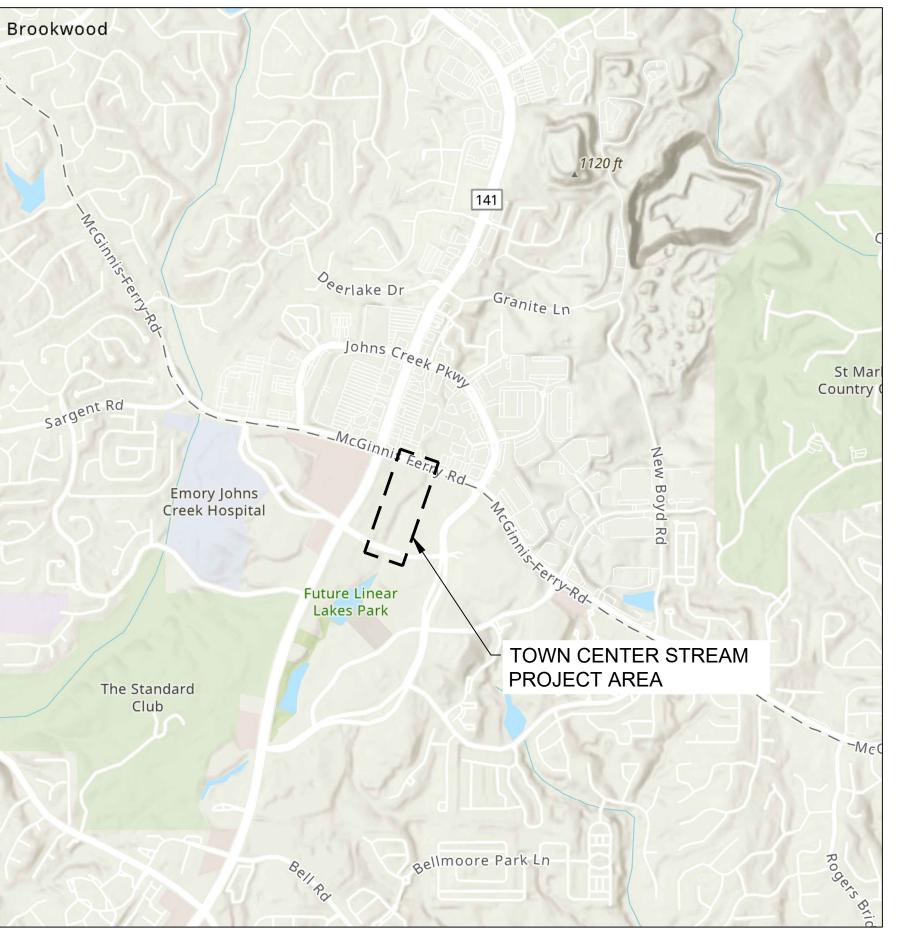
TOWN CENTER STREAM RESTORATION DESIGN **FOR** CITY OF JOHNS CREEK

JOHNS CREEK, GEORGIA

OCT. 2023



LOCATION MAP NOT TO SCALE



CITY OF JOHNS CREEK

11360 LAKEFIELD DR JOHNS CREEK, GA 30097

SHEET NUMBER	SHEET TITLE				
1	COVER				
2	GENERAL NOTES				
3	PLAN & PROFILE - STA 0+00 TO 4+00				
4	PLAN & PROFILE - STA 4+00 TO 8+00				
5	PLAN & PROFILE - STA 8+00 TO 12+00				
6	PLAN & PROFILE - STA 12+00 TO 15+60				
7	REPRESENTATIVE CROSS SECTIONS				
G1	GREENWAY PLAN & PROFILE - STA 0+00 TO 3+53				
G2	GREENWAY PLAN & PROFILE - STA 3+53 TO 6+97				
G3	GREENWAY PLAN & PROFILE - STA 6+97 TO 10+28				
G4	GREENWAY PLAN & PROFILE - STA 10+28 TO 14+19.75				
D1	DETAILS				
D2	DETAILS				
D3	DETAILS				
D4	DETAILS				
D5	DETAILS				
D6	DETAILS				
EC1	NPDES NOTES				
EC2	NPDES NOTES				
EC3	NPDES NOTES				
EC4	GAR100001 CHECKLIST				
EC5	EC DETAILS				
EC6	EC DETAILS				
EC7	INITIAL EC PLAN - STA 0+00 TO 8+00				
EC8	INITIAL EC PLAN - STA 8+00 TO 15+60				
EC9	INTERMEDIATE EC PLAN - STA 0+00 TO 8+00				
EC10	INTERMEDIATE EC PLAN - STA 8+00 TO 15+60				
EC11	FINAL EC PLAN - STA 0+00 TO 8+00				
EC12	FINAL EC PLAN - STA 8+00 TO 15+60				
EC13	PLANTING PLAN - STA 0+00 TO 8+00				
EC14	PLANTING PLAN - STA 8+00 TO 15+60				
S1-S4	SEALED SURVEY				
	•				

SHEET INDEX

NOTICE TO CONTRACTOR

Received

Dec 7, 2023

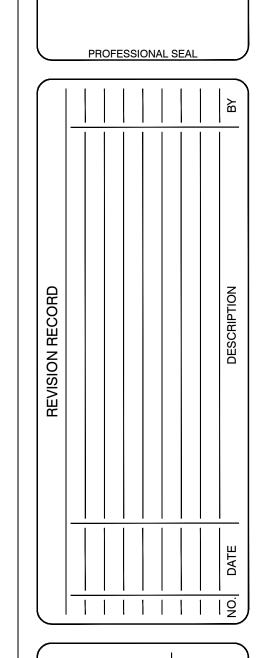
V-23-0019

Planning & Zoning

1. PRIOR TO CONSTRUCTION, DIGGING, OR EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA(S) OF CONSTRUCTION, WHETHER INDICATED ON THE PLANS OR NOT. CALL "811" A MINIMUM OF 72 HOURS PRIOR TO DIGGING OR EXCAVATING. REPAIRS TO ANY UTILITY DAMAGED RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



RALEIGH, NC 27607 (t)919-782-0495	
WWW.WKDICKSON.COM	
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W. K. DICKSON & COMPANY, INC. No. PEF02107 EXP. 06/30/2024 OF AUTHORITISTICATION OF AUTHO	
C.O.A.)



ONLY **FOR REVIEW**

PROJ. MGR.: TLM DESIGN BY: LD DRAWN BY: BFL PROJ. DATE: OCT. 2023 DRAWING NUMBER:

CONCEPTUAL

CLOSURE STATEMENT: NO BOUNDARY SURVEY HAS BEEN PERFORMED BY TERRAMARK LAND SURVEYING, INC. AT THIS TIME. BOUNDARY LINES ARE SHOWN FOR GRAPHICAL REFERENCE ONLY.

THE FIELD DATA UPON WHICH THIS SURVEY IS BASED HAD A CLOSURE OF ONE FOOT IN 100,000+ FEET AND AN ANGULAR ERROR OF 0" PER ANGLE POINT AND WAS ADJUSTED USING THE COMPASS RULE.

THE BEARINGS SHOWN ON THIS SURVEY ARE COMPUTED ANGLES BASED ON A GRID BEARING BASE (GA

ALL HORIZONTAL DISTANCES SHOWN ARE GROUND DISTANCES. MEASURING UNITS OF THIS SURVEY ARE IN U.S. SURVEY FEET.

CONTOURS ARE SHOWN AT ONE FOOT INTERVALS. ELEVATIONS ARE BASED ON RTK GLOBAL POSITIONING SYSTEMS OBSERVATION AND ARE RELATIVE TO NAVD 88 DATUM.

FIELD WORK FOR THIS PROPERTY WAS COMPLETED ON APRIL 24, 2023. THE SITE WAS LAST VISITED ON MAY 12, 2023 TO ADDRESS CLIENT'S COMMENTS.

GENERAL NOTES:

ACCESS TO SITES SHALL BE BY PUBLIC RIGHT-OF-WAYS AND UTILITY EASEMENTS. OTHER ACCESS LOCATIONS REQUIRED SHALL BE SECURED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. SUPPLEMENTAL EROSION CONTROL MEASURES SHALL BE REQUIRED TO INCLUDE CONSTRUCTION ENTRANCES, SILT FENCING, RESTORATION, ETC.

THE CONTRACTOR IS EXPECTED AND REQUIRED TO COOPERATE WITH THE PROPERTY OWNERS AFFECTED BY THE WORK. PRIVATE AGREEMENTS WITH PROPERTY OWNERS MUST BE IN WRITING ON A FORM APPROVED BY THE ENGINEER AND A COPY SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES AFFECTED BY SAID AGREEMENT. THE AGREEMENT MUST SPECIFY THAT THE CITY AND THE ENGINEER SHALL BE HELD HARMLESS AGAINST ALL CLAIMS ARISING FROM THE AGREEMENT. THE OWNER DISCOURAGES PRIVATE AGREEMENTS. BEFORE FINAL ACCEPTANCE, A RELEASE FROM EACH PROPERTY OWNER THAT THE CONTRACTOR MADE AN AGREEMENT WITH SHALL BE REQUIRED. THE PROPERTY OWNER'S RELEASE IS A CONDITION OF FINAL ACCEPTANCE.

CONTRACTOR SHALL MAINTAIN A NEAT AND CLEAN JOB-SITE TO INCLUDE STAGING/STORAGE AREAS AS FOLLOWS:

- PERFORM DUST CONTROL BY WATERING DAILY OR AS DIRECTED BY THE ENGINEER.
- SWEEP STREETS A MINIMUM OF ONCE WEEKLY (FRIDAY) OR AS DIRECTED BY THE ENGINEER.
- BLADE, LEVEL AND RE-COMPACT ALL EXPOSED TRENCHES WEEKLY (OR AS DIRECTED BY THE ENGINEER) TO PRODUCE A SMOOTH "RIDE".
- PERFORM DAILY CLEAN-UP OF ALL DIRT, DEBRIS AND SCRAP MATERIALS.
- REMOVE EXCESS EQUIPMENT, MATERIALS, TOOLS, ETC. NOT NEEDED.

CONTRACTOR SHALL PROVIDE MEASURES DURING CONSTRUCTION TO SECURE THE SITE AND EXCAVATION FROM THE GENERAL PUBLIC AND COMPLY WITH ALL OSHA REGULATIONS. JOB SITE SAFETY IS THE EXCLUSIVE AND SOLE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SHALL REPAIR OR REPLACE DRIVES DISTURBED BY CONSTRUCTION TO EXISTING OR BETTER CONDITIONS. NO SEPARATE PAYMENT UNLESS OTHERWISE INDICATED.

CONTRACTOR SHALL PROVIDE TEMPORARY FENCING WHERE FENCES ARE REMOVED FOR CONSTRUCTION. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING FENCE AND INSTALLATION OF TEMPORARY FENCE WITH PROPERTY OWNER PRIOR TO CONSTRUCTION. REMOVAL OF TEMPORARY FENCE AND INSTALLATION OF PERMANENT FENCE MUST ALSO BE COORDINATED WITH PROPERTY OWNER. ALL REMOVAL, TEMPORARY, AND REPLACEMENT FENCING SHALL BE CONSIDERED INCIDENTAL TO THE CITY INSTALLATION AND NO SEPARATE PAYMENT SHALL BE MADE. CONTRACTOR SHALL REINSTALL ALL SHEDS, FENCES, ETC. TO AS GOOD OR BETTER THAN EXISTING CONDITIONS UNLESS OTHERWISE INDICATED. (NO SEPARATE PAYMENT).

CONTRACTOR SHALL REPLACE ALL DISTURBED MAILBOXES, SIGNS, ETC. DISTURBED DURING CONSTRUCTION WITHIN 24 HOURS OF DISTURBANCE. PERMANENT ROAD SIGNAGE DISTURBED SHALL BE REPLACED IMMEDIATELY AND IF NECESSARY ROADWAY SIGNS SHALL BE TEMPORARILY INSTALLED IN A LOCATION CONSISTENT WITH THE NCMUTCD TO PROVIDE CONTINUOUS TRAFFIC AWARENESS OF ROADWAY CONDITIONS. (NO SEPARATE PAYMENT).

CONTRACTOR SHALL PROVIDE SECURITY FENCING, SECURITY GUARD, AND ANY AND ALL OTHER MEASURES CONTRACTOR DEEMS NECESSARY TO PROTECT EQUIPMENT AND MATERIALS STORED ON THE PROJECT. (NO SEPARATE PAYMENT).

WHERE CONTRACTOR CEASES WORK OPERATION FOR A 72 HOUR PERIOD OR LONGER, SUCH AS HOLIDAYS. ETC., THE FOLLOWING SHALL BE ACCOMPLISHED PRIOR TO THE WORK STOPPAGE

- CONTRACTOR WILL STORE ALL EQUIPMENT IN THE CONTRACTOR STAGING AREA OR OFF SITE.
- THE CONTRACTOR SHALL SWEEP ALL STREETS, PERFORM GENERAL CLEANUP AND SHALL PERFORM
- MAINTENANCE ON ALL EXPOSED PATCHES.

ON THE JOB SITE SHALL BE MINIMIZED. CONTRACTOR SHALL STORE ALL MATERIALS IN THE CONTRACTOR STAGING AREA 72 HOURS PRIOR TO INCORPORATING INTO THE WORK TO REDUCE OBSTRUCTIONS TO TRAFFIC AND INCONVENIENCE TO

CONTRACTOR SHALL SCHEDULE WORK AND MATERIAL DELIVERIES SO THAT STORED MATERIAL QUANTITIES

GENERAL NOTES FOR RESIDENT RELATIONS (MANDATORY):

THE PROPOSED WORK WILL BE CONSTRUCTED BETWEEN MCGINNIS FERRY RD AND EAST JOHNS CROSSING THE CONTRACTOR IS REQUIRED TO DEVELOP GOOD RELATIONS WITH PROPERTY OWNERS/OCCUPANTS WHICH INCLUDE THE FOLLOWING MANDATORY MINIMUM REQUIREMENTS:

- NO SPEEDING WITH EQUIPMENT AND/OR VEHICLES (25 MPH MAX.)
- DO NOT BLOCK DRIVEWAYS AT ANY TIME
- DO NOT LITTER AT ANY TIME
- DO NOT USE RESIDENT'S WATER WITHOUT THEIR PERMISSION (SIGNED AGREEMENT REQUIRED)
- ALL PLUMBING CODE REQUIREMENTS FOR BACK FLOW PREVENTION WILL BE ADHERED TO
- RESPOND TO RESIDENT'S COMPLAINTS WITHIN 24 HOURS
- DO NOT USE ABUSIVE LANGUAGE, PROFANITY OR CAT-CALLING
- WEAR PROPER PROTECTIVE CLOTHING (HARD HATS, PROPER SHOES, SHIRTS, ETC.) AT ALL TIMES.
- MAINTAIN PROPER SAFETY MEASURES, PARTICULARLY ALONG OPEN TRENCHES AND BACK FILLING OPEN TRENCHES IF CONSTRUCTION IS STOPPED AND THE OPEN TRENCH IS NOT MANNED.
- PERSONNEL MUST WEAR GDOT APPROVED SAFETY VEST AT ALL TIMES WHILE WORKING IN THE CITY AND/OR GDOT RIGHT-OF-WAY
- ALL TRAFFIC CONTROL FLAG PERSONS AND AT LEAST ONE PERSON ON EACH WORK CREW MUST BE FLUENT IN THE ENGLISH LANGUAGE

IF THE CONTRACTOR AND/OR SUBCONTRACTORS CANNOT ADEQUATELY PERFORM AND/OR COMPLY WITH THESE REQUIREMENTS, THE INDIVIDUAL, SUBCONTRACTOR, OR EMPLOYEES MAY BE DIRECTED TO LEAVE THE PROJECT PERMANENTLY. INCONSIDERATE, NON-COOPERATIVE ATTITUDES AND ACTIONS WILL NOT BE TOLERATED.

UTILITIES:

UTILITIES ARE ILLUSTRATED FOR INFORMATION PURPOSES ONLY. THE CITY OR ENGINEER WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF UTILITY LOCATIONS, SIZES, DEPTHS, OR FOR COMPLETENESS OF UTILITY INFORMATION SHOWN.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY AND MEET WITH ALL UTILITY OWNERS. THE

CONTRACTOR SHALL PROTECT ALL UTILITIES FROM DAMAGE CAUSED BY HIS OPERATIONS OR THOSE OF HIS AGENTS. THE CONTRACTOR SHALL HOLD THE CITY HARMLESS FOR ANY THIRD-PARTY INCONVENIENCE CREATED BY WORK OF HIS OWN FORCES OR THAT OF HIS AGENTS. ANY DAMAGES INCURRED SHALL BE THE CONTRACTOR'S FINANCIAL RESPONSIBILITY.

THE CONTRACTOR SHALL COORDINATE WORK WITH UTILITY OWNERS SO AS NOT TO ADVERSELY AFFECT THE PROJECT SCHEDULE. THE CITY WILL NOT BE HELD RESPONSIBLE FOR ANY DELAYS OR DISRUPTIONS TO THE WORK SCHEDULE OF OTHER UTILITY OWNERS.

- FOR UTILITY LOCATES CALL GEORGIA811 @ 811.
- FOR LOCATES OF UTILITIES NOT MEMBERS OF GEORGIA811 CONTACT PROJECT MANAGER OR UTILITY COORDINATOR.

PRIOR TO COMMENCEMENT OF ANY WORK WITHIN EASEMENTS OR RIGHT-OF-WAYS, THE CONTRACTOR IS REQUIRED TO NOTIFY CONCERNED UTILITY COMPANIES. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. NO SEPARATE PAYMENT. EXISTING UTILITIES SHOWN ARE TAKEN FROM TOPOGRAPHIC SURVEY PERFORMED BY TERRAMARK.

THE CONTRACTOR SHALL DIG UP EACH UTILITY WHICH MAY CONFLICT WITH CONSTRUCTION 14 DAYS IN ADVANCE TO VERIFY LOCATIONS (HORIZONTALLY AND VERTICALLY) TO ALLOW THE ENGINEER AN OPPORTUNITY TO ADJUST THE DESIGN TO AVOID CONFLICTS (NO SEPARATE PAYMENT).

STORM DRAINAGE REPAIRS BY CONTRACTOR DUE TO CONSTRUCTION DAMAGE AND JOINTS EXPOSED DURING CONSTRUCTION SHALL BE INSPECTED BY THE OWNER PRIOR TO BACKFILLING.

THE CONTRACTOR SHALL RELOCATE ALL MAIL BOXES AS REQUIRED BY GDOT. COORDINATE THIS WORK WITH THE U.S. POSTAL SERVICE.

TREES, SHRUBS, AND HEDGES:

ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED WITH TREE PROTECTION BARRIERS ACCEPTABLE TO THE CITY OR ENGINEER. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY OR ENGINEER PRIOR TO ROOT PRUNING. WHEN ROOT PRUNING IS ABSOLUTELY NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER OR OTHER APPROVED METHOD.

CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY PRIOR TO REMOVING ANY TREES. ALL TREES LOCATED WITHIN THE LOT THAT ARE TO REMAIN AFTER CONSTRUCTION SHALL BE INSPECTED BY THE CITY TO VERIFY THEY ARE SUITABLE TO REMAIN.

INVASIVE SPECIES MANAGEMENT:

NON-NATIVE AND INVASIVE VEGETATION SHALL BE CLEARED FROM THE PROJECT AREA ACCORDING TO THE PLANTING PLAN AND PROPERLY DISPOSED OF OFF-SITE. NO NON-NATIVE OR INVASIVE SPECIES MAY BE UTILIZED FOR STREAM STRUCTURES, SUCH AS BRUSH TOE STRUCTURES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BORROW MATERIAL REQUIRED TO CONSTRUCT PROJECT AS SHOWN ON THE CONTRACT DOCUMENTS.

ALL EXCAVATED MATERIALS THAT ARE NOT REQUIRED OR ARE UNSUITABLE FOR THE PROJECT SHALL BE CONSIDERED WASTE AND SHALL BE HAULED OFF SITE AND DISPOSED IN A SAFE AND LEGAL MANNER AT THE CONTRACTOR'S EXPENSE.

EROSION CONTROL:

CONTRACTOR SHALL NOT DISTURB ANY AREAS OUTSIDE OF THE DESIGNATED LIMITS OF DISTURBANCE AREAS.

THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL DEVICES IN ACCORDANCE WITH THE APPROPRIATE CITY AND STATE EROSION AND SEDIMENT CONTROL ORDINANCES. THE CONTRACTOR SHALL PREVENT STANDING WATER DUE TO CONSTRUCTION.

STORM DRAINAGE STRUCTURE, PIPE & GRADING NOTES:

PIPE INVERT ELEVATIONS HAVE PRECEDENCE OVER SLOPES. HOWEVER, SLOPES SHALL NOT BE DECREASED FROM THOSE SHOWN ON PLAN WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

PIPE LENGTHS INDICATED ON PLAN ARE APPROXIMATE ONLY.

NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, TRENCHING, OR OTHER LAND DISTURBING ACTIVITY SHALL BE PERMITTED BEYOND LIMITS OF GRADING WITHOUT PRIOR APPROVAL FROM THE OWNER AND ENGINEER.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCIES FOUND BETWEEN ACTUAL CONDITION AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING.

THE CONTRACTOR SHALL DESIGN, FURNISH, AND INSTALL ANY TRENCH STABILIZATION NECESSARY TO MAINTAIN EXCAVATION FOR PIPE AND DRAINAGE STRUCTURE INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND REMOVAL OF ANY TRENCH STABILIZATION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT STRUCTURES RESULTING FROM THE INSTALLATION, REMOVAL OR ABSENCE OF TRENCH STABILIZATION.

GRADES, ELEVATIONS AND LOCATIONS SHOWN MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS ONLY WITH PRIOR APPROVAL OF THE ENGINEER. ALL PROPOSED GRADES ARE FINISH GRADES.

THE CONTRACTOR SHALL BACKFILL OPEN EXCAVATIONS AT THE END OF EACH WORKING DAY. AT DRAINAGE STRUCTURE LOCATIONS, THE EXCAVATION SHALL BE COVERED WITH METAL PLATES WHEN PRACTICAL OR COMPLETELY ENCLOSED WITH SAFETY NETTING.

STOCKPILING NOTE:

ANY ONSITE STOCKPILING IS TO BE COORDINATED AND APPROVED BY ENGINEER. THE STOCKPILE WILL BE PROVIDED WITH GROUND COVER WITHIN 15 WORKING DAYS OF PROJECT COMPLETION.

EXCESS SUITABLE SOIL EXCAVATED DURING CONSTRUCTION SHALL BE STOCKPILED FOR USE ON THE PROJECT OR DISPOSED OF OFF-SITE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL NOT BE ALLOWED TO STOCKPILE MATERIALS OR EXCESS MATERIALS IN THE STREET RIGHT-OF-WAYS AT ANY TIME UNLESS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT AND SUITABLE STOCKPILE AREA AND LOCATION AT THE CONTRACTOR'S EXPENSE.

ORDER OF PRECEDENCE GENERAL NOTES/TECHNICAL SPECIFICATIONS:

THE NOTES CONTAINED HEREIN ARE INTENDED TO SUPPLEMENT THE TECHNICAL SPECIFICATIONS AND PROVIDE EASY REFERENCE FOR THE CONTRACTOR. IN NO CASE SHALL THESE NOTES VOID ANY PART, SECTION OR REQUIREMENT OUTLINED IN THE TECHNICAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENTS. IF CONFLICTS OCCUR BETWEEN THE TECHNICAL SPECIFICATIONS AND THE NOTES CONTAINED HEREIN, THE TECHNICAL SPECIFICATIONS SHALL SUPERSEDE.

TRAFFIC CONTROL

CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS FOR WORK ZONE TRAFFIC CONTROL. CONTRACTOR SHALL NOT PLACE ANY TRAFFIC CONTROL DEVICES WITHOUT HAVING APPROVAL FROM CITY OF JOHNS CREEK.

CONTRACTOR SHALL ENSURE ACCESS TO ALL PROPERTIES BY PROPERTY OWNERS AT ALL TIMES.

CONTRACTOR SHALL NOTIFY ENGINEER ONE WEEK IN ADVANCE OF ANY ROAD CLOSING AND COORDINATE ALL ROAD CLOSINGS/UTILITY INTERRUPTIONS WITH PROPERTY OWNERS AFFECTED 48 HOURS PRIOR TO CLOSING/INTERRUPTING SERVICES.

MINIMUM ONE WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS ROAD CLOSURE IS APPROVED BY CITY OF JOHNS CREEK. COORDINATE WITH CITY OF JOHNS CREEK ON ADVANCE NOTIFICATION REQUIREMENT.

CONTRACTOR SHALL COORDINATE/NOTIFY ENGINEER DAILY (BEFORE 2:00 P.M.) AS TO WHICH STREETS WILL BE UNDER CONSTRUCTION IMPEDING TRAFFIC FLOW THE FOLLOWING DAY.

THE CONTRACTOR SHALL NOT IMPEDE TRAFFIC AT ANY TIME UNTIL THE APPROVED TRAFFIC CONTROL DEVICES ARE IN PLACE.

ALL TRAFFIC CONTROL MEASURES, DEVICES, INSTALLATION, METHODS, SEQUENCING AND PLANS SHALL BE IN STRICT ACCORDANCE WITH MUTCD, GDOT, AND CITY OF JOHNS CREEK.

CITY BUFFER VARIANCE APPLICATION CALCULATIONS

THE CITY OF JOHNS CREEK REQUIRES BOTH A 50' RIPARIAN BUFFER AND 75' NON-IMPERVIOUS SETBACK MEASURED FROM THE LINE OF WRESTED VEGETATION. THE FOLLOWING TABLE SUPPORTS THE CITY BUFFER VARIANCE APPLICATION FOR CONSTRUCTION OF THE PROPOSED CONCRETE GREENWAY.

THE TABLE CONTAINS QUANTITIES OF EXISTING AND PROPOSED IMPERVIOUS SURFACE WITHIN THE 50' CITY BUFFER AND 75' NON-IMPERVIOUS SETBACK. ALL QUANTITIES BELOW EXCLUDE ANY WORK WITHIN THE PARCEL #11 106003800101, OWNED BY CROSS CREEK RETAIL PARTNERS, LTD. SEE SHEETS 6 AND G4 FOR MORE INFORMATION.

EN' CITY DI IEEED

	50 CIT	BUFFER	75 NON-IMPER	1005 SEI BACK
IMPERVIOUS AREA	AREA (SF)	LENGTH (LF)	AREA (SF)	LENGTH (LF)
PROPOSED CONCRETE GREENWAY	10,464	1,062	286	128
EXISTING CONCRETE GREENWAY	5,369	1,063	348	21

CITY BUFFER VARIANCE APPLICATION CALCULATIONS THE CITY OF JOHNS CREEK REQUIRES BOTH A 50' RIPARIAN BUFFER AND 75' NON-IMPERVIOUS SETBACK MEASURED FROM THE LINE OF WRESTED VEGETATION. THE FOLLOWING TABLE SUPPORTS THE CITY BUFFER VARIANCE APPLICATION

FOR CONSTRUCTION OF THE PROPOSED CONCRETE

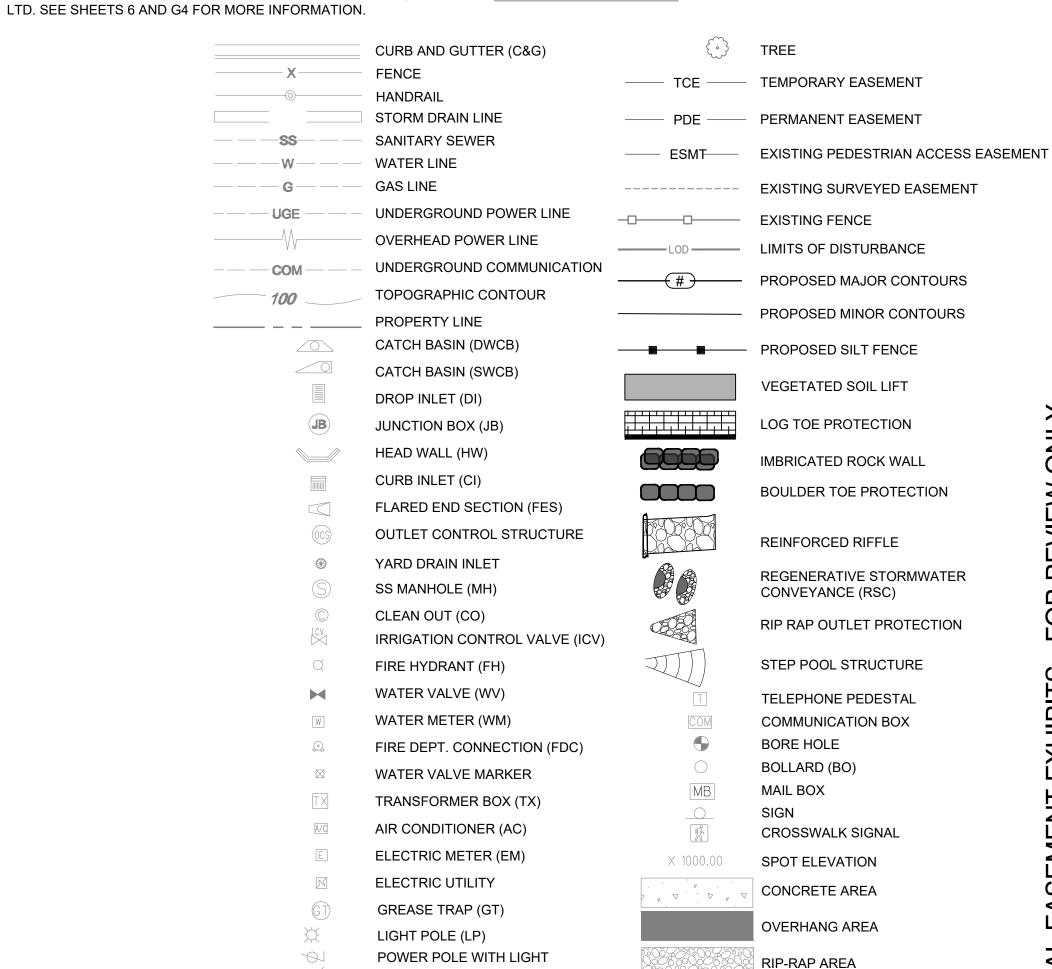
GREENWAY. THE TABLE CONTAINS QUANTITIES OF EXISTING AND PROPOSED IMPERVIOUS SURFACE WITHIN THE 50' CITY BUFFER AND 75' NON-IMPERVIOUS SETBACK. ALL QUANTITIES

106003800101, OWNED BY CROSS CREEK RETAIL PARTNERS,

BELOW EXCLUDE ANY WORK WITHIN THE PARCEL #11



75' NON IMPERVIOUS SETRACK



BRICK AREA

ROOT WAD REVETMENT

TREELINE

POWER POLE (PP)

GAS METER (GM)

GAS VALVE (GV)

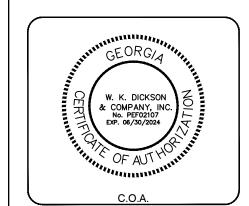
SPOTLIGHT

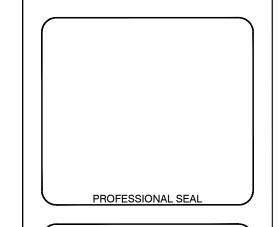
UTILITY MANHOLE (UM)

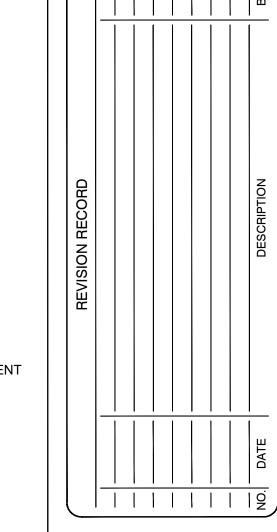










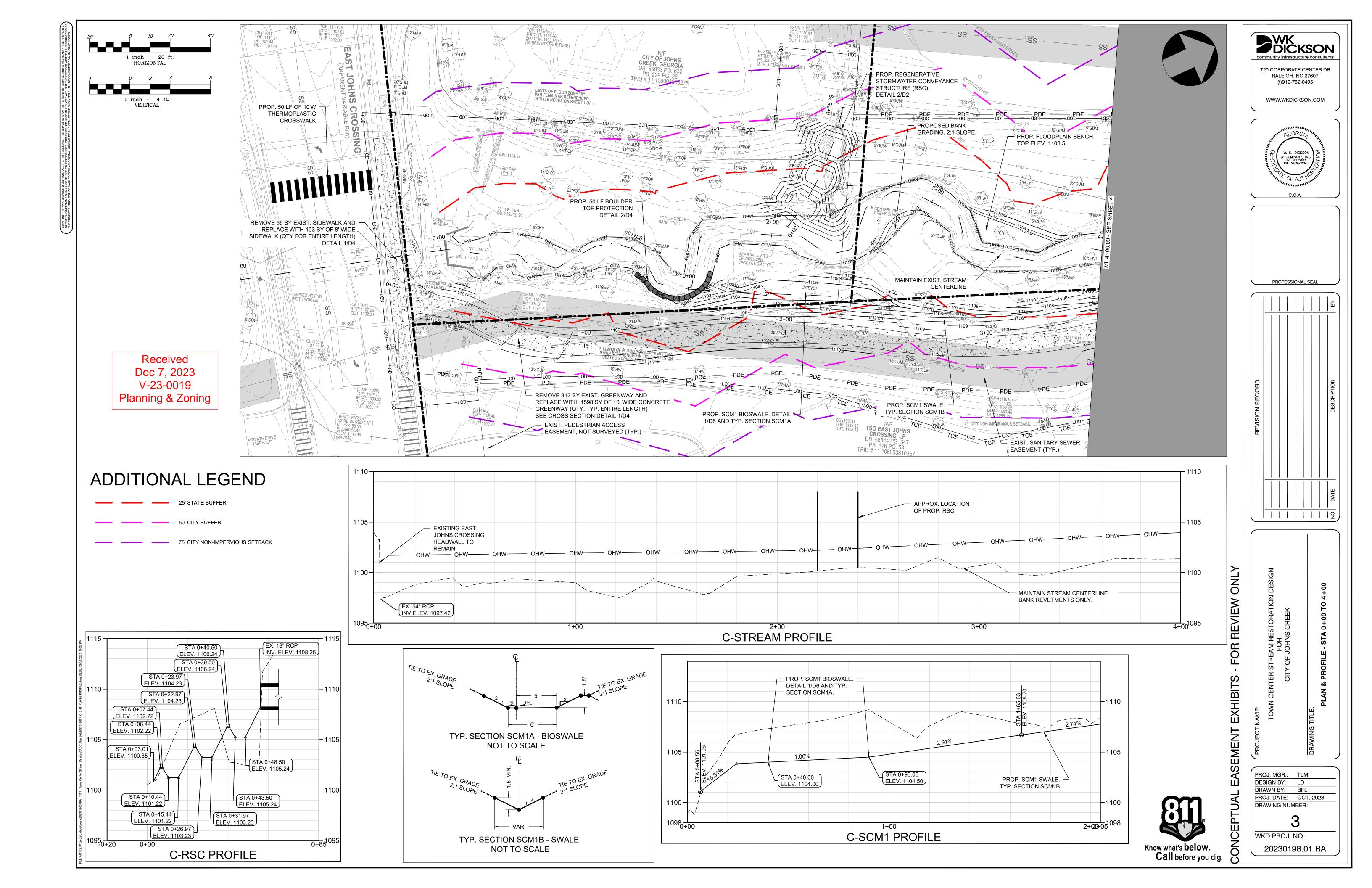


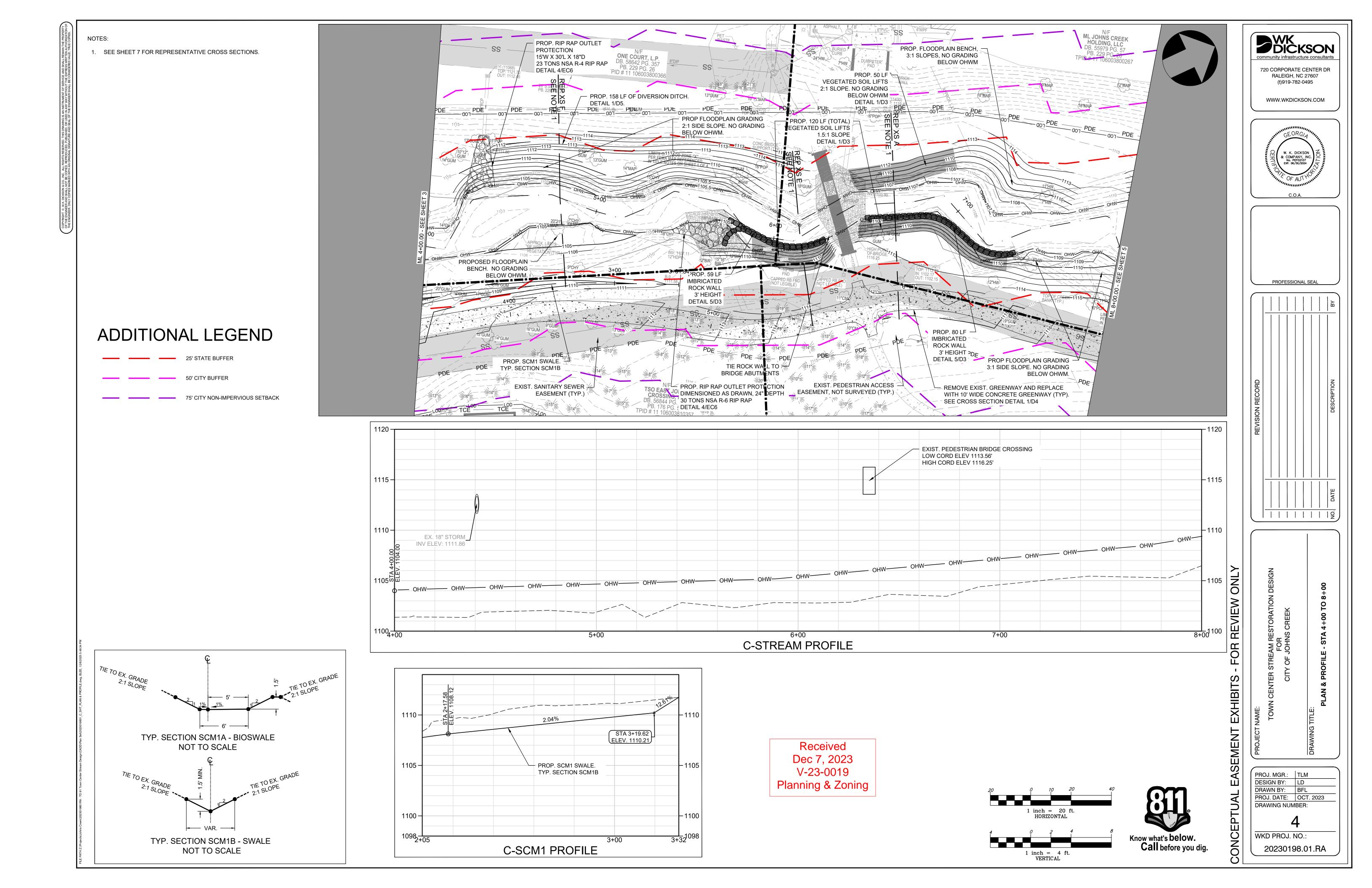
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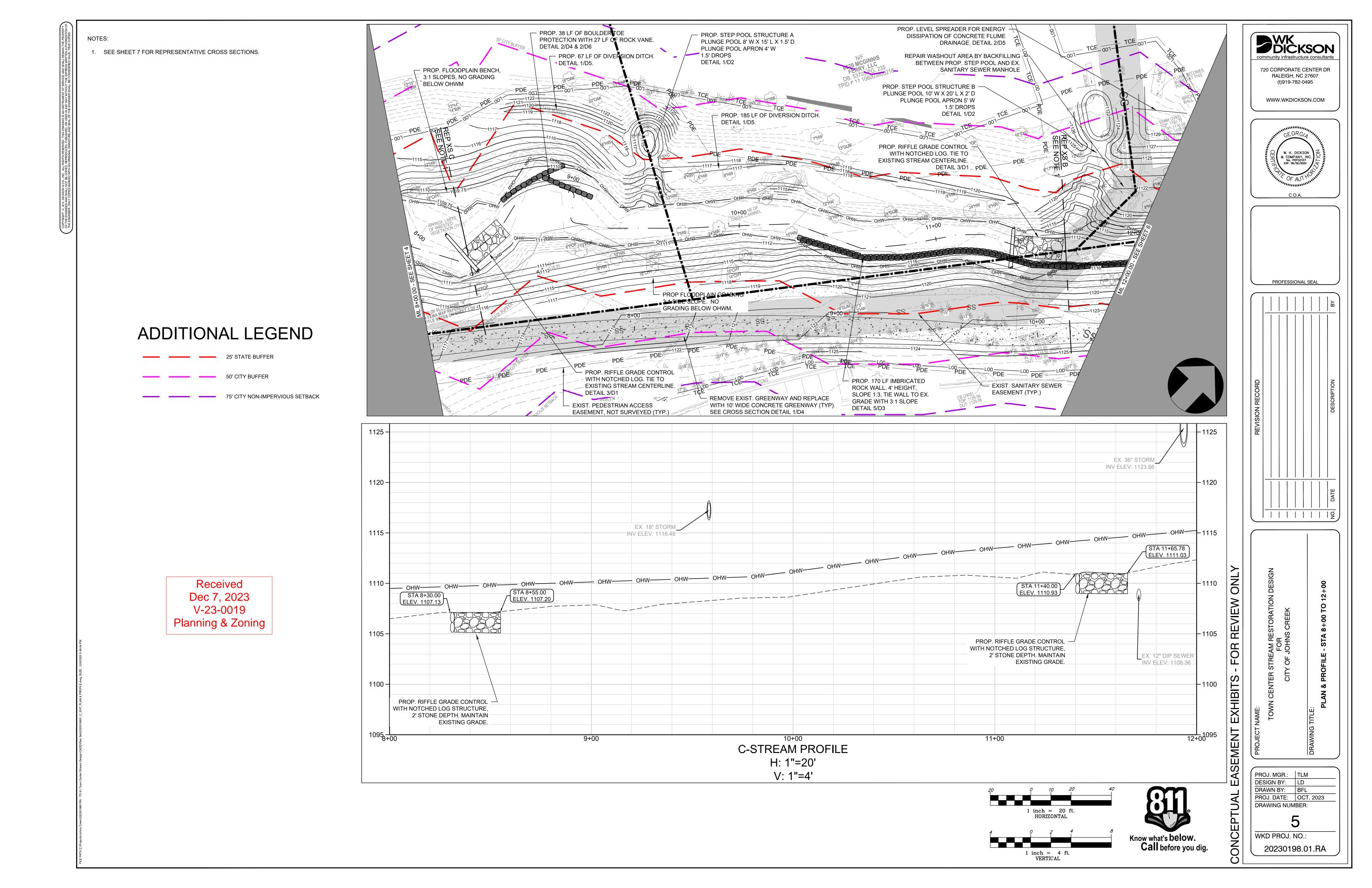
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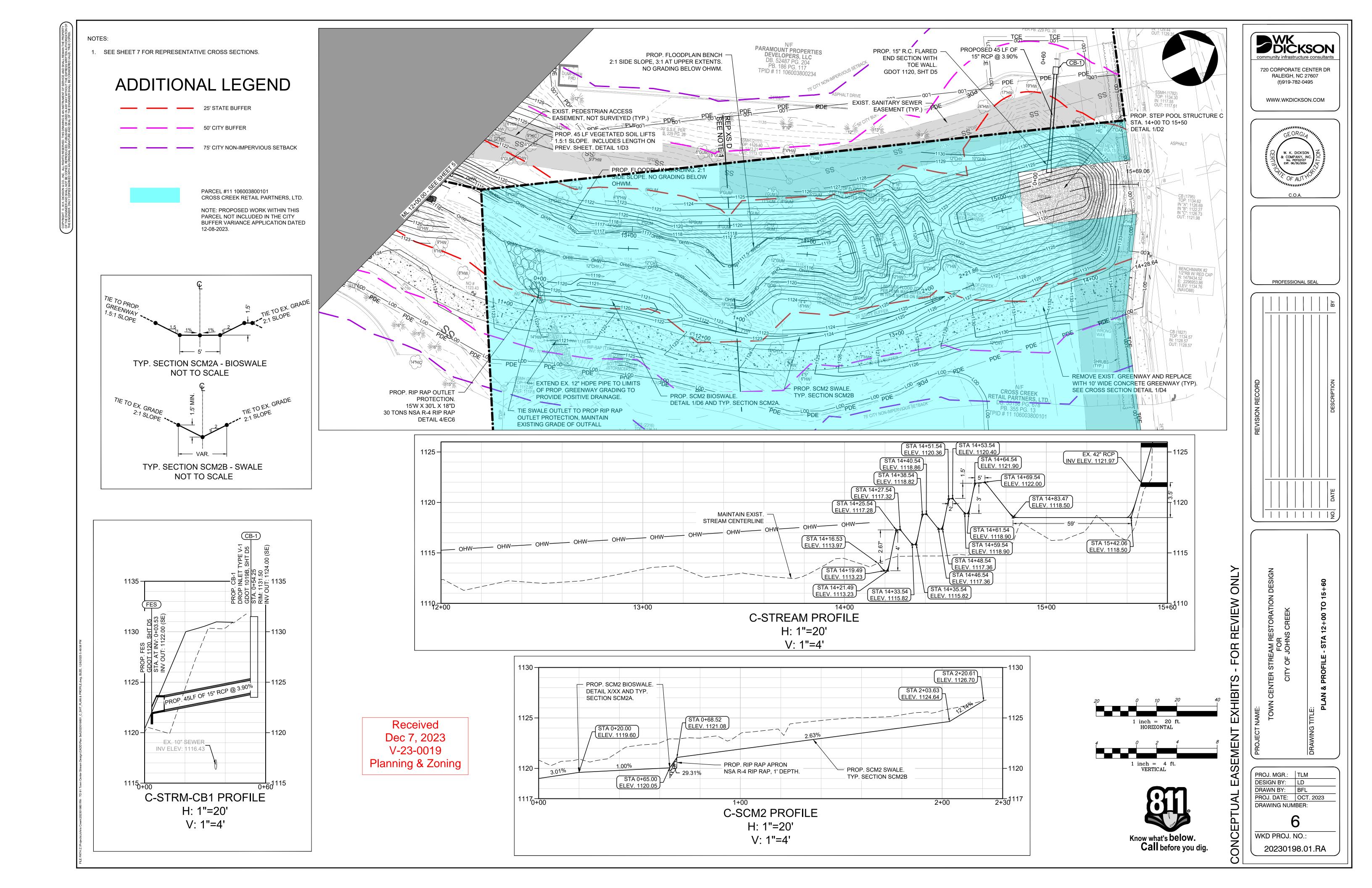
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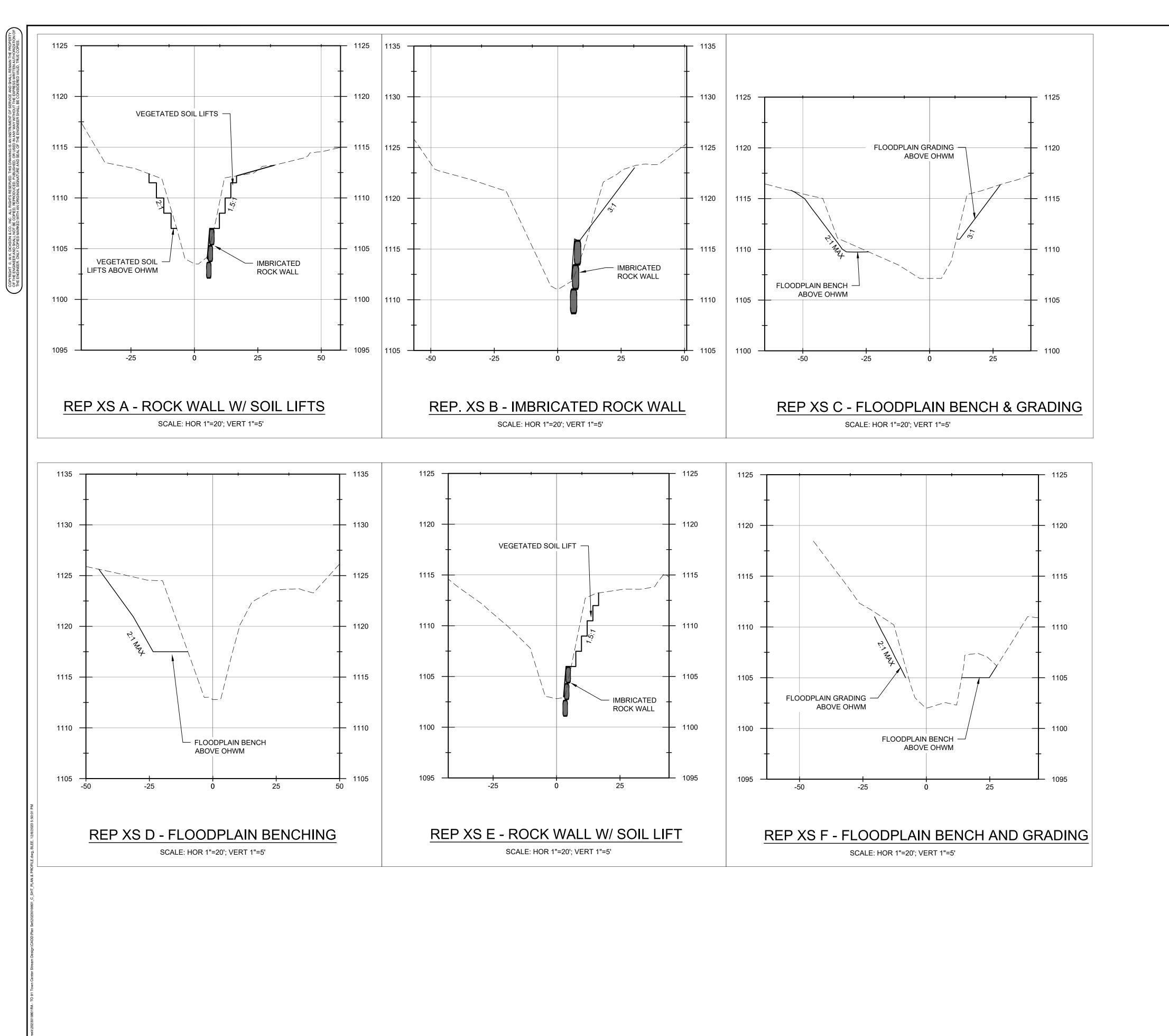
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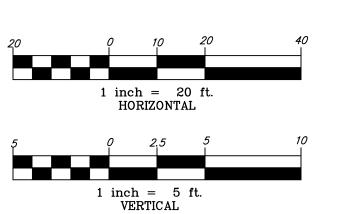




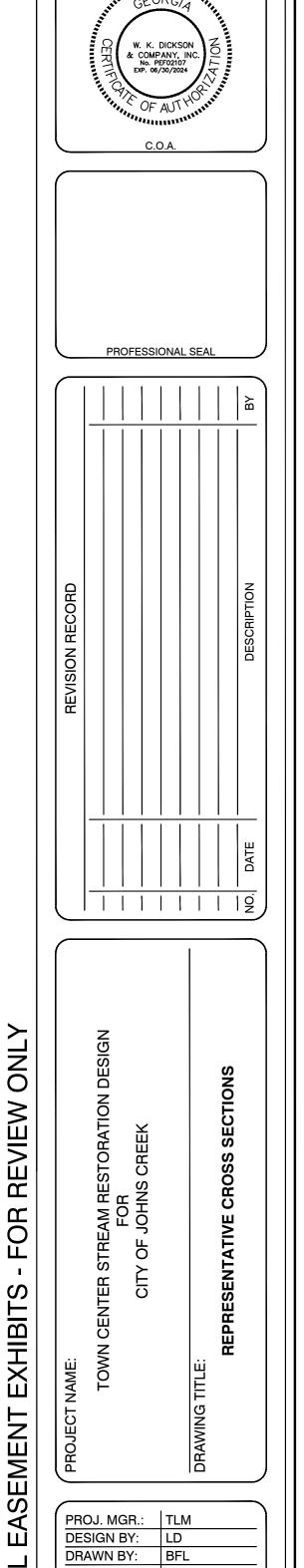




Received
Dec 7, 2023
V-23-0019
Planning & Zoning







PROJ. DATE: OCT. 2023

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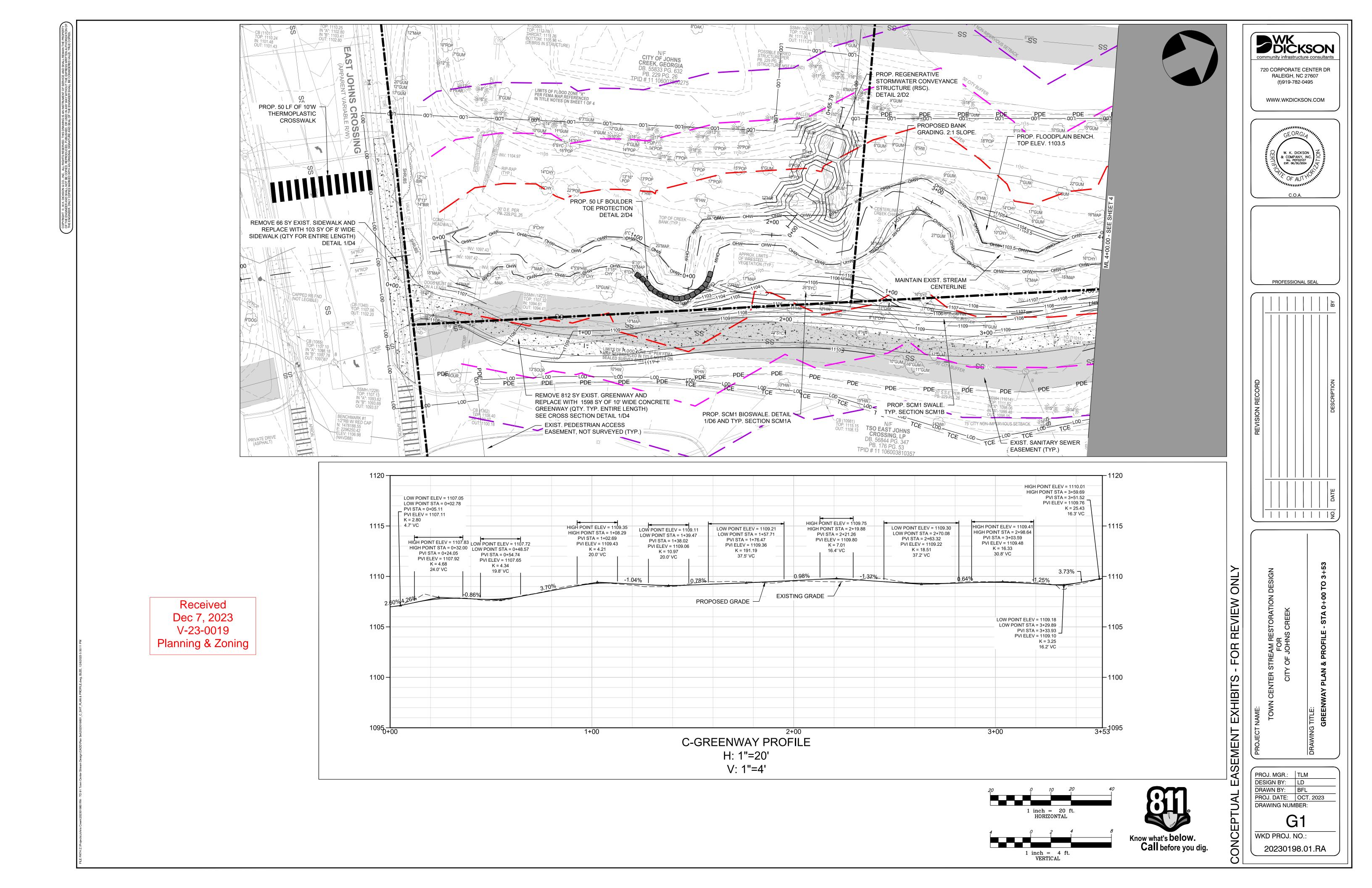
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720 CORPORATE CENTER DR RALEIGH, NC 27607

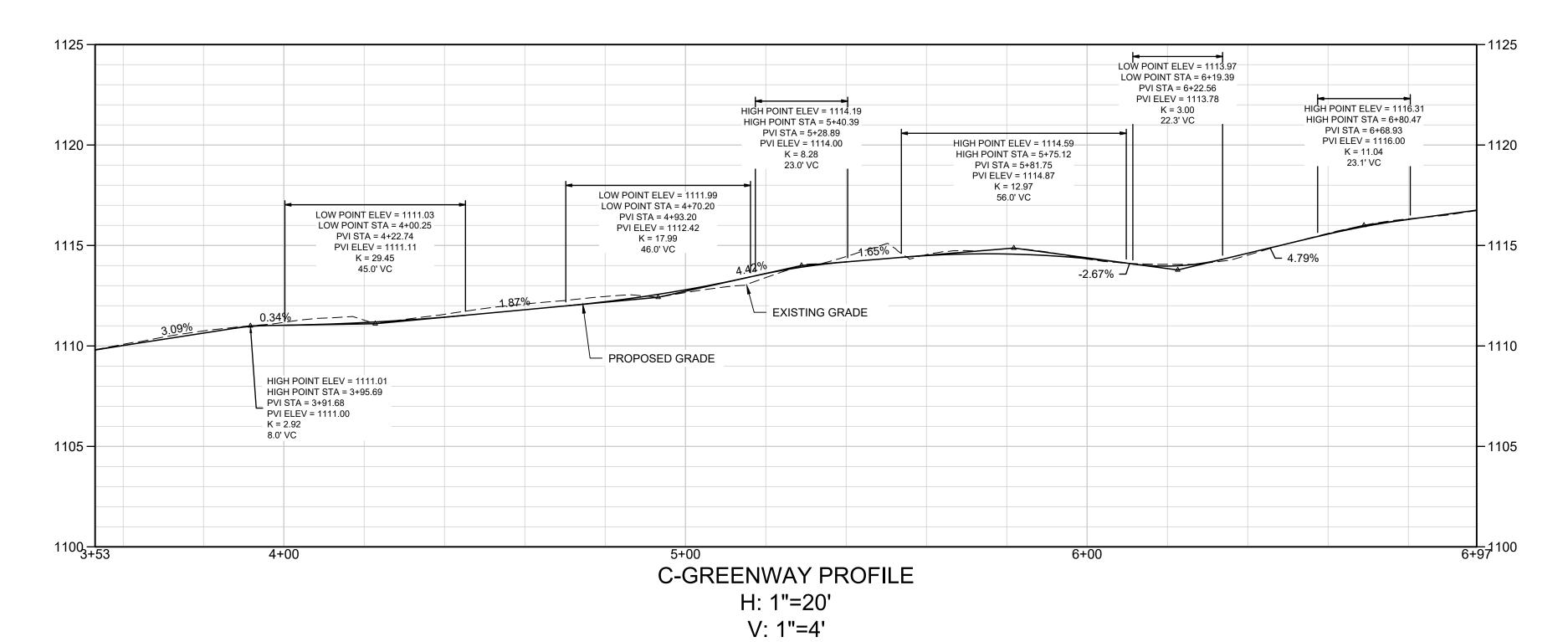
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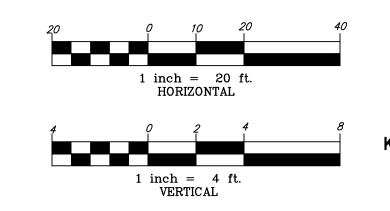
WWW.WKDICKSON.COM



ML JOHNS CREEK HOLDING, LLC - PROP. RIP RAP OUTLET PROP. FLOODPLAIN BENCH, PROTECTION 3:1 SLOPES, NO GRADING 15'W X 30'L X 18"D BELOW OHWM 23 TONS NSA R-4 RIP RAP DETAIL 4/EC6 **VEGETATED SOIL LIFTS** -2:1 SLOPE. NO GRADING BELOW OHWM PROP. 158 LF OF DIVERSION DITCH. DETAIL 1/D3 5 DETAIL 1/D5. PROP FLOODPLAIN GRADING PROP. 120 LF (TOTAL) 2:1 SIDE SLOPE. NO GRADING **Y**EGETATED SOIL LIFTS - BELOW OHWM. 1.5:1 SLOPE DETAIL 1/D3 PROPOSED FLOODPLAIN BENCH. NO GRADING BELOW OHWM. IMBRICATED **ROCK WALL** 3' HEIGHT DETAIL 5/D3 PROP. 80 LF IMBRICATED -**ROCK WALL** 3' HEIGHT PDE DETAIL 5/D3 PROP FLOODPLAIN GRADING PROP. SCM1 SWALE. TIE ROCK WA 3:1 SIDE SLOPE. NO GRADING TYP. SECTION SCM1B BRIDGE ABUTMENTS BELOW OHWM. EXIST. PEDESTRIAN ACCESS -TSO EAST JOI DIMENSIONED AS DRAWN, 24" DEPTH EXIST. SANITARY SEWER 🕌 REMOVE EXIST. GREENWAY AND REPLACE EASEMENT, NOT SURVEYED (TYP.) EASEMENT (TYP.) WITH 10' WIDE CONCRETE GREENWAY (TYP). DB. 56844 PG 30 TONS NSA R-6 RIP RAP SEE CROSS SECTION DETAIL 1/D4 PB. 176 PG. & DETAIL 4/EC6 -1125 1125 -

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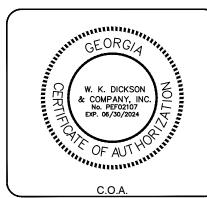


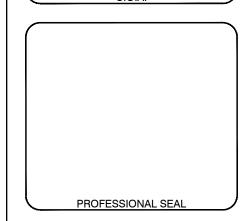


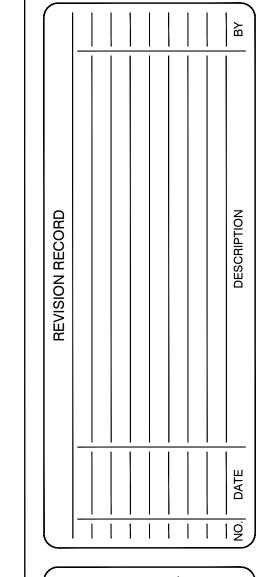
community infrastructure consultants

720 CORPORATE CENTER DR
RALEIGH, NC 27607
(t)919-782-0495

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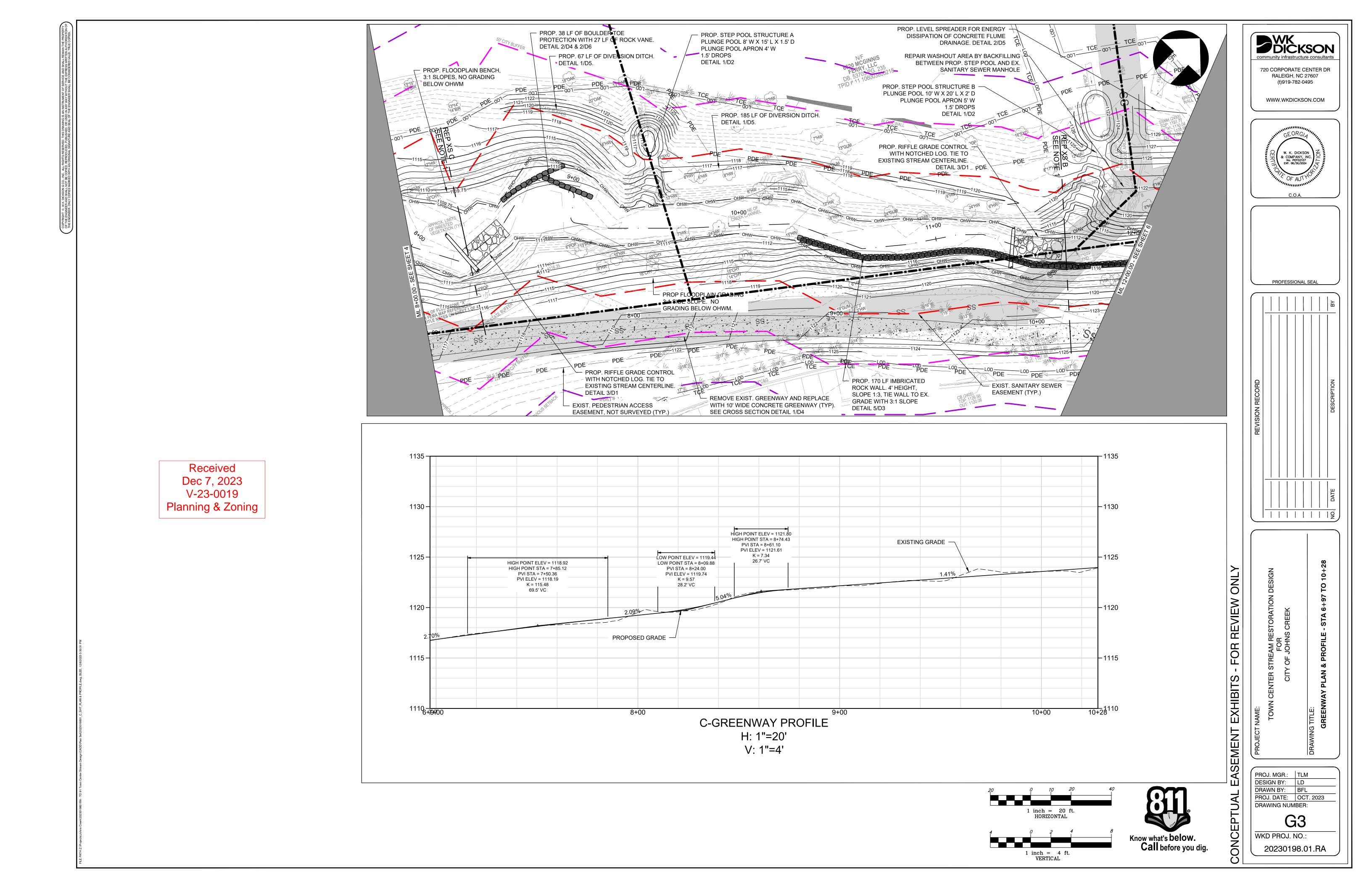


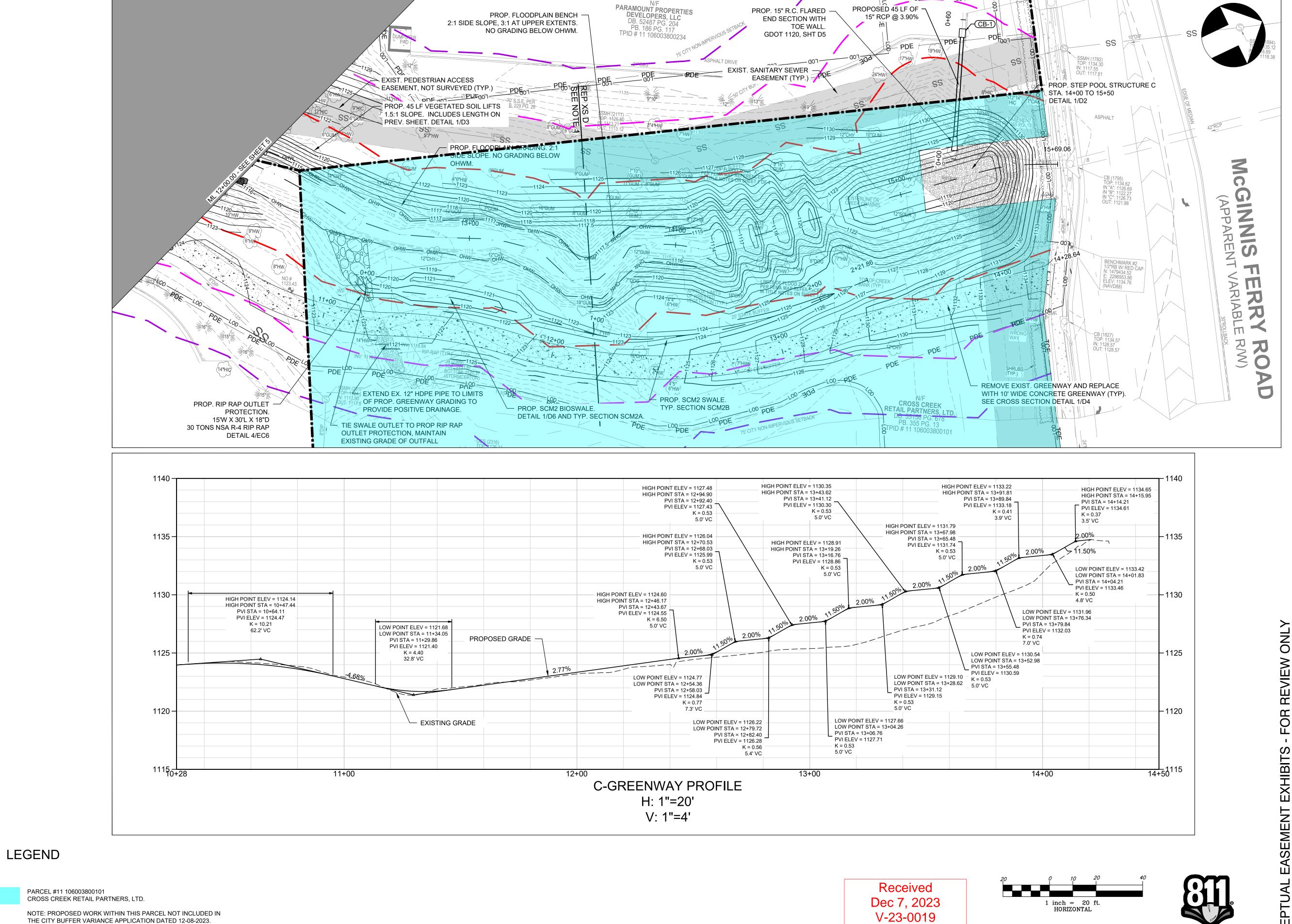
FOR REVIEW ONLY

EASEMENT EXHIBITS

PROJ. MGR.:	TLM
ESIGN BY:	LD
RAWN BY:	BFL
PROJ. DATE:	OCT. 2023
RAWING NUM	BER:

G2





THE CITY BUFFER VARIANCE APPLICATION DATED 12-08-2023.

Know what's below.
Call before you dig.

1 inch = 4 ft.VERTICAL

Planning & Zoning

DESIGN BY: LD DRAWN BY: BFL PROJ. DATE: OCT. 2023 DRAWING NUMBER: G4

PROJ. MGR.: TLM

WKD PROJ. NO.: 20230198.01.RA

720 CORPORATE CENTER DR RALEIGH, NC 27607 (t)919-782-0495

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PROFESSIONAL SEAL

- 2. LEVEL II CERTIFIED DESIGN PROFESSIONAL: GSWCC CERTIFICATION: EXPIRATION DATE:
- 3. LIMITS OF DISTURBANCE SHALL BE NO GREATER THAN 50 ACRES AT ANY ONE TIME WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE GAEPD DISTRICT OFFICE.
- 4. 24 HOUR CONTACT: CORY RAYBURN, PHONE NO. 470-226-4124
- PRIMARY PERMITTEE: CITY OF JOHNS CREEK, PHONE NO. 678-512-3200
 11360 LAKEFIELD DR EMAIL: info@johnscreekga.gov
 JOHNS CREEK, GA 30097
- S. TOTAL SITE AREA = 30.77 AC (SUM OF PARCEL ACREAGE)
 TOTAL DISTURBED AREA = 5.19 AC

THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION IS SHOWN ON THE PLAN SHEETS (SEE NOTE 28 THIS SHEET).

- GPS LOCATION OF THE CONSTRUCTION EXIT IS W84° 09' 53.19" LONGITUDE, N34° 04' 00.15" LATITUDE.
- INITIAL DATE ON THE PLANS: OCT. 2023
- NATURE OF CONSTRUCTION ACTIVITY AND EXISTING SITE CONDITIONS CONSISTS OF: <u>SITE CLEARING AND GRADING OF STREAM CORRIDOR AND INSTALLATION OF IN STREAM STRUCTURES TO REPAIR SERIOUS EROSION AND BANK FAILURES ALONG STREAM BETWEEN MCGINNIS FERRY RD AND E. JOHNS CROSSING.</u>
- 10. VICINITY MAP: SEE SHT 1, COVER SHEET.
- 11. THE RECEIVING WATERS FOR THIS PROJECT IS TOWN CENTER STREAM, A TRIBUTARY TO JOHNS CREEK. THE PROJECT IS LOCATED WITHIN TOWN CENTER STREAM. ALL STATE WATERS LOCATED ON OR WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN DELINEATED IN THESE PLANS.
- 12-14. THE DESIGN PROFESSIONAL CERTIFICATION STATEMENTS AND DESIGN PROFESSIONAL'S STATEMENTS ARE LOCATED ON SHEET EC3.
- 15. 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.
- 16. THIS PROJECT DOES ENCROACH EXISTING BUFFERS DURING STREAM BANK STABILIZATION AND GREENWAY INSTALLATION, THUS A BUFFER VARIANCE SHALL BE SUBMITTED BY THE DESIGN PROFESSIONAL.
- 17. THE DESIGN PROFESSIONAL'S STATEMENTS ARE LOCATED ON SHEET EC3.
- 18. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

WASTE MATERIALS

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

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

- 19. "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."
- 20. "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."
- 21. "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER
 THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY
 SEEDING."
- 22. THIS PROJECT <u>DOES NOT</u> DISCHARGE STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT. ALL CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO THE IMPAIRED STREAM MUST COMPLY WITH PART III. C. OF THE PERMIT. SEE BMPS BELOW THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT:
- 23. ACCORDING TO GAEPD, A TMDL IMPLEMENTATION PLAN FOR FECAL COLOFORM WAS COMPLETED IN 2003, REVISED 2008 AND A TMDL IMPLEMENTATION PLAN FOR BIOTA IMPACTED (FISH COMMUNITY) WAS COMPLETED IN 2018.
- 24. CONCRETE WASHOUT SHALL BE PROVIDED ADJACENT TO THE CONSTRUCTION ENTRANCE. SEE CONCRETE WASHOUT DETAIL, SHT EC5.

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES (continued)

- 25. SPILL PREVENTION AND HAZARDOUS WASTES NOTES:
 - (1) 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 PERSONAL 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.
 - (2) THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THIS ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORMWATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH STATE AND FEDERAL REGULATION 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.

(3) SOIL CLEANUP AND CONTROL PRACTICES

- LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MAPS, 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 1-800-426-2675.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITH 24 HOURS AT 1-800-426-2675.
- 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.
- (1) THE CONTRACTOR SHALL NOT STORE MORE THAN 1320 GALLONS OF PETROLEUM ON SITE INCLUDING CAPACITIES OF EQUIPMENT.
- (2) THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY A LICENSED PROFESSIONAL.
- 26. A DESCRIPTION OF THE MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED ARE PERMANENT VEGETATION.
- 27. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR PROVIDING COVER, AT A MINIMUM FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS IN ORDER TO MINIMIZE EXPOSURE TO PRECIPITATION AND TO STORMWATER.
- 28. A DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES ARE:
- (1) INITIAL PHASE (PHASE 1):

PHASE 1 OF THE PLAN IS FOR INSTALLATION OF INITIAL EROSION CONTROL BMP'S, SITE DEMOLITION AND CLEARING AND GRUBBING OPERATIONS. PHASE 1 INCLUDES THE REQUIRED 67 CY PER ACRE SEDIMENT STORAGE UTILIZING PERIMETER SILT FENCE BARRIERS. ADDITIONAL PHASE 1 BMPS INCLUDE A CONSTRUCTION EXIT AND DISTURBED AREA SEEDING AND MULCHING THAT WILL PREVENT SEDIMENT FROM LEAVING THE SITE. LIMITS OF DISTURBANCE FOR PHASE 1 ARE ALL OF THE DEMOLITION AREAS, CLEARING AND GRUBBING AREAS, AND AREAS NEEDED TO INSTALL INITIAL BMPS. SEE SHEET EC7-EC8 FOR THE PHASE 1 BMP LOCATION PLANS. SEE EROSION CONTROL DETAILS ON SHEETS EC5 AND EC6 FOR A DESCRIPTION OF APPROPRIATE CONTROLS.

(2) INTERMEDIATE PHASE (PHASE 2):

PHASE 2 OF THE PLAN IS FOR STREAM BANK STABILIZATION AND INSTALLATION OF THE PROPOSED STORMWATER FEATURES. PHASE 2 INCLUDES THE REQUIRED 67 CY PER ACRE SEDIMENT STORAGE UTILIZING PERIMETER SILT FENCE BARRIERS, INLET SEDIMENT TRAPS, AND PERMANENT RIP-RAP APRONS. ENERGY DISSIPATION DEVICES SHALL BE INSTALLED TO CONTROL EXIT FLOWS FROM PROPOSED STORM PIPES. SEE SHEET EC9-EC10 FOR THE PHASE 2 BMP LOCATION PLANS. SEE EROSION CONTROL DETAILS ON SHEETS EC5 AND EC6 FOR A DESCRIPTION OF APPROPRIATE CONTROLS.

(3) FINAL PHASE (PHASE 3):

PHASE 3 OF THE PLAN IS FOR FINAL STABILIZATION OF THE DISTURBED SITE AREA. PHASE 3 INCLUDES PERMANENT VEGETATION AND STABILIZATION OF PROJECT SITE. SEE SHEET EC11-EC12 FOR THE PHASE 3 BMP LOCATION PLANS. SEE EROSION CONTROL DETAILS ON SHEETS EC5 AND EC6 FOR A DESCRIPTION OF APPROPRIATE CONTROLS.

29. SEE ACTIVITY SCHEDULE BELOW FOR DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES.

ESTIMATED START DATE: XXX
ESTIMATED COMPLETION DATE: XXX
TOTAL PROJECT DURATION: XXX DAYS

ANTICIPATED CONSTRUCTION **ACTIVITY SCHEDULE** CONSTRUCTION MONTH ACTIVITY INSTALL CONSTRUCTION EXIT & PERIMETER SILT FENCING DESIGN PROFESSIONAL'S 7 DAY MAINTAIN EROSION CONTROL BMP'S CLEAR & GRUB REMAINING AREAS TOPSOIL STRIPPING / STORING ROUGH GRADING INSTALL & MAINTAIN TEMP. STABILIZATION IN AREAS NOT AT FINAL GRADE FINAL GRADING INSTALL & MAINTAIN PERM. STABILIZATION IN FINAL GRADED AREAS INSTALL PROPOSED SITE FEATURES CLEAN UP SITE AND REMOVE TEMP. EROSION CONTROL BMP'S

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES (continued)

30. INSPECTIONS

- A. 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): 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 TABILIZATION 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.

31. SAMPLING FREQUENCY AND REPORT

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 STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN 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 STORM WATER 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 STORM WATER 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 REPRESENTATIVE 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 STORM WATER 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 REPRESENTATIVE 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.

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES (continued)

- * NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) 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.
- (4) NON-STORM WATER DISCHARGES. EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER LISTED IN PART III.A.2. OF THIS PERMIT THAT ARE COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE IDENTIFIED IN THE PLAN. THE PLAN SHALL IDENTIFY AND ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

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 STORM WATER 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 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 CERTIFIED PERSONNEL 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.
- (1) ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. 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.

32. RETENTION OF RECORDS

- (1) THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:
- a. A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
- b. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
- c. THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
- d. A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
- e. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;f. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN
- ACCORDANCE WITH PART OF THIS PERMIT; AND g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2). OF THIS
- (2) COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION), OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE

EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE

33. SAMPLING REQUIREMENTS AND ANALYTICAL METHODS USED FOR SAMPLING

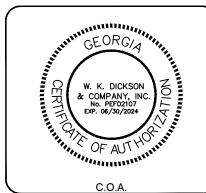
THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

- 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 INFRASTRUCTURE 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 STORM WATER IS DISCHARGED AND (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS FOR EACH REPRESENTATIVE STORMWATER OUTFALL. 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 STORM WATER(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 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.

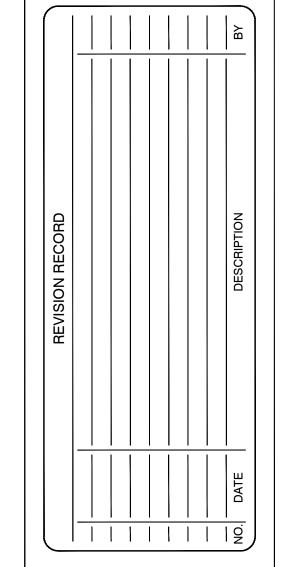


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CT NAME:

TOWN CENTER STREAM RESTORATION DESIGN
FOR

CITY OF JOHNS CREEK

NG TITLE:

PROJ. MGR.: TLM
DESIGN BY: LD
DRAWN BY: BFL
PROJ. DATE: OCT. 2023

EC1
WKD PROJ. NO.:

DRAWING NUMBER:

20230198.01.RA

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES (continued)

33. (continued)

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 PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES, OR ALL OUTFALLS INTO SUCH STREAMS AND OTHER WATER BODIES, OR A COMBINATION THEREOF. 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 STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:
- a. THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER 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.
- b. IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).
- c. CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.
- d. THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACE UPSTREAM.
- e. THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
- f. 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, 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). FOR INFRASTRUCTURE 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.
- g. 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 STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER
- (2). N/A THIS PROJECT WILL NOT UTILIZE REPRESENTATIVE SAMPLING.
- (3). N/A THIS PROJECT WILL NOT UTILIZE REPRESENTATIVE SAMPLING.
- (4). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, IF AT ANY TIME DURING THE LIFE OF THE PROJECT A SELECTED RECEIVING WATER NO LONGER REPRESENTS ANOTHER RECEIVING WATER, THEN THE PERMITTEE SHALL SAMPLE THE LATTER RECEIVING WATER UNTIL SELECTION OF AN ALTERNATIVE REPRESENTATIVE RECEIVING WATER.
- (5). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, IF AT ANY TIME DURING THE LIFE OF THE PROJECT A RECEIVING WATER IS DETERMINED NOT TO BE REPRESENTED AS CERTIFIED IN THE PLAN, THE PERMITTEE SHALL SAMPLE THAT RECEIVING WATER UNTIL A NOTICE OF TERMINATION IS SUBMITTED OR UNTIL THE APPLICABLE PHASE IS STABILIZED IN ACCORDANCE WITH THIS PERMIT.
- (6). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, MONITORING OBLIGATIONS SHALL CEASE FOR ANY PHASE OF THE PROJECT THAT HAS BEEN STABILIZED IN ACCORDANCE WITH PART IV.D.6.C.(1).(G).

SEE SHEET EC3 FOR OUTFALL SAMPLING POINTS AND MONITORING SITES.

NON-STORM WATER DISCHARGES. EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCE OF NON-STORM WATER LISTED DISCHARGES LISTED IN PART III.A.2 OF THIS PERMIT THAT ARE COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE IDENTIFIED IN THE PLAN. THE PLAN SHALL IDENTIFY AND ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

SAMPLING POINT #1: DRAINAGE AREA (UPSTREAM OF PROJECT, SEE MAP SHT EC3) SAMPLING POINT #2: DRAINAGE AREA (DOWNSTREAM OF PROJECT, SEE MAP SHT EC3)

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES (continued)

- 35. ALL SAMPLING LOCATIONS, PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED IS DELINEATED IN THE EROSION CONTROL PLAN. THIS PROJECT WILL NOT UTILIZE REPRESENTATIVE SAMPLING.
- 36. DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED A THE CONSTRUCTION SITE INCLUDING INITIAL, INTERMEDIATE AND FINAL PHASE BMP'S ARE DESCRIBED

INITIAL PHASE

EROSION CONTROL NOTES

- 1. PRIOR TO THE LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.
- NO STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR FUEL STORAGE SHOULD BE LOCATED WITHIN 50 FT OF DESIGNATED TREE PROTECTION AREAS OR STREAM BUFFERS.
- 3. A COPY OF THE ES&PC PLAN MUST BE PRESENT ON THE SITE AT ALL TIMES.
- 4. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES, THE LIMITS OF LAND DISTURBANCE SHOULD BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHOULD BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
- 5. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCE/EXITS, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
- 6. TYPE "B" SILT FENCE SHALL BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA AS SHOWN ON THE PLAN. SILT SHOULD BE REMOVED WHEN ACCUMULATION REACHES 1/2 HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED WEEKLY AND AFTER QUALIFYING RAIN EVENTS FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.
- 7. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL PROPOSED STORM STRUCTURES AS SHOWN ON THE PLAN.
- 8. STORM DRAIN OUTLET PROTECTION SHALL BE INSTALLED AT STORMWATER OUTFLOW POINTS AS SHOWN ON THE PLAN.
- 9. AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHOULD OCCUR UNTIL THE PROJECT DESIGN PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR SHOULD CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTION WITH CONSULTATION WITH THE DESIGN PROFESSIONAL.
- 10. AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH REMAINING CLEARING AND GRUBBING ACTIVITIES.
- 11. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF LAND DISTURBANCE.
- 12. PERMITTEES SHALL INSPECT CONTROL MEASURES AS REQUIRED BY NPDES.
- 13. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES CAN RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- 14. NO BURY OR BURN PITS SHALL BE PERMITTED ON THE PROJECT SITE WITHOUT WRITTEN AUTHORIZATION BY THE OWNER.
- 15. PERIMETER SILT FENCING SHALL BE INSTALLED AS SHOWN ON THE PLAN AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL TAKE PLACE UNTIL PERIMETER SILT FENCING, TEMPORARY SEDIMENT TRAPS ARE CONSTRUCTED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL
- 16. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY
- 17. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY BY CONTRACTOR TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- 18. THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

INTERMEDIATE PHASE

EROSION CONTROL NOTES

- 1. $\,$ PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND THEREFORE LIMITED DURATION, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.
- 2. EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHOULD BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.
- 3. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.
- 4. TYPE "B" SILT FENCE SHALL BE PLACED 10' FROM THE TOE OF ALL DIRT STOCK PILE AREAS. STOCK PILES ARE TO BE COVERED AT THE END OF EACH DAY.
- 5. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL STORM STRUCTURES AS THEY ARE CONSTRUCTED.
- 6. STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED.
- 7. STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS NECESSARY FOR CONTROL OF STORMWATER.
- 8. USE MULCH TO STABILIZE ALL AREAS LEFT DISTURBED FOR MORE THAN SEVEN (7) CALENDAR DAYS IN ACCORDANCE WITH PART III.D.1 OF THE PERMIT. NO FLOCCULANTS OR COAGULANTS SHALL BE USED DUE TO PROXIMITY TO STREAM.
- 9. SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED WEEKLY AND AFTER EACH QUALIFYING RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED IF SEDIMENT ACCUMULATION HAS REACHED 1/2 THE CAPACITY OF THE DEVICE.
- 10. EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING BARRIERS AT THE TOE OF SLOPES UNDER CONSTRUCTION. THESE BARRIERS SHALL BE AS SHOWN IN THE PLANS. THE BARRIERS MAY BE RELOCATED AND REUSED AFTER PERMANENT SLOPE STABILIZATION BECOMES FULLY ESTABLISHED. AS THEY ARE RELOCATED, ANY DEFECTIVE MATERIALS IN THE BARRIER SHALL BE REPLACED. IN ADDITION, ALL DEBRIS AND SILT AT THE PREVIOUS LOCATION SHALL BE REMOVED.
- 12. CUT SLOPES ARE NOT TO EXCEED "2H:1V" EXCEPT WHERE SPECIFIED IN THE PLANS. FILL SLOPES ARE NOT TO EXCEED "2.5H:1V" EXCEPT WHERE SPECIFIED IN THE PLANS.
- 13. ALL DRAINAGE SWALES SHALL BE APPLIED WITH PERMANENT VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. FOLLOW PLANTING PLAN SHEETS EC13-EC14.
- 14. ALL GRADED AREAS SHALL BE APPLIED WITH PERMANENT VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. FOLLOW PLANTING PLAN SHEETS EC13-EC14.
- 15. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
- 16. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES CAN RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- 17. THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

FINAL PHASE

EROSION CONTROL NOTES

- 1. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.
- 2. MULCH, TEMPORARY VEGETATION, OR PERMANENT VEGETATION SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF LAND DISTURBANCE.
- 3. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
- 4. WHERE APPLICABLE, AFTER CURBING, GRADED AGGREGATE BASE, AND PAVEMENT HAVE BEEN INSTALLED, ALL INLET SEDIMENT TRAPS ON SINGLE AND DOUBLE WING CATCH BASINS ALONG WITH ANY CURB INLETS SHALL BE REMOVED AND REPLACED WITH CURB FILTER INLET PROTECTION.
- 5. ALL GRADING SHOULD BE APPLIED WITH PERMANENT VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. FOLLOW PLANTING PLAN SHEETS EC13-EC14.
- 6. EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
- 7. CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- 8. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES CAN RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- 9. THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.
- 10. UPON COMPLETE SITE STABILIZATION OF PERMANENT GROUND COVER, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED ON PLANS.

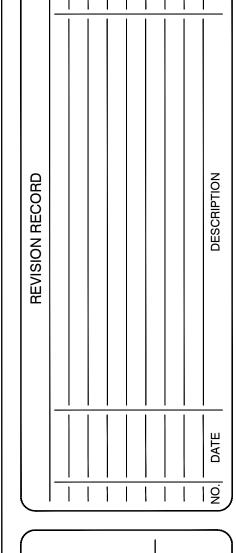


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PROFESSIONAL SEAL



PROJ. MGR.: TLM DESIGN BY: LD DRAWN BY: | BFL PROJ. DATE: OCT. 2023

DRAWING NUMBER:

- 37. GRAPHIC SCALE AND NORTH ARROWS ARE DISPLAYED ON THE PLAN SHEETS.
- 38. TOPOGRAPHIC INFORMATION OBTAINED FROM FIELD-RUN SURVEY AND CITY OF JOHNS CREEK GIS. EXISTING AND PROPOSED CONTOUR LINES ARE DISPLAYED ON THE EROSION AND SEDIMENT CONTROL SHEETS AND THE USGS QUAD MAP ON THIS SHEET.
- 39. 40. USE OF ALTERNATE BMP'S IS NOT APPLICABLE TO THIS PROJECT.
- 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 IS CLEARLY NOTED AND DELINEATED ON THE EROSION CONTROL PLAN SHEETS.
- 42. DELINEATION OF ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SET IS SHOWN ON THE EROSION CONTROL PLAN SHEETS.
- 3. 44. DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE AREAS ON THE PROJECT SITE IS SHOWN ON THIS SHEET.
- 45. ESTIMATE OF RUNOFF CURVE NUMBER (COMPOSITE BASED ON USDA TR-55 TABLE 2-2A AND 2-2C FOR IMPERVIOUS, WOODS, AND OPEN SPACE IN FAIR CONDITION, HSG D SOILS):

 WEIGHTED PRE-CONSTRUCTION CURVE NUMBER = 80
 WEIGHTED POST-CONSTRUCTION CURVE NUMBER = 82
- 46. STORM WATER DISCHARGE POINTS ARE DELINEATED ON THE EROSION CONTROL PLAN SHEETS.
 OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION ARE SHOWN ON THE PLAN.
- 47. SOIL SERIES FOR THIS PROJECT ARE SHOWN ON THE EROSION CONTROL PLANS SHEETS AND LISTED

	SOIL TABLE				
SOIL SYMBOL	NAME	HYDROLOGIC SOIL GROUP			
AgC	APPLING-HARD LABOR COMPLEX, 6 TO 10 PERCENT SLOPES	В			
CaA	CARTECAY-TOCCOA COMPLEX, 0 TO 2 PERCENT SLOPES, OCCASIONALLY FLOODED	A/D			
Ub	URBAN LAND	D			

- 48. LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION IS DISPLAYED ON THE EROSION CONTROL PLAN SHEETS.
- 49. A MINIMUM OF 67 CY PER ACRE SEDIMENT STORAGE PER ACRES DRAINED IS PROVIDED USING PERIMETER SILT FENCE BARRIERS. SEE EROSION AND SEDIMENT CONTROL DETAILS ON SHEETS EC5 AND EC6 AND THIS SHEET FOR SEDIMENT STORAGE CALCULATIONS.

DISTURBED AREA = 5.19 AC
REQUIRED SEDIMENT STORAGE = 67 CY/AC * DISTURBED AREA
REQUIRED SEDIMENT STORAGE = 67 CY/AC * 5.19 AC
REQUIRED SEDIMENT STORAGE = 348 CY = 9,396 CF

MINIMAL DISTURBANCE IS OCCURRING UPSTREAM OF THE CHANNEL, AND THE AMOUNT OF AVAILABLE SPACE MAKES IT IMPRACTICAL TO INSTALL TRADITIONAL SEDIMENT STORAGE MEASURES.

- 50. SEE SHEETS EC7 TO EC12 FOR THE LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH, AND NO LESS STRINGENT THAN, THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. REFER TO THIS SHEET FOR THE BMP UNIFORM CODING LEGEND.
- 51. DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES ARE SHOWN ON THE EROSION CONTROL PLAN SHEETS AND DETAIL SHEETS EC5 AND EC6.
- 52. SEE SHEETS EC5, AND EC13-EC14 FOR VEGETATIVE PLAN INCLUDING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES.

MISCELLANEOUS NOTES

. PRODUCT SPECIFIC PRACTICES

PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

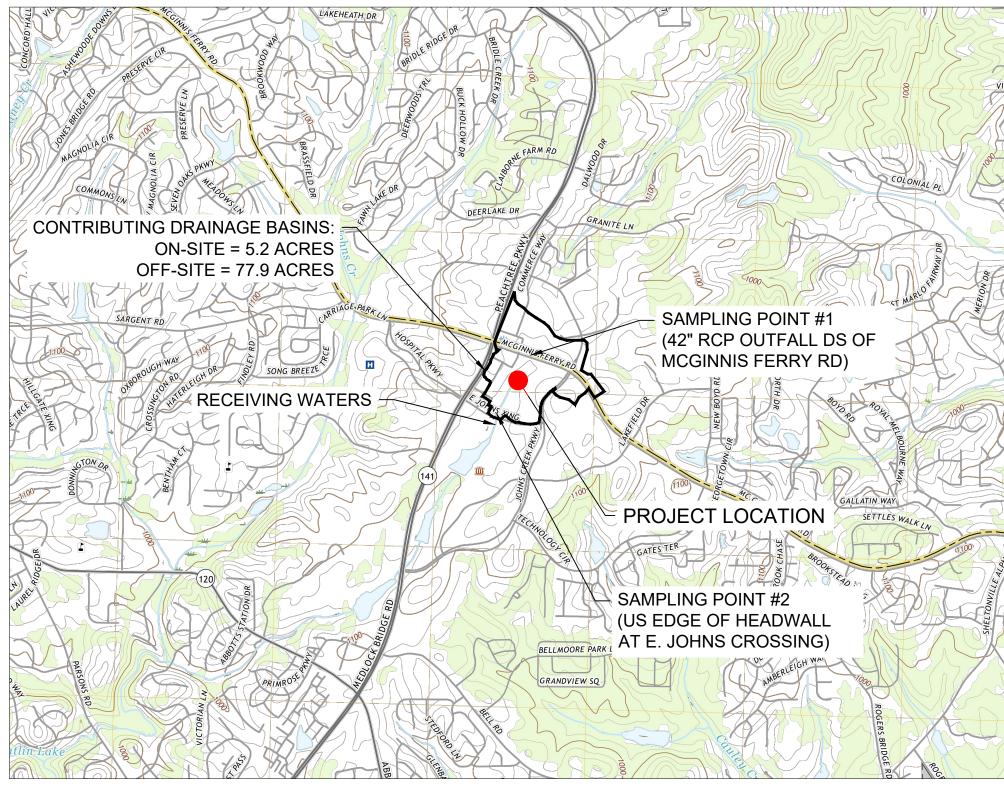
2. SANITARY WASTES

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

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.

NO SANITARY SEWER/SEPTIC SYSTEM WILL SERVE THIS PROJECT.

- ALL EROSION CONTROL MEASURES AND DEVICES SHALL BE CHECKED DAILY AND ANY TOPSOIL STORAGE AREAS WILL BE COVERED AT THE END OF EACH WORK DAY.
- I. MINIMIZING WIND EROSION AND CONTROLLING DUST WILL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
- A. COVERING 30% OR MORE OF THE SOIL SURFACE WITH NON-ERODIBLE MATERIAL.B. ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND.
- C. FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
- D. PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES.
- 6. BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED TO MINIMIZE OFF-SITE VEHICLE TRACKING OF SEDIMENT AND THE GENERATION OF DUST.
- 7. ALL AD VALOREM TAXES OWED AND DUE RELATED TO THIS SITE AND PROJECT HAVE BEEN PAID.
- 8. ALL EROSION CONTROL MEASURES AND DEVICES SHALL BE CHECKED DAILY.



DULUTH, GA QUADRANGLE USGS TOPOGRAPHICAL MAP SCALE: 1"=2000'

DESIGN PROFESSIONAL'S NOTES:

- 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.
- 2. THE PRIMARY PERMITTEE MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, OR AN ALTERNATIVE DESIGN PROFESSIONAL APPROVED BY EPD IN WRITING, TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS 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.
- 3. 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.

DESIGN PROFESSIONAL'S CERTIFICATION:

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

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE 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. GAR100001"

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES."

NAME OF WKD ESC REVIEWER
11/9/2023
GSWCC LEVEL II CERTIFIED PLAN REVIEWER
CERTIFICATION NO. XXXX, EXPIRATION: XXXX

HE S S L C L L ES L C C L

DATE:

ITING SET - FOR RE

PROJ. MGR.: TLM
DESIGN BY: LD
DRAWN BY: BFL
PROJ. DATE: OCT. 2023
DRAWING NUMBER:

EC3
WKD PROJ. NO.:
20230198.01.RA

720 CORPORATE CENTER DR

RALEIGH, NC 27607

(t)919-782-0495

WWW.WKDICKSON.COM

PROFESSIONAL SEAL

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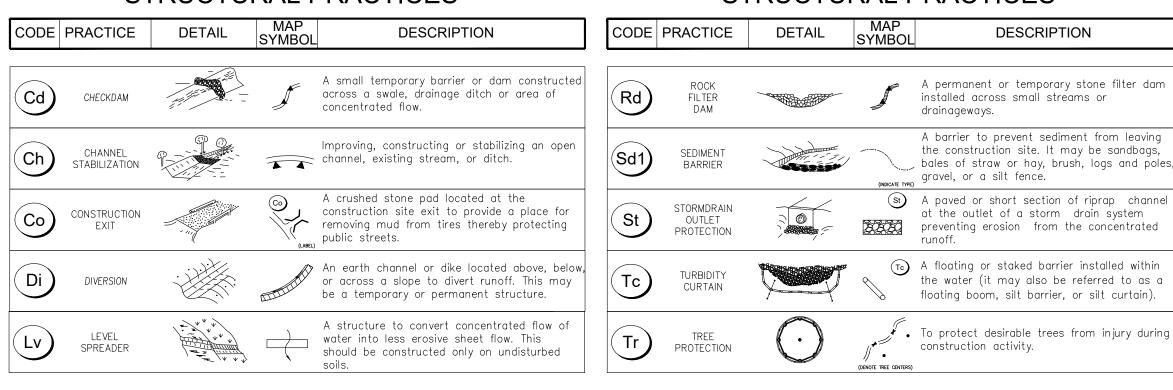
GEORGIA UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

STRUCTURAL PRACTICES

VEGETATIVE PRACTICES



CODE PRACTICE DETAIL **DESCRIPTION** Strip of undisturbed original vegetation, enhanced or restored existing vegetation or BUFFER ZONE the reestablishment of vegetation surrounding area of disturbance or bordering streams. Establishing temporary protection for Ds1 STABILIZATION (WITH MULCHING ONLY) disturbed areas where seedlings may not have a suitable growing season to produce an Establishing a temporary vegetative cover Ds2 STABILIZATION (WITH TEMP SEEDING) with fast growing seedings on disturbed Establishing a permanent vegetative cover DISTURBED AREA Ds3 STABILIZATION (WITH such as trees, shrubs, vines, grasses, or PERM SEEDING) egumes on disturbed areas. The use of readily available native plant materials to maintain and enhance Sb STABILIZATION (USING streambanks, or to prevent, or restore and PERM VEGETATION) repair small streambank erosion problems. A protective covering used to prevent erosion and establish temporary or permanent Ss SLOPE STABILIZATION vegetation on steep slopes, shore lines, or

PROJECT ADDRESS 6672 MCGINNIS FERRY RD DULUTH, GA 30097

ADDITIONAL LEGEND

50' CITY BUFFER

25' STATE BUFFER

—LOD —— LIMITS OF DISTURBANCE

TREE REMOVAL

TREE PROTECTION

75' CITY NON-IMPERVIOUS SETBACK

SEDIMENT FENCE (SILT FENCE)

CONSTRUCTION STAGING AREA

CONCRETE WASHOUT DEVICE

	EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST STAND ALONE CONSTRUCTION PROJECTS
	SWCD: Region 1
-	Town Center Stream Restoration Address: 6672 McGinnis Ferry Rd, Duluth, GA 30097
	Johns Creek, Fulton Co. Date on Plans: Oct-23
Name & email	of person filling out checklist: Ben Lee, blee@wkdickson.com
Plan Included	TO BE SHOWN ON ES&PC PLAN
Page # Y/N	
EC1 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)
EC1 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)
EC1 Y	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.)
EC1 Y	4 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
EC1 Y	5 Provide the name, address, email address, and phone number of primary permittee.
EC1 Y	6 Note total and disturbed acreages of the project or phase under construction.
EC1 Y	7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
EC1 Y	8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
EC1 Y	9 Description of the nature of construction activity and existing site conditions.
EC1 Y	10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
EC1 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.
EC3 Y	12 Design professional's certification statement and signature that the site was visited prior to development of the
100	ES&PC Plan as stated on Part IV page 19 of the permit
EC3 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 requirements as stated on
EC3 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. *
EC1 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."
EC1 Y	16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
EC3 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." *
EC1 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." *
FC4 V	
EC1 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."
EC1 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."
EC1 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."
EC1 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. *
EC1 Y	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 NOL the ES&PC Plan must address any site-specific

conditions or requirements included in the TMDL Implementation Plan. *

water that will occur after construction operations have been completed. *

of the drum at the construction site is prohibited. *

EC1 Y 24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout

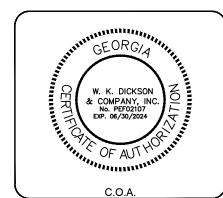
EC1 Y 25 Provide BMPs for the remediation of all petroleum spills and leaks.

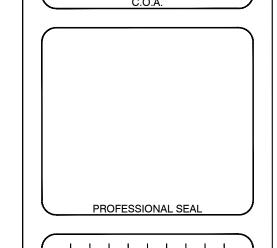
EC1 Y 26 Description of the measures that will be installed during the construction process to control pollutants in storm

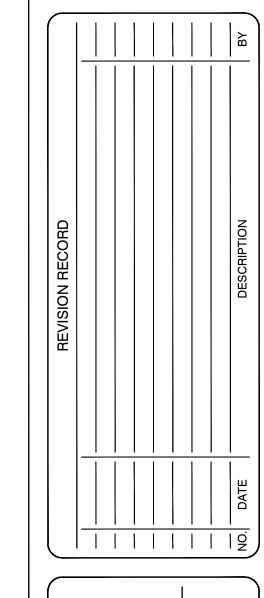
EC1 Y		27 Description of p	ractices to pro	vide cover for building m	naterials and building product	ts on site. *		
гса II — х	_			•	the pollutants in storm water			
EC1 Y	_	·	•		·	-		
EC1 Y	<u>Y</u>	portions of the s	ite (i.e., initial p	•	ence of major activities which storage BMPs, clearing and of al stabilization).	•		
EC1 Y		30 Provide comple	te requiremen	ts of Inspections and rec	ord keeping by the primary p	permittee. *		
EC1 Y	<u>/</u>	31 Provide comple	Provide complete requirements of Sampling Frequency and Reporting of sampling results. *					
EC1 Y	<u>/</u>	32 Provide comple	te details for R	etention of Records as p	er Part IV.F. of the permit. *			
EC1-2 Y	<u>/</u>	33 Description of a	nalytical metho	ods to be used to collect a	and analyze the samples fror	n each location. *		
EC2 Y	/ :	34 Appendix B rati	onale for NTU	values at all outfall samp	oling points where applicable	*		
EC2 Y	/	35 Delineate all sai storm water is o		s, perennial and intermit	tent streams and other water	bodies into which		
EC2 Y	·	(1) initial sedime BMPs, and (3)	ent storage rec final BMPs. F intermediate g	quirements and perimeter or construction sites whe rading and drainage BM	at will be implemented at the of control BMPs, (2) intermeding the there will be no mass graders, and final BMPs are the s	iate grading and drainage ding and the initial perimet		
EC3 Y		37 Graphic scale a	nd North arro	W.				
EC3 Y	<u>/</u>				drawn at an interval in acco	rdance with the following:		
		Map Sca 1 inch = 100		Ground Slope Flat 0 - 2%	Contour Intervals, ft. 0.5 or 1	4		
		larger scal		Rolling 2 - 8%	1 or 2			
				Steep 8% +	2,5 or 10			
EC3 Y	<u>/ </u>	conventional B	MPs as certific servation Com	ed by a Design Professio	n documented to be equivale nal (unless disapproved by o the Alternative BMP Guidar	GAEPD or the Georgia S		
EC3 Y	<u> </u>		e BMP for ap	plication to the Equivalen	t RMP List Please refer to A	ppendix A-2 of the Manua		
		for Erosion & So	ediment Contro	ol in Georgia 2016 Editio				
EC3 Y	<u> </u>	41 Delineation of th	e applicable 2	25-foot or 50-foot undistur				
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Effective January 1, 2023









NTER STREAM RESTORATION DESIGN
FOR
CITY OF JOHNS CREEK
GAR100001 CHECKLIST

TOWN CENTER STREA

FOR STREA

CITY OF JO

DRAWING TITLE:

PROJ. MGR.: TLM
DESIGN BY: LD
DRAWN BY: BFL
PROJ. DATE: OCT. 2023

DRAWING NUMBER:

WKD PROJ. NO.: 20230198.01.RA

Know what's below.
Call before you dig.

<u> REQUIREMENT FOR REGULATORY COMPLIANCE:</u>

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

MULCHING MATERIALS:

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

MULCHING APPLICATION REQUIREMENTS

MATERIAL	RATE	DEPTH
STRAW OR HAY	2 1/2 TON/ACRE	2" TO 4"
WOOD WASTE, CHIPS, SAWDUST, BARK	6 TO 9 TON/ACRE	2" TO 3"
CUTBACK ASPHALT	1200 GAL./ACRE OR 1/4 GAL./SQ.YD.	_
POLYETHYLENE FILM	SECURE WITH SOIL, ANCHORS, WEIGHTS	_
GEOTEXTILES, JUTE MATTING, NETTING, ETC.	SEE MANUFACTURER'S RECOMMENDATIONS	-

Ds1

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

SHED STONE CONSTRUCTION EXIT EXIT DIAGRAM HARD SURFACE PUBLIC ROAD - SEDIMENT TRAP (SEE NOTE 8) CULVERT UNDER -ENTRANCE (IF NEEDE DIVERSION RIDGE -(SEE NOTE 6) N.S.A. R−2 (1.5"−3.5") — COARSE AGGREGATE GEOTEXTILE UNDERLINER — TIRE WASHRACK AREA/ ---TIRE WASHERS ENTRANCE ELEVATION SUPPLY WATER TO WASH — -COARSE AGGREGATE WHEELS IF NECESSARY (N.S.A. R-2)GEOTEXTILE

- . AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
- REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
- 5. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE). 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
- 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'. . A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.. . INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
- B. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
- . WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL <u>SUITABLE</u> FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
- O.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.

<u>DEFINITION:</u> THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDLINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

REQUIREMENT FOR REGULATORY COMPLIANCE

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. IF AN AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION SHALL BE USED. IF OPTIMUM PLANTING CONDITIONS FOR TEMPORARY GRASSING IS LACKING, MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OF GREATER OF THE SOIL SURFACE.

SOME TEMPORARY PLANT SPECIES, SEEDING RATES AND PLANTING DATES

SPECIES	RATES PER RATES PER		PLANTING DATES BY REGION			
SPECIES	1,000 SQ. FT.	ACRE	M - L	Р	С	
RYE (GRAIN)	3.9 LBS.	3 BU.	8/15-11/19	9-15-12-1 3/1-4/1	10/1-1/11	
RYEGRASS	0.9 LBS.	40 LBS.	8/15-12/15	9/1-12/15	9/15–1/1	
RYE AND ANNUAL	0.6 LBS.	0.5 BU.	_ , , , ,	- 4 4.		
LESPEDEZA	0.6 LBS.	24 LBS.	3/1-4/1	3/1-4/1	2/1-3/1	
WEEPING LOVEGRASS	0.1 LBS.	4 LBS.	4/1-6/1	4/1-6/1	3/1-6/1	
SUDANGRASS	1 LBS.	60 LBS.	5/1-8/1	5/1-8/1	4/1-8/1	
BROWNTOP	1.1 LBS.	50 LBS.	4/15-6/15	4/15-7/1	4/15-7/1	
MILLET	1.1 LBS.	30 LB3.	4/13-0/13	4/13-7/1	4/13-7/1	
WHEAT	4.1 LBS.	3 BU.	9/15-12/1	10/1-12/15	10/15-1/1	
LINUCUAL CITE CONDITIONS MAY PEOURE HEAVED SEEDING DATES						

1. UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES. 2. SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS.

FERTILIZER REQUIREMENTS FOR TEMPORARY VEGETATION

TYPES OR SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATES (LBS./ACRE)	N TOP DRESSING RATE (LBS/ACRE)
COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 1000 400	50–100 – 30
COOL SEASON GRASSES & LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 1000 400	0-50 - -
TEMP. COVER CROPS SEEDED ALONE	FIRST	10-10-10	500	30
WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30

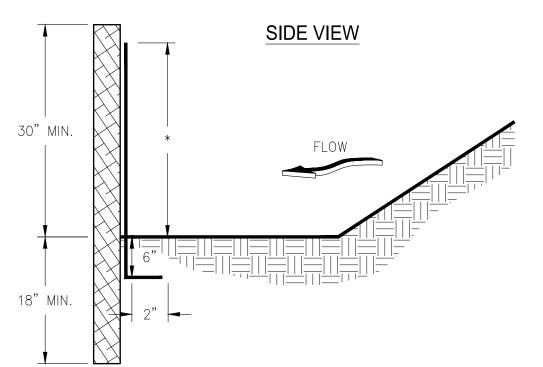
* AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION.

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

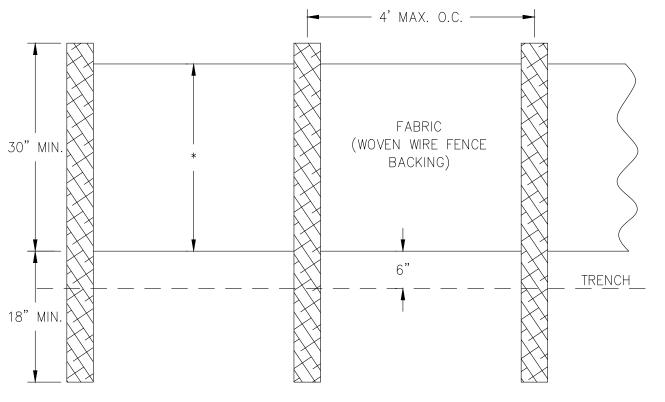
SEED: RYEGRASS: 40 LB/AC (SEPT 1 - DEC 15); RYE AND ANNUAL LESPEDEZA: 24 LB/AC EACH (MAR 1 - APR 1)

FERTILIZER: 10-10-10, 500 LB/AC LIME: 1 TON/AC

SILT FENCE - TYPE SENSITIVE



FRONT VIEW



USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION,

AND POLLUTION CONTROL PLAN. 2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

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

REQUIREMENT FOR REGULATORY COMPLIANCE: THIS PRACTICE SHALL BE APPLIED IMMEDIATELY TO ROUGH GRADED AREAS THAT WILL BE UNDISTURBED FOR LONGER THAN SIX MONTHS. THIS PRACTICE OR SODDING SHALL BE APPLIED IMMEDIATELY TO ALL AREAS AT FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, AND THAT FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, AT LEAST 70 % OR THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION OR EQUIVALENT PERMANENT STABILIZATION $\,$ MEASURES (SUCH AS THE USE OF RIP RAP, GABIONS, PERMANENT MULCHES, OR GEOTEXTILES) HAVE BEEN EMPLOYED. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PERENNIAL VINES; A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE REGION, SUCH THAT WITHIN THE GROWING SEASON A 70 % COVERAGE BY PERENNIAL VEGETATION SHALL BE ACHIEVED. FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION. 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.

PERMANENT PLANT SPECIES, SEEDING RATES, AND PLANTING DATES

	RATES PER	RATES PER	PLANTI	ING DATES BY F	REGION	
SPECIES	ACRE	1,000 sq. ft.	M — L	Р	С	REMARKS
BAHIA, PENSACOLA ALONE OR WITH TEMPORARY COVER WITH OTHER PERENNIALS	60 Lbs. 30 Lbs.	1.4 Lbs. 0.7 Lbs.	-	4/1-5/31	3/1-5/31	LOW GROWING; SOD PRODUCING; WILL SPREAD INTO BERMUDA LAWNS.
BAHIA, WILMINGTON ALONE OR WITH TEMPORARY COVER WITH OTHER PERENNIALS	60 Lbs. 30 Lbs.	1.4 Lbs. 0.7 Lbs.	3/15–5/31	3/1-5/31	-	SAME AS ABOVE.
BERMUDA, COMMON (HULLED SEED) ALONE WITH OTHER PERENNIALS	10 Lbs. 6 Lbs.	0.2 Lbs. 0.1 Lbs.	-	4/1-5/31	3/1-5/31	QUICK COVER; LOW GROWING; SO FORMING; NEEDS FULL SUN.
BERMUDA, COMMON (UNHULLED SEED) WITH TEMPORARY COVER WITH OTHER PERENNIALS	10 Lbs. 6 Lbs.	0.2 Lbs. 0.1 Lbs.	-	10/15-2/28	11/1–1/31	PLANT WITH WINTER ANNUALS. PLANT WITH TALL FESCUE.
BERMUDA, SPRIGS COMMON LAWN AND FORAGE HYBRIDS	40 cu. ft.	0.9 cu. ft.	4/15-6/15	4/1–6/15	4/1-5/31	1 cu. ft. = 650 SPRIGS 1 bu. = 1.25 cu. ft. OR 800 SPRIGS.
CROWN VETCH WITH WINTER ANNUALS OR COOL SEASON GRASSES	15 Lbs.	0.3 Lbs.	9/1–10/15	10/15–2/28	-	MIX WITH 30 Lbs. TALL FESCUE 15 Lbs. RYE; INOCULATE SEED; PLANT ONLY NORTH OF ATLANT/
FESCUE, TALL ALONE WITH OTHER PERENNIALS	50 Lbs. 30 Lbs.	1.1 Lbs. 0.7 Lbs.	3/1-4/1 OR 8/15-9/30	8/15–10/15 OR 2/15–4/15	-	MIX WITH PERENNIAL LESPEDEZA OR CROWN VETCH; NOT FOR DROUGHTY SOILS OR HEAVY USE AREAS.
LESPEDEZA, SERICEA	60 Lbs.	1.4 Lbs.	4/1-5/31	3/15–5/31	3/1-5/15	WIDELY ADAPTED AND LOW MAINTENANCE; TAKES 2-3 YEAR: ESTABLISH; INOCULATE SEED WITI EL INOCULATE; MIX WITH WEEPING LOVEGRASS, COMMON BERMUDA, BAHIA OR TALL FESCU
UNSCARIFIED	75 Lbs.	1.7 Lbs.	9/1-2/28	9/1-2/28	9/1-2/28	MIX WITH TALL FESCUE OR WINTE ANNUALS.
SEED-BEARING HAY	3 TONS	138 Lbs.	10/1-2/1	10/1-2/28	9/15–1/15	CUT WHEN SEED IS MATURE BUT BEFORE IT SHATTERS. ADD TALL FESCUE OF WINTER ANNUALS.
LESPEDEZA, AMBRO VIRGATA OR APPALOW SCARIFIED UNSCARIFIED	60 Lbs. 75 Lbs.	1.4 Lbs.	4/1-5/31 9/1-2/28	3/15-5/31 9/1-2/28	3/1-5/15 9/1-2/28	SPREADING GROWTH WITH HEIGHT OF 18"-24"; GOOD IN URBAN AREAS; SLOW TO DEVELOP GOOD STANDS; MIX WITH WEEPING LOVEGRASS, COMMON BERMUDA, BAHIA TALL FESCUE OR WINTER ANNUALS; DO NOT MIX WITH SERICEA LESPEDEZA; INOCULATE SEED WITH EL INOCULANT.
LESPEDEZA, SHRUB (LESPEDEZA BICOLOR OR LESPEDEZA THUMBERGII) PLANTS	3' X 3'	SPACING	11/1-3/31	11/1-3/31	11/15-2/28	PLANT IN SMALL CLUMPS FOR WILDLIFE FOOD AND COVER.
LOVE GRASS, WEEPING ALONE WITH OTHER PERENNIALS	4 Lbs. 2 Lbs.	0.1 Lbs. 0.05 Lbs.	4/1-5/31	3/15–5/31	3/1-5/31	QUICK COVER; DROUGHT TOLERAL GROWS WELL WITH SERICEA LESPEDEZA ON ROAD-BANKS AN OTHER STEEP SLOPES; SHORT LI
MAIDENCANE SPRIGS	2' X 3'	SPACING	2/1-3/31	2/1-3/31	2/1-3/31	FOR VERY WET SITES SUCH AS RIVERBANKS AND SHORELINES. SPRIGS LOCALLY.
PANICGRASS, ATLANTIC COASTAL	20 Lbs.	0.5 Lbs.	-	3/1-4/30	3/1-4/30	GROWS WELL ON COASTAL SAND DUNES; MIX WITH SERICEA LESPEDEZA BUT NOT ON SAND DUNES.
REED CANARY GRASS ALONE WITH OTHER PERENNIALS	50 Lbs. 30 Lbs.	1.1 Lbs. 0.7 Lbs.	4/1-5/31	3/15–5/31	3/1-5/31	GROWS SIMILAR TO TALL FESCUE FOR WET SITES.
SUNFLOWER, AZTEC MAXIMILLIAN	10 Lbs.	0.2 Lbs.	4/15-5/31	4/15-5/31	4/15-5/31	MIX WITH WEEPING LOVEGRASS OR OTHER LOW GROWING GRASSES OR LEGUMES.
SWITCHGRASS	20 Lbs.	0.4 Lbs.	4/1-5/31	4/1-5/31	4/1-5/31	FOR STREAMBANKS PLANTINGS, DRAINAGE DITCHES, AND WET AREAS.

1. RATES FOR BROADCASTED SEED. IF A SEED DRILL IS USED, REDUCE THE RATE BY ONE—HALF. 2. PLS IS AN ABBREVIATION FOR PURE LIVE SEED. REFER TO THE GLOSSARY FOR AN EXPLANATION OF THIS TERM. 3. REGIONS ARE DEFINED IN THE " MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA."

FERTILIZER REQUIREMENTS FOR PERMANENT VEGETATION

TENTIFICENT NEGOTIVEMENTS FOR FERMANEINT VEGETATION						
TYPES OR SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATES (LBS./ACRE)	N TOP DRESSING RATE (LBS/ACRE)		
COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 1000 400	50-100 - 30		
COOL SEASON GRASSES & LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 1000 400	0-50 - -		
WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30		
WARM SEASON GRASSES & LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 1000 400	50 - -		

*AGRICULTURAL LIME IS REQUIRED AT THE RATE OF 1 TO 2 TONS PER ACRE UNLESS SOIL TEST INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN 6 MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED.

PERMANENT SEEDING SCHEDULE

PERMANEN			
SEASON	DATES	TYPE OF GRASS	RATES (LBS./ACRE)
SUMMER	MAY 15 — AUG. 15	BERMUDA, COMMON (HULLED SEED)	10
COOL	AUG. 16 — NOV. 1 MAR. 15 — MAY 14	FESCUE (KY 31, TALL)	50
WINTER	OCT. 1 - MAR. 14	BERMUDA, COMMON (UNHULLED SEED)	10

COVER SEEDED AREAS WITH LIGHT LAYER OF WHEATSTRAW MULCH (2TONS/ACRE). CONTRACTOR TO PROTECT ALL DISTURBED AREAS BY TEMPORARY RESEEDING UNTIL PERMANENT GROUND COVER IS ESTABLISHED A MAXIMUM OF 3 WEEKS AFTER GRADING OPERATIONS ARE COMPLETE IN AREAS. SIDE SLOPES SHALL BE HYDROSEEDED IN ACCORDANCE WITH SECTION 700 — GRASSING OF THE DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA STANDARD SPECIFICATIONS CONSTRUCTION OF ROADS AND BRIDGES 2001 EDITION OR GA. D.O.T. QPL—25 LIST.

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) Ds3

VEGETATIVE PLAN:

MULCH: 2 TONS/AC

SEED: COMMON BERMUDA AT 10 LB/AC, AND

LIME: 1-2 TONS/AC, BASED ON SOIL TESTS

FERTILIZER: 6-12-12 AT 1,500 LB/AC

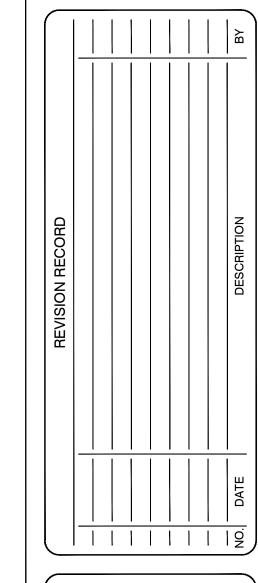
ANNUAL RYE GRASS AT 40 LB/AC.

720 CORPORATE CENTER DR RALEIGH, NC 27607 (t)919-782-0495

WWW.WKDICKSON.COM

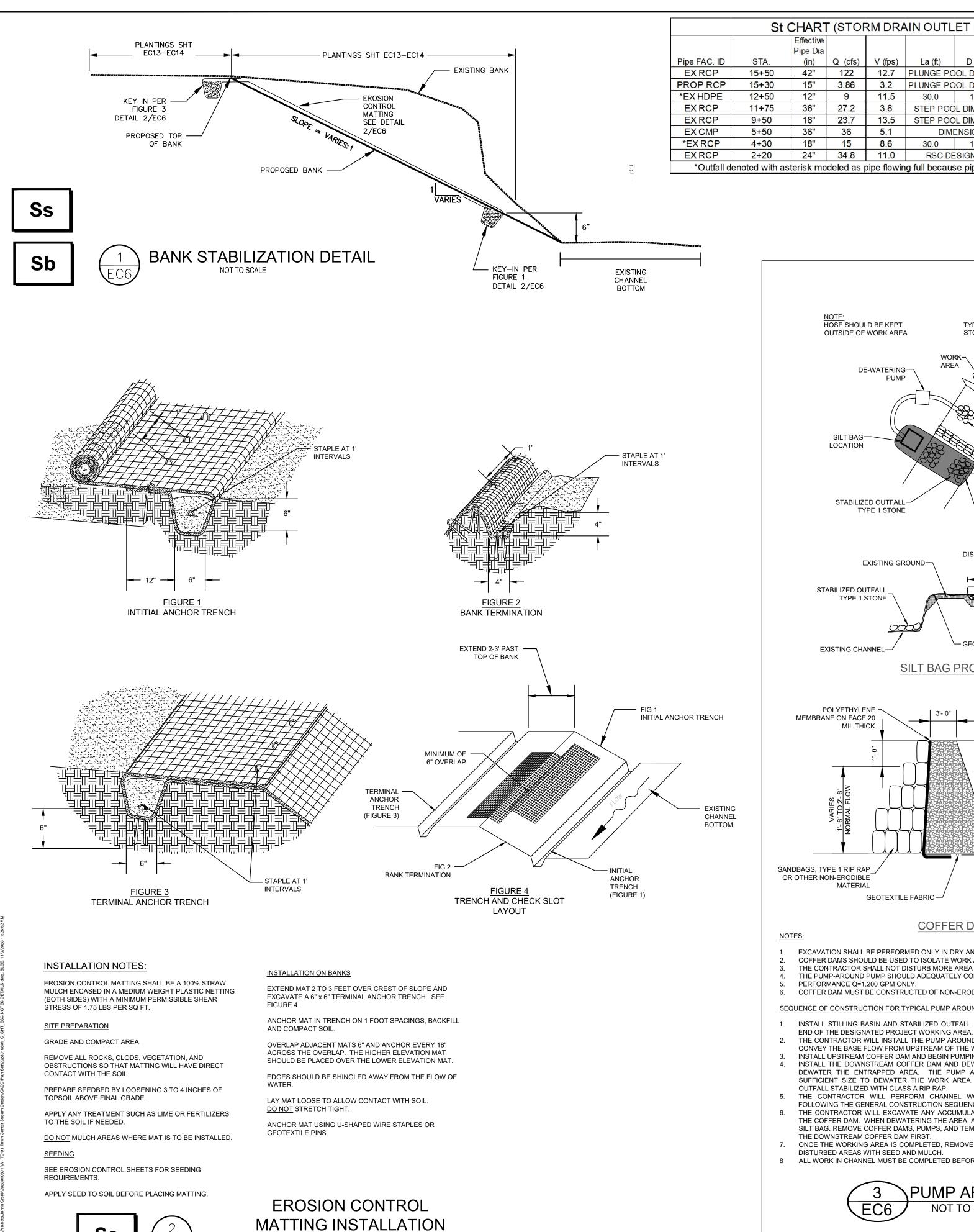


PROFESSIONAL SEAL

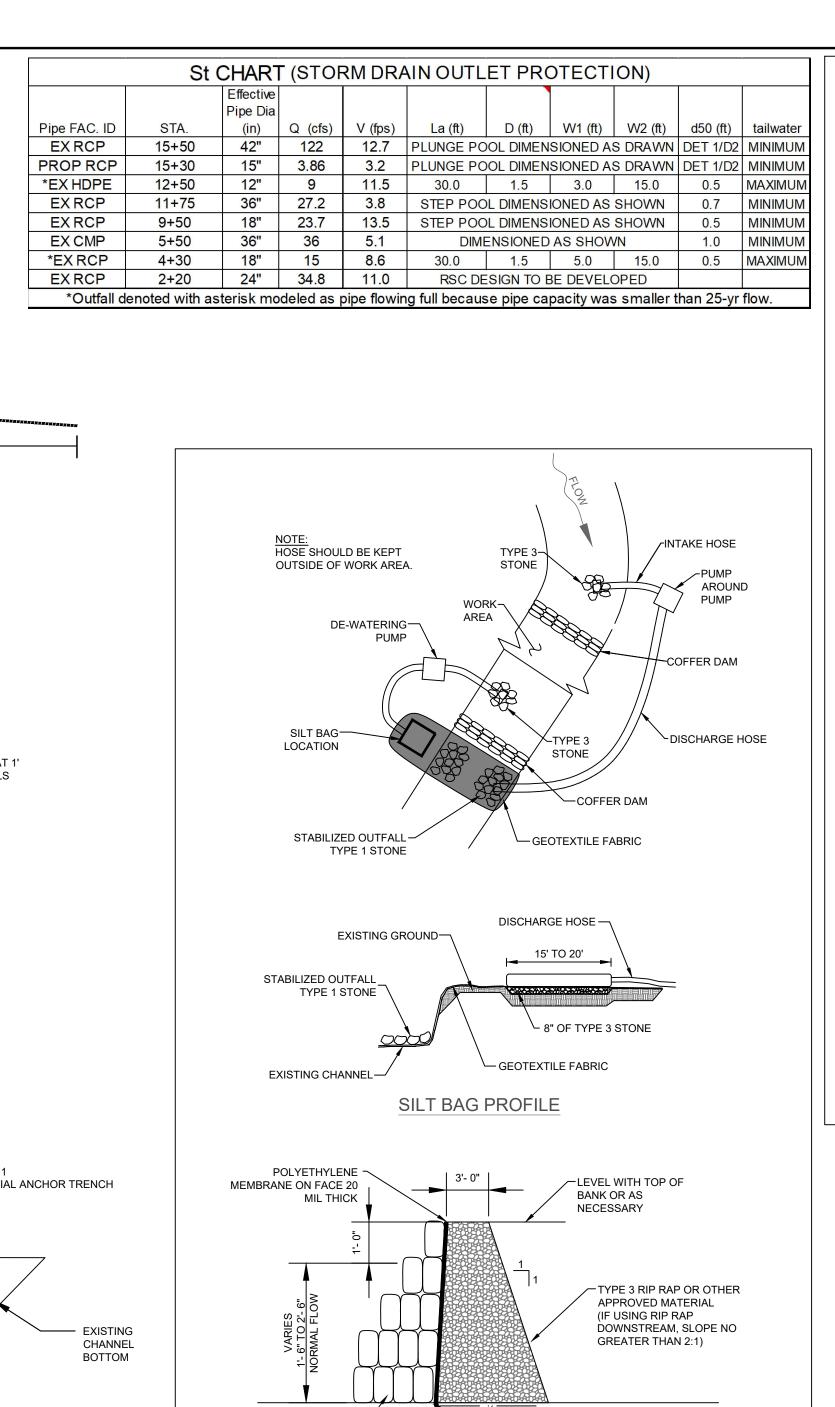


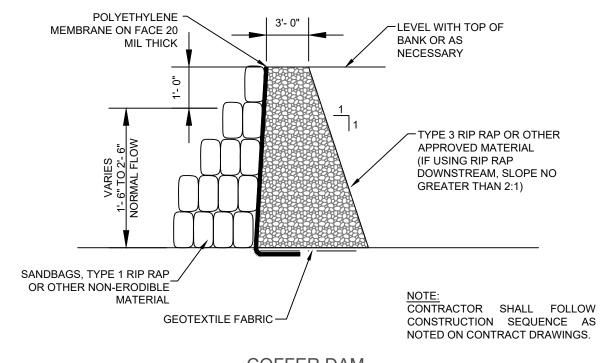
PROJ. MGR.: TLM DESIGN BY: LD DRAWN BY: | BFL PROJ. DATE: OCT. 2023

DRAWING NUMBER:



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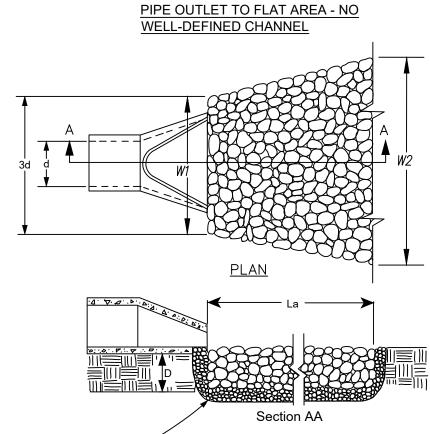
COFFER DAM

- EXCAVATION SHALL BE PERFORMED ONLY IN DRY AND/OR ISOLATED SECTIONS OF CHANNEL.
- COFFER DAMS SHOULD BE USED TO ISOLATE WORK AREAS FROM STREAM FLOW. THE CONTRACTOR SHALL NOT DISTURB MORE AREA THAN CAN BE STABILIZED IN ONE WORKING DAY. THE PUMP-AROUND PUMP SHOULD ADEQUATELY CONVEY A MINIMUM 1,200 GALLONS / MINUTE.
- PERFORMANCE Q=1,200 GPM ONLY. 6. COFFER DAM MUST BE CONSTRUCTED OF NON-ERODIBLE MATERIALS SUCH AS SANDBAGS.

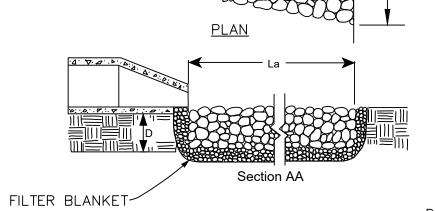
SEQUENCE OF CONSTRUCTION FOR TYPICAL PUMP AROUND

- INSTALL STILLING BASIN AND STABILIZED OUTFALL USING CLASS A RIP RAP AT THE DOWNSTREAM
- THE CONTRACTOR WILL INSTALL THE PUMP AROUND PUMP AND THE TEMPORARY PIPING THAT WILL
- CONVEY THE BASE FLOW FROM UPSTREAM OF THE WORK AREA TO THE STABILIZED OUTFALL. INSTALL UPSTREAM COFFER DAM AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION. INSTALL THE DOWNSTREAM COFFER DAM AND DEWATERING PUMPING APPARATUS IF NEEDED TO
- DEWATER THE ENTRAPPED AREA. THE PUMP AND HOSE FOR THIS PURPOSE SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA. THIS WATER WILL ALSO BE PUMPED TO AN OUTFALL STABILIZED WITH CLASS A RIP RAP. THE CONTRACTOR WILL PERFORM CHANNEL WORK IN ACCORDANCE WITH THE PLAN AND
- FOLLOWING THE GENERAL CONSTRUCTION SEQUENCE. THE CONTRACTOR WILL EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF THE COFFER DAM. WHEN DEWATERING THE AREA, ALL DIRTY WATER MUST BE PUMPED THROUGH A SILT BAG. REMOVE COFFER DAMS, PUMPS, AND TEMPORARY FLEXIBLE HOSE/PIPING STARTING WITH
- ONCE THE WORKING AREA IS COMPLETED, REMOVE ALL RIP RAP AND COFFER DAMS AND STABILIZE DISTURBED AREAS WITH SEED AND MULCH.
- 8 ALL WORK IN CHANNEL MUST BE COMPLETED BEFORE REMOVING COFFER DAMS.





- 1. Lo IS THE LENGTH OF THE RIPRAP APRON. 2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER
- BUT NOT LESS THAN 6". 3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO
- THE TOP OF THE BANK, WHICHEVER IS LESS. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.



PIPE OUTLET TO WELL-DEFINED CHANNEL

DEFINITION:

PAVED AND/OR RIP RAPPED CHANNEL SECTIONS, PLACED BELOW STORM DRAIN OUTLETS.

PURPOSE:

TO REDUCE VELOCITY OF FLOW BEFORE ENTERING RECEIVING CHANNELS BELOW STORM DRAIN OUTLETS.

CONDITIONS:

THIS STANDARD APPLIES TO ALL STORM DRAIN OUTLETS, ROAD CULVERTS, PAVED CHANNEL OUTLETS, ETC., DISCHARGING INTO NATURAL OR CONSTRUCTED CHANNELS. ANALYSIS AND/OR TREATMENT WILL EXTEND FROM THE END OF THE CONDUIT, CHANNEL OR STRUCTURE TO THE POINT OF ENTRY INTO AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM.

MAINTENANCE:

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

~FILTER BLANKET

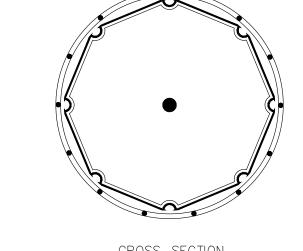
STORM DRAIN OUTLET PROTECTION St

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STORM DRAIN OUTLET PROTECTION

TREE PROTECTION

"SNOW" FENCE <u>Plan</u>



1. USE TRENCHER (I.E. DITCH WHICH) TO CUT A 4"-5"

- W X 18" D TRENCH ALONG DRIP LINE (LIMIT OF CLEARING) AND BACKFILL WITH SAND AND LIGHTLY COMPACT.
- 2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF DRIP LINE OR AS SHOWN BY ENGINEER (SET STAKES NO GREATER THAN 6 FEET ON CENTER-REBAR IS NOT TO BE USED FOR
- STAKES). 3. MAINTAIN FENCE BY REPAIRING AND/OR REPLACING DAMAGED FENCE. DO NOT
- OPERATIONS. 4. DO NOT STORE OR STACK MATERIALS, EQUIPMENT,
- HIGH MINIMUM.

PROJ. MGR.: TLM DESIGN BY: LD DRAWN BY: BFL PROJ. DATE: OCT. 2023 DRAWING NUMBER:

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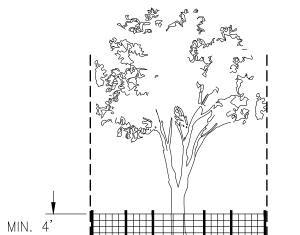
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PROFESSIONAL SEAL

WKD PROJ. NO.: 20230198.01.RA



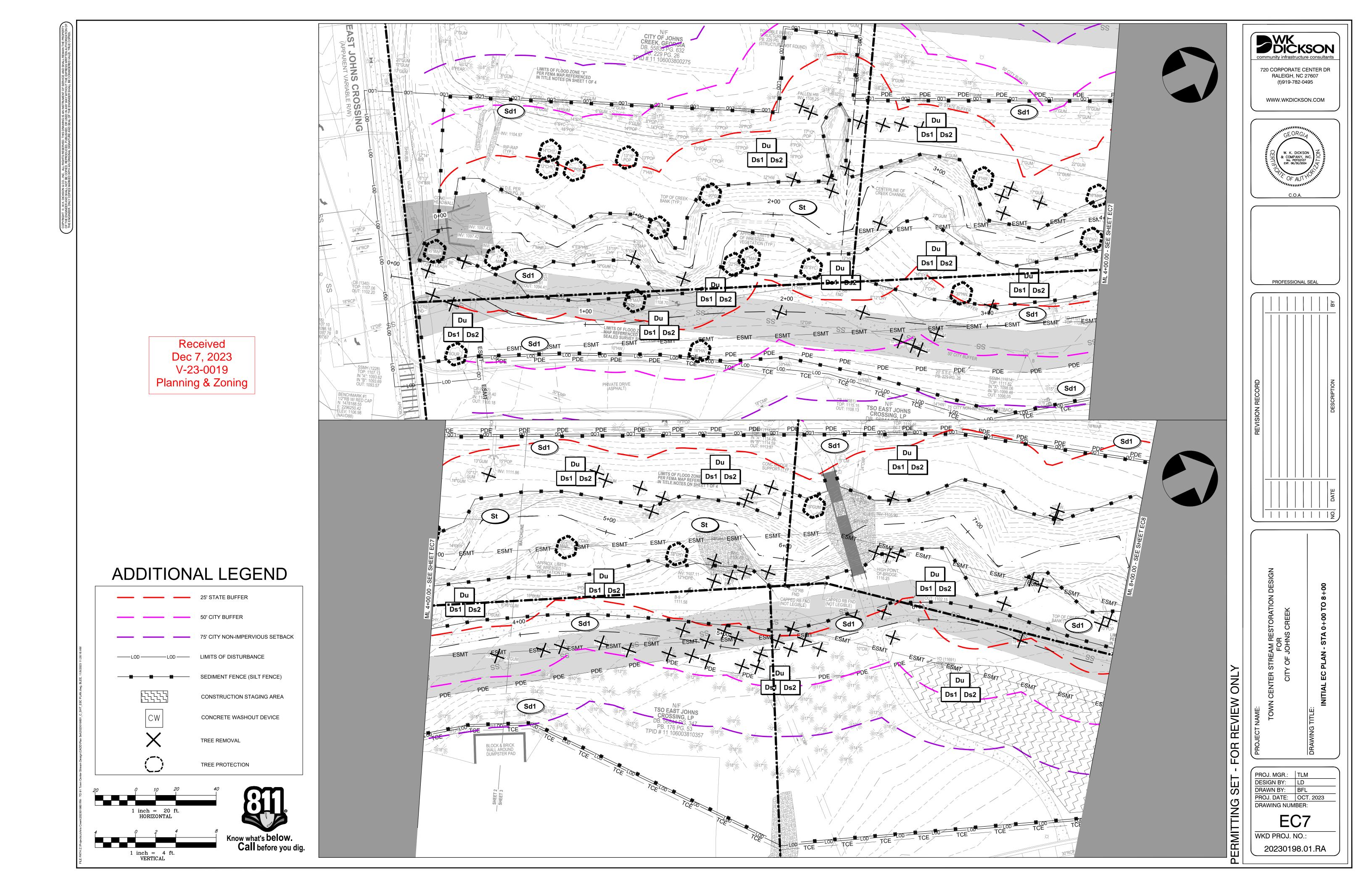
CROSS-SECTION

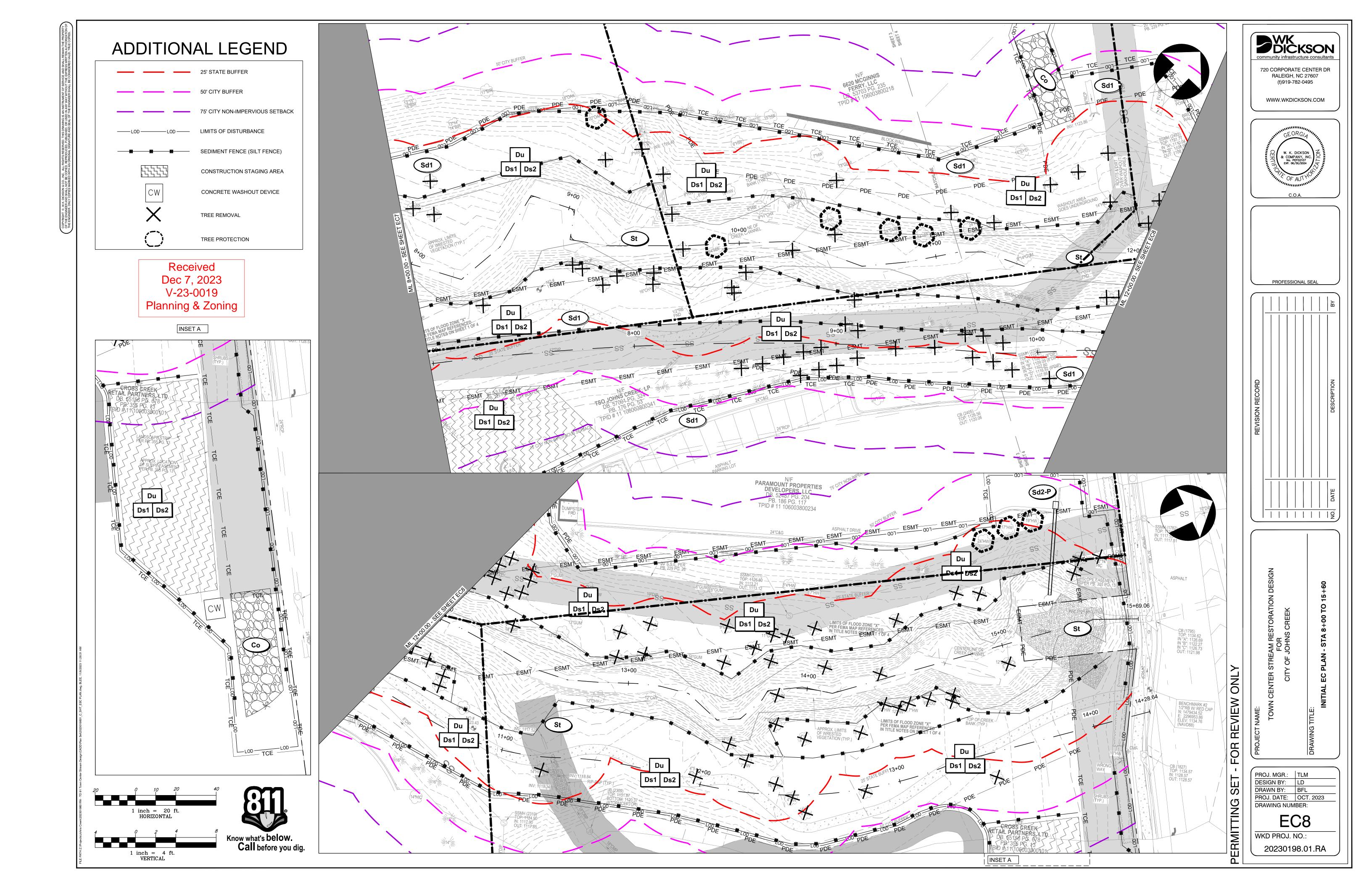


REMOVE FENCING PRIOR TO LANDSCAPING

OR VEHICLES WITHIN FENCED

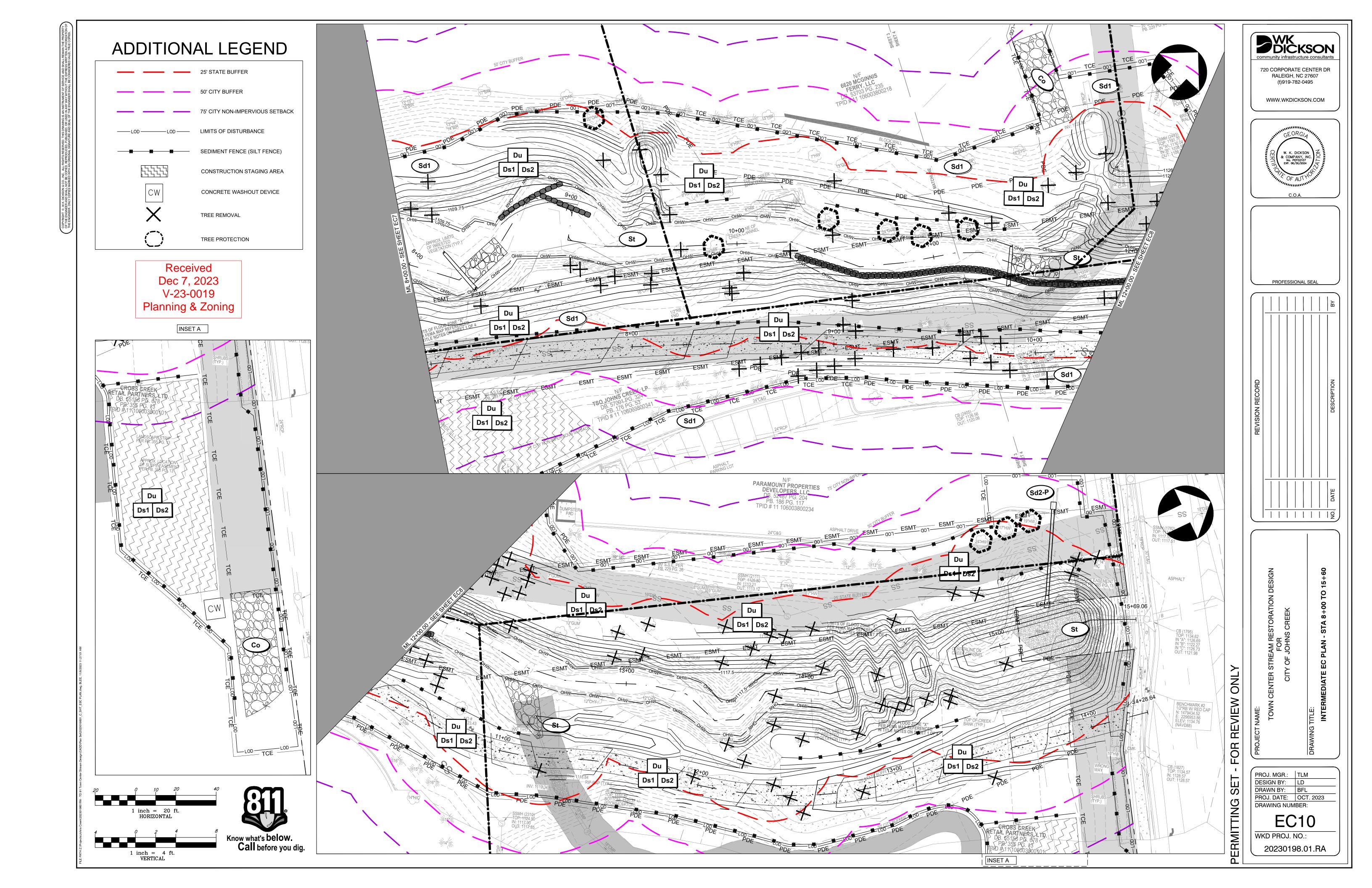
5. FENCE SHALL BE ORANGE VINYL "SNOW FENCE" 4'





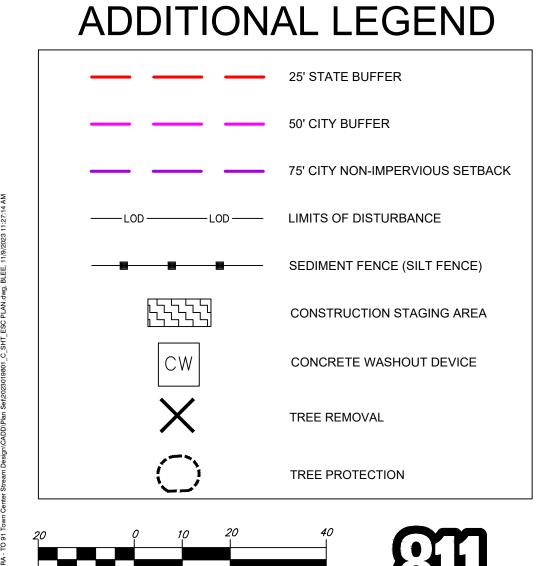
720 CORPORATE CENTER DR RALEIGH, NC 27607 (t)919-782-0495 WWW.WKDICKSON.COM Received Dec 7, 2023 V-23-0019 Planning & Zoning ∰ Ds1 Ds2 Ds1 Ds2 ADDITIONAL LEGEND 75' CITY NON-IMPERVIOUS SETBACK ——LOD ———LOD —— LIMITS OF DISTURBANCE SEDIMENT FENCE (SILT FENCE) CONSTRUCTION STAGING AREA CONCRETE WASHOUT DEVICE TREE REMOVAL TREE PROTECTION PROJ. MGR.: TLM DRAWN BY: BFL PROJ. DATE: OCT. 2023 DRAWING NUMBER: Know what's below.

Call before you dig. WKD PROJ. NO.: 20230198.01.RA 1 inch = 4 ft. VERTICAL

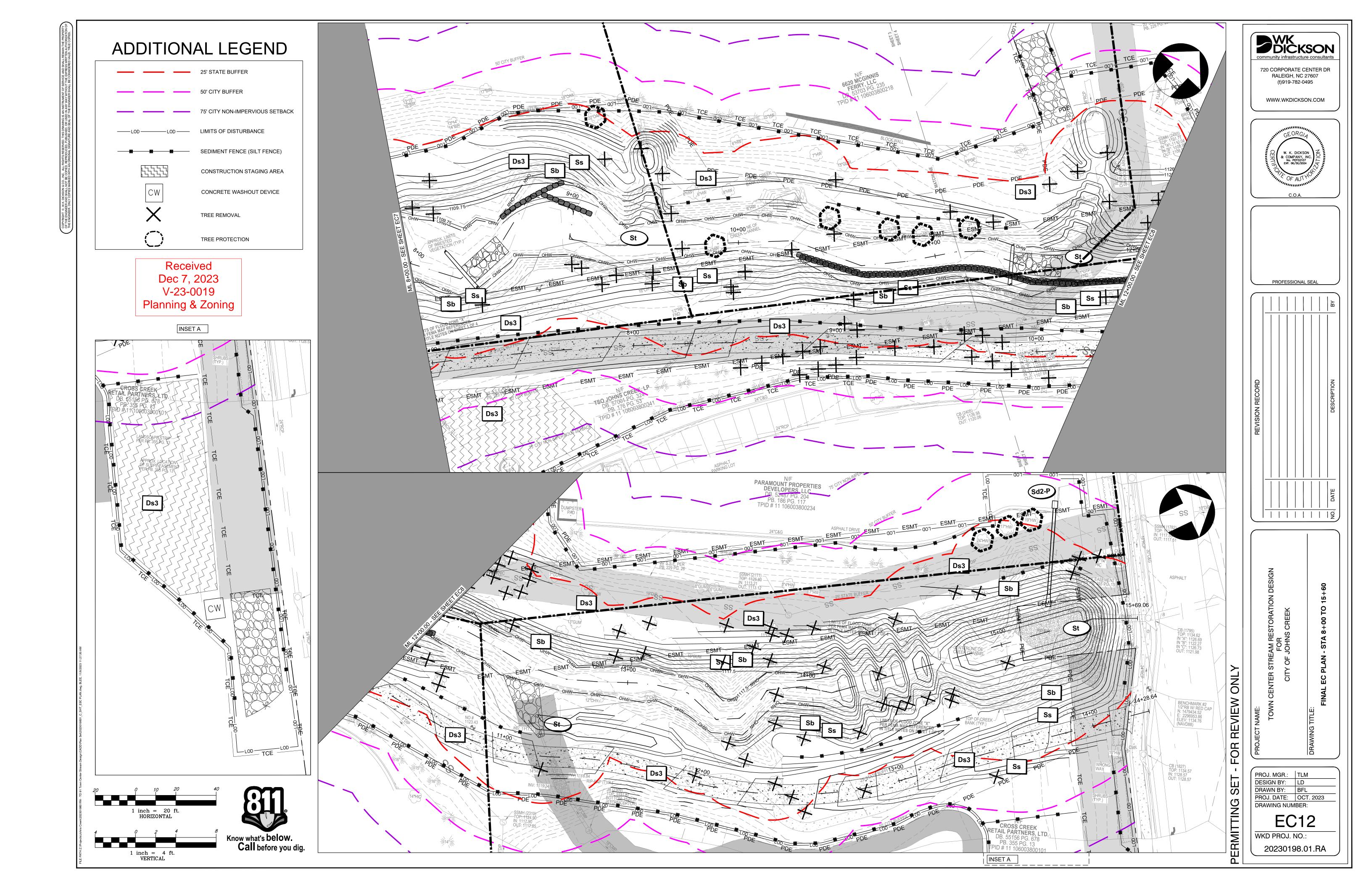


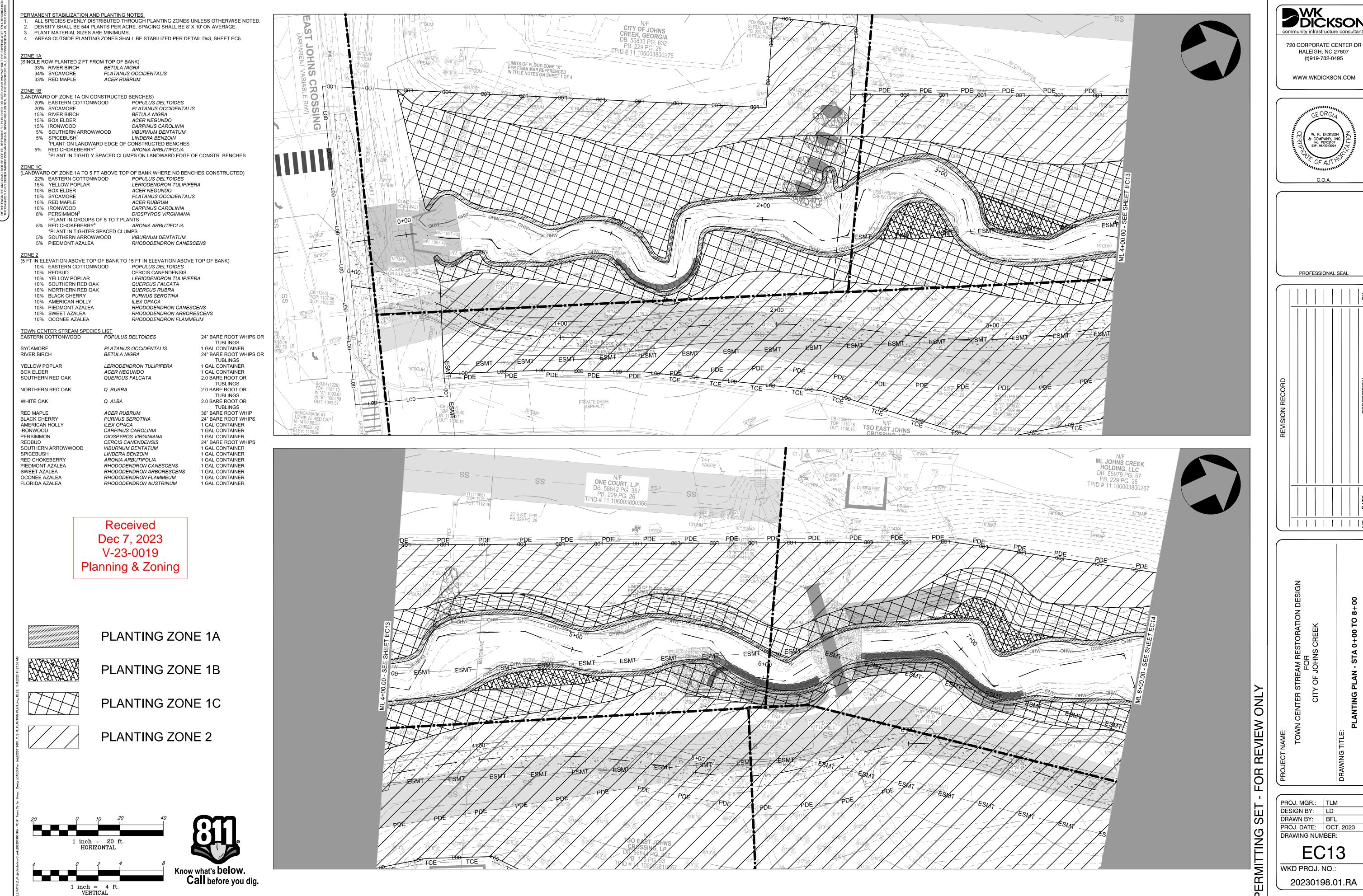
720 CORPORATE CENTER DR RALEIGH, NC 27607 (t)919-782-0495 WWW.WKDICKSON.COM PDE PDE PDE OOT OOT Sb Ds3 PROJ. MGR.: TLM DESIGN BY: LD DRAWN BY: BFL PROJ. DATE: OCT. 2023 DRAWING NUMBER: EC11 Know what's below.
Call before you dig. WKD PROJ. NO.: 20230198.01.RA

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1 inch = 4 ft. VERTICAL



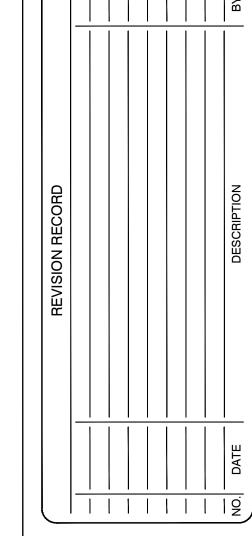


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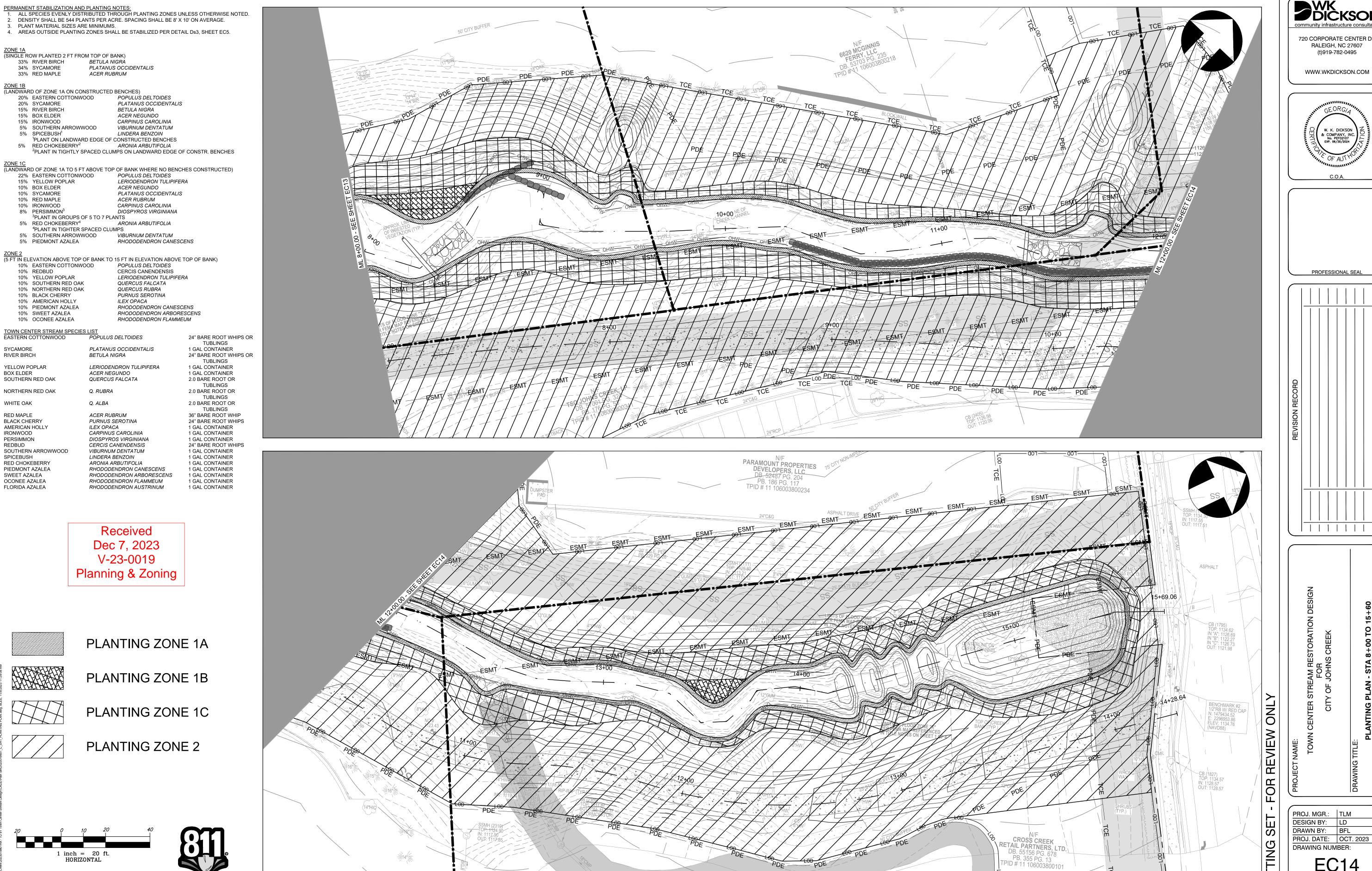
PROFESSIONAL SEAL



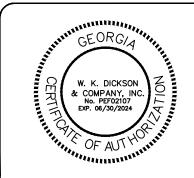
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EC13

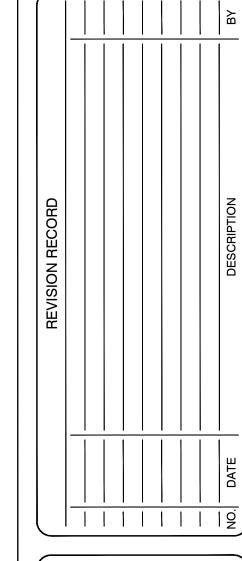
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DRAWING NUMBER: EC14

WKD PROJ. NO.: 20230198.01.RA

ZONE 1A (SINGLE ROW PLANTED 2 FT FROM TOP OF BANK)

3. PLANT MATERIAL SIZES ARE MINIMUMS.

33% RIVER BIRCH BETULA NIGRA 34% SYCAMORE PLATANUS OCCIDENTALIS ACER RUBRUM 33% RED MAPLE

ZONE 1B (LANDWARD OF ZONE 1A ON CONSTRUCTED BENCHES)

20% EASTERN COTTONWOOD POPULUS DELTOIDES PLATANUS OCCIDENTALIS 20% SYCAMORE 15% RIVER BIRCH BETULA NIGRA 15% BOX ELDER ACER NEGUNDO 15% IRONWOOD CARPINUS CAROLINIA 5% SOUTHERN ARROWWOOD VIBURNUM DENTATUM LINDERA BENZOIN 5% SPICEBUSH¹

¹PLANT ON LANDWARD EDGE OF CONSTRUCTED BENCHES 5% RED CHOKEBERRY² ARONIA ARBUTIFOLIA ²PLANT IN TIGHTLY SPACED CLUMPS ON LANDWARD EDGE OF CONSTR. BENCHES

ZONE 1C (LANDWARD OF ZONE 1A TO 5 FT ABOVE TOP OF BANK WHERE NO BENCHES CONSTRUCTED)

22% EASTERN COTTONWOOD POPULUS DELTOIDES 15% YELLOW POPLAR LERIODENDRON TULIPIFERA ACER NEGUNDO 10% BOX ELDER 10% SYCAMORE PLATANUS OCCIDENTALIS ACER RUBRUM 10% RED MAPLE CARPINUS CAROLINIA 10% IRONWOOD 8% PERSIMMON³ DIOSPYROS VIRGINIANA ³PLANT IN GROUPS OF 5 TO 7 PLANTS 5% RED CHOKEBERRY4 ARONIA ARBUTIFOLIA

⁴PLANT IN TIGHTER SPACED CLUMPS VIBURNUM DENTATUM 5% SOUTHERN ARROWWOOD RHODODENDRON CANESCENS 5% PIEDMONT AZALEA

ZONE 2 (5 FT IN ELEVATION ABOVE TOP OF BANK TO 15 FT IN ELEVATION ABOVE TOP OF BANK)

POPULUS DELTOIDES

RHODODENDRON ARBORESCENS

RHODODENDRON FLAMMEUM

10% REDBUD CERCIS CANENDENSIS LERIODENDRON TULIPIFERA 10% YELLOW POPLAR QUERCUS FALCATA 10% SOUTHERN RED OAK QUERCUS RUBRA 10% NORTHERN RED OAK 10% BLACK CHERRY **PURNUS SEROTINA** 10% AMERICAN HOLLY ILEX OPACA 10% PIEDMONT AZALEA RHODODENDRON CANESCENS

10% OCONEE AZALEA TOWN CENTER STREAM SPECIES LIST
EASTERN COTTONWOOD POPULUS DELTOIDES

10% SWEET AZALEA

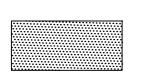
10% EASTERN COTTONWOOD

SYCAMORE PLATANUS OCCIDENTALIS RIVER BIRCH BETULA NIGRA LERIODENDRON TULIPIFERA YELLOW POPLAR BOX ELDER ACER NEGUNDO SOUTHERN RED OAK QUERCUS FALCATA

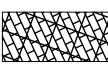
TUBLINGS NORTHERN RED OAK Q. RUBRA 2.0 BARE ROOT OR **TUBLINGS** 2.0 BARE ROOT OR WHITE OAK Q. ALBA TUBLINGS RED MAPLE ACER RUBRUM 36" BARE ROOT WHIP **BLACK CHERRY** PURNUS SEROTINA 24" BARE ROOT WHIPS AMERICAN HOLLY ILEX OPACA 1 GAL CONTAINER CARPINUS CAROLINIA IRONWOOD 1 GAL CONTAINER PERSIMMON DIOSPYROS VIRGINIANA 1 GAL CONTAINER REDBUD CERCIS CANENDENSIS 24" BARE ROOT WHIPS VIBURNUM DENTATUM 1 GAL CONTAINER SOUTHERN ARROWWOOD

1 GAL CONTAINER SPICEBUSH LINDERA BENZOIN RED CHOKEBERRY ARONIA ARBUTIFOLIA 1 GAL CONTAINER PIEDMONT AZALEA RHODODENDRON CANESCENS 1 GAL CONTAINER RHODODENDRON ARBORESCENS SWEET AZALEA 1 GAL CONTAINER RHODODENDRON FLAMMEUM OCONEE AZALEA 1 GAL CONTAINER FLORIDA AZALEA RHODODENDRON AUSTRINUM 1 GAL CONTAINER

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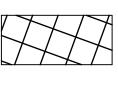


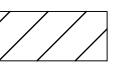
PLANTING ZONE 1A



PLANTING ZONE 1B

PLANTING ZONE 1C





PLANTING ZONE 2

