IN ANY MANNER AFFECT THE CONDUCT OF WORK, INCLUDING, BUT NOT LIMITED TO, INITIATING, MAINTAINING, AND SUPERVISING SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK (I.E. THE REQUIREMENTS OF APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)). CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD CITY OF COVINGTON AND ITS AGENTS, THE OWNER AND THE SITE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN THE CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
9. DO NOT BREAK THESE DOCUMENTS INTO PARTS AND SUB-PARTS. THE SITE DESIGN PROFESSIONAL AND OWNER ASSUMES NO RESPONSIBILITY FOR THE SEPARATION OF THESE DOCUMENTS BY ANY ENTITY OF THE CONTRACTING INDUSTRY. EACH CONTRACTING ENTITY SHALL BE RESPONSIBLE FOR ALL OF THE WORK RELATED TO THEIR TRADES WHEREVER IT MAY BE SHOWN WITHIN THE CONTRACT DOCUMENT PACKAGES.
10. NO WORK SHALL BE PERFORMED WITHIN GEORGIA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY (IF APPLICABLE) UNTIL PERMIT(S) (INCLUDING GEORGIA DEPARTMENT OF TRANSPORTATION UTILITY ENCROACHMENT PERMIT) ARE OBTAINED FROM GEORGIA DEPARTMENT OF TRANSPORTATION AND ON SITE.
11. BARRICADES, SUFFICIENT LIGHTS, TRAFFIC SAFETY SIGNS, AND OTHER TRAFFIC CONTROL MEASURES AS DEEMED NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION ON ROADS ACCESSED BY THE GENERAL PUBLIC.
12. SIGNS (LOCATION, NUMBER, AND SIZE) ARE NOT APPROVED UNDER THIS DEVELOPMENT PERMIT. A SEPARATE PERMIT IS REQUIRED FOR EACH SIGN.
13. NO CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL SITE IMPROVEMENTS ARE COMPLETE.
14. ACCESS TO BUILDINGS DURING CONSTRUCTION SHALL BE MAINTAINED AND OPEN TO EMERGENCY VEHICLES AT ALL TIMES, THROUGH THE USE OF EXISTING OR TEMPORARY ROADS, DRIVES, AND/OR WALKS.
15. SITE LIGHTING SHALL BE FULLY SHIELDED. SITE LIGHTING IS TO BE DESIGNED BY OTHERS.
16. ALL WORK SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL CODES AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY CONTRACTOR.
17. CONTRACTOR IS RESPONSIBLE FOR QUANTITY TAKE OFFS AND ESTIMATING ALL QUANTITIES FOUND WITHIN THE SITE WORK CONSTRUCTION DRAWINGS. ANY QUANTITY TAKE OFFS OR ESTIMATES PROVIDED BY THE SITE DESIGN PROFESSIONAL ON THESE DOCUMENTS OR OTHERWISE SHALL BE VERIFIED BY THE CONTRACTOR BY PERFORMING HIS/HER OWN QUANTITY TAKE OFF AND/OR ESTIMATE. ANY COST FOR ANY DISCREPANCY IN QUANTITY TAKE OFF OR ESTIMATE PROVIDED BY SITE DESIGN PROFESSIONAL AND REQUIRED CONSTRUCTION QUANTITIES SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE SITE DESIGN PROFESSIONAL AND/OR OWNER AND/OR OWNER'S REPRESENTATIVE.

DEMOLITION REQUIREMENTS:

1. THE CONTRACTOR SHALL INSPECT ALL STRUCTURES, FACILITIES, AND AREAS SLATED FOR DEMOLITION TO GAIN A FULL UNDERSTANDING OF THE WORK REQUIRED. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES NECESSARY TO PROTECT THE SAFETY OF THE PUBLIC. HIS/HER EMPLOYEES AND AGENTS DURING THE INSPECTION AND SUBSEQUENT WORK. THE OWNER, CLIENT AND SITE DESIGN PROFESSIONAL ARE NOT RESPONSIBLE FOR THE CONDITION OF THE BUILDINGS, FACILITIES, OR OTHER AREAS SLATED FOR DEMOLITION.
2. THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE OWNER TO DEMOLISH ANY STRUCTURE ON THE SITE BEFORE PROCEEDING WITH WORK.
3. ALL WORK PERFORMED ON THE SITE SHALL ADHERE TO ALL (OSHA) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION SAFETY STANDARDS.
4. ALL MATERIALS NOT SLATED FOR REUSE SHALL BE DISPOSED OF OFF SITE IN A LEGAL MANNER. THE CONTRACTOR MAY SALVAGE ALL MATERIALS NOT DESIGNATED BY THE OWNER TO BE SAVED. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND STORE SAFELY ALL MATERIALS SLATED TO BE SAVED OR REUSED. THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS USING PHOTOGRAPHS PRIOR TO START OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO REPAIR OR REPLACE MATERIALS DAMAGED DUE TO HIS WORK OR FAILURE TO PROTECT THROUGHOUT THE DURATION OF HIS CONTRACT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL APPROPRIATE UTILITY OWNERS, OPERATORS AND USERS PRIOR TO DISCONNECTION AND DEMOLITION. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION. ALL PLUGS, STOPS, AND CAPS SHALL BE PER AGENCIES REQUIREMENTS AND IF NONE EXIST THEN A 3000 PSI CONCRETE PLUG WITH A THICKNESS EQUAL TO THE DIAMETER OF THE PIPE SHALL BE USED.
6. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY AND STOP ALL WORK IN AREAS WHERE HAZARDOUS MATERIALS ARE DISCOVERED. WHEN REQUIRED, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE ENVIRONMENTAL AND HEALTH AGENCIES. THE CONTRACTOR SHALL FLAG OFF ALL ACCESS WITH SUFFICIENT FLAGGING THAT THERE IS AN APPARENT WARNING OF THE PRESENCE OF HAZARDOUS MATERIALS.
7. NO BURNING, EXPLOSIVES OR OTHER POTENTIALLY DANGEROUS METHODS OF DEMOLITION SHALL BE ALLOWED UNLESS WRITTEN PERMISSION IS GRANTED BY THE OWNER AND ALL APPROPRIATE PERMITS ARE GRANTED.
8. THE CONTRACTOR SHALL PROVIDE WHAT EVER SAFETY EQUIPMENT AND DEVICES ARE NECESSARY TO PROTECT THE ADJACENT PROPERTIES, STRUCTURES AND OTHER AREAS SLATED TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO REPAIR OR REPLACE ANY DAMAGE CAUSED BY HIS/HER WORK. THIS SHALL ALSO INCLUDE EROSION CONTROL, DUST CONTROL AND SETTLEMENT.
9. ALL AREAS SHALL BE BROUGHT BACK TO THEIR ORIGINAL GRADE OR THAT OF THE SURROUNDING AREA, WHICH EVER IS CLOSER TO THE FINAL GRADES OF THE PROJECT FOR THAT AREA. ALL TEMPORARY SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL. ALL AREAS REQUIRING FILL SHALL BE COMPACTED TO THE REQUIREMENTS OF THE AREA BUT IN NO CASE LESS THAN 90% OF MODIFIED PROCTOR (ASTM D 1557).
10. THE CONTRACTOR SHALL PROVIDE NECESSARY EROSION CONTROL MEASURES DURING THE DEMOLITION AND REMOVAL OF EXISTING SITE FEATURES.
11. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL TIMES.
12. EXISTING BUILDINGS, APPURTENANCES, CANOPIES AND FOUNDATIONS ON THE PROPERTY SHALL BE PROTECTED UNLESS OTHERWISE NOTED.
13. THE CONTRACTOR SHALL MAINTAIN SAFE, CLEARLY MARKED PEDESTRIAN ACCESS ROUTES TO BUILDING ENTRANCES THROUGHOUT ALL PHASES OF CONSTRUCTION. ACCESS TO BUILDINGS SHALL BE MAINTAINED AT ALL TIMES.
14. SERVICES SHOWN ARE TO ASSIST CONTRACTOR IN LOCATING UTILITIES. ITEMS ARE SHOWN SCHEMATICALLY AND NEITHER THE ARCHITECT, SITE DESIGN PROFESSIONAL, NOR THE OWNER ASSUMES ANY RESPONSIBILITY FOR VARIANCES IN THE ACTUAL LOCATION OF THE EXISTING UTILITIES.
15. THE CONTRACTOR SHALL REPAIR OR REPLACE AS NECESSARY ANY UTILITIES DAMAGED, WHETHER SHOWN ON THESE PLANS OR NOT, AT NO ADDITIONAL COST TO THE CONTRACT.
16. EXISTING UTILITY APPURTENANCES (CLEAN OUTS, VALVE/METER BOXES AND/OR COVERS, MANHOLES, ETC.) LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RELOCATED AS NECESSARY OR ADJUSTED TO FINISHED GRADE AT THE EXPENSE OF THE CONTRACTOR.
17. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY PROVIDER OF DAMAGE TO ANY ACTIVE UTILITY AND PROVIDE CORRECTIVE MEASURES AS DIRECTED BY THE UTILITY PROVIDER AT NO ADDITIONAL COST TO THE CONTRACT.
18. EXISTING ITEMS TO REMAIN WITHIN THE PROJECT LIMITS SHALL BE RETAINED IN PLACE AND PROTECTED FROM DAMAGE DURING CONSTRUCTION, UNLESS OTHERWISE NOTED OR DIRECTED BY THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
19. ALL DISPOSAL SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES.
20. THERE SHALL BE NO ON SITE BURIAL.
21. WORK DONE AHEAD OF SCHEDULE OR FOR TEMPORARY PROVISIONS SHALL HAVE EXISTING DISTURBED SURFACES PATCHED TO MATCH ORIGINAL CONDITIONS UNTIL NEW CONSTRUCTION REPLACES SUCH REPAIRS OR MODIFICATIONS.
22. PAVEMENT AREAS TO BE SAVED SHALL BE ABRASION SAW CUT PRIOR TO DEMOLITION. FAILURE TO PROVIDE A CLEAN EDGE MAY RESULT IN ADDITIONAL DEMOLITION AND NEW PAVEMENT INSTALLATION PAID FOR AND EXECUTED BY THE CONTRACTOR.
23. LIMITS OF CURB AND GUTTER DEMOLITION ARE SUBJECT TO THE NEAREST CONSTRUCTION JOINT. CURB AND GUTTER AND WALKS SHALL BE REPAIRED TO THE NEAREST CONSTRUCTION JOINT.
24. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR THE REMOVAL OF EXISTING LANDSCAPE MATERIALS OR SITE FEATURES WHICH THE OWNER ELECTS TO RETAIN.
25. DEMOLITION WITHIN THE DRIP-LINE OF EXISTING SPECIMEN TREES SHALL BE ACCOMPLISHED UTILIZING MANUAL PROCEDURES WITHOUT DAMAGING THE ROOT SYSTEM OF THE TREE(S).
26. THE CONTRACTOR SHALL NOT CONSIDER DEMOLITION DESIGNATIONS AND NOTES TO BE ALL-INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA AND TO PERFORM THE DEMOLITION AS REQUIRED TO ACCOMMODATE THE SCHEDULED NEW CONSTRUCTION.

STAKING REQUIREMENTS:

1. SURVEYING WORK PERFORMED BY THE CONTRACTOR SHALL BE SUFFICIENT AND ACCURATE TO CONSTRUCT THE WORK IN ACCORDANCE WITH THE SITE WORK CONSTRUCTION DRAWINGS. LAYOUT AND STAKING WORK SHALL BE IN ACCORDANCE WITH GENERAL ACCEPTED SURVEYING PRACTICES AND PROVISIONS OF THE CONTRACT.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ACTUAL BUILDING DIMENSIONS. CONTRACTOR SHALL NOT STAKE BUILDING DIMENSIONS FROM THE BUILDING(S) SHOWN ON THE SITE WORK CONSTRUCTION DRAWINGS. REFERENCES IN THESE DOCUMENTS TO BUILDING SQUARE FOOTAGES ARE FOR OWNER'S PURPOSES ONLY. DO NOT RELY ON THESE NUMBERS FOR ANY OTHER PURPOSE.
3. CONTRACTOR SHALL STAKE BUILDING CORNERS AND HAVE APPROVAL FROM THE ARCHITECT AND/OR SITE DESIGN PROFESSIONAL BEFORE COMMENCING THE CONSTRUCTION OF ANY FOOTINGS.
4. DIMENSIONS SHOWN ARE TO THE FACE OF CURB(S), UNLESS OTHERWISE NOTED. ANGLES ARE 90° (INCLUDING STREET CENTER-LINES) UNLESS NOTED OTHERWISE.
5. CURB AND GUTTER RADII ARE 5.0 FT. UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE PRESERVATION AND OR PERPETUATION OF EXISTING RIGHT-OF-WAY MONUMENTS, BENCHMARKS CONTROL POINTS AND REFERENCE MARKS (AS APPLICABLE) WITHIN THE CONTRACTOR'S AREA OF WORK. THE CONTRACTOR SHALL NOT DISTURB OR REMOVE EXISTING RIGHT-OF-WAY MONUMENTS, BENCHMARKS CONTROL POINTS AND REFERENCE MARKS WITHOUT THE PERMISSION OF CITY OF COVINGTON . AND CONTRACTOR SHALL BEAR THE EXPENSE OF RESETTING EXISTING RIGHT-OF-WAY MONUMENTS, BENCHMARKS CONTROL POINTS AND REFERENCE MARKS WHICH MAY BE DISTURBED OR REMOVED WITH OR WITHOUT PERMISSION. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 15 WORKING DAYS NOTICE TO TCITY OF COVINGTON PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING RIGHT-OF-WAY MONUMENTS, BENCHMARKS CONTROL POINTS AND REFERENCE MARKS. THE CONTRACTOR SHALL UTILIZE THE SERVICES OF A GEORGIA LICENSED LAND SURVEYOR TO RESET DISTURBED OR REMOVED RIGHT-OF-WAY MONUMENTS, BENCHMARKS CONTROL POINTS AND REFERENCE MARKS OR PROVIDE WITNESS MONUMENTS, AND FILE THE REQUIRED DOCUMENTATION WITH CITY OF COVINGTON .
7. THE CONTRACTOR (UNLESS OTHERWISE INSTRUCTED BY THE OWNER) SHALL PROVIDE STAKING AND LAYOUT SERVICES, INCLUDING BUT NOT LIMITED TO, CENTERLINE STAKES, ADDITIONAL LINES, CONNECTIONS, RAMPS, SLOPE STAKES, GRADE STAKES, CONSTRUCTION BENCHMARKS AND REFERENCE STAKES LOCATING DRAINAGE, ROADWAY, AND UTILITIES NECESSARY FOR THE PROJECT. ALIGNMENT CONTROL ESTABLISHED BY THE CONTRACTOR SHALL BE REFERENCED, AND A COPY OF THE REFERENCES SHALL BE FURNISHED TO THE SITE DESIGN PROFESSIONAL.
8. THE CONTRACTOR SHALL VERIFY ALL INVERTS OF EXISTING STORM AND SANITARY SEWER TIE-INS AND ALL GRADES AT EXISTING PAVEMENT TIE-INS BEFORE PROCEEDING WITH ANY SITE WORK.
9. ALL CONTROL SHALL BE VERIFIED BEFORE PROCEEDING. SURVEYOR SHALL VERIFY INVERTS AT ALL GRAVITY STORM AND SEWER TIE IN POINTS BEFORE PROCEEDING. SURVEYOR SHALL VERIFY TIE POINT ELEVATIONS AT ALL ACCESS POINTS BEFORE PROCEEDING.

CLEAR AND GRUB REQUIREMENTS:

1. THE CONTRACTOR SHALL REVIEW PLANS AND IDENTIFY AND SAFELY MARK ALL PLANTS AND TREES TO BE SAVED. THE CONTRACTOR SHALL PROTECT ALL PLANTS AND TREES TO BE SAVED THROUGH OUT THE CONTRACT. THIS SHALL INCLUDE PROHIBITING ANY WORK WITHIN THE DRIP LINE OF THE TREE EXCEPT UNDER THE SUPERVISION OF A LICENSED LANDSCAPE ARCHITECT. THIS INCLUDES NOT PARKING ANY EQUIPMENT OR HAVING ANY STORAGE AREAS WITHIN THE DRIP LINE OF THE TREE EXCEPT UNDER THE SUPERVISION OF A LICENSED LANDSCAPE ARCHITECT.
2. ALL AREAS TO BE CLEARED AND GRUBBED SHALL BE SURVEYED IN THE FIELD TO ESTABLISH THE APPROPRIATE LIMITS OF WORK.
3. THE CONTRACTOR SHALL TAKE WHAT EVER MEASURES NECESSARY TO LOCATE AND PROTECT EXISTING UTILITIES, STRUCTURES, AND OTHER FACILITIES TO REMAIN.
4. ALL TREES, SHRUBS, STUMPS, ROOTS AND OTHER DEBRIS SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER.
5. NO BURNING SHALL BE ALLOWED ON THE SITE.

COMPACTION FOR UTILITY INSTALLATION:

1. ANALYTICAL COMPACTION RESULTS SHALL BE SUBMITTED TO CITY OF COVINGTON ENGINEERING DEPARTMENT (OR SIMILAR DEPARTMENT). THE FOLLOWING APPLIES TO STORMWATER, SANITARY SEWER, AND WATER:
   a. BACKFILL UNDER PERMANENT CONCRETE OR BITUMINOUS PAVEMENT, AND AS ELSEWHERE SPECIFIED OR INDICATED ON THE PLANS, SHALL BE APPROVED BANK-RUN SAND OR GRAVEL OR CRUSHED STONE FREE FROM LARGE STONES AND CONTAINING NOT MORE THAN TEN PERCENT (10%) BY WEIGHT OF LOAM OR CLAY. THIS BACKFILL SHALL BE COMPACTED TO ONE HUNDRED PERCENT (100%) AS DETERMINED BY THE MODIFIED PROCTOR TEST FROM PIPE BEDDING TO TWO (2) FEET BELOW TRENCH TOP. MECHANICAL VIBRATING EQUIPMENT SHALL BE USED TO ACHIEVE THE REQUIRED COMPACTION. PAVEMENT SHALL BE REPLACED IMMEDIATELY AFTER THE BACKFILLING IS COMPLETED.
   b. BACKFILL UNDER GRAVEL OR CRUSHED STONE SURFACED ROADWAYS SHALL BE THE APPROVED SUITABLE EXCAVATED MATERIAL PLACED IN SIX (6) INCH LAYERS THOROUGHLY COMPACTED FOR THE FULL DEPTH AND WIDTH OF THE TRENCH, CONFORMING TO THE COMPACTION, DENSITY COMPACTION METHOD AND MATERIALS AS SPECIFIED IN "2" ABOVE.
   c. BACKFILL IN UNPAVED AREAS SHALL BE COMPACTED WITH MECHANICAL VIBRATING EQUIPMENT TO NINETY PERCENT (90%) AS DETERMINED BY THE MODIFIED PROCTOR TEST. BACKFILL MATERIAL FROM PIPE BEDDING TO GROUND SURFACE SHALL BE EXCAVATED FREE FROM LARGE STONES & OTHER DEBRIS.

GRADING / EARTHWORK REQUIREMENTS:

1. PRIOR TO STARTING ANY CUTS OR FILLS, THE CONTRACTOR SHALL STRIP AND STOCKPILE ALL TOPSOIL. STRIPPING OF TOPSOIL CAN ONLY COMMENCE AFTER THE CLEAR AND GRUB OPERATIONS ARE COMPLETE IN THAT AREA. TOPSOIL SHALL BE STOCKPILED IN AREAS DESIGNATED ON THE PLANS OR APPROVED WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL REVIEW THE SOILS REPORTS, BORING LOGS AND WHEN NECESSARY HIS OWN FIELD VERIFICATION SO AS TO BE FAMILIAR WITH THE DEPTH OF TOPSOIL. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO PREVENT OVER AND UNDER REMOVAL.
2. UNLESS OTHERWISE NOTED, THE GRADES SHOWN ON THE PLANS ARE FINISHED GRADES. THEREFORE, PAVEMENT, FLOORS, SUBBASE AND OTHER IMPROVEMENTS MUST BE SUBTRACTED TO CALCULATE SUBGRADE ELEVATIONS. THE CONTRACTOR SHALL COORDINATE THE STAKING OF THE SITE GRADING WITH THE SURVEYOR AND ENGINEER OF RECORD BEFORE PROCEEDING WITH CONSTRUCTION STAKING.
3. THE CONTRACTOR SHALL MAINTAIN A SURVEY GRID OF NOT LESS THAN 100' X 100' OR OTHER MEANS ACCEPTABLE TO THE OWNER'S REPRESENTATIVE THAT SHALL INDICATE LOCATION AND AMOUNT OF CUT OR FILLS REMAINING. AT SUBGRADE THIS GRID SHALL BE 50' X 50' WITH LOCATION AND FINAL GRADE MARKED CLEARLY OR SURVEY SHALL BE COMPLETED DEMONSTRATING THAT THE SUBGRADE IS +/- 0.1 FEET OF REQUIRED SUBGRADE.
4. UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL RETAIN AND PAY ALL COST FOR SOIL COMPACTION TESTING TO BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY. FOR EACH LIFT PLACED, COMPACTION TESTING SHALL BE DONE EVERY 2000 SQUARE FEET. IN TRENCHES, COMPACTION TESTING SHALL BE DONE EVERY OTHER LIFT WITH AT LEAST 1 TEST FOR EVERY 100 LINEAR FEET.
5. COMPACTION REQUIREMENTS SHALL BE THOSE OUTLINED IN THE GEOTECHNICAL EVALUATION. IF THE GEOTECHNICAL EVALUATION IS NOT CLEAR OR DOES NOT GIVE REQUIREMENTS THE FOLLOWING SHALL BE USED. UNDER AND TO 20 FEET OUTSIDE THE BUILDING ENVELOPE THE SOILS SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DRY DENSITY PER ASTM D 1557 (MODIFIED PROCTOR). ALL LANDSCAPE AND LAWN AREAS SHALL BE COMPACTED TO 90% MAXIMUM DRY DENSITY PER ASTM D 1557 (MODIFIED PROCTOR). THE TESTING LAB SHALL TEST SOILS IN ACCORDANCE ASTM D 2922 (NUCLEAR METHOD) WITH PROCTORS FOR EACH SOIL TYPE.
6. UNLESS OTHERWISE NOTED IN THE GEOTECHNICAL REPORT OR ON THE DRAWINGS, THE ON SITE MATERIAL SHALL BE USED TO MAKE FILLS. ALL MATERIAL TO BE USED FOR FILL SHALL BE FREE OF ORGANICS, FROZEN MATERIALS, CONTAMINATED MATERIALS, DEBRIS AND ANY ROCKS LARGER THAN 4 INCHES. FOR FILL PLACEMENT WITHIN 1 FOOT OF SUBGRADE, NO ROCK SHALL BE GREATER THAN 2 INCHES IN DIAMETER. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DRYING, SEGREGATING OR OTHER REQUIRED METHODS TO TREAT SOILS TO MEET COMPACTION AND OTHER REQUIREMENTS.
7. FILLS SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES IN ALL AREAS.
8. IF IMPORTED MATERIAL IS REQUIRED, THE SOURCE AND A RANDOM COMPOSITE SAMPLE SHALL BE REVIEWED BY THE TESTING LABORATORY PRIOR TO BEING BROUGHT TO SITE. THE TESTING LABORATORY SHALL TEST FOR PERCENT PASSING THE 200 SIEVE THAT DOES NOT EXCEED THE EXISTING ON SITE MATERIAL OR IN NO CASE GREATER THAN 35%. THEY SHALL ALSO VERIFY CONSISTENCY WITH EXISTING ON SITE MATERIALS AND ALL OTHER REQUIREMENTS. WAIVERS TO THESE REQUIREMENTS CAN ONLY BE GIVEN JOINTLY BY OWNER AND THE GEOTECHNICAL ENGINEER THAT PREPARED THE GEOTECHNICAL REPORT.
9. THE TESTING LAB MAY RESTRICT SOME ON SITE MATERIALS FROM BEING USED AS FILL IN BUILDING OR PAVEMENT AREAS WHEN IT IS THEIR OPINION THAT THE MATERIAL WILL NOT MEET REQUIREMENTS STATED HERE OR IN THE GEOTECHNICAL REPORT. IF SUCH CONDITIONS DO EXIST AND OTHER MATERIAL IS NOT AVAILABLE ON SITE, THE OWNER'S REPRESENTATIVE MUST AUTHORIZE IN WRITING THE USE OF IMPORT MATERIAL UNLESS THERE WILL BE NO ADDITION COST TO THE CONTRACT.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EARTHWORK OPERATIONS FROM WEATHER AND GROUND WATER INCLUDING KEEPING POSITIVE DRAINAGE, DIVERTING DRAINAGE, DEWATERING AND SEALING DISTURBED AREAS WITH A STEEL DRUM ROLLER PRIOR TO INCLEMENT WEATHER.
11. PRIOR PLACEMENT OF FILLS, IN AREAS WHERE THE FINAL DEPTH WILL BE LESS THAN 4 FEET, THE AREA SHALL BE PROOF ROLLED WITH A 10 TON ROLLER OR A LOADED 10 WHEEL DUMP TRUCK. SOFT AREAS SHALL BE SCARIFIED, DRIED AND RE-COMPACTED PRIOR TO FILL BEING PLACED. RETEST BY PROOF ROLL AS NECESSARY.
12. ALL FINAL SUBGRADE UNDER PROPOSED PAVEMENT, BUILDING OR OTHER STRUCTURE SHALL BE PROOF ROLLED AS DESCRIBED ABOVE FOR THE IDENTIFICATION OF SOFT AREAS. AREAS FOUND TO BE UNACCEPTABLE TO THE GEOTECHNICAL ENGINEER OR THE GEOTECHNICAL ENGINEER'S TECHNICIAN SHALL BE SCARIFIED, DRIED AND RECOMPACTED. RETEST BY PROOF ROLL AS NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL PROOF ROLLS WITH THE GEOTECHNICAL ENGINEER AND SHALL HAVE THE GEOTECHNICAL ENGINEER OR THE GEOTECHNICAL ENGINEER'S TECHNICIAN ON SITE AT THE TIME OF ALL PROOF ROLLING.
13. TRENCH EXCAVATION REQUIRING SHEETING, SHORING OR OTHER STABILIZING DEVICES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER AND MEET ALL O.S.H.A. REQUIREMENTS. ALL EXCAVATIONS SHALL MAINTAIN SAFE SIDE SLOPES IN ACCORDANCE WITH LOCAL, STATE, AND O.S.H.A. REQUIREMENTS. NO STOCKING OF MATERIAL CLOSE TO AN OPEN CUT OR STEEP SLOPE SHALL BE PERMITTED IN AN EFFORT TO PREVENT CAVE-INS.
14. TRENCH EXCAVATIONS SHALL BE MADE UNIFORM AND STRAIGHT TO WIDTHS DETERMINED BY CITY OF COVINGTON . IF NO GUIDELINES FROM CITY OF COVINGTON EXIST, THE FOLLOWING SHALL BE USED: (FOR PIPES 36 INCHES OR LESS THE TRENCH WIDTH SHALL BE THE DIAMETER PLUS 2 FEET). (FOR PIPES 36 INCHES OR GREATER THE WIDTH SHALL BE THE DIAMETER PLUS 3 FEET). ADDITIONAL WIDTH SHALL ONLY BE ALLOWED WHEN COMPACTION EQUIPMENT LIMITATIONS REQUIRE AND ONLY AFTER APPROVAL OF THE ENGINEER OF RECORD. NO MORE TRENCH SHALL BE OPEN IN ONE DAY THAN CAN BE PROPERLY BACKFILLED IN THAT SAME DAY TO MINIMIZE WEATHER AND SAFETY CONCERNS. WHEN BACKFILLING AROUND PIPES PROVIDE UNIFORM SUPPORT AT INVERT AND PROPER COMPACTION UNDER, ALONG AND OVER THE PIPE. CARE SHALL BE GIVEN WHILE BACKFILLING AROUND PIPES TO PREVENT DAMAGE TO THE PIPES INCLUDING: PLACING BACKFILL/BEDDING BY HAND, USING HAND OPERATED PLATE TAMPS OR JUMPING JACKS, AND OTHER LOAD RESTRICTIVE TECHNIQUES UNTIL FILLS ARE A MINIMUM OF 2 FEET OR MANUFACTURER'S RECOMMEND DEPTH, WHICH EVER IS GREATER, ABOVE THE TOP OF THE PIPE. COMPACTION REQUIREMENTS ARE NOT RELIEVED IN THESE AREAS AND SHALL REMAIN AS STATED ON THE DRAWINGS OR AS NOTED ABOVE.
15. IF ROCK IS ENCOUNTERED THAT WAS NOT INDICATED ON THE PLANS OR GEOTECHNICAL REPORT, THE AREA FOR REMOVAL SHALL BE MEASURED AND REVIEWED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROCK REMOVAL. ROCK WILL BE DEFINED AS THE NATURAL EARTH MATERIALS THAT CAN NOT BE REMOVED WITH A D9 DOZIER WITH A SINGLE TOOTH RIPPER.
16. WHERE ROCK IS ADJACENT TO A STRUCTURE OR UTILITY, THE ROCK SHALL BE REMOVED TO A MINIMUM OF 6 INCHES BELOW AND 1 TIMES THE DIAMETER, BUT NOT LESS THAN 1 FOOT OR GREATER THAN 3 FEET ON ANY SIDE.
17. NO EXPLOSIVES SHALL BE ALLOWED UNTIL ALL PERMITS ARE GRANTED AND THE OWNER HAS SIGNED OFF. PRE AND POST BLAST REPORTS SHALL BE KEPT AND RECORDED. ALL STRUCTURES WITHIN THE AREA OF THE BLAST SHALL RECEIVE A PRE-BLAST SURVEY. ALL BLASTING SHALL BE PERFORMED BY A LICENSED BLASTER.
18. UNLESS OTHERWISE NOTED ON THE DRAWINGS, THE CONTRACTOR SHALL REMOVE ALL EXCESS TOPSOIL, CUT MATERIAL OR WASTE MATERIAL FROM SITE AND DISPOSE OF IN A LEGAL MANNER.
19. NO FILL SHALL BE PLACED ON EXISTING GROUND WITHIN THE LIMITS OF DISTURBANCE UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL AND OTHER DELETERIOUS MATERIAL, SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES OR TO A DEPTH RECOMMENDED BY THE GEOTECHNICAL REPORT AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACING OF FILL. DELETERIOUS MATERIALS, I.E., LUMBER, LOGS, BRUSH, OR ANY OTHER ORGANIC MATERIALS OR RUBBISH SHALL BE REMOVED FROM AREAS TO RECEIVE COMPACTED FILL. UNSUITABLE MATERIALS, SUCH AS TOPSOIL, WEATHERED BEDROCK, ETC., SHALL BE REMOVED AS REQUIRED BY GEOTECHNICAL ENGINEER (AND ENGINEERING GEOLOGIST, WHERE EMPLOYED) FROM AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURE(S). CONSTRUCT FILL TO GRADES OR SUBGRADES AS SHOWN WITH SELECT FILL MATERIAL COMPACTED TO 95% STANDARD PROCTOR (UNLESS OTHERWISE NOTED). PLACE AND COMPACT IN 6 INCH LIFTS. ALL SOILS WITHIN 12 INCHES OF PAVEMENT SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF THEIR STANDARD PROCTOR MAXIMUM DRY DENSITY.
20. GRADED AREAS TO BE LANDSCAPED OR GRASSED SHALL BE BROUGHT TO THE ELEVATIONS SHOWN ON THE GRADING PLAN(S).
21. CONTRACTOR SHALL VERIFY DIMENSIONS, GRADES AND BENCHMARK(S) BEFORE BEGINNING ANY WORK.
22. THERE SHALL BE NO DISTURBANCE BEYOND PROPERTY LINES, UNLESS WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNERS IS OBTAINED. EXISTING GRADES ALONG PROPERTY LINES SHALL BE MAINTAINED (UNLESS OTHERWISE NOTED).
23. THE MAX. SLOPES FOR CUT OR FILL SHALL BE 2H:1V, UNLESS OTHERWISE NOTED ON THE PLANS AND EXCEPT EARTHEN DAM EMBANKMENTS SHALL BE 3H:1V AND AS NOTED BELOW. THE SLOPE OF CUT OR FILL SHALL BE UNIFORM THROUGHOUT FOR EACH SECTION OF CUT OR FILL EXCEPT WHEN BENCHING IS APPROVED BY CITY OF COVINGTON . WHEN A CUT IS MADE IN ROCK THAT REQUIRES BLASTING, THE SLOPE MAY BE STEEPER IF PRE-SPLITTING IS EMPLOYED AND UPON SUBMISSION OF A GEOTECHNICAL REPORT WHICH SUBSTANTIATES THE INTEGRITY OF THE ROCK IN THE STEEPER CONDITION, SUBJECT TO THE REVIEW AND APPROVAL OF CITY OF COVINGTON AND/OR SITE DESIGN PROFESSIONAL. (NOTE: NO BLASTING SHALL OCCUR WITHOUT A VALID PERMIT ISSUED BY CITY OF COVINGTON AND THE OWNER HAS SIGNED OFF.)
24. EMBANKMENTS SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED A COMPACTED THICKNESS OF 6 INCHES PER LAYER AND SHALL BE COMPACTED TO A DENSITY OF 98% OF THE MAX. LABORATORY DRY WEIGHT PER CUBIC FOOT AS DETERMINED BY AASHTO METHOD T-99 IN AREAS WHERE STRUCTURES, PARKING LOTS AND DRIVES, STREETS AND UTILITIES ARE TO BE PLACED ABOVE OR BELOW THESE SLOPES.
25. CONTOURS AND SPOT ELEVATIONS SHOWN ARE ONLY CONTROLS AND THE PROFILES THEY FORM SHALL BE SMOOTH AND CONTINUOUS (PARTICULARLY IN PARKING AREAS AND DRIVES).
26. GRADING SHALL BE PERFORMED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER WHO SHALL CERTIFY THAT FILL HAS BEEN PROPERLY PLACED AND WHO SHALL SUBMIT A FINAL COMPACTION REPORT FOR FILLS OVER 1' DEEP.
27. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING(S) AT ALL TIMES.
28. ANALYTICAL COMPACTION RESULTS SHALL BE SUBMITTED TO CITY OF COVINGTON ENGINEERING DEPARTMENT (OR SIMILAR DEPARTMENT) AND TO THE GEOTECHNICAL ENGINEER OF RECORD.
29. ALL GRADING AND PIPE BED PREPARATION SHALL BE PERFORMED ACCORDING TO REQUIREMENTS SET FORTH BY THE GEOTECHNICAL ENGINEER OF RECORD.
30. CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT FROM THE OWNER AND FOLLOW ALL RECOMMENDATIONS OF THE REPORT WHEN PERFORMING SITE WORK.
31. AT A MINIMUM, FOR TRENCH CONSTRUCTION, BACKFILL UNDER PERMANENT CONCRETE OR BITUMINOUS PAVEMENT AND AS ELSEWHERE SPECIFIED OR INDICATED ON THE PLANS, TRENCHES SHALL BE APPROVED BANK-RUN SAND OR GRAVEL OR CRUSHED STONE FREE FROM LARGE STONES AND CONTAINING NOT MORE THAN TEN PERCENT (10%) BY WEIGHT OF LOAM OR CLAY. THIS BACKFILL SHALL BE COMPACTED TO ONE HUNDRED PERCENT (100%) AS DETERMINED BY THE MODIFIED PROCTOR TEST FROM PIPE BEDDING TO TWO (2) FEET BELOW TRENCH TOP. MECHANICAL VIBRATING EQUIPMENT SHALL BE USED TO ACHIEVE THE REQUIRED COMPACTION. PAVEMENT SHALL BE REPLACED IMMEDIATELY AFTER THE BACKFILLING IS COMPLETED.
32. BACKFILL UNDER GRAVEL OR CRUSHED STONE SURFACED ROADWAYS SHALL BE THE APPROVED SUITABLE EXCAVATED MATERIAL PLACED IN SIX (6) INCH LAYERS THOROUGHLY COMPACTED FOR THE FULL DEPTH AND WIDTH OF THE TRENCH, CONFORMING TO THE COMPACTION, DENSITY COMPACTION METHOD AND MATERIALS AS SPECIFIED ABOVE.
33. BACKFILL IN UNPAVED AREAS SHALL BE COMPACTED WITH MECHANICAL VIBRATING EQUIPMENT TO NINETY PERCENT (90%) AS DETERMINED BY THE MODIFIED PROCTOR TEST. BACKFILL MATERIAL FROM PIPE BEDDING TO GROUND SURFACE SHALL BE EXCAVATED FREE FROM LARGE STONES & OTHER DEBRIS.

PAVEMENT AND STRUCTURAL BASE REQUIREMENTS:

1. THE TYPE OF SUBBASE REQUIRED FOR EACH USE SHALL BE CALLED OUT ON THE DRAWINGS. IF NO REFERENCE IS MADE ON THE DRAWINGS OR DETAILS TO THE TYPE OF SUBBASE REQUIRED THE FOLLOWING SHALL BE USED. THE SOURCE OF THE MATERIAL SHALL BE ONE OF APPROVED FOR USE BY THE GEORGIA DEPARTMENT OF TRANSPORTATION. THE MATERIAL SHALL BE A CRUSHED STONE CONFORMING TO AASHTO M 147-65 (1980 OR LATEST REVISION), GRADE A. GRAVEL OR OTHER MATERIALS CAN ONLY BE SUBSTITUTED FOR CRUSH STONE WHEN APPROVED IN WRITING BY THE OWNER AND SITE DESIGN PROFESSIONAL. MATERIAL SUPPLIED FOR USE AS SUBBASE SHALL HAVE 100% PASSING THE 2 INCH SIEVE, 30% TO 65% PASSING THE 3/8 INCH SIEVE, 25% TO 55% PASSING THE NO.4 SIEVE, 15% TO 40% PASSING THE NO. 40 SIEVE AND 2% TO 10% PASSING THE NO. 200 SIEVE.
2. SUBBASE SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES AND COMPACTED TO THE REQUIREMENTS STATED IN THE GEOTECHNICAL REPORT. IF NOT STATED, THE COMPACTION REQUIREMENT SHALL BE 95% OF MAXIMUM DRY DENSITY PER ASTM D1557 (MODIFIED PROCTOR).
3. FINAL GRADING OF SUBBASE SHALL BE TO +/- 1 INCH OF THAT DESIGNATED ON THE DRAWINGS AND +/- 1 INCH OF THE REQUIRED THICKNESS OF 8 INCHES OR GREATER AND +/- ½ INCH FOR THICKNESS LESS THAN 8 INCHES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN PREPARING THE SUBGRADE TO RECEIVE SUBBASE. THIS SHALL INCLUDE FINE GRADING AND COMPACTING AS NECESSARY TO MEET THE REQUIREMENTS STATED HERE AND UNDER "GRADING / EARTHWORK REQUIREMENTS".
5. THE AMOUNT OF TESTING REQUIRED TO VERIFY THE COMPACTION SHALL BE THE SAME AS STATED UNDER "GRADING / EARTHWORK REQUIREMENTS".
6. IF REQUIRED, STABILIZING FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS "MODULUS (LOAD AT 10% ELONGATION) = 115LB PER ASTM D1682-64", "GRAB TENSILE STRENGTH 200LB PER ASTM D 1682-64"," MULLEN BURST STRENGTH = 400PSI PER ASTM D 3786-87","TRAPEZOID TEAR STRENGTH WHEN APPLICABLE = 115LB PER ASTM D 1117-80","COEFFICIENT OF PERMEABILITY K (CM/SEC) = 0.015 PER ASTM D 4491-85","WATER FLOW RATE (GPM/SF)= 60 PER ASTM D 4491-85". WHEN STABILIZING FABRIC IS USED IT SHALL BE PULLED TIGHT AND ALL WRINKLES REMOVED. OVERLAPS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
7. IF REQUIRED, FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS "GRAB TENSILE ELONGATION = 50% PER ASTM D1682-64", "GRAB TENSILE STRENGTH 70LB PER ASTM D 1682-64","MULLEN BURST STRENGTH = 200PSI PER ASTM D 3786-87","TRAPEZOID TEAR STRENGTH WHEN APPLICABLE = 35 LB PER ASTM D 1117-80","COEFFICIENT OF PERMEABILITY K (CM/SEC) = 0.2 PER ASTM D 4491-85","WATER FLOW RATE (GPM/SF) = 180 PER ASTM D 4491-85". WHEN FILTER FABRIC IS USED IT SHALL BE PULLED TIGHT AND ALL WRINKLES REMOVED. OVERLAPS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

TRAFFIC SIGNAGE AND PAVEMENT MARKINGS:

1. PAVEMENT MARKINGS SHALL BE THE TYPE, COLOR, SIZE AND LOCATIONS SHOWN ON THE PLANS. IF THE INFORMATION ON THE PLANS IS NOT COMPLETE AND AUTHORITY HAVING JURISDICTION DOES NOT HAVE REQUIREMENTS REGARDING THIS, USE THE FOLLOWING. PAINT SHALL BE SUPPLIED IN ACCORDANCE WITH AASHTO: M 248 LATEST ADDITION. COLORS SHALL BE AS FOLLOWS (YELLOW- PARKING STALLS, HANDICAP PARKING AND CHARACTERS, PARKING ISLANDS, TRAFFIC CONTROL LETTERING AND CHARACTERS AND FIRE LANES) (WHITE - STOP BARS, PEDESTRIAN CROSSINGS AND STOP LETTERING).
2. THE PAVEMENT SHALL BE CLEAN AND FREE OF DIRT, DUST, MOISTURE, OILS AND OTHER FOREIGN MATERIALS. ANY OLD PAVEMENT MARKINGS SHALL BE REMOVED UNLESS PAINTS ARE COMPATIBLE AND OVERLAY IDENTICALLY. THE SURFACE OF THE PAVEMENT PRIOR TO APPLICATION SHALL BE 45 DEGREES F AND RISING UNLESS MANUFACTURE'S RECOMMENDATIONS ARE GREATER.
3. THE SIGNAGE SHALL BE THE TYPE AND LOCATED PER THE DRAWINGS. THE SIGNAGE SHALL BE PROVIDED IN ACCORDANCE WITH THE LOCAL HIGHWAY, COUNTY HIGHWAY AND STATE DEPARTMENT OF TRANSPORTATION. IF LOCAL, COUNTY OR STATE CODES DO NOT EXIST USE AASHTO: M268.
4. POSTS, BRACKETS AND FRAMES SHALL BE STEEL PER ASTM A-36, A-242, A-441, A-572, A588, GRADE 50 AND HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123. ALL CUTTING, DRILLING OR OTHER POLE MODIFICATIONS SHALL BE PAINTED WITH GALVANIZING PAINT. ALL BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.
5. POST HOLES SHALL BE A MINIMUM OF FOUR FEET DEEP AND 12 INCHES IN DIAMETER UNLESS POOR SOILS OR FROST CONDITIONS REQUIRE GREATER DEPTH. SIGN POSTS SHALL BE KEPT PLUMB, 6 INCHES OFF BOTTOM AND CENTERED AS 3000 PSI CONCRETE IS PLACED AROUND THE POST. THE OVERALL SIGN AND POST SYSTEM SHOULD BE ABLE TO WITHSTAND 33 POUNDS PER SQUARE FOOT.
6. CONTRACTORS CAN PLACE SIGNS ON POSTS AFTER CONCRETE HAS CURED FOR SEVEN DAYS OR ¾ STRENGTH IS ACHIEVED.
7. ALL HANDICAP STRIPING AND SIGNAGE SHALL MEET THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. FIRE LANE STRIPING AND SIGNAGE SHALL MEET THE REQUIREMENTS OF THE LOCAL BUILDING INSPECTOR AND FIRE DEPARTMENT.
8. OULD HAVE TOOLED OR CUT JOINTS TO 1/3 THE DEPTH IN SQUARES OR AS CLOSE TO SQUARE AS POSSIBLE NOT EXCEEDING 5FT X5FT.

SITE CONCRETE - INCLUDING CURB, SIDEWALKS & GUTTERS:

1. THE DIMENSIONS SHALL BE THOSE SHOWN ON THE DRAWINGS. THE CONCRETE MIX SHALL BE 4000 PSI AT 28 DAYS MADE WITH TYPE I OR TYPE II CEMENT, PER ASTM C 150, AND AGGREGATES MEETING STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS. SLUMP FOR SLIP FORMING SHALL BE 1 INCH +/- ½ INCH AND FOR FORMED CONCRETE THE SLUMP SHALL BE 3 INCH +/- 1 INCH. AIR ENTRAINMENT MIXTURE SHALL MEET THE REQUIREMENTS OF ASTM C 260 4% +/- 1 ½% FOR SLIP FORM WORK AND 6% +/- 1 ½% FOR FORMED AND PLACED CONCRETE. WATER REDUCING AGENT SHALL CONFORM TO ASTM C 494, TYPE A. CURING COMPOUNDS SHALL CONFORM TO ASTM C309, TYPE I, CLASS A MOISTURE LOSS OF NOT MORE THAN .055 GR/SQ CM WHEN APPLIED AT 200 SQ FT PER GALLON.
2. CURBS AND GUTTERS SHALL BE PLACED ON COMPACTED SUBBASE, CONSISTENT WITH THE PAVEMENT SUBBASE, AS SHOWN ON THE DRAWINGS. WHEN SUBBASE DETAILS ARE MISSING AND NO AGENCY HAS JURISDICTION USE THE FOLLOWING: CURBS AND GUTTERS SHALL BE PLACED ON A MINIMUM OF 6 INCHES OF GAB ON 98% STANDARD PROCTOR SUBGRADE.
3. ALL FORMING, PLACEMENT, MATERIALS AND CURING SHALL CONFORM TO THE LATEST ADDITION OF ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ALL SIMILAR STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS.
4. REINFORCING SHALL BE IN ACCORDANCE WITH THAT SPECIFIED ON THE DRAWINGS AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICES". REINFORCING STEEL SHALL BE ASTM A 615, GRADE 60, DEFORMED. WELDED WIRE FABRIC SHALL BE ASTM A 185, WELDED WIRE STEEL FABRIC.
5. SIDEWALKS AND GUTTERS SHALL HAVE A BROOM FINISH PERPENDICULAR TO FLOW WITH A PICTURE FRAME EDGE JOINT ALL THE WAY AROUND. CURBS SHALL HAVE A SMOOTH FINISH OR LIGHT RUB FINISH, BUT CONSISTENT THROUGH OUT THE PROJECT.
6. EXPANSION JOINTS SHALL BE PLACED EVERY 40 FEET AND AT ADJOINING STRUCTURES SUCH AS WALLS, MANHOLES AND VAULTS. EXPANSION JOINT MATERIAL SHALL BE PREMOLDED, ½ INCH MATERIAL WITH ½ INCH CAP IN ACCORDANCE WITH ASTM D1751. AFTER CONCRETE HAS SET, THE CAP SHOULD BE REMOVED AND VOID FILLED WITH WATERPROOF JOINT FILLER. CURB AND GUTTER SHALL BE CUT OR TOOL JOINTED TO 1/3 THE DEPTH EVERY 10 FEET. SIDEWALKS SHOULD HAVE TOOLED OR CUT JOINTS TO 1/3 THE DEPTH IN SQUARES OR AS CLOSE TO SQUARE AS POSSIBLE NOT EXCEEDING 5FT X5FT.

ASPHALT PAVEMENT REQUIREMENTS:

1. ASPHALT SHALL BE THE TYPE(S) SPECIFIED ON THE DRAWINGS. REFER TO PAVING LEGEND AND PAVING DETAILS PROVIDED. ALL ASPHALT SHALL BE PRODUCED IN STATE APPROVED PLANTS WITH STATE APPROVED PRODUCTS.
2. ASPHALT SHALL ONLY BE PLACED WHEN THE OUTSIDE TEMPERATURE IS 45°F AND RISING. ASPHALT SHALL NEVER BE PLACED ON FROZEN MATERIAL, DURING ANY TYPE OF PRECIPITATION OR WHEN PRECEDING PRECIPITATION HAS SATURATED ANY PORTION OF THE SUBBASE AND/OR SUBGRADE.
3. SURFACES ABUTTING THE NEW ASPHALT SHALL BE TACK COATED PRIOR TO PLACEMENT OF ASPHALT INCLUDING CURBS, GUTTER, EXISTING AND NEW STRUCTURES. TACK COAT SHALL BE APPLIED NEATLY TO MATCH THE LINES AND GRADES OF THE PROPOSED ABUTTING ASPHALT AT A RATE OF 0.05 TO 0.15 GALLONS PER SQUARE YARD.
4. ASPHALT SHALL BE PLACED IN LAYERS EQUAL TO THOSE SPECIFIED ON THE PLANS. THE THICKNESS OF EACH LAYER OR THE THICKNESS OF ALL LAYERS COMBINED SHALL NOT VARY MORE THAN ¼ INCH FOR THICKNESS OF 0 TO 4 INCHES AND 1/2 INCH FOR THICKNESS OF 4 INCHES OR GREATER, FROM THOSE SPECIFIED ON THE DRAWINGS. IF MORE THAN 60% OF TEST CORES SAMPLED FAIL TO EQUAL OR EXCEED THE REQUIRED DEPTH, THE PAVEMENT SHALL BE CONSIDERED FAILED AND BE SUBJECT TO REPAIRS, REPLACEMENT OR REASONABLE COMPENSATION OF WHICH THE CONTRACTOR SHALL BEAR ALL COSTS. THE ASPHALT SHALL ALSO BE TESTED FOR SMOOTHNESS BY LAYING A 16 FOOT STRAIGHT EDGE ON THE PAVEMENT AND VERIFYING THAT THERE ARE NO GAPS GREATER THAN 1/4 INCH IN ANY DIRECTION.
5. PLACEMENT AND COMPACTION REQUIREMENTS SHALL BE THE SAME AS THOSE SPECIFIED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION. THE ROLLING SHALL BE DONE IN SUCH A MANNER THAT WILL MATCH JOINTS AND LEAVE A SMOOTH UNIFORM SURFACE, WHILE PROVIDING THE PROPER COMPACTION, WHICH SHALL BE 95% OF THE LABORATORY DENSITY.
6. WHEN MATCHING INTO EXISTING PAVEMENT ALL MATCH JOINTS SHALL BE SAW CUT TO PROVIDE A STRAIGHT SMOOTH JOINT. THE ASPHALT DEPTH AT THE MATCH POINT SHALL BE EQUAL TO THAT OF THE PROPOSED OR EXISTING WHICH EVER IS GREATER.
7. PAVING EQUIPMENT SHALL BE OF GOOD CONDITION AND QUALITY. ASPHALT SHALL BE PLACED BY MECHANICAL EQUIPMENT EXCEPT IN SMALL AREAS THAT ARE INACCESSIBLE TO A PAVER. ASPHALT SHALL BE TRANSPORTED IN COVERED TRUCKS AND SCHEDULED IN SUCH A MANNER THAT SHALL MAINTAIN ASPHALT TEMPERATURE. ASPHALT SHALL BE REJECTED WHEN THE TEMPERATURES FALL BELOW 250 DEGREES F OR THE MINIMUM TEMPERATURES SPECIFIED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION, WHICHEVER IS HIGHER.
8. THE TYPE OF SUBBASE REQUIRED FOR EACH USE SHALL BE CALLED OUT ON THE DRAWINGS. IF NO REFERENCE IS MADE ON THE DRAWINGS OR DETAILS TO THE TYPE OF SUBBASE REQUIRED THE FOLLOWING SHALL BE USED. THE SOURCE OF THE MATERIAL SHALL BE ONE APPROVED FOR USE BY THE APPLICABLE STATE'S "DEPARTMENT OF TRANSPORTATION". THE MATERIAL SHALL BE A CRUSHED STONE CONFORMING TO AASHTO M 147-65 (1980 OR LATEST REVISION), GRADE A. GRAVEL OR OTHER MATERIALS CAN ONLY BE SUBSTITUTED FOR CRUSH STONE WHEN APPROVED IN WRITING BY THE OWNER AND ENGINEER. MATERIAL SUPPLIED FOR USE AS SUBBASE SHALL HAVE 100% PASSING THE 2 INCH SIEVE, 30% TO 65% PASSING THE 3/8 INCH SIEVE, 25% TO 55% PASSING THE NO. 4 SIEVE, 15% TO 40% PASSING THE NO. 40 SIEVE AND 2% TO 10% PASSING THE NO. 200 SIEVE.
9. SUBBASE SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES AND COMPACTED TO THE REQUIREMENTS STATED IN THE SOILS REPORT. IF NOT STATED, THE COMPACTION REQUIREMENT SHALL BE 95% OF MAXIMUM DRY DENSITY PER ASTM D1557 (MODIFIED PROCTOR).
10. FINAL GRADING OF SUBBASE SHALL BE TO +/- 1 INCH OF THAT DESIGNATED ON THE DRAWINGS AND +/- 1 INCH OF THE REQUIRED THICKNESS FOR THICKNESS OF 8 INCHES OR GREATER AND +/- ½ INCH FOR THICKNESS LESS THAN 8 INCHES.
11. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS IN PREPARING THE SUBGRADE TO RECEIVE SUBBASE. THIS SHALL INCLUDE FINE GRADING AND COMPACTING AS NECESSARY TO MEET THE REQUIREMENTS STATED HERE AND UNDER "EARTHWORK".
12. THE AMOUNT OF TESTING REQUIRED TO VERIFY THE COMPACTION SHALL BE THE SAME AS STATED UNDER "EARTHWORK".
13. IF REQUIRED, STABILIZING FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS "MODULUS (LOAD AT 10% ELONGATION) =115LB PER ASTM D1682-64", "GRAB TENSILE STRENGTH 200LB PER ASTM D 1682-64", "MULLEN BURST STRENGTH = 400PSI PER ASTM D 3786-87", "TRAPEZOID TEAR STRENGTH WHEN APPLICABLE = 115LB PER ASTM D1117-80", "COEFFICIENT OF PERMEABILITY K CM/SEC = .015 PER ASTM D 4491-85", "WATER FLOW RATE GPM/SF= 60 PER ASTM D 4491-85". WHEN STABILIZATION FABRIC IS USED IT SHALL BE PULLED TIGHT AND ALL WRINKLES REMOVED. OVERLAPS SHALL BE IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.
14. IF REQUIRED, FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS "GRAB TENSILE ELONGATION =50% PER ASTM D1682-64", "GRAB TENSILE STRENGTH 70LB PER ASTM D 1682-64", "MULLEN BURST STRENGTH = 200PSI PER ASTM D 3786-87", "TRAPEZOID TEAR STRENGTH WHEN APPLICABLE = 35LB PER ASTM D1117-80", "COEFFICIENT OF PERMEABILITY K CM/SEC = .2 PER ASTM D 4491-85", "WATER FLOW RATE GPM/SF= 180 PER ASTM D 4491-85". WHEN FILTER FABRIC IS USED IT SHALL BE PULLED TIGHT AND ALL WRINKLES REMOVED. OVERLAPS SHALL BE IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.
15. DEBRIS AND OTHER FOREIGN MATTER. THE CONTRACTOR SHALL CLEAN ANY SECTIONS REQUIRING SUCH AT NO ADDITIONAL COST TO THE CONTRACT.

SEEDING & LANDSCAPING:

1. TOPSOIL SHALL BE REMOVED FROM STOCKPILES AND SPREAD IN THE AREAS SHOWN ON THE PLANS. THE DEPTH OF TOPSOIL SHALL BE AS SHOWN ON THE PLANS. IF THE DEPTH OF TOPSOIL IS NOT GIVEN THE FOLLOWING SHALL BE USED: "A MINIMUM OF 4 INCHES IN LAWN AREAS" AND "A MINIMUM OF 12 INCHES IN LANDSCAPE PLANTING AREAS".
2. AFTER THE TOPSOIL IS IN PLACE IT SHALL BE FINE GRADED REMOVING ALL ROOTS, STICKS, STONES AND DEBRIS GREATER THAN 2 INCHES IN ANY DIMENSION. THE TOPSOIL SHALL BE FINE GRADED TO THE LINES AND GRADES SHOWN ON THE PLANS.
3. THE TOPSOIL SOIL SHALL HAVE A PH OF 5.5 TO 7.6 AND AN ORGANIC CONTENT OF 3 TO 20%. THE GRADATION OF THE TOPSOIL SHALL BE 100% PASSING 2" SIEVE, 85 TO 100% PASSING THE 1 INCH SIEVE, 65 TO 100% PASSING THE ¼ INCH SIEVE AND 20 TO 80% PASSING THE NO. 200 SIEVE.
4. LIME OF TYPE RECOMMENDED FOR SOIL CONDITIONING SHALL BE USED TO TREAT ACIDIC SOILS.
5. LAWN FERTILIZER SHALL BE 55% NITROGEN, 10% PHOSPHORUS AND 10% POTASH WHERE 50% OF THE NITROGEN IS DERIVED FROM UREAFORM SOURCE.
6. LAWN SEED (WHEN NOT GIVEN ON THE PLANS) SHALL BE "50% BY WEIGHT, 85% PURITY, 85% GERMINATION OF PENNFINE PERENNIAL RYE"; "30% BY WEIGHT, 97% PURITY, 85% GERMINATION OF PENNLAWN RED FESCUE"; "20% BY WEIGHT, 85% PURITY, 80% GERMINATION OF COMMON KENTUCKY BLUEGRASS".
7. WHEN PLACING BY HYDROSEEDING, APPLICATION FERTILIZER SHALL BE PLACED AT 80 POUNDS PER ACRE, HYDROMULCH AT 1,200 POUNDS PER ACRE, WATER AT 500 GALLONS PER ACRE AND SEED AT A MINIMUM OF 220 POUNDS PER ACRE. ALL OVER SPRAY AREAS SHALL BE PROPERLY CLEANED AND RESTORED AT NO EXPENSE TO THE CONTRACT.
8. IF PLACING BY MECHANICAL MEANS, FERTILIZER SHALL BE PLACED AT 25 POUNDS PER 1,000 SQUARE FEET, SEED AT 5 POUNDS PER 1,000 SQUARE FEET, AND STRAW MULCH AT 2 TONS PER ACRE. PLACE FERTILIZER AND SEED, THEN LIGHTLY RAKE AND THE ROLL WITH 200 POUND ROLLER. MULCH THE AREA AND THEN WATER. STRAW MAY NEED TO BE SECURED TO PREVENT IT BLOWING AWAY.
9. WATER LAWN AREAS AS NEEDED TO PROMOTE GROWTH. THE CONTRACTOR WILL BE RESPONSIBLE TO WATER, RESEED OR WORK WHEN NECESSARY TO INSURE THE GROWTH OF THE LAWN UNTIL A COMPLETE AND UNIFORM STAND OF GRASS HAS GROWN AND BEEN CUT AT LEAST TWICE.
10. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL AREAS NOT RECEIVING STRUCTURES, PAVEMENT, RIP RAP, LANDSCAPING OR OTHER IMPROVEMENTS OR FUTURE IMPROVEMENTS SHALL BE CONSIDERED LAWN AREAS AND RECEIVE TOPSOIL AND SEEDING PER DRAWINGS AND ABOVE STATED REQUIREMENTS.
11. PLANTINGS SHALL BE SUPPLIED IN ACCORDANCE WITH THE PLANS AND ANSI 260.1 "AMERICAN STANDARD FOR NURSERY STOCK" IN GOOD HEALTH, VIGOROUS, AND FREE OF INSECTS, LARVAE, EGGS, DEFECTS AND DISEASE.
12. PLANTING BEDS SHALL BE PREPARED BY LOOSENING THE TOP 1 FOOT OF TOPSOIL. PLANTS SHALL BE LOCATED PER THE PLANS. THE HOLES SHALL BE EXCAVATED (PER THE DETAILS ON THE DRAWINGS) WITH THE CENTER SLIGHTLY HIGHER TO PROMOTE DRAINAGE. USE A TOPSOIL BACKFILL MIX OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, 1/2 PART WELL ROTTED MANURE, AND 10 POUNDS 5-10-5 PLANTING FERTILIZER AND PROPERLY MIXED PER CUBIC YARD. BERM AROUND PLANTS TO FORM A BOWL SHAPE.
13. WEED BARRIER MADE FROM FIBERGLASS AND ULTRA-VIOLET LIGHT RESISTANT SHALL BE PLACE UNDER ALL PLANTING BEDS PRIOR MULCHING.
14. ALL TREES AND SHRUBS SHALL BE STAKED AS DETAILED ON THE DRAWINGS. TREE WRAPPING WILL BE PROVIDED AT THE BASE OF ALL TREES AS DETAILED.
15. MULCH SHALL BE 50% SHREDDED BARK AND 50% WOOD CHIPS, ¾ TO 2 INCH IN SIZE, UNIFORMLY MIXED AND FREE OF ELM WOOD. MULCH SHALL BE PLACED UNIFORMLY OVER THE PLANTING BED ALLOWING NO WEED BARRIER TO BE SEEN.
16. ALL LANDSCAPING SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE. ANY PLANTINGS IN NEED OF REPLACEMENT WILL BE GUARANTEED FROM THE TIME OF REPLACEMENT IF AFTER FINAL ACCEPTANCE.

UTILITY REQUIREMENTS:

1. ALL REQUIRED R/W ENCROACHMENT PERMITS SHALL BE SECURED, BEFORE PROCEEDING WITH WORK.
2. THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS/HER OPERATION PLAN IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THAT THEY PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
3. UNLESS OTHERWISE NOTED, UTILITY OWNERS ARE TO RESET, RELAY OR READJUST PUBLIC AND PRIVATE UTILITIES CONFLICTING WITH PROPOSED IMPROVEMENT, THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH THE OWNERS OF LOCAL UTILITIES IN THE ADJUSTMENT OF THEIR FACILITIES WHERE THEY INTERFERE WITH CONSTRUCTION. THE COSTS FOR THE WORK SHALL BE AT THE CONTRACTORS EXPENSE. CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING GAS AND WATER METERS, VALVES, LINES, POWER, TELEPHONE, CABLE LINES, ETC. THAT SERVICE THE EXISTING BUILDINGS WITH THE APPROPRIATE UTILITY COMPANIES.
4. UTILITIES SHOWN ARE TO ASSIST THE CONTRACTOR IN LOCATING UTILITIES. ITEMS ARE SHOWN SCHEMATICALLY AND NEITHER THE ARCHITECT, SITE DESIGN PROFESSIONAL, NOR THE OWNER ASSUMES ANY RESPONSIBILITY FOR VARIANCES IN THEIR ACTUAL LOCATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF UTILITIES PRIOR TO EXCAVATION OR DEMOLITION. ADDITIONAL UTILITIES MAY NOT BE SHOWN ON THESE PLANS. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION WHETHER SHOWN OR NOT IN THE SITE WORK CONSTRUCTION DRAWINGS, HE/SHE SHALL, AT HIS/HER EXPENSE, IMMEDIATELY REPLACE OR REPAIR THE UTILITIES TO THEIR ORIGINAL CONDITION AND QUALITY, AS APPROVED BY CITY OF COVINGTON AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY. CONTRACTOR SHALL NOTIFY UTILITY PROVIDER AND THE SITE DESIGN PROFESSIONAL OF RECORD PRIOR TO PROCEEDING.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITY PROVIDERS PRIOR TO SUBMITTING HIS/HER BID IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENT WILL AFFECT THE SCHEDULING OF WORK FOR THE PROJECT. SOME UTILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTORS OPERATIONS. WHILE SOME WORK MAY BE REQUIRED "AROUND" UTILITIES THAT REMAIN IN PLACE. THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCE CAUSED BY THE UTILITY ADJUSTMENTS.
6. MATERIAL AND INSTALLATION SHALL BE IN COMPLIANCE WITH CITY OF COVINGTON REQUIREMENTS.
7. REFER TO ARCHITECTURAL AND M.E.P. PLANS FOR LOCATION OF WATER, SEWER AND GAS LINES WITHIN PROPOSED BUILDINGS. CONTRACTOR SHALL COORDINATE TIE-IN OF UTILITIES WITH ARCHITECTURAL PLANS AND M.E.P. REPRESENTATIVE.
8. EARTHWORK OPERATIONS SHALL COMPLY WITH REQUIREMENTS OF O.S.H.A. CONSTRUCTION STANDARDS, PART 1926, SUBPART P, EXCAVATIONS, TRENCHING, AND SHORING AND SUBPART O, MOTOR VEHICLES, MECHANIZED EQUIPMENT, AND MARINE OPERATIONS, AND SHALL BE CONDUCTED IN A MANNER ACCEPTABLE TO THE SITE DESIGN PROFESSIONAL.
9. A MINIMUM HORIZONTAL SEPARATION OF 10' SHALL BE MAINTAINED BETWEEN WATER LINES AND SANITARY SEWERS. AN 18 INCH MINIMUM VERTICAL SEPARATION SHALL BE MAINTAINED AT CROSSINGS. WHEN CROSSING A WATERLINE OR SEWER LINE, PIPE JOINTS SHALL BE PLACED AS FAR AWAY AS POSSIBLE FROM THE OTHER PIPE.
10. PEDESTRIAN AND LOCAL VEHICULAR TRAFFIC SHALL BE MAINTAINED FOR UTILITY WORK WITHIN PUBLIC RIGHT-OF-WAYS. SAFETY DEVICES AND FLAG MEN SHALL BE PROVIDED BY THE CONTRACTOR AT HIS/HER EXPENSE. WRITTEN PERMISSION TO CLOSE THE CONSTRUCTION AREA TO TRAFFIC SHALL BE OBTAINED FROM THE APPROPRIATE GOVERNMENT AGENCY PRIOR TO THE CLOSING.
11. CONTRACTOR SHALL MEET LOCAL UTILITY COMPANY REGULATIONS IN ANY READJUSTMENT OR RELOCATION OF EXISTING SERVICES. WHEN CONSTRUCTION INVOLVES THE REMOVAL OF FENCE, POLES, SIDEWALKS, DRIVE, TEMPORARY OR FIXED STRUCTURES; THE CONTRACTOR AT HIS/HER EXPENSE SHALL PROVIDE FOR TEMPORARY SERVICE OR CONTAINMENT TO THE AFFECTED PROPERTY, AND SHALL REPLACE SUCH ITEMS WITH SIMILAR OR BETTER MATERIALS AS SOON AS PRACTICAL OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE FOLLOWING UTILITY INSTALLATION.
12. USE OF PRECAST INVERT MANHOLES IS ACCEPTABLE PROVIDED INVERTS ARE NOT FIELD MODIFIED.
13. EXISTING PIPE CAN ONLY BE CUT IN THE PRESENCE OF CITY OF COVINGTON REPRESENTATIVE(S). CUT-IN MANHOLE IS REQUIRED UNLESS DOGHOUSE MANHOLE IS SPECIFICALLY APPROVED BY CITY OF COVINGTON PRIOR TO CONSTRUCTION.
14. NO TREES OR PERMANENT STRUCTURES SHALL BE ALLOWED IN SANITARY SEWER EASEMENT, UNLESS OTHERWISE APPROVED BY CITY OF COVINGTON .
15. SEWER MAINS AND LATERAL(S) SHALL HAVE TRACER WIRE INSTALLED TO THE STRUCTURE FOUNDATION. UNLESS OTHERWISE APPROVED BY CITY OF COVINGTON .
16. ALL UTILITIES, INCLUDING BUT NOT LIMITED TO WATER AND SANITARY SEWER UTILITIES AND STORM DRAIN FACILITIES SHALL BE INSTALLED AND THE TRENCHES BACKFILLED AND THOROUGHLY COMPACTED BEFORE ANY PAVEMENT OR BASE IS INSTALLED.
17. AUTHORIZED PUBLIC UNDERGROUND UTILITIES SHALL BE LOCATED WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR WITHIN AN EASEMENT DESIGNATED FOR SUCH USE. WITHIN PUBLIC STREET RIGHT-OF-WAY, PLACEMENT OF THE VARIOUS AUTHORIZED UTILITIES (POWER, GAS, CABLE TV, WATER AND SEWER) SHALL CONFORM TO THE SPECIFIC LOCATIONS DESIGNATED FOR SUCH USE BY CITY OF COVINGTON .
18. NO OTHER UNDERGROUND UTILITIES, SUCH AS PRIVATE LAWN SPRINKLER SYSTEMS, YARD LIGHTING, ETC., SHALL BE INSTALLED WITHIN A PUBLIC RIGHT-OF-WAY OR EASEMENT EXCEPT BY AUTHORIZATION OF CITY OF COVINGTON . SUCH AUTHORIZATION, IF ISSUED, SHALL REQUIRE THE APPLICANT TO ASSUME ALL REPAIR COSTS OF THE APPLICANT'S FACILITIES SHOULD THEY BE DAMAGED DURING THE COURSE OF INSTALLATION, MAINTENANCE OR REPAIR OF ANY OF THE PUBLIC UTILITIES AUTHORIZED TO OCCUPY SAID RIGHT-OF-WAY OR EASEMENT.
19. EXISTING UTILITY APPURTENANCES (CLEAN OUTS, VALVE/METER BOXES AND/OR COVERS, MANHOLES, ETC.) LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RELOCATED AS NECESSARY OR ADJUSTED TO FINISHED GRADE AT NO ADDITIONAL COST TO THE CONTRACT.
20. IF UNDERGROUND ABANDONED PIPES ARE DISCOVERED DURING CONSTRUCTION, CONTRACTOR SHALL REFER TO CITY OF COVINGTON FOR REMOVAL OR ABANDONMENT REQUIREMENTS. AT A MINIMUM, CONTRACTOR SHALL REMOVE OR ADEQUATELY PLUG ABANDONED UNDERGROUND PIPES, OR A COMBINATION OF BOTH, IF THESE MEASURES ARE APPROVED BY CITY OF COVINGTON .
21. CONTRACTOR SHALL SAWCUT ASPHALT ONLY IN SITUATIONS THAT DO NOT ALLOW FOR JACK AND BORE (CONTRACTOR SHALL OBTAIN NECESSARY PERMITS TO SAWCUT STREETS). CONTRACTOR MAY BE REQUIRED TO BACK TAP EXISTING WATER MAIN WITH DOMESTIC SERVICE TAP OR FIRE SERVICE TAP, IF SUFFICIENT CLEARANCE IS NOT AVAILABLE (SO THAT CURB AND GUTTER IS NOT DAMAGED). IF CURB AND GUTTER IS DAMAGED, CONTRACTOR SHALL REPLACE IT TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
22. CONTRACTOR SHALL CONTACT CITY OF COVINGTON WATER DEPARTMENT AND HAVE CITY OF COVINGTON DEPARTMENT INSPECTOR PRESENT DURING TAPS.

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ALL UTILITY MATERIALS, INSTALLATION, TESTING, AND PROCEDURES SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE LOCAL AUTHORITY HAVING JURISDICTION. IF THERE IS A DISCREPANCY BETWEEN STATED STANDARDS AND SPECIFICATIONS ON THESE PLANS AND THE STATED STANDARDS AND SPECIFICATIONS OF THE LOCAL AUTHORITY HAVING JURISDICTION, THE CONTRACTOR SHALL ADHERE TO THE STANDARDS AND SPECIFICATIONS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, READING, UNDERSTANDING, AND ADHERING TO THE THE MANUAL OF STANDARDS FOR DESIGN AND CONSTRUCTION SPECIFICATIONS IF THIS DOCUMENT IS PROVIDED FOR AT THE AGENCY HAVING JURISDICTION.

SANITARY SEWER SYSTEM REQUIREMENTS:

1. THE SANITARY SEWER SYSTEM SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL (HAVING JURISDICTION) REQUIREMENTS.
2. ALL SANITARY SEWER MATERIALS, SIZES, TYPES AND SPECIFICS ARE LISTED ON THE DRAWINGS. IF THE PLANS DO NOT LIST ALL INFORMATION OR ARE UNCLEAR, USE THE FOLLOWING:
   - SANITARY PIPE AND FITTINGS SHALL BE POLYVINYL CHLORIDE (PVC) PER ASTM D 3034, SDR 35, WITH GASKETS PER ASTM D 3212, ELASTOMERIC SEAL. THE PIPE SHALL BE BED 6 INCHES BELOW AND UP HALF ITS DIAMETER WITH CLEAN STONE OF A UNIFORM MIX RANGING IN SIZE OF 1/4 TO 3/4 INCH.
   - FORCEMAIN PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PER ASTM D 2241, SDR 21 OR LOWER IF PRESSURES ARE HIGH IN SYSTEM WITH GASKETS PER ASTM D 3139, AND ELASTOMERIC SEAL. THE PIPE SHALL BE ENCLOSED IN A RUN OF CRUSH STONE GRAVEL MATERIAL WITH 100% PASSING THE 2" SIEVE AND 2 TO 10% PASSING THE 200 SIEVE.
   - MANHOLES SHALL BE PROVIDED PER ASTM C 478 WITH STEEL CORE POLYETHYLENE STEPS. GASKETS BETWEEN RISERS SHALL BE RUBBER PER ASTM C 443 AND MORTARED WATER TIGHT WITH A WATERPROOF/PLUG MORTAR. THE INVERT SHALL BE MADE WITH CONCRETE OR 1/2 ROUND SECTION OF PIPE. PIPE JOINTS SHALL BE PRESS WEDGE OR CAST IN PLACE BOOT. BOTH SHALL HAVE ADDITIONAL VOIDS FILLED WITH WATERPROOF/PLUG MORTAR. ADJUSTMENT RINGS SHALL BE PRECAST CONCRETE 4000 PSI AND 5 TO 8% AIR ENTRAINMENT. EXTERIOR MANHOLES SHALL BE COATED WITH A SEAL COAT ACCEPTABLE TO CITY OF COVINGTON .
   - CLEANOUTS SHALL BE MADE OF THE SAME PIPE MATERIAL AS THE CARRIER PIPE. A CAST IRON FRAME AND COVER SHALL BE PROVIDED FOR ACCESS AT GRADE AND DESIGNED FOR H-20 LOADING. THE CLEANOUT SHALL BE ENCASED IN STONE OF THE SAME TYPE AS THE BEDDING FOR THE FULL DEPTH OF THE CLEANOUT. CLEANOUTS SHALL BE NO MORE THAN 90 FEET APART ON LATERALS.
   - MANHOLE FRAMES AND COVERS SHALL BE PER ASTM A 48, CLASS 30B, FULLY COATED WITH THE LETTERING "SANITARY" CAST INTO IT. THE MINIMUM SIZE SHALL BE A 24 INCH INSIDE OPENING AND DESIGN FOR A MINIMUM OF H-20 LOADING.
3. ALL PIPE SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. CARE SHALL BE GIVEN DURING BACKFILL OPERATIONS NOT TO MOVE OR DAMAGE PIPE OR APPURTENANCES WHILE ACHIEVING THE APPROPRIATE COMPACTION REQUIREMENTS.
4. ALL SYSTEMS SHALL BE VISUALLY INSPECTED FOR ALIGNMENT AND WORKMANSHIP. ALL DEBRIS, DIRT OR OTHER FOREIGN OBJECTS SHALL BE REMOVED AND THE SYSTEM FLUSHED CLEAN.
5. ALL TAPS TO MAIN LINES SHALL BE MADE WITH SADDLES WHEN THE TAP IS 1/2 THE DIAMETER OR LESS OF THE EXISTING PIPE BUT MADE WITH A SLEEVE WHEN THE TAP IS GREATER THAN 1/2 THE DIAMETER OR EQUAL TO THE EXISTING PIPE. IF CONNECTIONS ARE REQUIRED TO EQUAL SIZE PIPES OF 8 INCHES OR GREATER, A MANHOLE SHALL BE INSTALLED OVER THE CONNECTION POINT AND INVERTS FORMED. WHEN CONNECTING TO AN EXISTING MANHOLE, THE CONNECTING PIPE HOLE SHALL BE CORED AND A PRESS WEDGE INSTALLED. THE CONNECTION SHALL BE MORTARED UP WITH WATERPROOF/PLUG MORTAR. INSIDE THE EXISTING MANHOLE, THE EXISTING INVERT SHALL BE BROKE OUT IN A MANNER THAT PROTECTS FROM DEBRIS ENTERING THE LIVE SYSTEM, WHILE A NEW INVERT IS FORMED.
6. SANITARY MANHOLES SHALL BE VISUALLY LAMPED AFTER BACKFILL TO VERIFY ALIGNMENT, CLEANLINESS, AND THERE IS NO DAMAGE TO THE SYSTEM. AFTER THE SYSTEM HAS BEEN BACKFILLED FOR 30 DAYS, THE SYSTEM SHALL BE RELAMPED AND TESTED WITH A MANDREL SIZED AT 95% OF THE INTENDED INSIDE DIAMETER.
7. GRAVITY SYSTEMS SHALL BE AIR TESTED BETWEEN MANHOLES TO 3.5 PSI FOR 5 MINUTES PER ASTM F 1417 FOR PLASTIC PIPES.
8. MANHOLES SHALL BE TESTED SEPARATELY FOR LEAKAGE OR INFILTRATION USING ASTM C 969. THE ALLOWED LEAKAGE = 0.1 GALLONS / {(FEET OF DIAMTER)(FEET OF HEAD)(#OF HOURS)} AND THE TEST SHALL RUN FOR 24 HOURS.
9. WHEN NECESSARY TO VERIFY THE SYSTEM INTEGRITY, THE ENTIRE SYSTEM MAY BE TESTED FOR INFILTRATION AND EXFILTRATION USING ASTM C 969. THE SYSTEM SHALL BE BROKEN UP INTO SECTIONS WHEN NECESSARY TO CONSIDER GROUNDWATER DEPTH, LENGTH AND ELEVATION DIFFERENCES.
10. FAILURE OF ANY TESTING SHALL REQUIRE THE CONTRACTOR TO REPAIR OR REPLACE THE FAILED SECTION AT NO ADDITIONAL EXPENSE TO THE CONTRACT.
11. AFTER ALL TESTING IS COMPLETE AND BEFORE THE SYSTEM IS TURNED OVER TO CITY OF COVINGTON . THE SYSTEM SHALL BE CHECKED TO VERIFY IT IS CLEAN AND FREE OF DIRT, DEBRIS AND OTHER FOREIGN MATTER. THE CONTRACTOR SHALL CLEAN ANY SECTIONS REQUIRING SUCH AT NO ADDITIONAL COST TO THE CONTRACT.

STORM WATER SYSTEM:

1. THE STORM WATER SYSTEM SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE LOCAL STORM WATER AUTHORITY FOR THIS PROJECT IS CITY OF COVINGTON AND THE EROSION CONTROL AND RUN-OFF AUTHORITY IS CITY OF COVINGTON .
2. STORM DESIGN INCLUDES MANY VARIABLES, SUCH AS PIPE ROUGHNESS COEFFICIENT, THAT CAN AFFECT THE ACTUAL FINAL RUN-OFF. IF NO ALTERNATIVE MATERIALS ARE LISTED ON THE UTILITY DRAWINGS NO SUBSTITUTIONS MAY BE MADE BY THE CONTRACTOR UNLESS FIRST REVIEWED AND ACCEPTED BY THE ENGINEER.
3. ALL STORM MATERIAL SIZES, TYPES AND SPECIFICS ARE LISTED ON THE DRAWINGS.
4. WHENEVER CLEAN STONE IS USED FOR BEDDING, BACKFILL OR ENCASEMENT, FILTER FABRIC SHALL BE PLACED BETWEEN THE NATURAL AND BACKFILL SOILS TO PREVENT MIGRATION OF FINES INTO THE VOIDS, AS NECESSARY. ANTI-SEEP COLLARS SHALL ALSO BE INCORPORATED AT THE PROJECT LIMIT AND ALONG THE PIPE TO PREVENT WATER FLOW WITHIN THE STONE BEDDING OR ENCASEMENT. ANTI-SEEP COLLARS MAY NOT BE REQUIRED WHEN USING PERFORATED PIPE. ANTI-SEEP COLLARS SHALL BE INCORPORATED AT POND AND BASIN OUTLETS TO PREVENT WATER MIGRATION ALONG PIPE BEDDING OR ENCASEMENT MATERIAL.
5. END SECTIONS SHALL BE THE SAME MATERIAL AS THE PRECEDING PIPE AND APPROPRIATE COLLAR.
6. MANHOLES SHALL BE PROVIDED PER ASTM C 478 WITH STEEL CORE POLYETHYLENE STEPS. THE MANHOLE SHALL BE SIZED TO A MINIMUM OF 2 FOOT GREATER THAN THE LARGEST DIAMETER PIPE ENTERING OR EXISTING. INCREASE SIZE OF MANHOLE IF, IN THE SAME HORIZONTAL PLANE, THERE ARE TWO AREAS WHERE THE AREA BETWEEN TWO PIPES IS LESS THAN 8 INCHES OR HALVE OR THE CIRCUMFERENCE IS SUPPORTED BY LESS THAN 1/2 OF THE DIAMETER OF THE MANHOLE. INVERTS SHALL BE SMOOTH CAST IN PLACE CONCRETE. UNLESS OTHERWISE INDICATED, COVER 4 INCH WEEPS WITH FILTER FABRIC. 2 INCH STONE SHALL BE PROVIDED AT THE CROWN OF PIPES AND AT SUBGRADE ELEVATION. GASKETS BETWEEN RISERS SHALL BE RUBBER PER ASTM C 443. ADJUSTMENT RINGS SHALL BE PRECAST CONCRETE 4000 PSI AND 5 TO 8% AIR ENTRAINMENT.
7. INLETS SHALL MEET THE SAME REQUIREMENTS AS THOSE LISTED FOR MANHOLES.
8. GRATES SHALL BE RETICULINE AND GALVANIZED PER ASTM A123. MINIMUM GRATE OPENING SIZE WILL BE 18" X 24" AND DESIGN FOR A MINIMUM OF H-20 LOADING.
9. MANHOLE FRAMES AND COVERS SHALL BE PER ASTM A 48, CLASS 30B, FULLY COATED WITH THE LETTERING "STORM" CAST INTO IT. THE MINIMUM SIZE WILL BE A 24 INCH INSIDE OPENING AND DESIGN FOR A MINIMUM OF H-20 LOADING.
10. CLEANOUTS SHALL BE MADE OF THE SAME PIPE MATERIAL AS THE CARRIER PIPE. A CAST IRON FRAME AND COVER SHALL BE PROVIDED FOR ACCESS AT GRADE AND DESIGNED FOR H-20 LOADING. THE CLEANOUT SHALL BE ENCASED IN STONE OF THE SAME TYPE AS THE PIPE BEDDING FOR THE FULL DEPTH OF THE CLEANOUT.
11. RIP RAP SHALL BE PLACED AT THE END OF ALL OUTFALL STRUCTURES. UNLESS OTHERWISE NOTED, THE RIP RAP SHALL BE A CLEAN DURABLE STONE WITH AVERAGE WEIGHTS OF 100 POUNDS. THE RIP RAP SHALL BE PLACED ON 1 FOOT OF GRAVEL SUBBASE OR STABILIZING FABRIC.
12. DRY WELLS SHALL MEET THE SAME REQUIREMENTS AS THOSE LISTED FOR MANHOLES WITH THE ADDITION OF OPENINGS OF APPROXIMATELY 15% OF THE RINGS INTERIOR SURFACE. THE OPENINGS SHALL BE 1 X 3 INCH SLOTS OR 1 INCH DIAMETER ON THE INSIDE SURFACE. DRY WELLS SHALL BE BACKFILLED WITH A MINIMUM OF 1 FOOT OF CLEAN STONE SIZED BETWEEN 3 AND 4 INCHES. OUTSIDE THE STONE THE ENTIRE STRUCTURE SHALL BE WRAPPED IN FILTER FABRIC TO PREVENT OUTSIDE SOILS FROM ENTERING THE STONE AND DRY WELL.
13. UNLESS OTHERWISE NOTED, TRENCH DRAINS SHALL BE MADE WITH 4 INCH PERFORATED CORRUGATED POLYETHYLENE PIPE ENCASED IN CLEAN STONE SIZED BETWEEN 2 INCH AND ½ INCH AND THEN WRAPPED IN FILTER FABRIC. OUTSIDE DIMENSIONS OF THE TRENCH DRAIN WILL NOT BE LESS THAN 1 FOOT.
14. ALL JOINTS BETWEEN PIPES AND PRECAST STRUCTURES SHALL BE MORTARED TIGHT.
15. ALL PIPE SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATION AND TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. CARE SHALL BE GIVEN DURING BACKFILL OPERATIONS NOT TO MOVE OR DAMAGE PIPE OR APPURTENANCES WHILE ACHIEVING THE APPROPRIATE COMPACTION REQUIREMENTS.
16. ALL SYSTEMS SHALL BE VISUALLY INSPECTED FOR ALIGNMENT AND WORKMANSHIP. ALL DEBRIS, DIRT OR OTHER FOREIGN OBJECTS SHALL BE REMOVED AND THE SYSTEM FLUSHED CLEAN.
17. ANY PIPES FOUND WITH DIAMETER DEFLECTIONS GREATER THAN 5% OF THE SPECIFIED PIPE DIAMETER WILL BE REPAIRED OR REPLACED. ANY ALIGNMENT DIFFERENTIALS GREATER THAN 5% OF THE DIAMETER OF THE PIPE WILL BE CORRECTED OR REPLACED.
18. ANY CLEANING, REPAIRS OR REPLACEMENT REQUIRED, DUE TO FAILURE OF TESTING OR POOR WORKMANSHIP, SHALL BE DONE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE CONTRACT.

WATER SYSTEM AND SERVICES REQUIREMENTS:

1. THE WATER SYSTEMS AND SERVICES SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL (HAVING JURISDICTION) REQUIREMENTS.
2. IF CITY OF COVINGTON DOES NOT HAVE SPECIFIC REQUIREMENTS REGARDING MATERIALS AND PLACEMENT. THE FOLLOWING SHALL BE USED:
   - ALL WATER PIPING, FITTINGS AND APPURTENANCES SHALL BE PLACED A MINIMUM OF 6 INCHES BELOW FROST LINE OR 5 FEET WHICH EVER IS GREATER. PIPE SIZES 4 INCHES AND UP SHALL BE DUCTILE IRON OR POLYVINYL CHLORIDE AS INDICATED ON THE DRAWINGS (IF NOT SHOWN USE DUCTILE IRON). PIPE SIZES BELOW 4 INCHES SHALL BE COPPER OR POLYETHYLENE AS INDICATED ON THE DRAWINGS (IF NOT SHOWN USE COPPER).
   - THE MINIMUM SEPARATION BETWEEN WATER MAINS AND SERVICES AND SEWER MAINS AND LATERALS SHALL BE 18 INCHES MEASURED VERTICALLY FROM OUTSIDE TO OUTSIDE OF PIPES AT THE CROSSING. A STANDARD LENGTH OF WATER PIPE SHALL BE CENTERED AT THE CROSSING TO MAXIMIZE THE DISTANCE BETWEEN THE CROSSING AND THE NEAREST WATER MAIN OR SERVICE PIPE JOINT. WHEN THE WATER MAIN OR SERVICE RUNS UNDER THE SEWER LINE. A GRAVEL OR CRUSH STONE BACKFILL MEETING THE REQUIREMENTS OF SUBBASE SHALL BE PLACED AND COMPACTED AROUND THE WATER PIPE (UP TO HALF THE DIAMETER OF THE SEWER PIPE) TO PROVIDE ADEQUATE SUPPORT TO THE SEWER LINE. WATER MAINS AND SERVICES AND SEWER MAINS AND LATERALS RUNNING PARALLEL SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
   - DUCTILE IRON PIPE SHALL BE PROVIDED IN ACCORDANCE WITH AWWA C151. (6 INCH DIAMETER AND GREATER SHALL BE CLASS 50) AND (SMALLER THAN 6" SHALL BE CLASS 51). DUCTILE IRON PIPE SHALL BE LINED WITH A CEMENT MORTAR AND SEAL COATED IN ACCORDANCE WITH AWWA C104. GASKETS SHALL BE PROVIDED IN ACCORDANCE WITH AWWA C111. FITTINGS SHALL BE DUCTILE IRON IN ACCORDANCE WITH AWWA C153 COMPACT FITTINGS WITH A PRESSURE RATING OF 350 PSI.
   - STANDARD DUCTILE IRON OR CAST IRON FITTINGS SHALL BE SUPPLIED IN ACCORDANCE WITH AWWA C110 WITH A PRESSURE RATING OF 250 PSI. THE LINING AND GASKETS FOR THE FITTING SHALL MEET THE SAME REQUIREMENTS AS THE PIPE. PLASTIC WRAP PIPES IN ACCORDANCE WITH AWWA C105 AND TAR COAT ALL FITTING BOLTS WHEN EVER SOILS ARE PRIMARILY CLAY OR NOT PH BALANCED. SEE GEOTECHNICAL REPORT FOR SOILS TYPE AND RECOMMENDATIONS.
   - PVC (POLYVINYL CHLORIDE) PIPE SHALL BE FURNISHED IN ACCORDANCE WITH AWWA C900 FOR PIPE 4 INCHES OR GREATER AND ASTM D 1785, SCHEDULE 40, GASKETS PER ASTM F 477- ELASTOMERIC SEAL, SOLVENT CEMENT PER ASTM D 2564 FOR PIPES SMALLER THAN 4 INCHES. TEN GAUGE COPPER TRACE WIRE SHALL BE PLACED WITH ALL PIPE.
   - THRUST RESTRAINTS SHALL BE USED AT ALL FITTINGS, PLUGS, AND APPURTENANCES THAT CAUSE A CHANGE IN DIRECTION. FLOW OR ARE SUBJECT TO THRUST OR HAMMERING BY WATER FLOW. THRUST RESTRAINTS INCLUDE CONCRETE THRUST BLOCKS (3000 PSI), ANCHORING JOINTS AND TIE RODS. CONCRETE THRUST BLOCKS SHALL BE USED UNLESS SPACE, ACCESS OR MAINTENANCE PROHIBIT THEIR USE.
   - COPPER WATER PIPE SHALL BE SUPPLIED IN ACCORDANCE WITH ASTM B 88-TYPE K, SEAMLESS WITH FITTINGS PER AWWA C800.
   - PE (POLYETHYLENE) PIPE SHALL BE FURNISHED IN ACCORDANCE WITH AWWA C9010 AND ASTM D2737.
   - GATE VALVES SHALL BE NONRISING STEM, DOUBLE DISC, BRONZE DISC RESILIENT SEATED, CAST IRON OR DUCTILE IRON BODY AND BONNET IN ACCORDANCE WITH AWWA C509 AND PRESSURE RATED FOR 250 PSI. TEN GAUGE COPPER TRACER WIRE SHALL BE PLACED WITH ALL PIPES.
   - VALVE BOX SHALL BE CAST IRON WITH A BASE COMPATIBLE WITH VALVE, 5 INCHES IN DIAMETER, SCREW TYPE EXTENSION AT TOP AND A COVER THAT READS "WATER".
   - CURB STOPS SHALL HAVE A BRONZE BODY, GROUND KEY PLUG OR BALL WITH WIDE TEE HEAD. THE CURB STOP SHALL BE COMPATIBLE WITH ADJOINING PIPES. THE SERVICE BOX SHALL HAVE A TELESCOPING TOP SECTION WITH A LENGTH THAT PLACES THE ADJUSTMENT CENTERED WHEN BURIED TO THE APPROPRIATE DEPTH. THE SERVICE BOX SHALL BE OF A SIZE AND TYPE THAT IS COMPATIBLE WITH THE CURB STOP. THE COVER SHALL HAVE THE LETTERING "WATER".
3. ALL METERS, VAULTS AND BACKFLOW SHALL MEET THE REQUIREMENTS OF CITY OF COVINGTON .
4. FIRE HYDRANTS SHALL CONFORM TO THE REQUIREMENTS OF CITY OF COVINGTON AND AWWA C502. DRAIN STONE SHALL HAVE 100% PASSING THE 1-1/2 INCH SIEVE, 90-100% PASSING THE 1 INCH SIEVE, 35-95% PASSING THE 1/2 INCH SIEVE AND 0-15% PASSING THE 1/4 INCH SIEVE. ALL HYDRANTS SHALL INCLUDE A GATE VALVE AND BOX LOCATED AT THE HYDRANT BRANCH TO SHUT OFF THE HYDRANT LINE.
5. DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600 AND BE ENCASED IN SELECT BACKFILL WHICH MEANS NO STONE OR OTHER MATERIAL GREATER THAN 2 INCHES IN ANY DIRECTION.
6. PVC, PE AND COPPER PIPE SHALL BE PLACED PER MANUFACTURERS RECOMMENDATIONS AND EMBEDDED IN A 6 INCH SAND ENCASEMENT MEASURED FROM OUTSIDE SURFACE OF THE PIPE TO THE OUTSIDE OF SAND ENCASEMENT.
7. ALL BEDDING AND ENCASEMENTS SHALL BE COMPACTED WITH CARE TO ACHIEVE PROPER COMPACTION WITHOUT DAMAGING THE PIPE, FITTINGS OR APPURTENANCES.
8. ALL WATER MAIN FITTINGS AND VALVES SHALL BE TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH AWWA C600. TEST WATER SHALL BE POTABLE. TEST PRESSURE SHALL NOT BE LESS THAN 1.25 TIMES THE WORKING PRESSURE AT THE HIGHEST POINT AND 1.5 TIMES THE WORKING PRESSURE AT THE TESTING POINT. THE PRESSURE MAY NOT DROP MORE THAN 5 PSI DURING THE 2 HOUR TEST. LEAKAGE SHALL NOT EXCEED MORE THAN (L=(SD(P)^0.5)/133,200) WHERE "L= ALLOWABLE LEAKAGE, IN GALLONS PER HOUR" " S= LENGTH OF PIPE TESTED, IN FEET" " D= NOMINAL DIAMETER OF PIPE, IN INCHES" "P=AVERAGE TEST PRESSURE DURING TEST, IN POUNDS PER SQUARE INCH (GAUGE) DURING THE SAME 2 HOUR DURATION.
9. ALL TAP AND/OR CONNECTION MATERIAL AND WORK SHALL BE DONE IN ACCORDANCE WITH AND COORDINATED WITH CITY OF COVINGTON . WHEN THE AUTHORITY SO REQUIRES, THE TAPS AND/OR CONNECTIONS SHALL BE DONE BY THE AUTHORITY THEMSELVES AND PAID FOR BY THE CONTRACTOR.
10. OTHER FITTING AND APPURTENANCES NOT PART OF THE MAIN LINE TESTING SHALL BE TESTED BY VISUAL INSPECTION FOR LEAKAGE UNDER NORMAL WORKING PRESSURES.
11. ALL MAIN LINES AND APPROPRIATE APPURTENANCES SHALL BE FLUSHED AND DISINFECTED IN ACCORDANCE WITH AWWA C651 AND THE REQUIREMENTS OF THE APPROPRIATE HEALTH DEPARTMENT.
12. THE CONTRACTOR SHALL COORDINATE ALL TESTING AND DISINFECTING WITH CITY OF COVINGTON . IF PROFESSIONAL ENGINEER CERTIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AT LEAST TEN DAYS PRIOR TO THE START OF WORK.
13. FAILURE OF ANY TESTING SHALL REQUIRE THE CONTRACTOR TO REPAIR OR REPLACED THE FAILED SECTION AT NO ADDITIONAL EXPENSE TO THE CONTRACT.

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Utilities/Services shown are for Contractors' convenience. Items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbance (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and/or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

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CIVIL ENGINEERING
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311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

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Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

GENERAL NOTES

Sheet Number

C-1.0

BRAVO SITE SET 10-24-2024

SEAL COAT & STRIPE EXISTING PARKING LOT (ALTERNATE)

LIMITS OF DEMO FOR 1 STORY WING-REFER TO ARCHITECTURAL DEMO PLAN.

LIMITS OF DEMO FOR 1 STORY WING. REFER TO ARCHITECTURAL DEMO PLAN.

PORTION OF EXISTING BUILDING TO BE DEMOLISHED (REFER TO ARCH. PLANS)

PORTION OF EXISTING BUILDING TO BE DEMOLISHED (REFER TO ARCH. PLANS)

50' R/W CARLTON TRAIL

ZONED: NR-2 (COVINGTON)
ZONED: INSTITUTIONAL CAMPUS (OXFORD)
NEWTON COUNTY GEORGIA
TMP: C062 001A
DB 3992, PG 3 / PB 33, PG 49

ZONED: INSTITUTIONAL CAMPUS CITY OF OXFORD
APPROX. CITY LIMITS CITY OF COVINGTON
ZONED: NR-2

DEMOLITION LEGEND:

1. DEMOLISH AND REMOVE
2. SAVE AND PROTECT
3. SAW CUT LINE
4. RELOCATE / REMOVE AS NECESSARY
5. REMOVE AND TURN OVER TO OWNER
6. CUT AND PATCH

OWNER/DEVELOPER

COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-892-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR

COMPANY: SUNBELT BUILDERS
ADDRESS: 10841 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL: MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE: 1" = 30'

GA STATE PLANE EAST

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

GEORGIA811 www.Georgia811.com
Contact 811 before you dig

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LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE023655 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER

8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

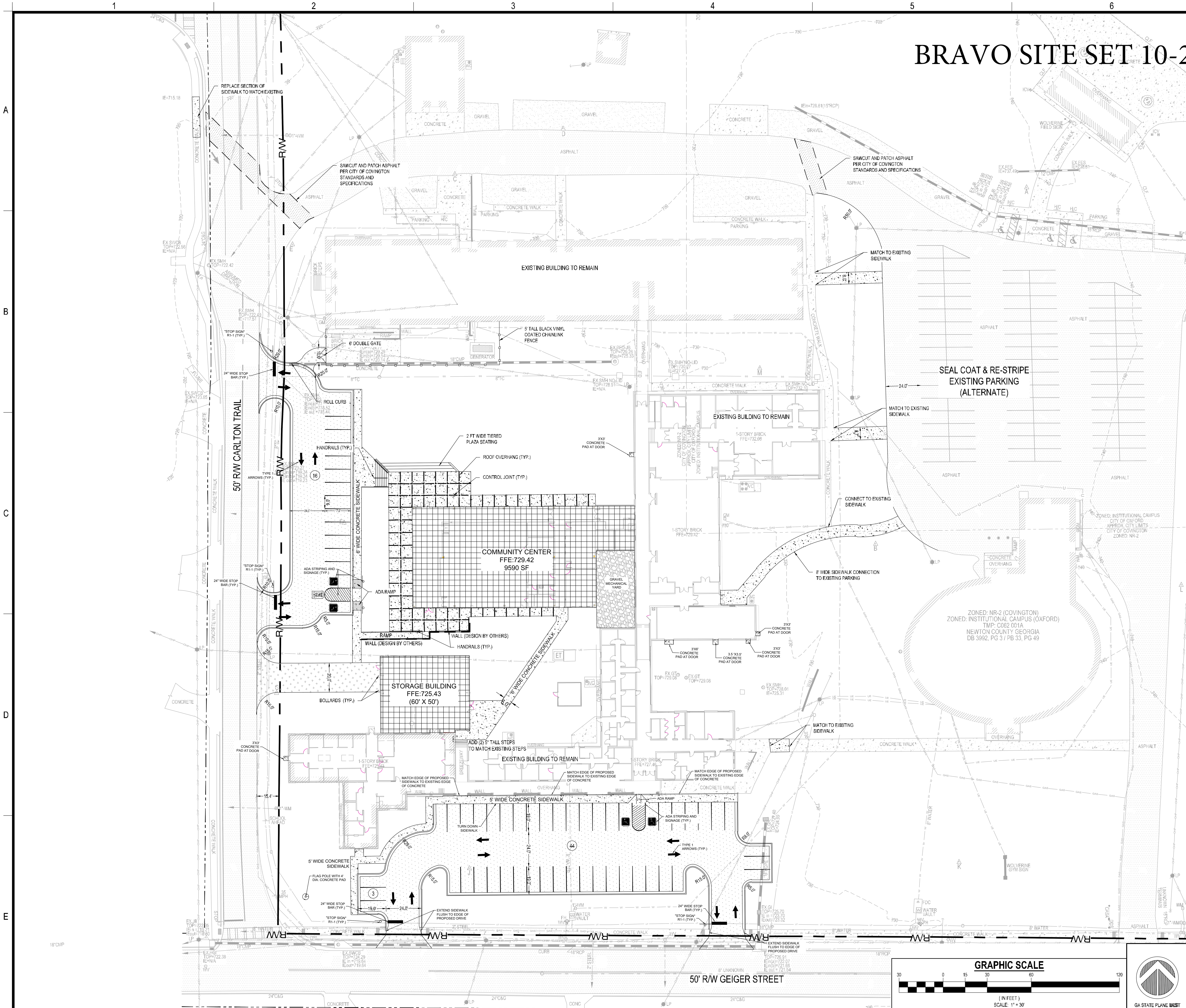
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

DEMOLITION AND REMOVAL PLAN

Sheet Number

C-2.0



OWNER/DEVELOPER

COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR

COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

PAVING LEGEND:

HD = HEAVY DUTY
SD = STANDARD DUTY

- HD CONCRETE PAVING
- SD CONCRETE PAVING
- SD ASPHALT PAVING

REFER TO DETAILS FOR SECTION REQUIREMENTS.

NOTES:

1. ALL STRIPING SHOWN INCLUDING ARROWS, STOPBARS, AND PARKING SPACES REFLECTS STRIPING TO BE DONE BY CONTRACTOR.
2. ALL PAVEMENT MARKINGS SHALL BE INSTALLED PRIOR TO ACCEPTANCE BY THE LIA AND/OR ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
3. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INITIAL INSTALLATION OF STOP SIGNS.

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

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LAND SURVEYING
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P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE034684 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER

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COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

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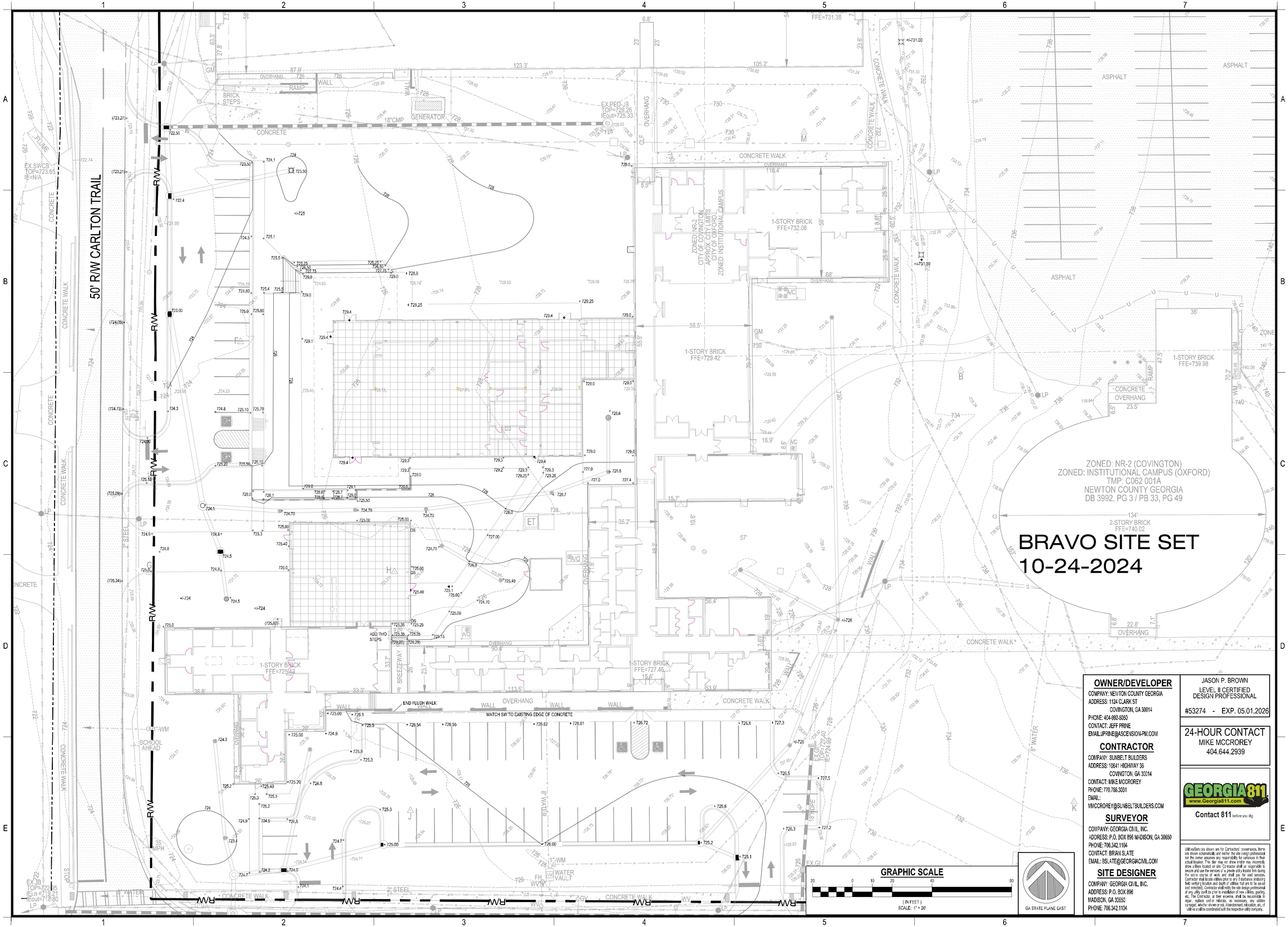
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

LAYOUT & STAKING PLAN

Sheet Number

C-2.1



BRAVO SITE SET
10-24-2024

GRAPHIC SCALE

(IN FEET)
SCALE: 1" = 20'

GA STATE PLANE EAST

OWNER/DEVELOPER

COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-892-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR

COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED
DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

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CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE024857 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER

8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
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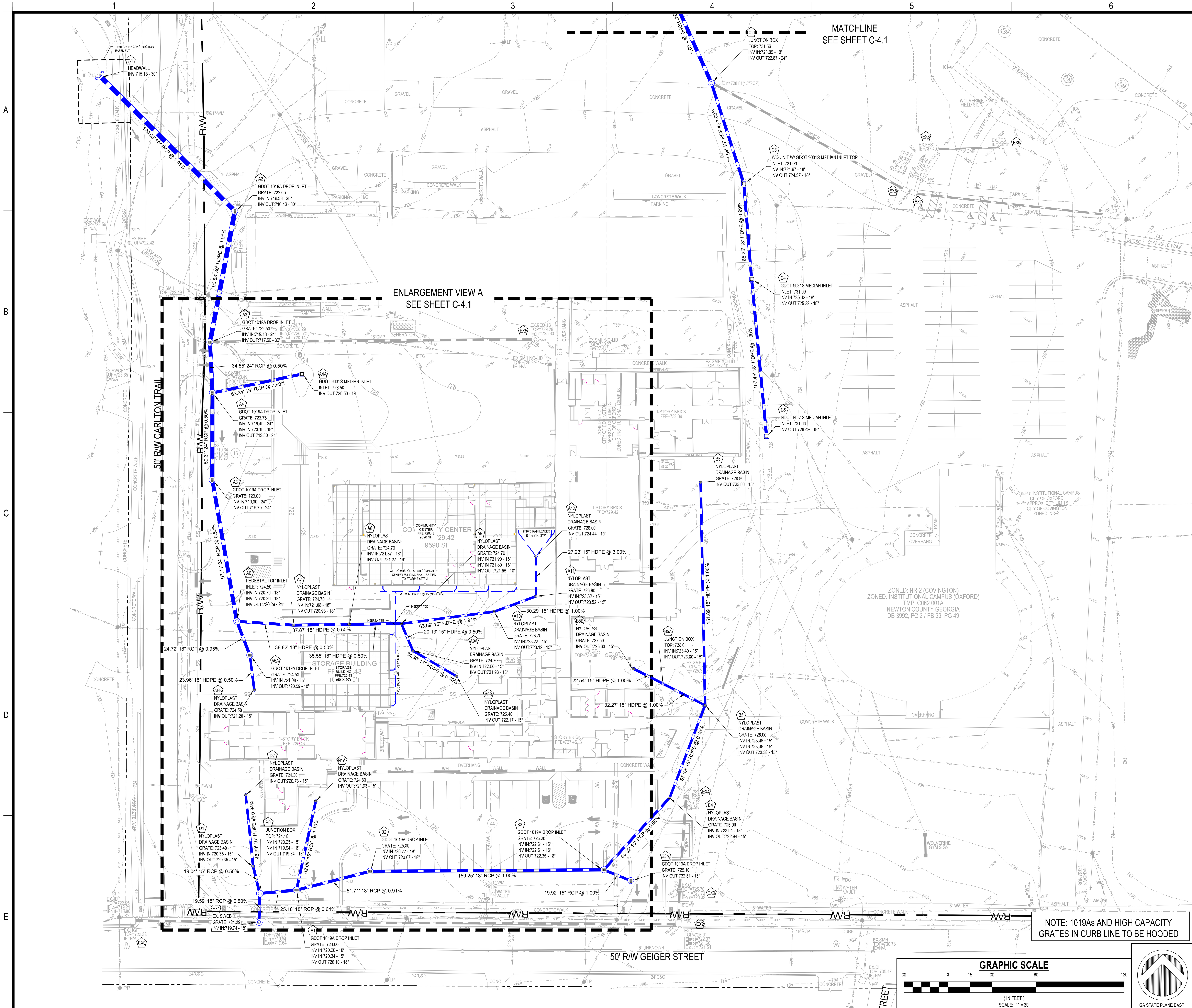
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/20/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

GRADING PLAN

Sheet Number

C-3.0



BRAVO
SITE SET
10-24-2024

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5050
CONTACT: JEFF PRINE
EMAIL:JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED
DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

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404.644.2939

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CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE034684 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
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CHECKED BY:	JPB

REVISIONS

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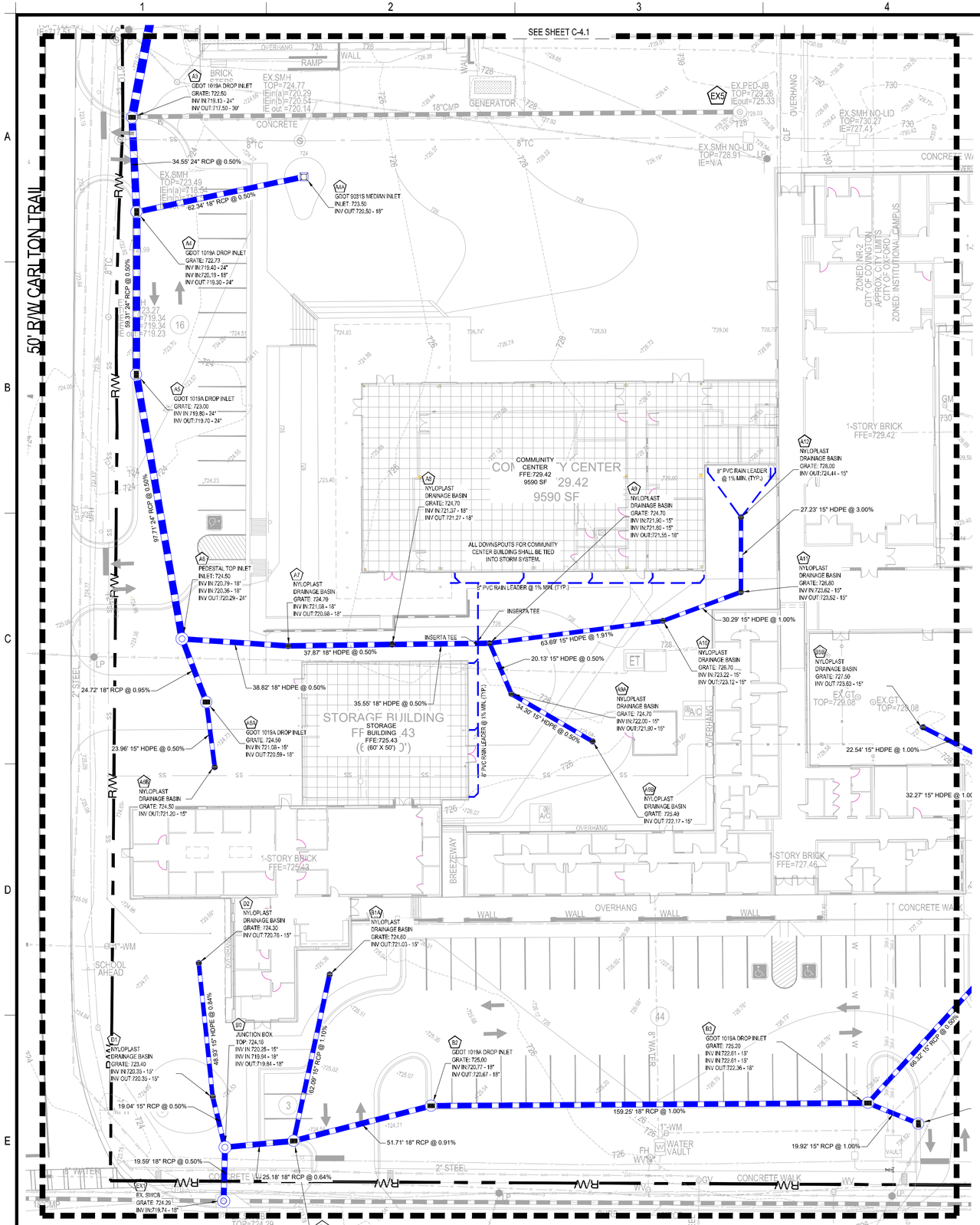
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

STORMWATER MANAGEMENT PLAN

Sheet Number

C-4.0



BRAVO SITE
SET 10-24-2024

NOTE: 1019As AND HIGH CAPACITY GRATES IN CURB LINE TO BE HOODED

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
SCALE: 1" = 20'

GA STATE PLANE EAST

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-6050
CONTACT: JEFF PRINE
EMAIL:JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
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LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE026852 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

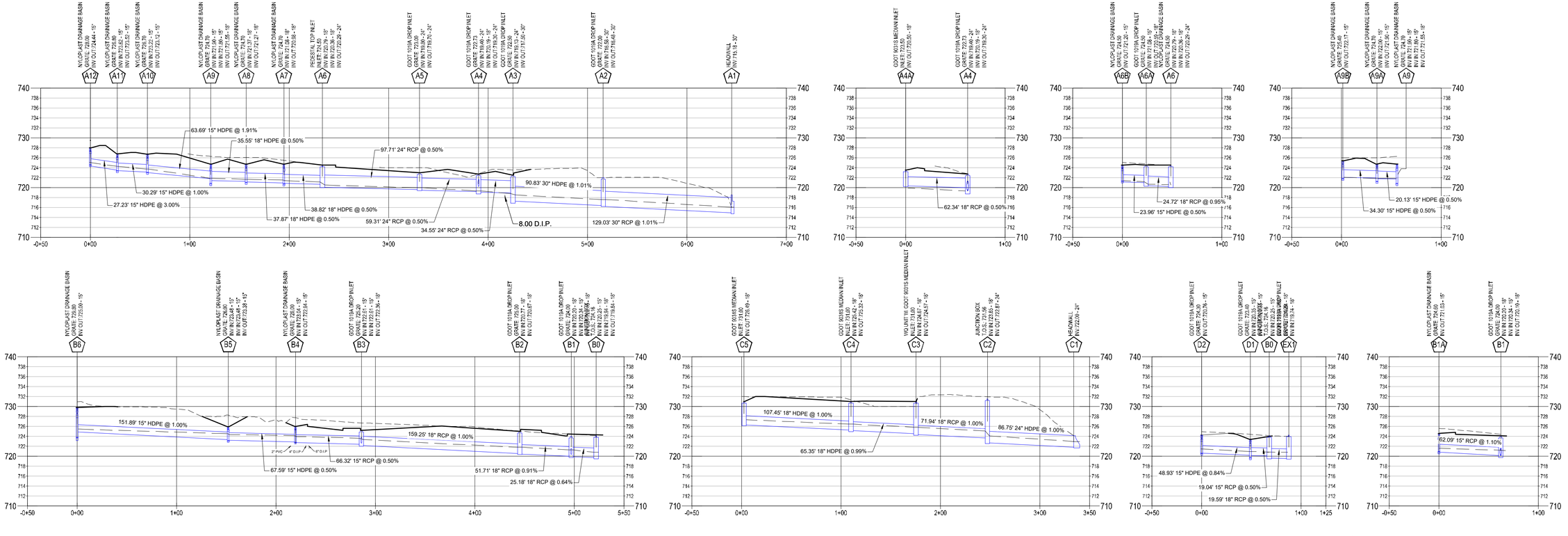
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/28/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

STORMWATER MANAGEMENT PLAN ENLARGEMENTS

Sheet Number

C-4.1



25 YR STORM PIPE CHART

Line	ToLine	LineLength (ft)	Incr.Area (ac)	TotalArea (ac)	RunoffCoeff. (C)	IncrCxA	TotalCxA	InletTime (min)	TimeConc (min)	Rnfall Int (in/hr)	TotalRunoff (cfs)	AdnlFlow (cfs)	TotalFlow (cfs)	CapacFull (cfs)	Veloc (ft/s)	PipeSize (in)	PipeSlope (%)	Inv ElevDn (ft)	Inv ElevUp (ft)	HGLDn (ft)	HGLUp (ft)	Grnd/RimDn (ft)	Grnd/RimUp (ft)	Line ID
1	Outfall	86.754	0.2	1.69	0.4	0.08	1.5	5	6.1	7.9	11.86	0	11.86	24.54	6.78	24	1	722	722.87	722.98	724.11	724.17	731.56	C2-C1
2	1	71.937	0.36	1.49	0.95	0.34	1.42	5	5.9	8	11.3	0	11.3	11.38	7.18	18	1	723.85	724.57	725.07	725.85	731.56	731	C3-C2
3	2	65.35	0.5	1.13	0.95	0.48	1.07	5	5.6	8.1	8.64	0	8.64	11.35	5.9	18	0.99	724.67	725.32	725.85	726.46	731	731	C4-C3
4	3	107.451	0.63	0.63	0.95	0.6	0.6	5	5	8.2	4.94	0	4.94	11.35	4.27	18	1	725.42	726.49	726.46	727.34	731	731	C5-C4
5	Outfall	129.033	0.38	2.25	0.95	0.36	1.81	5	11.7	6.6	11.98	0	11.98	44.6	6.54	30	1.01	715.18	716.48	716.07	717.64	718.47	722	A2-A1
6	5	90.827	0.4	1.87	0.7	0.28	1.45	5	11	6.7	9.79	0	9.79	44.71	4.99	30	1.01	716.58	717.5	717.64	718.54	722	721.67	A3-A2
7	6	34.547	0.11	1.47	0.95	0.1	1.17	5	10.8	6.8	7.95	0	7.95	24.66	6.02	24	1.01	718	718.35	718.78	719.35	721.67	722.85	A4-A3
8	7	59.314	0.07	1.03	0.95	0.07	0.92	5	10.4	6.9	6.32	0	6.32	17.43	4.89	24	0.51	718.9	719.2	719.73	720.09	722.85	723	A5-A4
9	8	97.714	0.09	0.96	0.95	0.09	0.85	5	9.6	7	6	0	6	17.35	4.81	24	0.5	719.3	719.79	720.11	720.66	723	724.5	A6-A5
10	9	38.816	0.03	0.8	0.7	0.02	0.71	5	6.8	7.7	5.48	0	5.48	7.96	4.86	18	0.49	720.29	720.48	721.2	721.39	724.5	724.7	A7-A6.1
11	10	37.87	0.07	0.77	0.95	0.07	0.69	5	6.6	7.8	5.35	0	5.35	8.06	4.58	18	0.5	720.58	720.77	721.58	721.66	724.7	724.7	A8-A7
12	11	35.548	0.23	0.7	0.95	0.22	0.62	5	6.4	7.8	4.87	0	4.87	8.1	4.36	18	0.51	720.87	721.05	721.85	721.9	724.7	724.7	A9-A8
13	12	63.693	0.07	0.28	0.95	0.07	0.27	5	5.8	8	2.13	0	2.13	11.83	3.74	15	2.86	721.3	723.12	721.9	723.7	724.7	726.7	A10-A9
14	13	30.292	0.05	0.21	0.95	0.05	0.2	5	5.4	8.1	1.62	0	1.62	6.96	3.6	15	0.99	723.22	723.52	723.7	724.02	726.7	726.8	A11-A10
15	14	27.231	0.16	0.16	0.95	0.15	0.15	5	5	8.2	1.25	0	1.25	12.14	3.44	15	3.01	723.62	724.44	724.02	724.88	726.8	728.6	A12-A11
16	12	20.13	0.05	0.19	0.95	0.05	0.14	5	5.9	8	1.1	0	1.1	4.93	2.51	15	0.5	721.3	721.4	721.9	721.81	724.7	724.7	A9A-A9
17	16	34.298	0.14	0.14	0.65	0.09	0.09	5	5	8.2	0.75	0	0.75	4.92	2.85	15	0.5	721.5	721.67	721.83	722.01	724.7	724.8	A9B-A9A
18	9	24.717	0.04	0.07	0.95	0.04	0.06	5	8	7.4	0.43	0	0.43	10.97	2.02	18	0.93	720.36	720.59	720.66	720.83	724.5	724.5	A6A-A6
19	18	23.958	0.03	0.03	0.65	0.02	0.02	5	5	8.2	0.16	0	0.16	4.95	1.83	15	0.5	721.08	721.2	721.23	721.36	724.5	724.5	A6B-A6A
20	7	62.338	0.33	0.33	0.45	0.15	0.15	5	5	8.2	1.22	0	1.22	8.02	3.19	18	0.5	720.19	720.5	720.59	720.91	722.85	723.5	A4A-A4
21	Outfall	36.264	0.18	2.18	0.95	0.17	1.68	5	8.3	7.3	12.3	0	12.3	11.33	6.96	18	0.99	719.74	720.1	721.24	721.66	722.24	724.1	B1-EX
22	21	47.007	0.25	1.94	0.95	0.24	1.46	5	8.2	7.4	10.73	0	10.73	11.38	6.07	18	1	720.2	720.67	722.69	723.11	724.1	725	B2-B1
23	22	159.25	0.2	1.69	0.95	0.19	1.22	5	7.7	7.5	9.13	0	9.13	11.37	5.17	18	1	720.77	722.36	723.53	724.55	725	725.3	B3-B2
24	23	66.323	0.11	1.43	0.8	0.09	0.97	5	7.5	7.5	7.33	0	7.33	4.93	5.97	15	0.5	722.61	722.94	725.17	725.9	725.3	726	B4-B3
25	24	67.587	0.64	1.32	0.65	0.42	0.89	5	7.3	7.6	6.71	0	6.71	4.96	5.47	15	0.5	723.04	723.38	726.25	726.87	726	726	B5-B4
26	25	32.275	0.25	0.43	0.65	0.16	0.31	5	5.4	8.1	2.49	0	2.49	6.97	2.03	15	0.99	723.48	723.8	727.89	727.93	726	728.01	B5A-B5
27	25	151.89	0.25	0.25	0.65	0.16	0.16	5	5	8.2	1.34	0	1.34	7	1.09	15	1	723.48	725	727.89	727.94	726	731.45	B6-B5
28	26	22.538	0.18	0.18	0.8	0.14	0.14	5	5	8.2	1.19	0	1.19	7.07	0.97	15	1.02	723.4	723.63	727.94	727.94	728.01	727.5	B5B-B5A
29	23	19.919	0.06	0.06	0.95	0.06	0.06	5	5	8.2	0.47	0	0.47	7.01	0.38	15	1	722.61	722.81	725.17	725.17	725.3	725.08	B3A-B3
30	21	68.591	0.06	0.06	0.85	0.05	0.05	5	5	8.2	0.42	0	0.42	7.02	0.34	15	1.01	720.34	721.03	722.69	722.69	724.1	724.6	B1A-B1
31	Outfall	38.298	0.11	0.17	0.65	0.07	0.12	5	7.5	7.5	0.9	0	0.9	6.97	3.42	15	0.99	719.89	720.27	720.19	720.64	722.24	723.4	D1-EX
32	31	48.931	0.06	0.06	0.8	0.05	0.05	5	5	8.2	0.4	0	0.4	7	1.82	15	1	720.27	720.76	720.64	721	723.4	724.3	D2-D1

BRAVO
SITE
SET
10-24-2024

LEGEND

EG
FG
HGL

NOTE: 1019As AND HIGH CAPACITY GRATES IN CURB LINE TO BE HOODED

STORMWATER MANAGEMENT PROFILES
SCALE: HORIZONTAL: 1"=50'
VERTICAL: 1"=10'

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5950
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10841 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

GEORGIA 811 www.Georgia811.com
Contact 811 before you dig

Utilities/Services shown are for Contractors' convenience, items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbance (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

georgia civil
CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE022455 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

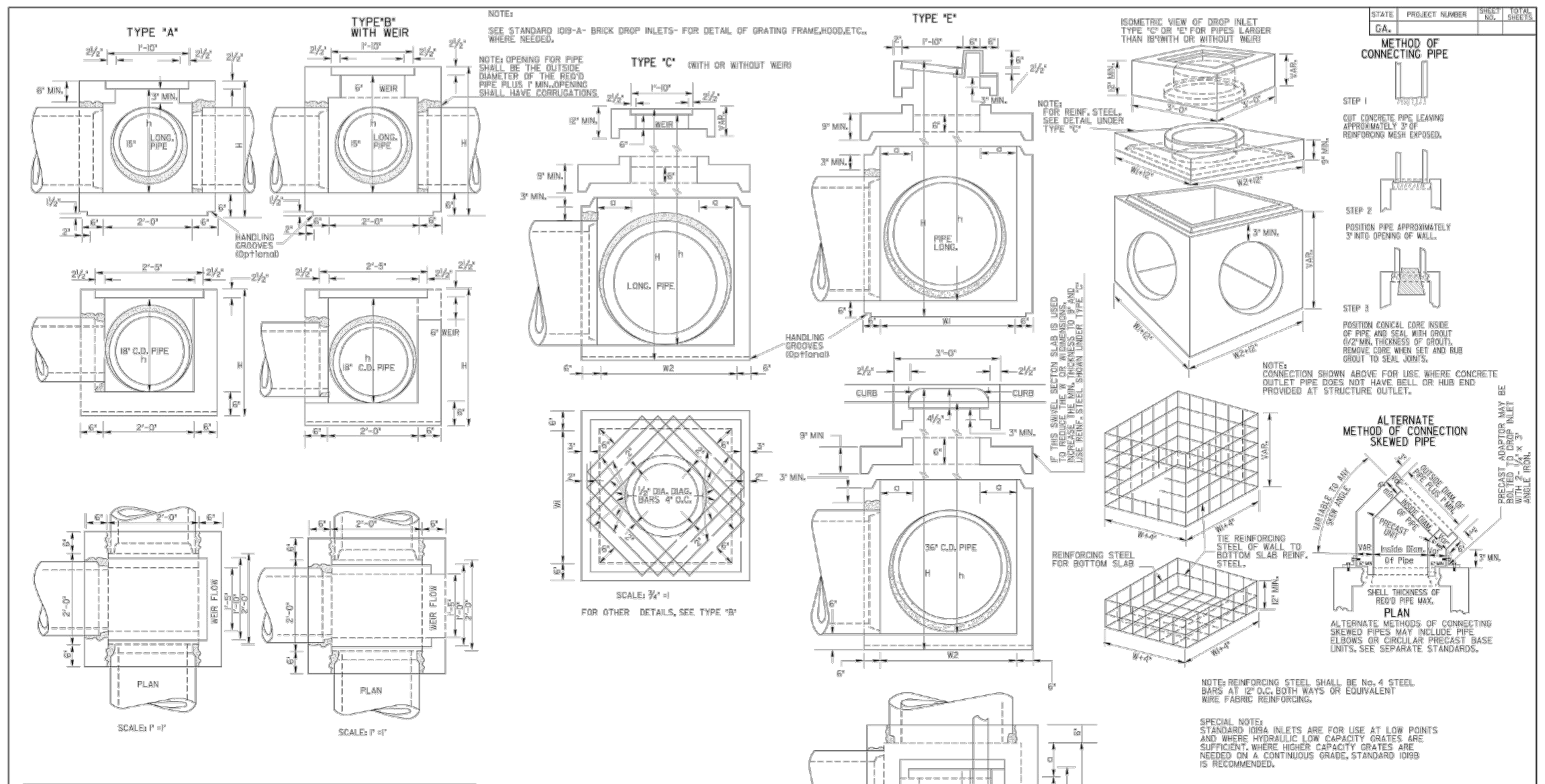
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/29/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

STORMWATER MANAGEMENT PROFILES

Sheet Number

C-4.2



NOTE: SEE STANDARD 1019-A- BRICK DROP INLETS- FOR DETAIL OF GRATING FRAME,HOOD,ETC., WHERE NEEDED.

NOTE: OPENING FOR PIPE SHALL BE THE OUTSIDE DIAMETER OF THE REQ'D PIPE PLUS 1" MIN. OPENING SHALL HAVE CORRUGATIONS.

NOTE: FOR REINF. STEEL, SEE DETAIL UNDER TYPE "C"

IF THIS SWIVEL SECTON SLAB IS USED TO REDUCE THE W OR W1 DIMENSIONS, INCREASE THE MIN. THICKNESS TO 9" AND USE REINF. STEEL SHOWN UNDER TYPE "C"

NOTE: CONNECTION SHOWN ABOVE FOR USE WHERE CONCRETE OUTLET PIPE DOES NOT HAVE BELL OR HUB END PROVIDED AT STRUCTURE OUTLET.

ALTERNATE METHODS OF CONNECTING SKEWED PIPES MAY INCLUDE PIPE ELBOWS OR CIRCULAR PRECAST BASE UNITS. SEE SEPARATE STANDARDS.

PRECAST ADAPTOR MAY BE BOLTED TO DROP INLET WITH 2- 1/4" x 3" ANGLE IRON.

NOTE: REINFORCING STEEL SHALL BE No. 4 STEEL BARS AT 12" O.C. BOTH WAYS OR EQUIVALENT WIRE FABRIC REINFORCING.

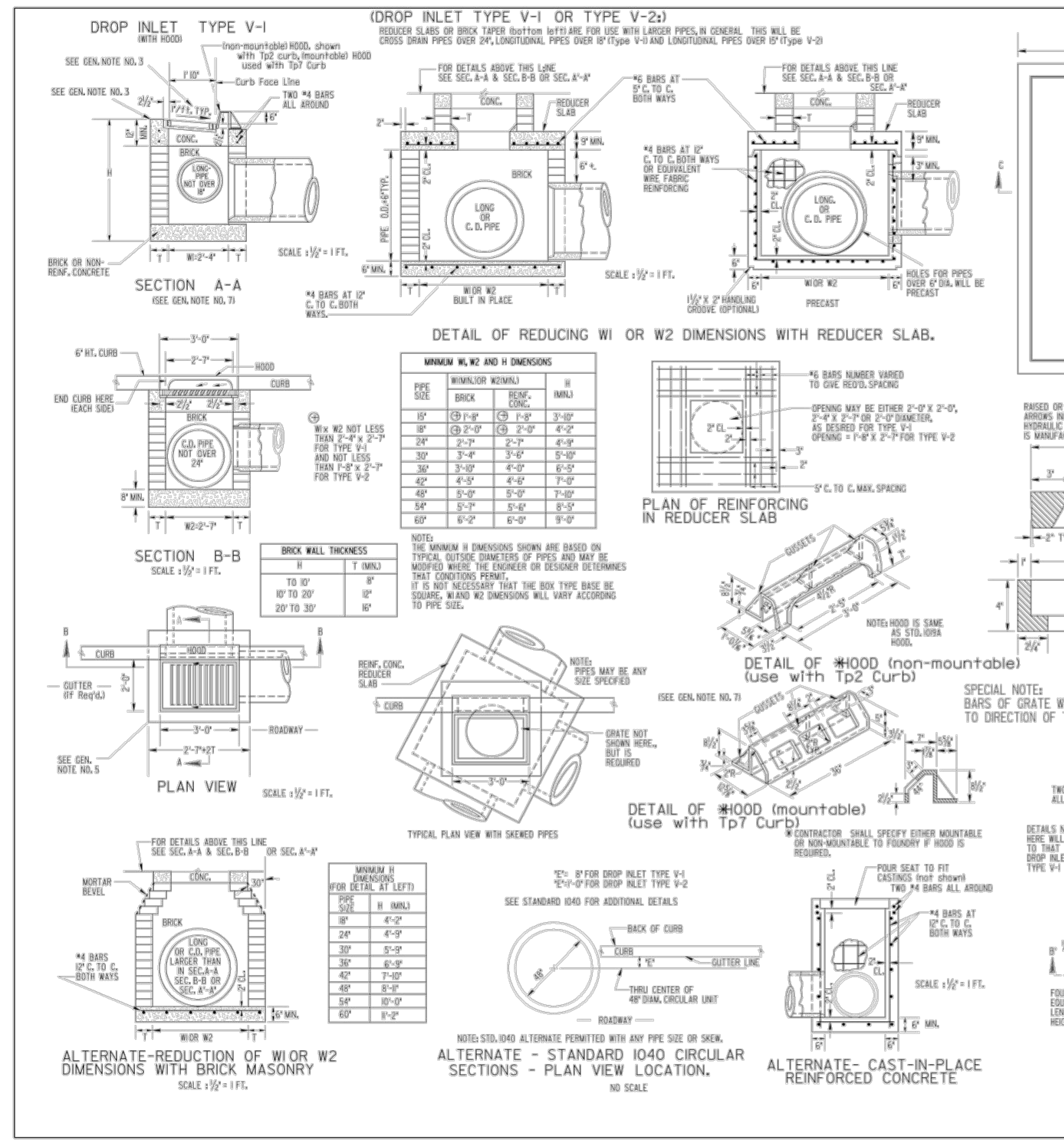
SPECIAL NOTE: STANDARD 1019A INLETS ARE FOR USE AT LOW POINTS AND WHERE HYDRAULIC LOW CAPACITY GRATES ARE SUFFICIENT. WHERE HIGHER CAPACITY GRATES ARE NEEDED ON A CONTINUOUS GRADE, STANDARD 1019B IS RECOMMENDED.

NOTE: SEE STANDARD 1019A (BRICK) AND STANDARD 1040 FOR CONSTRUCTION ALTERNATES BRICK MASONRY AND CIRCULAR PRECAST SECTIONS RESPECTIVELY.

DIMENTIONS FOR DROP INLETS

PIPE SIZE	TYPE "A" MIN. h	TYPE "A" MIN. H	TYPE "B" MIN. h	TYPE "B" MIN. H	TYPE "C" W or W2	TYPE "C" a	TYPE "C" MIN. h	TYPE "C" MIN. H	TYPE "E" W or W2	TYPE "E" a	TYPE "E" MIN. h	TYPE "E" MIN. H
15"	2'-0"	2'-8½"	2'-7"	3'-3½"	2'-0"		2'-7"	3'-3½"	2'-0"		2'-7"	3 - 3½"
18"	2'-3½"	3'-0"	2'-10"	3'-6½"	2'-0"		2'-10"	3'-6½"	2'-0"		2'-10"	3 - 6½"
24"					3'-0"	0'-6"	4'-3½"	5'-0"	3'-0"	0'-6"	4'-7"	5 - 3"
30"					3'-6"	0'-9"	4'-10½"	5'-7"	3'-6"	0'-9"	5'-2"	5 - 10"
36"					4'-0"	1'-0"	5'-5½"	6'-2"	4'-0"	1'-0"	5'-9"	6 - 3"
42"					4'-6"	1'-3"	6'-½"	6'-8"	4'-6"	1'-3"	6'-4"	7 - 0"
48"					5'-0"	1'-6"	6'-7½"	7'-3"	5'-0"	1'-6"	6'-11"	7 - 7"
54"					5'-6"	1'-9"	7'-2½"	7'-10"	5'-6"	1'-9"	7'-6"	8 - 2"
60"					6'-0"	2'-0"	7'-9½"	8'-5"	6'-0"	2'-0"	8'-1"	8 - 9"

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
STANDARD
PRECAST DROP INLETS
SCALE AS SHOWN AUG. 1999
NUMBER 1019A PRECAST
STATE ROAD & AIRPORT DESIGN ENGINEER
CHIEF ENGINEER



REDUCER SLABS OR BRICK TAPER (bottom left) ARE FOR USE WITH LARGER PIPES. IN GENERAL THIS WILL BE CROSS DRAIN PIPES OVER 24", LONGITUDINAL PIPES OVER 18" (Type V-1) AND LONGITUDINAL PIPES OVER 15" (Type V-2)

MINIMUM W1, W2 AND H DIMENSIONS

PIPE SIZE	W1(MIN.) OR W2(MIN.) BRICK	W1(MIN.) OR W2(MIN.) REINF. CONC.	H (MIN.)
15"	⊕ 1'-8"	⊕ 1'-8"	3'-10"
18"	⊕ 2'-0"	⊕ 2'-0"	4'-2"
24"	2'-7"	2'-7"	4'-9"
30"	3'-4"	3'-6"	5'-10"
36"	3'-10"	4'-0"	6'-5"
42"	4'-5"	4'-6"	7'-0"
48"	5'-0"	5'-0"	7'-10"
54"	5'-7"	5'-6"	8'-5"
60"	6'-2"	6'-0"	9'-0"

⊕ W1 x W2 NOT LESS THAN 2'-4" x 2'-7" FOR TYPE V-1 AND NOT LESS THAN 1'-8" x 2'-7" FOR TYPE V-2

NOTE: THE MINIMUM H DIMENSIONS SHOWN ARE BASED ON TYPICAL OUTSIDE DIAMETERS OF PIPES AND MAY BE MODIFIED WHERE THE ENGINEER OR DESIGNER DETERMINES THAT CONDITIONS PERMIT. IT IS NOT NECESSARY THAT THE BOX TYPE BASE BE SQUARE. W1 AND W2 DIMENSIONS WILL VARY ACCORDING TO PIPE SIZE.

BRICK WALL THICKNESS

H	T (MIN.)
TO 10'	8"
10' TO 20'	12"
20' TO 30'	16"

MINIMUM H DIMENSIONS (FOR DETAIL AT LEFT)

PIPE SIZE	H (MIN.)
18"	4'-2"
24"	4'-9"
30"	5'-9"
36"	6'-9"
42"	7'-10"
48"	8'-11"
54"	10'-0"
60"	11'-2"

NOTE: STD. 1040 ALTERNATE PERMITTED WITH ANY PIPE SIZE OR SKEW.

MATERIAL FOR GRATE: GRAY IRON, A.S.T.M. A-48 CLASS 30.

NOTE: FRAME IS SAME AS GA. STD. 1010 OR CITY OF ATLANTA FRAME, TYPE B

SPECIAL NOTE: BARS OF GRATE WILL BE PERPENDICULAR TO DIRECTION OF TRAFFIC FLOW.

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD AND/OR SPECIAL PROVISIONS EXCEPT THAT VANE GRATE WILL BE GRAY IRON A.S.T.M. A-48 CLASS 30.
2. ALIGNMENT, NUMBER AND SIZES OF PIPES SHOWN ARE ONLY TYPICAL. SEE PLANS FOR ACTUAL PIPE CULVERT REQUIREMENTS.
3. SLOPE OF GRATE WILL MATCH GUTTER SLOPE WHEN USED WITH CURB AND GUTTER. SLOPE OF GRATE WILL MATCH ROADWAY SLOPE, WHERE THERE IS NO GUTTER (I.E., HEADER CURB, INTEGRAL CURB, ETC.). TOP OF HOOD WILL BE FLUSH WITH TOP OF CURB FOR TYPE V-1.
4. CONCRETE WILL BE CLASS "A" CONCRETE.
5. ½" EXPANSION JOINTS WILL BE REQUIRED IF RIGID PAVEMENT, SIDEWALK OR CONCRETE GUTTER MEETS DROP INLETS.
6. ALL STRUCTURES OVER 4 FT. DEEP SHALL REQUIRED STEPS OF A TYPE APPROVED BY THE MATERIALS LABORATORY OR ¾" DIA. BARS STEPS AS SHOWN FOR OTHER INLET TYPES. NUMBER AND LOCATION OF STEPS SHALL BE AS DIRECTED BY THE ENGINEER.
7. METAL HOODS DO NOT IMPROVE HYDRAULICS OF INLETS. TYPE V-1 DROP INLETS ARE NORMALLY USED TO PROVIDE CONTINUITY OF CURB OR TO ALLOW LARGER BOX WITHOUT TAPER OR REDUCER SLAB.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
STANDARD
DROP INLET TYPES V-1 AND V-2
SCALE AS SHOWN AUGUST, 1999
NUMBER 1019B

BRAVO SITE SET 10-24-2024

CLASSES OF EMBEDMENT AND BACKFILL MATERIALS

ASTM D2321 [1] (CSA B182.11) CLASS	DESCRIPTION	ASTM D2487 NOTATION	ASTM D2487 DESCRIPTION	AASHTO M43 NOTATION	AASHTO M145 NOTATION	BNQ 2560	1 1/2 IN. (40mm)	3/8" (9.5mm)	No. 4 (4.75mm)	NO. 200 (0.075mm)	LL	PI	Cu	Cc
I [2]	CRUSHED ROCK, ANGULAR [3]	N/A	ANGULAR CRUSHED STONE OR ROCK, CRUSHED GRAVEL, CRUSHED SLAG; LARGE VOIDS WITH LITTLE OR NO FINES	5, 56, 57 [4] 6, 67 [4]	N/A		100%	<25%	<15%	<12%	NON PLASTIC		N/A	
II	CLEAN, COARSE-GRAINED SOILS	GW	WELL-GRADED GRAVEL, GRAVEL SAND MIXTURES; LITTLE OR NO FINES	5, 6	A1, A3	CG-14, MG-20	100%		<50% of "COARSE FRACTION"	<5%	NON PLASTIC		>4	1 to 3
		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES; LITTLE OR NO FINES	56, 57, 67									4	<1 or >3
		SW	WELL-GRADED SANDS, GRAVELLY SANDS; LITTLE OR NO FINES						>50% of "COARSE FRACTION"				>6	1 to 3
		SP [5]	POORLY-GRADED SANDS, GRAVELLY SAND; LITTLE OR NO FINES										<6	<1 or >3
	COARSE-GRAINED SOILS, BODERLINE CLEAN TO W/FINES	GW-GC, SP-SM	SANDS AND GRAVELS WHICH ARE BORDERLINE BETWEEN CLEAN AND WITH FINES	N/A			100%		VARIES	5% TO 12%	NON PLASTIC		SAME AS FOR GW, GP, SW AND SP	
III	COURSE-GRAINED SOILS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	GRAVEL & SAND WITH <10% FINES	A-2-4, A-2-5, A-2-6, OR A-4 OR A-6 SOILS WITH MORE THAN 30% RETAINED ON #200 SIEVE		100%		<50% of "COARSE FRACTION"	12% TO 50%	N/A	<4 OR <"A" LINE	N/A	
		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES									<7 & >"A" LINE		
		SM	SILTY SANDS, SAND-CLAY MIXTURES						>50% of "COARSE FRACTION"			>4 OR <"A" LINE		
		SC	CLAYEY SANDS, SAND-CLAY MIXTURES									>7 & >"A" LINE		
	INORGANIC FINE-GRAINED SOILS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY						100%	> 30% (RETAINED)	<50	<4 OR <"A" LINE		
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; GRAVELLY, SANDY, OR SILTY CLAYS; LEAN CLAYS							> 30% (RETAINED)		>7 & >"A" LINE		
IV [3]	INORGANICS FINE-GRAINED SOILS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY	N/A	A-2-7 OR A-4 OR A-6 SOILS WITH 30% OR LESS RETAINED ON #200 SIEVE		100%		100%	< 30% (Retained)	<50	<4 or <"A" LINE	N/A	
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; GRAVELLY, SANDY, OR SILTY CLAYS; LEAN CLAYS	N/A								>7 & >"A" LINE		
V [7]	INORGANIC FINE-GRAINED SOILS	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	N/A	A5, A7		100%		100%	>50%	>50	<"A" LINE	N/A	
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	N/A								>"A" LINE		
	ORGANIC SOILS OR HIGHLY ORGANIC SOILS	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	N/A			100%		100%	>50%	<50	<4 OR <"A" LINE	N/A	
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	N/A							>50	<"A" LINE		
		PT	PEAT AND OTHER HIGH ORGANIC SOILS	N/A										

(Column groups: PERCENTAGE PASSING SIEVE SIZES; ATTERBERG LIMITS (LL, PI); COEFFICIENTS (Cu, Cc) — per ASTM D2321 [1] (CSA B182.11).)

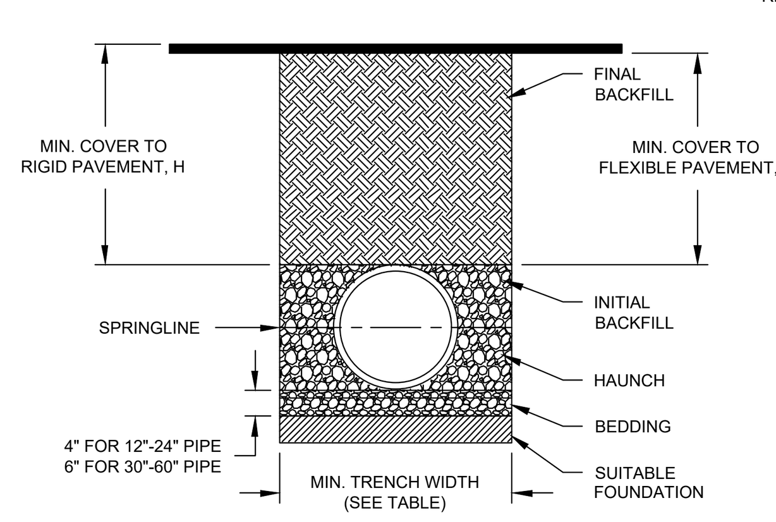
NOTES:

1. REFER TO ASTM D2321 / CSA B182.11 / BNQ 2560 FOR MORE COMPLETE SOIL DESCRIPTIONS.
2. CLASS I MATERIALS ALLOW FOR A BROADER RANGE OF FINES THAN PREVIOUS VERSIONS OF D2321 / B182.11. WHEN SPECIFYING CLASS I MATERIAL FOR INFILTRATION SYSTEMS, THE ENGINEERING SHALL INCLUDE A REQUIREMENT FOR AN ACCEPTABLE LEVEL OF FINES.
3. ALL PARTICLE FACES SHALL BE FRACTURED
4. ASSUMES LESS THAN 25% PASSES THE 3/8" SIEVE.
5. CLASS IV MATERIALS REQUIRE A GEOTECHNICAL EVALUATION PRIOR TO USE AND SHOULD ONLY BE USED AS BACKFILL UNDER THE GUIDANCE OF A QUALIFIED ENGINEER.
6. UNIFORM FINE SANDS (SP) WITH MORE THAN 50% PASSING A 100 SIEVE BEHAVE LIKE SILTS AND SHOULD BE TREATED AS CLASS III SOILS IF ALLOWED.
7. CLASS V MATERIALS SHALL NOT BE PERMITTED AS BEDDING AND BACKFILL MATERIAL.

2	REV. DRAWING NAME OR NUMBER	TJR	01/28/16	
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

NOTE: ALL DIMENSIONS ARE ± 1/2 FOOT.

DIA. DET/RET SYSTEM
CLASSES OF EMBEDMENT AND AND BACKFILL MATERIALS
DRAWING NUMBER: STD-109
ADS ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
TJR 06/01/15 NTS 1 OF 1



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4" (100mm)	21" (533mm)
6" (150mm)	23" (584mm)
8" (200mm)	26" (660mm)
10" (250mm)	28" (711mm)
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS**

PIPE DIAM.	SURFACE LIVE LOADING CONDITION H-25	HEAVY CONSTRUCTION (75T AXLE LAOD) *
12" - 48" (300mm - 1200mm)	12" (305mm)	48" (1219mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
**SEE BACKFILL REQUIREMENTS IN NOTE 6.

MAXIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	CLASS I COMPACTED	CLASS I DUMPED	CLASS II 95%	CLASS II 90%	CLASS III 95%
4" (100mm)	37 (11.3m)	18 (5.5m)	25 (7.6m)	18 (5.5m)	18 (5.5m)
6" (150mm)	44 (13.4m)	20 (6.1m)	29 (8.8m)	20 (6.1m)	21 (6.4m)
8" (200mm)	32 (9.8m)	15 (4.6m)	22 (6.7m)	15 (4.6m)	16 (4.9m)
10" (250mm)	38 (11.6m)	18 (5.5m)	26 (7.9m)	18 (5.5m)	18 (5.5m)
12" (300mm)	35 (10.7m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
15" (375mm)	38 (11.6m)	17 (5.2m)	25 (7.6m)	17 (5.2m)	18 (5.5m)
18" (450mm)	36 (11.0m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
24" (600mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
30" (750mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
36" (900mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	13 (4.0m)	13 (4.0m)
42" (1050mm)	23 (7.0m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	11 (3.4m)
48" (1200mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)
60" (1500mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE,
UNIT WEIGHT OF SOIL (Ys) = 120 PCF

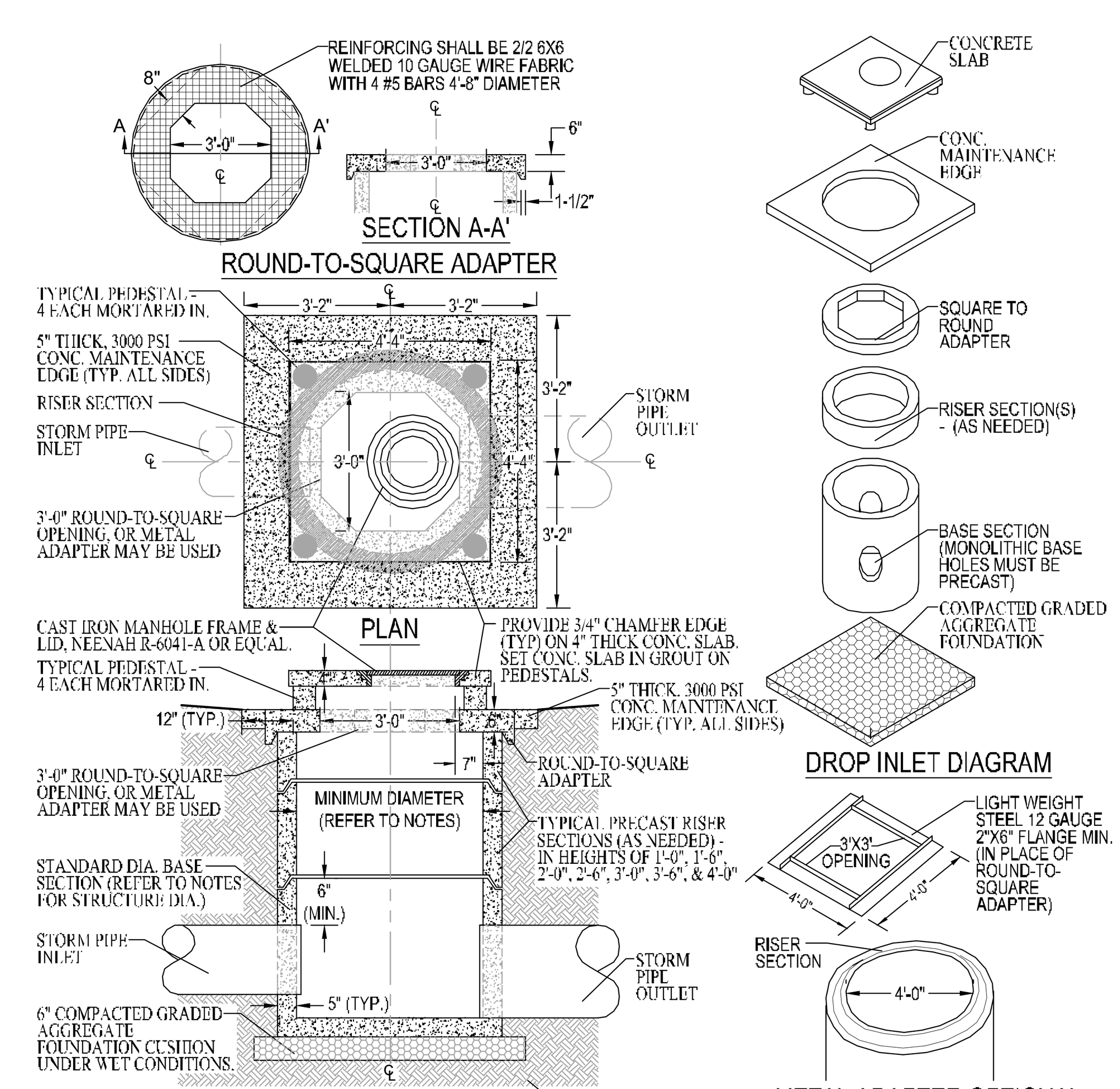
NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

6	INITIAL BACKFILL	JAB	04/02/20	
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

NOTE: ALL DIMENSIONS ARE ± 1/2 FOOT.

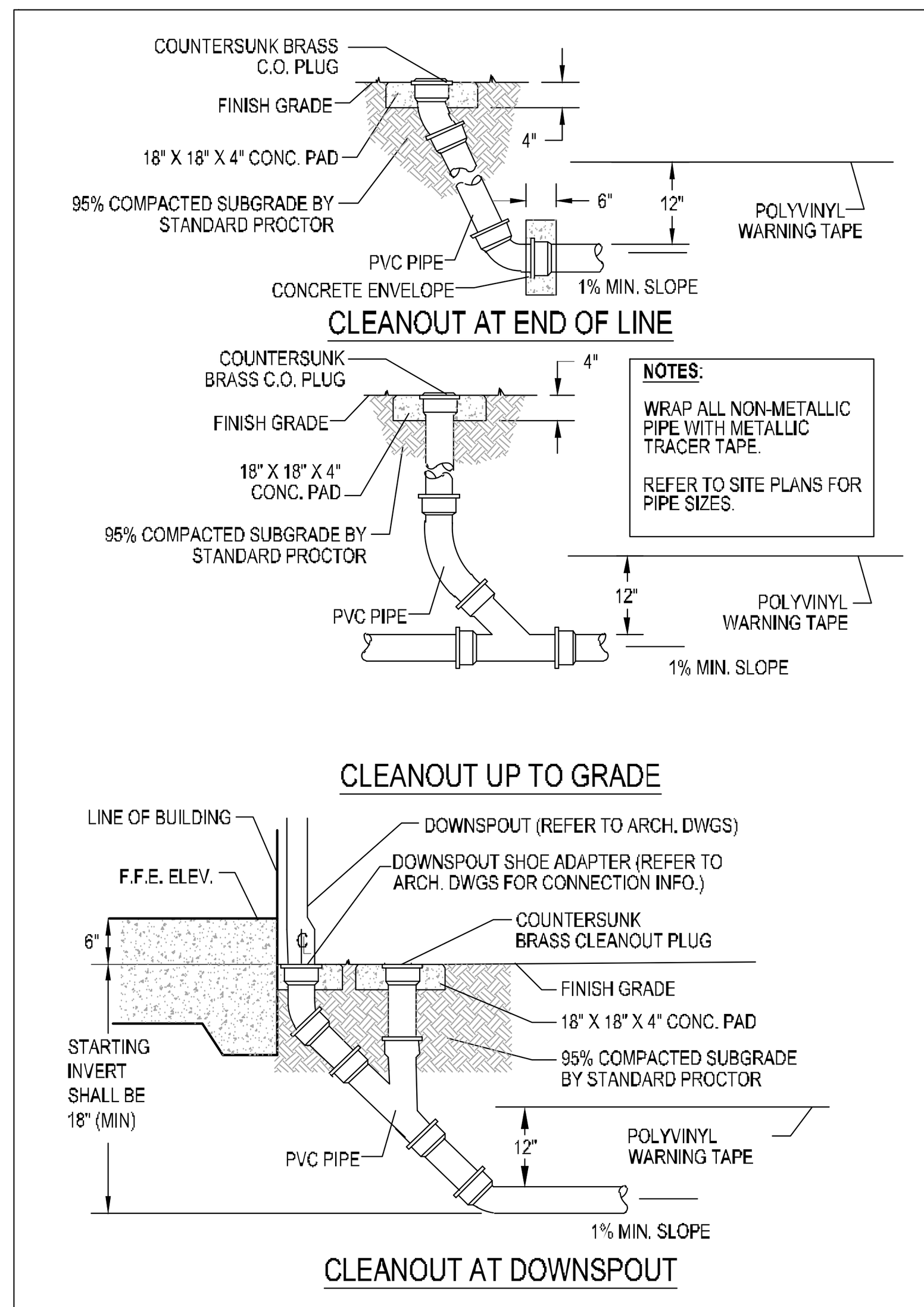
DIA. DET/RET SYSTEM
TRENCH INSTALLATION DETAIL (N-12 PER AASHTO)
DRAWING NUMBER: STD-101
ADS 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
TJR 12/29/16 NTS 1 OF 1



NOTES:

1. CONTRACTOR HAS THE OPTION OF USING PRECAST, BRICK, OR POURED-IN-PLACE STORM STRUCTURES.
2. ALL PRECAST CONCRETE SHALL BE 4000 PSI.
3. SUBGRADE SHALL BE COMPACTED TO 98% MAX. DRY DENSITY PER STANDARD PROCTOR.
4. REINFORCEMENT STEEL SHALL BE PLACED TO ALLOW A MIN. OF 1 1/2" COVER, EXCEPT WHERE NOTED.
5. REINFORCEMENT STEEL SHALL BE OF INTERMEDIATE GRADE & SHALL CONSIST OF NO. 4 @ 6" O.C. E.W.
6. WHEN 60" & 72" BASE SECTIONS ARE REQUIRED, AN ADAPTER SECTION SHALL BE USED IN CONJUNCTION WITH THE STANDARD CONE.
7. ALL JOINTS BETWEEN PRECAST BASE, RISERS, AND ROUND-TO-SQUARE ADAPTERS SHALL BE KEYED. ALL JOINTS SHALL BE GROUTED INSIDE AND OUTSIDE.
8. STORM MANHOLE STRUCTURES THAT JOIN REINFORCED CONCRETE PIPE SHALL HAVE A BRICK OR CONCRETE COLLAR WALL.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE DIAMETER OF THE STRUCTURES WITH THE SIZE AND/OR NUMBER OF PIPE PENETRATIONS IN THE STRUCTURE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR STRUCTURES LOCATED ON PIPE LARGER THAN 72" IN DIAMETER.
10. CONTRACTOR SHALL PROVIDE DRAINAGE STRUCTURE STEPS (CAST IRON) ON STRUCTURES DEEPER THAN 4'-0".
11. CAST IRON DRAINAGE STRUCTURE STEPS SHALL BE NEENAH R-1980-J OR EQUAL.
12. STEPS TO BE PLACED ON VACANT WALL WHEN POSSIBLE.
13. MANHOLE RING SHALL BE OFFSET TOWARD WALL WITH STEPS AND CENTERED ON CENTERLINE OF STEPS
14. STAGGER STEPS 2" EACH WAY FROM CENTERLINE OF MANHOLE RING.
15. TOP STEP SHALL BE 24" BELOW TOP OF 4" CONCRETE SLAB.
16. STEP SPACING SHALL BE 16", BOTTOM STEP SHALL BE NO HIGHER THAN 16" FROM INVERT.

PRECAST DROP INLET (D.I.) - PEDESTAL TOP
N.T.S.



DOWNSPOUT/RAINLEADER CLEANOUT
N.T.S.

GEORGIA 811 www.Georgia811.com
Contact 811 before you dig

Utilities/Services shown are for Contractors' convenience. Items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbance (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and/or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

georgia civil
CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal
GEORGIA REGISTERED NO. PE034684 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

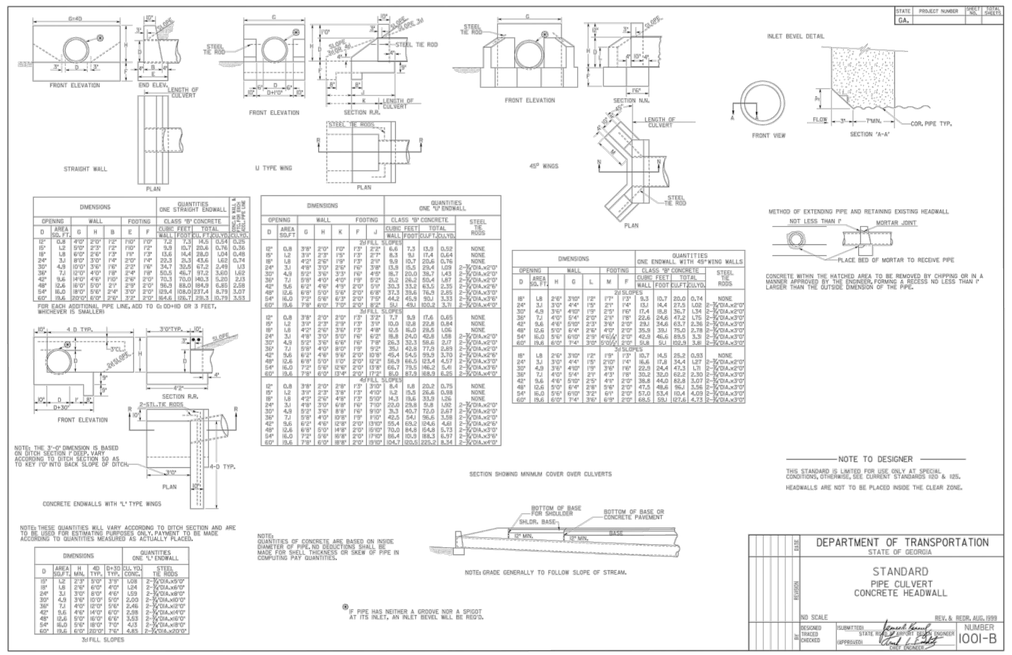
DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title
STORMWATER MANAGEMENT DETAILS

Sheet Number
C-4.3



DIMENSIONS							QUANTITIES ONE STRAIGHT ENDWALL							
OPENING		WALL		FOOTING			CLASS "B" CONCRETE							STEEL TIE RODS
D	AREA SQ.FT.	G	H	K	F	J	CUBIC FEET WALL	CUBIC FEET FOOT	CUBIC FEET TOTAL	CU.YDS.	WEIGHT			
15"	0.8	4'-0"	2'-0"	1'-2"	1'-0"	2'-0"	7.2	7.3	14.5	0.54	0.35			NONE
15"	1.2	5'-0"	2'-3"	1'-5"	1'-2"	2'-6"	9.5	10.7	20.6	0.76	0.36			NONE
18"	1.8	6'-0"	2'-6"	1'-8"	1'-3"	2'-9"	13.6	16.4	29.0	1.24	0.45			NONE
24"	3.1	8'-0"	3'-0"	1'-8"	2'-0"	3'-0"	20.5	31.3	51.8	1.92	0.74			NONE
30"	4.9	9'-0"	3'-6"	2'-0"	2'-0"	3'-6"	28.3	43.6	71.9	2.66	0.91			NONE
36"	7.1	10'-0"	4'-0"	2'-0"	2'-6"	4'-0"	36.5	61.7	98.2	3.63	1.02			NONE
42"	9.6	11'-0"	4'-6"	2'-0"	2'-6"	4'-6"	44.8	70.0	114.8	4.25	2.23			NONE
48"	12.6	12'-0"	5'-0"	2'-0"	2'-6"	5'-0"	53.3	78.3	131.6	4.87	2.53			NONE
54"	16.0	13'-0"	5'-6"	2'-6"	3'-0"	5'-6"	61.8	108.0	169.8	6.29	3.07			NONE
60"	19.6	14'-0"	6'-0"	2'-6"	3'-0"	6'-0"	70.4	119.1	189.5	7.02	3.73			NONE

FOR EACH ADDITIONAL PIPE LINE, ADD TO CL-D-HI-D OR 3 FEET, WHICHEVER IS SMALLER.

DIMENSIONS							QUANTITIES ONE "L" ENDWALL							
OPENING		WALL		FOOTING			CLASS "B" CONCRETE							STEEL TIE RODS
D	AREA SQ.FT.	G	H	K	F	J	CUBIC FEET WALL	CUBIC FEET FOOT	CUBIC FEET TOTAL	CU.YDS.	WEIGHT			
15"	0.8	3'-9"	2'-0"	1'-0"	1'-5"	2'-0"	6.6	7.3	13.9	0.52	NONE			
15"	1.2	5'-0"	2'-3"	1'-5"	1'-2"	2'-6"	8.3	9.1	17.4	0.64	NONE			
18"	1.8	6'-0"	2'-6"	1'-5"	1'-5"	2'-9"	9.9	10.7	20.6	0.76	NONE			
24"	3.1	8'-0"	3'-0"	1'-5"	2'-0"	3'-0"	15.3	20.0	35.3	1.31	NONE			
30"	4.9	9'-0"	3'-6"	1'-5"	2'-0"	3'-6"	19.3	23.2	42.5	1.57	NONE			
36"	7.1	10'-0"	4'-0"	1'-5"	2'-6"	4'-0"	23.2	33.4	56.6	2.10	NONE			
42"	9.6	11'-0"	4'-6"	1'-5"	2'-6"	4'-6"	27.0	37.3	64.3	2.38	NONE			
48"	12.6	12'-0"	5'-0"	1'-5"	2'-6"	5'-0"	30.9	41.2	72.1	2.67	NONE			
54"	16.0	13'-0"	5'-6"	1'-5"	3'-0"	5'-6"	34.7	49.1	83.8	3.10	NONE			
60"	19.6	14'-0"	6'-0"	1'-5"	3'-0"	6'-0"	38.5	53.0	91.5	3.39	NONE			

DIMENSIONS							QUANTITIES ONE ENDWALL WITH 45° WING WALLS							
OPENING		WALL		FOOTING			CLASS "B" CONCRETE							STEEL TIE RODS
D	AREA SQ.FT.	H	G	L	M	F	CUBIC FEET FOOT	CUBIC FEET TOTAL	CU.YDS.	WEIGHT				
#2 SLOPES														
18"	1.8	2'-6"	3'-10"	1'-2"	1'-7"	1'-0"	15.3	20.0	0.74	NONE				
24"	3.1	3'-0"	4'-4"	1'-5"	2'-1"	1'-6"	18.1	27.5	1.02	2-#3 DIA.x0'-10"				
30"	4.9	3'-6"	4'-10"	1'-8"	2'-7"	2'-0"	20.9	36.7	1.36	2-#3 DIA.x0'-10"				
36"	7.1	4'-0"	5'-4"	2'-0"	2'-7"	2'-6"	22.6	47.2	1.75	2-#3 DIA.x0'-10"				
42"	9.6	4'-6"	5'-10"	2'-3"	2'-7"	2'-10"	23.1	54.6	1.96	2-#3 DIA.x0'-10"				
48"	12.6	5'-0"	6'-4"	2'-6"	2'-7"	3'-2"	25.9	63.7	2.36	2-#3 DIA.x0'-10"				
54"	16.0	5'-6"	6'-10"	2'-9"	2'-7"	3'-6"	28.8	73.1	2.71	2-#3 DIA.x0'-10"				
60"	19.6	6'-0"	7'-4"	3'-0"	2'-7"	3'-10"	31.6	84.0	3.11	2-#3 DIA.x0'-10"				
#3 SLOPES														
18"	1.8	2'-6"	3'-10"	1'-2"	1'-7"	1'-0"	15.7	24.5	0.83	NONE				
24"	3.1	3'-0"	4'-4"	1'-5"	2'-10"	1'-6"	16.6	37.8	1.27	2-#3 DIA.x0'-10"				
30"	4.9	3'-6"	4'-10"	1'-8"	3'-6"	2'-0"	22.5	54.4	1.73	2-#3 DIA.x0'-10"				
36"	7.1	4'-0"	5'-4"	2'-0"	4'-3"	2'-6"	33.2	82.0	2.30	2-#3 DIA.x0'-10"				
42"	9.6	4'-6"	5'-10"	2'-3"	4'-1"	2'-10"	38.8	93.8	3.07	2-#3 DIA.x0'-10"				
48"	12.6	5'-0"	6'-4"	2'-6"	4'-1"	3'-2"	47.5	118.6	3.56	2-#3 DIA.x0'-10"				
54"	16.0	5'-6"	6'-10"	2'-9"	4'-1"	3'-6"	57.0	151.4	4.23	2-#3 DIA.x0'-10"				
60"	19.6	6'-0"	7'-4"	3'-0"	3'-9"	3'-10"	66.5	191.7	4.73	2-#3 DIA.x0'-10"				

FOR EACH ADDITIONAL PIPE LINE, ADD TO CL-D-HI-D OR 3 FEET, WHICHEVER IS SMALLER.

NOTE: THE 3'-0" DIMENSION IS BASED ON DITCH SECTION 710(01), VARY ACCORDING TO DITCH SECTION TO AS TO KEEP 10' INTO BACK SLOPE OF DITCH.

NOTES: THESE QUANTITIES WILL VARY ACCORDING TO DITCH SECTION AND ARE TO BE USED FOR ESTIMATING PURPOSES ONLY. ALL PAY QUANTITIES WILL BE MADE ACCORDING TO QUANTITIES MEASURED AS ACTUALLY PLACED.

DIMENSIONS						QUANTITIES ONE "L" ENDWALL		
D	AREA SQ.FT.	L "A" MIN.	L "B" MIN.	H=3D MIN. TYP.	H=3D+1'-0" CONC. VOL.	STEEL TIE RODS		
15"	1.2	3'-0"	5'-0"	5'-0"	2.60	2-"C"DIA.x6'-0"		
18"	1.8	3'-0"	6'-0"	6'-0"	3.24	2-"C"DIA.x6'-0"		
24"	3.1	3'-0"	8'-0"	8'-0"	4.51	2-"C"DIA.x8'-0"		
30"	4.9	3'-0"	10'-0"	9'-0"	5.92	2-"C"DIA.x10'-0"		
36"	7.1	4'-0"	12'-0"	10'-0"	7.61	2-"C"DIA.x12'-0"		
42"	9.6	4'-0"	14'-0"	11'-0"	9.58	2-"C"DIA.x14'-0"		
48"	12.6	5'-0"	16'-0"	12'-0"	11.83	2-"C"DIA.x16'-0"		
54"	16.0	5'-0"	18'-0"	13'-0"	14.36	2-"C"DIA.x18'-0"		
60"	19.6	6'-0"	20'-0"	14'-0"	17.17	2-"C"DIA.x20'-0"		

3:1 FILL SLOPES

NOTES: QUANTITIES OF CONCRETE ARE BASED ON INSIDE DIMENSIONS OF PRECAST DESIGNS. NO DEDUCTION HAS BEEN MADE FOR SHELL THICKNESS OR SKEW OF PIPE IN COMPUTING PAY QUANTITIES.

* IF PIPE HAS NEITHER A GROOVE NOR A SPIGOT AT ITS INLET, AN INLET BEVEL WILL BE REQ'D.

NOTE TO DESIGNER

THIS STANDARD IS LIMITED FOR USE ONLY AT SPECIAL CONDITIONS, OTHERWISE, SEE CURRENT STANDARDS 1020 & 1025.

HEADWALLS ARE NOT TO BE PLACED INSIDE THE CLEAR ZONE.

STATE	PROJECT NUMBER	SHEET NO.	SHEETS
GA.			

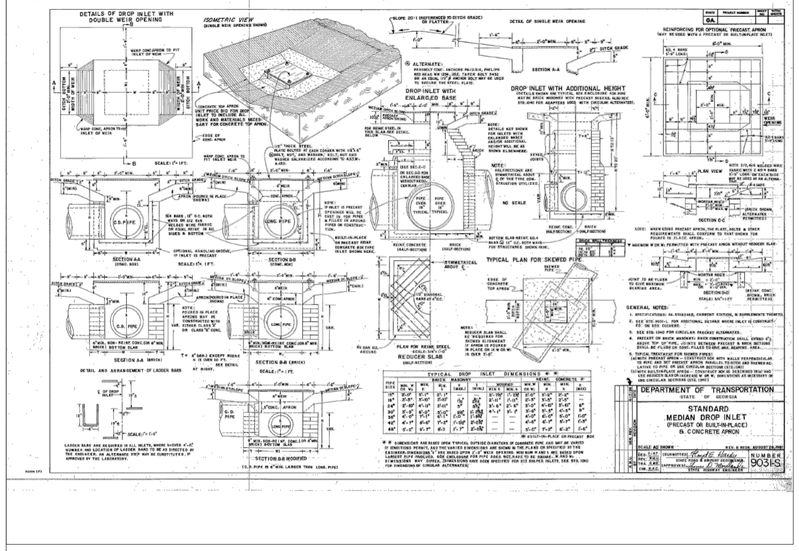
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
PIPE CULVERT
CONCRETE HEADWALL

NO SCALE — REV. & REDR. AUG. 1999

DESIGNED — SUBMITTED — STATE ROAD & TOLLWAY ENGINEER
DRAWN — APPROVED — DATE
CHECKED

NUMBER 1001-B



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899GOP	7001-110-212
SYKADUR®	MEETS H-20	1899GOS	7001-110-213
SOLID COVER	MEETS H-20	1899GSC	7001-110-214
DOME	N/A	1899GOD	7001-110-215
DROP IN GRATE	LIGHT DUTY	1801DI	7001-110-074

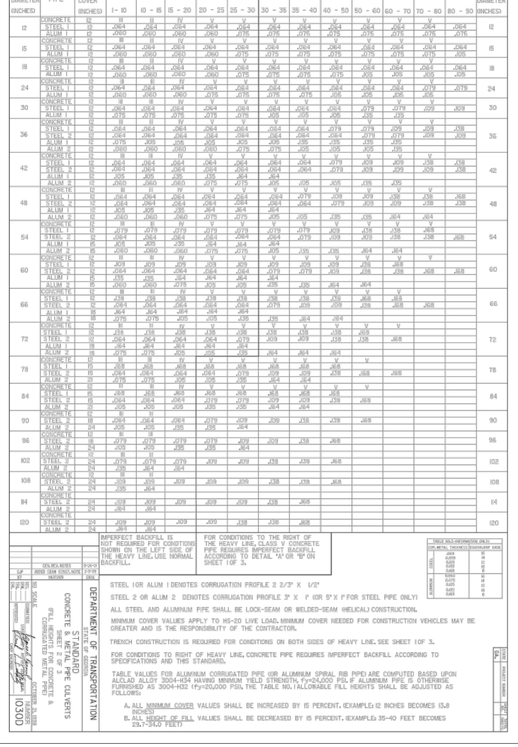
1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

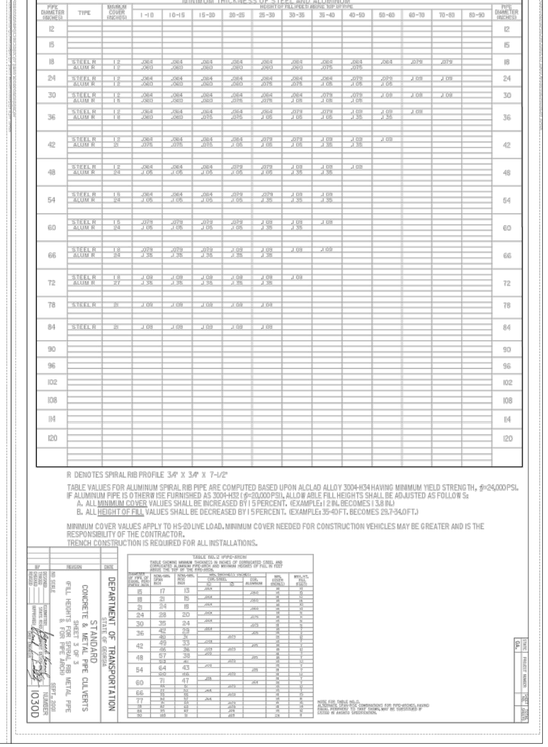
DRAWN BY	EBC	MATERIAL	
DATE	04-03-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-14-16		
DWG SIZE	A	SCALE 1:30	SHEET 1 OF 1

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-191 REV E





BRAVO SITE SET 10-24-2024

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CIVIL ENGINEERING
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P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com
Professional Seal
GEORGIA REGISTERED NO. PE024855 PROFESSIONAL ENGINEER JASON P. BROWN
Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title
STORMWATER MANAGEMENT DETAILS

Sheet Number
C-4.4

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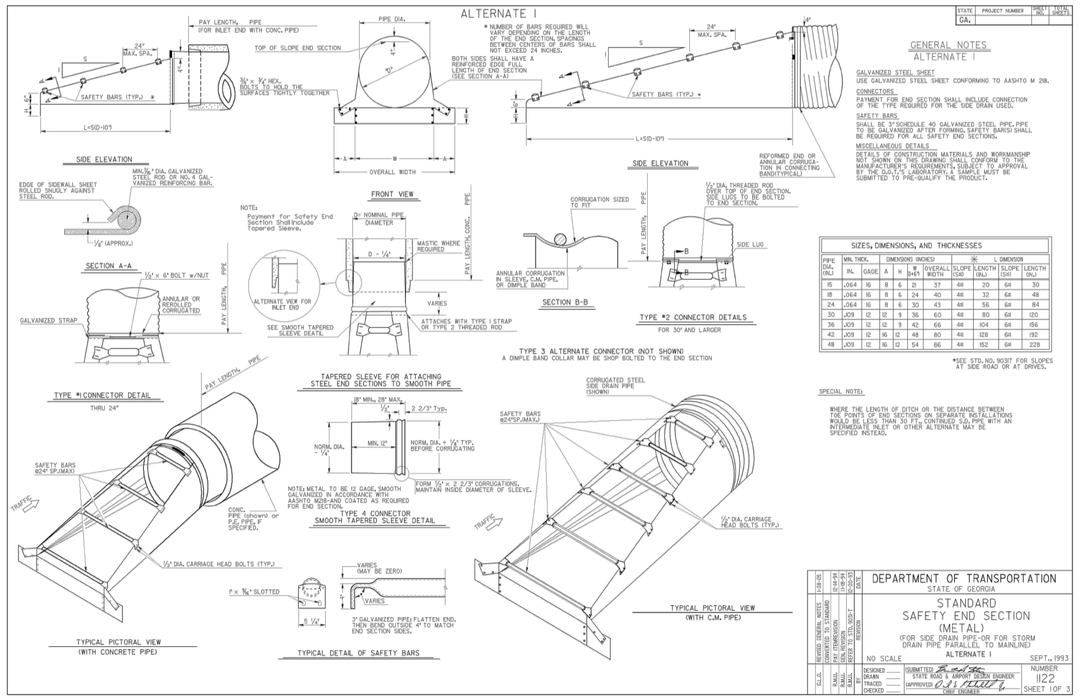


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

GENERAL NOTES
ALTERNATE I

GALVANIZED STEEL SHEET
USE GALVANIZED STEEL SHEET CONFORMING TO AASHTO M 28.

CONNECTORS
PAYMENT FOR END SECTION SHALL INCLUDE CONNECTION OF THE TYPE REQUIRED FOR THE SIDE DRAIN USED.

SAFETY BARS
SHALL BE 3"@SCHEDULE 40 GALVANIZED STEEL PIPE. PIPE TO BE GALVANIZED AFTER FORMING. SAFETY BARS) SHALL BE REQUIRED FOR ALL SAFETY END SECTIONS.

MISCELLANEOUS DETAILS
DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS, SUBJECT TO APPROVAL BY THE D.O.T.'S LABORATORY. A SAMPLE MUST BE SUBMITTED TO PRE-QUALIFY THE PRODUCT.

SIZES, DIMENSIONS, AND THICKNESSES

PIPE DIA. (IN.)	MIN. THICK.	GAGE	DIMENSIONS INCHES A	H	R	OVERALL WIDTH	SLOPE LENGTH (S&B)	BC (IN.)	L DIMENSION SLOPE LENGTH (S&I)	(IN.)
15	.064	16	8	6	21	37	48	20	64	30
18	.064	16	9	6	24	40	48	32	64	48
24	.064	16	8	6	30	43	48	56	64	84
30	.109	12	12	9	36	60	48	80	64	120
36	.109	12	12	9	42	66	48	104	64	156
42	.109	12	16	12	48	80	48	128	64	192
48	.109	12	16	12	54	86	48	152	64	228

*SEE STD. NO. 903ST FOR SLOPES AT SIDE ROAD OR AT DRIVES.

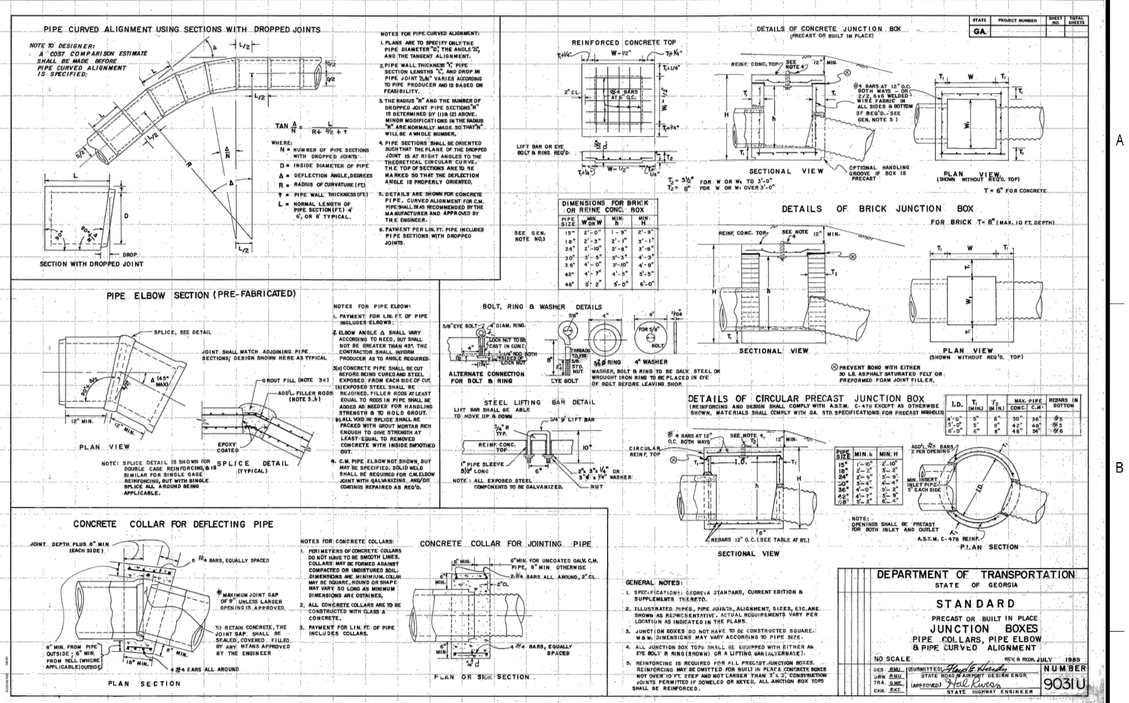
SPECIAL NOTE:
WHERE THE LENGTH OF DITCH OR THE DISTANCE BETWEEN TOE POINTS OF END SECTIONS ON SEPARATE INSTALLATIONS WOULD BE LESS THAN 30 FT., CONTINUOUS S.D. PIPE WITH AN INTERMEDIATE INLET OR OTHER ALTERNATE MAY BE SPECIFIED INSTEAD.

REVISED GENERAL NOTES	10-31-84
CONVERTED TO STANDARD	10-15-91
REVISED PIPE DIMENSIONS	10-15-91
REVISED TO 100% WOVEN	10-15-91
REVISED	10-15-91

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
STANDARD
SAFETY END SECTION
(METAL)
(FOR SIDE DRAIN PIPE-OR FOR STORM DRAIN PIPE PARALLEL TO MAINLINE)
ALTERNATE I
NO SCALE — SEPT., 1993

DESIGNED ____ SUBMITTED [signature] STATE ROAD & AIRPORT DESIGN ENGINEER
DRAWN ____
TRACED ____ APPROVED [signature] CHIEF ENGINEER
CHECKED ____

NUMBER 1122
SHEET 1 OF 3



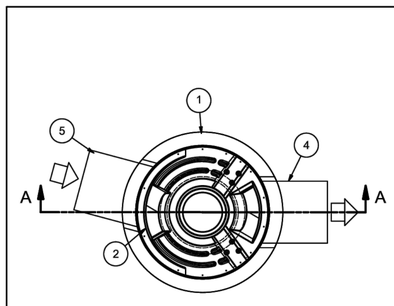
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

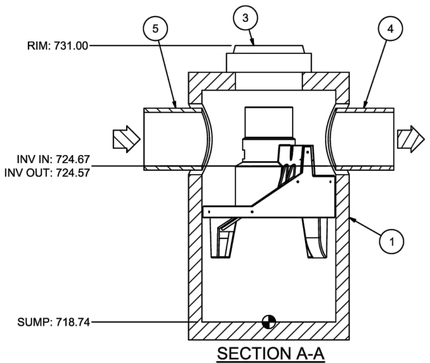
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
STANDARD
PRECAST OR BUILT IN PLACE
JUNCTION BOXES
& PIPE CURVED ALIGNMENT
NO SCALE — REV'S FROM JULY 1980

DES. ENG. ____ SUBMITTED [signature] STATE ROAD & AIRPORT DESIGN ENGR.
LAYN ENG. ____
TRA. ENG. ____ APPROVED [signature] STATE HIGHWAY ENGINEER
CHK. ENG. ____

NUMBER 9031U

BRAVO SITE SET 10-24-2024





SECTION A-A

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA, AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

PROJECTION

IF IN DOUBT ASK

DATE:	SCALE:
8/13/24	1:30
DRAWN BY: MHM	CHECKED BY: MRJ
APPROVED BY:	

Title:
5-ft DIAMETER
FIRST DEFENSE

C3
RL COUSINS COMMUNITY CTR

COVINGTON, GA

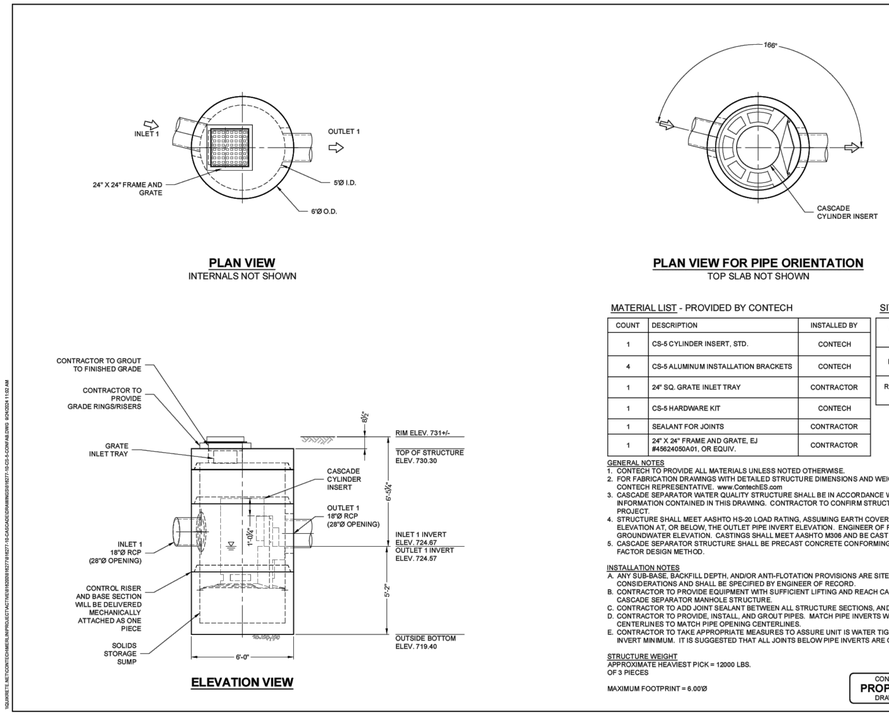
Hydro International
hydro-int.com
HYDRO INTERNATIONAL

WEIGHT:	MATERIAL:
STOCK NUMBER:	
DRAWING NO.: FD GA-5	
SHEET SIZE: B	SHEET: 1 OF 1
Rev: -	

PARTS LIST

ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	60		I.D. PRECAST MANHOLE
2	1			INTERNAL COMPONENTS (PRE-INSTALLED)
3	1	---		GDOT 9031S MEDIAN INLET
4	1	18		OUTLET PIPE (RCP)
5	1	18		INLET PIPE (HDPE)

SOUTHEAST CULVERT
PH: 770-868-5599



MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD.	CONTECH
4	CS-5 ALUMINUM INSTALLATION BRACKETS	CONTECH
1	24" SQ. GRATE INLET TRAY	CONTRACTOR
1	CS-5 HARDWARE KIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	24" X 24" FRAME AND GRATE, EJ #45624050A01, OR EQUIV.	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	2.25 CFS
PEAK FLOW RATE	13.6 CFS
RETURN PERIOD OF PEAK FLOW	100 YRS

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 12000 LBS.
OF 3 PIECES

MAXIMUM FOOTPRINT = 6.00'Ø

CONTECH PROPOSAL DRAWING

BARG LAYOUT 1A

MARK	DATE	REVISION DESCRIPTION	BY

CS-5 - 816277-10
RL COUSINS
COVINGTON, GA
SITE DESIGNATION: C3

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
800.338.1122 513.645.7000 513.645.7993 FAX
9025 Centre Pointe Drive, Suite 400, West Chester, OH 45069
CASCADE separator

DATE: 09/24/24

DESIGNED: JRS	DRAWN: JRS
CHECKED: JRS	APPROVED: JRS
PROJECT No.: 816277	SEQUENCE No.: 10
SHEET: 1 OF 1	

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

georgia civil
CIVIL ENGINEERING
LAND PLANNING
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311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal
GEORGIA REGISTERED NO. PE024814 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

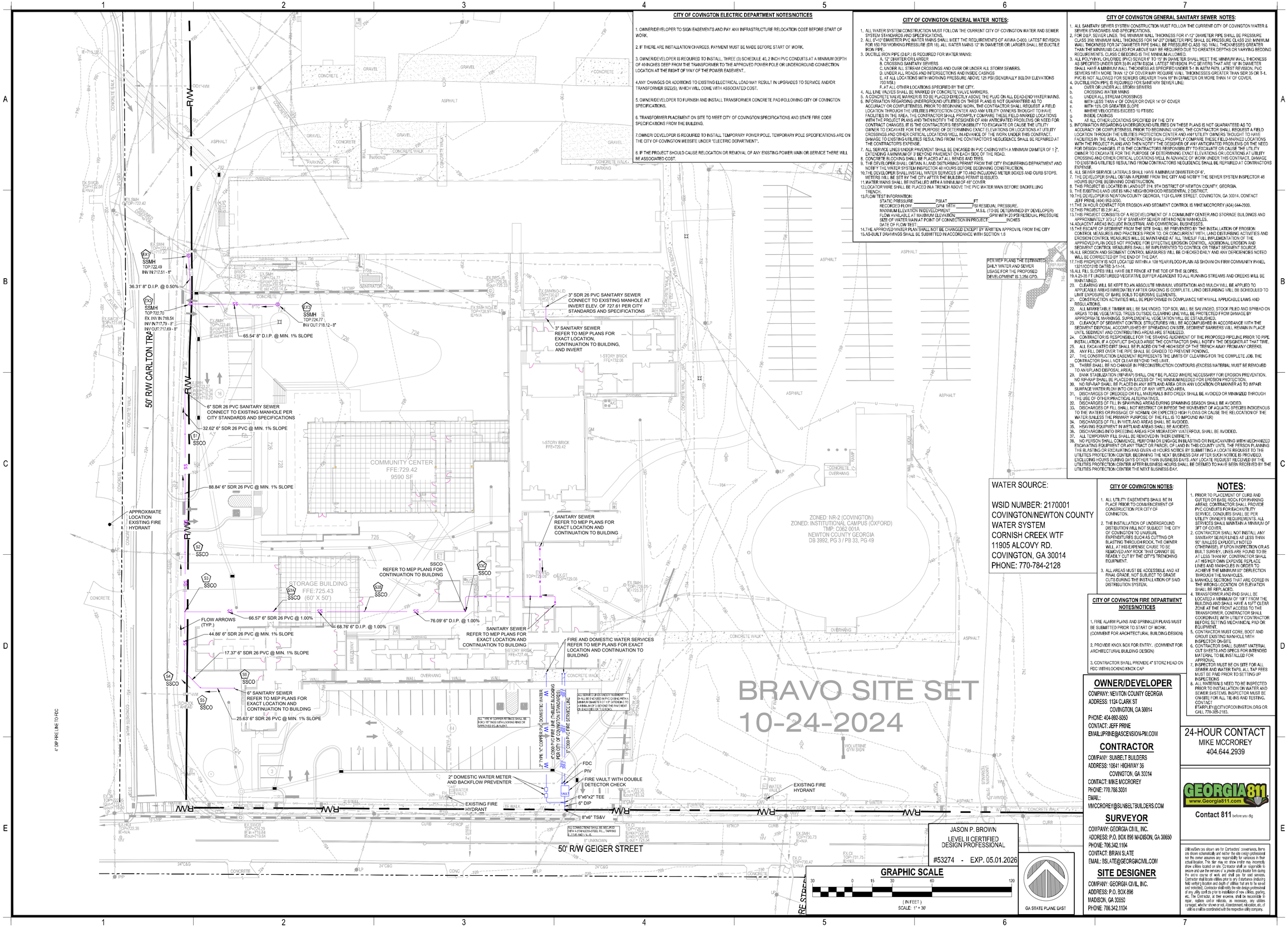
DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/29/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title
STORMWATER MANAGEMENT DETAILS

Sheet Number
C-4.5



CITY OF COVINGTON ELECTRIC DEPARTMENT NOTES/NOTICES

1. OWNER/DEVELOPER TO SIGN EASEMENTS AND PAY ANY INFRASTRUCTURE RELOCATION COST BEFORE START OF WORK.
2. IF THERE ARE INSTALLATION CHARGES, PAYMENT MUST BE MADE BEFORE START OF WORK.
3. OWNER/DEVELOPER IS REQUIRED TO INSTALL, THREE (3) SCHEDULE 40, 2 INCH PVC CONDUITS AT A MINIMUM DEPTH OF 49 INCHES DEEP FROM THE TRANSFORMER TO THE APPROVED POWER POLE OR UNDERGROUND CONNECTION LOCATION AT THE RIGHT OF WAY OF THE POWER EASEMENT..
4. ANY CHANGES OR ADDITIONS TO EXISTING ELECTRICAL LOAD MAY RESULT IN UPGRADES TO SERVICE AND/OR TRANSFORMER SIZE(S), WHICH WILL COME WITH ASSOCIATED COST.
5. OWNER/DEVELOPER TO FURNISH AND INSTALL TRANSFORMER CONCRETE PAD FOLLOWING CITY OF COVINGTON SPECIFICATIONS.
6. TRANSFORMER PLACEMENT ON SITE TO MEET CITY OF COVINGTON SPECIFICATIONS AND STATE FIRE CODE SPECIFICATIONS FROM THE BUILDING.
7. OWNER/ DEVELOPER IS REQUIRED TO INSTALL TEMPORARY POWER POLE. TEMPORARY POLE SPECIFICATIONS ARE ON THE CITY OF COVINGTON WEBSITE UNDER "ELECTRIC DEPARTMENT".
8. IF THE PROJECT SHOULD CAUSE RELOCATION OR REMOVAL OF ANY EXISTING POWER MAIN OR SERVICE THERE WILL BE ASSOCIATED COST.

CITY OF COVINGTON GENERAL WATER NOTES:

1. ALL WATER SYSTEM CONSTRUCTION MUST FOLLOW THE CURRENT CITY OF COVINGTON WATER AND SEWER SYSTEM STANDARDS AND SPECIFICATIONS.
2. ALL PVC DIAMETER PVC WATER MAINS SHALL MEET THE REQUIREMENTS OF AWWA C-900, LATEST REVISION FOR 150 PSI WORKING PRESSURE (DR 18). ALL WATER MAINS 12" IN DIAMETER OR LARGER SHALL BE DUCTILE IRON PIPE.
3. DUCTILE IRON PIPE (D.I.P.) IS REQUIRED FOR WATER MAINS:
   A. 12" DIAMETER OR LARGER
   B. CROSSING SANITARY SEWERS
   C. UNDER ALL STREAM CROSSINGS AND OVER OR UNDER ALL STORM SEWERS.
   D. UNDER ALL ROADS AND INTERSECTIONS AND INSIDE CASINGS
   E. AT ALL LOCATIONS WITH WORKING PRESSURE ABOVE 125 PSI (GENERALLY BELOW ELEVATIONS 700 MSL)
   F. AT ALL OTHER LOCATIONS SPECIFIED BY THE CITY.
4. ALL LINE VALVES SHALL BE MARKED BY CONCRETE VALVE MARKERS.
5. A CONCRETE VALVE MARKER IS TO BE PLACED DIRECTLY ABOVE THE PLUG ON ALL DEAD-END WATER MAINS.
6. INFORMATION REGARDING UNDERGROUND UTILITIES ON THESE PLANS IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL REQUEST A FIELD LOCATION THROUGH THE UTILITIES PROTECTION CENTER AND ANY UTILITY OWNERS THOUGHT TO HAVE FACILITIES IN THE AREA. THE CONTRACTOR SHALL PROMPTLY COMPARE THESE FIELD-MARKED LOCATIONS WITH THE PROJECT PLANS AND THEN NOTIFY THE DESIGNER OF ANY ANTICIPATED PROBLEMS OR NEED FOR CONTRACT CHANGES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE OR CAUSE THE UTILITY OWNER TO EXCAVATE FOR THE PURPOSE OF DETERMINING EXACT ELEVATIONS OR LOCATIONS AT UTILITY CROSSINGS AND OTHER CRITICAL LOCATIONS WELL IN ADVANCE OF THE WORK UNDER THIS CONTRACT. DAMAGE TO EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. ALL SERVICE LINES UNDER PAVEMENT SHALL BE ENCASED IN PVC CASING WITH A MINIMUM DIAMTER OF 1 ½", EXTENDING A MINIMUM OF 2' BEYOND PAVEMENT ON EACH SIDE OF THE ROAD.
8. CONCRETE BLOCKING SHALL BE PLACED AT ALL BENDS AND TEES.
9. THE DEVELOPER SHALL OBTAIN ALL AND DISTURBING PERMIT FROM THE CITY ENGINEERING DEPARTMENT AND NOTIFY THE WATER SYSTEM INSPECTOR 48 HOURS BEFORE BEGINNING CONSTRUCTION.
10. THE DEVELOPER SHALL INSTALL WATER SERVICES UP TO AND INCLUDING METER BOXES AND CURB STOPS. METERS WILL BE SET BY THE CITY AFTER THE BUILDING PERMIT IS ISSUED.
11. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 48" COVER
12. LOCATOR WIRE SHALL BE PLACED IN A TRENCH ABOVE THE PVC WATER MAIN BEFORE BACKFILLING TRENCH.
13. FLOW TEST INFORMATION:
    STATIC PRESSURE _____PSI AT _____FT
    RECORDED FLOW_____GPM WITH _____PSI RESIDUAL PRESSURE.
    MAXIMUM ELEVATION IN DEVELOPMENT _____M.S.L. (TO BE DETERMINED BY DEVELOPER)
    FLOW AVAILABLE AT MAXIMUM ELEVATION:_____GPM WITH 20 PSI RESIDUAL PRESSURE
    SIZE OF WATER MAIN AT POINT OF CONNECTION IN PROJECT:_____INCHES
    DATE OF FLOW TEST:
14. THE APPROVED WATER PLAN SHALL NOT BE CHANGED EXCEPT BY WRITTEN APPROVAL FROM THE CITY
15. AS-BUILT DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 1.8

CITY OF COVINGTON GENERAL SANITARY SEWER NOTES:

1. ALL SANITARY SEWER SYSTEM CONSTRUCTION MUST FOLLOW THE CURRENT CITY OF COVINGTON WATER & SEWER STANDARDS AND SPECIFICATIONS.
2. FOR D.I.P. SEWER LINES, THE MINIMUM WALL THICKNESS FOR 4"-12" DIAMETER PIPE SHALL BE PRESSURE CLASS 350 MINIMUM WALL THICKNESS FOR 14"-20" DIAMETER PIPE SHALL BE PRESSURE CLASS 250 MINIMUM WALL THICKNESS FOR 24" DIAMETER PIPE SHALL BE PRESSURE CLASS 150. WALL THICKNESSES GREATER THAN THE MINIMUMS CALLED FOR ABOVE MAY BE REQUIRED DUE TO GREATER DEPTHS OR VARYING BEDDING REQUIREMENTS. CLASS C BEDDING IS THE MINIMUM ALLOWED.
3. ALL POLYVINYL CHLORIDE (PVC) SEWER 6" TO 15" IN DIAMETER SHALL MEET THE MINIMUM WALL THICKNESS AS SPECIFIED UNDER SDR 35 IN ASTM D3034, LATEST REVISION. PVC SEWERS THAT ARE 18" IN DIAMETER SHALL HAVE A MINIMUM WALL THICKNESS AS SPECIFIED UNDER T-1 IN ASTM F679, LATEST REVISION. PVC SEWERS WITH MORE THAN 12' OF COVER MAY REQUIRE WALL THICKNESSES GREATER THAN SDR 35 OR T-1. PVC IS NOT ALLOWED FOR SEWERS GREATER THAN 18" IN DIAMETER OR MORE THAN 14' OF COVER.
4. DUCTILE IRON PIPE IS REQUIRED FOR SANITARY SEWER LINE:
   a. OVER OR UNDER ALL STORM SEWERS
   b. CROSSING WATER MAINS
   c. UNDER ALL STREAM CROSSINGS
   d. WITH LESS THAN 4' OF COVER OR OVER 14' OF COVER
   e. WITH 15% OR GREATER SLOPE
   f. WHERE VELOCITIES EXCEED 10 FT/SEC
   g. INSIDE CASINGS
   h. AT ALL OTHER LOCATIONS SPECIFIED BY THE CITY
5. INFORMATION REGARDING UNDERGROUND UTILITIES ON THESE PLANS IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL REQUEST A FIELD LOCATION THROUGH THE UTILITIES PROTECTION CENTER AND ANY UTILITY OWNERS THOUGHT TO HAVE FACILITIES IN THE AREA. THE CONTRACTOR SHALL PROMPTLY COMPARE THESE FIELD-MARKED LOCATIONS WITH THE PROJECT PLANS AND THEN NOTIFY THE DESIGNER OF ANY ANTICIPATED PROBLEMS OR THE NEED FOR DESIGN CHANGES. IT IS THE CONTRACTORS RESPONSIBILITY TO EXCAVATE OR CAUSE THE UTILITY OWNER TO EXCAVATE FOR THE PURPOSE OF DETERMINING EXACT ELEVATIONS OR LOCATIONS AT UTILITY CROSSING AND OTHER CRITICAL LOCATIONS WELL IN ADVANCE OF WORK UNDER THIS CONTRACT. DAMAGE TO EXISTING UTILITIES RESULTING FROM CONTRACTORS NEGLIGENCE SHALL BE REPAIRED AT CONTRACTORS EXPENSE.
6. ALL SEWER SERVICE LATERALS SHALL HAVE A MINIMUM DIAMETER OF 6".
7. THE DEVELOPER SHALL OBTAIN A PERMIT FROM THE CITY AND NOTIFY THE SEWER SYSTEM INSPECTOR 48 HOURS BEFORE BEGINNING CONSTRUCTION.
8. THIS PROJECT IS LOCATED IN LAND LOT 274, 9TH DISTRICT OF NEWTON COUNTY, GEORGIA.
9. THE EXISTING LAND USE IS NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT.
10. THE DEVELOPER IS NEWTON COUNTY GEORGIA, 1124 CLARK STREET, COVINGTON, GA 30014, CONTACT JEFF PRINE (404) 992-5050.
11. THE 24 HOUR CONTACT FOR EROSION AND SEDIMENT CONTROL IS MIKE MCCROREY (404) 644-2939.
12. THIS PROJECT IS 2.91 AC.
13. THIS PROJECT CONSISTS OF A REDEVELOPMENT OF A COMMUNITY CENTER AND STORAGE BUILDINGS AND APPROXIMATELY 373 LF OF 6" SANITARY SEWER WITH NO NEW MANHOLES.
14. ADJACENT AREAS INCLUDE INDUSTRIAL AND COMMERCIAL BUSINESSES.
15. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES AND 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 SEDIMENT SOURCE.
16. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND ANY DEFICIENCIES NOTED WILL BE CORRECTED BY THE END OF THE DAY.
17. THIS PROPERTY IS NOT LOCATED WITHIN A 100 YEAR FLOOD PLAIN AS SHOWN ON FIRM COMMUNITY PANEL 13217C0127D DATED 9-17-14.
18. ALL FILL SLOPES WILL HAVE SILT FENCE AT THE TOE OF THE SLOPES.
19. A 25-35 FT UNDISTURBED VEGITATIVE BUFFER ADJACENT TO ALL RUNNING STREAMS AND CREEKS WILL BE MAINTAINED.
20. CLEARING WILL BE KEPT TO AN ABSOLUTE MINIMUM. VEGETATION AND MULCH WILL BE APPLIED TO APPLICABLE AREAS IMMEDIATELY AFTER GRADING IS COMPLETE. LAND DISTURBING WILL BE SCHEDULED TO LIMIT EXPOSURE OF BARE SOILS TO EROSIVE ELEMENTS.
21. CONSTRUCTION ACTIVITIES WILL BE PERFORMED IN COMPLIANCE WITH VALL APPLICABLE LAWS AND REGULATIONS.
22. ALL MARKETABLE TIMBER WILL BE SALVAGED. TOP SOIL WILL BE SALVAGED, STOCK PILED AND SPREAD ON AREAS TO BE VEGETATED. TREES OUTSIDE CLEARING LINE WILL BE PROTECTED FROM DAMAGE BY APPROPRIATE MARKINGS. SUPPLEMENTAL VEGETATION WILL BE ESTABLISHED.
23. CLEANOUT OF SEDIMENT CONTROL STRUCTURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE SEDIMENT DISPOSAL ACCOMPLISHED BY SPREADING ON SITE. SEDIMENT BARRIERS WILL REMAIN IN PLACE UNTIL SEDIMENT AND CONTRIBUTING AREAS ARE STABILIZED.
24. CONTRACTOR IS RESPONSIBLE FOR THE STAKING ALIGNMENT OF THE PROPOSED PIPELINE PRIOR TO PIPE INSTALLATION. IF A CONFLICT SHOULD ARISE THE CONTRACTOR SHALL NOTIFY THE DESIGNER AT THAT TIME.
25. ALL EXCAVATED DIRT SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH AWAY FROM ANY CREEKS.
26. ANY FILL DIRT OVER THE PIPE SHALL BE GRADED TO PREVENT PONDING.
27. THE CONSTRUCTION EASEMENT REPRESENTS THE LIMITS OF CLEARING FOR THE COMPLETE JOB. THE CONTRACTOR SHALL NOT CLEAR BEYOND THIS LIMIT.
28. THERE SHALL BE NO CHANGE IN PRECONSTRUCTION CONTOURS (EXCESS MATERIAL MUST BE REMOVED TO AN UPLAND DISPOSAL AREA).
29. BANK STABILIZATION (RIP-RAP) SHALL ONLY BE PLACED WHERE NECESSARY FOR EROSION PREVENTION. NO RIP-RAP SHALL BE PLACED IN EXCESS OF THE MINIMUM NEEDED FOR EROSION PROTECTION.
30. NO RIP-RAP SHALL BE PLACED IN ANY WETLAND AREA OR IN ANY LOCATION OR MANNER AS TO IMPAIR SURFACE WATER FLOW INTO OR OUT OF ANY WETLAND AREA.
31. DISCHARGES OF DREDGED OR FILL MATERIALS INTO CREEK SHALL BE AVOIDED OR MINIMIZED THROUGH THE USE OF OTHER PRACTICAL ALTERNATIVES.
32. DISCHARGES OF FILL IN SPAWNING AREAS DURING SPAWNING SEASON SHALL BE AVOIDED.
33. DISCHARGES OF FILL SHALL NOT RESTRICT OR IMPEDE THE MOVEMENT OF AQUATIC SPECIES INDIGENOUS TO THE WATERS OR PASSAGE OF NORMAL OR EXPECTED HIGH FLOWS OR CAUSE THE RELOCATION OF THE WATER (UNLESS THE PRIMARY PURPOSE OF THE FILL IS TO IMPOUND WATER)
34. DISCHARGES OF FILL IN WETLAND AREAS SHALL BE AVOIDED.
35. HEAVING EQUIPMENT IN WETLAND AREAS SHALL BE AVOIDED.
36. DISCHARGING INTO BREEDING AREAS FOR MIGRATORY WATERFOUL SHALL BE AVOIDED.
37. ALL TEMPORARY FILL SHALL BE REMOVED IN THEIR ENTIRETY.
38. NO PERSON SHALL COMMENCE, PERFORM OR ENGAGE IN BLASTING OR IN EXCAVATING WITH MECHANIZED EXCAVATING EQUIPMENT ON ANY TRACT OR PARCEL OF LAND IN THIS COUNTY UNTIL THE PERSON PLANNING THE BLASTING OR EXCAVATING HAS GIVEN 48 HOURS NOTICE BY SUBMITTING A LOCATE REQUEST TO THE UTILITIES PROTECTION CENTER, BEGINNING THE NEXT BUSINESS DAY AFTER SUCH NOTICE IS PROVIDED, EXCLUDING HOURS DURING DAYS OTHER THAN BUSINESS DAYS. ANY LOCATE REQUEST RECEIVED BY THE UTILITIES PROTECTION CENTER AFTER BUSINESS HOURS SHALL BE DEEMED TO HAVE BEEN RECEIVED BY THE UTILITIES PROTECTION CENTER THE NEXT BUSINESS DAY.

CITY OF COVINGTON NOTES:

1. ALL UTILITY EASEMENTS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION PER CITY OF COVINGTON.
2. THE INSTALLATION OF UNDERGROUND DISTRIBUTION WILL NOT SUBJECT THE CITY OF COVINGTON TO UNUSUAL EXPENDITURES SUCH AS CUTTING OR BLASTING THROUGH ROCK. THE OWNER WILL, AT HIS EXPENSE CAUSE TO BE REMOVED ANY ROCK THAT CANNOT BE READILY CUT BY THE CITY'S TRENCHING EQUIPMENT.
3. ALL AREAS MUST BE ACCESSIBLE AND AT FINAL GRADE, NOT SUBJECT TO GRADE CUTS DURING THE INSTALLATION OF SAID DISTRIBUTION SYSTEM.

CITY OF COVINGTON FIRE DEPARTMENT NOTES/NOTICES

1. FIRE ALARM PLANS AND SPRINKLER PLANS MUST BE SUBMITTED PRIOR TO START OF WORK. (COMMENT FOR ARCHITECTURAL BUILDING DESIGN)
2. PROVIDE KNOX BOX FOR ENTRY. (COMMENT FOR ARCHITECTURAL BUILDING DESIGN)
3. CONTRACTOR SHALL PROVIDE 4" STORZ HEAD ON FDC WITH LOCKING KNOX CAP

NOTES:

1. PRIOR TO PLACEMENT OF CURB AND GUTTER OR BASE ROCK FOR PARKING AREAS, CONTRACTOR SHALL PROVIDE PVC CONDUITS FOR EACH UTILITY SERVICE. CONDUITS SHALL BE PER UTILITY OWNER'S REQUIREMENTS. ALL SERVICES SHALL MAINTAIN A MINIMUM OF 3FT OF COVER.
2. CONTRACTOR SHALL NOT INSTALL ANY SANITARY SEWER LINES AT LESS THAN 90° (UNLESS EXPLICITLY NOTED OTHERWISE). IF UPON INSPECTION OR AS BUILT SURVEY, LINES ARE FOUND TO BE AT LESS THAN 90°, CONTRACTOR SHALL AT HIS PER OWN EXPENSE REPLACE LINES AND MANHOLES IN ORDER TO ACHIEVE THE MINIMUM 90° DEFLECTION THROUGH THE MANHOLES.
3. MANHOLE SECTIONS THAT ARE CORED IN THE WRONG LOCATION OR ELEVATION SHALL BE REPLACED.
4. TRANSFORMER AND PAD SHALL BE LOCATED A MINIMUM OF 10FT FROM THE BUILDING AND SHALL HAVE A 10FT CLEAR ZONE AT THE FRONT ACCESS TO THE TRANSFORMER. CONTRACTOR SHALL COORDINATE WITH UTILITY CONTRACTOR BEFORE SETTING MECHANICAL PAD OR EQUIPMENT.
5. CONTRACTOR MUST CORE, BOOT AND GROUT EXISTING MANHOLE WITH INSPECTOR ON-SITE
6. CONTRACTOR SHALL SUBMIT MATERIAL CUT SHEETS AND SPECS FOR INTENDED MATERIAL TO BE INSTALLED FOR APPROVAL.
7. INSPECTOR MUST BE ON SITE FOR ALL SEWER AND WATER TAPS. ALL TAP FEES MUST BE PAID PRIOR TO SETTING UP INSPECTIONS
8. ALL MATERIALS NEED TO BE INSPECTED PRIOR TO INSTALLATION ON WATER AND SEWER SYSTEMS. INSPECTOR MUST BE ON-SITE FOR ALL TIE-INS AND TESTING. CONTACT ETARPLEY@CITYOFCOVINGTON.ORG OR CALL 770-385-2183.

OWNER/DEVELOPER

COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR

COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER

COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

GEORGIA811 www.Georgia811.com
Contact 811 before you dig

Utilities/Services shown are for Contractors' convenience, items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. The star may no show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbances (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc., of utilities shall be coordinated with the respective utility company.

georgia civil
CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE024855 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER

8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

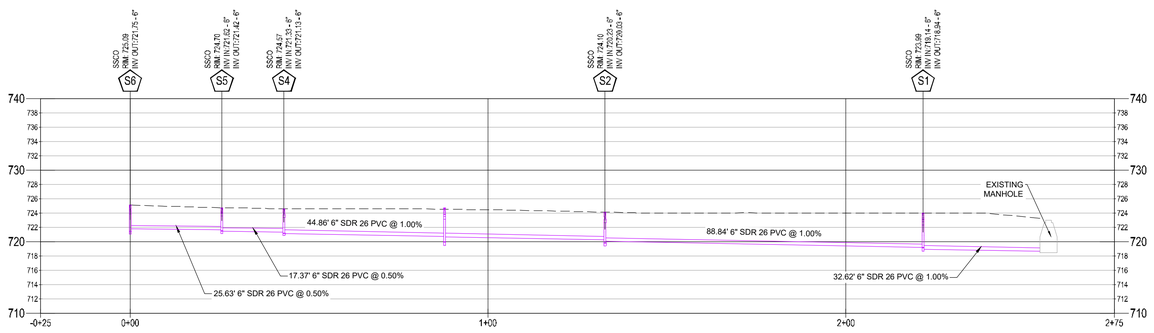
UTILITY PLAN

Sheet Number

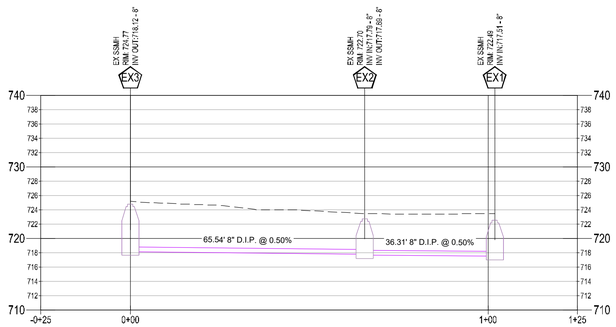
C-5.0

BRAVO SITE SET 10-24-2024

SANITARY A PROFILE
STA. -0+25 TO STA. 2+75



SANITARY B PROFILE
STA. -0+25 TO STA. 1+25



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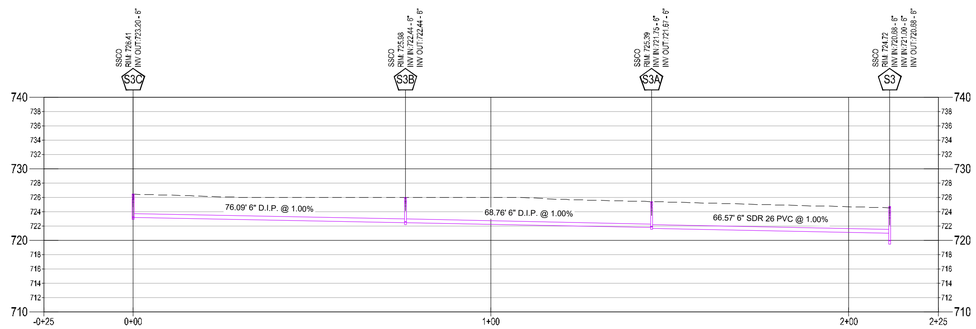

LEGEND

EG ----------

FG ——————

SANITARY SEWER PROFILES
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-892-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

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COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
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CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED
DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

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georgia civil
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311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
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www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE024653 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

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Sheet Title

SANITARY SEWER PROFILES

Sheet Number

C-5.1

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50 FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25 FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

NPDES PERMIT PART IV.

(I). EXCEPT AS PROVIDED IN PART IV (III), BELOW, NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, EXCEPT WHERE THE DIRECTOR HAS DETERMINED TO ALLOW A VARIANCE THAT IS AT LEAST AS PROTECTIVE OF NATURAL RESOURCES AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED, OR ALONG ANY EPHEMERAL STREAM, OR WHERE BULKHEADS AND SEWALLS MUST BE CONSTRUCTED TO PREVENT THE EROSION OF THE SHORELINE ON LAKE OCONEE AND LAKE SINCLAIR. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING ACTIVITIES PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED:

1. PUBLIC DRINKING WATER SYSTEM RESERVOIRS
2. STREAM CROSSINGS FOR WATER LINES AND SEWER LINES, PROVIDED THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER;
3. STREAM CROSSINGS FRO ANY UTILITY LINES OF ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION, ANY UTILITY UNDER THE REGULATORY JURISDICTION OF TH FEDERAL ENERGY REGULATORY COMMISSION, ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTRUMENTALITY OF THE UNITED STATES ENGAGED IN THE GENERATION, TRANSMISSION, OR DISTRIBUTION OF POWER, PROVIDED THAT: (A) THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, (B) NATIVE RAPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (C) THE ENTITY IS NO A SECONDARY PERMITTEE FOR A PROJECT WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PREMIT.
4. BUFFER CROSSINGS FOR FENCES, PROVIDED THAT THE CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE AREAS WITHIN THE BUFFER;
5. STREAM CROSSINGS FOR AERIAL UTILITY LINES, PROVIDED THAT (A) THE NEW UTILITY LINE RIGHT-OF-WAY WIDTH DOES NOT EXCEED 100 LINEAR FEET, (B) UTILITY LINES ARE ROUTED AND CONSTRUCTED SO AS TO MINIMIZE THE NUMBER OF STREAM CROSSINGS AND DISTURBANCE TO THE BUFFER, (C) ONLY TREES AND TREE DEBRIS ARE REMOVED FROM WITHIN THE BUFFER RESULTING IN ONLY MINOR SOIL EROSION (I.E. DISTURBANCE OF UNDERLYING VEGETATION IS MINIMIZED), AND (D) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER. THE PLAN SHALL INCLUDE A DESCRIPTION OF THE STREAM CROSSINGS WITH DETAILS OF THE BUFFER DISTURBANCE INCLUDING AREA AND LENGTH OF BUFFER DISTURBANCE, ESTIMATED LENGTH OF TIME OF BUFFER DISTURBANCE, AND JUSTIFICATION.
6. RIGHT-OF-WAY POSTS, GUY WIRES, ANCHORS, SURVEY MARKERS, AND THE REPLACEMENT OR MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY UNDERTAKEN OR FINANCE IN WHOLE OR IN PART BY THE DEPARTMENT OF TRANSPORTATION, THE GEORGIA HIGHWAY AUTHORITY OR STATE ROAD AND TOLLWAY AUTHORITY OR UNDERTAKEN BY ANY COUNTY MUNICIPALITY, PROVIDED THAT (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE AREAS OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT;
7. RIGHT-OF-WAY POSTS, GUY-WIRES, ANCHORS, SURVEY MARKERS, AND THE REPLACEMENT OR MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY BY ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION, ANY UTILITY UNDER THE REGULATORY JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION , ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTUMENTALITY OF THE UNITED STATED ENGAGED IN THE GENERATION, TRANSMISSION OR DISTRIBUTION OF POWER, PROVIDED THAT (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT; AND
8. MAINTENANCE (EXCLUDING DREDGING), REPAIR AND/OR UPGRADE OF SOIL AND WATER CONSERVATION DISTRICT WATERSHED DAMS WHEN UNDER THE TECHNICAL SUPERVISION OF USDA NATURAL RESOURCES CONSERVATION SERVICE.

(II). NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS "TROUT STREAMS" EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WIT THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED; PROVIDED, HOWEVER, THAT SMALL SPRINGS AND STREAMS CLASSIFIED AS "TROUT STEAMS" WHICH DISCHARGE AN AVERAGE ANNUAL FLOW OF 25 GALLONS PER MINUTE OR LESS SHALL HAVE A 25 FOOT BUFFER OR THEY MAY BE PIPED, AT THE DISCRETION OF THE PERMITTEE, PURSUANT TO THE TERMS OF A RULE PROVIDING FOR A GENERAL VARIANCE PROMULGATED BY THE BOARD OF NATURAL RESOURCES INCLUDING NOTIFICATION OF SUCH TO EPD AND THE LOCAL ISSUING AUTHORITY OF THE LOCATION AND EXTENT OF PIPING AND PRESCRIBED METHODOLOGY FOR MINIMIZING THE IMPACT OF SUCH PIPING AND FOR MEASURING THE VOLUME OF WATER DISCHARGED BY THE STREAM. ANY SUCH PIPE MUST STOP SHORT OF THE DOWNSTREAM PERMITTEE'S PROPERTY, AND THE PERMITTEE MUST COMPLY WITH THE BUFFER REQUIREMENT FOR ANY ADJACENT TROUT STREAMS. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING ACTIVITIES PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED:

1. PUBLIC DRINKING WATER SYSTEM RESERVOIRS
2. STREAM CROSSINGS FOR WATER LINES AND SEWER LINES, PROVIDED THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER;
3. STREAM CROSSINGS FRO ANY UTILITY LINES OF ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION, ANY UTILITY UNDER THE REGULATORY JURISDICTION OF TH FEDERAL ENERGY REGULATORY COMMISSION, ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTRUMENTALITY OF THE UNITED STATES ENGAGED IN THE GENERATION, TRANSMISSION, OR DISTRIBUTION OF POWER, PROVIDED THAT: (A) THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, (B) NATIVE RAPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (C) THE ENTITY IS NO A SECONDARY PERMITTEE FOR A PROJECT WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PREMIT.
4. BUFFER CROSSINGS FOR FENCES, PROVIDED THAT THE CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE AREAS WITHIN THE BUFFER;
5. STREAM CROSSINGS FOR AERIAL UTILITY LINES, PROVIDED THAT (A) THE NEW UTILITY LINE RIGHT-OF-WAY WIDTH DOES NOT EXCEED 100 LINEAR FEET, (B) UTILITY LINES ARE ROUTED AND CONSTRUCTED SO AS TO MINIMIZE THE NUMBER OF STREAM CROSSINGS AND DISTURBANCE TO THE BUFFER, (C) ONLY TREES AND TREE DEBRIS ARE REMOVED FROM WITHIN THE BUFFER RESULTING IN ONLY MINOR SOIL EROSION (I.E. DISTURBANCE OF UNDERLYING VEGETATION IS MINIMIZED), AND (D) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER. THE PLAN SHALL INCLUDE A DESCRIPTION OF THE STREAM CROSSINGS WITH DETAILS OF THE BUFFER DISTURBANCE INCLUDING AREA AND LENGTH OF BUFFER DISTURBANCE, ESTIMATED LENGTH OF TIME OF BUFFER DISTURBANCE, AND JUSTIFICATION.
6. RIGHT-OF-WAY POSTS, GUY WIRES, ANCHORS, SURVEY MARKERS, AND THE REPLACEMENT OR MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY UNDERTAKEN OR FINANCE IN WHOLE OR IN PART BY THE DEPARTMENT OF TRANSPORTATION, THE GEORGIA HIGHWAY AUTHORITY OR STATE ROAD AND TOLLWAY AUTHORITY OR UNDERTAKEN BY ANY COUNTY MUNICIPALITY, PROVIDED THAT (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE AREAS OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT;
7. RIGHT-OF-WAY POSTS, GUY-WIRES, ANCHORS, SURVEY MARKERS, AND THE REPLACEMENT OR MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY BY ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION, ANY UTILITY UNDER THE REGULATORY JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION , ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTUMENTALITY OF THE UNITED STATED ENGAGED IN THE GENERATION, TRANSMISSION OR DISTRIBUTION OF POWER, PROVIDED THAT (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT; AND
8. MAINTENANCE (EXCLUDING DREDGING), REPAIR AND/OR UPGRADE OF SOIL AND WATER CONSERVATION DISTRICT WATERSHED DAMS WHEN UNDER THE TECHNICAL SUPERVISION OF USDA NATURAL RESOURCES CONSERVATION SERVICE.

(III). EXCEPT AS PROVIDED IN PART IV (IV) BELOW, NO CONSTRUCTION ACTIVITY SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER ALONG COASTAL MARSHLANDS, AS MEASURED HORIZONTALLY FROM THE COASTAL MARSHLAND-UPLAND INTERFACE, AS DETERMINED IN ACCORDANCE WITH PART 4 OF ARTICLE 4 OF CHAPTER 5 OF TITLE 12, THE COASTAL MARSHLANDS PROTECTION ACT OF 1970, AND THE RULES AND REGULATIONS PROMULGATED THEREUNDER, EXCEPT WHERE THE DIRECTOR DETERMINES TO ALLOW A VARIANCE THAT IS AT LEAST AS PROTECTIVE OF NATURAL RESOURCES AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE OTHERWISE ALLOWED BY THE DIRECTOR PURSUANT TO CODE SECTION 12-2-8, OR WHERE AN ALTERATION WITHIN THE BUFFER AREA HAS BEEN AUTHORIZED PURSUANT TO CODE SECTION 12-5-286, OR FOR MAINTENANCE OF ANY CURRENTLY SERVICEABLE STRUCTURE, LANDSCAPING, OR HARDSCAPING, INCLUDING BRIDGES, ROADS, PARKING LOTS, GOLF COURSES, GOLF CART PATHS, RETAINING WALLS, BULKHEADS, AND PATIOS, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND SUCH MEASURES ARE FULLY IMPLEMENTED, OR WHERE A DRAINAGE STRUCTURE OR ROADWAY STRUCTURE IS CONSTRUCTED OR MAINTAINED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND SUCH MEASURES ARE FULLY IMPLEMENTED, OR ON THE LANDWARD SIDE OF ANY CURRENTLY SERVICEABLE SHORELINE STABILIZATION STRUCTURE, OR FOR THE MAINTENANCE OF ANY MANMADE STORMWATER DETENTION BASIN, GOLF COURSE POND, OR IMPOUNDMENT THAT IS LOCATED ENTIRELY WITHIN THE PROPERTY OF A SINGLE INDIVIDUAL, PARTNERSHIP, OR CORPORATION, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND SUCH MEASURES ARE FULLY IMPLEMENTED. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING ACTIVITIES PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED:

1. PUBLIC DRINKING WATER SYSTEM RESERVOIRS
2. CROSSINGS FOR UTILITY LINES THAT CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER
3. ANY LAND DISTURBING ACTIVITY CONDUCTED PURSUANT TO AND IN COMPLIANCE WITH A VALID AND EFFECTIVE LAND-DISTURBING PERMIT ISSUED SUBSEQUENT TO APRIL 22, 2014 AND PRIOR TO DECEMBER 31,2015.
4. ANY LOT FOR WHICH THE PRELIMINARY PLAT HAS BEEN APPROVED PRIOR TO DECEMBER 31, 2015 IF ROADWAYS, BRIDGES, OR WATER AND SEWER LINES HAVE BEEN EXTENDED TO SUCH LOT PRIOR TO THE EFFECTIVE DATE OF THIS ACT AND IF THE REQUIREMENT TO MAINTAIN A 25 FOOT BUFFER WOULD CONSUME AT LEAST 18 PERCENT OF THE HIGH GROUND OF THE PLATTED LOT OTHERWISE AVAILABLE FOR DEVELOPMENT.
5. BUFFER CROSSINGS FOR FENCES, PROVIDED THAT THE CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE AREAS WITHIN THE BUFFER;
6. CROSSINGS FOR AERIAL UTILITY LINES, PROVIDED THAT (A) THE NEW UTILITY LINE RIGHT-OF-WAY WIDTH DOES NOT EXCEED 100 LINEAR FEET, (B) UTILITY LINES ARE ROUTED AND CONSTRUCTED SO AS TO MINIMIZE THE NUMBER OF STREAM CROSSINGS AND DISTURBANCE TO THE BUFFER, (C) ONLY TREES AND TREE DEBRIS ARE REMOVED FROM WITHIN THE BUFFER RESULTING IN ONLY MINOR SOIL EROSION (I.E. DISTURBANCE OF UNDERLYING VEGETATION IS MINIMIZED), AND (D) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER. THE PLAN SHALL INCLUDE A DESCRIPTION OF THE STREAM CROSSINGS WITH DETAILS OF THE BUFFER DISTURBANCE INCLUDING AREA AND LENGTH OF BUFFER DISTURBANCE, ESTIMATED LENGTH OF TIME OF BUFFER DISTURBANCE, AND JUSTIFICATION.
7. RIGHT-OF-WAY POSTS, GUY WIRES, ANCHORS, SURVEY MARKERS, AND THE REPLACEMENT OR MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY UNDERTAKEN OR FINANCE IN WHOLE OR IN PART BY THE DEPARTMENT OF TRANSPORTATION, THE GEORGIA HIGHWAY AUTHORITY OR STATE ROAD AND TOLLWAY AUTHORITY OR UNDERTAKEN BY ANY COUNTY MUNICIPALITY, PROVIDED THAT (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE AREAS OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT;
8. RIGHT-OF-WAY POSTS, GUY-WIRES, ANCHORS, SURVEY MARKERS, AND THE REPLACEMENT OR MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY BY ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION, ANY UTILITY UNDER THE REGULATORY JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION , ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTUMENTALITY OF THE UNITED STATED ENGAGED IN THE GENERATION, TRANSMISSION OR DISTRIBUTION OF POWER, PROVIDED THAT (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT; AND
9. MAINTENANCE (EXCLUDING DREDGING), REPAIR AND/OR UPGRADE OF SOIL AND WATER CONSERVATION DISTRICT WATERSHED DAMS WHEN UNDER THE TECHNICAL SUPERVISION OF USDA NATURAL RESOURCES CONSERVATION SERVICE.

(IV). EXCEPT AS PROVIDED ABOVE, FOR BUFFERS REQUIRED PURSUANT TO PART IV.(I). AND (II) AND (III), NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A BUFFER AND A BUFFER SHALL REMAIN IN ITS NATURAL, UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND-DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED. DURING COVERAGE UNDER THIS PERMIT, A BUFFER CANNOT BE THINNED OR TRIMMED OF VEGETATION AND A PROTECTIVE VEGETATIVE COVER MUST REMAIN TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY MUST BE LEFT IN SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED OR MARSH.

EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN CERTIFICATION:

I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of Best Management Practices (BMP's) 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 storm water 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. GAR 100001.

Signed: [signature] Date: 04.05.24

Georgia Civil Inc.
JASON P. BROWN
Level II Certified Design Professional # 52374 EXP. 5-1-2026

I, JASON P. BROWN , 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 direct supervision.

Signed: [signature] Date: 04.05.24
SIGNATURE OF PLAN PREPARER AND DATE

"The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit. *

Signed: [signature] Date: 04.05.24
SIGNATURE OF PLAN PREPARER AND DATE

NOTE: CONTRACTOR SHALL PROVIDE A PHYSICAL BARRIER SUCH AS PLASTIC SHEETING OR TEMPORARY ROOFS ON ALL BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTE, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND ANY SUCH OTHER MATERIALS IN ORDER TO REDUCE EXPOSURE TO PRECIPITATION AND STORMWATER.

GSWCC EROSION CONTROL NOTES:

1. Any 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.
2. Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit.
3. 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.
4. 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.
5. Any disturbance left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.

ADDITIONAL EROSION CONTROL NOTES:

1. Maximum cut slopes are 3:1, 3 horizontal to 1 vertical, unless otherwise noted.
2. Maximum fill slopes are 3:1, 3 horizontal to 1 vertical, unless otherwise noted.
3. All buffers, tree save areas, and/or limits of disturbance shall be clearly marked in the field by the contractor by flagging or fencing and signage, prior to commencement of any land disturbance activities or clearing/grubbing activities. Buffers, tree save areas, and areas beyond limits of disturbance are to be left undisturbed in their natural state.
4. Contractor shall not disturb underground utilities while installing Erosion, Sedimentation and Pollution Control Practices. Contractor shall have all utilities field located before proceeding with any work.
5. Contractor shall notify design professional 48 hours before beginning each phase of construction.
6. Contractor shall notify CITY OF COVINGTON inspectors 24 hours before beginning each phase of construction.
7. Construction debris and/or waste shall not be buried or burned on site. All construction debris and/or waste shall be taken to a state approved landfill.
8. All buffers and tree save areas shall be clearly identified by flagging and/or fencing prior to commencement of any land disturbance activities.
9. The installation of erosion and sedimentation control measures and practices shall occur prior to or concurrent with land disturbing activities and construction on the site and shall be maintained until permanent ground cover is established to 90%.
10. All initial phase Erosion, Sedimentation and Pollution Control best management practices shall be installed prior to any grading.
11. All Erosion, Sedimentation and Pollution Control best management practices shall be inspected and repaired of damage daily. Any accumulated silt shall be removed and spread on site and controlled with temporary mulching and/or grassing.
12. Erosion, Sedimentation, and Pollution Control best management practices shall be maintained at all times. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OR AS REQUIRED BY ENGINEER OR LOCAL JURISDICTION INSPECTOR.
13. Maintenance of all soil erosion and sedimentation control measures and practices whether temporary or permanent shall be the responsibility of the contractor.
14. Any discrepancy within these plans shall be referred to the design professional by the contractor for clarification before proceeding with work.
15. Sediment storage maintenance indicators must be installed in sediment storage structures, indicating the 1/3 full volume.
16. Contractor shall provide temporary diversion berms and down drains on fill slopes to prevent erosion prior to stabilization.
17. Contractor shall remove accumulated sediment from detention basin at end of construction when all disturbed areas have been fully stabilized.

REVISIONS SHOWN ON ES&PC PLAN:

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.

INTENDED LAND DISTURBANCE CONSTRUCTION ACTIVITY SEQUENCE:

Initial Phase:
1. Preconstruction meeting with CITY OF COVINGTON
2. Perform initial monitoring
3. Install construction exit
4. Install initial silt fence (perimeter silt fence locations first)
5. Provide any needed initial mulching, grassing or other ground cover
6. Install topsoil location silt fence
7. Begin clearing, grubbing, topsoiling, and grading operations & install construction road Install appropriate vegetative and structural BMP's (inlet / outlet protection, flocculants / coagulants, mulching / grassing, etc.)
8. Install wheel wash and fuel storage location (if necessary)
9. Coordinate Site Review Meeting with Engineer and/or Local Issuing Authority

Intermediate Phase:
1. Install storm pipe systems with protected inlets (Sd2's)
2. Throughout land disturbance process, maintain existing BMP's (Vegetative and Structural Practices)
3. Throughout land disturbance process, continue NPDES monitoring and reporting
4. Coordinate with utility companies on utility/sleeve locations
5. Begin remaining clearing, grubbing, topsoiling, and grading operations
6. Install topsoil pile at stockpile location and immediately grass/mulch and install any remaining topsoil location silt fence
7. Perform remaining grading (adjust storm risers with grade change(s) and adjust all affected Sd2's)
8. As areas are brought to finish grade, grass and blanket any areas that are finish grade or that will be left bare for 7 days
9. Adjust storm risers with grade change(s) and adjust all Sd2's
10. Each fill slope shall have a diversion at the top that is maintained and reinstalled as the slope is constructed
11. Continue flocculant / coagulant applications and continue every 7 days throughout project
12. Install remaining storm system(s) as grades are achieved
13. Immediately install each storm structure with associated Sd2's and add floc logs to each storm structure
14. Grass / mulch / flocculent / coagulant disturbed areas and install intermediate BMPs
15. Install utilities (water and septic/sewer)
16. 16. Grass / mulch / flocculent / coagulant disturbed areas and install intermediate BMPs
17. Install GAB throughout roadway up to designated line
18. Grass / mulch / flocculent / coagulant disturbed areas and install intermediate BMPs
19. Install curb & gutter
20. Grass / mulch / flocculent / coagulant disturbed areas and install intermediate BMPs
21. Install pavement
22. Finish grade shoulders and stabilize disturbed areas with permanent vegetation
23. Continue to apply flocculent / coagulant applications, mulching, and grassing at each step to limit soil exposure

Final Phase:
1. Throughout land disturbance process, maintain existing BMP's (vegetative and structural practices)
2. Throughout land disturbance process, continue NPDES monitoring and reporting
3. Complete paving operations
4. Achieve Final Site Stabilization
5. Coordinate Site Review Meeting with Engineer and/or Local Issuing Authority Inspector
6. Clean silt from all storm systems (distribute onsite and stabilize)
7. Remove any temporary BMP practices once site stabilization is achieved and signed off by Engineer
8. Coordinate Site Review Meeting with Engineer for final site approval

CONCRETE WASHOUT:

Contractor shall install a concrete washdown. This area is only for the washdown of items such as tools, concrete mixer chutes, hoppers and the rear of the vehicles. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

WASTE DISPOSAL, SANITARY SEWER, SEPTIC TANK REGULATIONS (ES&PC PLAN COMPLIANCE):

Construction Debris shall be recycled to the extent deemed practical by Owner/Contractor. All waste generated from the development of this site,including but not limited to, solid waste, liquid waste, chemical waste, construction waste, sanitary sewer discharge, septic tank and septic systems waste, shall be collected and disposed of in a manner that follows all local, state, and federal laws and regulations for collection and disposal of each type of waste. All required signage, notification, documentation, and training of personnel on correct handling of waste shall be done in a manner that follows all local, state, and federal laws and regulations. Owner/Contractor is responsible for obtaining the services (and facilities) of a licensed Waste Management Company in the state of Georgia to adequately and safely handle waste collection and disposal. Solid materials, including building materials, shall not be discharged to waters of the State, except as authorized by a Section 404 permit.

BMP'S FOR PETROLEUM SPILLS AND LEAKS:

1. Fix any leaks immediately, maintain and clean equipment regularly
2. Designate areas for equipment maintenance and fueling that are located on level ground and away from any water sources.
3. Park and service equipment on top of tarps to insure any spills or leaks do not get into the ground.
4. Store all fluids and containers in a leak-proof, locked container to insure safe storage.
5. Collect and remove all leftover lubricants, containers, and trash, especially tires, batteries, pieces or parts of equipment, and all fluid containers.
6. Maintain a spill-containment and clean up kit. At a minimum, a kit for petroleum products should include:
   a. A leak proof container to catch leaking fluid.
   b. A shovel, rake, and other hand tools to create dirt berms.
   c. Absorbent pads, adsorbent substances such as cat litter or oil drying agents, that will absorb fluids before soaking into ground.
   d. Various hoses, plugs, and clamps to control a hydraulic line break. A variety of locking "vise grips" pliers can be used in emergency.
   e. Large plastic bags to store any contaminated materials for disposal.
7. Temporary fueling areas shall be installed and operated in compliance with Georgia E.P.D. regulations.

CONSTRUCTION MATERIALS:

Contractor shall at all times have all construction materials protected from rainfall. Contractor shall utilize tarps, plastic sheeting, roof cover, trailers or any other method to make sure all construction material is covered at all times during construction.

EROSION CONTROL MEASURES TO CONTROL POLLUTANTS IN STORM WATER POST CONSTRUCTION:

***NOTE THE PERMITTEE IS ONLY RESPOSIBLE FOR INSTALLATION AND MAINTENANCE OF STORMWATER MANAGEMENT DEVISES PRIOR TO FINAL STABILIZATION OF THE SITE AND NOT THE OPERATION AND MAINTENANCE OF SUCH STRUCTURES AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.**

1. RIP RAP OUTFALL/CHANNEL PROTECTION: Shall be inspected and maintained prior to final stabilization. Any dislodged stones and/or other repairs deemed necessary shall be completed according to conditions set forth in GAR100001 permit.

2. WATER QUALITY BASIN: Water quality basin shall be inspected and cleaned out according to Georgia Stormwater Management Manual's recommendations to ensure required water quality guidelines are met.

NATURE OF CONSTRUCTION ACTIVITY:

PROJECT LOCATION:	C062-001A
PROJECT ADDRESS:	8134 GEIGER ST. NW COVINGTON, GA 30014
PROJECT TYPE:	BUILDING ADDITION
IMPROVEMENTS TO BE MADE:	A COMMUNITY CENTER, STORAGE BUILDING, ASSOCIATED DRIVES, PARKING, STORM INFRASTRUCTURE, AND UTILITIES
SITE ACREAGE:	27.40 ACRES
DISTURBED ACREAGE:	2.91 AC
STATE WATERS ON SITE:	NO
EPD BUFFER ENCROACH. PERMIT REQ'D	NO
STATE AND LOCAL BUFFERS ADHERED TO:	YES
WETLANDS OR WATERS OF US ON SITE:	NO
RECEIVING WATERS:	TRIBUTARY OF YELLOW RIVER

ESTIMATE OF RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW PRE AND POST DEVELOPMENT CONDITIONS:

PRE C: 0.88
POST C: 0.86
PRE FLOW: 29.2 CFS
POST FLOW: 28.5 CFS

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. GAR100001 for authorization to discharge under the National Pollutant Discharge Elimination System (NPDES), Stormwater Discharges Associated with Construction Activity for Stand Alone Construction Projects. Daily, weekly and monthly inspections as required by Permit No. GAR100001 shall be performed by certified personnel provided by the Contractor. Sampling requirements as required by Permit No. GAR100001 shall be performed by certified personnel provided by the Contractor.

Contractor shall make sure construction is in accordance with regulations of the NPDES Permit No. GAR100001. This includes but is not limited to:

*Site stabilization practices	*Vegetative and structural erosion control practices
*BMP maintenance and inspections	*Pollution prevention plan and practices
*Spill control practices	*Material management practices for spill prevention plans
*Waste control practices	*Wetland and state water protection practices
*Monitoring plans and practices	*Reporting practices

POLLUTION REDUCTION PRACTICES FOR STORM WATER DISCHARGES:

STABILIZATION (VEGETATIVE) MEASURES:

ALL STABILIZATION (VEGETATIVE) MEASURES SHALL BE IMPLEMENTED AS STATED IN THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA (LATEST EDITION).

(Bf) Buffer Zone - A strip of undisturbed, original vegetation; enhanced or restored existing vegetation; or re-establishment of vegetation surrounding disturbed areas or bordering streams, ponds, wetlands, lakes, or coastal water to provide a buffer zone for one or more of the following purposes: reduce storm runoff velocities, act as visual screen, reduce construction noise, improve aesthetics on disturbed land, filtering and infiltrating runoff, cooling rivers/streams by creating shade, provide food and cover for wildlife, flood protection, or protect channel banks from scour and erosion.

(Ds1) Disturbed Area Stabilization (with Mulching Only)- Applying plant residues or other suitable materials, produced on site if possible, to the soil surface in order to reduce runoff, conserve moisture, prevent surface compaction or crusting, control undesirable vegetation, modify soil temperature, or increase biological activity in the soil. This practice is applicable where stabilizing disturbed/denuded areas is not practical utilizing seeding or planting.

(Ds2) Disturbed Area Stabilization (with Temporary Seeding)- Establishing temporary vegetative cover with fast growing seedlings for seasonal protection on disturbed/denuded areas in order to reduce runoff and sediment damage of downstream resources, protect the soil surface from erosion, improve wildlife habitat, improve aesthetics, improve tilth, infiltration and aeration as well as organic matter for permanent plantings. This practice is applicable for up to six months or until permanent vegetative cover can be installed. It should be coordinated with permanent measures to assure economical and effective stabilization.

(Ds3) Disturbed Area Stabilization (with Permanent Vegetation)- Planting of perennial vegetation such as trees, shrubs, vines, or legumes on exposed areas for final permanent stabilization in order to protect the soil surface from erosion, reduce damage from sediment and runoff to downstream areas, improve wildlife habitat and visual resources, and improve aesthetics. It will apply on cut and fill slopes, earth spillways, borrow areas, spoil areas and severely eroded or gullied lands.

(Ds4) Disturbed Area Stabilization (with Sodding)- Establishing an immediate and permanent vegetative cover using sods in order to reduce runoff and erosion, improve aesthetics and land value, reduce dust and sediments, stabilize waterways and critical areas, filter sediments, nutrients, reduce downstream complaints, reduce likelihood of legal action, reduce likelihood of work stoppage due to legal action, and increase "good neighbor" benefits.

(Du) Dust Control on Disturbed Areas- Controlling surface and air movement of dust on construction sites, roads, and demolition sites in order to prevent surface and air movement of dust from exposed soil surfaces, reduce the presence of airborne substances which may be harmful or injurious to human health, welfare, or safety, or to animals or plant life. Methods and materials which can be used include mulches, vegetative cover, spray-on adhesives, mechanical manipulation of existing soil surfaces, irrigation, barriers, chemicals, and stone surface covers.

(Fl-Co) Flocculants and Coagulants- Formulated to assist in the solid/liquid separation of suspended particles (which are characteristically very small) in solution. The suspended stability of such particles (colloidal complex) is due to both their small size and the electrical charge between particles.

(Sb) Streambank Stabilization (Using Permanent Vegetation)- Using native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems in order to lessen the impact of rain directly on the soil, trap sediment from adjacent land, form a root mat to stabilize and reinforce the soil on the streambank, provide wildlife habitat, enhance stream appearance, and lower summertime water temps.

(Ss) Slope Stabilization- A protective covering used to prevent erosion and establish vegetation on steep slopes, shore lines, or channels in order to stabilize the soil and act as a rain drop impact dissipater while providing a microclimate which protects young vegetation and promotes its establishment.

(Tac) Tackifiers- Substances used to anchor soil, compost, seed, straw, hay or mulch by causing organic material to bind together and discourage it from drifting downslope. Tackifiers also conserve moisture; prevent surface compaction, increase soil infiltration, soil fertility, enhanced seed germination, increased soil cohesion, enhanced soil stabilization, reduced stormwater runoff turbidity and reduction in loss of topsoil.

STRUCTURAL PRACTICES:

ALL STRUCTURAL PRACTICES SHALL BE IMPLEMENTED AS STATED IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (LATEST EDITION).

(Cd) Check Dam- A small temporary barrier, grade control structure, or dam constructed across a swale or drainage ditch which drains five (5) acres or less (not to be used in a live stream) in order to reduce erosion by slowing the velocity of concentrated storm water flows.

(Ch) Channel Stabilization- Improving, constructing or stabilizing an open channel for water conveyance. Open channels are to be non-erosive, with no sediment deposition and able to provide adequate capacity for flood water, drainage, other water management practices, or any combination thereof.

(Co) Construction Exit- A stone stabilized pad located where traffic leaves a construction site to a public right-of-way, street, alley, sidewalk, parking, etc. (i.e. bare soil to paved area) in order to reduce/eliminate depositing construction area mud onto public rights-ofway by motor vehicles or by runoff.

(Cr) Construction Road Stabilization- Roads, parking areas, and other on-site transportation routes that are stabilized with coarse aggregate between the time of initial grading and final stabilization in order to provide a fixed route for construction traffic, reduce erosion, reduce subsequent re-grading of permanent roadbeds, and provide a stable base for paving.

(Dc) Stream Diversion Channel- A temporary channel that diverts a live stream and allows work "in the dry" while protecting streambed(s) from erosion. This diversion is used when in-stream work is unavoidable, as with linear projects such as utilities or roads that frequently cross and impact live streams and create a potential for excessive sediment loss by both the disturbance of the approach areas and by the work within the streambed and banks.

(Di) Diversion- An earth channel with a compacted supporting ridge on the lower side; constructed above, across, or below a slope to reduce slope lengths, break-up concentrations of runoff, intercept runoff, and move water to stable outlets at non-erosive velocities.

(Dn1) Temporary Downdrain Structure- A flexible conduit of heavy-duty plastic or other material used as a temporary structure to convey storm water down the face of a cut or fill slope without causing slope erosion and allowing the establishment of vegetation on the slope. Flexible downdrains are removed once the permanent water disposal system is installed.

(Dn2) Permanent Downdrain Structure- A permanent paved chute, pipe or sectional conduit of prefabricated material designed to safely conduct surface runoff from the top to the bottom of a slope thus minimizing erosion. Downdrain structures are to be used where concentrated water will cause excessive erosion of cut and fill slopes.

(Fr) Filter Ring- A temporary stone barrier used in conjunction with other sediment control measures and constructed at storm drain inlets and pond outlets, in order to reduce flow velocities, prevent failure of other sediment control devices, and prevent sediment from leaving the site or entering drainage systems, prior to permanent stabilization of the disturbed areas.

(Ga) Gabion- Large, multi-celled, wire mesh boxes, filled with rocks, which form flexible monolithic building blocks used in channel revetments, retaining walls, abutments, check dams, etc. to prevent erosion and sediment damage to a specific structure. When properly wired together, they can be used to stabilize steep or highly erosive slopes.

(Gr) Grade Stabilization Structure- Structures of concrete, rock masonry, steel, aluminum, treated wood, etc. that are installed to stabilize the grade in natural or artificial channels and to prevent the formation or advance of gullies and to reduce erosion and sediment pollution.

(Lv) Level Spreader- A storm flow outlet device structure constructed at zero grade across a slope where concentrated runoff may be intercepted and diverted at non-erosive sheet flow velocities onto undisturbed areas stabilized by existing vegetation.

(Rd) Rock Filter Dam- A permanent or temporary stone filter dam, which can be used in conjunction with a temporary sediment trap, installed across small streams, drainageways with a drainage area of 50 acres or less and outlets for sediment traps in order to serve as a sediment-filtering device and to reduce storm water flow velocities. This structure is not intended to substantially impound water and may require a US Army Corps of Engineers permit.

(Re) Retaining Wall- A constructed wall of concrete, masonry, reinforced concrete, cribbing, treated timbers, gabions, stone dry wall, rip-rap or other durable material in order to stabilize cut or fill slopes where maximum permissible slopes of earth are not obtainable without the use of the wall.

(Rt) Retrofitting- A device or structure, such as half round corrugated metal pipe or similar, placed in front of a permanent stormwater detention pond outlet or roadway drainage structure to serve as a temporary sediment filter, thus allowing permanent stormwater detention basin structures to function as temporary sediment retention basins for land-disturbing projects, and allow roadway drainage to be used for temporary sediment storage.

(Sd1) Sediment Barrier- A temporary structure constructed of silt fence, straw, hay bales, brush piles, mulch berms, compost filter sock, gravel or other filtering materials (typically supported by steel or wood posts), that are used to minimize and prevent sediment carried by sheet flow from leaving the site until final stabilization. Silt fence shall not be installed across streams, waterways, or other concentrated flow areas.

(Sd2) Inlet Sediment Trap- A temporary protective device formed at or around a storm drain inlet to trap sediment in runoff water from small, disturbed areas and prevent sediment from entering a storm drainage system prior to permanent stabilization of the disturbed area draining to the inlet. Clean out of these facilities is normally required after each heavy rainfall.

(Sd3) Temporary Sediment Basin- A basin created by construction of an embankment, barrier or dam containing a principal spillway pipe and an emergency spillway that are normally situated within natural drainageways and at the lowest point on a construction site. Structure size will vary depending on the size of the drainage area, soil type, volume of sediments to be trapped, rainfall pattern(s), structure location, etc. Permanent sediment basins are designed to fit into the overall plan of the completed development. Sd3's are designed to detain runoff waters and trap sediment from erodible areas in order to protect downstream properties.

(Sd4) Temporary Sediment Trap- A small temporary pond (with no pipe or riser) that drains a disturbed area so that sediment can settle out. Sd4's are designed to collect and store sediment from small tributary areas with no unusual drainage features that have been cleared and/or graded for construction.

(Sk) Floating Surface Skimmer- A buoyant device that drains surface water of sediment ponds, traps or basins and releases it at a controlled rate of flow. It "skims" the water surface where sediment concentrations are at a minimum instead of draining from the bottom where sediment concentrations are higher, and drains to a riser or the backside of a dam.

(SpB) Seep Berm- A linear control device constructed as a diversion (perpendicular to the direction of the runoff) to enhance dissipation and infiltration of runoff while using intermediate dikes to create multiple sedimentation chambers allowing smaller storms to seep out while diverting larger flows to a sediment storage area.

(Sr) Temporary Stream Crossing- A temporary structure installed across a flowing stream or watercourse for use by construction equipment without moving sediment into streams, damaging the streambed or channel, or causing flooding. The structure may consist of a pipe, bridge, or other suitable device permitting vehicular traffic to cross streams or watercourses.

(St) Storm Drain Outlet Protection- A paved or short section of rip-rap channel placed at the outlet of a storm drain system in order to reduce the velocity of water flows below storm drain outlets, and to prevent erosion from concentrated flow.

(Su) Surface Roughening- Providing a rough soil surface with horizontal depressions created by operating a tillage or other suitable implement on the contour, or by having slopes in a roughhead condition by not fine-grading them, in order to aid in establishment of vegetative cover with seed, to reduce runoff velocity and increase infiltration and to reduce erosion and provide for sediment trapping.

(Tc) Turbidity Curtain- A floating or staked barrier installed within the water in order to minimize turbidity and silt migration from work occurring within the water or as a supplement to perimeter control BMPs at the water's edge. Silt or turbidity is confined to the area within the boundary created by the installation, such that suspended particles drop out of the water column over time.

(Tp) Topsoiling- Stripping off the more fertile top soil, storing it, then spreading it over the disturbed area after completion of construction activities, in order to provide a suitable soil medium for vegetative growth on areas where other measures will not produce or maintain a desirable stand.

(Wt) Vegetated Waterway or Stormwater Conveyance Channel- Outlets for diversions, terraces, berms, or other structures. They may be natural or constructed, shaped to required dimensions, and paved or vegetated for disposal of storm water runoff. For waterways to be successful, it is essential that a protective cover of vegetation or other erosion protective measures be implemented.

PRODUCT SPECIFIC PRACTICES:

All pollutants from waste disposal practices, soil additives, remediation of spills and leaks of petroleum products, concrete truck washout, etc., should any of these occur, shall be controlled by the implementation of appropriate best management practices. the site shall be in compliance with all applicable state and local waste disposal, sanitary sewer or septic system regulations.

Petroleum Based Products - Containers for products such as fuels, lubricants, and tars shall be inspected daily for leaks and spills. This includes onsite vehicles and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance areas shall be located away from State Waters, 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 includes collection in a suitable container and disposal as required by local and State regulations.

Paints/Finishes/Solvents - All products shall be stored in tightly sealed original containers when not in use. Excess product shall not be discharged to the storm water collection system. Excess product, materials used with these products, and product containers shall be disposed of according to manufacturer's specifications and recommendations.

Fertilizer/Herbicides - These products shall 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 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 shall be buried or disposed of onsite. All such material shall be disposed of in proper waste disposal procedures.

Concrete Truck Washing - NO concrete trucks shall be allowed to wash out or discharge surplus concrete or drum wash water onsite. Concrete wash down of tools, concrete mixer chutes, hoppers and the rear of vehicles will only be allowed in a designated area provided for this purpose, as shown on the drawings. the following best management practices will be followed:

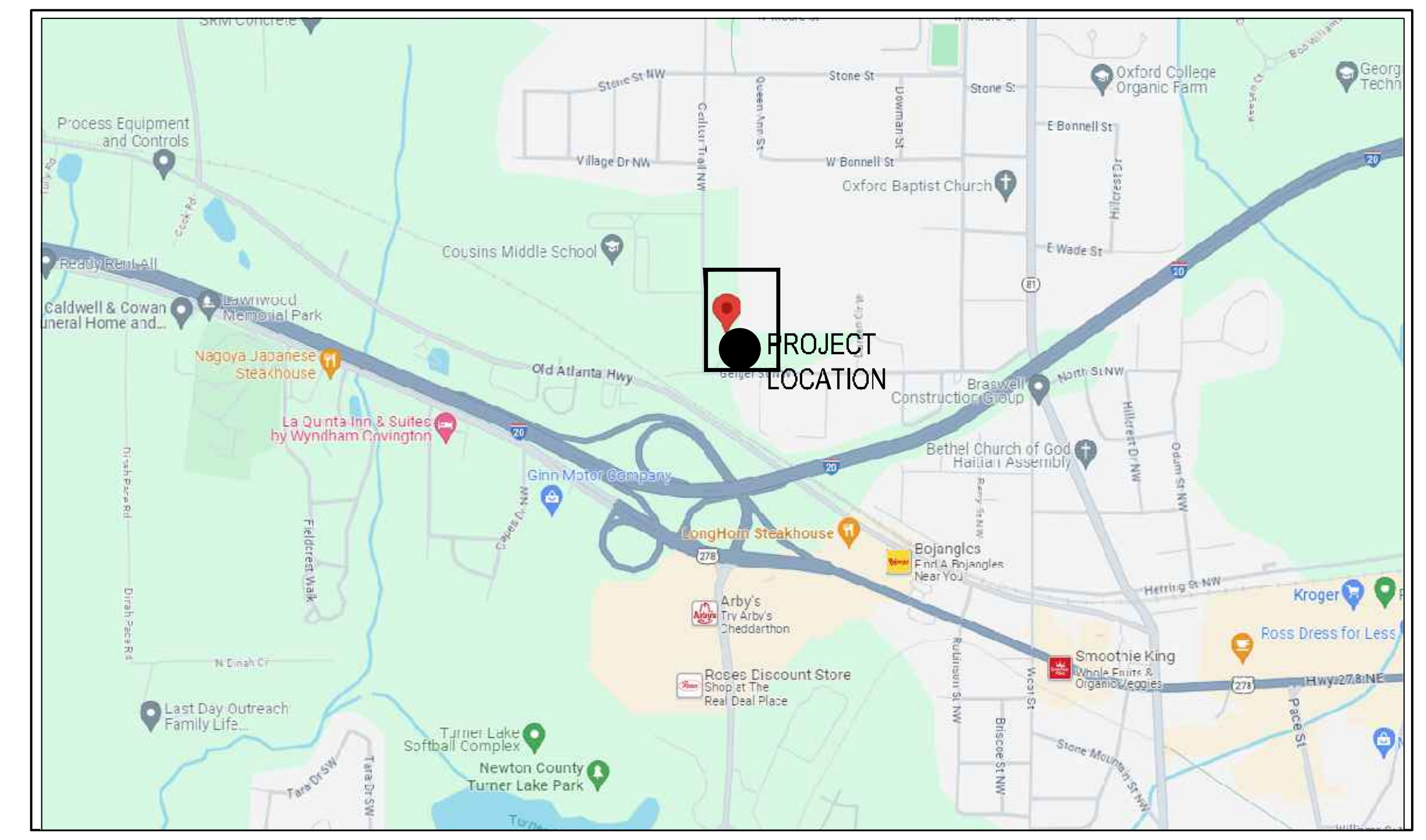
(1) Contain all wash water on soil, in a bowl shaped area created in the designated wash area to prevent the wash water from flowing from the washout area;

(2) Use the minimum amount of water to wash down the tools, concrete mixer chutes, hoppers and the rear of vehicles;

(3) Remove any concrete sediment from the area surrounding the washout area before it hardens; and

(4) Remove all concrete residue from the designated area once it has hardened.

Maintenance of all soil erosion and sedimentation control measures and practices, whether temporary or permanent, shall be at all times the responsibility of the property owner.



VICINITY MAP
NOT TO SCALE

GPS COORDINATES
N 33°36'35.96" W -83°52'34.38"
N 33.609990 W -83.876219

PRIMARY PERMITTEE CONTACT INFORMATION:

NEWTON COUNTY GEORGIA
JEFF PRINE
1124 CLARK ST
COVINGTON, GA 30014
404-992-5050
JPRINE@ASCENSION-PM.COM

MEASURES INSTALLED DURING CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT MAY REMAIN AFTER CONSTRUCTION IS COMPLETE.:

1. Fl-Co	4. Tac	7. Lv	9. St
2. Sb	5. Ch	8. Rd	
3. Ds3, Ds4	6. Di		

POSSIBLE POLLUTANT SOURCES FOR THIS PROJECT:

Sediment Loss, Construction Debris, Petroleum Products, Concrete Products, Epoxies and Grouts, Fertilizers (Overuse), Tac applications (Overuse), Paint Products, Asphalt Products. Contractor shall maintain a clean working environment at all times and reduce and contain the pollution generated by these and other pollutants that are to be utilized for the construction of this project. Contractor shall follow all local, state, and federal laws in handling all polluting products.

NON-STORM WATER DISCHARGES ALLOWED UNDER PERMIT:

1. Fire fighting activities
2. Fire hydrant flushing
3. Potable water sources including water line flushing
4. Irrigation drainage
5. Air conditioning condensation
6. Springs
7. Uncontained Ground Water
8. Foundation or footing drains where flows are not contaminated with process materials or pollutants.

Each of these discharges shall be treated for storm water pollutants in BMPs applied on the site. Discharge from each of these shall be routed to a temporary sediment basin within the same drainage area.

HAZARDOUS WASTES:

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.

The contractor will implement the Spill Prevention Control 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 waste will be allowed to come in contact with the stormwater discharges. If such contact occurs, the stormwater discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated stormwater. It shall be the responsibility of the job site superintendent to properly train all personnel in the use of the SPCC plan.

SANITARY WASTES:

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.

All sanitary waste units will be located in one area where the likelihood of the unit contributing 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 ES&PC Plan b the contractor once the locations have been determined.

Sanitary sewer will be provided by Municipal Authority/Septic System at the completion of this Project.

SPILL CLEANUP AND CONTROL PRACTICES:

Local, state and manufacturer's recommended methods for spill clean up 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 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 1,320 gallons of petroleum is stored onsite (this includes capacities of equipment) or if any one piece of equipment has capacity greater than 660 gallons. The contractor will need a spill prevention containment and countermeasures plan prepared by that licensed professional.

All pollutants from waste disposal practices, soil additives, remediation of spills and leaks of petroleum products, concrete truck washout, etc., should any of these occur, will be controlled by the implementation of appropriate best management practices. The site will be in compliance with all applicable state and local waste disposal, sanitary sewer or septic system regulations.

NON-EXEMPT ACTIVITIES:

"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."

SOIL SERIES (PER NRCS MAPS SOILS ARE SHOWN AS):

CuC- CECIL-URBAN LAND COMPLEX, 2% TO 10% SLOPES
HeB- HIWASSEE SANDY LOAM, 2% TO 6% SLOPES

BRAVO SITE SET 10-24-2024

REFER TO SHEET C-1.1 FOR CONSTRUCTION REQUIREMENTS AND SPECIFICATIONS

CRITICAL AREAS AND ADDITIONAL MEASURES:

1. Critical Areas: 2:1 and 3:1 slopes, inlet traps, sediment basins, and storm outlets. 2. Locate and flag buffers to prevent disturbance.

"Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit."

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.

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.

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CIVIL ENGINEERING
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311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

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GEORGIA REGISTERED NO. PE034684 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER

8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

EROSION SEDIMENTATION AND POLLUTION CONTROL NOTES 1

Sheet Number

C-6.1

REQUIRED INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE:

PERMITTEE REQUIREMENTS.

(1).EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

(2).MEASURE 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.

(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 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.

(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 HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).

(5).BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.

(6).A REPORT OF EACH INSPECTION 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 SITE 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 THIS PERMIT.

ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE SAMPLES:

1. **SAMPLING REQUIREMENTS.** THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS PARAGRAPH SHALL NOT APPLY TO ANY LAND DISTURBANCE ASSOCIATED WITH THE CONSTRUCTION OF SINGLE-FAMILY HOMES WHICH ARE NOT PART OF A SUBDIVISION OR PLANNED COMMON DEVELOPMENT UNLESS FIVE (5) ACRES OR MORE WILL BE DISTURBED. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

a. *SAMPLING REQUIREMENTS* SHALL INCLUDE THE FOLLOWING:

(1). A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE STAND ALONE CONSTRUCTION; (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORMWATER IS DISCHARGED AND (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORMWATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;

(2). A WRITTEN NARRATIVE OF SITE SPECIFIC ANALYTICAL METHODS USED TO COLLECT, HANDLE AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION;

(3). WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE SAMPLED, A RATIONALE MUST BE INCLUDED ON THE PLAN FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND

(4). ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIME LINE FOR SUBMITTAL.

b. *SAMPLE TYPE.* 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 STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

(1). SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.

(2). SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.

(3). 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.

(4). 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 QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.

(5). SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

c. *SAMPLING POINTS.*

(1). FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORMWATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:

(A). THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORMWATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.

(B). THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.

(C). IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORMWATER OUTFALL CHANNEL(S).

(D). CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORMWATER CHANNEL.

(E). THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.

(F). THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.

(G). PERMITTEES DO NOT HAVE TO SAMPLE SHEET FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION).

(H). ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORMWATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS
III.D.3. OR III.D.4., WHICHEVER IS APPLICABLE.

d. *SAMPLING FREQUENCY.*

(1). THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN IN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

(2). HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORMWATER DISCHARGE.

(3). SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:

(A). FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;

(B). IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;

(C). AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;

(D). WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND

(E). EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND
(a) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

RETENTION OF RECORDS:

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.

1. 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.

NPDES Permit Part IV.E. Reporting:

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

a. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
b. THE NAME(S) OF THE CERTIFIEDPERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
c. THE DATE(S) ANALYSES WERE PERFORMED;
d. THE TIME(S) ANALYSES WERE INITIATED;
e. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
f. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
g. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
h. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
i. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO:

NORTHEAST DISTRICT- ATHENS
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
745 GAINES SCHOOL RD.
ATHENS, GA 30605
(706) 369.6376

THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

INITIAL INSPECTION AND REPORTING:

For common developments that begin construction activity after the effective date of this permit, the primary permittee must retain the design professional who prepared the Erosion, Sedimentation and Pollution Control Plan, except when the primary permittee has requested in writing and EPD has agreed to an alternate design professional, to inspect the installation of the initial sediment storage requirements and perimeter control BMPs which the design professional designed within seven (7) days after installation. The design professional shall determine if these BMPs have been installed and are being maintained as designed. The design professional shall report the results of the inspection to the primary permittee within seven (7) days and the permittee must correct all deficiencies within two (2) business days of receipt of the inspection report from the design professional unless weather related site conditions are such that additional time is required.

MINIMUM QUALIFICATIONS OF INSPECTORS:

"Design Professional" means a professional licensed by the state of GA in the field of: engineering, architecture, landscape architecture, forestry, geology, or land surveying; or a person that is a certified professional in erosion and sediment control (CPESC) with a current certification by Envirocert International, Inc. Design professionals shall practice in a manner that complies with applicable GA law governing professional licensure.

"Certified Personnel" means a person who has successfully completed the appropriate certification course approved by the GEORGIA SOIL AND WATER Conservation Commission.

CONSTRUCTION SEQUENCE SCHEDULE

LAND DISTURBING ACTIVITY SHALL NOT COMMENCE PRIOR TO A PRECONSTRUCTION MEETING WITH THE LOCAL ISSUING AUTHORITY.

BMP'S — MONTH 1 | MONTH 2 | MONTH 3 | MONTH 4 | MONTH 5 | MONTH 6 | MONTH 7 — ACTIVITY

NOTIFY INSPECTOR 24 HOURS PRIOR TO CONSTRUCTION:

SITE WORK WILL BE COMPLETED AND PAVEMENT BINDER INSTALLED
BUILDING CONSTRUCTION CONTINUES, TOP COAT ASPHALT AT END

PHASE	ACTIVITY
INITIAL	PRECONSTRUCTION MEETING WITH LOCAL ISSUING AUTHORITY
	PERFORM INITIAL MONITORING
	INSTALL CONSTRUCTION EXIT
	INSTALL INITIAL SILT FENCE (PERIMETER SILT FENCE LOCATIONS FIRST)
	PROVIDE ANY INITIAL MULCHING, GRASSING, OR OTHER GROUND COVER
	INSTALL TOPSOIL LOCATION SILT FENCE
	INSTALL APPROPRIATE VEGETATIVE AND STRUCTURAL BMP'S (INLET / OUTLET PROTECTION, Fl-Co, ETC.)
	INSTALL WHEEL WASH AND FUEL STORAGE LOCATION
	COORDINATE SITE REVIEW MEETING WITH ENGINEER AND LOCAL ISSUING AUTHORITY
INTERMEDIATE	INSTALL STORM PIPE SYSTEMS WITH PROTECTED INLETS (SD2'S)
	THROUGHOUT LAND DISTURBANCE PROCESS, MAINTAIN EX. BMP'S (VEGETATIVE AND STRUCTURAL)
	THROUGHOUT LAND DISTURBANCE PROCESS, CONTINUE NPDES MONITORING AND REPORTING
	COORDINATE WITH UTILITY COMPANIES ON UTILITY / SLEEVE LOCATIONS
	BEGIN CLEARING, GRUBBING, TOPSOILING, AND GRADING OPERATIONS
	INSTALL TOPSOIL AT STOCKPILE LOCATION, IMMEDIATELY GRASS / MULCH, INSTALL ANY REMAINING TOPSOIL LOCATION SILT FENCE
	PERFORM REMAINING GRADING (ADJUST STORM RISERS WITH GRADE CHANGE(S) AND ADJUST ALL SD2'S)
	AS AREAS ARE BROUGHT TO FINISH GRADE, GRASS / BLANKET ANY AREAS THAT ARE FINISH GRADE OR THAT WILL BE LEFT BARE FOR 7 DAYS
	EACH FILL SLOPE SHALL HAVE A DIVERSION AT THE TOP THAT IS MAINTAINED AND REINSTALLED AS THE SLOPE IS CONSTRUCTED
	CONTINUE FLOCCULANT / COAGULANT APPLICATIONS (EVERY 7 DAYS THROUGHOUT PROJECT)
	INSTALL REMAINING STORM SYSTEM(S) AS GRADES ARE ACHIEVED
	IMMEDIATELY INSTALL EACH STORM STRUCTURE WITH ASSOCIATED SD2'S AND ADD FLOC LOGS TO EACH STORM STRUCTURE
	GRASS / MULCH / Fl-Co DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
	INSTALL SANITARY SEWER MAINS AND SERVICES
	GRASS / MULCH / Fl-Co DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
	INSTALL WATER SYSTEM
	GRASS / MULCH / Fl-Co DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
	INSTALL REMAINING UTILITIES (POWER, PHONE, CABLE, GAS, ETC.) WITH APPROPRIATE BMP'S
	INSTALL GAB THROUGHOUT PARKING AREA UP TO DESIGNATED LINE
	INSTALL REMAINING GAB
	BUILDING CONSTRUCTION
	GRASS / MULCH / Fl-Co DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
	INSTALL CURB AND GUTTER
	GRASS / MULCH / Fl-Co DISTURBED AREAS AND INSTALL ASSOCIATED INTERMEDIATE BMP'S
	INSTALL PAVEMENT
	FINISH GRADE SHOULDERS AND STABILIZE DISTURBED AREAS WITH PERMANENT VEGETATION
	CONTINUE TO APPLY FLOCCULENT / COAGULANT APPLICATIONS, MULCHING, AND GRASSING AT EACH STEP TO LIMIT SOIL EXPOSURE
FINAL	THROUGHOUT LAND DISTURBANCE PROCESS, MAINTAIN EX. BMP'S (VEGETATIVE AND STRUCTURAL)
	THROUGHOUT LAND DISTURBANCE PROCESS, CONTINUE NPDES MONITORING AND REPORTING
	COMPLETE PAVING OPERATIONS
	ACHIEVE FINAL SITE STABILIZATION
	COORDINATE SITE REVIEW MEETING WITH ENGINEER AND/OR LOCAL ISSUING AUTHORITY INSPECTOR
	CLEAN SILT FROM ALL STORM SYSTEMS (DISTRIBUTE ON SITE AND STABILIZE)
	REMOVE ANY TEMPORARY BMP PRACTICES ONCE SITE STABILIZATION IS ACHIEVED AND SIGNED OFF BY ENGINEER
	COORDINATE SITE REVIEW MEETING WITH ENGINEER FOR FINAL SITE APPROVAL

NPDES GENERAL PERMIT NO. GAR100001 - APPENDIX B RATIONALE:

THE DISTURBED ACREAGE ON THE SITE IS 2.91 AC WITH A SURFACE WATER DRAINAGE AREA BETWEEN 0 AND 4.99 SQUARE MILES. THUS AN NTU VALUE OF 75 SHALL BE APPLIED. THREE SAMPLING POINT(S) IS SHOWN ON THE SITE. REFER TO SHEET C-6.1 FOR SAMPLING FREQUENCY AND METHODOLOGY. REFER TO SHEETS C-6.3 TO C-6.5 FOR SAMPLING POINT LOCATIONS.

Nephelometric Turbidity Unit (NTU) TABLE
Warm Water (Supporting Warm Water Fisheries)
Surface Water Drainage Area, square miles

SITE SIZE, ACRES	0 - 4.99	5 - 9.99	10 - 24.99	25 - 49.99	50 - 99.99	100 - 249.99	250 - 499.99	500+
1.00 - 10	75	150	200	400	750	750	750	750
10.01 - 25	50	100	100	200	300	500	750	750
25.01 - 50	50	50	100	100	200	300	750	750
50.01 - 100	50	50	50	100	100	150	300	600

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE CONSTRUCTION PROJECTS

SWCD: UPPER OCMULGEE RIVER- REGION 4
Project Name: RL COUSINS **Address:** 8134 GEIGER ST. NW, COVINGTON, GA 30014
City/County: CITY OF COVINGTON/ NEWTON COUNTY **Date on Plans:** 10/22/2024
Name & email of person filling out checklist: JASON@GEORGIACIVIL.COM

TO BE SHOWN ON ES&PC PLAN

Page #	Y/N	Item
C-6.2	Y	1 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. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
C-6.3 - C-6.5	Y	2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)
N/A		3 Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. * (A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)
C-6.1-C-6.7	Y	4 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
C-6.1	Y	5 Provide the name, address, email address, and phone number of primary permittee.
C-6.1	Y	6 Note total and disturbed acreages of the project or phase under construction.
C-6.1	Y	7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
ALL	Y	8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
C-6.1	Y	9 Description of the nature of construction activity and existing site conditions.
C-6.1	Y	10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
C-6.1	Y	11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
C-6.1	Y	12 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 19 of the permit.
C-6.1	Y	13 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 19 of the permit. *
C-6.1	Y	14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit. *
C-6.1	Y	15 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."
	N/A	16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
C-6.1	Y	17 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." *
C-6.1	Y	18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
C-6.1	Y	19 Clearly note 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."
C-6.1	Y	20 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."
C-6.1	Y	21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
	N/A	22 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 a 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. *
	N/A	23 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. *
C-6.1	Y	24 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. *
C-6.1	Y	25 Provide BMPs for the remediation of all petroleum spills and leaks.
C-6.1	Y	26 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. *
C-6.1	Y	27 Description of practices to provide cover for building materials and building products on site. *
C-6.1	Y	28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *
C-6.1	Y	29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
C-6.2	Y	30 Provide complete requirements of Inspections and record keeping by the primary permittee. *
C-6.2	Y	31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
C-6.2	Y	32 Provide complete details for Retention of Records as per Part IV.F. of the permit. *
C-6.2	Y	33 Description of analytical methods to be used to collect and analyze the samples from each location. *
C-6.2	Y	34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *
C-6.4	Y	35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *
C-6.3 - C-6.5	Y	36 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. *
C-6.3 - C-6.5	Y	37 Graphic scale and North arrow.
C-6.3 - C-6.5	Y	38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 - 2%	0.5 or 1
	Rolling 2 - 8%	1 or 2
	Steep 8% +	2,5 or 10

Page #	Y/N	Item
	N/A	39 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.georgia.gov.
	N/A	40 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. *
	N/A	41 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. THERE ARE NO STATE WATER BUFFERS ON SITE
	N/A	42 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site. THERE ARE NO WETLANDS ON SITE
C-6.4	Y	43 Delineation and acreage of contributing drainage basins on the project site.
	N/A	44 Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *
C-6.1	Y	45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
C-6.4	Y	46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
C-6.3	Y	47 Soil series for the project site and their delineation.
C-6.3 - C-6.5	Y	48 The limits of disturbance for each phase of construction.
C-6.4	Y	49 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 location 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, permittees 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 feasible, a written justification explaining this decision must be included in the Plan.
C-6.3 - C-6.5	Y	50 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.
C-6.3 - C-6.5	Y	51 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.
C-6.6 - C-6.7	Y	52 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 the year that seeding will take place and for the appropriate geographic region of Georgia.

* If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the * checklist items would be N/A.

Effective January 1, 2024

BRAVO SITE
SET 10-24-2024

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CIVIL ENGINEERING
LAND PLANNING
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311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE031684 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

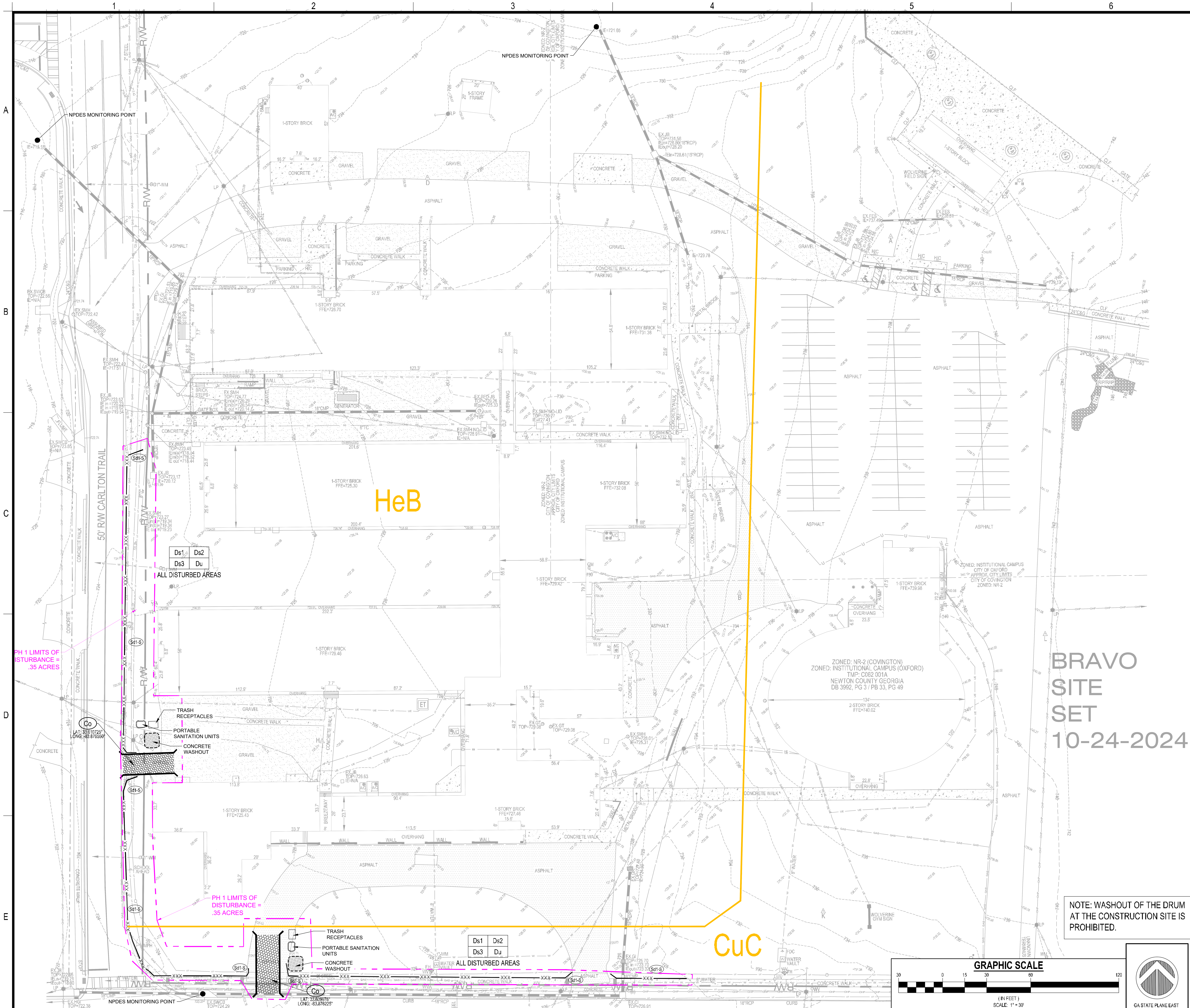
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

EROSION SEDIMENTATION AND POLLUTION CONTROL NOTES

Sheet Number

C-6.2



GEORGIA UNIFORM CODING SYSTEM
SOIL EROSION & SEDIMENT CONTROL

STRUCTURAL PRACTICES

Code	Practice	Symbol	Code	Practice	Symbol
Cd-Fs	Compost Filter Sock	Cd-Fs 12" dia	Sd2-G	Inlet Sediment Trap (Gravel Drop Inlet Protection)	Sd2-☒
Cd-Hb	Straw-Bale Check Dams	Cd-Hb	Sd2-P	Inlet Sediment Trap (Curb Inlet Protection)	
Cd-S	Stone Check Dams	Cd-S	Sd2-S	Inlet Sediment Trap (Sod Inlet Protection)	☒Indicate type
Ch-1	Channel Stabilization - Category 1 (Vegetated/Sod)	Ch-1	Sd3	Temporary Sediment Basin	Sd3
Ch-2	Channel Stabilization - Category 2 (Rip-Rap, TRM)	Rip-Rap* TRM* Ch-2 *type	Sd4	Temporary Sediment Trap	Sd4
Ch-3	Channel Stabilization - Category 3 (Concrete)	Ch-3	Sk	Floating Filter Surface Skimmer	Sk
Co	Construction Exit	Co	SpB	Seep Berm	SpB
Cr	Construction Road Stabilization	Cr	Sr-B	Temporary Stream Crossing (Bridge)	Sr-B
Dc-A	Stream Diversion Channel (Geotextile, Sod, or Polyethylene film)	Dc-A or	Sr-C	Temporary Stream Crossing (Culvert)	Sr-C
Dc-B	Stream Diversion Channel (Geotextile alone)	Dc-B or	St	Storm Drain Outlet Protection	St
Dc-C	Stream Diversion Channel (Class I Rip-Rap and Geotextile)	Dc-C	Su	Surface Roughening	Su
Di	Diversion	Di	Tc-F	Turbidity Curtain (Floating)	Tc-☒
Dn1	Temporary Downdrain Structure	Dn1	Tc-S	Turbidity Curtain (Staked)	☒Indicate type
Dn2	Permanent Downdrain Structure	Dn2	Tp	Topsoiling	Tp
Fr	Filter Ring	Fr	Wt	Vegetated Waterway or Stormwater Conveyance Channel	Wt
Ga	Gabion	Ga		**VEGETATIVE MEASURES**	
Gr	Grade Stabilization Structure	Gr	Bf	Buffer Zone	Bf
Lv	Level Spreader	Lv	Cs	Coastal Dune Stabilization (w/ Vegetation)	Cs
Rd	Rock Filter Dam	Rd	Ds1	Disturbed Area Stabilization (w/ Mulching Only)	Ds1
Re	Retaining Wall	Re	Ds2	Disturbed Area Stabilization (w/ Temporary Seeding)	Ds2
Rt-B	Retrofit (Slotted Board Dam w/ Stone or Filter Fabric)	Rt-B	Ds3	Disturbed Area Stabilization (w/ Permanent Vegetation)	Ds3
Rt-P	Retrofit (Perforated Half- Round Pipe w/ Stone Filter)	Rt-P	Ds4	Disturbed Area Stabilization (w/ Sodding)	Ds4
Rt-Sg	Retrofit (Silt Control Gate)	Rt-Sg	Du	Dust Control on Disturbed Areas	Du
Sd1-BB	Sediment Barrier (Type = Brush Barrier)	Sd1-BB	Fl-Co	Flocculants Coagulants	Fl-Co
Sd1-NS	Sediment Barrier (Type = Non-Sensitive Areas)	Sd1-NS 28"	Sb	Streambank Stabilization (Using Permanent Vegetation)	Sb
Sd1-S	Sediment Barrier (Type = Sensitive Areas)	Sd1-S 28"	Ss	Slope Stabilization (Rolled Erosion Control Products (RECPs))	Ss
Sd1-Cf	Sediment Barrier (Type = Compost Filter Media Sock)	Sd1-Cf 12" dia	Tac-1	Tackifiers: Type I (Synthetic Polymers)	Tac-1
Sd2-B	Inlet Sediment Trap (Baffle Box)	Sd2-☒	Tac-2	Tackifiers: Type II (Organic Polymers)	Tac-2
Sd2-Bg	Inlet Sediment Trap (Block & Gravel Drop Inlet Protection)		Tac-3	Tackifiers: Type III (Synthetic/ Organic Blends)	Tac-3
Sd2-E	Inlet Sediment Trap (Excavated Inlet Sediment Trap)		Tac-4	Tackifiers: Type IV (Organic Tackifiers w/ Synthetic Fibers)	Tac-4
Sd2-F	Inlet Sediment Trap (Filter Fabric w/ Supporting Frame)	☒ Indicate type	Tac-5	Tackifiers: Type V (Synthetic/Organic Blends w/ Synthetic Fibers)	Tac-5

REFER TO SHEET C-1.1 AND C-6.1 FOR EROSION, SEDIMENTATION, AND POLLUTION CONTROL NOTES

Maintenance of all soil erosion and sedimentation control measures and practices, whether temporary or permanent, shall be at all times the responsibility of the property owner.

GSWCC EROSION CONTROL NOTES:

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.

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.

Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.

Any 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.

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5050
CONTACT: JEFF PRINE
EMAIL:JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

GEORGIA811
www.Georgia811.com
Contact 811 before you dig

Utilities Services shown are for Contractors' convenience. Items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbance (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and/or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

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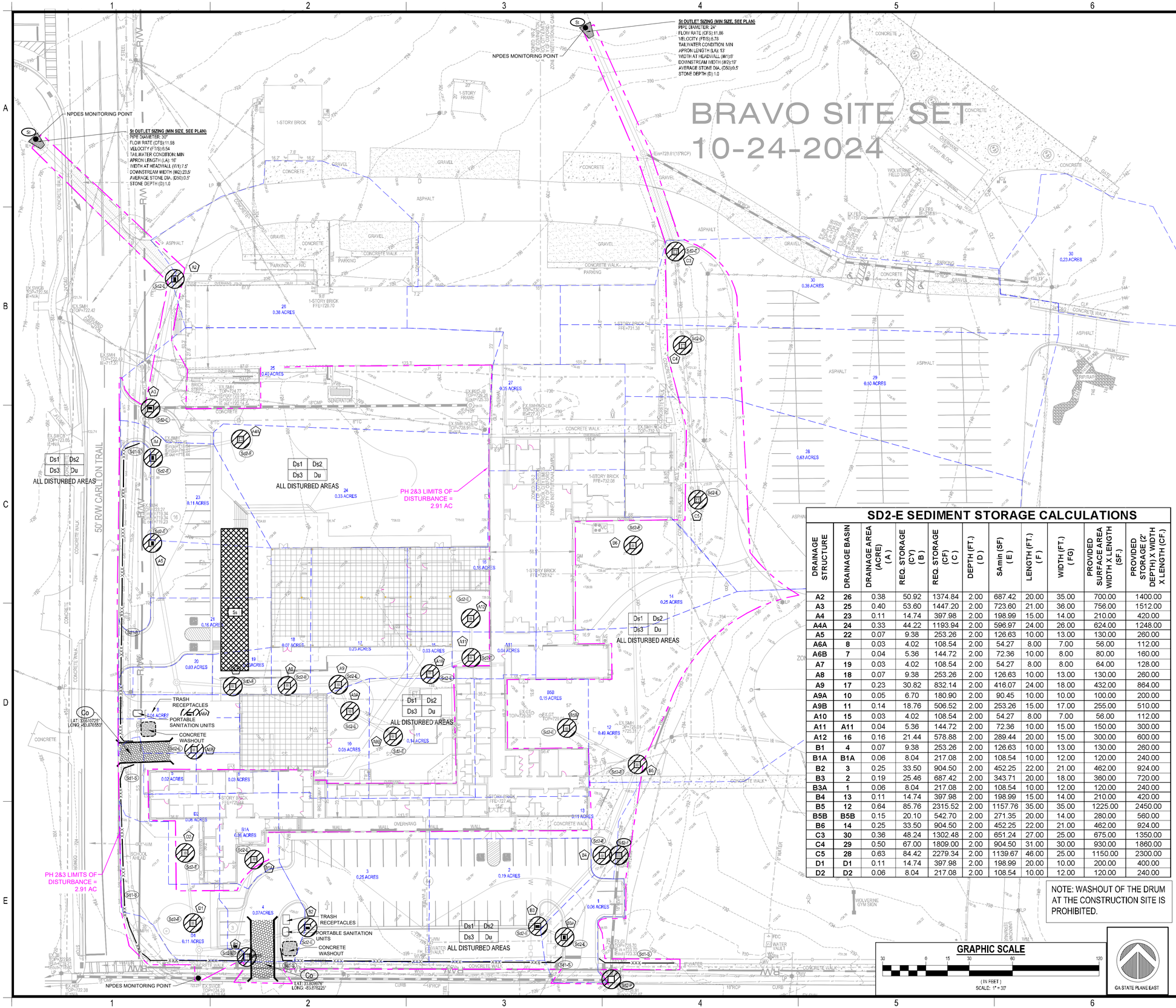
Sheet Title

INITIAL EROSION SEDIMENTATION & POLLUTION CONTROL PLAN

Sheet Number

C-6.3



SD2-E SEDIMENT STORAGE CALCULATIONS

DRAINAGE STRUCTURE	DRAINAGE BASIN	DRAINAGE AREA (ACRE) (A)	REQ. STORAGE (CY) (B)	REQ. STORAGE (CF) (C)	DEPTH (FT.) (D)	SAmin (SF) (E)	LENGTH (FT.) (F)	WIDTH (FT.) (FG)	PROVIDED SURFACE AREA WIDTH X LENGTH (SF.)	PROVIDED STORAGE (2' DEPTH) X WIDTH X LENGTH (CF.)
A2	26	0.38	50.92	1374.84	2.00	687.42	20.00	35.00	700.00	1400.00
A3	25	0.40	53.60	1447.20	2.00	723.60	21.00	36.00	756.00	1512.00
A4	23	0.11	14.74	397.98	2.00	198.99	15.00	14.00	210.00	420.00
A4A	24	0.33	44.22	1193.94	2.00	596.97	24.00	26.00	624.00	1248.00
A5	22	0.07	9.38	253.26	2.00	126.63	10.00	13.00	130.00	260.00
A6A	8	0.03	4.02	108.54	2.00	54.27	8.00	7.00	56.00	112.00
A6B	7	0.04	5.36	144.72	2.00	72.36	10.00	8.00	80.00	160.00
A7	19	0.03	4.02	108.54	2.00	54.27	8.00	8.00	64.00	128.00
A8	18	0.07	9.38	253.26	2.00	126.63	10.00	13.00	130.00	260.00
A9	17	0.23	30.82	832.14	2.00	416.07	24.00	18.00	432.00	864.00
A9A	10	0.05	6.70	180.90	2.00	90.45	10.00	10.00	100.00	200.00
A9B	11	0.14	18.76	506.52	2.00	253.26	15.00	17.00	255.00	510.00
A10	15	0.03	4.02	108.54	2.00	54.27	8.00	7.00	56.00	112.00
A11	A11	0.04	5.36	144.72	2.00	72.36	10.00	15.00	150.00	300.00
A12	16	0.16	21.44	578.88	2.00	289.44	20.00	15.00	300.00	600.00
B1	4	0.07	9.38	253.26	2.00	126.63	10.00	13.00	130.00	260.00
B1A	B1A	0.06	8.04	217.08	2.00	108.54	10.00	12.00	120.00	240.00
B2	3	0.25	33.50	904.50	2.00	452.25	22.00	21.00	462.00	924.00
B3	2	0.19	25.46	687.42	2.00	343.71	20.00	18.00	360.00	720.00
B3A	1	0.06	8.04	217.08	2.00	108.54	10.00	12.00	120.00	240.00
B4	13	0.11	14.74	397.98	2.00	198.99	15.00	14.00	210.00	420.00
B5	12	0.64	85.76	2315.52	2.00	1157.76	35.00	35.00	1225.00	2450.00
B5B	B5B	0.15	20.10	542.70	2.00	271.35	20.00	14.00	280.00	560.00
B6	14	0.25	33.50	904.50	2.00	452.25	22.00	21.00	462.00	924.00
C3	30	0.36	48.24	1302.48	2.00	651.24	27.00	25.00	675.00	1350.00
C4	29	0.50	67.00	1809.00	2.00	904.50	31.00	30.00	930.00	1860.00
C5	28	0.63	84.42	2279.34	2.00	1139.67	46.00	25.00	1150.00	2300.00
D1	D1	0.11	14.74	397.98	2.00	198.99	20.00	10.00	200.00	400.00
D2	D2	0.06	8.04	217.08	2.00	108.54	10.00	12.00	120.00	240.00

NOTE: WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

GEORGIA UNIFORM CODING SYSTEM
SOIL EROSION & SEDIMENT CONTROL

STRUCTURAL PRACTICES

Code	Practice	Symbol	Code	Practice	Symbol
Cd-Fs	Compost Filter Sock	Cd-Fs	Sd-I2	Inlet Sediment Trap (Gravel Drop Inlet Protection)	Sd-I2
Cd-Hb	Straw-Bale Check Dams	Cd-Hb	Sd-I-P	Inlet Sediment Trap (Curb Inlet Protection)	
Cd-S	Stone Check Dams	Cd-S	Sd-I-S	Inlet Sediment Trap (Sod Inlet Protection)	Indicate type
Ch-1	Channel Stabilization - Category 1 (Vegetated Sod)	Ch-1	Sd3	Temporary Sediment Basin	Sd3
Ch-2	Channel Stabilization - Category 2 (Rip-Rap, TRM)	Ch-2 Rip-Rap TRM	Sd4	Temporary Sediment Trap	Sd4
Ch-3	Channel Stabilization - Category 3 (Concrete)	Ch-3	Sk	Floating Filter Surface Skimmer	Sk
Co	Construction Exit	Co	Sp-B	Seep Berm	Sp-B
Cr	Construction Road Stabilization	Cr	Sr-B	Temporary Stream Crossing (Bridge)	Sr-B
Do-A	Stream Diversion Channel (Geotextile, Sod, or Polyethylene film)	Do-A	Sr-C	Temporary Stream Crossing (Culvert)	Sr-C
Do-B	Stream Diversion Channel (Geotextile sleeve)	Do-B	St	Storm Drain Outlet Protection	St
Do-C	Stream Diversion Channel (Class I Rip-Rap and Geotextile)	Do-C	Su	Surface Roughening	Su
Di	Diversion	Di	Tc-F	Turbidity Curtain (Floating)	
Dn1	Temporary Downdrain Structure	Dn1	Tc-S	Turbidity Curtain (Staked)	Tc-C Indicate type
Dn2	Permanent Downdrain Structure	Dn2	Tp	Topsoiling	Tp
Fr	Filter Ring	Fr	Wt	Vegetated Waterway or Stormwater Conveyance Channel	Wt
Ga	Gabion	Ga			
Gr	Grade Stabilization Structure	Gr			
Lv	Level Spreader	Lv			
Rd	Rock Filter Dam	Rd			
Re	Retaining Wall	Re			
Rt-B	Retrofit (Slotted Board Barn w/ Stone or Filter Fabric)	Rt-B			
Rt-P	Retrofit (Perforated Half-Round Pipe w/ Stone Filter)	Rt-P			
Rt-Sg	Retrofit (Silt Control Gate)	Rt-Sg			
Sd1-BB	Sediment Barrier (Type = Brush Barrier)	Sd1-BB			
Sd1-NS	Sediment Barrier (Type = Non-Sensitive Areas)	Sd1-NS			
Sd1-S	Sediment Barrier (Type = Sensitive Areas)	Sd1-S			
Sd1-C	Sediment Barrier (Type = Compost Filter Media Sock)	Sd1-C			
Sd2-B	Inlet Sediment Trap (Baffle Box)				
Sd2-Bg	Inlet Sediment Trap (Block & Gravel Drop Inlet Protection)	Sd2-G			
Sd2-E	Inlet Sediment Trap (Excavated Inlet w/ Sediment Trap)				
Sd2-F	Inlet Sediment Trap (Filter Fabric w/ Supporting Frame)	Indicate type			

VEGETATIVE MEASURES

Bf	Buffer Zone	Bf
Cs	Coastal Dune Stabilization (w/ Vegetation)	Cs
Ds1	Disturbed Area Stabilization (w/ Mulching Only)	Ds1
Ds2	Disturbed Area Stabilization (w/ Temporary Seeding)	Ds2
Ds3	Disturbed Area Stabilization (w/ Permanent Vegetation)	Ds3
Ds4	Disturbed Area Stabilization (w/ Sodding)	Ds4
Du	Dust Control on Disturbed Areas	Du
Fl-Co	Flocculants Coagulants	Fl-Co
Sb	Streambank Stabilization (Using Permanent Vegetation)	Sb
Ss	Slope Stabilization (Rolled Erosion Control Products (RECPs))	Ss
Tac-1	Tackifiers: Type I (Synthetic Polymers)	Tac-1
Tac-2	Tackifiers: Type II (Organic Polymers)	Tac-2
Tac-3	Tackifiers: Type III (Synthetic/ Organic Blends)	Tac-3
Tac-4	Tackifiers: Type IV (Organic Tackifiers w/ Synthetic Fibers)	Tac-4
Tac-5	Tackifiers: Type V (Synthetic/Organic Blends w/ Synthetic Fibers)	Tac-5

REFER TO SHEET C-1.1 AND C-6.1 FOR EROSION, SEDIMENTATION, AND POLLUTION CONTROL NOTES

Maintenance of all soil erosion and sedimentation control measures and practices, whether temporary or permanent, shall be at all times the responsibility of the property owner.

GSWCC EROSION CONTROL NOTES:

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.

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.

Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.

Any amendments/revisions to the ESAPC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3051
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE: 1" = 30'

GA STATE PLANE EAST

georgia civil
CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St. Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE/RLA PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCRORY
404.644.2939

GEORGIA811 www.Georgia811.com
Contact 811 before you dig

Utilities Services shown are for Contractors' convenience. Items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual locations. The plans may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbances (including trees) to verify location and depth of utilities that are to be saved are protected. Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and/or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

Sheet Title

INTERMEDIATE EROSION SEDIMENTATION & POLLUTION CONTROL PLAN

Sheet Number

C-6.4

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #5-SS REVISION

BRAVO SITE SET 10-24-2024

NPDES MONITORING POINT

NPDES MONITORING POINT

PH 2&3 LIMITS OF DISTURBANCE = 2.91 AC

Ds3 | Ds4
ALL DISTURBED AREAS
SEE LANDSCAPING PLAN FOR LIMITS OF SOD

Ds3 | Du
ALL DISTURBED AREAS

Ds3 | Du
ALL DISTURBED AREAS

PH 2&3 LIMITS OF DISTURBANCE = 2.91 AC

TRASH RECEPTACLES
PORTABLE SANITATION UNITS
CONCRETE WASHOUT
LAT: 33.610725°
LONG: -83.870506°

TRASH RECEPTACLES
PORTABLE SANITATION UNITS
CONCRETE WASHOUT
LAT: 33.609278°
LONG: -83.870225°

NPDES MONITORING POINT

ZONED: NR-2 (COVINGTON)
ZONED: INSTITUTIONAL CAMPUS (OXFORD)
TMP: C062 001A
NEWTON COUNTY GEORGIA
DB 3992, PG 3 / PB 33, PG 49

GEORGIA UNIFORM CODING SYSTEM
SOIL EROSION & SEDIMENT CONTROL

STRUCTURAL PRACTICES

Code	Practice	Symbol
Cd-Fs	Compost Filter Sock	Cd-Fs
Cd-Hb	Straw-Bale Check Dams	Cd-Hb
Cd-S	Stone Check Dams	Cd-S
Ch-1	Channel Stabilization - Category 1 (Vegetated Sod)	Ch-1
Ch-2	Channel Stabilization - Category 2 (Rip-Rap, TRM)	Ch-2 Rip-Rap / TRM
Ch-3	Channel Stabilization - Category 3 (Concrete)	Ch-3
Co	Construction Exit	Co
Cr	Construction Road Stabilization	Cr
Dc-A	Stream Diversion Channel (Geotextile, Sod, or Polyethylene film)	Dc-A
Dc-B	Stream Diversion Channel (Geotextile stone)	Dc-B
Dc-C	Stream Diversion Channel (Class I Rip-Rap and Geotextile)	Dc-C
Di	Diversion	Di
Dn1	Temporary Downdrain Structure	Dn1
Dn2	Permanent Downdrain Structure	Dn2
Fr	Filter Ring	Fr
Ga	Gabion	Ga
Gr	Grade Stabilization Structure	Gr
Lv	Level Spreader	Lv
Rd	Rock Filter Dam	Rd
Re	Retaining Wall	Re
Rt-B	Retrofit (Slotted Board Dam w/ Stone or Filter Fabric)	Rt-B
Rt-P	Retrofit (Perforated Half-Round Pipe w/ Stone Filter)	Rt-P
Rt-Sg	Retrofit (Silt Control Gate)	Rt-Sg
Sd1-BB	Sediment Barrier (Type = Brush Barrier)	Sd1-BB
Sd1-NS	Sediment Barrier (Type = Non-Sensitive Areas)	Sd1-NS
Sd1-S	Sediment Barrier (Type = Sensitive Areas)	Sd1-S
Sd1-C	Sediment Barrier (Type = Compost Filter Media Sock)	Sd1-C
Sd2-B	Inlet Sediment Trap (Baffle Box)	Sd2-B
Sd2-Bg	Inlet Sediment Trap (Block & Gravel Drop Inlet Protection)	Sd2-Bg
Sd2-E	Inlet Sediment Trap (Excavated Inlet Sediment Trap)	Sd2-E
Sd2-F	Inlet Sediment Trap (Filter Fabric w/ Supporting Frame)	Sd2-F
Sd2-G	Inlet Sediment Trap (Gravel Drop Inlet Protection)	Sd2-G
Sd2-P	Inlet Sediment Trap (Curb Inlet Protection)	Sd2-P
Sd2-S	Inlet Sediment Trap (Sod Inlet Protection)	Sd2-S
Sd3	Temporary Sediment Basin	Sd3
Sd4	Temporary Sediment Trap	Sd4
Si	Floating Filter Surface Skimmer	Si
SpB	Seep Berm	SpB
St-B	Temporary Stream Crossing (Bridge)	St-B
St-C	Temporary Stream Crossing (Culvert)	St-C
St	Storm Drain Outlet Protection	St
Su	Surface Roughening	Su
Tc-F	Turbidity Curtain (Floating)	Tc-C
Tc-S	Turbidity Curtain (Staked)	Tc-C
Tp	Topsoiling	Tp
Wt	Vegetated Waterway or Stormwater Conveyance Channel	Wt

Indicate type

VEGETATIVE MEASURES

Bf	Buffer Zone	Bf
Cs	Coastal Dune Stabilization (w/ Vegetation)	Cs
Ds1	Disturbed Area Stabilization (w/ Mulching Only)	Ds1
Ds2	Disturbed Area Stabilization (w/ Temporary Seeding)	Ds2
Ds3	Disturbed Area Stabilization (w/ Permanent Vegetation)	Ds3
Ds4	Disturbed Area Stabilization (w/ Sodding)	Ds4
Du	Dust Control on Disturbed Areas	Du
Fl-Co	Flocculants Coagulants	Fl-Co
Sb	Streambank Stabilization (Using Permanent Vegetation)	Sb
Ss	Slope Stabilization (Rolled Erosion Control Products (RECPs))	Ss
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Tac-3	Tackifiers: Type III (Synthetic/ Organic Blends)	Tac-3
Tac-4	Tackifiers: Type IV (Organic Tackifiers w/ Synthetic Fibers)	Tac-4
Tac-5	Tackifiers: Type V (Synthetic/Organic Blends w/ Synthetic Fibers)	Tac-5

Indicate type

Maintenance of all soil erosion and sedimentation control measures and practices, whether temporary or permanent, shall be at all times the responsibility of the property owner.

REFER TO SHEET C-1.1 AND C-6.1 FOR EROSION, SEDIMENTATION, AND POLLUTION CONTROL NOTES

GSWCC EROSION CONTROL NOTES:

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.

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.

Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.

Any amendments/revisions to the ESAPC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.

ONCE SITE IS STABILIZED, CONTRACTOR SHALL REMOVE TEMPORARY BMP'S

NOTE: WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE: 1" = 30'

GA STATE PLANE EAST

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-992-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSION-PM.COM

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PHONE: 706.342.1104
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georgia civil
CIVIL ENGINEERING
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311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal
GEORGIA REGISTERED NO. PE009855 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #5 & #8 REVISION

Sheet Title
FINAL EROSION SEDIMENTATION & POLLUTION CONTROL PLAN

Sheet Number
C-6.5

Ds1

GSWCC 2016 Edition

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 6 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 6 months.

If any area will remain undisturbed for greater than 6 months, permanent vegetative techniques shall be employed. Refer to **Ds2 -Disturbed Area Stabilization (With Temporary Seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding).**

SPECIFICATIONS (Mulching Without Seeding)

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

Site Preparation
1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3".

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" 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". Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

Applying Mulch (when mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.)
1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment.
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" or more in diameter and 8" to 12" 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 tackifier specifically designed for tacking straw can be substituted for emulsified asphalt. Please refer to specification **Tac - Tackifiers**. Plastic mesh or netting with mesh no larger than 1" by 1" 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.

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) - (Ds1)

Ds2

GSWCC 2016 Edition

Table 6-4.1 - Temporary Cover or Companion Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR TEMPORARY COVER OR COMPANION CROPS [1]

SPECIES	BROADCAST RATES		RESOURCE AREA[3]	PLANTING DATES BY RESOURCE AREA (SOLID lines indicate optimum dates, DOTTED lines indicate permissible, but marginal dates)	REMARKS
BARLEY *Hordeum vulgare*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	3 bu. (144 lbs)	3.3 lbs	M - L		14,000 seed per pound. Winter hardy. Use on productive soils.
			P		
in mixture	½ bu. (24 lbs)	0.6 lb	C		
LESPEDEZA, ANNUAL *Lespedeza striata*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	40 lbs	0.9 lb	M - L		200,000 seed per pound. May volunteer for several years. Use inoculant EL.
			P		
in mixture	10 lbs	0.2 lb	C		
LOVEGRASS, WEEPING *Eragrostis curvula*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	4 lbs	0.1 lb	M - L		1,500,000 seed per pound. May last for several years. Mix with Sericea lespedeza.
			P		
in mixture	2 lbs	0.05 lb	C		
MILLET, BROWNTOP *Panicum fasciculatum*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	40 lbs	0.9 lb	M - L		137,000 seed per pound. Quick dense cover. Will provide excessive competition in mixtures if seeded at high rate.
			P		
in mixture	10 lbs	0.2 lb	C		
MILLET, PEARL *Pennesetum glaucum*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	50 lbs	1.1 lbs	M - L		88,000 seed per pound. Quick dense cover. May reach 5' in height. Not recommended for mixtures.
			P		
			C		
OATS *Avena sativa*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	4 bu. (128 lbs)	2.9 lbs	M - L		13,000 seed per pound. Use on productive soils. Not as a winter hardy as rye or barley.
			P		
in mixture	1 bu. (32 lbs)	0.7 lb	C		
RYE *Secale cereale*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	3 bu. (168 lbs)	3.9 lbs	M - L		18,000 seed per pound. Quick cover. Drought tolerant and winter hardy.
			P		
in mixture	½ bu. (28 lbs)	0.6 lb	C		
RYEGRASS, ANNUAL *Lolium temulentum*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	40 lbs	0.9 lb	M - L		227,000 seed per pound. Dense cover. Very competitive and is not to be used in mixtures.
			P		
			C		
SUDANGRASS *Sorghum sudanese*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	60 lbs	1.4 lbs	M - L		55,000 seed per pound. Good on droughty sites. Not recommended for mixtures.
			P		
			C		
TRITICALE *X-Triticosecale*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	3 bu. (144 lbs)	3.3 lbs	C		Use on lower part of Southern Coastal Plain and in Atlantic Coastal Flatwoods only.
in mixture	½ bu. (24 lbs)	0.6 lb			
WHEAT *Triticum aestivum*	Rate Per Acre[2]	Pure Live Seed Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	3 bu. (180 lbs)	4.1 lbs	M - L		15,000 seed per pound. Winter hardy.
			P		
in mixture	½ bu. (30 lbs)	0.7 lb	C		

[1] Temporary cover crops are very competitive and will crowd out perennials if seeded too heavily

[2] Reduce seeding rates by 50% when drilled.

[3] M-L represents the Mountain; Blue Ridge; and Ridges and Valleys MLRAs*; P represents the Southern Piedmont MLRA* C represents Southern Coastal Plain; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs*

* Refer to Georgia Major Land Resource Areas Map

REQUIREMENT FOR REGULATORY COMPLIANCE

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than 6 months. If an area is expected to be undisturbed for longer than 6 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 6 months but it shall be applied at the appropriate depth, anchored, and have a continuous 90% cover or greater of the soil surface. Refer to specification **Ds1-Disturbed Area Stabilization (With Temporary Seeding).**

CONDITIONS

Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass).

Contact NRCS or the local SWCD for more information.

SPECIFICATIONS

Grading and Shaping

Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others. No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation

When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or hand-seeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall. When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate.

Lime and Fertilizer

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

Seeding

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, culti-packer-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed ¼" to ½" deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See **Table 6-4.1 - Temporary Cover or Companion Cover Crops.**

Mulching

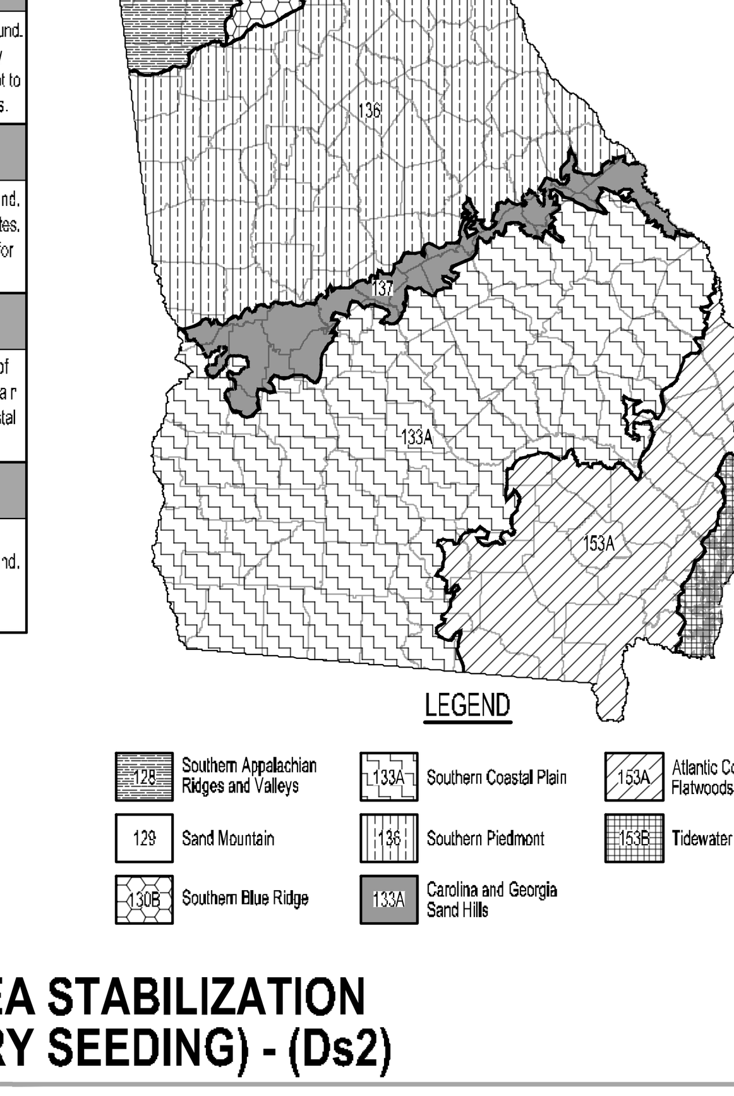
Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to **Ds1 - Disturbed Area Stabilization (With Mulching Only).**

Irrigation

During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

GEORGIA MAJOR LAND RESOURCE AREAS

Figure 6-4.1



N.T.S.

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) - (Ds2)

Ds3

GSWCC 2016 Edition

Table 6-5.2- Permanent Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER [1]

SPECIES	BROADCAST RATES		RESOURCE AREA[3]	PLANTING DATES BY RESOURCE AREA (SOLID lines indicate optimum dates, DOTTED lines indicate permissible, but marginal dates)	REMARKS
BAHIA, PENSACOLA *Paspalum notatum*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
alone or with temporary cover	60 lbs	1.4 lbs	P		166,000 seed per pound. Low growing. Sod forming. Slow to establish. Plant with a companion crop. Will spread into Bermuda pastures and lawns. Mix with Sericea lespedeza or weeping lovegrass.
with other perennials	30 lbs	0.7 lb	C		
BAHIA, WILMINGTON *Paspalum notatum*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
alone or with temporary cover	60 lbs	1.4 lbs	M - L		166,000 seed per pound. Low growing. Sod forming. Slow to establish. Plant with a companion crop. Will spread into Bermuda pastures and lawns. Mix with Sericea lespedeza or weeping lovegrass.
with other perennials	30 lbs	0.7 lb	P		
BERMUDA, COMMON *Cynodon dactylon*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
Hulled seed alone	10 lbs	0.2 lb	P		1,787,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.
with other perennials	6 lbs	0.7 lb	C		
BERMUDA, COMMON *Cynodon dactylon*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
Unhulled seed with temporary cover	10 lbs	0.2 lb	P		Plant with winter annuals.
with other perennials	6 lbs	0.1 lb	C		Plant with Tall Fescue
BERMUDA SPRIGS *Cynodon dactylon*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
Coastal, Common, Midland, or Tift 44	40 cu. ft.	0.9 cu. ft.	M - L		Cubic foot = approx. 650 sprigs. A bushel contains 1.25 cubic feet or approx. 800 sprigs.
Coastal, Common, or Tift 44	or		P		
			C		
Tift 78	sod plugs 3' x3'		C		Southern Coastal Plain only
CENTIPEDE *Eremochloa ophiuroides*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
Block sod only			P		Drought tolerant. Full sun or partial shade. Effective adjacent to concrete and in concentrated flow areas. Irrigation is needed until fully established. Do not plant near pastures. Winter hardy as far as north Athens and Atlanta
			C		
CROWNVETCH *Coronilla varia*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
with winter annuals or cool season grasses	15 lbs	0.3 lb	M - L		100,000 seed per pound. Dense growth. Drought tolerant and fire resistant. Attractive rose, pink and white blossoms spring to late fall. Mix with 30 lbs of Tall fescue or 15 lbs of rye. Inoculate seed with M inoculant. Use from North Atlanta and Northward.
			P		
FESCUE, TALL *Festuca arundinacea*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	50 lbs	1.1 lbs	M - L		227,000 seed per pound. Use alone only on better sites. Mix with perennial lespedeza or Crownvetch. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic fields.
with other perennials	30 lbs	0.7 lb	P		
LESPEDEZA SERICEA *Lespedeza cuneata*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
scarified	60 lbs	1.4 lbs	M - L		350,000 seed per pound. Widely adapted. Low maintenance. Mix with Weeping lovegrass, Common bermuda, bahia or tall fescue. Takes 2-3 years to become fully established. Excellent on road banks. Inoculate seed with EL inoculant.
			P		
			C		
unscarified	75 lbs	1.7 lbs	M - L		Mix with Tall fescue or winter annuals.
			P		
			C		
seed-bearing hay	3 tons	1338 lbs	M - L		Cut when seed mixture is mature, but before it shatters. Add Tall fescue or winter annuals.
			P		
			C		
LESPEDEZA *Ambro virgata Lespedeza virgata DC or Appalow Lespedeza cuneata (Dumont) G. Don)*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
scarified	60 lbs	1.4 lbs	M - L		300,000 seed per pound. Height of growth is 18"-24". Advantageous in urban areas. Spreading-type growth. New growth has bronze coloration. Mix with weeping lovegrass, common bermuda, bahia, tall fescue or winter annuals. Do not mix with Sericea lespedeza. Slow to develop solid stands. Inoculate seed with EL inoculant.
			P		
			C		
unscarified	75 lbs	1.7 lbs	M - L		
			P		
			C		
LESPEDEZA, SHRUB *Lespedeza bicolor Lespedeza thumbergii*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
plants	3'x3'		M - L		Provide wildlife food and cover.
			P		
			C		
LOVEGRASS, WEEPING *Eragrostis curvula*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	4 lbs	0.1 lb	M - L		1,500,000 seed per pound. Quick cover. Drought tolerant. Grows well with Sericea lespedeza on roadbanks.
			P		
with other perennials	2 lbs	0.05 lb	C		
MAIDENCANE *Panicum hemitomon*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
sprigs	2'x3' spacing		ALL		For very wet sites. May clog channels. Dig sprigs from local sources. Use along river banks and shorelines.
PANICGRASS, ATLANTIC COASTAL *Panicum amarum var amarukum*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
	20 lbs	0.5 lb	P		Grows well on coastal sand dunes, borrow areas, and gravel pits. Provides winter cover for wildlife. Mix with Sericea lespedeza except on sand dunes.
			C		
REED CANARY GRASS *Phalaris arundinacea*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	50 lbs	1.1 lbs	M - L		Grows similar to Tall fescue
with other perennials	30 lbs	0.7 lb	P		
SUNFLOWER, 'AZTEC' MAXIMILLIAN *Helianthus maximiliani*	Rate Per Acre[1]	Pure Live Seed[2] Per 1000 sq.ft.		J F M A M J J A S O N D	
alone	10 lbs	0.2 lb	M - L		227,000 seed per pound. Mix with Weeping lovegrass or other low-growing grasses or legumes.
			P		
with other perennials			C		

[1] Reduce seeding rates by 50% when drilled

[2] PLS is an abbreviation for Pure Live Seed. Refer to Section V.E. of these specifications.

[3] M-L represents the Mountain; Blue Ridge; and Ridges and Valleys MLRAs*; P represents the Southern Piedmont MLRA* C represents Southern Coastal Plan; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs*

* Refer to Georgia Major Land Resource Areas Map

Table 6-5.1. Fertilizer Requirements

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool Season Grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 1/2/
	Second	6-12-12	1000 lbs./ac.	--
	Maintenance	10-10-10	400 lbs./ac.	30 lbs./ac.
2. Cool Season Grasses and Legumes	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac. 1/
	Second	0-10-10	1000 lbs./ac.	--
	Maintenance	0-10-10	400 lbs./ac.	--
3. Ground Covers	First	10-10-10	1300 lbs./ac. 3/	--
	Second	10-10-10	1300 lbs./ac. 3/	--
	Maintenance	10-10-10	1100 lbs./ac.	--
4. Pine Seedlings	First	20-10-5	one 21-gram pellet per seedling placed in the closing hole	--
5. Shrub Lespedeza	First	0-10-10	700 lbs./ac.	--
	Maintenance	0-10-10	700 lbs./ac. 4/	--
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
7. Warm Season Grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/6/
	Second	6-12-12	800 lbs./ac.	50-100 lbs./ac. 2/
	Maintenance	10-10-10	400 lbs./ac.	30 lbs./ac.
8. Warm Season Grasses & Legumes	First	6-12-12	1500 lbs./ac.	50 lbs./ac./6/
	Second	0-10-10	1000 lbs./ac.	--
	Maintenance	0-10-10	400 lbs./ac.	--

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".

Table 6-5.3. Durable Shrubs and Ground Covers for Permanent Cover
Ground covers include a wide range of low-growing plants planted together in considerable numbers to cover large areas of the landscape. Ground covers grow slower than grasses. Weeds are likely to compete, especially the first year. Maintenance is needed to insure survival. These ground covers will not be used unless proper maintenance is planned. Maintain mulch at 3" thickness until plants provide adequate cover. Fall planting is encouraged because the need for constant watering is reduced and plants have time to establish new roots before hot weather.

COMMON NAME	SCIENTIFIC NAME	MATURE HEIGHT	PLANT SPACING	COMMENT
Abelia	*Abelia grandiflora*	3'-4'	5'	Also a prostrate form 2' high. Sun, semi-shade. Semi evergreen.
Carolina Yellow Jessamine	*Gelsemium sempervirens*	low	3'	Vine. Yellow, trumpet-like flowers. Hardy, one of best vines. Evergreen. Native to GA.
Carpet Blue	*Ajuga reptans*	2"-4"	3'	Needs good drainage, partial shade. Blue or white flowers. Evergreen.
Bearberry Cotoneaster	*Cotoneaster dammeri*	2'-4'	5'	White flowers, red fruit. Sun. Evergreen.
Ground Cover Cotoneaster	*Cotoneaster salicifolius* 'Repens'	1'-2'	5'	White flowers, red fruit. Sun. Evergreen.
Rock Cotoneaster	*Cotoneaster horizontalis*	1'-2'	5'	Semi-Evergreen. Sun.
Virginia Creeper	*Parthenocissue quinquefolia*	low	3'	Red in fall. Vine. Deciduous. Native to GA.
Daylily	*Hemerocallis* spp.	2'-3'	2'	Many flower colors. Full sun. Very hardy.
Compacta Holly	*Ilex crenata* 'Compacta'	3'-4'	5'	Sun. Semi-shade.
Chinese Holly	*Ilex cornuta* 'Rotunda'	3'-4'	5'	Very durable. Sun, Semi-shade.
Dwarf Burford Holly	*Ilex burfordii* 'Nana'	5'-8'	8'	--
Dwarf Yaupon Holly	*Ilex vomitoria* 'Nana'	3'-4'	5'	Very durable. Sun, Semi-shade.
Repandens Holly	*Ilex crenata* 'Repandens'	2'-3'	5'	Sun. Semi-shade.
Andorra Juniper	*Juniperus horizontalis* 'Plumosa'	2'-3'	5'	Excellent for slopes. Sun.
Andorra Compacta Juniper	*Juniperus horizontalis* Plumosa compacta'	1'-2'	5'	More compact than Andorra.
Andorra Compacta Juniper	*Juniperus horizontalis* 'Plumosa Compacta'	1'-2'	5'	More compact than Andorra.
Blue Chip Juniper	*Juniperus horizontalis* 'Blue Chip'	8"-10"	4'	--
Blue Rug Juniper	*Juniperus horizontalis* 'Wiltonii'	4"-6"	3'	Very low. Sun.
Parsons Juniper	*Juniperus davurica* 'Expansa' (Squamata parsonii)	18"-24"	5'	One of the best, good winter cover.
Pfitzer Juniper	*Juniperus chinensis* 'Pfitzerana'	6'-8'	6'	Needs room.
Prince of Wales Juniper	*Juniperus horizontalis* 'Prince of Wales'	8"-10"	4'	Feathery appearance.
Sargent Juniper	*Juniperus chinensis* 'Sargentii'	1'-2'	5'	Full sun. Needs good drainage. Good winter color.
Shore Juniper	*Juniperus conferta*	2'-3'	5'	Emerald Sea or Blue Pacific cultivars are good.
Liriope	*Liriope muscari*	8"-10"	3'	--
Creeping Liriope	*Liriope spicata*	10"-12"	1'	Spreads by runners.
Big Leaf Periwinkle	*Vinca major*	12"-15"	4'	Lilac flowers in spring. Semi-shade.
Common Periwinkle	*Vinca minor*	5"-6"	4'	Lavender-blue flowers in spring. Semi-shade.
Cherokee Rose	*Rosa laevigata*	2'	5'	Rampant grower. Not for restricted spaces. State flower.
Memoria Rose	*Rosa weuchuriana*	2'	5'	Rampant grower.
St. Johnswort	*Hypericum calycenum*	8"-12"	3'	Semi-shade.
Anthony Waterer Spirea	*Spirea bumalda*	3'-4'	5'	Sun.
Thunberg Spirea	*Spirea thunbergii*	3'-4'	5'	Sun.

Table 6-5.4. Trees for Erosion Control

SITE	SOIL MATERIAL	COMMON SOILS	PLANTING TREE SPECIES[1]	SPACING	PLANTING DATES[3]
Borrow areas, graded areas, and spoil material	Sandy	Lakeland, Troup	Loblolly Pine (*Pinus taeda*) / Longleaf Pine (*Pinus palustris*)	2	M-L P = 12/1 - 3/15 C = 12/1 - 3/1
	Loamy	Orangeburg, Tifton	Loblolly Pine (*Pinus taeda*) / Slash Pine (*Pinus elliottii*)	2	M-L P = 12/1 - 3/15 C = 12/1 - 3/1
	Clay	Cecil, Faceville	Slash Pine (*Pinus elliottii*) / Virginia Pine (*Pinus virginiana*)	2	M-L P = 12/1 - 3/15 C = 12/1 - 3/1
Streambanks	--	--	Willows[4] (*Salix* spp.)	2' x 2'	ALL

[1] Other trees and shrubs listed on Table 6-25.3 may be interplanted with the pines for improved wildlife benefits.

[2] Type of Planting / Tree Spacing / No. of Trees per Acre
Trees Alone — 4' x 4' — 2,722
Trees in Combination w/ grasses and/or other plants — 6' x 6' — 1,210

[3] M-L represents the Mountain; Blue Ridge; and Ridges and Valleys MLRAs*; P represents the Southern Piedmont MLRA*; C represents Southern Coastal Plan; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs*

* Refer to Georgia Major Land Resource Areas Map

[4] Fertilization of companion crop is ample for this species.

REQUIREMENT FOR REGULATORY COMPLIANCE

This practice shall be applied immediately to rough graded areas that will be undisturbed for longer than 6 months. This practice or sodding shall be applied immediately to all areas at final grade. Final Stabilization means that all soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by the GA EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures.

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

CONDITIONS

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

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

Wildlife Plantings

Commercially available plants beneficial to wildlife species include the following:

Mast Bearing Trees
Beech, Black Cherry, Blackgum, Chestnut, Chinkapin, Hackberry, Hickory, Honey Locust, Native Oak, Persimmon, Sawtooth Oak and Sweetgum.
- All trees that produce nuts or fruits are favored by many game species. Hickory provides nuts used mainly by squirrels and bear.

Shrubs and Small Trees
Bayberry, Bicolor Lespedeza, Crabapple, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Native Holly, Red Cedar, Red Mulberry, Sumac, Wax Myrtle, Wild Plum and Blackberry.
- Plant in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlife, except for lespedeza that produces seeds used by quail and songbirds.

Grasses, Legumes, Vines and Temporary Cover
Bahiagrass, Bermudagrass, Grass-Legume mixtures, Partridge Pea, Annual Lespedeza, Orchardgrass (for mountains), Browntop Millet (for temporary cover), and Native grapes.
- Provides herbaceous cover in clearings for a game bird brood-rearing habitat. Appropriate legumes such as vetches, clovers, and lespedezas may be mixed with grass, but they may die out after a few years.

CONSTRUCTION SPECIFICATIONS

Grading and Shaping

Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment. When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation. Concentrations of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

Lime and Fertilizer Rates and Analysis

Agricultural lime is required at the rate of 1-2 tons per acre unless soil tests indicate otherwise. Graded areas require lime application. If lime is applied within 6 months of planting permanent perennial vegetation, additional lime is not required. Agricultural lime shall be within the specifications of the GA Department of Agriculture. Lime spread by conventional equipment shall be "ground limestone." Ground limestone is calcitic or dolomitic limestone ground so that 90% of the material will pass through a 10-mesh sieve, not less than 50% will pass through a 50-mesh sieve and not less than 25% will pass through a 100-mesh sieve. Fast-acting lime spread by hydraulic seeding equipment should be "finely ground limestone" spanning from the 180 micron size to the 5 micron size. Finely ground limestone is calcitic or dolomitic limestone ground so that 95% of the material will pass through a 100-mesh sieve. It is desirable to use dolomitic limestone in the Sand Hills, Southern Coastal Plain and Atlantic Coast Flatwoods MLRAs. (See Figure 6-4.1) Agricultural lime is generally not required where only trees are planted. Initial fertilization, nitrogen, topdressing, and maintenance fertilizer requirements for each species or combination of species are listed in **Table 6-5.1.**

Lime and Fertilizer Application

When hydraulic seeding equipment is used, the initial fertilizer shall be mixed with seed, inoculant (if needed), and wood cellulose or wood pulp fiber mulch and applied in a slurry. The inoculant, if needed, shall be mixed with the seed prior to being placed into the hydraulic seeder. The slurry mixture will be agitated during application to keep the ingredients thoroughly mixed. The mixture will be spread uniformly over the area within one hour after being placed in the hydroseeder. Finely ground limestone can be applied in the mulch slurry or in combination with the top dressing. When conventional planting is to be done, lime and fertilizer shall be applied uniformly in one of the following ways: 1. Apply before land preparation so that it will be mixed with the soil during seedbed preparation. 2. Mix with the soil used to fill the holes, distribute in furrows. 3. Broadcast after steep surfaces are scarified, pitted or trenched. 4. A fertilizer pellet shall be placed at root depth in the closing hole beside each pine tree seedling.

Seeding

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, culti-packer-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed ½" to ¼" deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See **Table 6-4.1 - Temporary Cover or Companion Cover Crops.**

Mulching

Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to **Ds1 - Disturbed Area Stabilization (With Mulching Only).**

Irrigation

During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

Plant Selection

Refer to Tables 6-4.1, 6-5.2, 6-5.3 and 6-5.4 for approved species. Species not listed shall be approved by the State Resource Conservationist of the NRCS before they are used. Plants shall be selected on the basis of species characteristics, site and soil conditions, planned use and maintenance of the area; time of year of planting, method of planting; and needs and desires of the land user. Some perennial species are easily established and can be planted alone. Examples of these are Common Bermuda, Tall Fescue, and Weeping Lovegrass. Other perennials, such as Bahia Grass and Sericea Lespedeza, are slow to become established and should be planted with another perennial species. The additional species will provide quick cover and ample soil protection until the target perennial species become established. For example, common seeding combinations are 1) Weeping Lovegrass with Sericea Lespedeza (scarified) and 2) Tall Fescue with Sericea Lespedeza (unscarified). Plant selection may also include annual companion crops. Annual companion crops should be used only when perennial species are not planted during their optimum planting period. A common mixture is Brown Top Millet with Common Bermuda in mid-summer. Care should be taken in selecting companion crop species and seeding rates because annual crops will compete with perennial species for water, nutrients, and growing space. A high seeding rate of the companion crop may prevent the establishment of perennial species. **Ryegrass shall not be used in any seeding mixtures containing perennial species due to its ability to out-compete desired species chosen for permanent perennial cover.**

Seed Quality

The term "pure live seed" is used to express the quality of seed and is not shown on the label. Pure live seed, PLS, is expressed as a percentage of seeds that are pure and will germinate. Information on percent germination and purity can be found on seed tags. PLS is determined by multiplying the percent of pure seed with the percent of germination; i.e., (PLS = % germination x % purity). The percent of PLS helps you determine the amount of seed you need. For example, if the seeding rate is 10 pounds PLS and the bulk seed is 56% PLS (i.e. 70% germination, 80% purity), the bulk seeding rate is: 10 lbs. PLS acre / 56% PLS = 17.9 lbs/acre. You would need to plant 17.9 lbs/acre to provide 10 lbs/acre of pure live seed.

Seedbed Preparation

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

Broadcast plantings
1. Tillage, at a minimum, shall adequately loosen soil to a depth of 4" to 6"; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for proper placement of seed, sprigs, or plants; and allow for 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" 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" deep on the contour 4 to 6 months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Inoculants

All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria. The inoculant shall be a pure culture prepared specifically for the seed species and used within the dates on the container. A mixing medium recommended by the manufacturer shall be used to bond the inoculant to the seed. For conventional seeding, use twice the amount of inoculant recommended by the manufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used. All inoculated seed shall be protected from the sun and high temperatures and shall be planted the same day inoculated. No inoculated seed shall remain in the hydroseeder longer than one hour.

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 culti-packer-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 ⅛" to ¼" of soil for small seed and ½" to 1" 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, 2" 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% to 100% soil cover. When selecting a mulch, consider the mulch's functional longevity, vegetation establishment enhancement, and erosion control effectiveness. 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 2½ 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 lbs per acre. Dry straw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
3. 1,000 lbs 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 3 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 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, 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 GA 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. *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" or more in diameter and 8" to 12" 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.
2. *Synthetic tackifiers, binders or hydraulic mulch specifically designed to tack straw*, 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. All tackifiers, binders or hydraulic mulch specifically designed to tack straw should be verified nontoxic through EPA 2021.0 testing. Refer to Tackifiers-Tac.
3. Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of ¼ to ½ bushel per acre.
4. Plastic mesh or netting with mesh no larger than 1" by 1" 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.

Bedding Material

Mulch is used as bedding material to conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bare areas on lawns.

Material	Depth
Grain straw	4" to 6"
Grass Hay	4" to 6"
Pine needles	3" to 5"
Wood waste	4" to 6"

Irrigation

Irrigation will be applied at a rate that will not cause runoff.

Topdressing

Topdressing will be applied on all temporary and permanent (perennial) species planted alone or in mixtures with other species. Recommended rates of application are listed in Table 6-5.1.

Second Year and Maintenance Fertilization

Second year fertilizer rates and maintenance fertilizer rates are listed in Table 6-5.1.

Lime Maintenance Application

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.

Use and Management

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" of top growth under any use and management. Moderate use of top growth is beneficial after establishment. Exclude traffic until plants are well established. Because of quail nesting season, mowing should not take place between May and September.

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) - (Ds3)

Sd2-F

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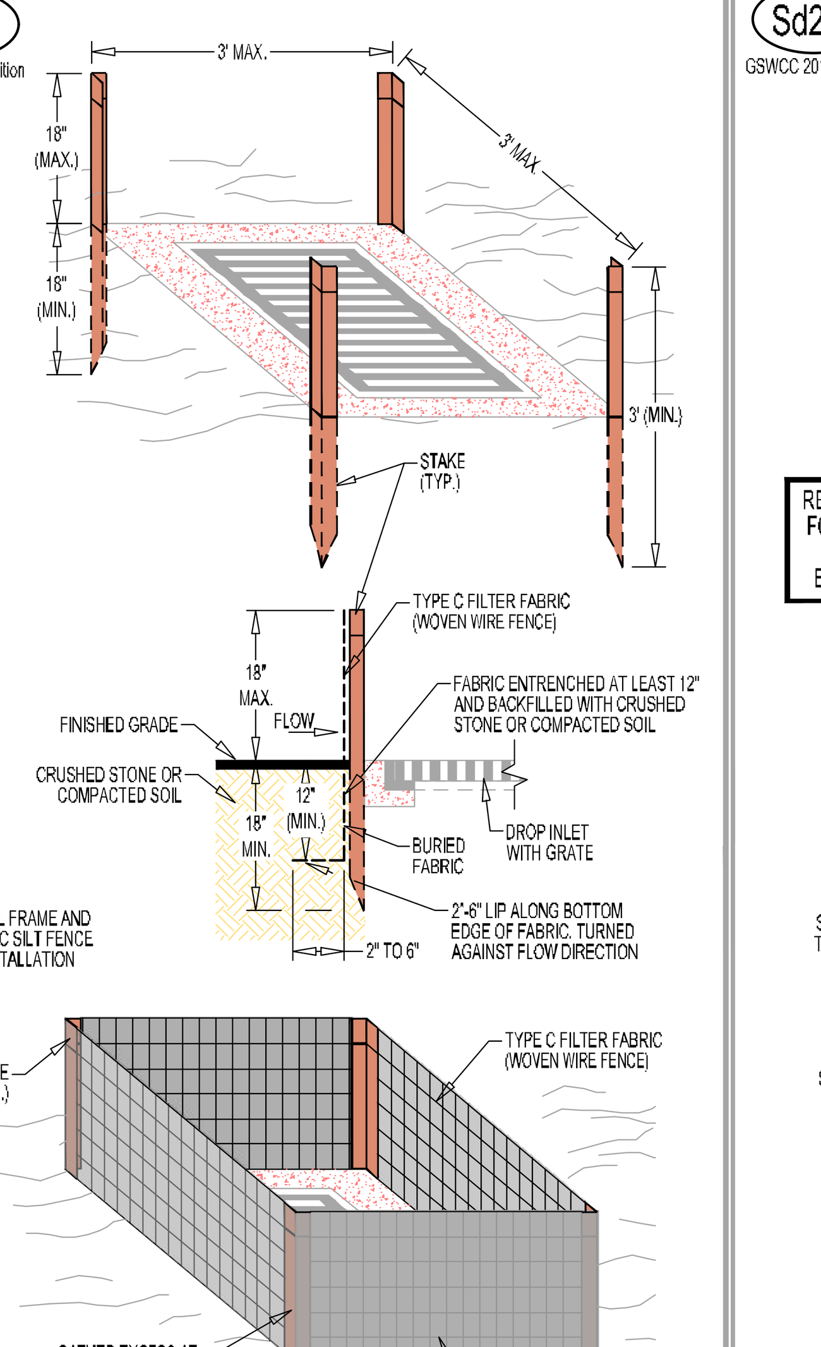

NOTE:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAX. OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

Figure 6-28.1 - Fabric and Supporting Frame For Inlet Projection

PURPOSE

To prevent sediment from entering a storm drainage systems prior to permanent stabilization of the disturbed area draining to the inlet.

CONDITIONS

All storm drain drop inlets that receive runoff from disturbed areas.

DESIGN CRITERIA

Through testing there are 2 different categories (high retention and high flow) supported. In areas where BMPs are being used on paved surfaces, or safety is a concern, the potentially negative effects of ponding should be taken into account. In such cases, a high flow BMP is preferred. On unpaved areas where ponding will not cause a safety hazard, high retention shall be taken into account. If high retention is not used in this situation a rationale shall be given on the plan and an unpaved application should apply. Sediment traps must be self-draining unless they are otherwise protected in an approved fashion that will not present a safety hazard. The drainage area entering the inlet sediment trap shall be no greater than 1 acre. If runoff may bypass the protected inlet, a temporary dike should be constructed on the down slope side of the structure. Also, a stone filter ring may be used on the up slope side of the inlet to slow runoff and filter larger soil particles. Refer to Fr-Stone Filter Ring.

CONSTRUCTION SPECIFICATIONS

Filter Fabric with Supporting Frame

This method of inlet protection is applicable where the inlet drains a relatively flat area (slope no greater than 5%) and shall not apply to inlets receiving concentrated flows, such as in street or highway medians. As shown in Figure 6-28.1, Type S silt fence supported by steel posts should be used. The stakes shall be spaced evenly around the perimeter of the inlet a maximum of 3' apart, and securely driven into the ground, approximately 18" deep. The fabric shall be 36" tall and entrenched 12" and backfilled with crushed stone or compacted soil. Fabric and wire shall be securely fastened to the posts, and fabric ends must be overlapped a minimum of 18" or wrapped together around a post to provide a continuous fabric barrier around the inlet.

MAINTENANCE

The trap shall be inspected daily and after each rain, and repairs made as needed. Sediment shall be removed 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. Sod inlet protection shall be maintained as specified in Ds4 - Disturbed Area Stabilization (With Sodding). Sediment shall not be washed into the inlet. It shall be removed from the sediment trap, disposed of and stabilized so that it will not enter the inlet again. 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.

N.T.S.

INLET SEDIMENT TRAP (FILTER FABRIC W/ SUPPORTING FRAME) - (Sd2-F)

Sd2-E

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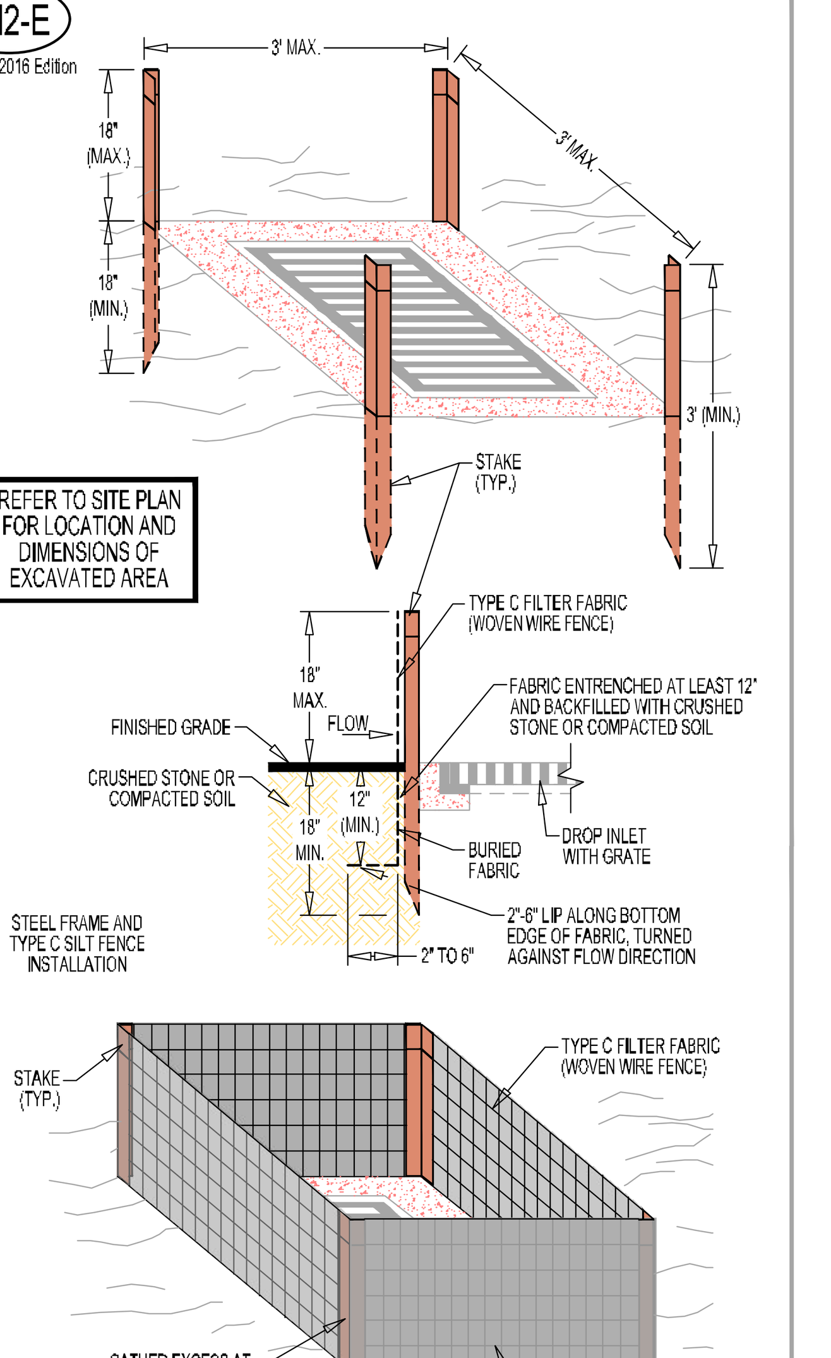

NOTE:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAX. OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

Figure 6-28.1 - Fabric and Supporting Frame For Inlet Projection

An excavation may be created around the inlet sediment trap to provide additional sediment storage. The trap shall be sized to provide a minimum storage capacity calculated at the rate of 67 cubic yards per acre of drainage area. A minimum depth of 1.5 feet for sediment storage should be provided. Side slopes shall not be steeper than 2:1

CONSTRUCTION SPECIFICATIONS

Filter Fabric with Supporting Frame

Silt fence material with wire reinforcement and supported by steel posts should be used. The stakes shall be spaced evenly around the perimeter of the inlet a maximum of 3' apart, and securely driven into the ground, approximately 18" deep. The fabric shall be 36" tall and entrenched 12" and backfilled with crushed stone or compacted soil. Fabric and wire shall be securely fastened to the posts, and fabric ends must be overlapped a minimum of 18" or wrapped together around a post to provide a continuous fabric barrier around the inlet.

MAINTENANCE

The trap shall be inspected daily and after each rain, and repairs made as needed. Sediment shall be removed 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. Sod inlet protection shall be maintained as specified in Ds4 - Disturbed Area Stabilization (With Sodding). Sediment shall not be washed into the inlet. It shall be removed from the sediment trap, disposed of and stabilized so that it will not enter the inlet again. 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.

N.T.S.

EXCAVATED INLET SEDIMENT TRAP - (Sd2-E)

1. CLASS 1 RIP-RAP
   A. NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER GREATER THAN 12"; NO MORE THAN 50% OF THE STONE SHALL HAVE A DIAMETER LESS THAN 10"; AND NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER OF LESS THAN 6". THE THICKNESS OF THE RIP-RAP LINER SHALL BE NO LESS THAN 12".
2. CLASS 2 RIP-RAP
   A. NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER GREATER THAN 16"; NO MORE THAN 50% OF THE STONE SHALL HAVE A DIAMETER LESS THAN 12"; AND NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER OF LESS THAN 6". THE THICKNESS OF THE RIP-RAP LINER SHALL BE NO LESS THAN 16".
3. CLASS 3 RIP-RAP
   A. NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER GREATER THAN 22"; NO MORE THAN 50% OF THE STONE SHALL HAVE A DIAMETER LESS THAN 16"; AND NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER OF LESS THAN 8". THE THICKNESS OF THE RIP-RAP LINER SHALL BE NO LESS THAN 22".
4. CLASS 4 RIP-RAP
   A. NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER GREATER THAN 27"; NO MORE THAN 50% OF THE STONE SHALL HAVE A DIAMETER LESS THAN 22"; AND NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER OF LESS THAN 10". THE THICKNESS OF THE RIP-RAP LINER SHALL BE NO LESS THAN 27".
5. CLASS 5 RIP-RAP
   A. NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER GREATER THAN 34"; NO MORE THAN 50% OF THE STONE SHALL HAVE A DIAMETER LESS THAN 27"; AND NO MORE THAN 10% OF THE STONE SHALL HAVE A DIAMETER OF LESS THAN 16". THE THICKNESS OF THE RIP-RAP LINER SHALL BE NO LESS THAN 34".

RIP-RAP CLASSIFICATION SPECIFICATIONS

Co

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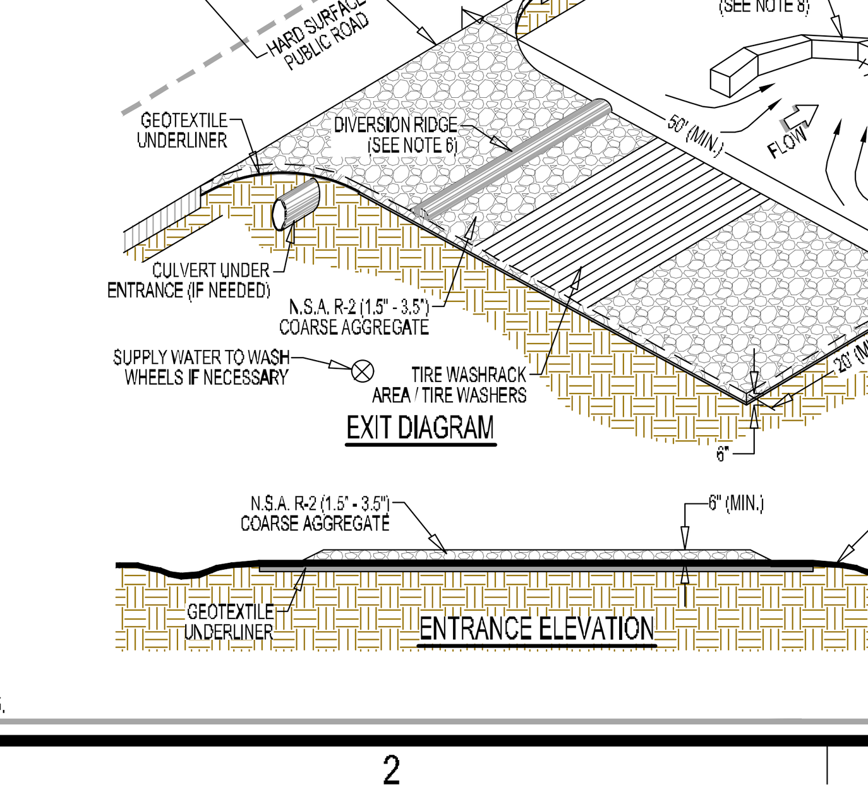
Figure 6-14.1



N.T.S.

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

CONDITIONS

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

DESIGN CRITERIA

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

Aggregate Size / Pad Thickness / Pad Width - As noted above

Pad Length
The gravel pad shall have a minimum length of 50'. When the construction is less than 50' from the paved access, the length shall be from the edge of existing pavement to the permitted building being constructed.

Washing
If the action of the vehicle traveling over the gravel pad does not sufficiently remove the mud, the tires should be washed prior to entrance onto public rights-of-way. When washing is required, it shall be done as noted above.

Location
The exit shall be located or protected to prevent sediment from leaving the site.

CONSTRUCTION SPECIFICATIONS

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

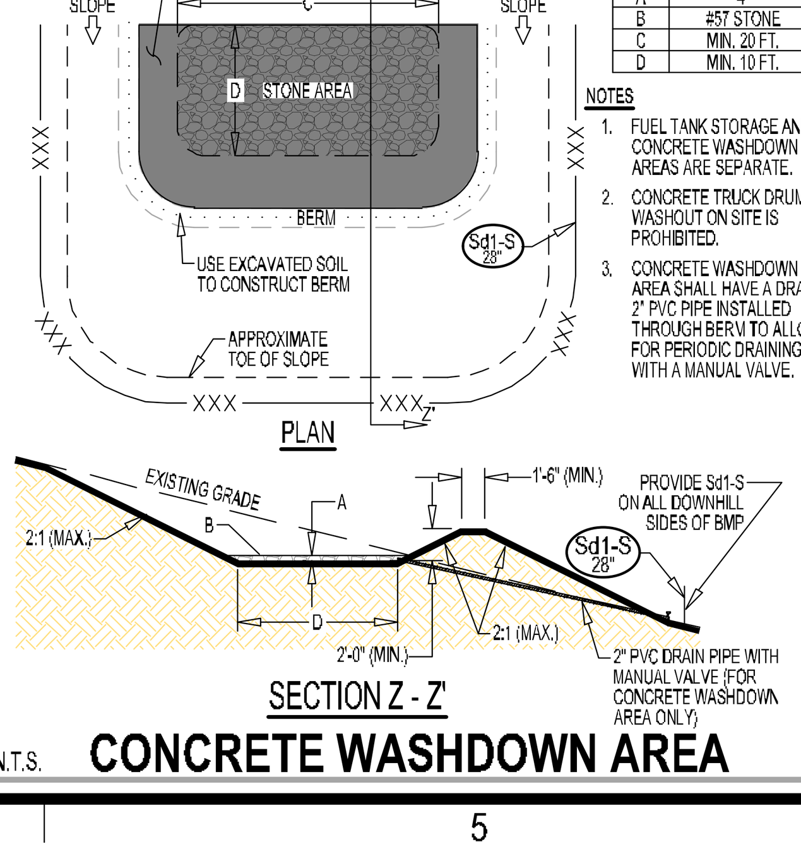
Diversion Ridge
On sites where the grade toward the paved area is greater than 2%, a diversion ridge 6" to 8" high with 3:1 side slopes shall be constructed across the foundation approximately 15' above the road.

Geotextile
Geotextile underliner must be placed the full length and width of the entrance. Geotextile selection shall be based on AASHTO M288-06 specification:
1. For subgrades with a CBR greater than or equal to 3 or shear strength greater than 90 kPa, geotextile must meet requirements of section AASHTO M288-06 Section 7.3, Separation Requirements.
2. For subgrades with a CBR between 1 and 3 or shear strength between 30 and 90 kPa, geotextile must meet requirements of section AASHTO M288-06 Section 8, Geotextile Property Requirements for Subsurface Drainage, Separation, Stabilization, and Permanent Erosion Control (Geotextile Property Requirements).

MAINTENANCE

The exit 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" 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.

CONSTRUCTION EXIT - (Co)



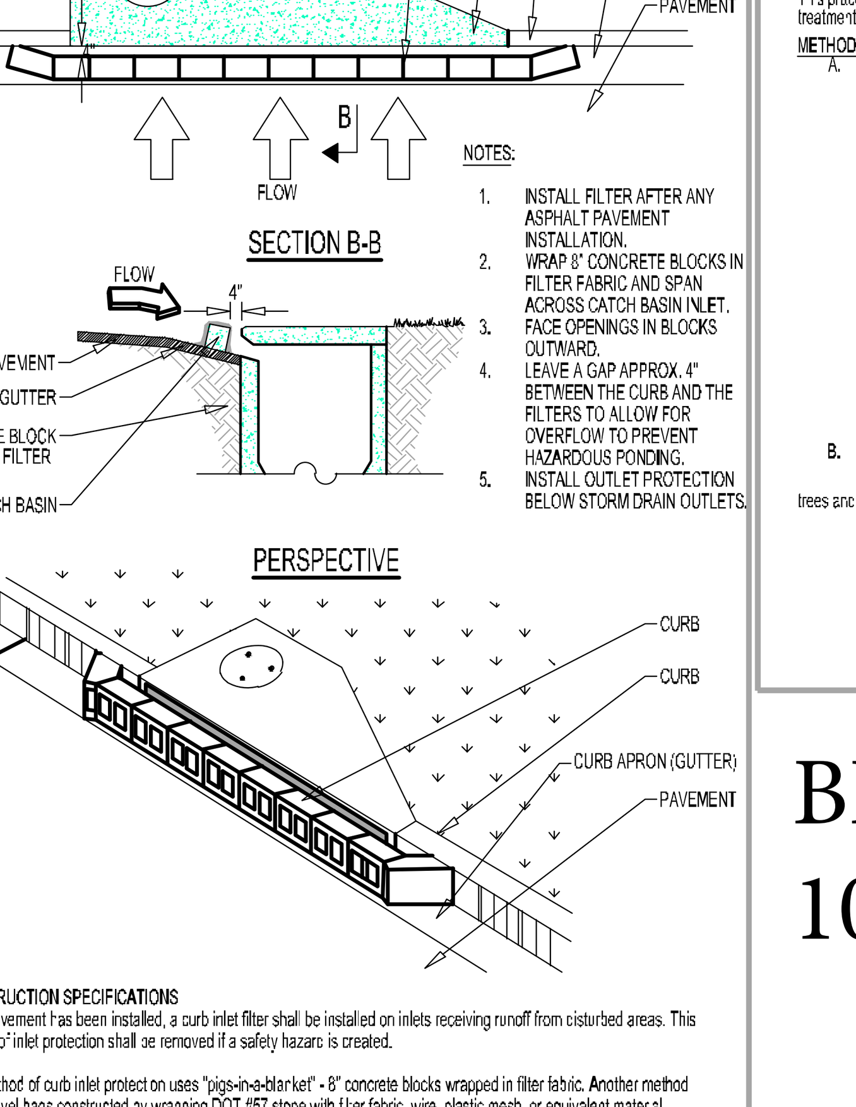
CONCRETE WASHDOWN SCHEDULE	
A	4'
B	#57 STONE
C	MIN. 20 FT.
D	MIN. 10 FT.

NOTES
1. FUEL TANK STORAGE AND CONCRETE WASHDOWN AREAS ARE SEPARATE.
2. CONCRETE TRUCK DRUM WASHOUT ON SITE IS PROHIBITED.
3. CONCRETE WASHDOWN AREA SHALL HAVE A DRAIN 2" PVC PIPE INSTALLED THROUGH BERM TO ALLOW FOR PERIODIC DRAINING WITH A MANUAL VALVE.

N.T.S.

CONCRETE WASHDOWN AREA

Sd2-P



NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP APPROX. 4" BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.

CONSTRUCTION SPECIFICATIONS

Once pavement has been installed, a curb inlet filter shall be installed on inlets receiving runoff from disturbed areas. This method of inlet protection shall be removed if a safety hazard is created.

One method of curb inlet protection uses "pigs-in-a-blanket" - 8" concrete blocks wrapped in filter fabric. Another method uses gravel bags constructed by wrapping DOT #57 stone with filter fabric, wire, plastic mesh, or equivalent material.

A gap of approximately 4" shall be left between the inlet filter and the inlet to allow overflow and prevent hazardous ponding in the roadway. Proper installation and maintenance are crucial due to possible ponding in the roadway, resulting in a hazardous condition.

MAINTENANCE

The trap shall be inspected daily and after each rain, and repairs made as needed. Sediment shall be removed when the sediment has accumulated to one-half the height of the trap.

Sediment shall be removed from curb inlet protection immediately. Sediment shall not be washed into the inlet. It shall be removed from the sediment trap, disposed of and stabilized so that it will not enter the inlet again.

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.

CURB INLET PROTECTION "Pigs-in-a-Blanket"

Du

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CONDITIONS

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

METHOD AND MATERIALS

A. Temporary Methods
   - **Mulches.** See standard **Ds1 - Disturbed Area Stabilization (With Mulching Only).** Synthetic resins may be used instead of asphalt to bind mulch material. Refer to specification **Tac - Tackifiers.** Resins should be used according to manufacturer's recommendations.
   - **Vegetative Cover.** See specification **Ds2 - Disturbed Area Stabilization (With Temporary Seeding).**
   - **Spray-on Adhesives.** These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification **Tac - Tackifiers.**
   - **Tillage.** This practice is designed to roughen and bring clods to the surface. It is an emergency measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

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

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

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

B. Permanent Methods

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

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

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

DUST CONTROL ON DISTURBED AREAS - (Du)

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Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS	
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1-SS REVISION

Sheet Title

EROSION SEDIMENTATION AND POLLUTION CONTROL DETAILS

Sheet Number

C-6.6

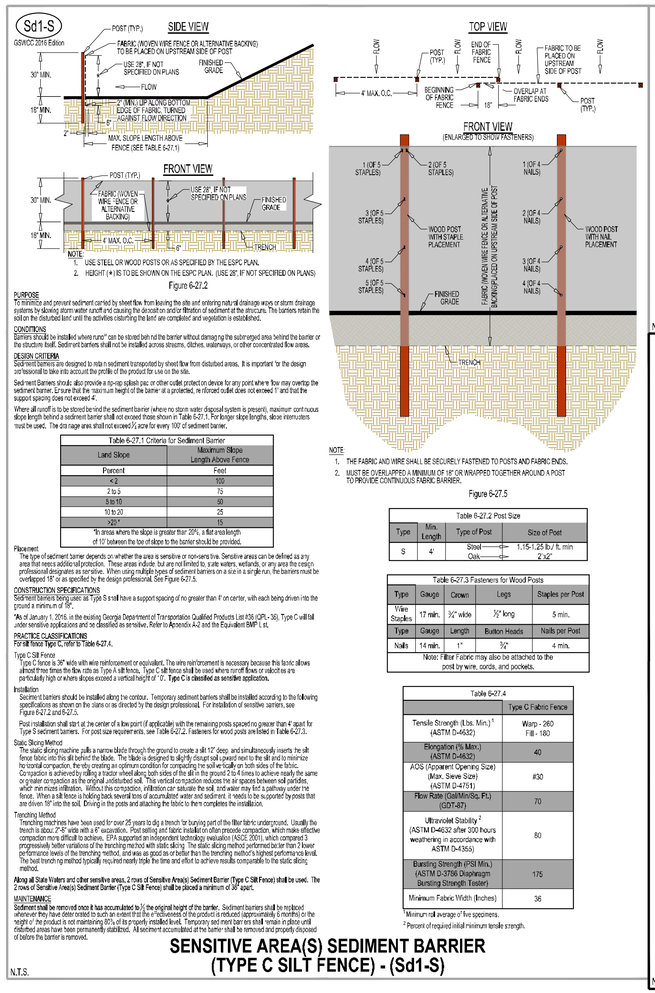


Figure 6-27.2

Figure 6-27.5

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

CONDITIONS
Barriers should be installed where runoff can be slowed but not the barrier without damag ng the subr ejacent area behind the barrier or the structure itself. Sediment barriers shall not be installed across streams, ditches, waterways, or other concentrated flow areas.

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

Sediment Barriers should also provide a rip-rap splash pac or other outlet protect on device for any point where flow may overtop the sediment barrier. Ensure that the maximum height of the barrier at a protected, reinforced outlet does not exceed 1' and that the support spacing does not exceed 4'.

Where all runoff is to be stored be hind the sediment barrier (where no storm water disposal system is present), maximum cont nuous slope length behind a sediment barrier shall not exceed those shown in Table 6-27.1. For longer slope lengths, slope interrupters must be used. The dra nage area shall not exceed ½ acre for every 100' of sediment barrier.

Table 6-27.1 Criteria for Sediment Barrier

Land Slope	Maximum Slope Length Above Fence
Percent	Feet
< 2	100
2 to 5	75
5 to 10	50
10 to 20	25
>20 *	15

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

Placement
The type of sediment barrier depends on whether the area is sensitive or non-sens tive. Sensitive areas can be defined as any area that needs additional protection. These areas include, but are not limited to, state waters, wetlands, or any area the design professional designates as sensitive. When using multiple types of sediment barriers on a slo in a single run, the barriers must be overlapped 18" or as specified by the design professional. See Figure 6-27.5.

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

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

PRACTICE CLASSIFICATIONS
For silt fence Type C, refer to Table 6-27.4.

Type C Silt Fence
Type C fence is 36" wide with wire reinforcement or equivalent. The wire reinforcement is necessary because this fabric allows almost three times the flow rate as Type A silt fence. Type C silt fence shall be used where runoff flows or velocities are particularly high or where slopes exceed a vertical height of 1'. **Type C is classified as sensitive application.**

Installation
Sediment barriers should be installed along the contour. Temporary sediment barriers shall be installed according to the following specifications as shown on the plans or as directed by the design professional. For installation of sensitive barriers, see Figure 6-27.2 and 6-27.5.

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

Static Slicing Method
The static slicing machine pulls a narrow blade through the ground to create a slit 12" deep, and simultaneously inserts the silt fence fabric into this slit behind the blade. The blade is designed to slightly disrupt soil upward next to the slit and to minimize horizontal compaction, thereby creating an optimum condition for compacting the soil vertically on both sides of the fabric. Compaction is achieved by pulling a tractor wheel along both sides of the slit in the ground 2 to 4 times to achieve nearly the same or greater compaction as the original undisturbed soil. This vertical compaction reduces the air spaces between soil particles, which min mizes infiltration. Without this compaction, infiltration can saturate the soil, and water may find a pathway under the fence. When a silt fence is holding back several tons of accumulated water and sediment, it needs to be supported by posts that are driven 16" into the soil. Driving in the posts and attaching the fabric to them completes the installation.

Trenching Method
Trenching machines have been used for over 25 years to dig a trench for burying part of the filter fabric underground. Usually the trench is about 2'-6" wide with a 4" excavation. Post setting and fabric installation often precede compaction, which makes effective compaction more difficult to achieve. EPA supported an independent technology evaluation (ASCE 2001), which compared 3 progressively better variations of the trenching method with static slicing. The static slicing method performed better than 2 lower performance levels of the trenching method, and was as good as or better than the trenching method's highest performa nce level. The best trench ng method typically required nearly triple the time and effort to achieve results comparable to the static slicing method.

Along all State Waters and other sensitive areas, 2 rows of Sensitive Area(s) Sediment Barrier (Type C Silt Fence) shall be used. The 2 rows of Sensitive Area(s) Sediment Barrier (Type C Silt Fence) shall be placed a minimum of 36" apart.

MAINTENANCE
Sediment shall be removed once it has accumulated to ½ the original height of the barrier. Sediment barriers shall be replaced whenever they have deter iorated to such an extent that the effectiveness of the product is reduced (approximately 6 months) or the height of the product is not maintaining 80% of its properly installed level. Temporary sed ment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.

Table 6-27.2 Post Size

Type	Min. Length	Type of Post	Size of Post
S	4'	Steel	1.1lb./1.25 lb/ ft. min
		Oak	2"x2"

Table 6-27.3 Fasteners for Wood Posts

Type	Gauge	Crown	Legs	Staples per Post
Wire Staples	17 min.	¾" wide	½" long	5 min.
Type	Gauge	Length	Button Heads	Nails per Post
Nails	14 min.	1"	½"	4 min.

Note: Filter Fabric may also be attached to the post by wire, cords, and pockets.

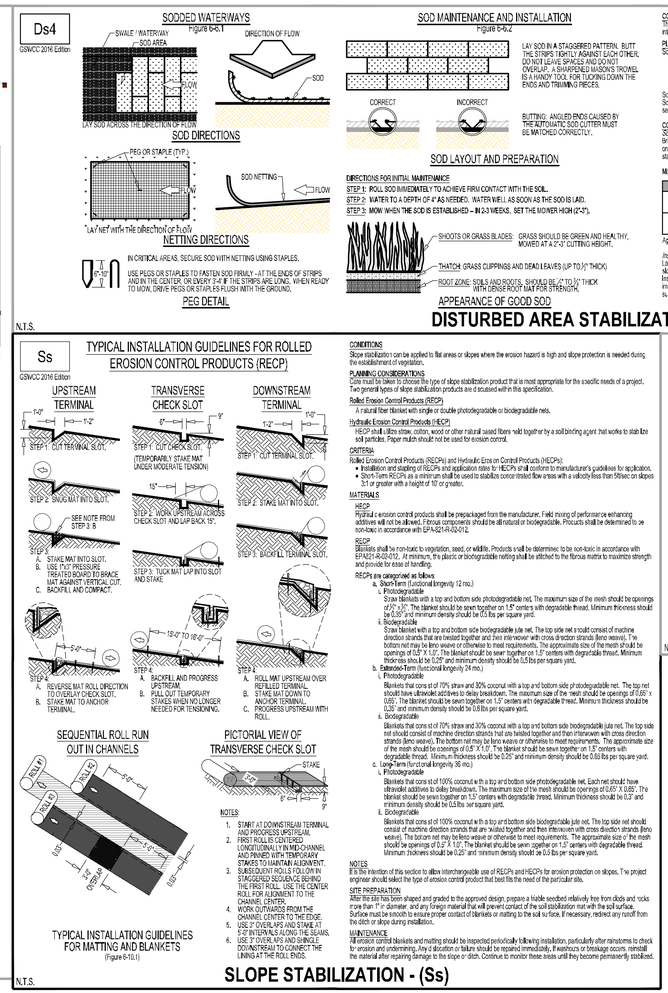
Table 6-27.4

	Type C Fabric Fence
Tensile Strength (Lbs. Min.) * (ASTM D-4632)	Warp - 260 Fill - 180
Elongation (% Min.) (ASTM D-4632)	40
AOS (Apparent Opening Size) (Max. Sieve Size) (ASTM D-4751)	#30
Flow Rate (Gal/Min/Sq. Ft.) (GDT-87)	70
Ultraviolet Stability † (ASTM D-4632 after 300 hours weathering in accordance with ASTM D-4355)	80
Bursting Strength (PSI Min.) (ASTM D-3786 Diaphragm Bursting Strength Tester)	175
Minimum Fabric Width (Inches)	36

* Minimum roll average of five specimens.
† Percent of required initial minimum tensile strength.

SENSITIVE AREA(S) SEDIMENT BARRIER (TYPE C SILT FENCE) - (Sd1-S)

N.T.S.



DISTURBED AREA STABILIZATION (WITH SODDING) - (Ds4)

N.T.S.

CONDITIONS
This application is appropriate for areas that require immediate vegetative covers, drop inlets, grass swales, and waterways with intermittent flow.

PLANNING CONSIDERATIONS
Sodding can initially be more costly than seeding, but the advantages justify the increases: initial cos:s:
1. Immediate erosion control, green surface, and quick use.
2. Reduced failure as compared to seed as well as the flux of weeds.
3. Can be established nearly year-round.

Sodding is preferable to seed in waterways and swales because of the immediate protection of the channel after application. Sodding must be staked in concentrated flow areas (See Figure 6-6.1). Consider using sod framed around drop inlets to reduce sediments and maintain ng the grade.

CONSTRUCTION SPECIFICATIONS
Soil Preparation
Bring soil surface a final grade. Clean surface of trash, woody debris, stones are, clods larger than 1". Apply sod to soil surfaces only and not frozen sur faces, or gravel type soils. Topsoil properly applied will help guarantee a stand. Don't use topsoil recently treated with herbicides or soil sterilants.

Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1.

Table 6-6.1 Fertilizer Requirements for Soil Surface Application

Fertilizer Type	Fertilizer Rate (lbs/acre)	Fertilizer Rate (lbs/sq ft)	Season
10 - 10 - 10	1,000	0.025	Fall

Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

Installation
Lay sod with tight jo nts and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod (See Figure 6-6.2). On slopes steeper than 3:1, sod should be anchored with pins or other approved methods.
Installed sod should be rolled or tamped to provide good contact between sod and soil. Irrigate sod and soil to a depth of 4" immediately after installation. Sod should not be cut or spread in extremely wc or dry weather. Irrigation should be used to supplement rainfall for a min mum of 2-3 weeks.

MATERIALS
Sod selected should be certified. Sod grown n the general area of the project is desirable.
1. Sod should be machine cut and contain 3/4" (+ or -1/4") of soil, not including shoots or thatch.
2. Sod should be cut to the desired size within + or -5%, torn or uneven pads n ould be re ected.
3. Sod should be cut and installed within 36 hours of digging.
4. Avoid planting when subject to frost heave or hot weather. Irrigation is not available.
5. The sod type should be shown on the plans or installed according o Table 6-6.2. See Figure 6-4.1 for your Resource Area.

Table 6-6.2 Sod Planting Requirements

Grass	Varieties	Resource Area	Growing Season
Bermudagrass	Common	M-L, P, C	warm weather
	Tifway	P, C	
	Tifgreen	P, C	
	TifLawn	P, C	
Bahiagrass	Pensacola	P, C	warm weather
Centipede	–	P, C	warm weather
St. Augustine	Common; Bitterblue; Raleigh	C	warm weather
Zoysia	Emerald; Myer	P, C	warm weather
Tall Fescue	Kentucky	M-L, P	cool weather

MAINTENANCE
Newly sod ded areas where an adequate s and of sod is not obtained, New sod should be mowed sparingly. Grass height should not be cut less than 2-3" or as specified (See Figure 6-6.2). Apply one ton of agricultural lime as indicated by soil test or every 4-6 years. Fertilize grasses in accordance with soil tests or Table 6-6.3.

Table 6-6.3 Fertilizer Requirements for Sod

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	N tr ogen Top Dressing Rate (lbs./acre)
cool season grasses	1 st	6-12-12	1500	50-100
	second	6-12-12	1000	-
	maintenance	10-10-10	400	30
warm season grasses	1 st	6-12-12	1500	50-100
	second	6-12-12	800	50-100
	maintenance	10-10-10	400	30

CONDITIONS
Slope stabilization can be applied to flat areas or slopes where the erosion hazard is high and slope protection is needed during the establishment of vegetation.

PLANNING CONSIDERATIONS
Care must be taken to choose the type of slope stabilization product that is most appropriate for the s pecific needs of a project. Two general types of slope stabilization products are d iscussed with in this specification.

Rolled Erosion Control Products (RECP)
A natural fiber blanket with single or double photodegradable or biodegradable nets.

Hydraulic Erosion Control Products (HECP)
HECP shall utilize straw, cotton, wood or other natural i ssued fibers held together by a soil binding agent that works to stabilize soil particles. Paper mulch should not be used for erosion control.

CRITERIA
Rolled Erosion Control Products (RECPs) and Hydraulic Ero sion Control Products (HECPs):
- Installation and stapling of RECPs and application rates for HECPs shall conform to manufacturer's guidelines for application.
- Short-Term RECPs as a minimum shall be used to stabilize conce ntrated flow areas with a velocity less than 5ft/sec on slopes 3:1 or greater with a height of 10' or greater.

MATERIALS
HECP
Physical r erosion control products shall be prepackaged from the manufacturer. Field mixing of performance enhancing additives will not be allowed. Fibrous components should be all natural or biodegradable. Prod cts shall be determined to be non-toxic in accordance with EPA/821-R-02-012. At minimum, the plastic or biodegradable netting shall be stitched to the fibrous matrix to maximize strength and provide for ease of handling.

RECP
Blankets shall be non-toxic to vegetation, seed, or wildlife. Products s hall be determinec to be non-toxic in accordance with EPA/821-R-02-012. At minimum, the plastic or biodegradable netting shall be stitched to the fibrous matrix to maximize strength and provide for ease of handling.

RECPs are categorized as follows
a. Short-Term (functional longevity 12 mo.)
i. Photodegradable
Straw blankets with a top and bottom side photodegradable net. The maximum size of the mesh should be openings of .75" x .75". The blanket should be sewn together on 1.5" centers with degradable thread. Minimum thickness should be 0.25" and minimum density should be 0.5 lbs per square yard.
ii. Biodegradable
Straw blanket with a top and bottom side biodegradable jute net. The top side net should consist of machine direction strands that are twisted together and then interwoven with cross direction strands (leno weave). The bottom net may be leno weave or otherwise to meet requirements. The approximate size of the mesh should be openings of 0.5" X 1.0". The blanket should be sewn together on 1.5" centers with degradable thread. Minimum thickness should be 0.25" and minimum density should be 0.5 lbs per square yard.
b. Extended-Term (functional longevity 24 mo.)
i. Photodegradable
Blankets that cons st of 70% straw and 30% coconut with a top and bottom side photodegradable net. The top net should have ultraviolet additives to delay breakdown. The maximum size of the mesh should be openings of 0.65" x 0.65". The blanket should be sewn together on 1.5" centers with degradable thread. Minimu m thickness should be 0.35" and minimum density should be 0.8 lbs per square yard.
ii. Biodegradable
Blankets that cons st of 70% straw and 30% coconut with a top and bottom side biodegradable jute net. The top side net should consist of machine direction strands that are twisted together and then interwoven with cross direction strands (leno weave). The bottom net may be leno weave or otherwise to meet requirements. The approximate size of the mesh should be openings of 0.5" X 1.0". The blanket should be sewn together on 1.5" centers with degradable thread. Minimu m thickness should be 0.25" and minimum density should be 0.5 lbs per square yard.
c. Long-Term (functional longevity 36 mo.)
i. Photodegradable
Blankets that cons st of 100% coconut with a top and bottom side photodegradable net. Each net should have ultraviolet additives to delay breakdown. The maximum size of the mesh should be openings of 0.65" X 0.65". The blanket should be sewn together on 1.5" centers with degradable thread. Minimum thickness should be 0.5" and minimum density should be 0.5 lbs per square yard.
ii. Biodegradable
Blankets that cons st of 100% coconut with a top and bottom side biodegradable jute net. The top side net should consist of machine direction strands that are twisted together and then interwoven with cross direction strands (leno weave). The bottom net may be leno weave or otherwise to meet requirements. The approximate size of the mesh should be openings of 0.5" X 1.0". The blanket should be sewn together on 1.5" centers with degradable thread. Minimum thickness should be 0.25" and minimum density should be 0.5 lbs per square yard.

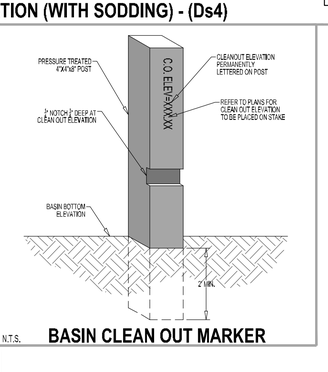
NOTES
It is the intention of this section to allow interchangeable use of RECPs and HECPs for erosion protection on slopes. The project engineer should select the type of erosion control product that best fits the need of the particular site.

SITE PREPARATION
After the site has been shaped and graded to the approved design, prepare a friable seedbed relatively free from clods and rocks more than 1" in diameter and any foreign material that will prevent contact of the soil stabilization mat with the soil surface. Surface must be smooth to ensure proper contact of blankets or matting to the soil su face, if necessary, redirect any runoff from the ditch or slope during installation.

MAINTENANCE
All erosion control blankets and matting should be inspected periodically following installation, particularly after rainstorms to check for erosion and undermining. Any d eg radation or failure should be repaired immediately. If washouts or breakage occurs, reinstall the material after repairing damage to the slope or ditch. Continue to monitor these areas until they become permanently stabilized.

SLOPE STABILIZATION - (Ss)

N.T.S.



BASIN CLEAN OUT MARKER

N.T.S.

BRAVO SITE SET 10-24-2024

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CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. PE024855 JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

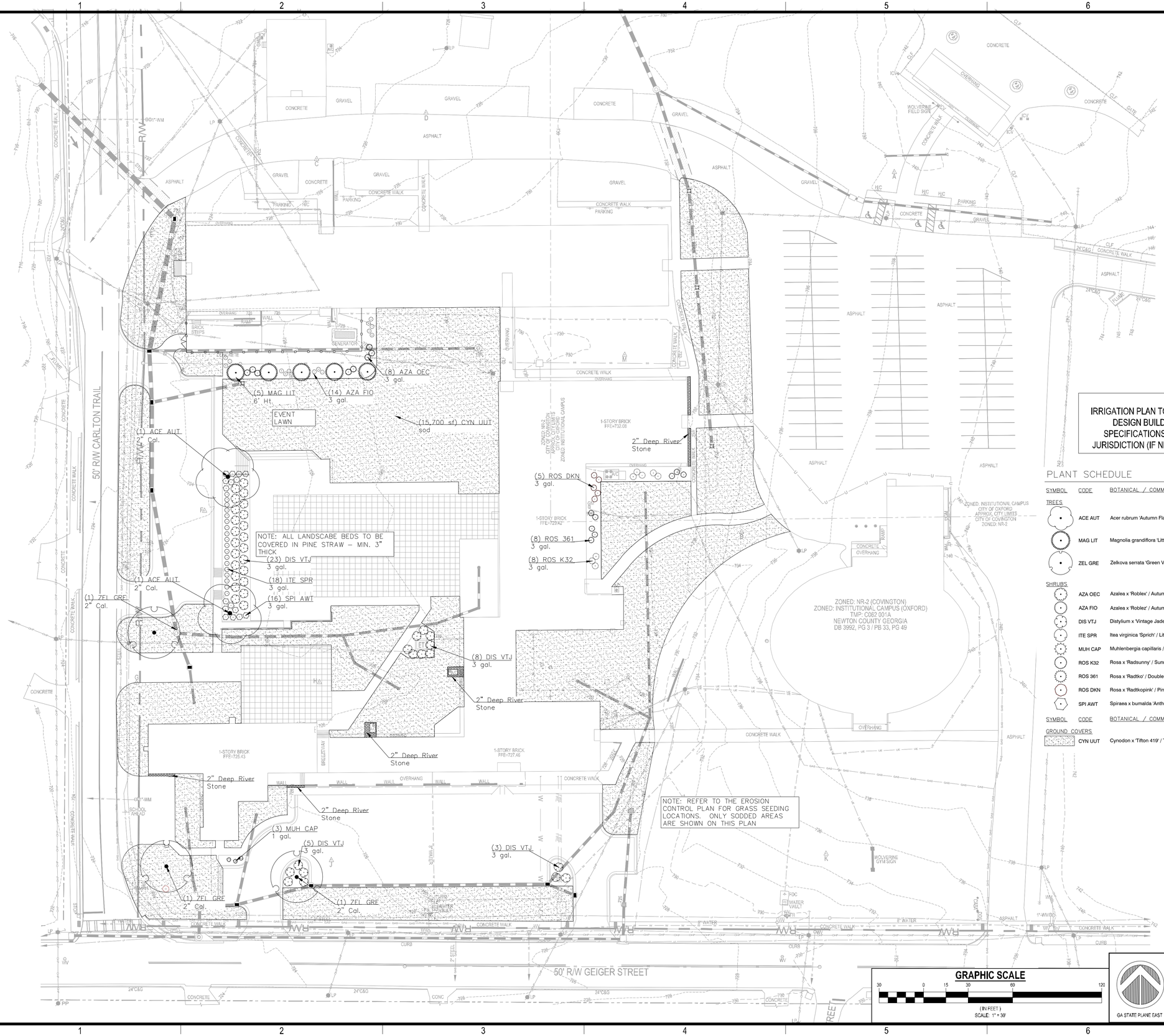
Sheet Title

EROSION SEDIMENTATION AND POLLUTION CONTROL DETAILS

Sheet Number

C-6.7

BRAVO
SITE SET
10-24-2024



NOTE:
IRRIGATION PLAN TO BE PROVIDED BY LANDSCAPE CONTRACTOR VIA DESIGN BUILD DELIVERY METHOD. IRRIGATION PLAN AND SPECIFICATIONS TO BE SUBMITTED AND PERMITTED BY LOCAL JURISDICTION (IF NECESSARY) PRIOR TO LANDSCAPE INSTALLATION.

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
TREES					
	ACE AUT	Acer rubrum 'Autumn Flame' / Autumn Flame Red Maple	2" Cal.	B&B	2
	MAG LIT	Magnolia grandiflora 'Little Gem' / Little Gem Dwarf Southern Magnolia	6' Ht.	B&B	5
	ZEL GRE	Zelkova serrata 'Green Vase' / Green Vase Japanese Zelkova	2" Cal.	B&B	3
SHRUBS					
	AZA OEC	Azalea x 'Roblex' / Autumn Lily® Encore® Azalea	3 gal.	Pot	8
	AZA FIO	Azalea x 'Roblez' / Autumn Fire® Encore® Azalea	3 gal.	Pot	14
	DIS VTJ	Distylium x 'Vintage Jade' / First Editions® Vintage Jade Distylium	3 gal.	Pot	39
	ITE SPR	Itea virginica 'Spriich' / Little Henry® Sweetspire	3 gal.	Pot	18
	MUH CAP	Muhlenbergia capillaris / Pink Muhly Grass	1 gal.	Pot	3
	ROS K32	Rosa x 'Radsunny' / Sunny Knock Out® Yellow Rose	3 gal.	Pot	8
	ROS 361	Rosa x 'Radtko' / Double Knock Out® Red Rose	3 gal.	Pot	8
	ROS DKN	Rosa x 'Radtkopink' / Pink Double Knock Out® Rose	3 gal.	Pot	5
	SPI AWT	Spiraea x bumalda 'Anthony Waterer' / Anthony Waterer Spirea	3 gal.	Pot	16

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING	QTY
GROUND COVERS						
	CYN UUT	Cynodon x 'Tifton 419' / Tif419 Bermudagrass Sod	sod			64,322 sf

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE: 1" = 30'

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST
COVINGTON, GA 30014
PHONE: 404-892-8050
CONTACT: JEFF PRINE
EMAIL:JPRINE@ASCENSION-PM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36
COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL:
MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104
CONTACT: BRIAN SLATE
EMAIL: BSLATE@GEORGIACIVIL.COM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896
MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

GEORGIA811 www.Georgia811.com
Contact 811 before you dig

Utilities/Services shown are for Contractors' convenience, items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This 'star may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbances (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible for repair, replace cost or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

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Project Information

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8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: 27.40 ACRES

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
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REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
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10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

LANDSCAPE PLAN

Sheet Number

C-7.0

GENERAL PLANTING NOTES

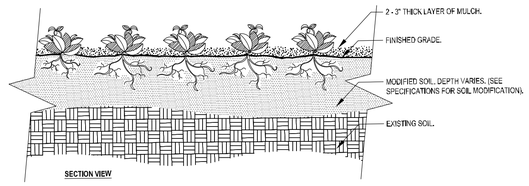
1. SELECTION:
   A. ALL PLANT MATERIALS TO BE (GEORGIA #1) OR BETTER (GEORGIA FANCY) DEFINED AND SPECIFIED ACCORDING TO GRADES AND STANDARDS FOR NURSERY STOCK PUBLISHED BY THE DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES DIVISION OF PLANT INDUSTRY UTILIZING THE LATEST UPDATED EDITION.
   B. ALL PLANT MATERIAL SHALL MEET THE MINIMAL SIZE REQUIREMENT AS STATED ON THE PLANT LIST.
   C. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY LOCATION. LANDSCAPE ARCHITECT WILL DECIDE FINAL APPROVAL OF ALL PLANT MATERIAL DELIVERED TO THE PROJECT SITE.
   D. THE LANDSCAPE ARCHITECT MAY MAKE SELECTION OF PLANT MATERIAL PROCURED UNDER THIS PROJECT AT THE PLACE OF CULTIVATION BEFORE THE CONTRACTOR PURCHASES AND PREPARES FOR DELIVERY TO PROJECT SITE. THE CONTRACTOR IS TO RETAIN AND SUBMIT CERTIFICATION TAGS VERIFYING TYPE AND PURITY OF LANDSCAPE MATERIAL.
   E. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, UNLESS OTHERWISE NOTED. PLANTS SHALL BE EXCEPTIONALLY DENSE WITH A NATURALISTIC BRANCHING CHARACTER AS INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT.
   F. LANDSCAPE CONTRACTOR SHALL REFER TO PLANTING PLAN AND PLANT LIST FOR MATERIAL PROCUREMENT. QUANTITY ESTIMATES ON THE PLANTING PLAN AND PLANT LIST ARE FOR REFERENCE ONLY.
   G. CONTRACTOR SHALL FURNISH ALL QUANTITIES NECESSARY TO COMPLETE THE PLANTING AREAS AS SHOWN ON THE DRAWING TO ACCEPTANCE AND SATISFACTION AT THE LANDSCAPE ARCHITECT.
   H. THE CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT SHOULD THERE BE CHANGES IN THE PLANTING AREAS ON SITE RESULTING IN SUBSTANTIAL DIFFERENCE IN QUANTITIES AND SPECIES REQUIRED.
   I. WARRANTY: ALL PLANTS SHALL BE WARRANTED TO REMAIN ALIVE AND HEALTHY AND IN VIGOROUSLY THRIVING CONDITION FOR PERIOD OF 1 YEAR FROM DATE OF FINAL ACCEPTANCE.

2. EXECUTION:
   A. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS AND INSTRUCTIONS PROVIDED BY LANDSCAPE ARCHITECT.
   B. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AS NECESSARY TO EXECUTE AND COMPLETE PROPOSED LANDSCAPE / IRRIGATION INSTALLATION IN A TIMELY MANNER COMPLYING WITH THE SCHEDULED COMPLETION DATE.
   C. WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE INTENTIONS OF THE SPECIFIED DRAWINGS. ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE OF BEST QUALITY AND TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
   D. PLANTING PLANS INDICATE DIAGRAMMATIC LOCATION ONLY. SITE ADJUSTMENTS OF PLANTING DESIGN AND RELOCATION OF PLANT MATERIAL INSTALLED PRIOR TO LANDSCAPE ARCHITECT APPROVAL SHALL BE DONE WITHOUT PENALTY OR ADDITIONAL COST TO OWNER.
   E. LANDSCAPE CONTRACTOR SHALL STAKE AND/OR MARK ALL TREE AND PLANT LOCATIONS AT SITE AND NOTIFY LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANT INSTALLATION.
   F. UTILITIES: THE LANDSCAPE CONTRACTOR SHALL DETERMINE LOCATION OF ALL ABOVE GRADE AND UNDERGROUND UTILITIES PERFORM WORK THAT WILL AVOID DAMAGE TO UTILITIES. THE CONTRACTOR SHALL MAKE GOOD ALL DAMAGED UTILITIES AT NO COST TO OWNER.
   G. DRAINAGE: CONTRACTOR SHALL CONDUCT PERCOLATION TEST IN AREAS TO BE PLANTED: NOTIFY LANDSCAPE ARCHITECT OF ANY POOR DRAINAGE PROVIDE SUPPLEMENTAL PIT DRAINAGE AS REQUIRED TO ENSURE HEALTHY PLANT MATERIALS (SEE SPECIFICATIONS FOR DETAILS).
   IF DRAINAGE IS NOT SUFFICIENT NOTIFY LANDSCAPE ARCHITECT BEFORE INSTALLING THE PLANTS. OTHERWISE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR THE GUARANTEE AND LIVABILITY OF THE PLANT.

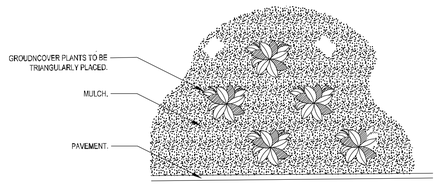
3. GENERAL PLANTING:
   A. THE CONTRACTOR'S FIELD SUPERVISOR SHALL ACCOMPANY LANDSCAPE ARCHITECT ON ALL PLANT TAGGING AND SITE VISITS.
   B. CONTRACTOR SHALL PLACE 2" DEPTH OF AGED MUSHROOM COMPOST IN ALL PLANTING BEDS THAT ARE WELL DRAINED. MUSHROOM COMPOST SHALL THEN BE THOROUGHLY TILLED INTO EXISTING SOIL TO A DEPTH OF 10"-12" PRIOR TO PLANTING.
   C. PLACE PLANTS UPRIGHT AND TURNED SO THAT THE MOST ATTRACTIVE SIDE VIEWED.
   D. PROVIDE 1" THICK MULCH (MEASURED AFTER WATERING IN) AT ALL PLANTS AND PLANTING BEDS. MULCH SHALL BE DOUBLE SHREDDED OR FINE HARDWOOD UNLESS OTHERWISE NOTED ON THE PLANS OR DETAILS.
   E. PROVIDE A CLEAN SHARP EDGING OF LANDSCAPE BEDS ADJACENT TO LAWN AREAS UNLESS OTHERWISE NOTED.
   F. CONTRACTOR SHALL BE RESPONSIBLE FOR "ROLLING" ALL SOD THAT IS INSTALLED (ON THE DAY THE SOD IS INSTALLED). HOWEVER, NO SOD SHALL BE LAID WHERE THE GRADE IS NOT CORRECT.

4. TREE PLANTING:
   A. REMOVE FIRST 8-10" OF WIRE BASKET FROM ROOTBALLS. IF REMOVAL WILL RESULT IN ROOTBALL INJURY, CUT AND REMOVE WIRES ONCE IN HOLE TO ALLOW FOR ROOT EXPANSION.
   B. MULCH SAUCERS TO BE 8' (MIN.) DIAMETER FOR ALL TREES NOT INCLUDED W/I A MULCH BED.
   C. STAKING AND GUYING DETAILS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE TO ADAPT STAKING AND GUYING METHOD ACCORDING TO SITE CONDITIONS.
   D. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE STAKING AND GUYING PERIODICALLY AS NECESSARY OR AS INSTRUCTED BY LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL MAINTAIN PLANT MATERIAL IN AN UPRIGHT POSITION AT ALL TIMES DURING THE CONTRACT PERIOD.
   E. STAKING AND GUYING OF TREES SHALL BE FOR THE PURPOSE OF ESTABLISHMENT ONLY. STAKING AND GUYING DETAILS ARE NOT DESIGNED OR ENGINEERED TO WITHSTAND STRONG WIND OR WINDSTORM CONDITIONS.
   F. IF CONTRACTOR SEES ANY SITUATION ON THE SITE WHERE A TREE IS TO BE STAKED WITH ARBORTIES, BUT IT APPEARS TO PRESENT A SAFETY HAZARD TO RESIDENCE OF THE PROPERTY, THEIR CHILDREN OR THEIR GUEST, THE TREE SHALL NOT BE STAKED AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED.
   G. SPECIMEN TRANSPLANTED TREE PROTECTION IS THE OWNER'S RESPONSIBILITY.
   H. PROPER DRAINAGE FROM ROOTBALL IS THE RESPONSIBILITY OF THE CONTRACTOR.
   I. USE ARBORGUARD WEBBING TO SECURE PLANT. SPACE STAKES EQUALLY AT 120° ANGLES AROUND TREE
   J. NYLON WEBBING SHOULD BE SECURED IN SUCH A WAY AS TO ALLOW SOME MOVEMENT OF TREE
   K. PLANT TREE 2" ABOVE FINISHED GRADE IF MIXING SOIL TYPES, OTHERWISE PLANT AT FINISHED GRADE

5. PRUNING AND MAINTENANCE:
   A. PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS AS A RESULT OF TRANSPLANTING OPERATION AND TO MAINTAIN SAFETY IN VEHICULAR AREAS.
   B. PRUNING SHALL BE DONE IN SUCH A MANNER AS TO NOT CHANGE THE NATURAL HABIT OR SHAPE OF THE PLANT. ALL CUTS SHALL BE MADE FLUSH, LEAVING NO STUBS ACCORDING TO A.N.A STANDARDS.
   C. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE PARTY TO APPROVE ALL APPROPRIATE PRUNING.
   D. MAINTENANCE WORK AS DESCRIBED IN THE SPECIFICATIONS SHALL BE PERFORMED TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND UNTIL DATE OF THE FINAL ACCEPTANCE BY OWNER AND LANDSCAPE ARCHITECT.



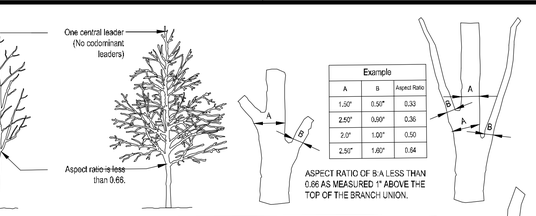
SECTION VIEW



PLAN

Notes:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES , SIZE AND SPACING DIMENSION.
2- SMALL ROOTS (¼" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPERHY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

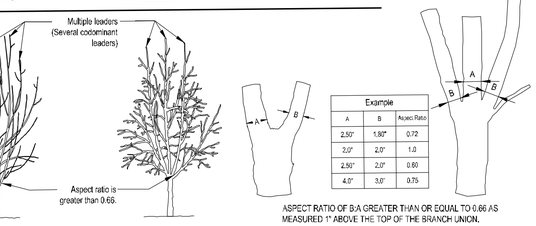
1 GROUNDCOVER
C-7.2 SCALE: NTS



ACCEPTABLE

Example		
A	B	Aspect Ratio
1.50"	0.50"	0.33
2.50"	0.90"	0.36
2.0"	1.00"	0.50
2.50"	1.60"	0.64

ASPECT RATIO OF B/A LESS THAN 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.



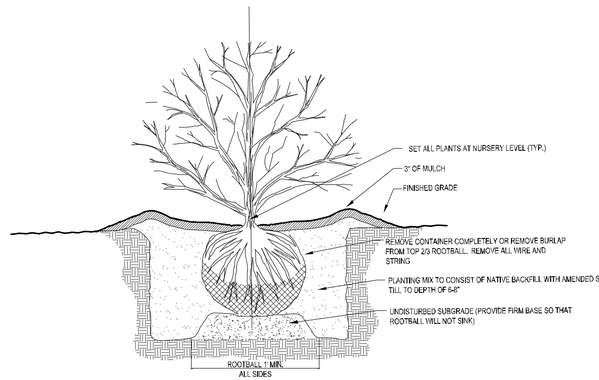
REJECTABLE

Example		
A	B	Aspect Ratio
2.50"	1.80"	0.72
2.0"	2.0"	1.0
2.50"	2.0"	0.80
4.0"	3.0"	0.75

ASPECT RATIO OF B/A GREATER THAN OR EQUAL TO 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

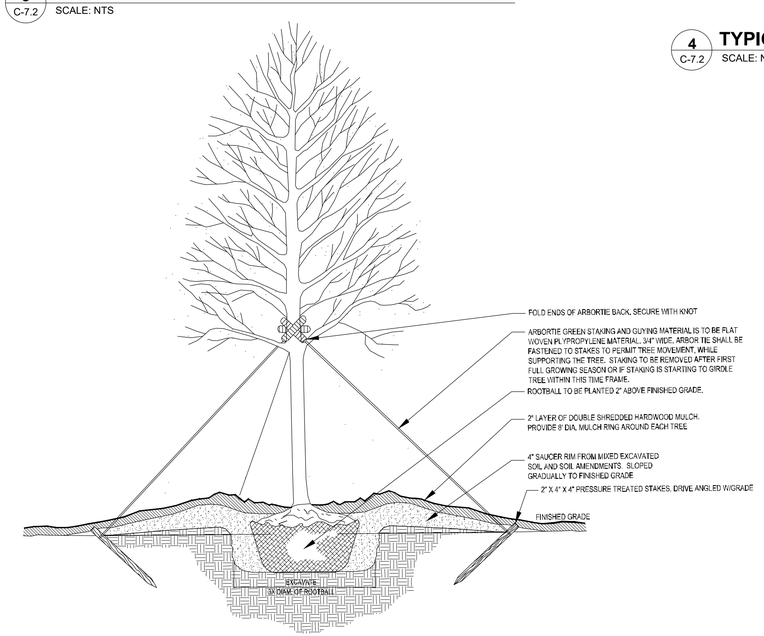
NOTES:
1- ASPECT RATIO SHALL BE LESS THAN 0.66 ON ALL BRANCH UNIONS. ASPECT RATIO IS THE DIAMETER OF BRANCH (B) DIVIDED BY THE DIAMETER OF THE TRUNK (A) AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.
2- ANY TREE NOT MEETING THE CROWN OBSERVATIONS DETAIL MAY BE REJECTED.

2 CROWN OBSERVATIONS - HIGH BRANCHED
C-7.2 SCALE: NTS



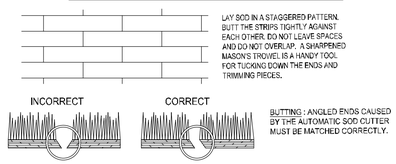
3 TYPICAL PLANTING DETAIL - CONTAINER OR PLUG
C-7.2 SCALE: NTS

4 TYPICAL SHRUB PLANTING DETAIL - BALL AND BURLAP
C-7.2 SCALE: NTS



5 TYPICAL TREE PLANTING DETAIL - BALL AND BURLAP
C-7.2 SCALE: NTS

SOD LAYOUT AND PREPARATION



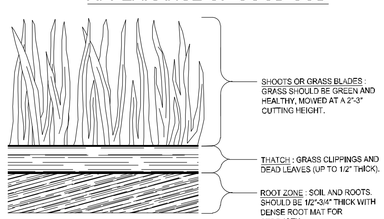
DIRECTIONS FOR INITIAL MAINTENANCE

Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

Step 3. MOW WHEN THE SOD IS ESTABLISHED – IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

APPEARANCE OF GOOD SOD



5 SOD MAINTENANCE AND INSTALLATION
C-7.2 SCALE: NTS

BRAVO SITE SET 10-24-2024

OWNER/DEVELOPER
COMPANY: NEWTON COUNTY GEORGIA
ADDRESS: 1124 CLARK ST COVINGTON, GA 30014
PHONE: 404-982-5050
CONTACT: JEFF PRINE
EMAIL: JPRINE@ASCENSIONLPM.COM

CONTRACTOR
COMPANY: SUNBELT BUILDERS
ADDRESS: 10641 HIGHWAY 36 COVINGTON, GA 30014
CONTACT: MIKE MCCROREY
PHONE: 770.786.3031
EMAIL: MMCCROREY@SUNBELTBUILDERS.COM

SURVEYOR
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650 PHONE: 706.342.1104 CONTACT: BRIAN SLATE EMAIL: BSLATE@GEORGIACIVILCOM

SITE DESIGNER
COMPANY: GEORGIA CIVIL, INC.
ADDRESS: P.O. BOX 896 MADISON, GA 30650
PHONE: 706.342.1104

JASON P. BROWN
LEVEL II CERTIFIED DESIGN PROFESSIONAL
#53274 - EXP. 05.01.2026

24-HOUR CONTACT
MIKE MCCROREY
404.644.2939

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Utilities/Services shown are for Contractors' convenience, items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to become and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any excavations including field verifying location and depth of utilities that are to be saved and protected. Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace cost or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.

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CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED NO. PE024851 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

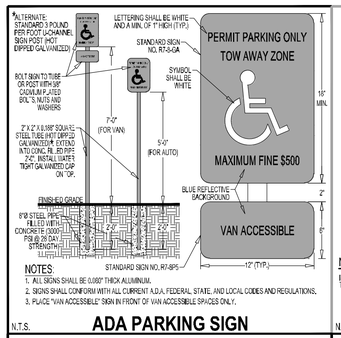
DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/20/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

LANDSCAPE DETAILS

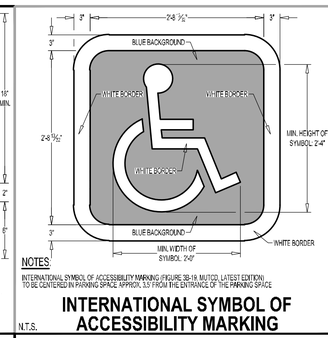
Sheet Number

C-7.1



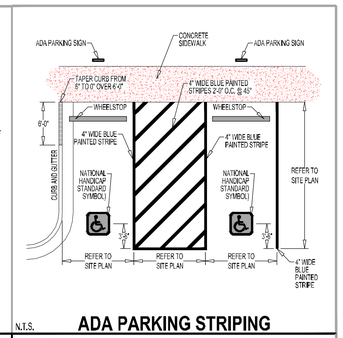
N.T.S.

ADA PARKING SIGN



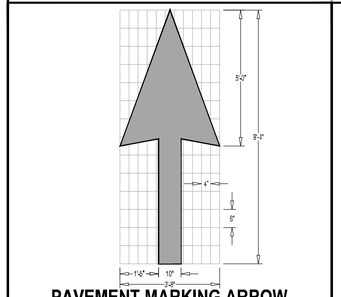
N.T.S.

INTERNATIONAL SYMBOL OF ACCESSIBILITY MARKING



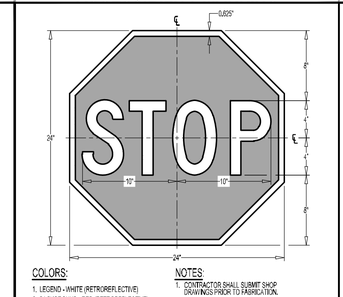
N.T.S.

ADA PARKING STRIPING



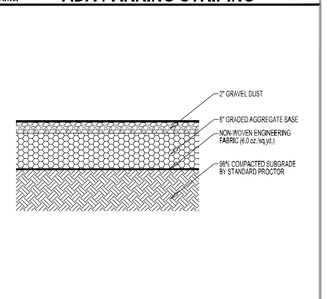
N.T.S.

PAVEMENT MARKING ARROW TYPE I, WHITE (12.0 SQ. FT.)

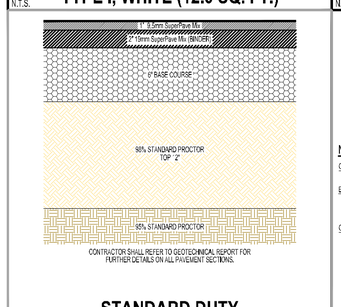


N.T.S.

STOP SIGN (STD. R1-1)

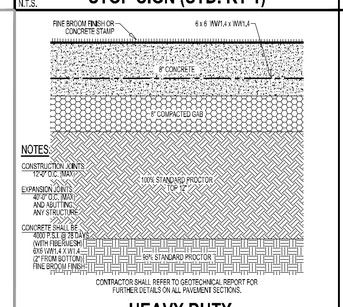


GRAVEL DRIVE



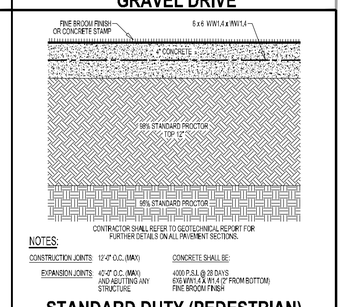
N.T.S.

STANDARD DUTY ASPHALT PAVING SECTION



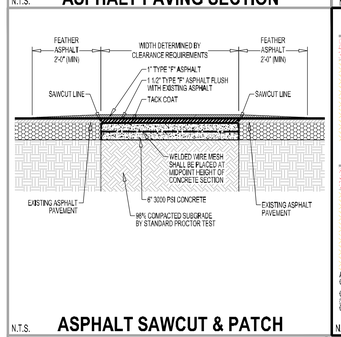
N.T.S.

HEAVY DUTY CONCRETE SECTION



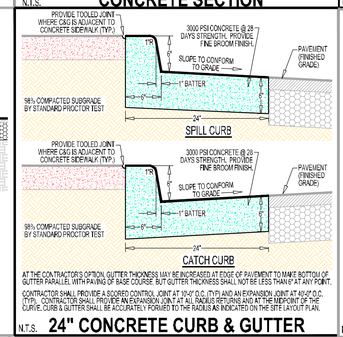
N.T.S.

STANDARD DUTY (PEDESTRIAN) CONCRETE SECTION



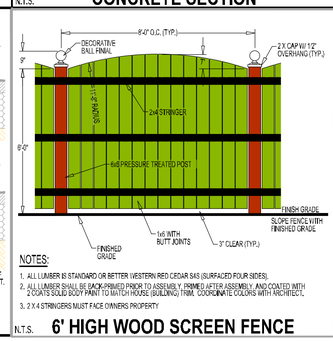
N.T.S.

ASPHALT SAWCUT & PATCH



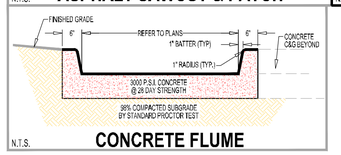
N.T.S.

24" CONCRETE CURB & GUTTER



N.T.S.

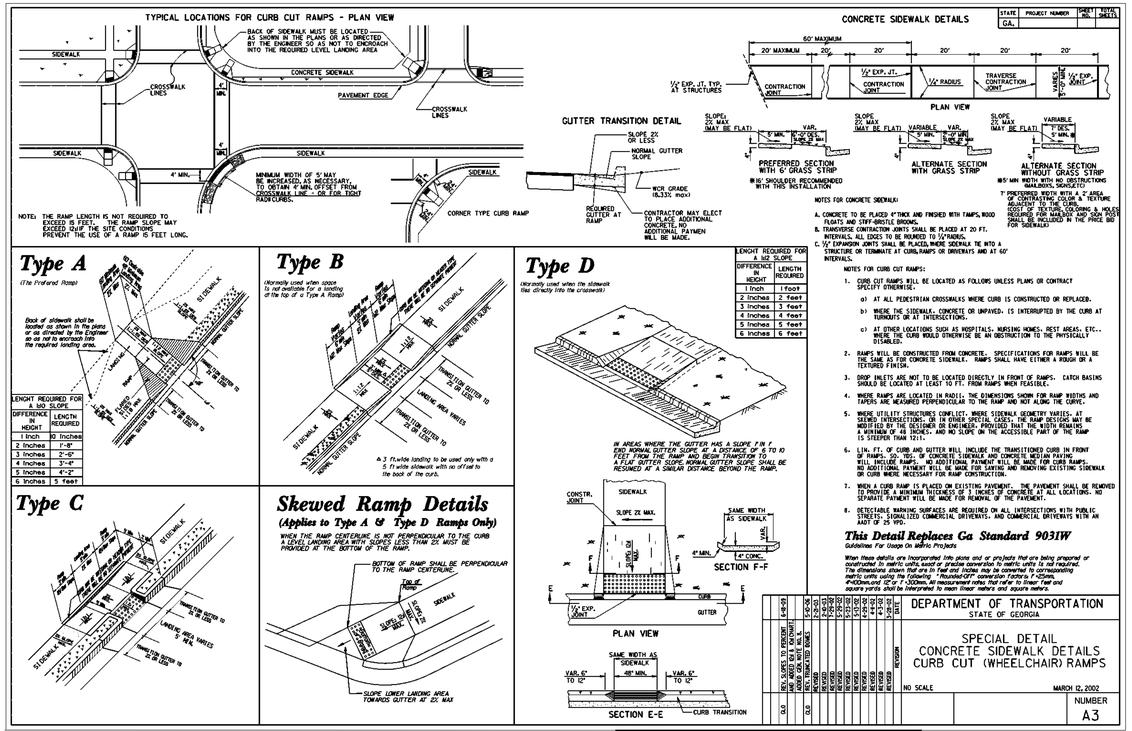
6' HIGH WOOD SCREEN FENCE



N.T.S.

CONCRETE FLUME

BRAVO SITE SET 10-24-2024


TYPICAL LOCATIONS FOR CURB CUT RAMPS - PLAN VIEW
SIDEWALK
CROSSWALK LINES
CONCRETE SIDEWALK
PAVEMENT EDGE
BACK OF SIDEWALK MUST BE LOCATED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER SO AS NOT TO ENCROACH INTO THE REQUIRED LEVEL LANDING AREA
4' MIN.
MINIMUM WIDTH OF 5' MAY BE INCREASED, AS NECESSARY, TO OBTAIN 4' MIN. OFFSET FROM CROSSWALK LINE - OR FOR TIGHT RADII CURBS.
NOTE: THE RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. THE RAMP SLOPE MAY EXCEED 12% IF THE SITE CONDITIONS PREVENT THE USE OF A RAMP 15 FEET LONG.
CORNER TYPE CURB RAMP
CONCRETE SIDEWALK DETAILS
GUTTER TRANSITION DETAIL
SLOPE 2% OR LESS
NORMAL GUTTER SLOPE
MOR GRADE (6.33% max)
REQUIRED GUTTER AT RAMP
CONTRACTOR MAY ELECT TO PLACE ADDITIONAL CONCRETE, NO ADDITIONAL PAYMEN WILL BE MADE.
PREFERRED SECTION, WITH 6' GRASS STRIP
IS NOT RECOMMENDED WITH THIS INSTALLATION
ALTERNATE SECTION WITH GRASS STRIP
ALTERNATE SECTION WITHOUT GRASS STRIP
MIN WIDTH WITH NO OBSTRUCTIONS (HANDRAILS, SIGNALS, ETC)
PLAN VIEW
50' MAXIMUM
20' MAXIMUM
20'
1/4" EXP. JT. TYP. AT STRUCTURES
CONTRACTION JOINT
1/2" EXP. JT.
1/4" RADIUS
TRAVERSE CONTRACTION JOINT
VARIES
1/2" EXP. JOINT
SLOPE 2% MAX (MAY BE FLAT)
VARIABLE
6' MIN.
VAR. 5' MIN. TO 10' MAX.
1" DEEP
4" MIN.
NOTES FOR CONCRETE SIDEWALK
A. CONCRETE TO BE PLACED 4" THICK AND FINISHED WITH TAMPS, HOOD FLOATS AND STIFF-BRISTLE BROOMS.
B. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED AT 20 FT. INTERVALS. ALL EDGES TO BE ROUNDED TO ½" 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. 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. LIN. FT. OF CURB AND GUTTER WILL INCLUDE THE TRANSITIONED CURB IN FRONT OF THE RAMP. CONCRETE FOR RAMPS, INCLUDING CONCRETE IN RETURN CURBS, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR 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, AND COMMERCIAL DRIVEWAYS WITH AN ADT OF 25 VPD.
This Detail Replaces Ga Standard 9031W
Guidelines For Usage On adaptive Projects
When these details are incorporated into plans and or projects that are being prepared or constructed to metric units, exact or precise conversion to metric units is not required. The dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1'=305mm, 1"=25.0mm, and 12" or 1'=305mm. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.
Type A
(The Preferred Ramp)
Back of sidewalk shall be located as shown in the plans, or as directed by the Engineer so as not to encroach into the required landing area.
LENGHT REQUIRED FOR A 5/0 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
(Normally used when space is not available for a landing at the top of a Type A Ramp)
4 ft wide landing to be used only with a 5 ft wide sidewalk with no offset to the back of the curb.
Type C
Type D
(Normally used when the sidewalk has obstacles to the crosswalk)
LENGHT REQUIRED FOR A 8/2 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 F.I.N.F. EXCEEDING NORMAL GUTTER SLOPE AT A DISTANCE OF 5 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.
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.
BOTTOM OF RAMP SHALL BE PERPENDICULAR TO THE RAMP CENTERLINE.
SLOPE LOWER LANDING AREA TOWARDS GUTTER AT 2% MAX
SECTION F-F
SECTION E-E
PLAN VIEW
CONSTR. JOINT
SLOPE 2% MAX.
SAME WIDTH AS SIDEWALK
4" CONC.
1/2" EXP. JOINT
CURB
GUTTER
SAME WIDTH AS SIDEWALK
48" MIN.
VAR. 6" TO 12"
CURB TRANSITION

NO.	REVISION	DATE
0.0	REVISED	1-5-93
0.0	REVISED	7-25-93
0.0	REVISED	1-1-96
0.0	REVISED	4-1-96
0.0	REVISED	1-1-97
0.0	REVISED	1-1-98
0.0	REVISED	1-1-99
0.0	REVISED	1-1-00
0.0	REVISED	3-1-01
0.0	REVISED	3-1-02
0.0	REVISED	3-12-02
0.0	REVISED	4-1-02
0.0	REVISED	4-1-03
0.0	REVISED	4-1-04
0.0	REVISED	4-1-05
0.0	REVISED	4-1-06
0.0	REVISED	4-1-07
0.0	REVISED	4-1-08
0.0	REVISED	4-1-09
0.0	REVISED	4-1-10
0.0	REVISED	4-1-11
0.0	REVISED	4-1-12
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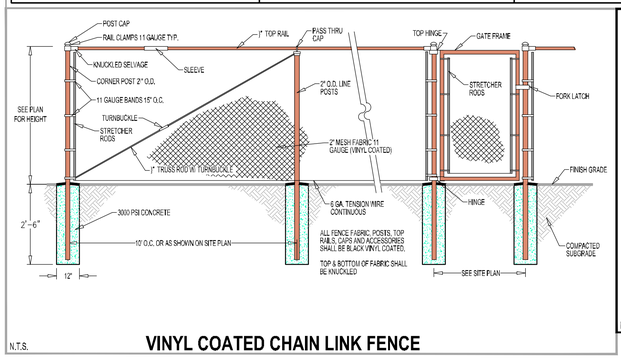
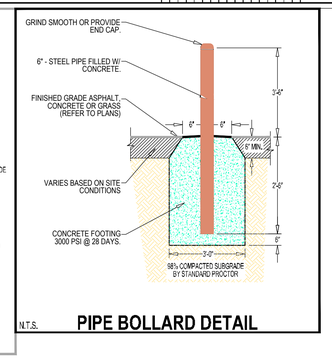
0.0	REVISED	4-1-24

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SPECIAL DETAIL
CONCRETE SIDEWALK DETAILS
CURB CUT (WHEELCHAIR) RAMPS
NO SCALE
MARCH 12, 2002
NUMBER A3



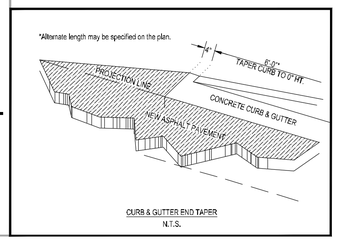
N.T.S.

VINYL COATED CHAIN LINK FENCE



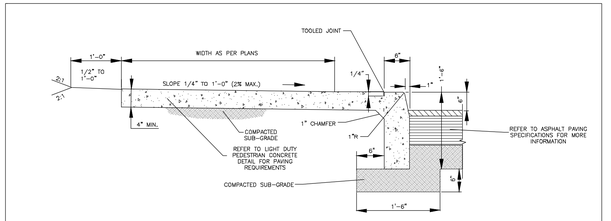
N.T.S.

PIPE BOLLARD DETAIL



CURB & GUTTER END TAPER

N.T.S.



NOTES:
1. SIDEWALK SHALL BE SCRIBED WITH TRANSVERSE CONTROL JOINTS IN SQUARES EQUAL TO SIDEWALK WIDTH BUT NOT TO EXCEED 10 FEET.
2. CONCRETE SHALL BE TYPE "A" 3,000 P.S.I. MIN. STRENGTH.
3. EXPANSION JOINTS SHALL EXTEND ACROSS THE FULL WIDTH OF THE SIDWALK. CONTROL JOINTS SHALL BE LOCATED ON EACH SIDE OF A DRIVEWAY APRON AND NOT MORE THAN 100 FEET APART.
4. PREFORMED BITUMINOUS MATERIAL SHALL BE PLACED BETWEEN ALL FIXED OBJECTS AND THE NEW CONCRETE SIDEWALK.
5. ALL CONCRETE WORK SHALL BE PER LOCAL JURISDICTION'S SPECIFICATIONS FOR CONSTRUCTION.

TURNDOWN SIDEWALK
STANDARD MONOLITHIC SIDEWALK AND CURB

N.T.S.

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CIVIL ENGINEERING
LAND PLANNING
LAND SURVEYING
311 N. Main St, Ste. 101, Unit C
P.O. Box 896 | Madison, GA 30650
P: 706.342.1104 | F: 706.342.1105
www.georgiacivil.com

Professional Seal

GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. PE026854 JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER
8134 GEIGER ST. NW
COVINGTON, GA 30014
ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/20/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI #1 ASS REVISION

Sheet Title

SITE DETAILS

Sheet Number

C-8.0

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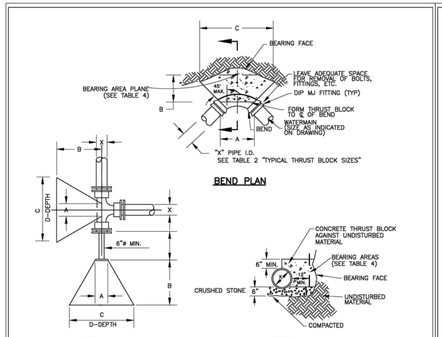


NOTES:

1. ALL WATERMAIN BENDS SHALL BE BACKED UP WITH A CONCRETE THRUST BLOCK BETWEEN THE PIPE AND UNDISTURBED MATERIAL.
2. BEARING AREA REQUIRED ON VERTICAL PLANE 90° TO RADIUS PLANE PASSING THROUGH MIDPOINT OF BEND
3. FOR BEARING AREA REQUIREMENTS SEE TABLE 4 " BEARING AREAS (SF) AGAINST UNDISTURBED MATERIAL FOR WATERLINE FITTING."

CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
WATER SYSTEM DETAIL	
WATERLINE THRUST BLOCK	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11

TABLE 2

TYPICAL BLOCK THRUST SIZES

		X	A	B	C	D
DEADEND & TEES		12"	1'-0"	3'-0"	3'-6"	3'-6"
		10"	1'-0"	2'-6"	4'-0"	3'-6"
		8"	0'-10"	2'-0"	4'-0"	3'-6"
		6"	0'-8"	1'-6"	3'-6"	1'-6"
BENDS	90°	12"	1'-0"	4'-0"	6'-0"	4'-3"
		10"	1'-0"	3'-0"	5'-0"	3'-6"
		8"	0'-10"	2'-6"	4'-0"	3'-0"
		6"	0'-8"	1'-6"	3'-6"	2'-6"
	45°	12"	1'-0"	2'-3"	5'-3"	3'-3"
		10"	1'-0"	2'-3"	4'-6"	2'-9"
		8"	0'-10"	1'-6"	3'-6"	2'-3"
		6"	0'-8"	1'-3"	3'-6"	1'-6"
	22-1/2°	12"	1'-0"	1'-6"	3'-6"	2'-3"
		10"	1'-0"	1'-3"	3'-0"	2'-0"
		8"	0'-10"	1'-0"	3'-0"	1'-9"
		6"	0'-8"	1'-0"	1'-9"	1'-3"
	11-1/4°	12"	1'-0"	1'-0"	2'-6"	1'-6"
		10"	1'-0"	1'-0"	1'-9"	1'-3"
		8"	0'-10"	1'-0"	1'-9"	1'-0"
		6"	0'-8"	1'-0"	1'-6"	0'-9"

NOTE: MECHANICAL JOINT FITTINGS 4" I.D. AND LESS SHALL BE RESTRAINED WITH RETAINER GLANDS

X = DIAMETER OF PIPE TO BE BLOCKED 250 PSI TEST PRESSURE AND 2000 PSF SOIL BEARING

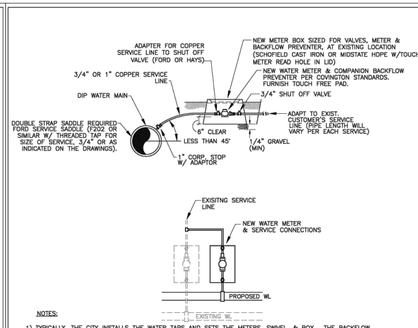
TABLE 3

DIMENSIONS AND REINFORCING FOR GRAVITY THRUST BLOCK CONSTRUCTION

FITTING (DIA. IN.)	W (MIN)	X (MIN)	MAIN REINF. M-BARS EA SIDE	MAIN REINF. M-BARS TOTAL
6 TO 10	3'-0"	10"	2-#5	4-#5
12 TO 14	3'-6"	1'-4"	4-#5	8-#5
16	3'-6"	1'-6"	3-#6	6-#6

✳ TABLE APPLIES TO ONLY VERTICAL BENDS AT TOP.

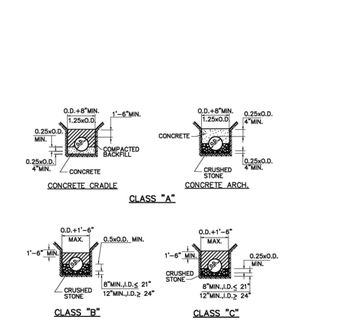
CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
WATER SYSTEM DETAIL	
THRUST BLOCK DIMENSIONS	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



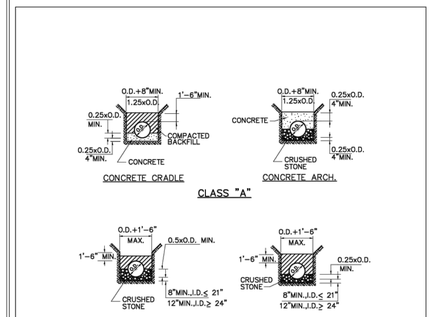
NOTES:

1) TYPICALLY, THE CITY INSTALLS THE WATER TAPS AND SETS THE METERS, SWIVEL, & BOX. THE BACKFLOW PREVENTER SHALL BE INSTALLED BY THE BUILDER/DEVELOPER OR HIS/HER REPRESENTATIVE AND SHALL BE CONNECTED TO THE SWIVEL. IF THE METER AND BACKFLOW PREVENTER WILL NOT FIT IN ONE BOX, WHEN INCORPORATING THE SWIVEL, THEN A SEPARATE BOX FOR THE BACKFLOW PREVENTER MUST BE USED. THIS BACKFLOW PREVENTER BOX MUST BE THE SAME MAKE, MODEL, AND COLOR AS WATER METER BOX. IF THE SWIVEL IS BYPASSED, THE C.O. FOR THAT PARTICULAR HOME OR BUSINESS WILL BE HELD UNTIL THE BACKFLOW PREVENTER IS PROPERLY INSTALLED.
2) ONCE THE CITY INSTALLS THE METER AND APPURTENANCES, THE BOX LID IS CLOSED. MANY TIMES DURING THE CONSTRUCTION OF THE HOUSE, THE LIDS ARE TOSSED TO THE SIDE. THIS CAN CAUSE THE METER TO FREEZE AND BREAK DURING THE WINTER MONTHS. IF THIS HAPPENS, THE BUILDER/DEVELOPER WILL BE CHARGED FOR A NEW METER AND INSTALLATION COST.
3) AT THE REQUEST OF THE BUILDER/DEVELOPER AND AFTER PAYMENT FOR THE WATER TAP, THE METER AND APPURTENANCES ARE SET BY THE CITY. IT IS THE RESPONSIBILITY OF THE BUILDER/DEVELOPER TO ENSURE THAT THE BOXES REMAIN INTACT AND UNDISTURBED. IF GRADE CHANGES OR MATERIAL DELIVERY RESULTS IN ALTERED OR BROKEN BOXES, THE BUILDER

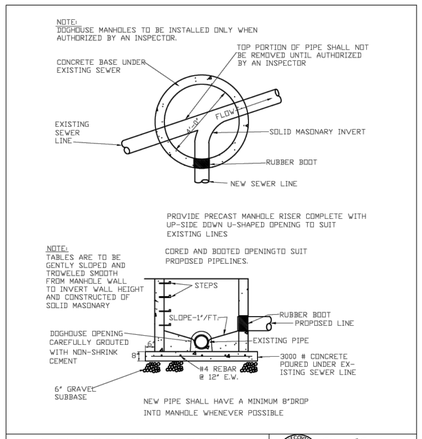
CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
WATER SYSTEM DETAIL	
WATER SERVICE CONNECTION	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



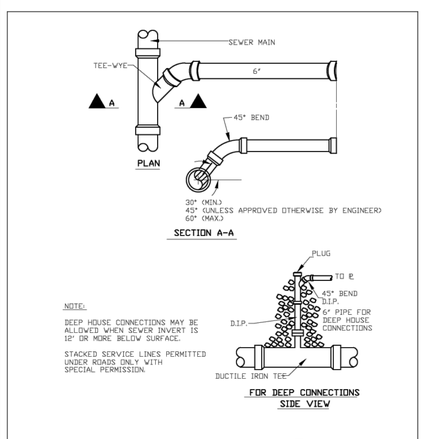
CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
WATER SYSTEM DETAIL	
BEDDING CLASSES	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



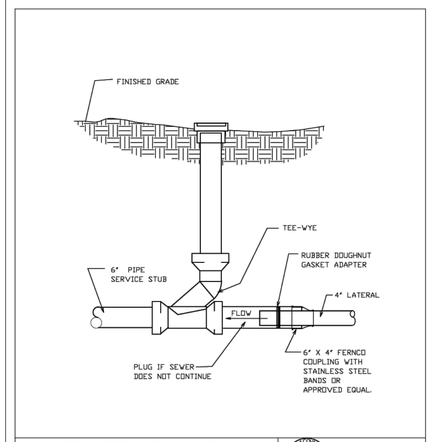
CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
SANITARY SEWER SYSTEM DETAIL	
BEDDING CLASSES	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



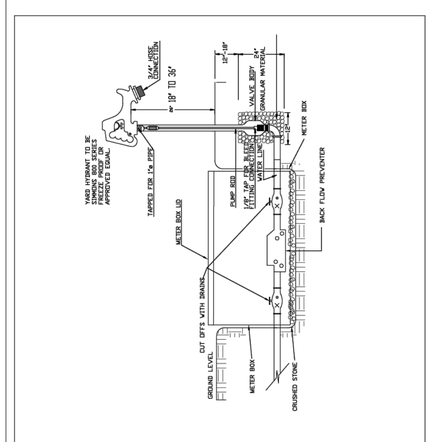
CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
SANITARY SEWER SYSTEM DETAIL	
DOGHOUSE MANHOLE	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



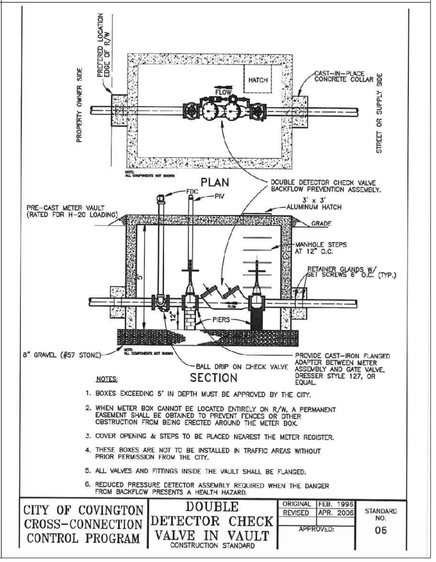
CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
SANITARY SEWER SYSTEM DETAIL	
6" TEE SERVICE CONNECTIONS	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
SANITARY SEWER SYSTEM DETAIL	
6" CLEAN OUT	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



CITY OF COVINGTON	City of Covington Engineering Department 2116 Stallings Street Covington, Georgia 30015
SANITARY SEWER SYSTEM DETAIL	
HOSE BIBB & BACKFLOW PREVENTER DETAIL	DRAWN BY: EFT
	CHECKED BY:
	DATE: 6/02
	REVISED: 4/11



CITY OF COVINGTON CROSS-CONNECTION CONTROL PROGRAM	DOUBLE DETECTOR CHECK VALVE IN VAULT CONSTRUCTION STANDARD	ORIGINAL ADOPTED: APR. 1998	STANDARD NO. 05
		REVISED: APR. 2006	
		APPROVED:	

BRAVO SITE SET 10-24-2024

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GEORGIA REGISTERED NO. PE026857 PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

R.L. COUSINS COMMUNITY CENTER

8134 GEIGER ST. NW
COVINGTON, GA 30014

ZONING: NR-2 NEIGHBORHOOD RESIDENTIAL 2 DISTRICT

DRAWING DATE:	10/22/2024
DRAWN BY:	MCS
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:
7/2/24	ADDRESS CITY COMMENTS
8/26/24	ADDRESS CITY COMMENTS
10/1/24	ADDRESS CITY COMMENTS
10/14/24	RFI#1-SS REVISION

Sheet Title

SITE DETAILS

Sheet Number

C-8.1

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Utilities/Services shown are for Contractors' convenience. Items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any excavations (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.