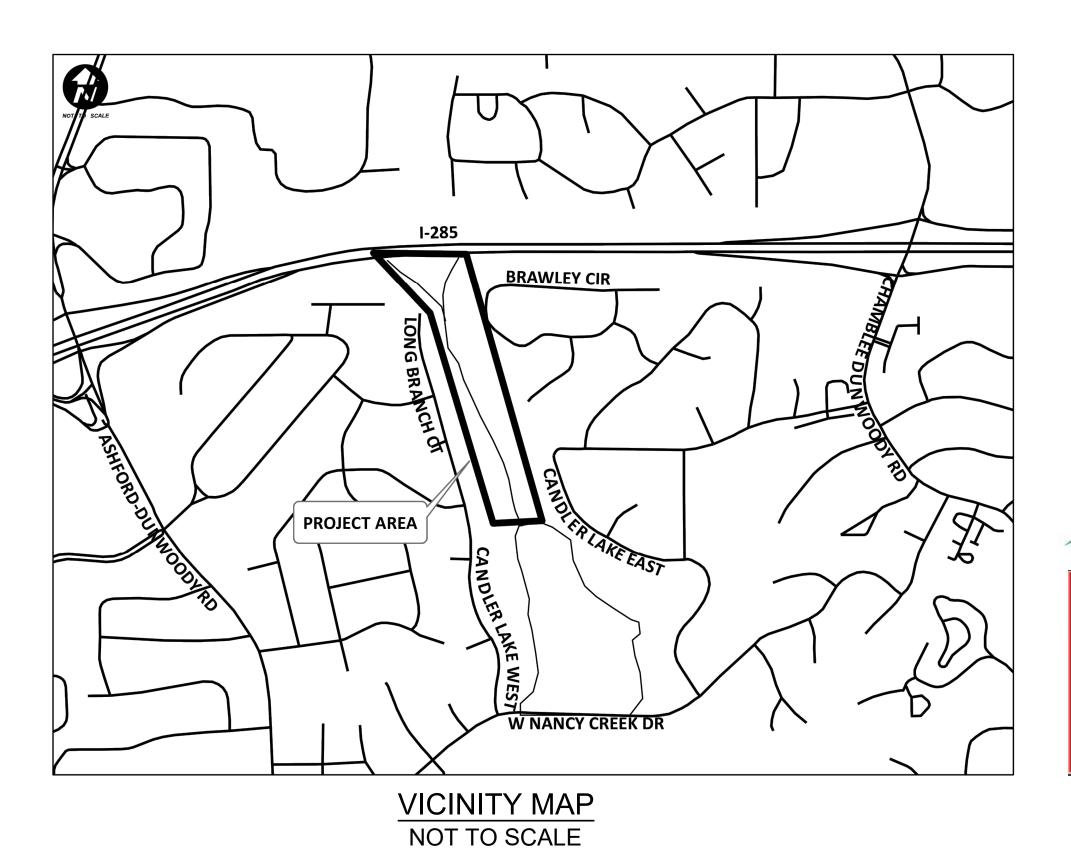
APPROVED FIRE MARSHAL Joe Burge ATION APPROVED APPROVED

NORTH FORK NANCY CREEK STREAM RESTORATION FROM I-285 TO MURPHEY CANDLER LAKE ISSUED FOR PERMIT - DESIGN DRAWINGS

CITY OF BROOKHAVEN



Brookhaven GEORGIA

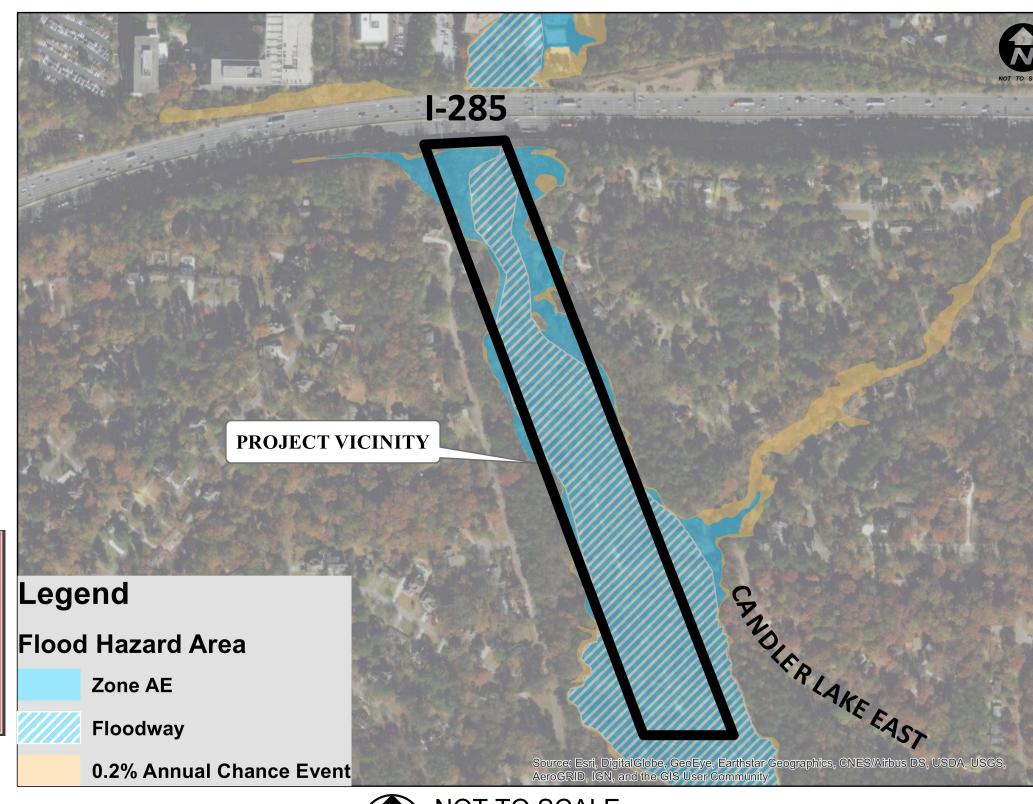
DO NOT BEGIN CONSTRUCTION

before the on-site pre-construction meeting with the City Land Development Inspector.

Schedule through the Project Portal:

https://cityworks.brookhavenga.gov/ProjectPortal

LOCATION/FLOOD HAZARD MAP



NOT TO SCALE
FIRM PANEL 13089C0012K
EFFECTIVE DATE AUGUST 15, 2019

THIS PROJECT WAS PREPARED USING THE HORIZONTAL COORDINATE SYSTEM ON GEORGIA WEST ZONE (NAD83), AND NORTH AMERICAN VERTICAL DATUM (NAVD 1988).

DISTURBED AREA: 4.3 ACRES

PERMITS:
USACE NWP27: SAS-2020-00393
GA EPD: BV-044-21-01
COUNTY: 3115753
CITY: LDP22-00016



GEORGIA SOIL AND WATER CONSERVATION COMMISSION

JOHN P. SCHNEIDER

Level II Certified Design Professional

CERTIFICATION NUMBER 0000094149

ISSUED: 04/27/2021 EXPIRES: 04/27/2024

24 HOUR CONTACT:
CITY OF BROOKHAVEN
PUBLIC WORKS DEPARTMENT
TOM ROBERTS
TOM.ROBERTS@BROOKHAVENGA.GOV

404-637-0540

ISSUED FOR PERMIT NOT FOR CONSTRUCTION

4251 LONG BRANCH CT BROOKHAVEN, DEKALB COUNTY GA LOT(S) 0331, 0346

PRIMARY PERMITTEE
CITY OF BROOKHAVEN
4362 PEACHTREE ROAD
BROOKHAVEN, GA 30019
(404)637-0540

SECONDARY PERMITTEE N/A

GPS COORDINATES BEGINNING OF PROJECT:

- LAT = 33.9199 - LONG = -84.3279

GPS COORDINATES END OF PROJECT:

- LAT = 33.9148

- LONG = -84.3262

The City of Brookhaven does not certify the accuracy of these drawings. In approving these drawings and specifications, the City has relied upon the accuracy of the information and representations furnished herein by the engineer, or architect, and/or applicant. The City of Brookhaven assumes no liability or responsibility for the accuracy of the representations provided.

SEPTEMBER 2023



Georgia Registered Engineering Firm PED-004433 Expires 06/30/2024

360 Interstate North Parkway, Suite 250 Atlanta, GA 30339 Phone — (404) 334—4310 Web — www.freese.com

GENERAL NOTES

- 1. THE PROJECT BEGINS ADJACENT TO I-285 AT 4251 LONG BRANCH CT, AND EXTENDS DOWNSTREAM TO MURPHEY CANDLER LAKE WITHIN THE CITY OF BROOKHAVEN IN LAND LOT(S) 0331 & 0346 IN THE 18TH DISTRICT, DEKALB COUNTY, GEORGIA.
- 2. THE PROJECT IS FOR THE RESTORATION/STABILIZATION OF NORTH FORK NANCY CREEK. CONSTRUCTION ACTIVITY WILL INCLUDE INSTALLATION OF IN-STREAM STRUCTURES, ACCOMPANYING SITE GRADING, BANK STABILIZATION, AND PLANTING OF NATIVE VEGETATION.
- 3. HORIZONTAL CONTROL IS BASED UPON GEORGIA STATE PLANE COORDINATE SYSTEM, (GA WEST ZONE, NAD83). VERTICAL DATUM IS NAVD88.
- 4. THIS PROPERTY LIES WITHIN SPECIAL FLOOD HAZARD ZONE 'AE', FIRM MAP NUMBER 13089C0012K OF THE DEKALB COUNTY FLOOD INSURANCE STUDY, EFFECTIVE DATE: AUGUST 15, 2019.
- 5. THE STORMWATER RUNOFF FLOWS DIRECTLY INTO NORTH FORK NANCY CREEK. NORTH FORK NANCY CREEK IS A PART OF THE NANCY CREEK WATERSHED IN DEKALB COUNTY.
- 6. EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO FIELD VERIFY EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO NOTIFY UTILITIES OF PROPOSED CONSTRUCTION AT LEAST (2), BUT NOT MORE THAN TEN (10) WORKING DAYS IN ADVANCE. FOR UTILITY LOCATES/NOTIFICATIONS CONTACT:

DEKALB COUNTY PUBLIC WORKS: 404-371-2000

DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT: 770-621-7200

UTILITY PROTECTION CENTER: 811 OR 1-800-282-7411

- 7. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY OF BROOKHAVEN, DEKALB COUNTY, AND STATE OF GEORGIA STANDARDS AND SPECIFICATIONS.
- 8. TO REPORT PUBLIC WORKS EMERGENCIES. CONTACT THE CITY OF BROOKHAVEN PUBLIC WORKS DEPARTMENT 24 HOURS-A-DAY NUMBER: 404-637-0540.
- 9. PLACE MATERIAL FROM EXCAVATION AWAY FROM DRAINAGE FEATURES TO PREVENT OBSTRUCTION OF STORM DRAINAGE FLOW.
- 10. THE SITE GRADE WILL BE RETURNED TO NATURAL CONTOURS TYPICAL OF A RIPARIAN ENVIRONMENT. ALL DISTURBED PAVEMENT, CURB, SIDEWALK, AND LANDSCAPING WILL BE REPLACED IN KIND.
- 11. CONTRACTOR TO COORDINATE WITH PROJECT ENGINEER REGARDING NECESSARY BYPASS PUMPING AND/OR TEMPORARY PIPING TO MAINTAIN CREEK FLOWS WITHOUT IMPACT TO THE ENVIRONMENT.
- 12. CONSTRUCTION LAYOUT AND STAKING SHALL BE PROVIDED BY THE CONTRACTOR.
- 13. CONTRACTOR TO ESTABLISH TEMPORARY SUPPORT FOR EXISTING UTILITIES AND MAINTAIN IT THROUGHOUT CONSTRUCTION, IF REQUIRED.
- 14. DURING NON-WORKING HOURS OR DAYS, ALL EXCAVATED AREAS ARE TO BE BACKFILLED OR SECURED AND PROTECTED USING APPROVED SAFETY DEVICES AND MATERIALS.
- 15. IF ANY CONFLICTS OR DISCREPANCIES ARE DISCOVERED, EITHER IN THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS OR DISCREPANCIES ARE RESOLVED.
- 16. THE CONTRACTOR SHALL VERIFY ALL INFORMATION BEFORE PROCEEDING AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 17. THE CONTRACTOR SHALL NOT MOVE OR DRIVE CONSTRUCTION MACHINERY OR HEAVY EQUIPMENT OVER THE PEDESTRIAN BRIDGE. SEE SHEET C-3 OR ES-4 FOR LOCATION.
- 18. SHOULD PARK TRAILS BE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL REPAIR OR REPLACE TO MATCH PRE-PROJECT CONDITIONS.
- 19. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED TO BE EFFECTIVE AND IN COMPLIANCE WITH STATE AND LOCAL REQUIREMENTS.
- 20. THE SANITARY SEWER AERIAL CROSSING AT APPROXIMATE LOCATION OF STA 14+08 TO BE STABILIZED, AS NECESSARY DURING CONSTRUCTION TO ELIMINATE/MINIMIZE ADVERSE EFFECTS. SEE SHEET C-2 FOR LOCATION.
- 21. THE PREPARATION OF THESE DRAWINGS WAS FINANCED IN PART THROUGH A GRANT FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY UNDER THE PROVISIONS OF SECTION 319(h) OF THE FEDERAL WATER POLLUTION CONTROL ACT, AS AMENDED, IN PARTNERSHIP WITH THE ENVIRONMENTAL PROTECTION DIVISION OF THE GEORGIA DEPARTMENT OF NATURAL RESOURCES.
- 22. AN UPDATED TREE SURVEY WILL BE PERFORMED PRIOR TO CONSTRUCTION IN ORDER TO FIELD-LOCATE "LEAVE-TREES" FOR THE CONTRACTOR(S) TO AVOID.
- 23. CONSTRUCTION DRAWINGS NOT DEPENDENT ON TREE MATERIALS BEING RE-USED ON SITE. CONTRACTOR MAY SUPPLEMENT WOODY MATERIALS WITH THOSE REMOVED ON SITE ONLY IF MARKED FOR REMOVAL
- 24. REFER TO APPENDED TREE PLAN FOR CRZ/SRP IMPACTS AND PRELIMINARY TREE REMOVAL PLAN.
- 25. SEE BELOW TABLE FOR IN-STREAM STRUCTURE STATIONING AND ELEVATION DATA. ELEVATIONS REFER TO THE THALWEG (I.E. INVERT) OF THE CHANNEL.

S.	TRUCTURE DAT	ΓA TABLE
STATION	DESCRIPTION	ELEVATION (FT)
10+30	ROCK SILL	892.6
10+42	ROCK SILL	892.6
10+84	LOG SILL	890.9
11+49	LOG VANE	890.7
11+85	LOG SILL	890.8
12+29	LOG VANE	890.4
13+06	LOG SILL	890.0
15+58	LOG VANE	886.1
15+97	LOG SILL	886.1
16+37	LOG SILL	886.7
17+31	LOG SILL	886.5
18+11	LOG SILL	886.2
18+67	LOG VANE	886.1
19+55	LOG VANE	886.2
19+90	LOG SILL	886.2
20+40	LOG SILL	886.2
21+02	LOG VANE	886.1
21+37	LOG SILL	885.6
21+76	LOG VANE	886.0
22+18	LOG SILL	886.0
22+79	LOG VANE	886.0
22.20	1.00.001	005.0

23+29 LOG SILL

ST	RUCTURE DATA	ΓΑΒΙΕ
STATION	DESCRIPTION	ELEVATION (FT)
23+73	LOG SILL	885.5
24+46	LOG SILL	886.1
24+82	LOG SILL	885.8
25+30	LOG SILL	885.9
25+61	LOG SILL	886.2
26+10	LOG SILL	886.2
26+45	LOG SILL	886.0
26+83	LOG SILL	886.0
27+67	LOG SILL	886.0
28+04	LOG SILL	885.0
28+48	LOG VANE	885.3
28+88	LOG SILL	884.6
29+27	LOG SILL	884.2
29+66	LOG SILL	884.1

	SHEET	LIST TABLE
SEQUENCE NO.	SHEET NUMBER	SHEET DESCRIPTION
1	T-1	TITLE COVER
2	G-1	GENERAL NOTES
3	G-2	OVERVIEW MAP
4	C-1	START TO STA 14+00
5	C-2	STA 14+00 TO STA 18+00
6	C-3	STA 18+00 TO STA 22+00
7	C-4	STA 22+00 TO STA 26+00
8	C-5	STA 26+00 TO END
9	CS-1	CROSS SECTION VIEWS
10	CS-2	CROSS SECTION VIEWS
11	CS-3	CROSS SECTION VIEWS
12	CS-4	CROSS SECTION VIEWS
13	CS-5	CROSS SECTION VIEWS
14	CS-6	CROSS SECTION VIEWS
15	DT-1	DETAILS
16	DT-2	DETAILS
17	DT-3	DETAILS
18	DT-4	DETAILS
19	DT-5	DETAILS
20	DT-6	DETAILS
21	ES-1	EROSION CONTROL NOTES I
22	ES-2	EROSION CONTROL NOTES II
23	ES-3	START TO STA 14+00 - PHASE I & II
24	ES-4	STA 14+00 TO STA 22+00 - PHASE I & II
25	ES-5	STA 22+00 TO END - PHASE I & II
26	ES-6	DS STAGE & STOCK PILE AREA - PHASE I & II
27	ES-7	START TO STA 14+00 - PHASE III
28	ES-8	STA 14+00 TO STA 22+00 - PHASE III
29	ES-9	STA 22+00 TO END - PHASE III
30	ES-10	DS STAGE & STOCKPILE AREA - PHASE III
31	ES-11	ESC DETAILS
32	ES-12	ESC DETAILS
33	ES-13	ESC DETAILS

Know what's **below**. **Call** before you dig.

FORA-LAKE RES-OF BROOKHAVEN
STREAMBANK R
IIRPHEY CANDL REE TO () N

RK NANGEROW

J.

PUBLIC WORKS DEPARTMENT TOM ROBERTS

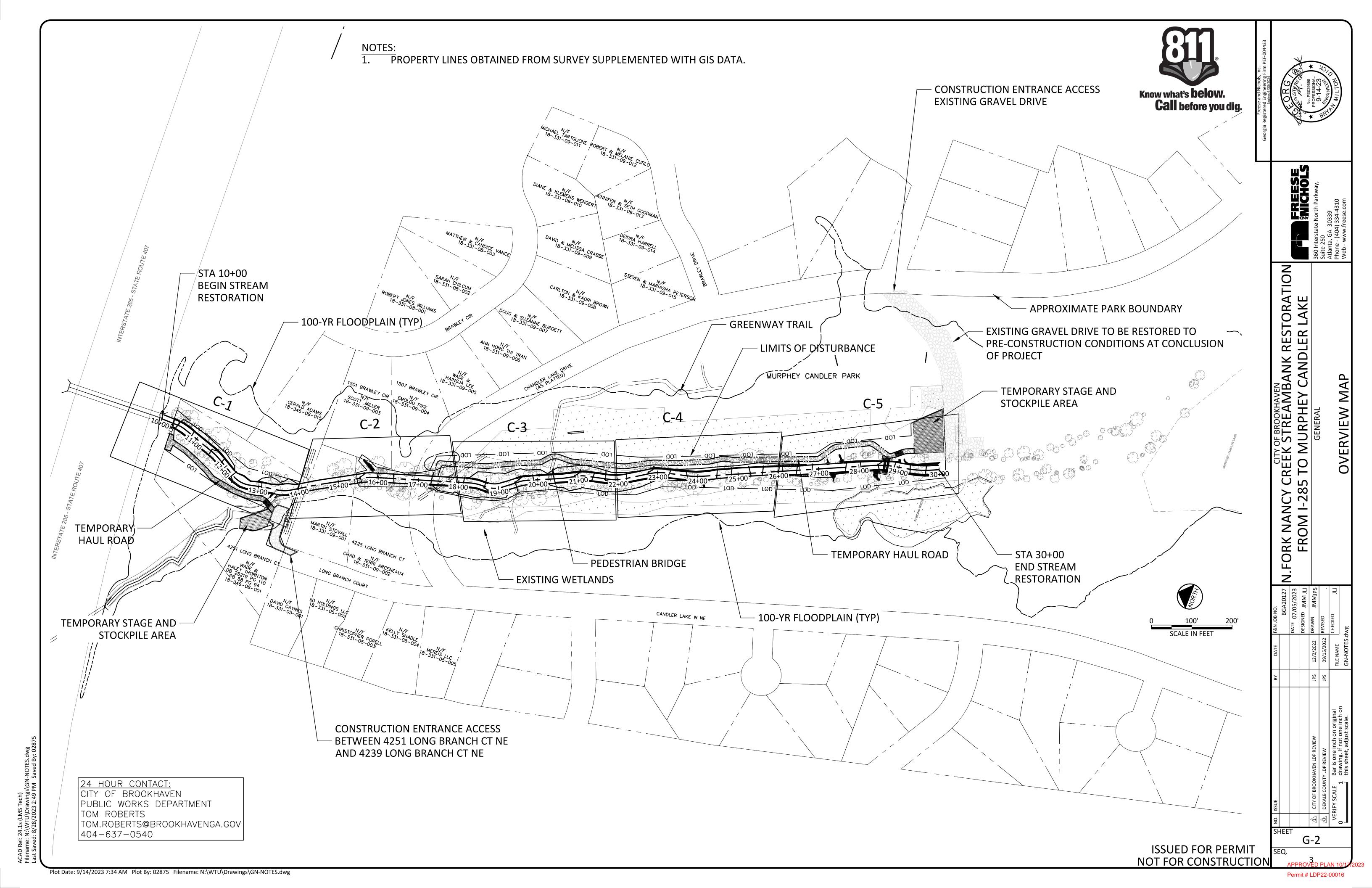
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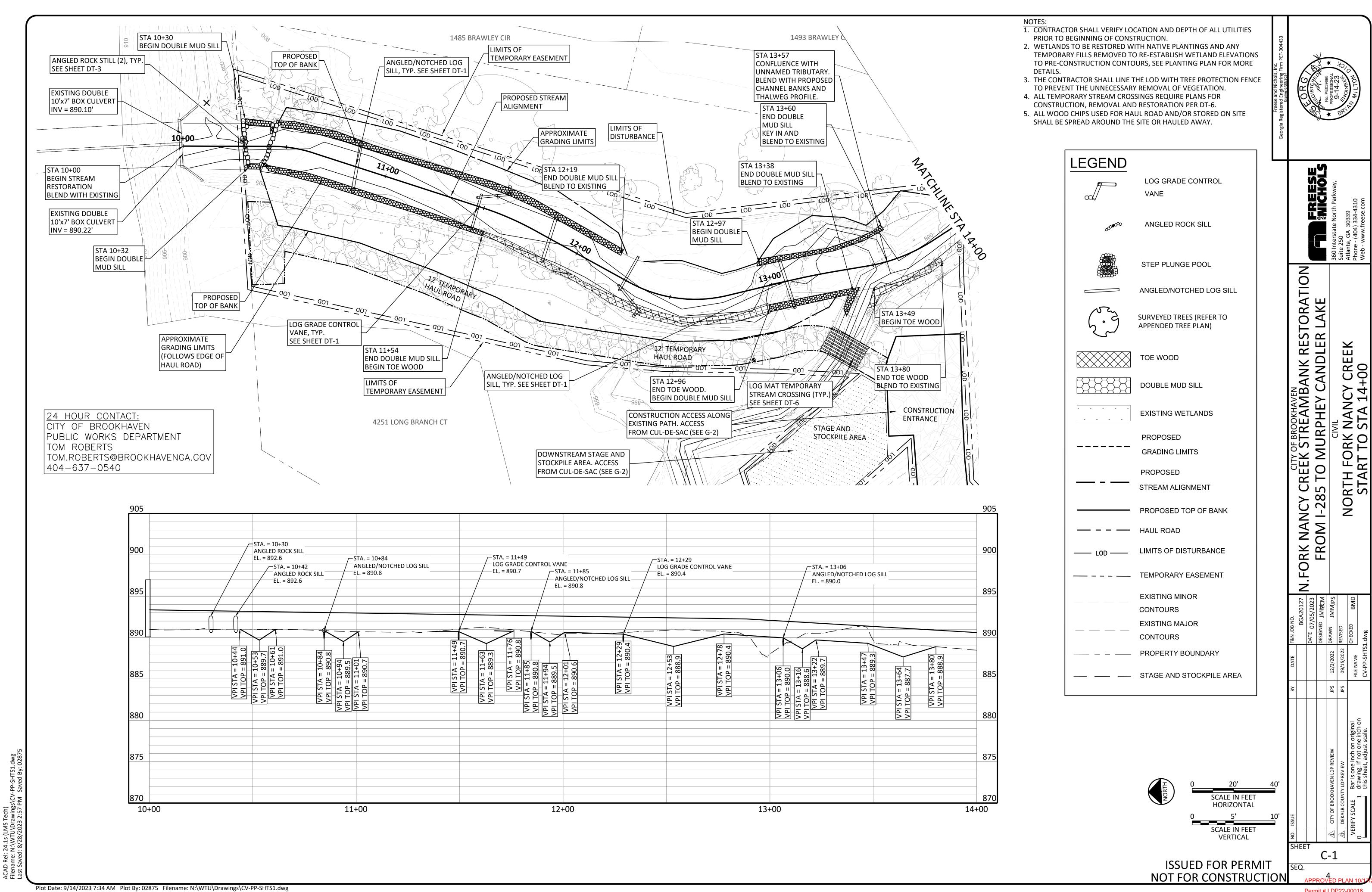
ISSUED FOR PERMIT NOT FOR CONSTRUCTION

24 HOUR CONTACT: CITY OF BROOKHAVEN TOM.ROBERTS@BROOKHAVENGA.GOV

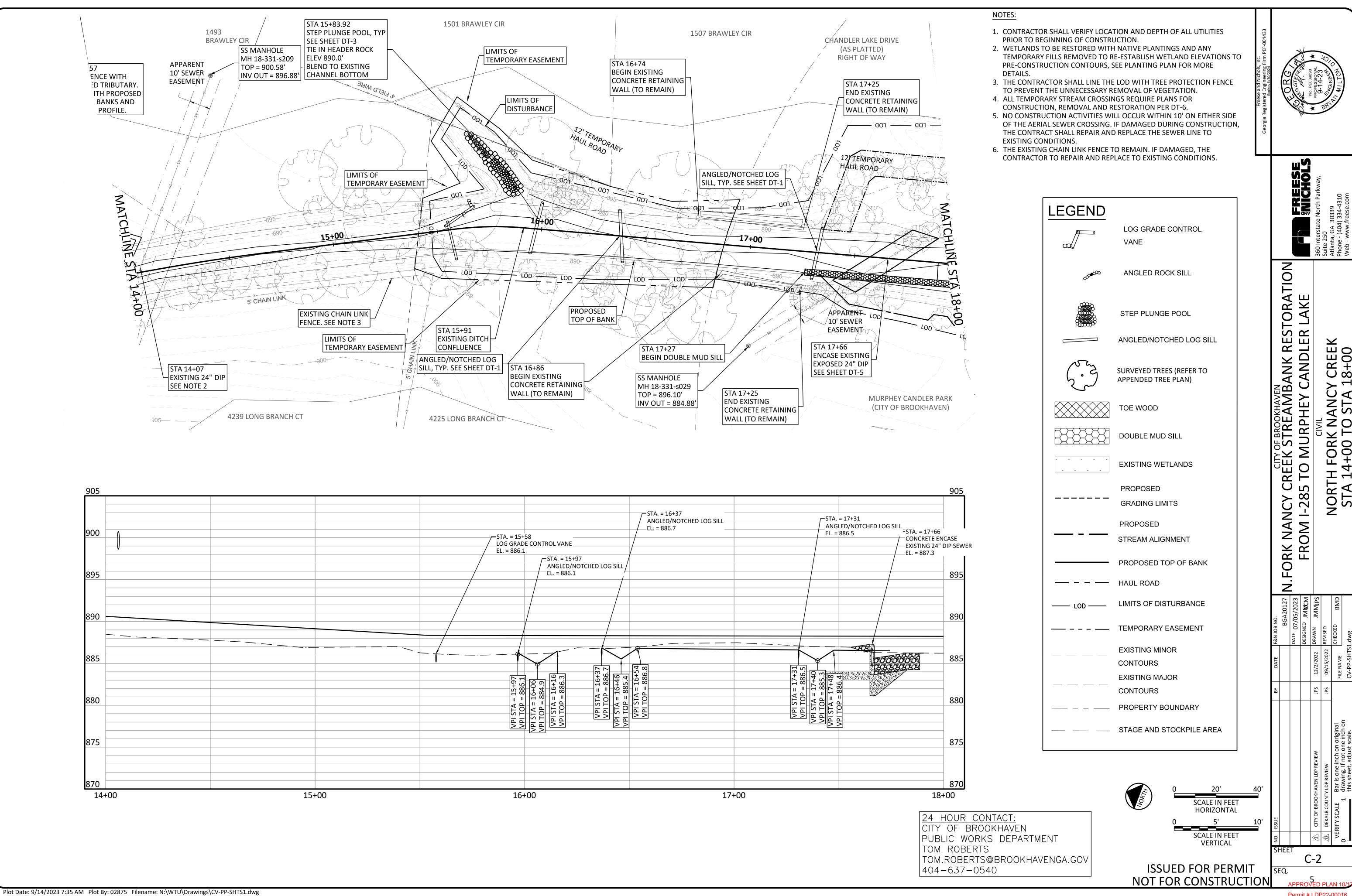
885.8

G-1

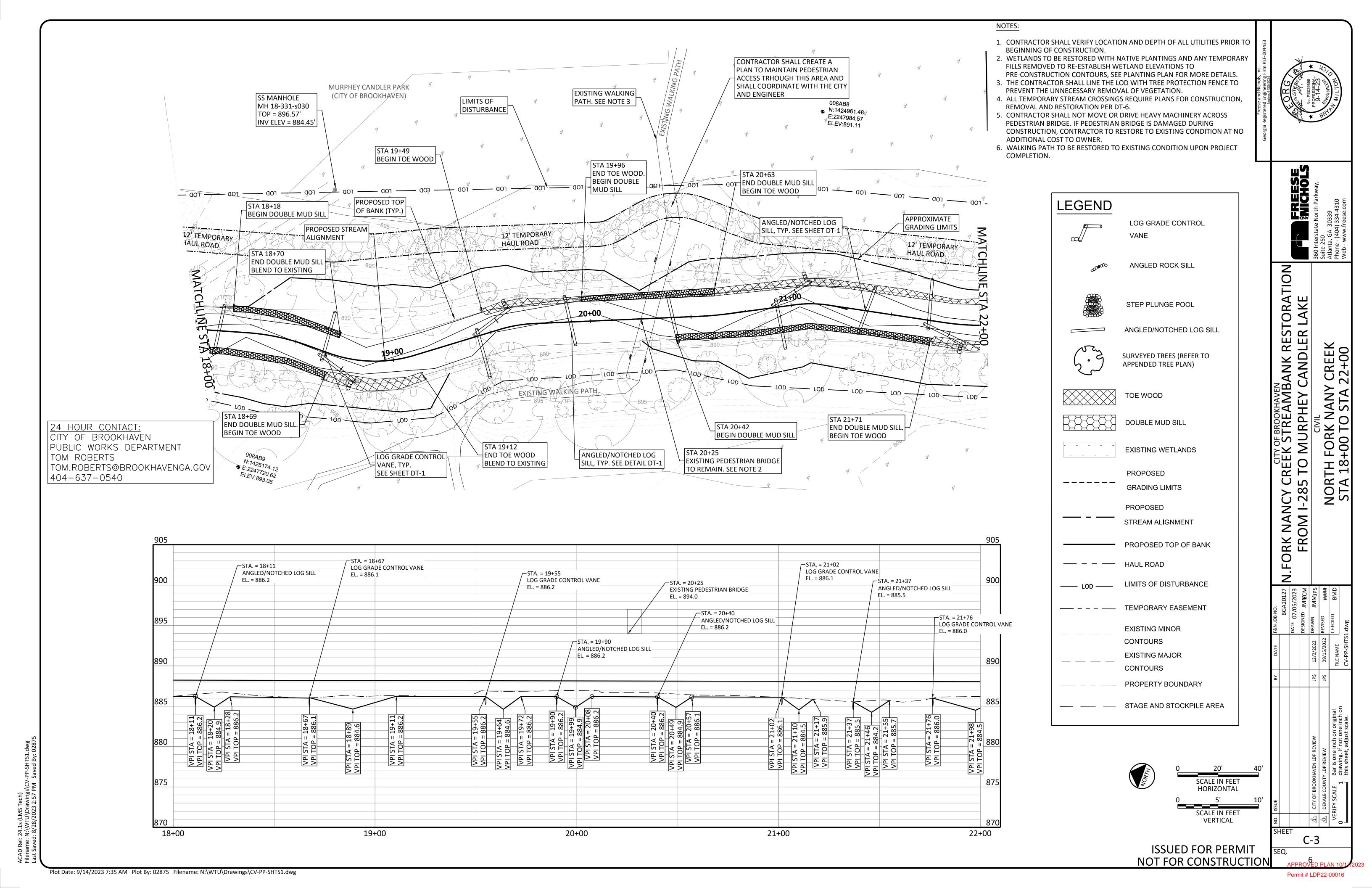




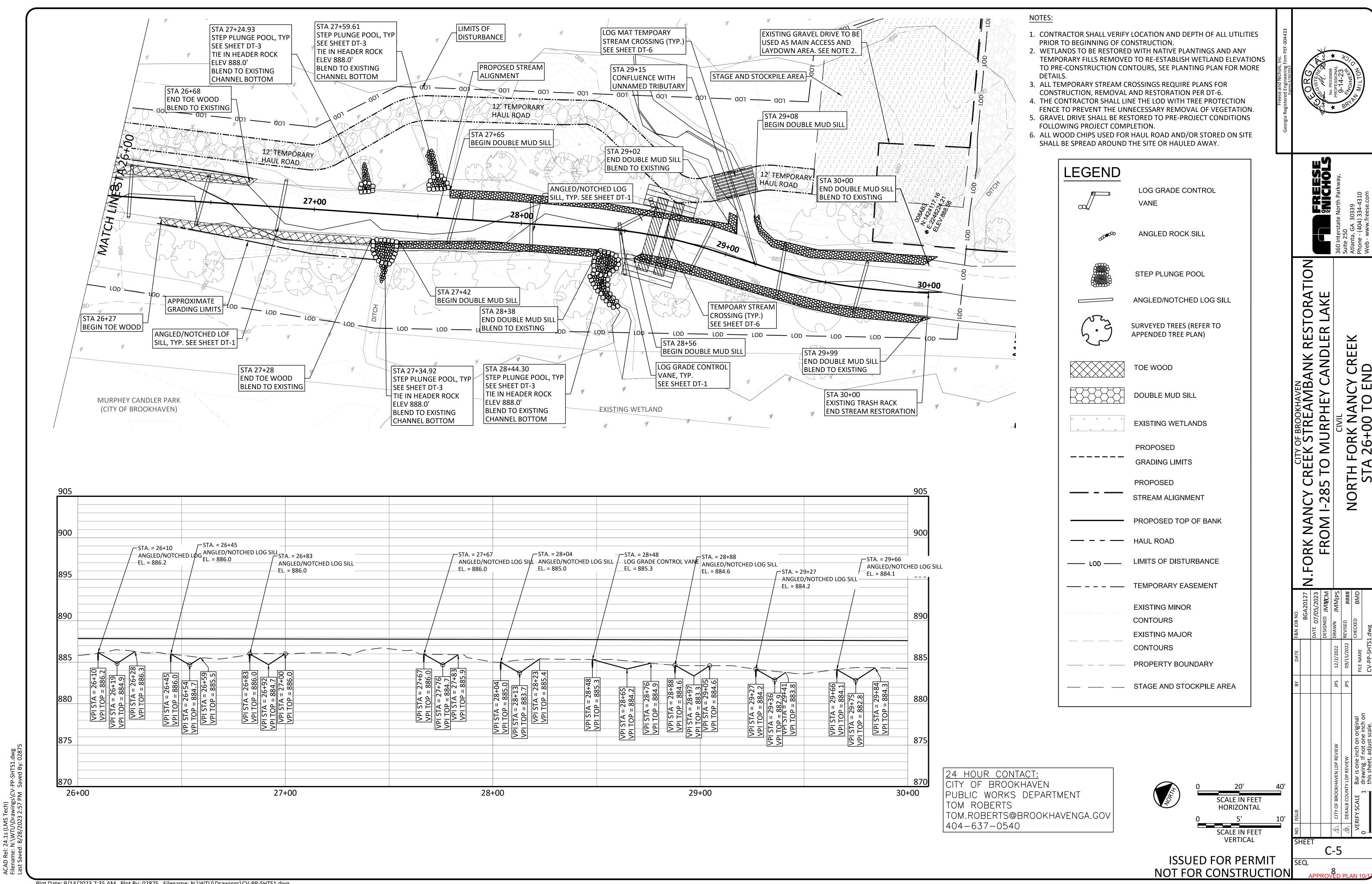
Permit # LDP22-00016



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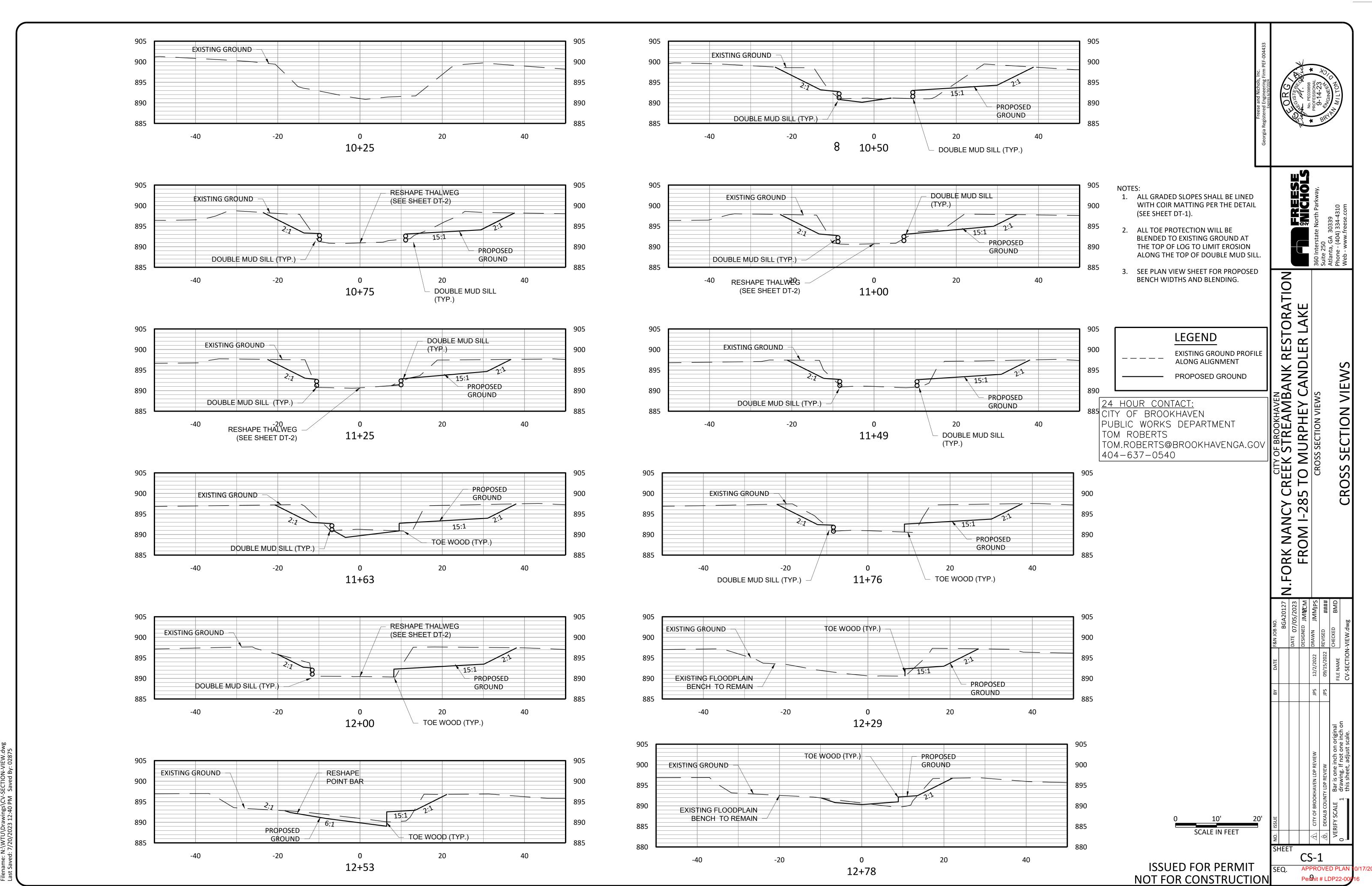


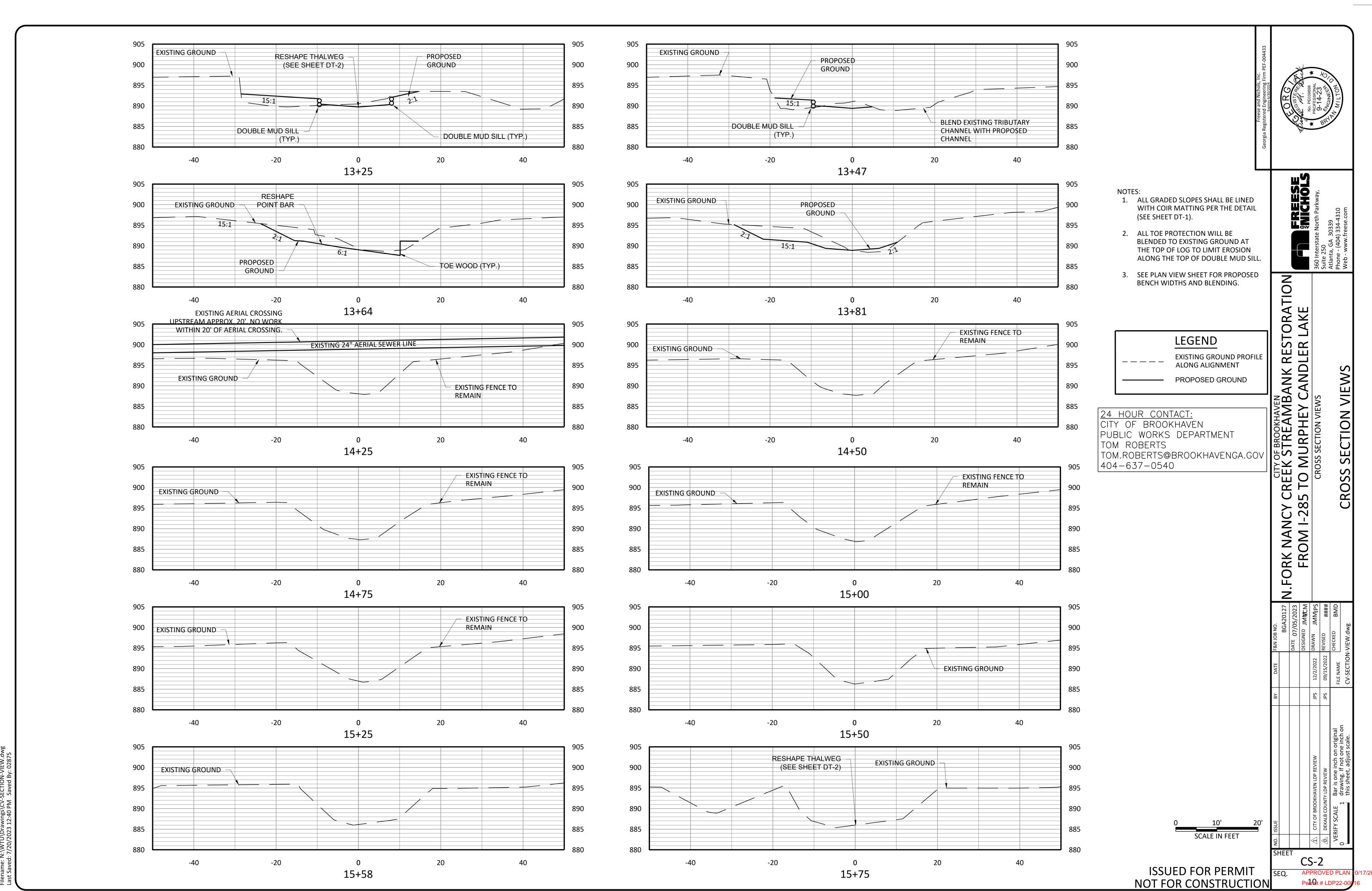
NOTES: 1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. 2. WETLANDS TO BE RESTORED WITH NATIVE PLANTINGS AND ANY TEMPORARY FILLS REMOVED TO RE-ESTABLISH WETLAND ELEVATIONS TO PRE-CONSTRUCTION CONTOURS, SEE PLANTING PLAN FOR MORE DETAILS. MURPHEY CANDLER PARK 3. THE CONTRACTOR SHALL LINE THE LOD WITH TREE (CITY OF BROOKHAVEN) PROTECTION FENCE TO PREVENT THE UNNECESSARY REMOVAL OF VEGETATION. STA 22+04 4. ALL TEMPORARY STREAM CROSSINGS REQUIRE PLANS FOR END TOE WOOD CONSTRUCTION, REMOVAL AND RESTORATION PER DT-6. PROPOSED TOP OF BANK (TYP) KEY IN AND BLEND TO EXISTING STA 25+02 LIMITS OF DISTURBANCE END DOUBLE MUD SILL STA 22+85 BEGIN TOE WOOD. BEGIN DOUBLE MUD SILL **LEGEND** ANGLED/NOTCHED LOG PROPOSED STREAM ALIGNMENT SILL, TYP. SEE SHEET DT-1 MÂŢĊ LOG GRADE CONTROL VANE 12' TEMPORARY 12 TEMPORARY 12' TEMPORARY HAUL ROAD HAUL ROAD ANGLED ROCK SILL TORATION LAKE STEP PLUNGE POOL 25+00 24+00 ANGLED/NOTCHED LOG SILL EAMBANK REST HEY CANDLER I SURVEYED TREES (REFER TO APPENDED TREE PLAN) LOG GRADE CONTROL VANE, TYP. ANGLED/NOTCHED LOG MURPHEY SEE SHEET DT-1 AN ST SILL, TYP. SEE SHEET DT-1 LOD STA 23+71 TRE END DOUBLE STA 24+14.57 DOUBLE MUD SILL STEP PLUNGE POOL, TYP MUD SILL KEY IN AND SEE SHEET DT-3 STA 22+14 BLEND TO EXISTING R 0 TIE IN HEADER ROCK END TOE WOOD. 24 HOUR CONTACT: **EXISTING WETLANDS** OO ELEV 888.0' **BEGIN DOUBLE** APPROXIMATE CITY OF BROOKHAVEN BLEND TO EXISTING REE **MUD SILL** GRADING LIMITS PUBLIC WORKS DEPARTMENT CHANNEL BOTTOM **PROPOSED** TOM ROBERTS **GRADING LIMITS** TOM.ROBERTS@BROOKHAVENGA.GOV ∞ 404-637-0540 づる N.FORK NANC FROM I-, STREAM ALIGNMENT PROPOSED TOP OF BANK 900 STA. = 23+29 __STA. = 23+73 __STA. = 25+61 __STA. = 24+46 ←STA. = 25+30 ANGLED/NOTCHED LOG SILL - ANGLED/NOTCHED LOG SILL-- ANGLED/NOTCHED LOG SILL LIMITS OF DISTURBANCE ANGLED/NOTCHED LOG SILL EL. = 886.2 −EL. = 885.8 −EL. = 885.5 −EL. = 886.1 EL. = 885.9 TEMPORARY EASEMENT −STA. = 22+18 ANGLED/NOTCHED LOG SILL _STA. = 22+79 EXISTING MINOR −EL. = 886.0 LOG GRADE CONTROL VANE - ANGLED/NOTCHED LOG SILL -CONTOURS EL. = 886.0 _EL. = 885.8 **EXISTING MAJOR** CONTOURS PROPERTY BOUNDARY — STAGE AND STOCKPILE AREA ACAD Rel: 24.1s (LMS Tech) Filename: N:\WTU\Drawings\CV-PP-SHTS1 Last Saved: 8/28/2023 2:57 PM Saved By: SCALE IN FEET VERTICAL 26+00 23+00 24+00 25+00 C-4 **ISSUED FOR PERMIT** NOT FOR CONSTRUCTION Plot Date: 9/14/2023 7:35 AM Plot By: 02875 Filename: N:\WTU\Drawings\CV-PP-SHTS1.dwg

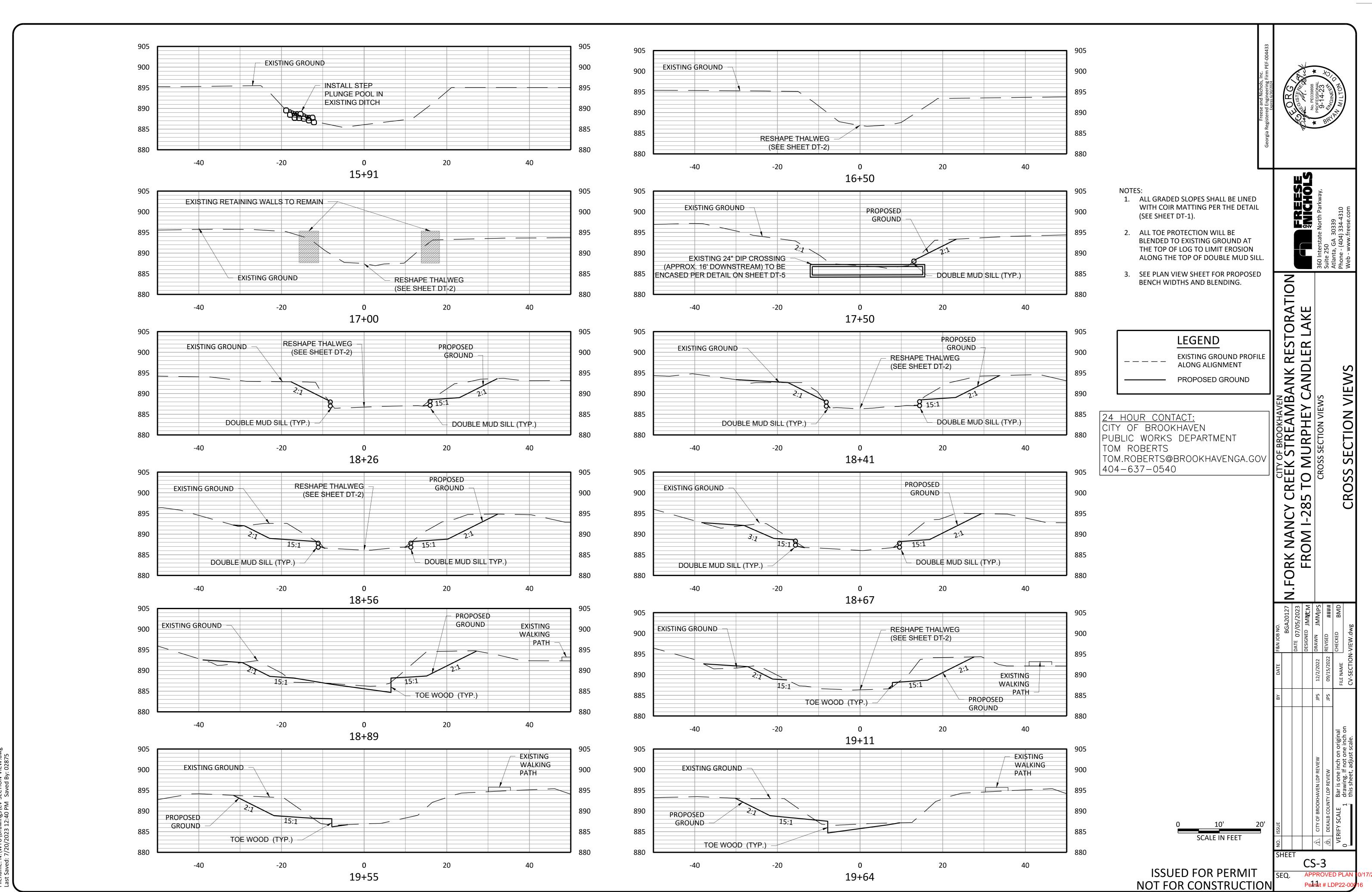


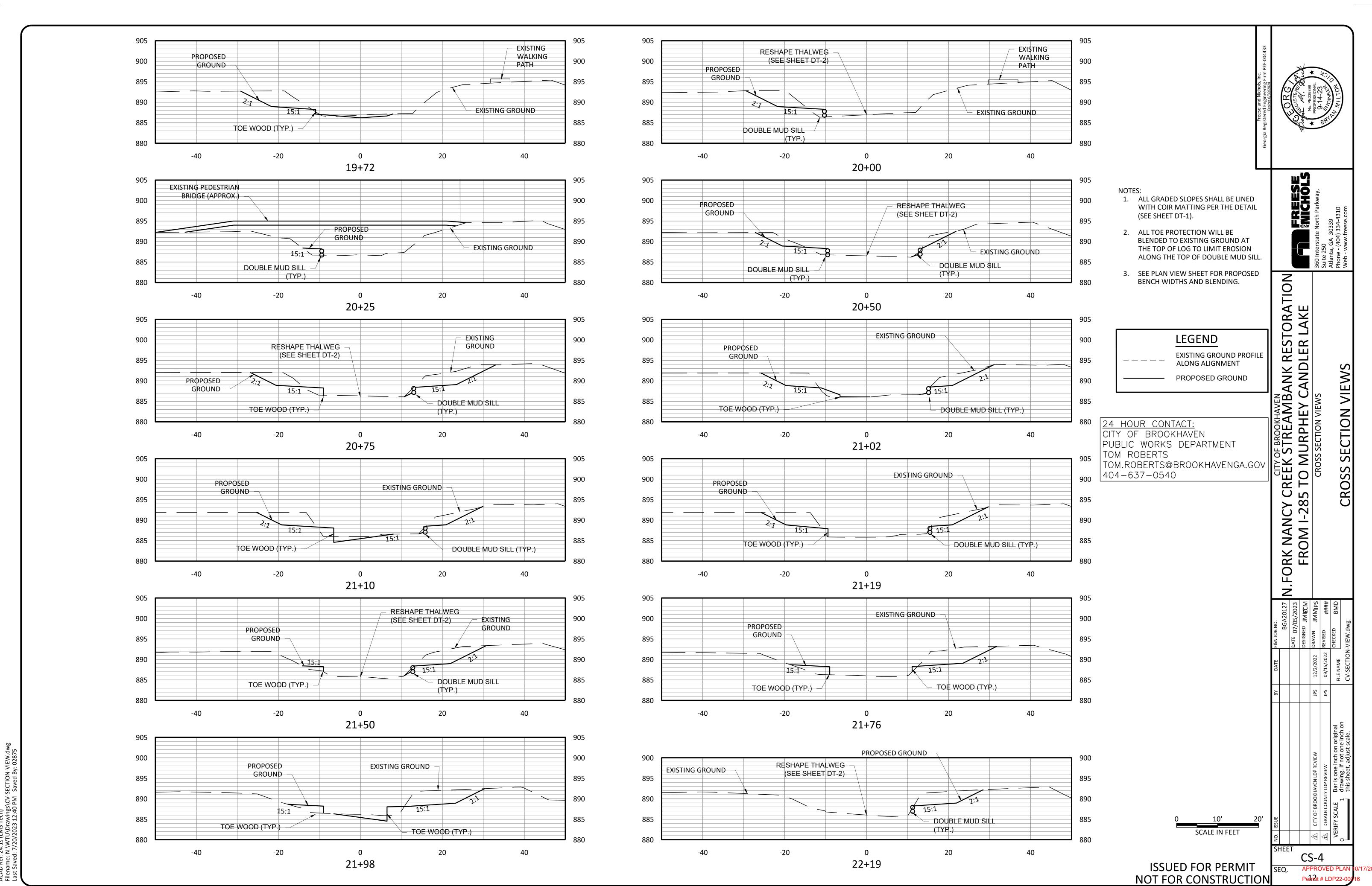
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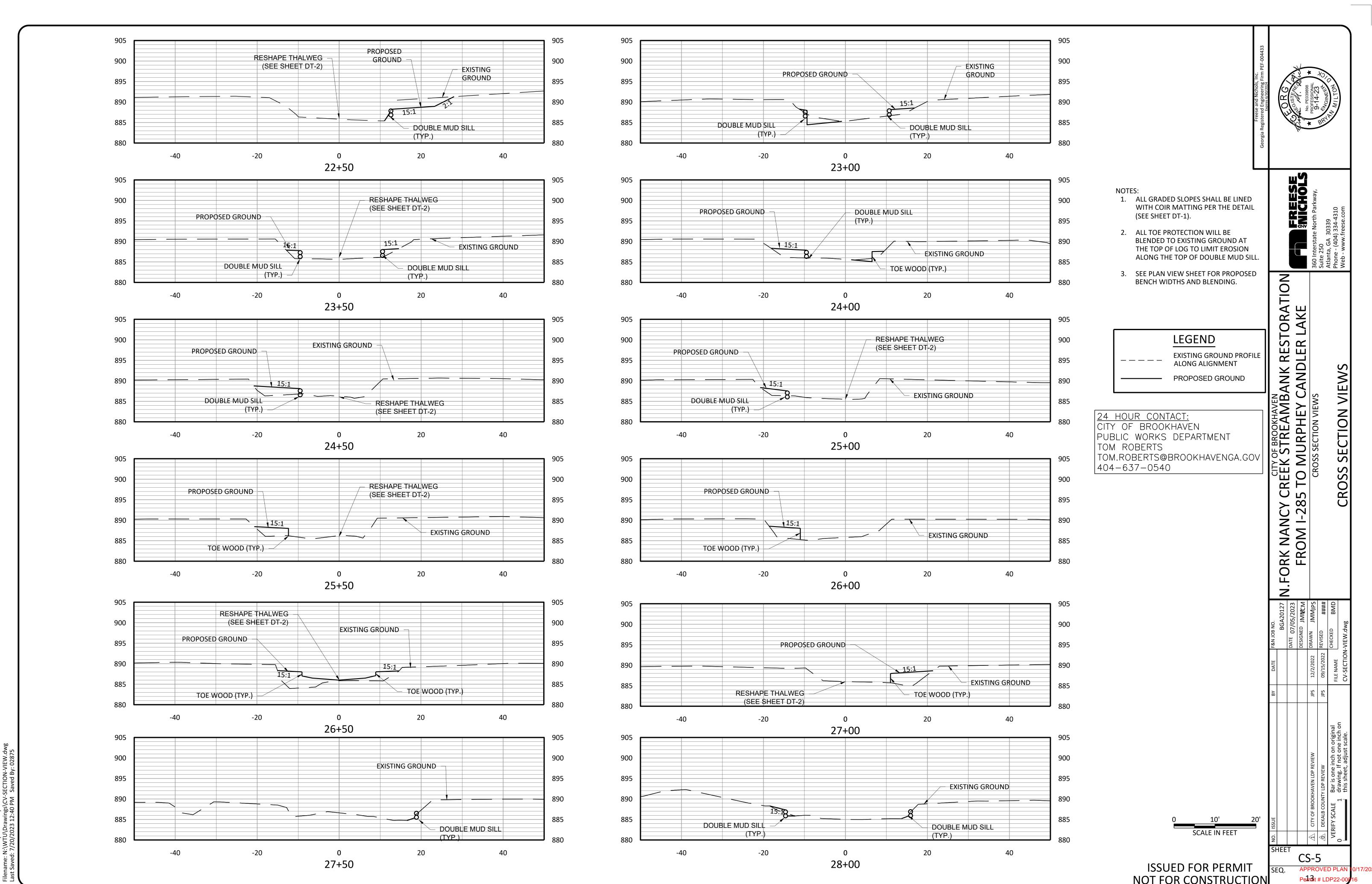
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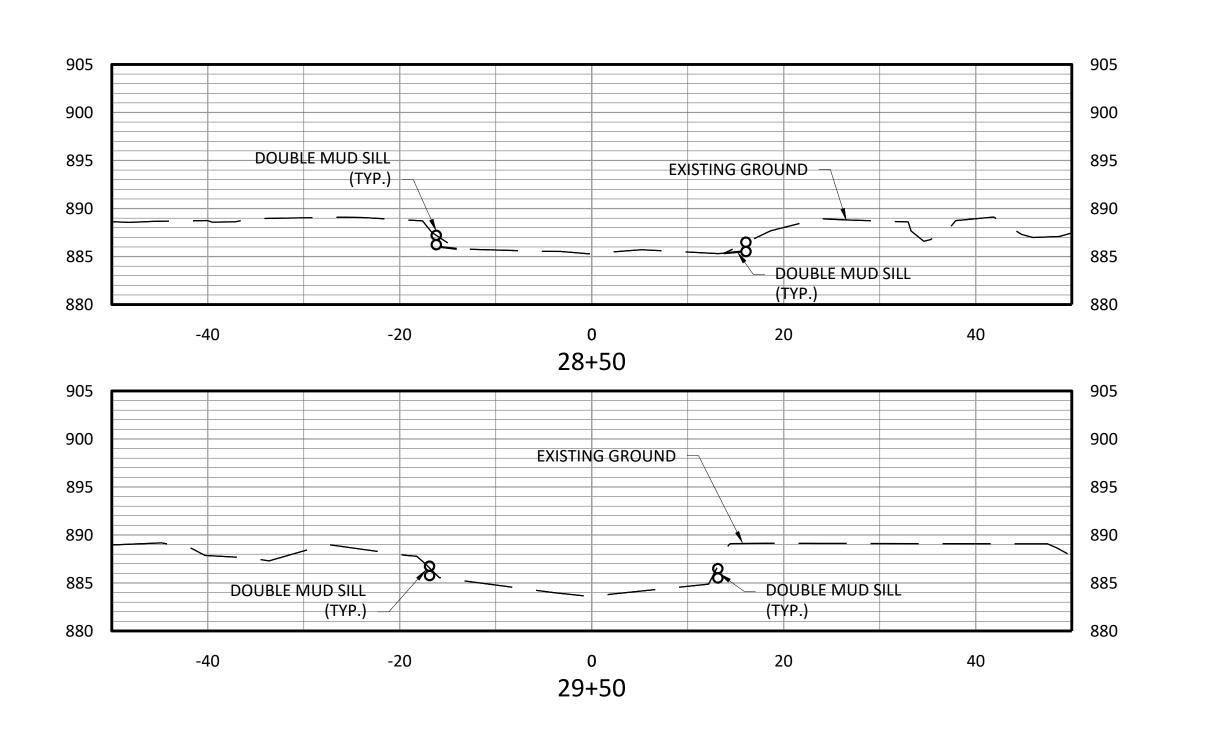


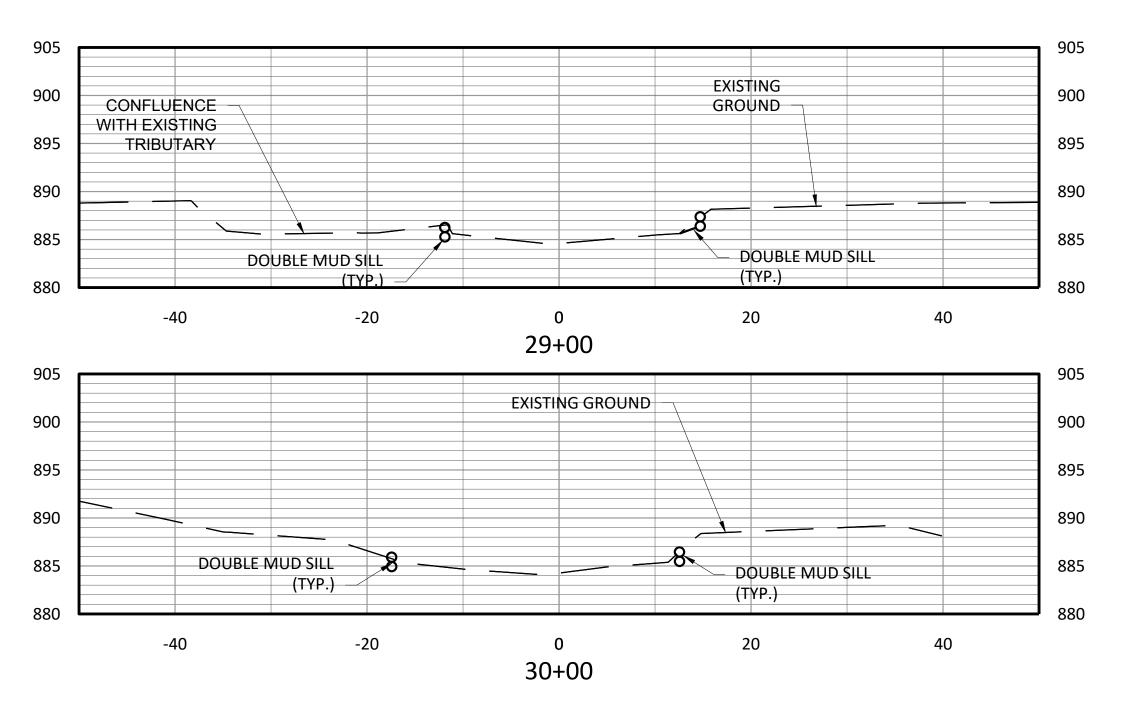






NOT FOR CONSTRUCTION





FREESE

NOTES:

1. ALL GRADED SLOPES SHALL BE LINED WITH COIR MATTING PER THE DETAIL (SEE SHEET DT-1).

2. ALL TOE PROTECTION WILL BE BLENDED TO EXISTING GROUND AT THE TOP OF LOG TO LIMIT EROSION ALONG THE TOP OF DOUBLE MUD SILL.

3. SEE PLAN VIEW SHEET FOR PROPOSED BENCH WIDTHS AND BLENDING.

LEGEND

EXISTING GROUND PROFILE ALONG ALIGNMENT PROPOSED GROUND

24 HOUR CONTACT: CITY OF BROOKHAVEN PUBLIC WORKS DEPARTMENT TOM ROBERTS TOM.ROBERTS@BROOKHAVENGA.GOV 404-637-0540

N.FORK NANCY CREEK STREAMBANK RESTORATION
FROM I-285 TO MURPHEY CANDLER LAKE
CROSS SECTION VIEWS

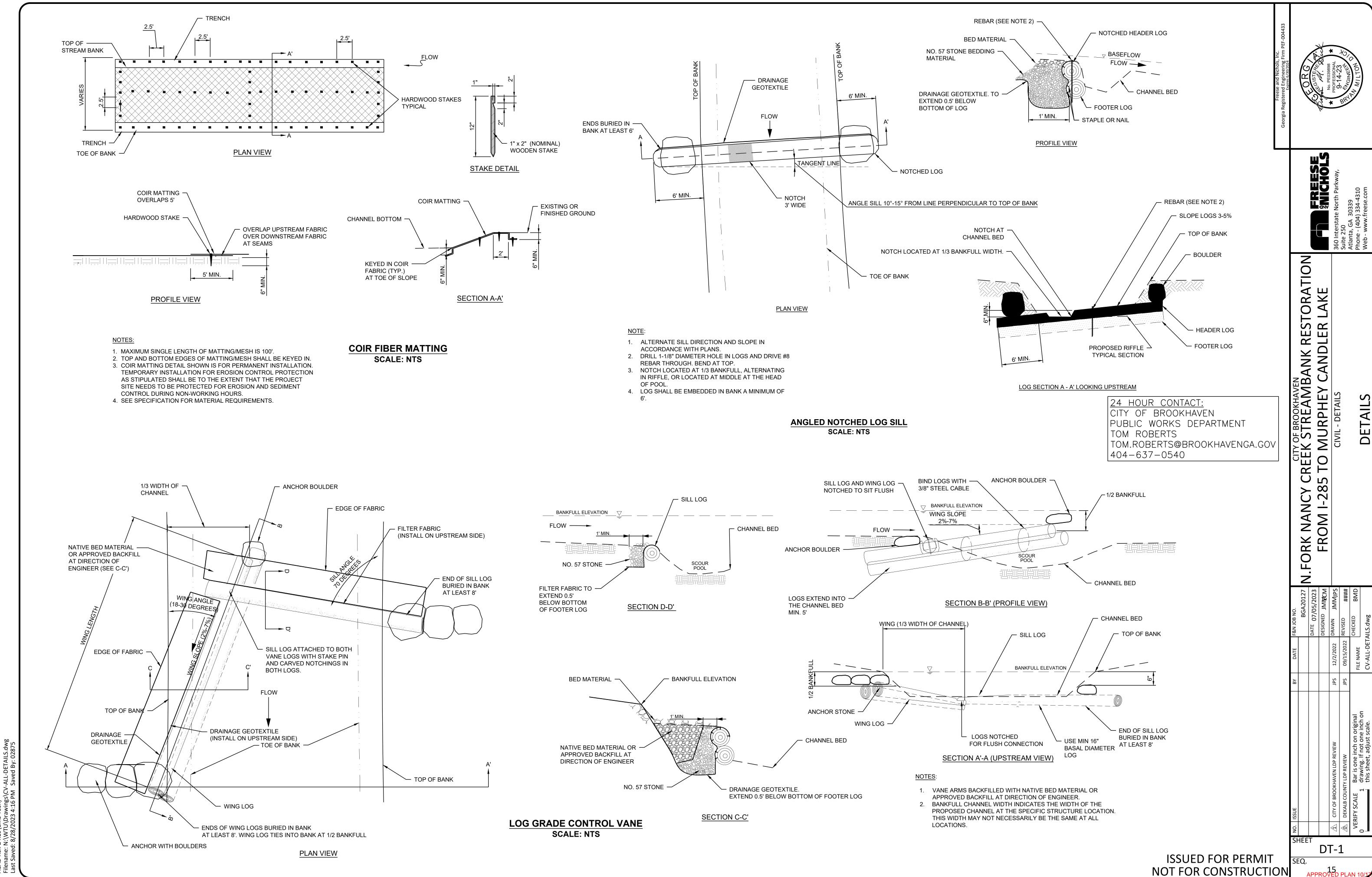
SECTION VIEWS

CROSS

CS-6

ISSUED FOR PERMIT NOT FOR CONSTRUCTION

SCALE IN FEET



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Permit # LDP22-00016

END.

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RES-

APPROACH TO BE APPLIED FOR STREAMBANKS WHERE

ROCK TOE PROTECTION, STACKED ROCK WALL, OR MUD

APPROACH TO BE APPLIED WHERE TOE WOOD IS USED TO CREATE A BENCH WITH GRADING OR GEOBAG WALL ON THE

TREATMENT ON PARTS OF THE EXISTING STREAMBANKS

(UPPER BANK, LOWER BANK OR BOTH) THEN EXISTING

VEGETATION IS TO REMAIN UNDISTURBED.

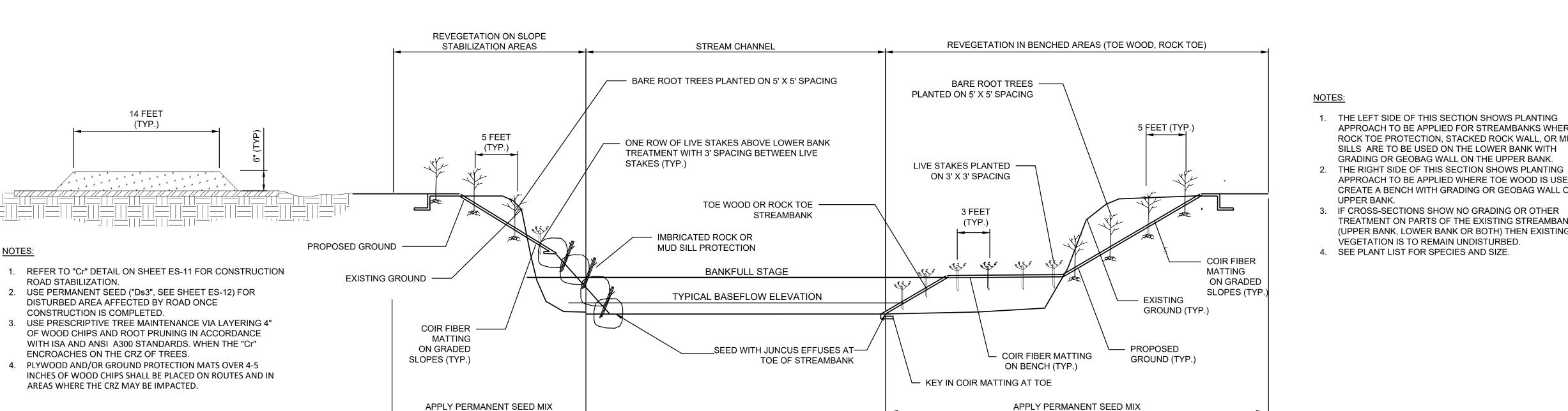
SILLS ARE TO BE USED ON THE LOWER BANK WITH

GRADING OR GEOBAG WALL ON THE UPPER BANK.

UPPER BANK.

24 HOUR CONTACT: CITY OF BROOKHAVEN PUBLIC WORKS DEPARTMENT TOM ROBERTS TOM.ROBERTS@BROOKHAVENGA.GOV 404-637-0540

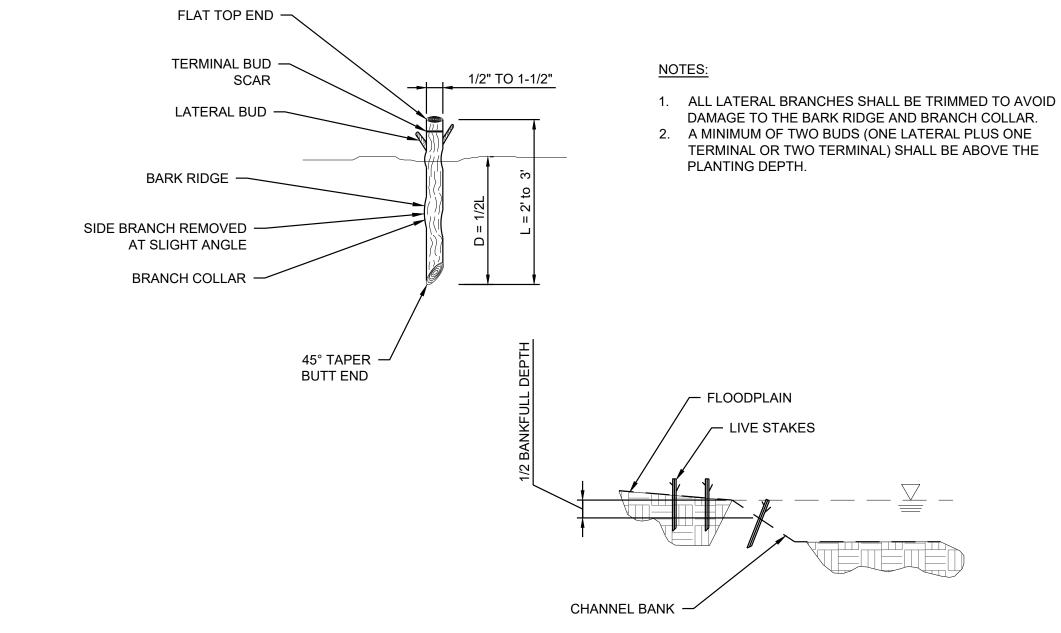
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REVEGETATION TYPICAL SECTION SCALE: NTS

	Scientific Name	Common Name	Quantity	Remarks
	Acer rubrum	Red maple	109	
	Platanus occidentalis	American sycamore	218	
BARE ROOT	Quercus pagoda	Cherry Bark oak	109	Bare root 1/0 seedlings
TREES	Liriodendron tulipifera	Yellow poplar	109	placed on 5-ft centers,
	Fagus grandifolia	American beech	109	alternating plants between rows and species randomly
	Betula nigra	River birch	73	distributed.
BARE ROOT	Hamamelis virginiana	Witch hazel	363	
SHRUBS	Lindera benzoin	Spice bush	363	
	Alnus serrulata	Tag alder	242	Stakes placed on 3' centers alternating stakes between
LIVE STAKES	Salix sericea	Silky willow	242	rows and with species randomly distributed. One row of live stakes planted
	Cornus amomum	Silky dogwood	242	above staked rock wall and rock toe protection, with stakes spaced 3' apart,
PERMANENT	Mellow Marsh Farms Piedmont Sh	ade Mix or Equivalent		A 1 105 II /
SEEDING	Manually apply seed of Juncus effu	ses at toe of streambed in are	as of bank treatmen	Apply at 25 lbs/acre
TEMPORARY	Summer: Brown-top millet			Apply at 50 lbs/acre to all
SEEDING	Winter: Wrens-abruzzi winter rye or Winter	er Wheat		disturbed areas

PLANT LIST



LIVE STAKE SCALE: NTS

NOTES:

UTILIZE JUNCUS EFFUSES MORE HEAVILY IN AREAS AROUND PEDESTRIAN

2. SOIL TESTS SHALL BE CONDUCTED TO DETERMINE FERTILIZER NEEDS.

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14 FEET

(TYP.)

NOTES:

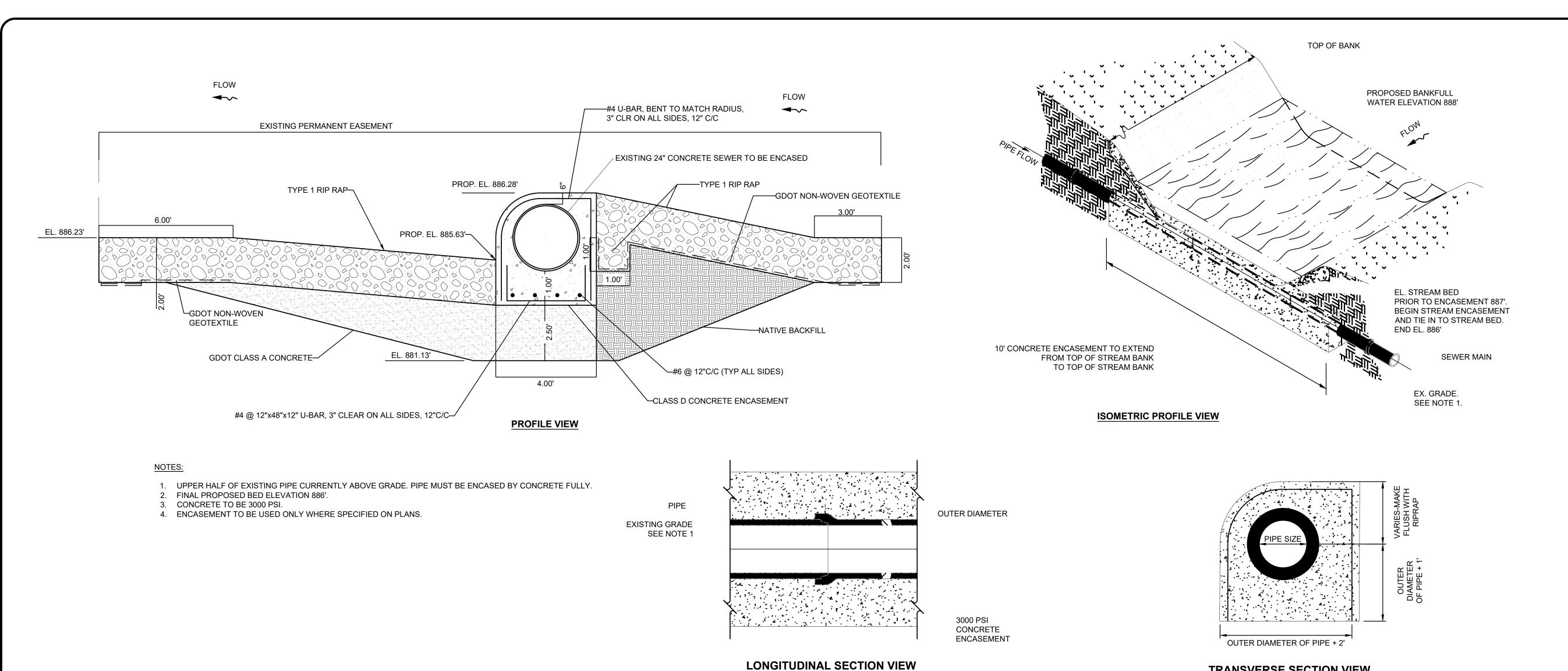
ROAD STABILIZATION.

CONSTRUCTION IS COMPLETED.

ENCROACHES ON THE CRZ OF TREES.

AREAS WHERE THE CRZ MAY BE IMPACTED.

DT-4



CONCRETE SEWER ENCASEMENT SCALE: NTS

TRANSVERSE SECTION VIEW

ROCK PLACEMENT NOTES:

- 1. PLACE ROCK MATERIAL IN SUCH MANNER AS TO PRODUCE A REASONABLY WELL-GRADED MASS OF ROCK WITH THE MINIMUM PRACTICABLE PERCENTAGE OF VOIDS.
- 2. A TOLERANCE OF PLUS 6 OR MINUS 0 INCHES FROM THE SLOPE LINES AND GRADES SHOWN ON THE PLANS SHALL BE ALLOWED IN THE FINISHED SURFACE OF THE ROCK.
- 3. PLACE ROCK MATERIAL TO ITS FULL COURSE THICKNESS AT ONE OPERATION.
- 4. DISTRIBUTE THE LARGER STONES EVENLY AND CONFORM THE ENTIRE MASS OF STONES IN THEIR FINAL POSITION TO THE SPECIFIED GRADATION.
- 5. FINISHED ROCK MATERIAL SHALL BE FREE FROM OBJECTIONABLE POCKETS OF SMALL STONES AND CLUSTERS OF LARGER STONES.
- 6. PLACING ROCK MATERIAL IN LAYERS SHALL NOT BE PERMITTED.
- 7. PLACING MATERIAL BY DUMPING FROM TOP OF SLOPE, DUMPING INTO CHUTES, OR BY SIMILAR METHODS LIKELY TO CAUSE SEGREGATION OF THE VARIOUS SIZES SHALL NOT BE PERMITTED.
- 8. THE DESIRED DISTRIBUTION OF THE VARIOUS SIZES OF STONES THROUGHOUT THE MASS SHALL BE OBTAINED BY METHODS OF PLACEMENT WHICH PRODUCES THE SPECIFIED RESULTS.
- 9. REARRANGE INDIVIDUAL STONES BY MECHANICAL EQUIPMENT OR BY HAND TO THE EXTENT NECESSARY TO OBTAIN A REASONABLY WELL GRADED DISTRIBUTION OF STONE SIZES.
- 10. MAINTAIN THE MATERIAL PROTECTION UNTIL ACCEPTED AND REPLACE ANY MATERIAL DISPLACED DURING CONSTRUCTION.
- 11. NON-WOVEN GEOTEXTILE AND CONCRETE ITEMS SHALL MEET GDOT SPECIFICATIONS

NO. ISSUE

CITY OF BROOKHAVEN LDP REVIEW

DEKALB COUNTY LDP REVIEW

O DEKALB COUNTY LDP REVIEW

VERIFY SCALE Bar is one inch on original

O 1 drawing. If not one inch on this sheet, adjust scale.

CV-A

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ORATION LAKE

CREE

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Z J

ISSUED FOR PERMIT NOT FOR CONSTRUCTION

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Filename: N:\WTU\Drawings\(C)\CONTACT:
CITY OF BROOKHAVEN
PUBLIC WORKS DEPARTMENT
TOM ROBERTS
TOM.ROBERTS@BROOKHAVENGA.GOV
404-637-0540

Plot Date: 9/14/2023 7:37 AM Plot By: 02875 Filename: N:\WTU\Drawings\CV-ALL-DETAILS.dwg

- 1. EXACT LOCATION TO BE DETERMINED BY ENGINEER IN FIELD. ONLY ONE
- CROSSING LOCATION TO BE INSTALLED AT A TIME.

 2. SPANS TO BE REMOVED PRIOR TO HIGH WATER FLOWS OR INCLEMENT WEATHER. SPANS WILL BE REMOVED FROM FLOODPLAIN OR ANCHORED
- TO PREVENT FLOTATION.

 3. IF STEEL OR LOG SPANS ARE TO REMAIN DURING INCREMENT WEATHER, THEN THEY ARE TO BE ANCHORED AT ONE END WITH A STEEL CABLE OR CHAIN, LANGE METHODERS, OR DRIVEN STEEL ANCHORS IN
- ACCORDANCE WITH GSWCC REQUIREMENTS.
 4. ALL STREAM CROSSINGS TO BE SIZED TO SPAN ENTIRE WIDTH OF STREAM AND PROVIDE MINIMUM OVERHANG WIDTH TO MEET ALL GSWCC REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE CROSSING IS ADEQUATELY INSTALLED AND MAINTAINED PER GSWCC
- STANDARDS. DRAINAGE AREA = 1190 ACRES. AVG. WATERSHED SLOPE = 9.89%
- EST. STREAMFLOW AT BANKFULL

- CLASS B RIPRAP

AROUND FOUNDATION

- UNNAMED TRIB TO NFNC = 165 CFS. (HAUL ROAD JUST U/S OF TRASH RACK ON UNNAMED TRIB)
- UNNAMED TRIB TO NFNC = 382 CFS (HAUL ROAD JUST UPSTREAM OF
- CONFLUENCE WITH UNNAMED TRIB)
- NORTH FORK NANCY CREEK = 1410 CFS (AT TRASH RACK ON MAIN 32' X 5' (MIN. 2) - CLASS A STEEL BRIDGE MATS ROAD BED 100,000 LB CAPACITY **BOTH SIDES** 32' REMOVABLE 22' MAX

CLASS B RIPRAP -

MATS

AROUND FOUNDATION

STREAM CROSSING - PROFILE VIEW

RIP RAP RIP RAP 1H:1V 1H:1V 32' X 5' (MIN. 2) STEEL BRIDGE MATS 100,000 LB CAPACITY 32' REMOVABLE STEEL BRIDGE MATS 100,000 LB CAPACITY 32' REMOVABLE 32' X 5' (MIN. 2) RIP RAP 1H:1V STEEL BRIDGE MATS 100,000 LB CAPACITY 32' REMOVABLE

STREAM CROSSING - PLAN VIEW

FILTER FABRIC

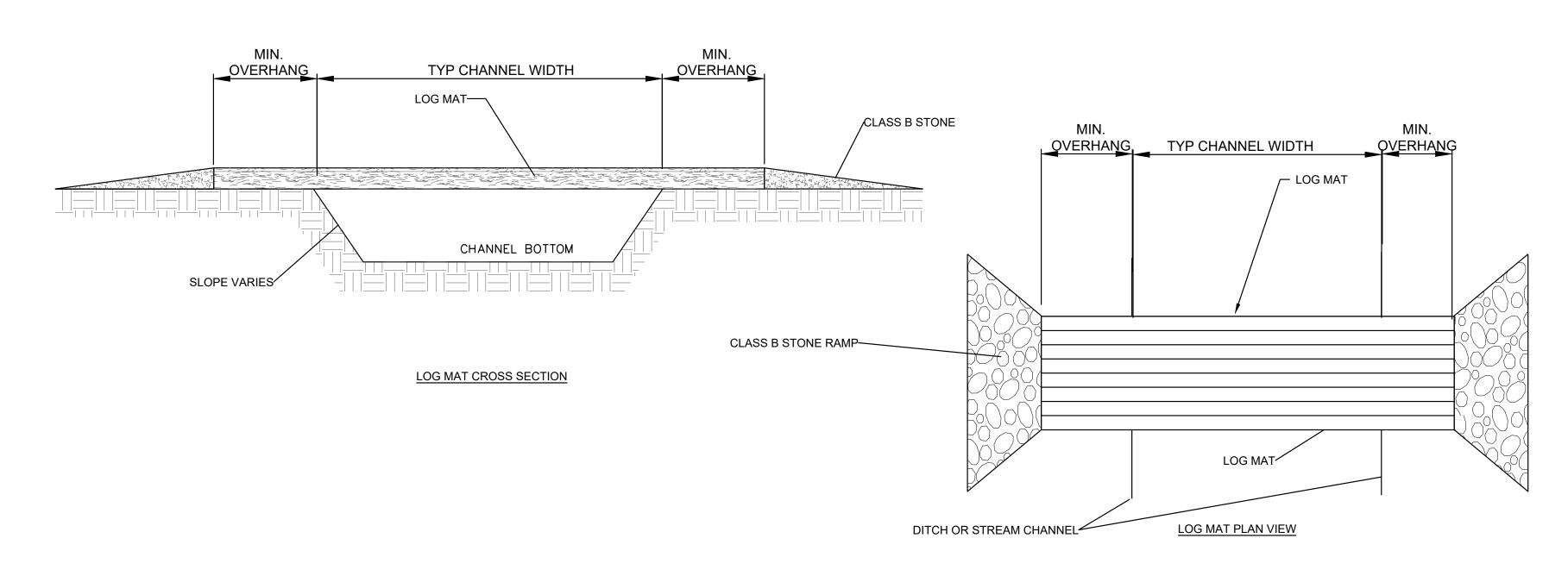
8' X 20' OAK MATS -

(MIN. 1)

- CONSTRUCT STREAM CROSSING WHEN FLOW IS LOW.
- 2. HAVE ALL NECESSARY MATERIALS AND EQUIPMENT ON-SITE BEFORE WORK BEGINS.
- MINIMIZE CLEARING AND EXCAVATION OF STREAMBANKS. DO NOT EXCAVATE CHANNEL BOTTOM.
- 4. LINE STREAMBANK AND ACCESS RAMP AREA WITH NON-WOVEN FILTER FABRIC.
- INSTALL STREAM CROSSING AT RIGHT ANGLE TO THE FLOW. THE CROSSING SHALL ALLOW FLOW TO ENTER THE CHANNEL UNIMPEDED.
- 6. MAINTAIN CROSSING SO THAT RUNOFF IN THE CONSTRUCTION ROAD DOES NOT ENTER EXISTING CHANNEL BY INSTALLING SILT FENCE ON ALL FOUR CORNERS ADJACENT TO THE STREAM. SEE SILT FENCE DETAIL.
- 7. STABILIZE AN ACCESS RAMP OF CLASS B STONE TO THE EDGE OF THE MUD MAT.
- THE LOG MAT SHALL BE OF SUFFICIENT SIZE AND WIDTH TO SUPPORT THE LARGEST VEHICLE CROSSING THE CHANNEL.
- 9. CONTRACTOR SHALL DETERMINE AN APPROPRIATE RAMP ANGLE ACCORDING TO EQUIPMENT UTILIZED, RECOMMENDED AT A 5:1 SLOPE.
- 10. FOR REMOVAL OF TEMPORARY IMPACTS, THE FOLLOWING SEQUENCING SHOULD BE
- IN ALL FORESTED WETLANDS, CLEARING WILL BE DONE BY HAND & GRUBBING WILL OCCUR AS NEEDED TO INSTALL TEMPORARY HAUL ROADS.
- IMPACTS AT STREAM CROSSING LOCATIONS WILL BE MINIMIZED BY USE OF APPROPRIATE EROSION CONTROL & FLOW DIVERSION MEASURES DURING CONSTRUCTION.
- DIRECT IMPACTS FROM CONSTRUCTION TO THESE FEATURES WILL BE TEMPORARY, & ANY IMPACTED AREAS WILL BE RESTORED TO ORIGINAL GRADE & STABILIZED FOLLOWING CONSTRUCTION. THE CONTRACTOR SHALL LINE THE LOD WITH TREE PROTECTION FENCE TO PREVENT THE UNNECESSARY REMOVAL OF VEGETATION.
- PRIOR TO EXCAVATING IN JURISDICTIONAL STREAMS, RIP-RAP COFFERDAMS WILL BE INSTALLED UPSTREAM & DOWNSTREAM OF THE EXCAVATION AREA TO ISOLATE THE DISTURBED AREA AND CONTAIN SEDIMENT. STREAM FLOW ON THE UPSTREAM SIDE OF THE EXCAVATION WILL BE POOLED ABOVE THE COFFERDAM AND PUMPED AROUND THE EXCAVATION AREA. THE PUMPED WATER WILL BE DISCHARGED ON THE DOWNSTREAM SIDE OF THE EXCAVATION BELOW THE LOWER COFFERDAM THROUGH SEDIMENT BAGS TO FILTER THE DISCHARGE WATER OF SEDIMENT BEFORE ALLOWING THE WATER TO BE RETURNED TO THE STREAM CHANNEL. A COFFERDAM (I.E. IMPERVIOUS DIKE) AND BYPASS PUMP DETAIL IS ATTACHED IN THE DESIGN PLANS ON SHEET ES-13.
- ALL MATERIAL TEMPORARILY SIDE CAST INTO WETLAND AREAS WILL BE PLACED ON FILTER **FABRIC**
- HAUL ROADS AND OTHER TEMPORARY WORK AREAS WILL BE BACKFILLED AND PROPERLY COMPACTED TO THE ORIGINAL (PRE-CONSTRUCTION) GROUND ELEVATION, AND THE RE-ESTABLISHED GRADE WILL BE STABILIZED WITH A SEED MIX MADE UP OF NATIVE SPECIES APPROPRIATE FOR RESTORATION & STABILIZATION OF WETLAND & UPLAND SOILS.
- TEMPORARY EROSION SEED MIXES WILL ALSO BE USED TO STABILIZE DISTURBED AREAS WITHIN THE REQUIRED STABILIZATION TIME FRAMES. SPECIFICS ABOUT THIS SEED MIX IS INCLUDED IN SPECIFICATION SECTION 6.01 "PERMANENT AND TEMPORARY SEEDING".
- AT COMPLETION OF STREAM CONSTRUCTION ACTIVITIES, ANY GRAVEL AND FILTER MEDIA ON TEMPORARY HAUL ROADS SHALL BE REMOVED AND THE SOILS RIPPED/LOOSENED TO THE DEPTH OF THE COMPACTED LAYER (MINIMUM OF 6-INCHES). AVOID RIPPING IN AREAS THAT HAVE BURIED UTILITIES, WIRES, PIPES, CULVERTS, OR DIVERSION CHANNELS.

TEMPORARY STREAM CROSSING (Sr-B) SCALE: NTS

· FILTER FABRIC



LOG MAT- TEMPORARY STREAM CROSSING (Sr-B) **SCALE: NTS**

24 HOUR CONTACT: CITY OF BROOKHAVEN PUBLIC WORKS DEPARTMENT TOM ROBERTS TOM.ROBERTS@BROOKHAVENGA.GOV 404-637-0540

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EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST **INFRASTRUCTURE CONSTRUCTION PROJECTS** N Fork Nancy Creek Stream Restoration from Hwy I-285 to Murphey Candler Lake Address: 4251 Long Branch Ct. Brookhaven, GA City/County: Brookhaven/Dekalb County, GA **Date on Plans:** September 2023 Name & email of person filling out checklist: John Schneider (john.schneider@freese.com) Included TO BE SHOWN ON ES&PC PLAN | ES-1 | 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) | ES-1 | 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) 3 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls. COVER Y 4 Provide the name, address, email address, and phone number of primary permittee. ES-1 Y 5 Note total and disturbed acreages of the project or phase under construction. ES-1 | Y 6 Provide the GPS locations of the beginning and end of the Infrastructure project. Give the Latitude and Longitude in ALL Y 7 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions. | ES-1 | Y | 8 Descriptions of the nature of construction activity and existing site conditions. COVER Y 9 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary. 10 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected. ES-1 Y 11 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 21 of the permit. 12 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 20 of the permit. ES-1 Y 13 Design professional certification statement and signature that the permittee's ES&PC Plan provides for representative sampling as stated on Part IV.D.6.c.(3) page 37 of the permit as applicable. * 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, perimeter control BMPs, and sediment basins within 7 days after installation." in accordance with Part IV.A.5 page 26 of the permit. * 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." 16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required. | ES-2 | 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." * ES-1 Y 18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." * 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." 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." ES-1 Y 21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch ES-12 Y 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. * ES-1 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 NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. ES-1 Y 24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. ES-1 Y 25 Provide BMPs for the remediation of all petroleum spills and leaks. 26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. ES-1 | Y | 27 Description of practices to provide cover for building materials and building products on site. * 28 Description of the practices that will be used to reduce the pollutants in storm water discharges. * ES-1 Y ES-1 | Y | 29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization). ES-1 Y 30 Provide complete requirements of Inspections and record keeping by the primary permittee. * 31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. * ES-2 Υ 32 Provide complete details for Retention of Records as per Part IV.F. of the permit. ES-2 33 Description of analytical methods to be used to collect and analyze the samples from each location. ES-2 Υ ES-2 34 Appendix B rationale for NTU values at all outfall sampling points where applicable. * Υ ES-2 Y 35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable. * | ES-1 | Y | 36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. * ALL Y 37 Graphic scale and North arrow. 38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: Υ Existing Contours USGS 1": 2000' Topographical Sheets Proposed Contours 1": 400' Centerline Profile N/A N/A 39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov. N/A N/A 40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. * ALL Y 41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.

42 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site. ES-2 43 Delineation and acreage of contributing drainage basins on the project site. 44 Delineate on-site drainage and off-site watersheds using USGS 1":2000' topographical sheets. 45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are ES-2 N/A 46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion.

Identify/Delineate all storm water discharge points.

47 Soil series for the project site and their delineation. 48 The limits of disturbance for each phase of construction. 1 Y | 49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from

51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in

- the surface are not feasible, a written justification explaining this decision must be included in the Plan. 50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
 - the Manual for Erosion and Sediment Control in Georgia. 52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.
 - * If using this checklist for a project that is less than 1 acre and not part of a common development

but within 200 ft of a perennial stream, the * checklist items would be N/A.

Effective January 1, 2023

EROSION CONTROL CERTIFICATION

ES-11

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

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. GAR 100002.

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) 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 (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILITIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR1000002, THAT THE INCREASE IN THE TURBIDITY OF EACH IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER.

JOHN P. SCHNEIDER, P.E. LEVEL II CERTIFIED DESIGN PROFESSIONAL NO. 0000094149

GSWCC JOHN P. SCHNEIDER Level II Certified Design Professional ERTIFICATION NUMBER ___ ISSUED: 04/27/2021 EXPIRES: 04/27/2024_

ES&PC PLAN GENERAL NOTES

- 1. THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 4.3 ACRES. THIS SITE IS LOCATED AT 33.9190, -84.3281.
- 2. THE CONSTRUCTION ENTRANCES/EXITS FOR THE SITE, AS WELL AS LATITUDE AND LONGITUDE COORDINATES. ARE SHOWN ON THE PLAN SHEETS.
- 3. THIS CONSTRUCTION ACTIVITY INVOLVES RESTORATION OF THE STREAM BETWEEN I-285 AND MURPHEY CANDLER LAKE. THIS WORK INCLUDES INSTALLATION OF TOE PROTECTION AND VARIOUS IN-CHANNEL STRUCTURES THAT WILL HELP IMPROVE AQUATIC HABITAT, REDUCE IN-CHANNEL EROSION, AND IMPROVE WATER QUALITY. THE PROJECT IS LOCATED UPSTREAM OF MURPHEY CANDLER LAKE. THE PROJECT'S RECEIVING WATERS ARE NORTH FORK NANCY CREEK. THE CONFLUENCE WITH MURPHEY CANDLER LAKE IS LOCATED IMMEDIATELY DOWNSTREAM OF THE PROJECT AREA. NO ADDITIONAL SENSITIVE ADJACENT AREAS ARE KNOWN TO EXIST.
- 4. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE PERIMETER BMPS WITHIN 7-DAYS AFTER INSTALLATION.
- 5. THE PERMITEE'S ES&PC PLAN PROVIDES FOR REPRESENTATIVE SAMPLING, AS STATED IN PART IV.D.6.c (PAGE 37) OF THE PERMIT AS APPLICABLE.
- 6. NON-EXEMPT ACTIVITES 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.**
- 7. A BUFFER VARIANCE IS REQUIRED DUE TO THE NATURE OF THE PROJECT BEING STREAM RESTORATION. THIS PROJECT IMPACTS THE 25' STATE BUFFER THEREFORE A STATE STREAM BUFFER VARIANCE IS REQUIRED FROM EPD. HOWEVER, A STREAM BUFFER VARIANCE IS NOT REQUIRED FROM THE CITY DUE TO THE NATURE OF THE PROJECT BEING STREAM RESTORATION.
- 8. WASTE MATERIALS, INCLUDING SOLID AND BUILDING MATERIALS, SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO ANY DISTURBING **ACTIVITIES.**

- 10. 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.
- 11. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABLIZED WITH MULCH OR TEMPORARY SEEDING.
- 12. PERMANENT VEGETATION SHALL BE PLANTED IF THE AREA IS TO BE LEFT UNDISTURBED FOR GREATER THAN 6 MONTHS.
- 13. MEASURES TO BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED INCLUDE STREAM BUFFER PRESERVATION AND PLANTING AND STABILIZATION OF STEEP SLOPES AS NEEDED.
- 14. SEVEN (7) TYPES OF EROSION CONTROL MEASURES WILL BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT TO REDUCE THE POLLUTANTS IN STORMWATER DISCHARGES.
- SILT FENCE TYPE NON-SENSITIVE (SD1-NS) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM ESCAPING THE SITE.
- MULCHING, TEMPORARY AND PERMANENT GRASSING (DS1, DS2 & DS3) SHALL BE USED TO RE-ESTABLISH VEGETATION ON THE DISTURBED AREAS AS CONSTRUCTION PROCEEDS.
- TWO (2) CONSTRUCTION EXITS (CO) WILL BE USED TO PREVENT SEDIMENT FROM LEAVING THE SITE VIA THE TIRES OF TRUCKS AND CONSTRUCTION EQUIPMENT. LOCATIONS ARE AT LAT: 33.9189, LONG: -84.3285 AND LAT:33.9155, LONG: -84.3249.
- TREE PROTECTION (TR) WILL BE INSTALLED TO PRESERVE EXISTING TREES TO THE MAXIMUM EXTENT PRACTICABLE.
- A SEDIMENT BAG WILL BE USED TO FILTER WATER THAT IS REMOVED FROM THE CHANNEL **DURING CONSTRUCTION**
- TURBIDITY CURTAIN (Tc) WILL BE USED TO MINIMIZE SILT MIGRATION FROM WORK OCCURRING WITHIN THE WATER.
- CONSTRUCTION ROAD STABILIZATION (Cr) WILL BE USED AS A HAUL ROAD TO PROVIDE A FIXED ROUTE OF TRAVEL FOR CONSTRUCTION TRAFFIC BETWEEN TIME OF INITIAL GRADING AND FINAL STABILIZATION.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A CONSTRUCTION SCHEDULE. A COPY OF THE CONSTRUCTION SCHEDULE SHALL BE MAINTAINED AT THE PROJECT SITE. THE MAJOR SEQUENCE OF ACTIVITIES AS THEY RELATED TO THE ES&CP ARE:
- PHASE 1 DEMOLITION AND CLEARING. THE CONTRACTOR SHALL INSTALL SILT FENCING AND TREE PROTECTION AS REQUIRED BEFORE THE START OF ANY LAND DISTURBING ACTIVITY.
- PHASE 2 GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN BMPS AS NEEDED. IF A BMP IS REMOVED DUE TO CHANGING SITE CONDITIONS, IT SHALL BE REPLACED WITH ANOTHER MEASURE TO CONTROL AND PREVENT SEDIMENT FROM LEAVING THE SITE. DUE TO THE NATURE OF THIS PROJECT BEING LINEAR, ACTIVE LAND DISTURBING ACTIVITY WILL BE LIMITED TO NO MORE THAN 1 ACRE AT ANY GIVEN TIME.
- PHASE 3 FINISH GRADING AND LANDSCAPING. ALL FACILITIES FROM PHASE 1 AND PHASE 2 WILL BE MAINTAINED AS APPROPRIATE AND REMOVED WHEN THE NEED NO LONGER EXISTS. ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE ALL ACCUMULATED SILT. REFER TO DETAIL SHEETS FOR LANDSCAPING AND PLANTING INSTALLATION REQUIREMENTS.

ACTIVITY		MO	NTH	
	1	2	3	4
INSTALLATION OF EROSION CONTROL				
MAINTENANCE OF EROSION CONTROL				
INSTALLATION OF IN STREAM STRUCTURES				
TEMPORARY AND PERMANENT PLANTING				
CLEAN-UP				

IMPAIRED STREAM SEGMENT CONSIDERATIONS

- 1. NANCY CREEK (HEADWATERS TO PEACHTREE CREEK) IN DEKALB AND FULTON COUNTIES HAS BEEN IDENTIFIED AS AN IMPAIRED STREAM NOT SUPPORTING ITS DESIGNATED USE IN THE GEORGIA 2020 305(b)/303(d) LIST DOCUMENTS (FINAL) AND HAS BEEN LISTED FOR THE CRITERIA VIOLATED, FECAL COLIFORM AND IMPAIRED FISH COMMUNITY (BIO F). THE PROPOSED PROJECT WILL HAVE NO ADVERSE IMPACTS RELATIVE TO THE POLLUTANTS OF CONCERN.
- TMDL IMPLEMENTATION PLANS FOR FECAL COLIFORM AND SEDIMENT (BIOTA IMPACTED) WERE FINALIZED IN NOVEMBER 2008 AND JANUARY 2008, RESPECTIVELY. COMPLIANCE WITH THE GEORGIA EROSION AND SEDIMENTATION ACT (GESA) WILL ENSURE THAT POLLUTANT LOADINGS FROM THE CONSTRUCTION SITE WILL BE AT OR BELOW APPLICABLE TARGETS FOR THE POLLUTANTS OF CONCERN.
- ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN BIOTA IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C. OF THE PERMIT. THE PROJECT SITE IS LOCATED ON A STREAM SEGMENT THAT IS IMPAIRED, AS LISTED ON THE 2020 303(d) LIST PROVIDED BY THE GA ENVIRONMENTAL PROTECTION DIVISION. THE BMPS THAT WILL BE USED FOR THE SITE WHICH DISCHARGES TO THE IMPAIRED STREAM SEGMENT, AS LISTED IN APPENDIX 1 (APPENDED TO THE PLANS) OF THE CHECKLIST, ARE AS FOLLOWS:
- d. A LARGE SIGN (MINIMUM 4 FEET X 8 FEET) MUST BE POSTED ON SITE BY THE ACTUAL START DATE OF CONSTRUCTION. THE SIGN MUST BE VISIBLE FROM A PUBLIC ROADWAY. THE SIGN MUST IDENTIFY THE FOLLOWING: (1) THE CONSTRUCTION SITE, (2) THE PERMITTEE(S), (3) THE CONTACT PERSON(S) ALONG WITH THEIR TELEPHONE NUMBER(S), AND (4) THE PERMITTEE-HOSTED WEBSITE WHERE THE PLAN CAN E VIEWED. THE PERMITTEE-HOSTED WEBSITE WHERE THE PLAN CAN BE VIEWED MUST BE PROVIDED ON THE SUBMITTED NOI. THE SIGN MUST REMAIN ON SITE AND THE PLAN MUST BE VAILABLE ON THE PROVIDED WEBSITE UNTIL A NOT HAS BEEN SUBMITTED.
- e. USE FLOCCULANTS OR COAGULANTS AND/OR MULCH TO STABILIZE AREAS LEFT DISTURBED FOR MORE THAN SEVEN (7) CALENDAR DAYS IN ACCORDANCE WITH PART III.D.1 OF THE CURRENT NPDES PERMIT.
 - i. LIMIT THE AMOUNT OF DISTURBED AREA AT ANY ONE TIME TO NO GREATER THAN 25

- ACRES OR 50% OF THE TOTAL PLANNED SITE, WHICHEVER IS LESS. ALL CALCULATIONS MUST BE INCLUDED IN THE PLAN.
- p. CONDUCT SOIL TESTS TO IDENTIFY & TO IMPLEMENT SITE-SPECIFIC FERTILIZER NEEDS.

CONTROLS FOR POTENTIAL CONSTRUCTION RELATED POLLUTANTS

- 1. WHEN WASHING VEHICLES BEFORE THEY LEAVE THE SITE, ANY HAZARDOUS SUBSTANCES THAT HAVE BEEN IN CONTACT WITH THE CONSTRUCTION VEHICLES WILL NOT BE WASHED INTO ANY STREAMS, LAKES, WELLS, ETC.
- 2. PERMANENT VEGETATION AND SLOPE STABILIZATION SHALL WORK IN CONJUNCTION WITH THE TEMPORARY SEDIMENT PONDS TO PERMANENTLY STABILIZE THE CONSTRUCTION SITE AND LIMIT POLLUTANTS ENTERING ADJACENT STATE WATERS AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.
- 3. ALL OTHER BUILDING MATERIALS AND/OR PRODUCTS THAT ARE STORED ON SITE MUST BE STORED AND/OR COVERED PER MANUFACTURER'S INSTRUCTIONS AND/OR SUCH THAT LEAKING, SPILLS, CONTAMINATION OF STORMWATER RUNOFF, OR OTHER TYPES OF CONTAMINATION ARE PREVENTED.
- 4. ADEQUATE WASTE CONTAINERS WILL BE PROVIDED AT APPROPRIATE LOCATIONS ON THE PROJECT SITE AWAY FROM STREETS, GUTTERS, WATER COURSES AND STORM DRAINS, AND WILL HAVE PROPER DISPOSAL. WORKERS WILL BE REQUIRED TO UTILIZE WASTE CONTAINERS.
- 5. LIQUID WASTE COLLECTION AREAS SHALL BE LOCATED WITHIN SECONDARY CONTAINMENT STRUCTURES TO MINIMIZE THE RISK OF CONTAMINATED DISCHARGES.
- 6. ALL SANITARY SEWER OR SEPTIC SYSTEM WASTE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH THE STATE AND/OR LOCAL REGULATIONS.
- 7. CONSTRUCTION MATERIALS STORED AT THE SITE WILL BE MONITORED AND KEPT IN A LOCATION WHERE CONTACT WITH STORM WATER, WELLS, AND ANY OTHER BODIES OF WATER CAN BE PREVENTED.
- 8. STORAGE CONTAINERS FOR OIL, FUEL AND OTHER HAZARDOUS SUBSTANCES WILL BE LOCATED IN DESIGNATED AREAS PROTECTED WITH IMPERVIOUS CONTAINMENT BERMS.
- 9. THE CONTRACTOR WILL NOTIFY GEORGIA EPD (404-656-4863) AND THE NATIONAL RESPONSE CENTER (NRC) (800-424-8802) UPON AWARENESS OF A RELEASE CONTAINING A HAZARDOUS SUBSTANCE OR OIL IN AN AMOUNT EQUAL TO OR GREATER THAN A REPORTING QUANTITY ESTABLISHED UNDER THE GEORGIA OIL OR HAZARDOUS MATERIAL SPILL OR RELEASE ACT (O.C.G.A. 12-14-2, ET SEQ.), 40 CFR 117 AND 40 CFR 302, AS SOON AS THE CONTRACTOR HAS KNOWLEDGE OF THE DISCHARGE.
- 10. DISCHARGE OF CONSTRUCTION MATERIALS INTO ANY BODY OF WATER WILL BE PREVENTED.
- 11. ANY SPILL WILL BE CLEANED UP IMMEDIATELY.
- 12. WASHOUT OF CONCRETE DRUMS AT THE CONSTRUCTION SITE(S) IS NOT PERMITTED. WASH DOWN OF TOOLS CONCRETE MIXER, OR THE REAR OF VEHICLES MAY BE WASHED OUT ONSITE IF THE WASHWATER IS PASSED THROUGH A THREE CHAMBER WASHOUT FILTER AND FILTER SOCK, PER EPA GUIDANCE, ALTERNATIVELY, WASHWATER MAY BE TREATED OFF SITE TO REMOVE METALS AND REDUCE ITS PH, THEN DELIVERED TO A PUBLIC WASTEWATER TREATMENT FACILITY. UNTREATED WASHWATER MUST NOT BE WASHED INTO STREAMS, LAKES, WELLS, ETC
- 13. PETROLEUM BASED PRODUCTS CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULATIVE 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
- 14. 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.
- 15. FERTILIZER/HERBICIDES- THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. OR AS INDICATED BY SITE SPECIFIC SOIL TESTS. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

INSPECTIONS

EACH EROSION AND SEDIMENT CONTROL AND STORM WATER MANAGEMENT DEVICE WILL BE INSPECTED IN ACCORDANCE WITH THIS ESPCP, CONTRACT DOCUMENTS AND CONSTRUCTION PLANS. ALL INSPECTIONS REQUIRED BY THIS ESPCP SHALL BE CONDUCTED BY QUALIFIED PERSONNEL, AS DEFINED BY THE PERMIT. FOR THIS PROJECT THE CONTRACTOR IS OBLIGATED, BY AGREEMENT WITH THE OWNER, TO PROVIDE QUALIFIED PERSONNEL FOR ALL INSPECTIONS.REQUIREMENTS FOR INSPECTION AND MAINTENANCE INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- 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 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.



Call before you dig.

24 HOUR CONTACT:

NAME: TOM ROBERTS PHONE: 404-637-0540 EMAIL: TOM.ROBERTS@BROOKHAVENGA.GOV

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INSPECTIONS CONT'D

- 3. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST TWICE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.A. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
- CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
- BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
- A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A. 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 THIS PERMIT.

THE PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THE PERMIT. RECEIVING WATER SAMPLES AND STORM WATER DISCHARGE SAMPLES WILL BE COLLECTED BY GRAB SAMPLES AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES SPECIFIED BY THE PERMIT. THE FREQUENCY OF SAMPLING WILL BE AS DESCRIBED IN THE FOLLOWING SECTION. SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED BELOW WILL BE REPORTED TO THE EPD.

- SAMPLE CONTAINERS WILL BE LABELED BEFORE COLLECTING SAMPLES.
- 2. SAMPLES WILL BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
- CLEAN GLASS OR PLASTIC JARS WITH LARGE MOUTHS WILL BE USED TO COLLECT SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
- MANUAL, AUTOMATIC OR RINSING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THE 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. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
- SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALL BEYOND THE MINIMUM FREQUENCY STATED IN THE PERMIT MUST BE REPORTED TO EPD.

SAMPLING POINTS

THE CONTRACTOR WILL SAMPLE AT THE LOCATIONS LISTED BELOW. THE PLAN SHEETS WITHIN THESE CONSTRUCTION PLANS SHOW THE LOCATION OF ALL PERENNIAL AND INTERMITTENT

STRE	EAMS AN	D OTHER	WATER	BODIES	INTO	WHIC	H STC	RM W	/ATER	IS DISC	HARGE).			
			Rep	resentati	ve Sampl	ing Scher	ne								
			O	UTFALL (CHARACT	ERISTICS									
Primary Sampled Feature	Location	Name of Receiving Water	Applicable Constructi on Stage for Sampling	Sampling Type (Outfall or Receiving water)	Drainag e Area for Receivin g Water (mi2)	m Disturb ed Area	or Cold Water Stream	ix B NTU Value (Outfall	e NTU Increase (Receivin	Descripti on	Constructi on Activity		_	Erosion Index	Represer ted Outfall Drainage Basins
1	Lat: 33.9199 Long: -84.3279	North Fork Nancy Creek	All	Receiving Water	1.39	0	Warm	N/A	75	Upstrea m	Stream Restoration	N/A	N/A	N/A	N/A
2	Lat: 33.9146 Long:	North Fork Nancy Creek	All	Receiving Water	1.86	6.21	Warm	N/A	75	Downstre am	Stream Restoration	N/A	N/A	N/A	N/A

IT SHOULD BE NOTED THAT ALL OF THE ABOVE SAMPLING LOCATIONS MAY NOT BE ACTIVE AT ALL TIMES DURING CONSTRUCTION. A SAMPLING LOCATION WILL BE ACTIVE FROM THE TIME CONSTRUCTION ACTIVITY STARTS IN THE WATERSHED THAT FEEDS THE SAMPLING LOCATION UNTIL FINAL STABILIZATION IS ACHIEVED IN THAT WATERSHED. THE TIMING OF THE CONSTRUCTION ACTIVITY WITHIN A WATERSHED DEPENDS ON CONSTRUCTION STAGING. HOWEVER, CONSTRUCTION STAGING HAS NOT YET BEEN DETERMINED. THE CONTRACTOR MAY STAGE THE CONSTRUCTION SO THAT 1) CONSTRUCTION BEGINS AT ONE END OF THE PROJECT AND PROGRESSES SYSTEMATICALLY TO THE OTHER END; 2) CONSTRUCTION BEGINS AT BOTH ENDS OF THE PROJECT AND PROGRESSES TO A COMMON MEETING POINT; OR 3) MULTIPLE CREWS BEGIN CONSTRUCTION AT DIFFERENT SECTIONS OF THE PROJECT AND EVENTUALLY LINK UP WITH EACH OTHER.

SAMPLE LOCATIONS OF THE PROJECT AREA. RECEIVING WATERS OF THE PROJECT ARE DEFINED AS WARM WATER FISHERIES AND THEREFORE THE TOTAL INCREASE IN TURBIDITY FROM SAMPLE LOCATIONS UPSTREAM AND DOWNSTREAM OF THE CONSTRUCTION SITE SHALL NOT EXCEED 75 NTU. CONSTRUCTION SITE LIMITS OF DISTURBANCE TOTAL 4.3 ACRES AND THE CONTRIBUTING DRAINAGE AREA WAS ESTIMATED USING USGS STREAMSTATS WEB APPLICATION (https://streamstats.usgs.gov/ss/).

- SAMPLING WILL BEGIN AT THE DESIGNATED REPRESENTATIVE RECEIVING WATER(S) AT THE DOWNSTREAM LOCATION. THIS SAMPLE WILL BE TAKEN AT THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PROJECT. FOR LARGE STREAMS WHERE VARIATIONS IN COLOR ARE VISIBLE. SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES MAY BE USED FOR THE DOWNSTREAM VALUE.
- UPSTREAM SAMPLES WILL BE TAKEN AFTER DOWNSTREAM SAMPLES HAVE BEEN ACQUIRED. THE UPSTREAM SAMPLE WILL BE TAKEN AT THE DISCHARGE FARTHEST UPSTREAM AT THE SITE BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PROJECT. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES MAY BE USED FOR THE UPSTREAM VALUE.
- THE SAMPLES WILL BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).CARE WILL BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE **OUTFALL STORM WATER CHANNEL**
- THE SAMPLING CONTAINER WILL BE HELD SO THAT THE OPENING FACES UPSTREAM.
- THE SAMPLES WILL BE KEPT FREE OF FLOATING DEBRIS.
- ONCE THE SAMPLE JAR OR BOTTLE IS FULL AND CAPPED, IT WILL BE TRANSPORTED TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY, BUT NO LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS OBTAINED.

SAMPLING FREQUENCY (PER PART IV.D)

THE CONTRACTOR MUST SAMPLE IN ACCORDANCE WITH THIS ES&PCP AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW:

- a. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* (MONDAY THROUGH FRIDAY, 8:00 AM TO 5:00 PM AND SATURDAY 8:00 AM TO 5:00 PM, EXCLUDING ALL NONWORKING FEDERAL HOLIDAYS, WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) THAT OCCURS AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING
- IN ADDITION TO ITEM (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS* THAT OCCURS EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED 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 ITEMS A) AND B) ABOVE, IF BMPS ARE FOUND TO BE PROPERLY DESIGNED, INSTALLED, AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED, AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO 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. 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.
- EXISTING CONSTRUCTION ACTIVITIES, I.E. THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT. THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE CONTRACTOR 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 MONITORING AT ANY TIME OF THE DAY OR WEEK.

RAINFALL DATA

MEASUREMENT OF RAINFALL DATA WILL BE RECORDED DAILY (ONCE DURING EACH 24-HOUR PERIOD) AT THE DOWNSTREAM MONITORING POINT FOR EACH ACTIVE CONSTRUCTION STAGE IN WHICH STREAM MONITORING IS UTILIZED AND NEAR THE CENTER OF EACH ACTIVE CONSTRUCTION STAGE IN WHICH OUTFALL MONITORING IS UTILIZED. THE CONTRACTOR WILL ESTABLISH A RAIN GAUGE ON EACH ACTIVE CONSTRUCTION STAGE FOR THIS PURPOSE. FURTHERMORE, THE CONTRACTOR WILL COLLECT AND RECORD THE RAINFALL DATA ON THE DAILY RAINFALL MONITORING DATA FORM.

THE CONTRACTOR WILL EMPLOY QUALIFIED PERSONNEL WHO SHALL GATHER SAMPLES OF STORM WATER AS OUTLINED IN THE PERMIT PART IV, D.5 AND AS FURTHER DEFINED IN THIS ESPCP. THE CONTRACTOR WILL HAVE THE TURBIDITY OF EACH SAMPLE TESTED BY A QUAILIFIED TESTING LABORATORY. ALL TURBIDITY TESTS WILL BE CONDUCTED IN ACCORDANCE WITH 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.

REPORTING (PER PART IV.E.)

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

- 2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
- THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;

- THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
- THE DATE(S) ANALYSES WERE PERFORMED;
- THE TIME(S) ANALYSES WERE INITIATED;
- THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
- REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
- THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
- RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED PER THE PLAN.
- 3. 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.

RETENTION OF RECORDS

THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOTICE OF TERMINATION (NOT) IS SUBMITTED IN ACCORDANCE WITH:

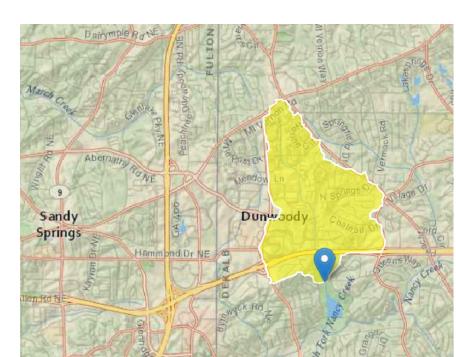
- a. A COPY OF ALL NOTICES OF INTENT (NOI) SUBMITTED TO EPD;
- b. A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
- THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
- d. A COPY OF ALL MONITORING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
- e. A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;
- f. A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND
- g. DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(1)(C) OF

COPIES OF ALL NOI, NOT, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOI TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

REPORT SUBMITTAL

ALL WRITTEN CORRESPONDENCE REQUIRED BY THE 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 THE PERMIT. COPIES OF THE DATA SENT TO GEORGIA EPD, INCLUDING THE RETURN RECEIPTS, WILL BE PROVIDED TO THE OWNER AND THE ENGINEER ON A MONTHLY BASIS.

1. THE ESTIMATED DRAINAGE AREA TO THE PROJECT SITE IS 1.86 SQ MI. THE DELINEATION IS SHOWN BELOW.



- 2. THE ESTIMATED RUNOFF COEFFICIENT OF THE SITE IS 70, WHICH CORRESPONDS TO TR-55 "WOODS GOOD" FOR TYPE C SOILS. NO CHANGE IN RUNOFF COEFFICIENT WILL RESULT FROM THE PROJECT, AS NO ADDITIONAL IMPERVIOUS AREA IS PROPOSED.
- 3. STORM-DRAIN PIPE AND WEIR VELOCITIES ARE NOT PROVIDED BECAUSE THERE ARE NO STORMWATER DISCHARGE POINTS.
- 4. THE SOIL SERIES DATA ARE AVAILABLE ONLINE AT HTTP://WEBSOILSURVEY.NRCS.USDA.GOV. SOIL MAP AND INFORMATION ARE PROVIDED AS EXHIBIT Z AND TABLE Z ON PAGE ES-10.
- 5. NO SEDIMENT BASINS ARE NEEDED FOR THIS PROJECT. LAND DISTURBING ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION AND REMOVAL OF A SEDIMENT BASIN WOULD CAUSE ADDITIONAL ADVERSE IMPACTS TO THE EXISTING STREAM.
- 6. THE SYMBOLS REFERED TO IN THE PLAN REFERENCE THE GEORGIA UNIFORM CODING SYSTEM PER THE LATEST EDITION MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (CURRENTLY 2016 EDITION).
- 7. THE SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS TO ENSURE THEIR INTENDED PURPOSES ARE ACCOMPLISHED. MAJOR MODIFICATION OF THE PLAN OR DELETION OF SPECIFIED BMPS WILL REQUIRE A FORMAL REVISION OF THE ES&PC PLAN AND THE SIGNATURE OF A GSWCC LEVEL II DESIGN PROFESSIONAL. ADDITIONAL BMPS MAY BE ADDED AS DIRECTED BY THE ENGINEER.
- 8. SILT FENCE SHOULD NEVER RUN CONTINOUSLY WITHOUT J-HOOKS OR SPURS. THE SILT FENCE SHOULD TURN BACK INTO THE FILL OR SLOPE TO CREATE SMALL POCKETS THAT TRAP SILT AND FORCE STORMWATER TO FLOW THROUGH THE SILT FENCE. THE J-HOOKS OR

SPURS SHALL BE SPACED IN ACCORDANCE WITH THE TYPICAL LOCATION DETAILS FOR SIL' FENCE/BALED STRAW. SPACING FOR J-HOOKS OR SPURS SHALL NOT BE LESS THAN 50 FEE EXCEPT AS NOTED. SILT FENCES THAT ARE NEAR THE OUTLET OF CULVERTS OR STORM DRAINS SHALL HAVE A MINIMUM OF 3 J-HOOKS OR SPURS ON BOTH SIDES OF TH STRUCTURE AT A SPACING THAT SHALL NOT EXCEED 30 FEET. J-HOOKS OR SPURS SHALL PAID FOR AS SILT FENCE ITEMS PER FOOT. ALL COSTS AND OTHER INCIDENTAL ITEMS AF INCLUDED IN THE COST OF INSTALLING AND MAINTAINING THE SILT FENCE. THE SILT FENCING SHOULD BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF T FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER. REFER TO GDOT DETAIL D-51.

9. WHEREVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED, AN SUPPLEMENTED. DISTURBED SOILS SHALL BE STABILIZED AS QUICKLY AS PRACTICABLE.

10. LOCATE WASTE COLLECTION AREAS, DUMPSTERS, TRASH CANS, AND PORTABLE TOILET SHALL BE AT LEAST 50 FEET AWAY FROM STREETS, GUTTERS, WATERCOURSES, AND STORM DRAINS.THE CONTRACTOR SHALL COMPLY WITH STATE AND/OR LOCAL REGULATIONS RELATED TO WASTE DISPOSAL AND/OR ACTIVITIES RELATED TO SANITARY SEWERS.

11. THE CONSTRUCTION ENTRANCES/EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ON TO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS DEMANDS, AND REPAIR AND/OR CLEAN-OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY. THE CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORK DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

12. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.

13. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED CONSISTENT WITH THE CITY OF BROOKHAVEN EROSION CONTROL ORDINANCE.

- 14. WHENEVER THE DEPARTMENT FINDS THAT A BMP HAS FAILED OR IS DEFICIENT BEYOND ROUTINE MAINTENANCE AND HAS RESULTED IN SEDIMENT DEPOSITION INTO WATERS OF THE STATE, THE CONTRACTOR SHALL TAKE REASONABLE STEPS TO ADDRESS THE CONDITION, INCLUDING CLEANING UP ANY CONTAMINATED SURFACES SO THE MATERIAL WILL NOT DISCHARGE IN SUBSEQUENT STORM EVENTS. WHEN THE REPAIR DOES NOT REQUIRE A NEW OR REPLACEMENT BMP OR SIGNIFICANT REPAIR, THE BMP FAILURE OR DEFICIENCY MUST BE CORRECTED BY THE CLOSE OF THE NEXT BUSINESS DAY FROM THE TIME OF DISCOVERY. A REPAIR REQUIRING A NEW OR REPLACEMENT BMP OR SIGNIFICANT REPAIR MUST BE OPERATIONAL BY NO LATER THAN 7 DAYS FROM THE TIME OF DISCOVERY. IF THE REPAIR TIME WITHIN 7 DAYS IS INFEASIBLE, THE CONTRACTOR AND THE CITY SHALL SCHEDULE THE BMP REPAIR TO BE OPERATIONAL AS SOON AS PRACTICAL AFTER THE 7 DAY TIME FRAME.
- 15. ALL MULCHES AND SOIL COVERINGS SHALL BE INSPECTED PERIODICALLY (PARTICULARLY AFTER RAIN EVENTS) BY THE CONTRACTOR. WHERE EROSION IS OBSERVED, ADDITIONAL MULCH SHALL BE APPLIED. INSPECTIONS SHALL TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. A TWO-INCH LAYER OF MULCH AND MYCORRHIZAE FUNGI SHALL BE APPLIED OVER THE CRITICAL ROOT ZONE OF TREES THAT ARE IMPACTED BETWEEN 1 AND 20 PERCENT PRIOR TO CONSTRUCTION.
- 16. SLOPES 3:1 OR STEEPER THAN 3:1 SHALL REQUIRE MATTING TO AID IN THE ESTABLISHMENT OF A VEGETATIVE COVER. THEY SHALL BE INSPECTED PERIODICALLY, ESPECIALLY AFTER RAIN EVENTS, FOR EROSION AND UNDERMINING. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING THE DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL WHICH TIME THEY BECOME PERMANENTLY STABILIZED.
- 17. IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
- 18. A CHECK DAM SHALL BE USED WITHIN THE CREEK TO PROVIDE A DRY WORK AREA FOR TEMPORARY CONSTRUCTION ACTIVITIES AND TO CONTAIN DISTURBED SOIL AND/OR SUSPENDED SEDIMENTS. PER GDOT DETAIL D-56.
- 19. ALL TREES ON SITE GREATER THAN 6" AND MARKED AS A "LEAVE TREE" SHALL BE PROTECTED FROM DAMAGE USING A TREE PROTECTION FENCE. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY. THE CONTRACTOR CAN UTILIZE CLEARED TREES AS BARRIER BRUSH SEDIMENT CONTROL WHERE INITIAL GRADING ACTIVITIES WILL NOT OCCUR.
- 20. NO PARKING, STORAGE, EQUIPMENT TRACKING, OR OTHER SOIL COMPACTION ACTIVITIES ARE TO OCCUR UNDER THE DRIPLINE OF TREES IN THE PROJECT AREA, UNLESS OTHERWISE NOTED. ALL TREE PROTECTION FENCE TO BE INSPECTED DAILY. OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.
- 21. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE STAKED. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR WITHIN THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS.
- 22. THE PRIMARY PERMITEE SHALL AMEND THEIR PLAN WHENEVER THERE IS A CHANGE BUT IF IT HAS A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT THEN MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

24 HOUR CONTACT:

NAME : TOM ROBERTS PHONE: 404-637-0540 EMAIL: TOM.ROBERTS@BROOKHAVENGA.GOV

GSWCC JOHN P. SCHNEIDER **Level II Certified Design Professional** CERTIFICATION NUMBER 0000094149 ISSUED: <u>04/27/2021</u> EXPIRES: <u>04/27/2024</u>

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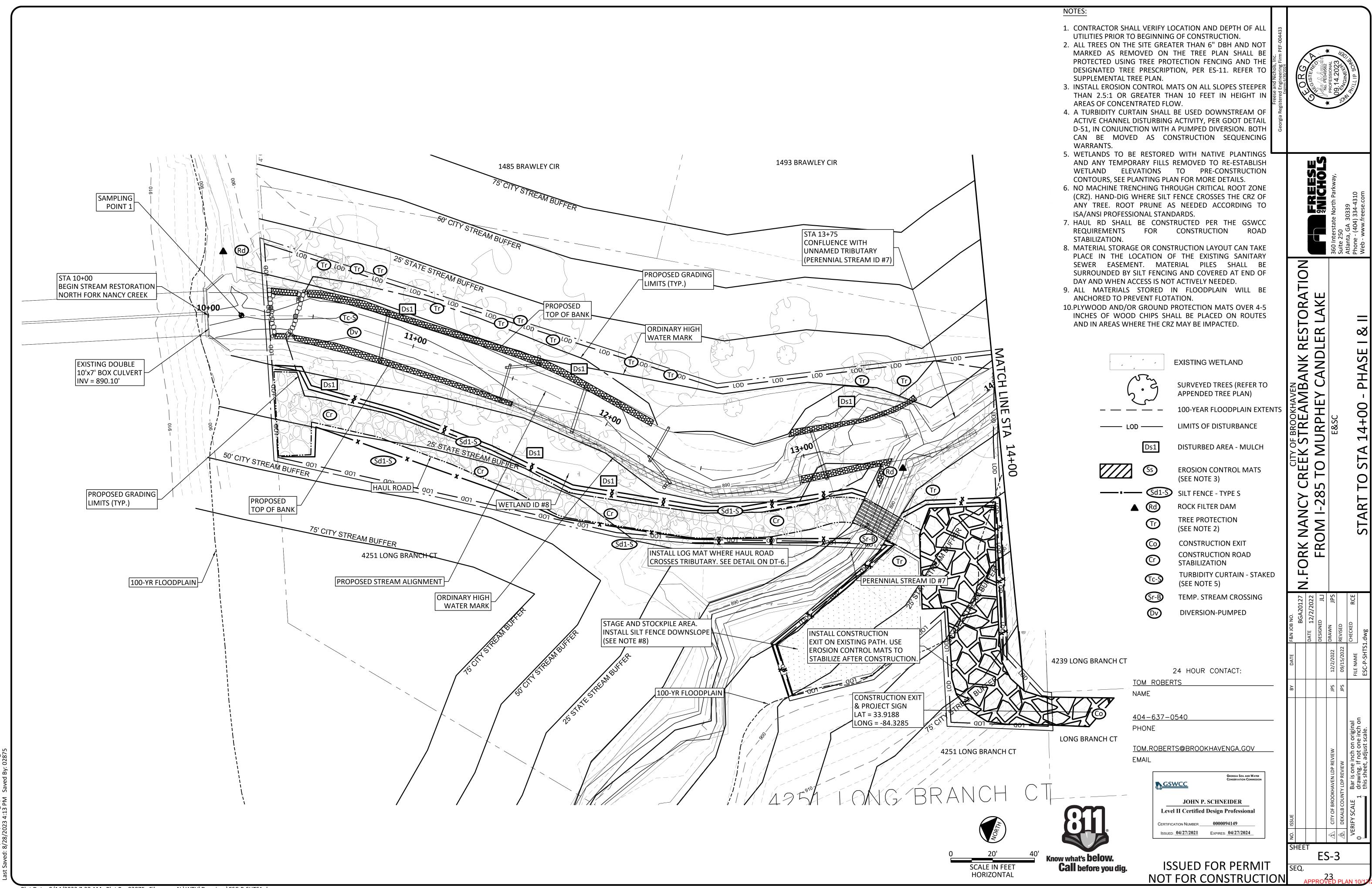
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APPROVED PLAN 10/17/2023 Peanlit # LDP22-00

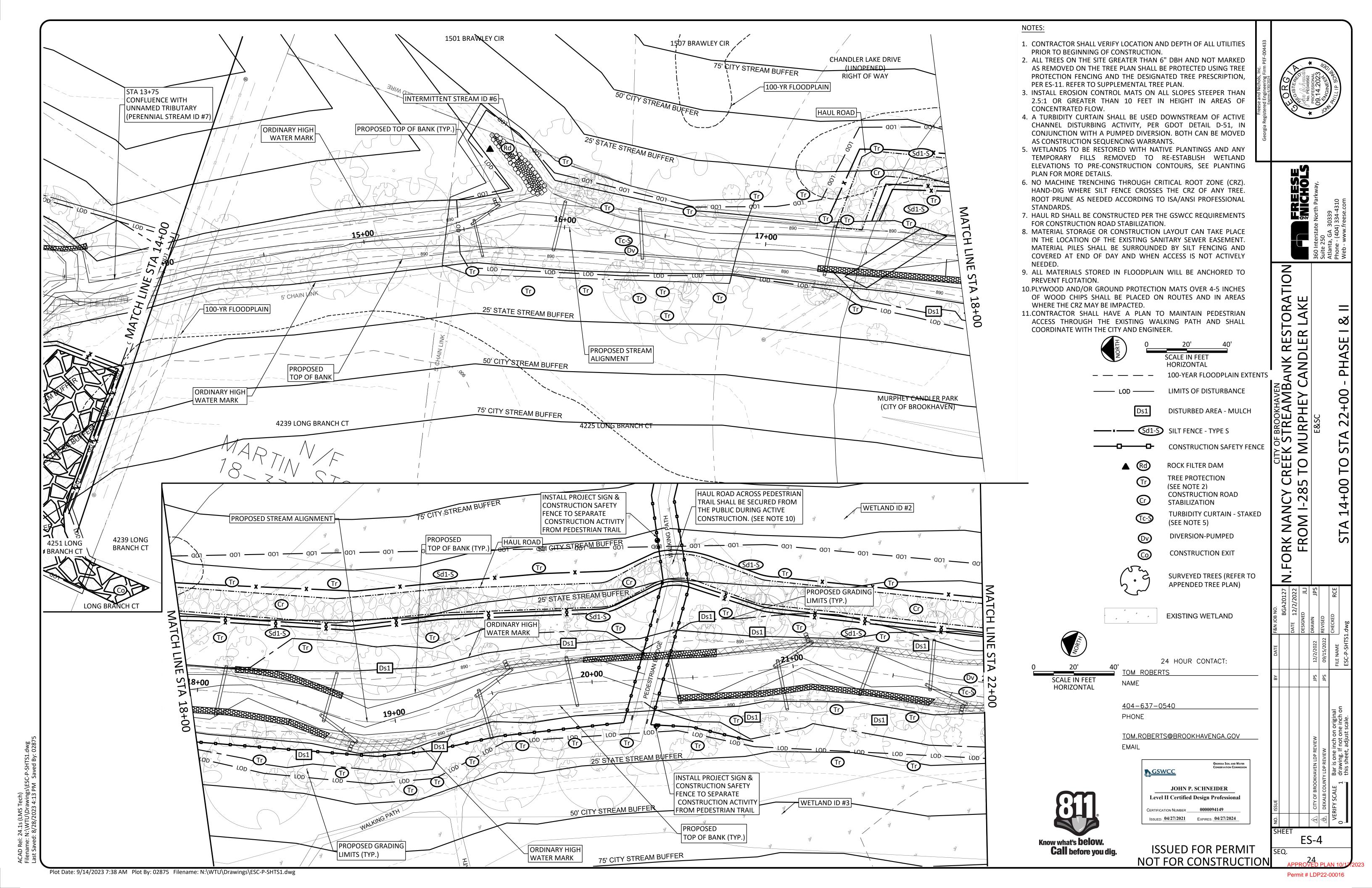
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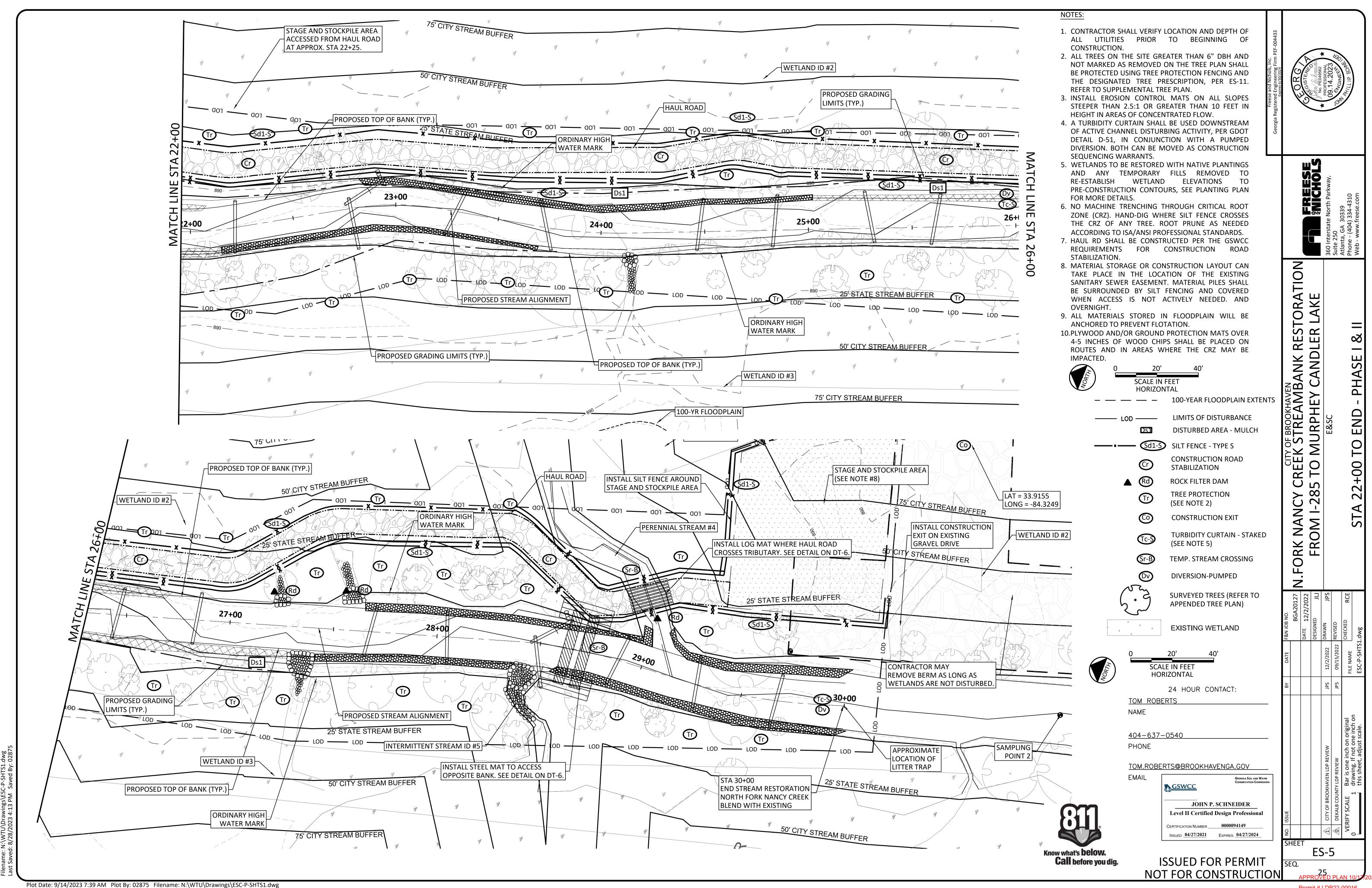
THE CONTRACTOR SHALL SAMPLE THE RECEIVING STREAM ALL UPSTREAM & DOWNSTREAM Plot Date: 9/14/2023 7:38 AM Plot By: 02875 Filename: N:\WTU\Drawings\ESC-NOTES.dwg



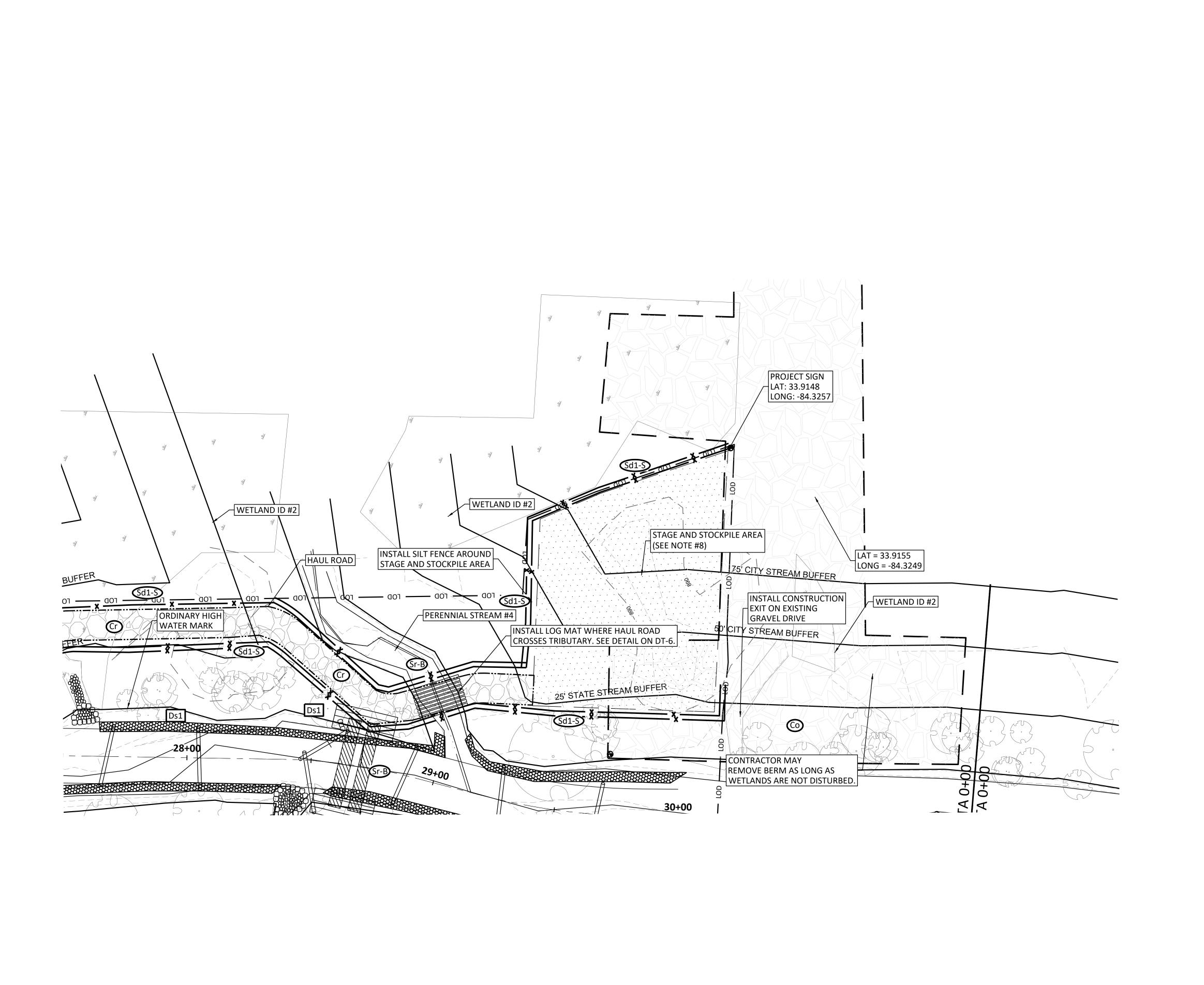
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Permit # LDP22-00016



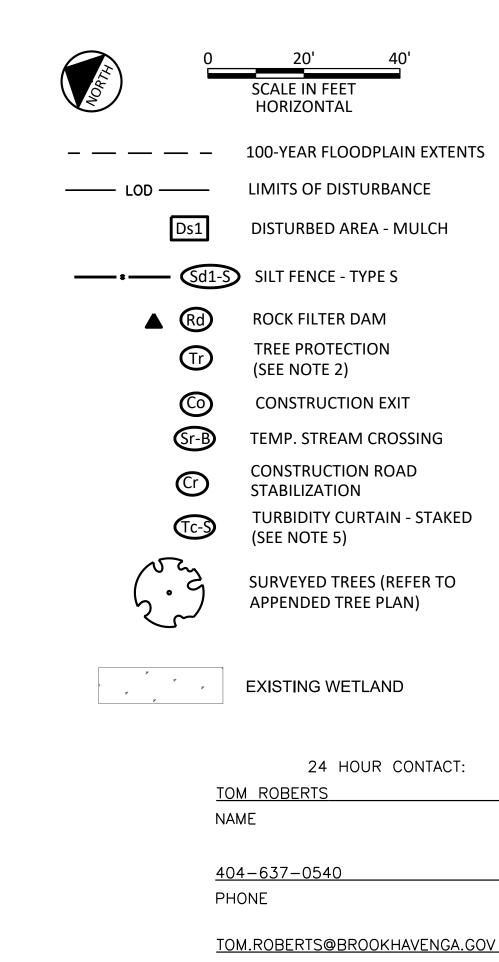


Permit # LDP22-00016



NOTES:

- 1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
- 2. ALL TREES ON THE SITE GREATER THAN 6" DBH AND NOT MARKED AS REMOVED ON THE TREE PLAN SHALL BE PROTECTED USING TREE PROTECTION FENCING AND THE DESIGNATED TREE PRESCRIPTION, PER ES-11. REFER TO SUPPLEMENTAL TREE PLAN.
- 3. INSTALL EROSION CONTROL MATS ON ALL SLOPES STEEPER THAN 2.5:1 OR GREATER THAN 10 FEET IN HEIGHT IN AREAS OF CONCENTRATED FLOW.
- 4. A TURBIDITY CURTAIN SHALL BE USED DOWNSTREAM OF ACTIVE CHANNEL DISTURBING ACTIVITY, PER GDOT DETAIL D-51, IN CONJUNCTION WITH A PUMPED DIVERSION. BOTH CAN BE MOVED AS CONSTRUCTION SEQUENCING WARRANTS.
- 5. WETLANDS TO BE RESTORED WITH NATIVE PLANTINGS AND ANY TEMPORARY FILLS REMOVED TO RE-ESTABLISH WETLAND ELEVATIONS TO PRE-CONSTRUCTION CONTOURS, SEE PLANTING PLAN FOR MORE DETAILS.
- 6. NO MACHINE TRENCHING THROUGH CRITICAL ROOT ZONE (CRZ). HAND-DIG WHERE SILT FENCE CROSSES THE CRZ OF ANY TREE. ROOT PRUNE AS NEEDED ACCORDING TO ISA/ANSI PROFESSIONAL STANDARDS.
- 7. HAUL RD SHALL BE CONSTRUCTED PER THE GSWCC REQUIREMENTS FOR CONSTRUCTION ROAD STABILIZATION.
- 8. MATERIAL STORAGE OR CONSTRUCTION LAYOUT CAN TAKE PLACE IN THE LOCATION OF THE EXISTING SANITARY SEWER EASEMENT. MATERIAL PILES SHALL BE SURROUNDED BY SILT FENCING AND COVERED WHEN ACCESS IS NOT ACTIVELY NEEDED. AND OVERNIGHT.
- 9. ALL MATERIALS STORED IN FLOODPLAIN WILL BE ANCHORED TO PREVENT FLOTATION.
- 10.ALL WOOD CHIPS USED FOR HAUL ROAD AND/OR STORED ON SITE SHALL BE SPREAD AROUND THE SITE OR HAULED AWAY.
- 11.PLYWOOD AND/OR GROUND PROTECTION MATS OVER 4-5 INCHES OF WOOD CHIPS SHALL BE PLACED ON ROUTES AND IN AREAS WHERE THE CRZ MAY BE IMPACTED.



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GEORGIA SOIL AND WATER
CONSERVATION COMMISSION JOHN P. SCHNEIDER **Level II Certified Design Professional** CERTIFICATION NUMBER 0000094149 ISSUED: <u>04/27/2021</u> EXPIRES: <u>04/27/2024</u>

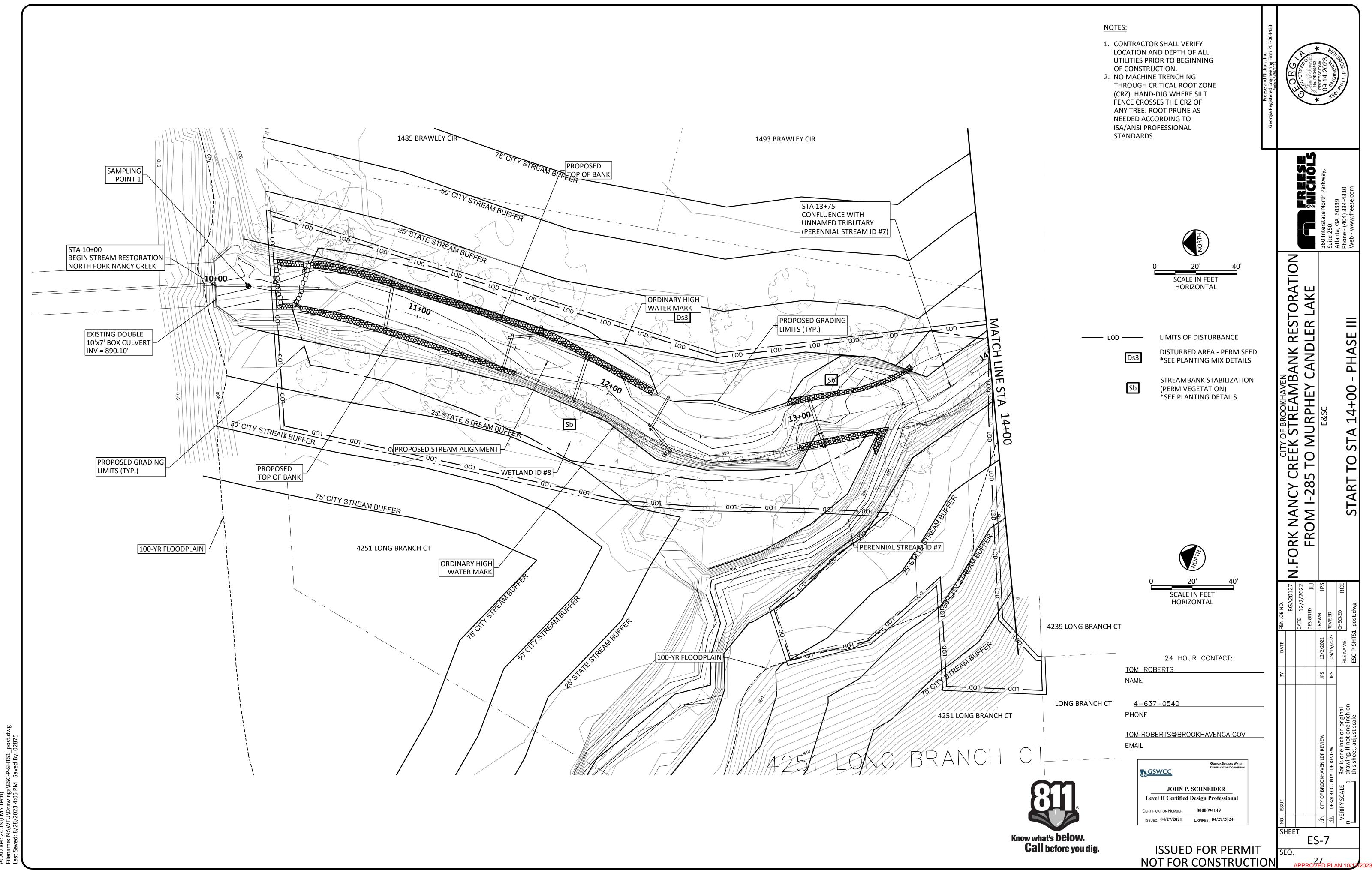
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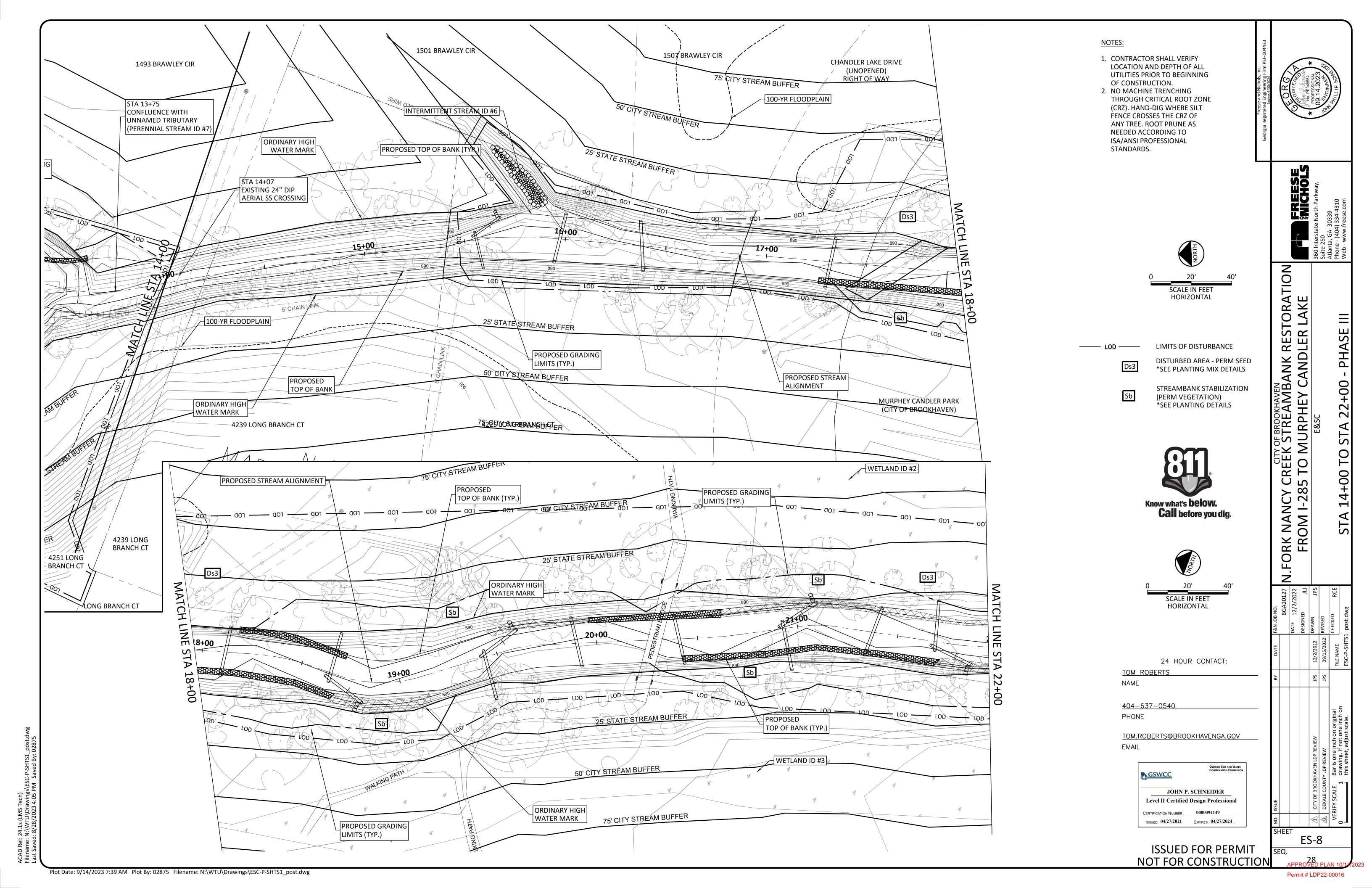
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THE ABOVE DETAIL IS THE STANDARD CITY OF BROOKHAVEN TREE PROTECTION DETAIL. REFER TO THE DETAIL TO THE RIGHT FOR THE GSWCC ALTERNATE. 2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF DRIP LINE OR AS SHOWN BY

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 REMOVE FENCING PRIOR TO 4. DO NOT STORE OR STACK MATERIALS, EQUIPMENT, OR VEHICLES WITHIN FENCED AREA.

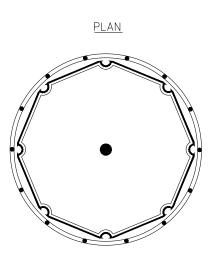
6. THE STRUCTURAL ROOT PLATE (SRP) IS DEFINED AS A 0.5-FT RADIUS PER EVERY DIAMETER-INCH OF THE 7. NO MACHINE TRENCHING THROUGH CRZ. HAND-DIG WHERE SILT FENCE (SD-1) CROSSES THE CRZ OF ANY

5. THE CRITICAL ROOT ZONE (CRZ) IS DEFINED AS A 1.3—FT RADIUS PER EVERY DIAMETER—INCH OF THE TREE.

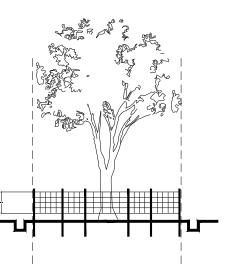
TREE. ROOT PRUNE AS NEEDED ACCORDING TO ISA/ANSI PROFESSIONAL STANDARDS. 8. IF IMPACTING THE CRZ WITH TRAFFIC FROM OPERATING EQUIPMENT, A 5" LAYER OF WOOD CHIPS WILL BE APPLIED OVER THE CRZ AS A TREE CARE PRESCRIPTION 8. PLYWOOD AND/OR GROUND PROTECTION MATS OVER 4-5 INCHES OF WOOD CHIPS SHALL BE PLACED ON

ROUTES AND IN AREAS WHERE THE CRZ MAY BE IMPACTED. 9. IF GRADING/DIGGING IMPACTS THE CRZ, THEN ROOT PRUNING IS PRESCRIBED AS A TREE CARE PRESCRIPTION 10.TREES WITHIN UPPER LIMITS OF GRADING EXTENTS SHALL HAVE THEIR ROOT BALL (OR SRP) PROTECTED BY STACKING GEOBAGS AROUND THE BASE OF THE TREE AS A TREE CARE PRESCRIPTION.

"Tr" TREE PROTECTION (ALTERNATE) "SNOW" FENCE



<u>CROSS-SECTION</u>



. 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).

MAINTAIN FENCE BY REPAIRING AND/OR REPLACING DAMAGED FENCE. DO NOT REMOVE FENCING PRIOR TO LANDSCAPING OPERATIONS. DO NOT STORE OR STACK MATERIALS, EQUIPMENT, OR VEHICLES WITHIN FENCED AREA. THE CRITICAL ROOT ZONE (CRZ) IS DEFINED AS A 1.3-FT RADIUS PER EVERY

THE CRZ OF ANY TREE. ROOT PRUNE AS NEEDED ACCORDING TO ISA/ANSI PROFESSIONAL

THE CRZ WITH TRAFFIC FROM OPERATING EQUIPMENT, A 5" LAYER OF 8. PLYWOOD AND/OR GROUND PROTECTION MATS OVER 4-5 INCHES OF WOOD CHIPS SHALL BE PLACED ON ROUTES AND IN AREAS WHERE THE CRZ MAY BE IMAPCTED. 9. IF GRADING/DIGGING IMPACTS THE CRZ, THEN ROOT PRUNING IS PRESCRIBED AS A TREE

10. TREES WITHIN UPPER LIMITS OF GRADING EXTENTS SHALL HAVE THEIR ROOT BALL (OR SRP) PROTECTED BY STACKING GEOBAGS AROUND THE BASE OF THE TREE AS A TREE CARE

NOTES: 1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.

2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND

ENTRANCE ELEVATION

CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM

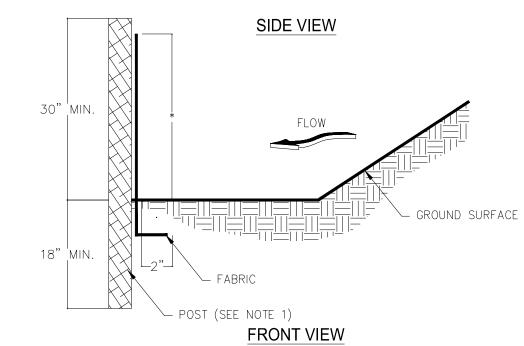
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE). 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6". 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.

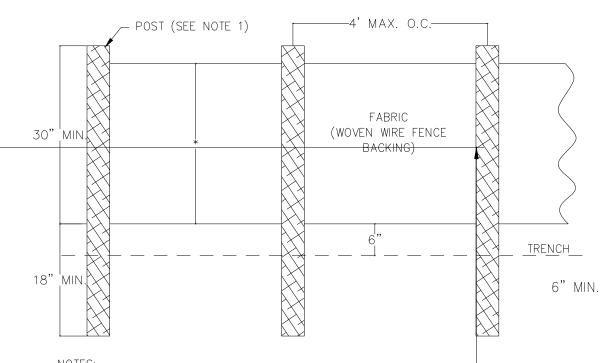
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.. 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND

DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE) 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL <u>SUITABLE</u> FOR TRUCK TRAFFIC THAT

10.MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

SILT FENCE - TYPE S (Sd1-S)





1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN. 2. HEIGHT (*) IS TO BE 30" MIN.

3. NO MACHINE TRENCHING TH<u>rough Critical Root Zone (CRZ). Hand</u>-dig where SILT FENCE (SD-1) CROSSES THE CRZ OF ANY TREE. ROOT PRUNE AS NEEDED ACCORDING TO ISA/ANSI PROFESSIONAL STANDARDS

"Rd" ROCK FILTER DAM

9" MINIMUM

6" MINIMUM

NOTE: ROCK FILTER DAM IS TO BE CLEANED

GEOTEXTILES -

OUT WHEN VOLUME BECOMES HALF FULL.

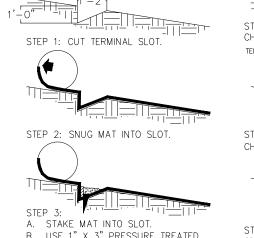
NOTE: ROCK SIZE DETERMINED ACCORDING TO

SPECIFICATIONS SET FORTH IN GSWCC REQUIREMENTS.

GEOTEXTILES

2:1 OR FLATTER





VERTICAL CUT.

C. BACKFILL AND COMPACT.

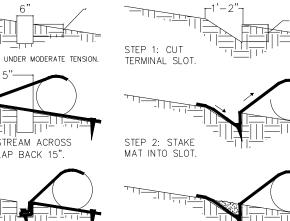
A. REVERSE MAT ROLL DIRECTION TO

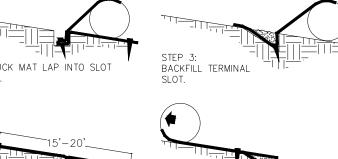
B. STAKE MAT TO ANCHOR TERMINAL.

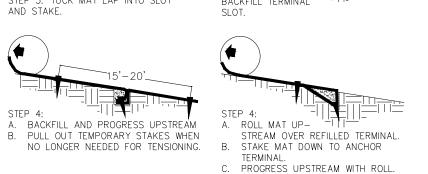
SEQUENTIAL ROLL RUN OUT IN

<u>CHANNELS</u>

UPSTREAM TERMINAL TRANSVERSE CHECK SLOT TEMPORARILY STAKE MAT UNDER MODERATE TENSION. STEP 2: WORK UPSTREAM ACROSS CHECK SLOT AND LAP BACK 15" STEP 3: TUCK MAT LAP INTO SLOT AND STAKE. B. USE 1" X 3" PRESSURE TREATED BOARD TO SPACE MAT AGAINST



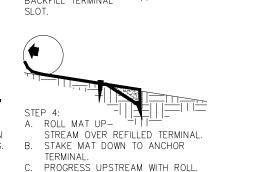




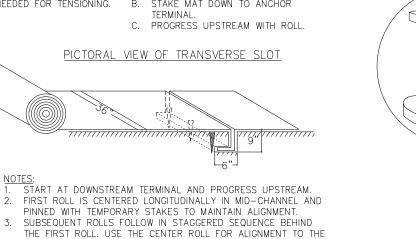
WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.

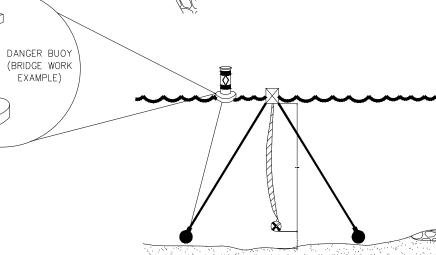
USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE

6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE



DOWNSTREAM TERMINAL





"Tc" TURBIDITY CURTAIN SYSTEM

ANCHOR SYSTEM AND LAYOUT DETAILS

SILT CURTAINS SHOULD BE ORIENTED PARALLEL TO THE DIRECTION OF FLOW. FOR SITES NOT SUBJECT TO HEAVY WAVE ACTION, THE CURTAIN HEIGHT SHALL PROVIDE SUFFICIENT SLACK TO ALLOW THE TOP OF THE CURTAIN TO RISE TO THE MAXIMUM EXPECTED HIGH-WATER LEVEL (INCLUDING WAVES) WHILE THE BOTTOM MAINTAINS CONTINUOÙS CONTACT WITH THE BOTTOM OF THE WATER BODY. THE BOTTOM EDGE OF THE CURTAIN SHALL HAVE A WEIGHT SYSTEM CAPABLE OF HOLDING THE BOTTOM OF THE CURTAIN DOWN AND CONFORMING TO THE BOTTOM OF THE WATER BODY, SO AS TO PROHIBIT ESCAPE OF TURBID WATER UNDER THE . THE SILT CURTAIN SHALL BE LOCATED BEYOND THE LATERAL LIMITS OF THE CONSTRUCTION SITE AND FIRMLY ANCHORED INTO PLACE (THE ALIGNMENT SHOULD BE SET AS CLOSE TO THE WORK AREA AS POSSIBLE BUT NO SO CLOSE AS TO BE DISRUPTED BY CONSTRUCTION EQUIPMENT). . DANGER BUOYS SHALL BE USED AS DIRECTED BY THE

COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERS. THE FNDS OF THE SILT CURTAIN SHALL BE SECURELY ANCHORED AND KEYED IN ORDER TO ENCLOSE AREA.

S. A GENERAL RULE OF THUMB FOR ATTACHING ANCHORS IS TO DO SO AT 100' INTERVALS (DEPENDING ON CURRENT AND TIDAL CONDITIONS, IT MAY BE NECESSARY TO ANCHOR THE BARRIER ON BOTH SIDES-AS SHOWN).

WOOD CHIPS OR GRAVEL-GEOTEXTILE UNDERLINER -

"Cr" CONSTRUCTION ROAD STABILIZATION

1. INSTALL ACCORDING TO THE APPROVED PLAN. PER SHEET DT-5, NOTE 10 ON SHEET DT-6, AND PER GSWCC REQUIREMENTS.

2. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE). 3. TEMPORARY ROADS SHALL FOLLOW THE CONTOURS OF THE NATURAL TERRAIN TO MINIMIZE DISTURBANCE OF DRAINAGE

PATTERNS. 4. IF A TEMPORARY ROAD MUST CROSS A STREAM, REFER TO THE TEMPORARY STREAM CROSSING DETAIL (DT-6). 5. GRADES FOR TEMPORARY ROADS SHOULD NOT EXCEED 10% EXCEPT FOR SHORT LENGTHS BUT MAXIMUM GRADES of

20% MAY BE USED FOR SPECIAL USES. 6. TEMPORARY ROAD BEDS SHALL BE AT LEAST 12 FT WIDE

FOR ONE-WAY TRAFFIC. 7. APPLY GEOTEXTILE TO THE ROADBED FOR ADDITIONAL STABILITY IN THE SAME MANNER AS A CONSTRUCTION ENTRANCE/EXIT. 8. APPLY A 6-INCH LAYER OF AGGREGATE OR WOOD CHIPS

ON GDOT APPROVED GEOTEXTILE FILTER FABRIC. 9. STABILIZE ALL ROADSIDE DITCHES, CUTS, FILLS, AND OTHER DISTURBED AREAS ADJACENT TO PARKING AREAS AND ROADS WITH APPROPRIATE TEMPORARY OR PERMANENT VEGETATION.

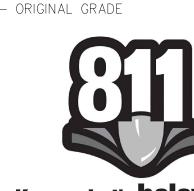
10.PERIODICALLY TOP DRESS ROADS WITH WOOD CHIPS OR GRAVEL TO MAINTAIN THE DEPTH AT 6-INCHES. 11. CHECK VEGETATED AREAS PERIODICALLY TO ENSURE A

GOOD STAND OF VEGETATION IS MAINTAINED. 12. REMOVE ANY SILT OR OTHER DEBRIS CAUSING CLOGGING OF ROADSIDE. 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).

13.IF ANY FILL IS BROUGHT INTO THE FLOODPLAIN, THEN AN EQUAL AMOUNT OF FILL MUST BE REMOVED FROM THE FLOODPLAIN.

14.USE PRESCRIPTIVE TREE MAINTENANCE OF LAYERING 6" OF WOOD CHIPS OR GRAVEL AND ROOT PRUNING WHEN THE "Cr" ENCROACHES ON THE CRZ OF TREES.

15.PLYWOOD AND/OR GROUND PROTECTION MATS OVER 4-5 INCHES OF WOOD CHIPS SHALL BE PLACED ON ROUTES AND IN AREAS WHERE THE CRZ MAY BE IMPACTED.



Know what's **below. Call** before you dig.

24 HOUR CONTACT: TOM ROBERTS NAME 404-637-0540 PHONE

TOM.ROBERTS@BROOKHAVENGA.GOV

GEORGIA SOIL AND WATER GSWCC JOHN P. SCHNEIDER **Level II Certified Design Professional** CERTIFICATION NUMBER _______0000094149 ISSUED: <u>04/27/2021</u> EXPIRES: <u>04/27/2024</u>

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"Ds3" - DISTURBED AREA STABILIZAITON (WITH PERMANENT SEEDING)

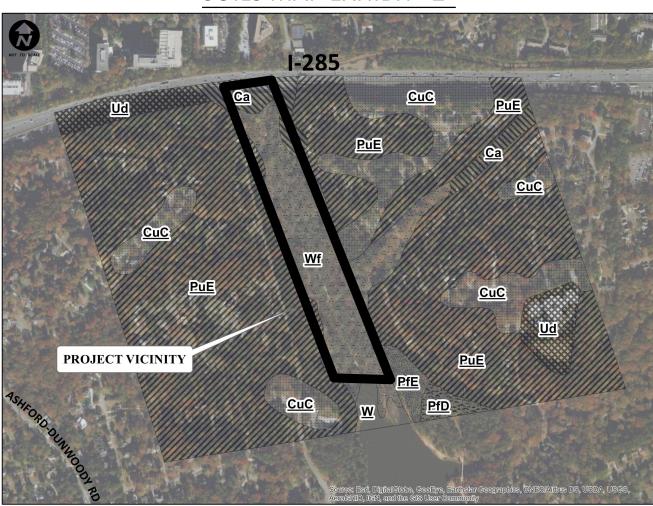
- 1. SCARIFY, PIT OR RENCH SEALED OR CRUSTED SOIL
- 2. APPLY TALL FESCUE SEED AT A RATE OF 1.1 LBS PER 1000 SQ.FT WHEN PLANTED ON ITS OWN. APPLY AT A RATE OF 30 LBS PER 1000 SQ. FT. WHEN PLANTED WITH OTHER PERENNIALS.
- 3. FIRST PLANTING YEAR FERTILIZER APPLICATION FOR TALL FESCUE SHOULD BE USING 6-12-12 (N-P-K) AT A RATE OF 1500 LBS/ACRE. N TOP DRESSING RATE SHOULD BE 50-100 LBS/ACRE. CONTRACTOR MAY ALTERNATIVELY FERTILIZE BASED ON SOIL TEST RESULTS.
- 4. APPLY AGRICULTURAL LIME AS PRESCRIBED BY SOIL TESTS OR AT A RATE OF 1 TO 2 TONS PER ACRE. APPLY SEED BY HAND, CYCLONE SEEDER, DRILL OR HYDRO-SEEDER. SEED PLANTED WITH A DRILL SHOULD BE PLANTED 1/4" - 1/2" DEEP.
- 5. STRAW OR HAY MULCH SHALL BE APPLIED AT A RATE OF 2 OR 2.5 TONS PER ACRE.
- 6. IRRIGATION SHOULD BE USED TO SUPPLEMENT RAINFALL, BUT NOT TO THE EXTENT TO CAUSE EROSION.

*FERTILIZER REQUIREMENTS

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

*UNLESS SOIL TESTS INDICATE OTHERWISE

SOILS MAP EXHIBIT "Z"



NOT TO SCALE SOILS TABLE "Z"

Map Unit Symbol	Map Unit Name	Rating
Ca	Cartecay silt loam, frequently flooded	A/D
CuC	Cecil-Urban land complex, 2 to 10 percent slopes	В
PfD	Pacolet sandy loam, 10 to 15 percent slopes	В
PfE	Pacolet sandy loam, 15 to 30 percent slopes	В
PuE	Pacolet - Urban Land complex, 15 to 25 percent slopes	В
Wf	Wehadkee silt loam, frequently flooded	B/D
W	Water	_
Ud	Urban Land	_

"Ds1" - DISTURBED AREA STABILIZATION (WITH MULCH ONLY)

DEFINITION

APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS 2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR PRODUCED ON THE SITE IF POSSIBLE, TO THE SOIL SURFACE

CONDITIONS

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

SPECIFICATIONS

MULCHING WITHOUT SEEDING

THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODICE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION:

- 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- 2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.
- 3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCHING MATERIALS

SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED

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

APPLYING MULCH

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

- 1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
- 2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION. 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
- 3. CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF 'TRACKING IN" OR DAMAGE TO SHOES, CLOSING, ETC.
- 4. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH:

1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART.THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH.

TACKIFERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TB -TACKIFERS AND BINDERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

- WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
- 3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

APPENDIX 1

THE ES&PC PLAN MUST INCLUDE AT LEAST FOUR (4) OF THE FOLLOWING BMPS FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO AN IMPAIRED STREAM SEGMENT AND FOR SITES WHICH EPD HAS APPROVED IN WRITING A REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME. The four items chosen must be appropriate for the site conditions

Page#	Y/N		
		a.	During construction activities, double the width of the 25-foot undisturbed vegetated buffer along all State waters requiring a buffer and the 50-foot undisturbed vegetated buffer along all State waters classified as "trout streams" requiring a buffer. During construction activities, EPD will not grant variances to any such buffers that are increased in width.
		b.	Increase all temporary sediment basins and retrofitted storm water management basins to provide sediment storage of at least 3600 cubic feet (134 cubic yards) per acre drained.
] c.	Use baffles in all temporary sediment basins and retrofitted storm water management basins to at least double the conventional flow path length to the outlet structure.
ES-3 ES-4 ES-6	Υ] d.	A large sign (minimum 4 feet x 8 feet) must be posted on site by the actual start date of construction. The sign must be visible from a public roadway. The sign must identify the following: (1) construction site, (2) the permittee(s), (3) the contact person(s) and telephone number(s), and (4) the permittee-hosted website where the Plan can be viewed must be provided on the submitted NOI. The sign must remain on site and the Plan must be available or the provided website until a NOT has been submitted.
ES-1	Υ	e.	Use flocculants or coagulants and/or mulch to stabilize areas left disturbed for more than sever (7) calendar days in accordance with Part III. D.1. of the current NPDES Permits.
		f.	Conduct turbidity sampling after every rain event of 0.5 inch or greater within any 24-hour period, recognizing the exceptions specified in Part IV.D.6.d. of the current NPDES Permits.
		g.	Comply with the applicable end-of-pipe turbidity effluent limit, without the "BMP defense" as provided for in O.C.G.A. 12-7-6 (a)(1).
		h.	Reduce the total planned site disturbance to less than 50% impervious surfaces (excluding any State-mandated buffer areas from such calculations). All calculations must be included on the Plan.
ES-12	Υ	i.	Limit the amount of disturbed area at any one time to no greater than 25 acres or 50% of the total planned site, whichever is less. All calculations must be included on the Plan.
		j.	Use "Dirt II" techniques available on the EPD website to model and manage construction storm water runoff (including sheet flow). All calculations must be included on the Plan. (https://epd.georgia.gov/erosion-and-sedimentation)
		k.	Add appropriate organic soil amendments (e.g., compost) and conduct pre- and post-construction soil sampling to a depth of six (6) inches to document improved levels of soil carbon after final stabilization of the construction site.
		l.	Use mulch filter berms, in addition to a silt fence, on the site perimeter wherever construction storm water (including sheet flow) may be discharged. Mulch filter berms cannot be placed in waterways or areas of concentrated flow.
		m	. Use appropriate erosion control slope stabilization instead of concrete in all construction storm water ditches and storm drainages designed for a 25-year, 24-hour rainfall event.
		n.	Use flocculants or coagulants under a passive dosing method (e.g., flocculant blocks) within construction storm water ditches and storm drainages that feed into temporary sediment basin and retrofitted management basins.
		0.	Install sod for a minimum 20-foot width (in lieu of seeding) after final grade has been achieved, along the site perimeter wherever storm water (including sheet flow) may be discharged.
ES-12	Υ	p.	Conduct soil tests to identify and to implement site-specific fertilizer needs.
		q.	Certified personnel for primary permittees shall conduct inspections at least twice every seven (7) calendar days and within 24 hours of the end of the storm that is 0.5 inches rainfall or greater in accordance with Part IV.D.4.a.(3)(a) – (c); secondary permittees, Part IV.D.4.b.(3)(a) – (c); and tertiary permittees Part IV.D.4.c.(3)(a) – (c) *
		r.	Apply the appropriate compost blankets (minimum depth 1.5 inches) to protect soil surfaces until vegetation is established during the final stabilization phase of the construction activity.
		S.	Use alternative BMPs whose performance has been documented to be superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). (If using this item please refer to the Alternative BMP guidance document found at www.gaswcc.georgia.gov)
		t.	Limit the total planned site disturbance to less than 15% impervious surfaces (excluding any state mandated buffer areas from such calculations). All calculations must be included in the Plan.
		u.	Conduct inspections during the intermediate grading and drainage BMP phase and during the final BMP phase of the project by the design professional who prepared the Plan in accordance with Part IV.A.5 of the permit. The Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan in accordance with Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan in accordance with Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan in accordance with Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan in accordance with Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan in accordance with Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan in accordance with Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan must include a statement that the primary permittee must retain the design professional who prepared the Plan must retain the design professional who prepared the Plan must retain the primary permittee must retain the design professional who prepared the Plan must retain the primary permittee must retain the primary
			the Plan to conduct inspections during the intermediate grading and drainage BMP phase and during the final BMP phase.
		۷.	Install Post Construction BMPs (e.g., runoff reduction BMPs) which remove 80% TSS as outlined in the Georgia Stormwater Management Manual known as the Blue Book or an equivalent or more stringent design manual.
			Effective January 1, 2023
			* This requirement is different for infrastructure projects:
			Certified personnel for primary permittees shall conduct inspections at least once every seven
			(7) calendar days and within 24 hours of the end of the storm that is 0.5 inches rainfall or

APPENDIX 1, ITEM i

THE NATURE OF STREAM RESTORATION INVOLVES CONSTRUCTION IN A LINEAR MANNER, WHERE NO MORE THAN 1 ACRE MAXIMUM SHALL BE ACTIVELY DISTURBED AT ANY GIVEN

greater in accordance with Part IV.D.4.a.(3)(a) - (c) of the permit

CALCULATIONS FOR MAX DISTURBED ACREAGE:

MAX DISTURBED WORK AREA = 1 AC SOUTHERN HAUL ROAD = 0.4 AC TOTAL DISTURBED AREA = 4.3 AC

 $(1 + 0.4)/4.3 \times 100\% = 33\%$ MAX SITE DISTURBANCE



24 HOUR CONTACT: TOM ROBERTS NAME 404-637-0540 PHONE TOM.ROBERTS@BROOKHAVENGA.GOV GSWCC

JOHN P. SCHNEIDER **Level II Certified Design Professional** CERTIFICATION NUMBER ISSUED: <u>04/27/2021</u> EXPIRES: <u>04/27/2024</u>

ISSUED FOR PERMIT

NOT FOR CONSTRUCTION

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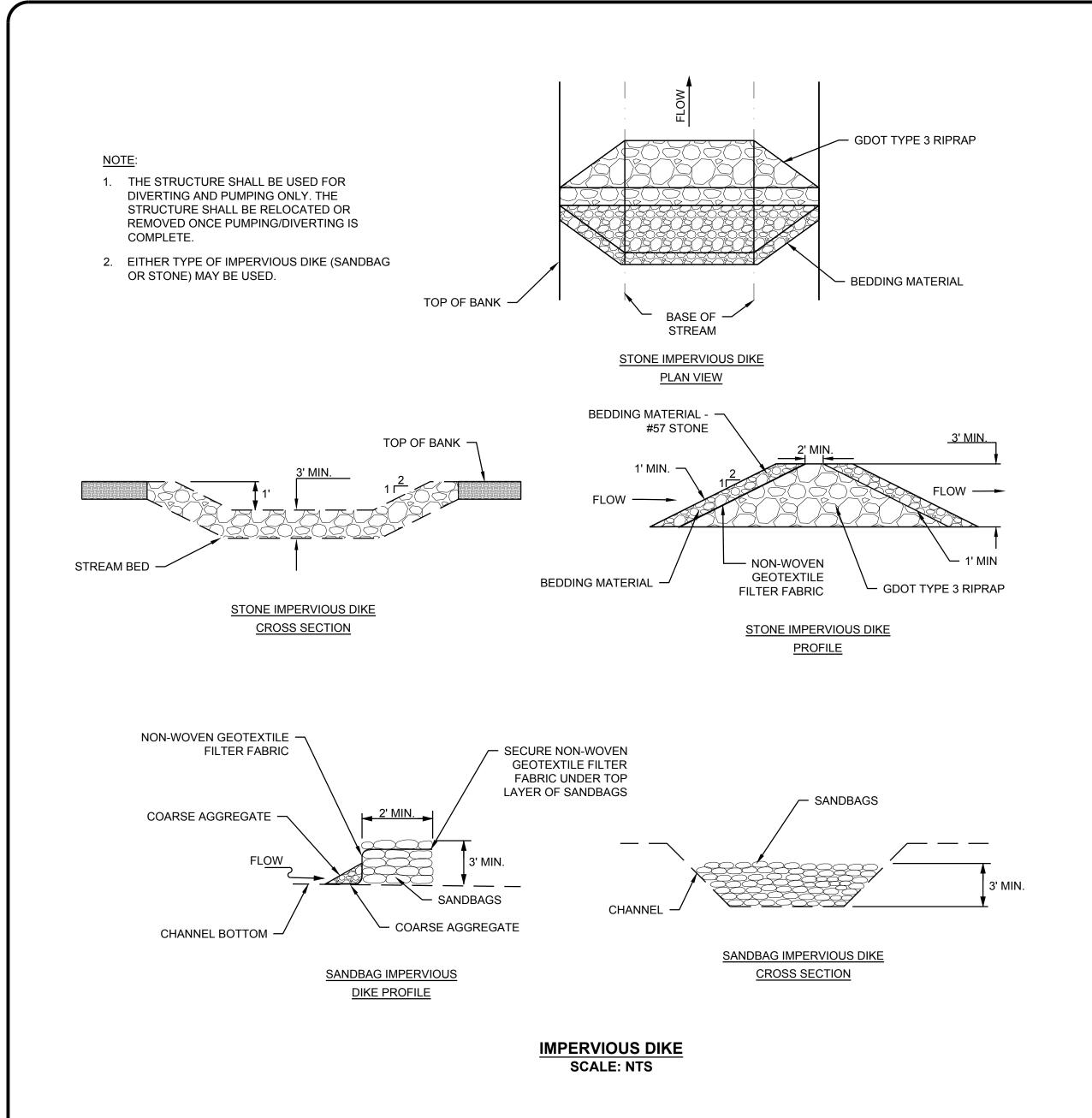
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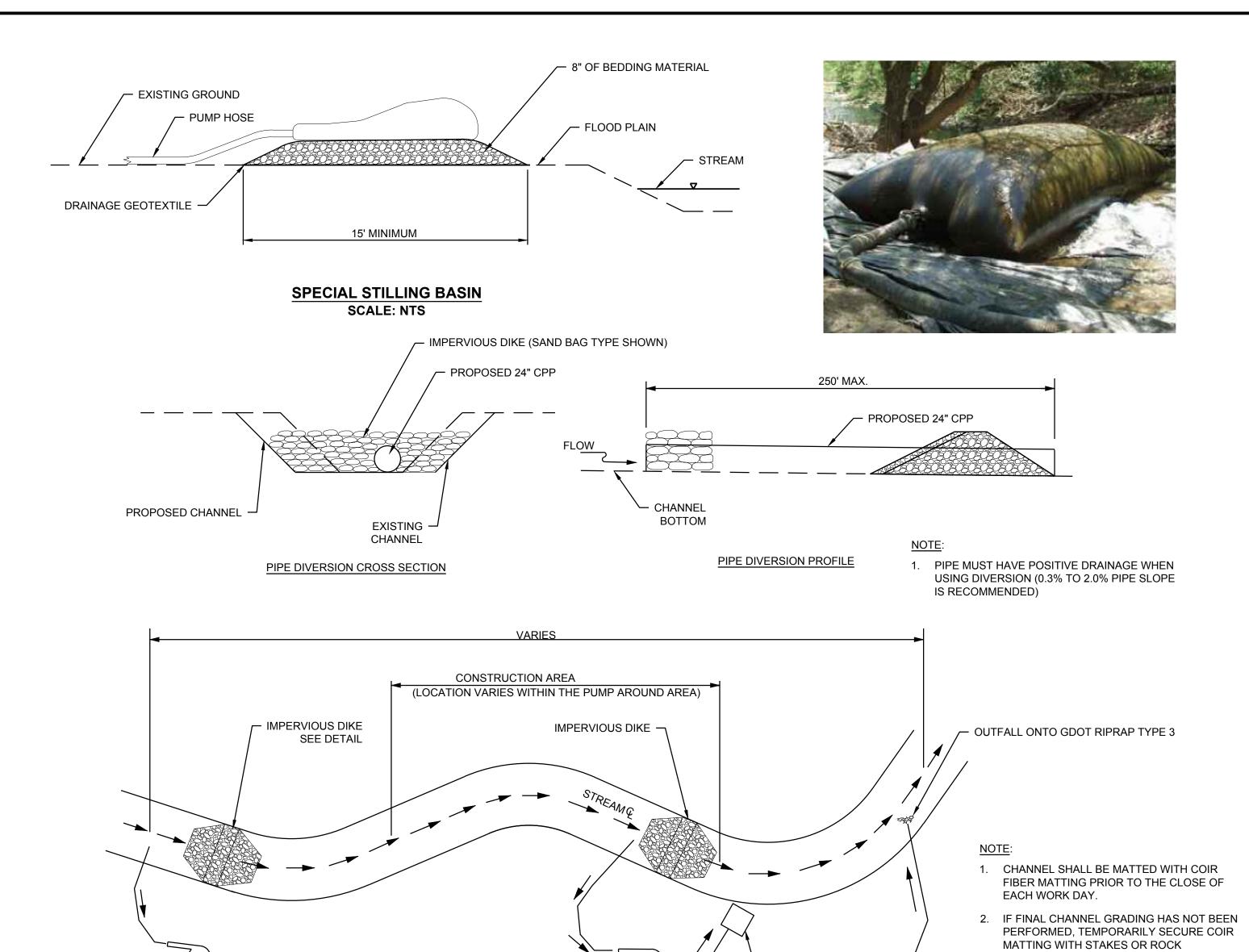
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"Dv" PUMP-AROUND/PIPE DIVERSION SCALE: NTS

SEDIMENT PUMP AS REQUIRED

PUMP-AROUND DIVERSION PLANVIEW

- MAIN PUMP

(BASEFLOW)

SPECIAL STILLING BASIN
 SEE DETAIL THIS SHEET /

24 HOUR CONTACT:	DATE				12/2/2022	09/15/202
TOM ROBERTS	ВУ				JPS	JPS
NAME			_		<u> </u>	ſ
404-637-0540						
PHONE						
TOM.ROBERTS@BROOKHAVENGA.GOV					EW	
EMAIL					DP REVII	VIEW
GEORGIA SOIL AND WATER CONSERVATION COMMISSION					CITY OF BROOKHAVEN LDP REVIEW	DEKALB COUNTY LDP REVIEW
JOHN P. SCHNEIDER					F BR(В СО
Level II Certified Design Professional	ISSUE				CITY O	DEKAL
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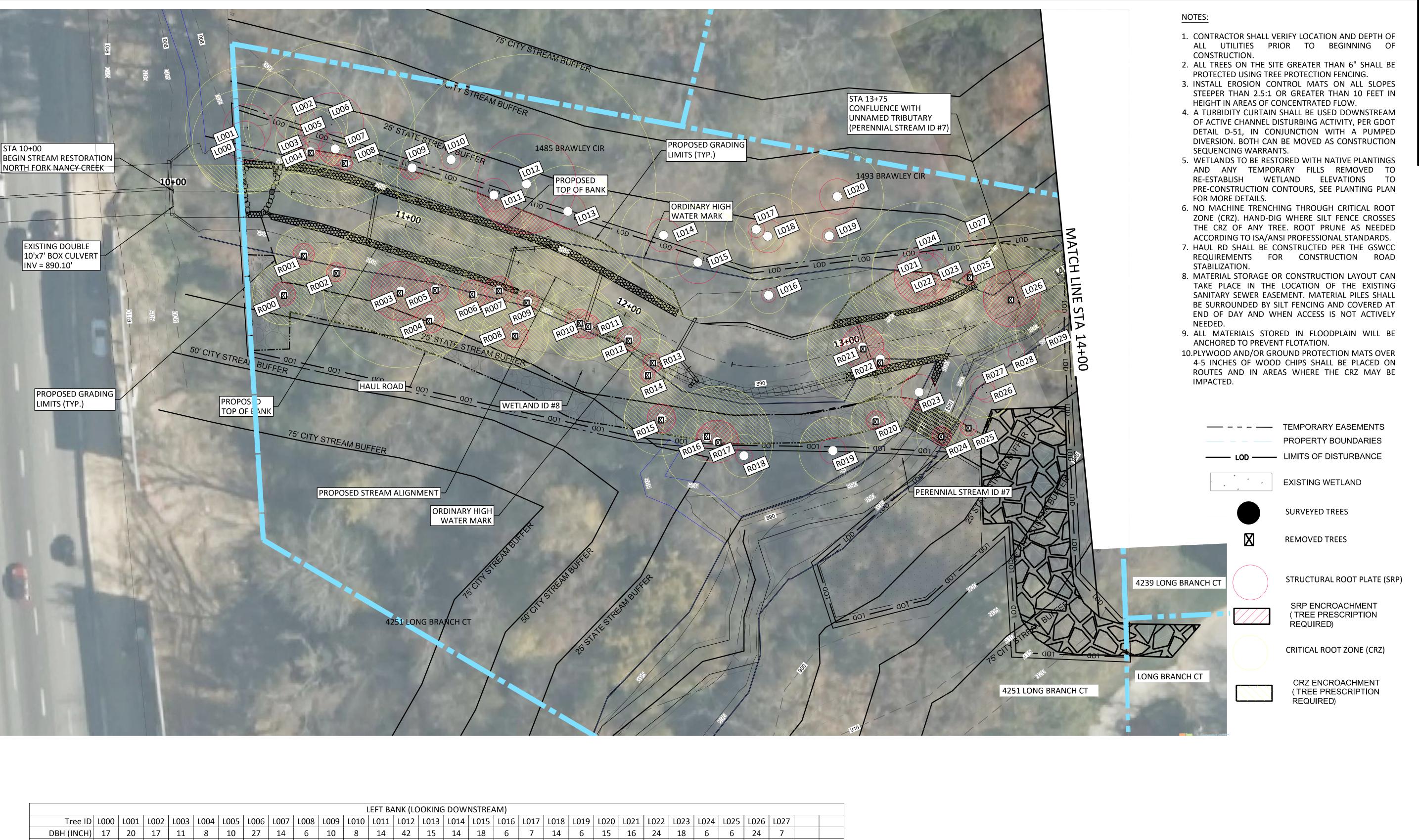
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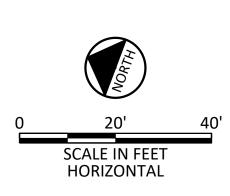
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SRP (FT) | 8.5 | 10 | 8.5 | 5.5 | 4 | 5 | 13.5 | 7 | 3 | 5 | 4 | 7 | 21 | 7.5 | 7 | 9 | 3 | 3.5 | 7 | 3 | 7.5 | 8 | 12 | 9 | 3 | 3 | 12 | 3.5 SRP IMPACT (%) 0 0 0 15 62 0 3 32 100 31 0 35 18 2 0 0 0 0 0 CRZ (FT) | 22.1 | 26 | 22.1 | 14.3 | 10.4 | 13 | 35.1 | 18.2 | 7.8 | 13 | 10.4 | 18.2 | 54.6 | 19.5 | 18.2 | 23.4 | 7.8 | 9.1 | 18.2 | 7.8 | 19.5 | 20.8 | 31.2 | 23.4 | 7.8 CRZ IMPACT (%) | 24 | 16 | 12 | 31 | 53 | 22 | 25 | 42 | 74 | 42 | 1 | 44 | 37 | 29 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 44 | 51 | 50 | 0 RIGHT BANK (LOOKING DOWNSTREAM) TREE ID | R000 | R001 | R002 | R003 | R004 | R005 | R006 | R007 | R008 | R009 | R010 | R011 | R012 | R013 | R014 | R015 | R016 | R017 | R018 | R019 | R020 | R021 | R022 | R023 | R024 | R025 | R026 | R027 | R028 | R029 | DBH (INCH) | 10 | 9 | 8 | 25 | 12 | 11 | 12 | 12 | 11 | 9 | 12 | 10 | 10 | 8 | 6 | 12 | 8 | 18 | SRP (FT) 5 | 4.5 | 4 | 12.5 | 6 | 5.5 | 6 | 6 | 5.5 | 4.5 | 6 | 5 | 5 | 4 | 3 | 6 | 4 | 9 | 3.5 | 5.5 | 4 | 9 | 4 | 7.5 | 4 | 3.5 | 4 | 5 | 3.5 | 7 SRP IMPACT (%) | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 52 CRZ (FT) 13 | 11.7 | 10.4 | 32.5 | 15.6 | 14.3 | 15.6 | 15.6 | 14.3 | 15.6 | 14.3 | 11.7 | 15.6 | 13 | 13 | 10.4 | 7.8 | 15.6 | 10.4 | 23.4 | 9.1 | 14.3 | 10.4 | 23.4 | 10.4 | 19.5 | 10.4 | 9.1 | 10.4 | 13 | 9.1 | 18.2 CRZ IMPACT (%) 96 | 100 | 100 | 87 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 59 | 49 | 16 | 27 | 69 | 91 | 100 | 55 | 65





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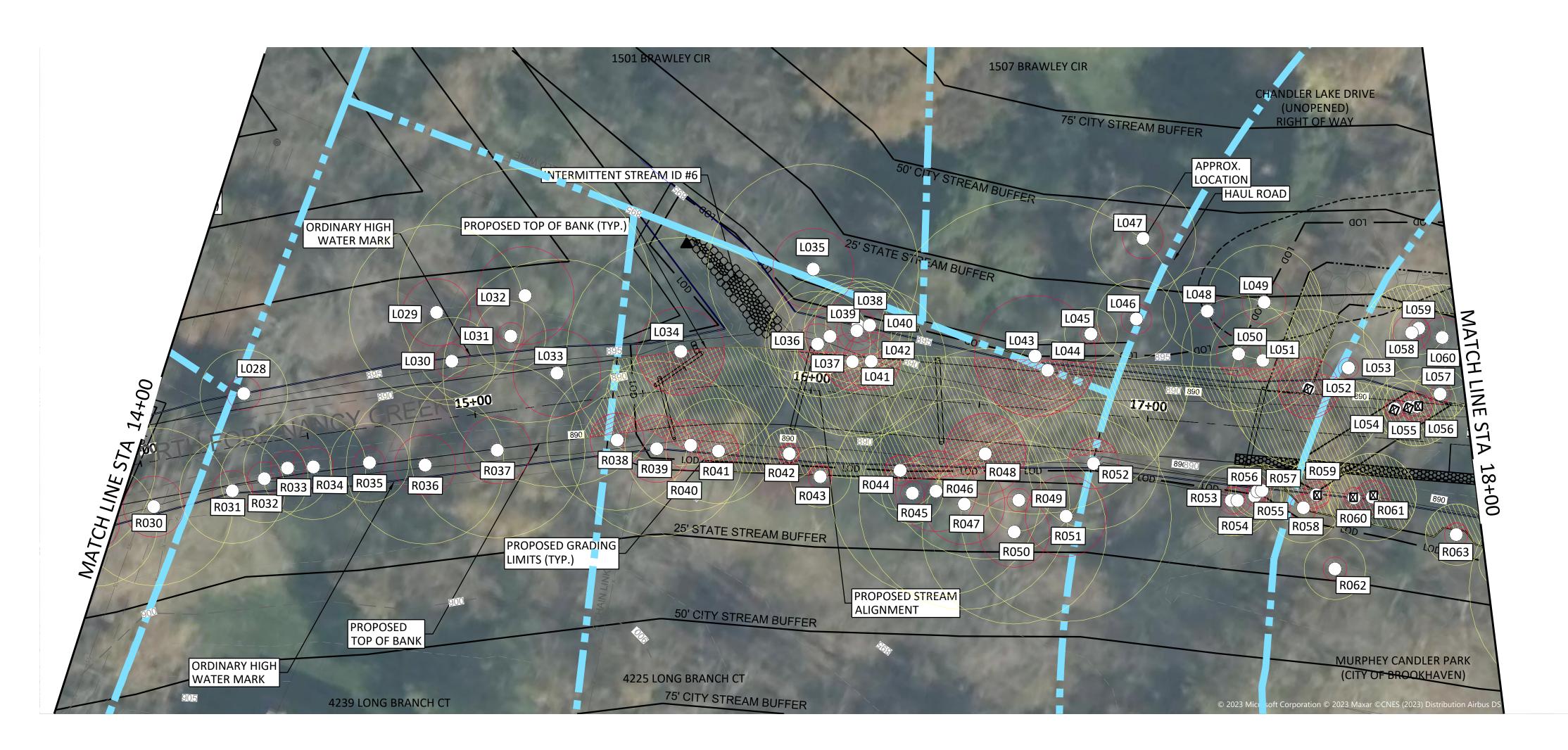
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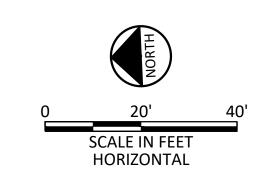
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TREE ID	L028	L029	L030	L031	L032	L033	L034	L035	L036	L037	L038	L039	L040	L041	L042	L043	L044	L045	L046	L047	L048	L049	L050	L051	L052	L053	L054	L055	L056	L057	L058	L059	L060	
DBH (INCH)	10	20	10	8	29	26	26	24	12	14	10	12	10	17	17	36	7	6	9	12	10	13	13	12	18	6	6	6	9	6	11	6	12	
SRP (FT)	5	10	5	4	14.5	13	13	12	6	7	5	6	5	8.5	8.5	18	3.5	3	4.5	6	5	6.5	6.5	6	9	3	3	3	4.5	3	5.5	3	6	
SRP IMPACT (%)	0	0	0	0	0	0	50	0	25	10	0	0	0	68	66	46	95	0	0	0	0	0	12	32	94	0	100	100	94	19	0	0	0	
CRZ (FT)	13	26	13	10.4	37.7	33.8	33.8	31.2	15.6	18.2	13	15.6	13	22.1	22.1	46.8	9.1	7.8	11.7	15.6	13	16.9	16.9	15.6	23.4	7.8	7.8	7.8	11.7	7.8	14.3	7.8	15.6	
CRZ IMPACT (%)	0	0	0	0	0	0	44	6	41	34	12	23	12	57	56	38	69	0	0	0	0	16	40	56	75	22	91	83	69	38	22	12	22	
													RI	GHT B	ANK (LO	OOKING	DOW	NSTRE.	AM)															
TREE ID	R030	R031	R032	R033	R034	R035	R036	R037	R038	R039	R040	R041	R042	R043	R044	R045	R046	R047	R048	R049	R050	R051	R052	R053	R054	R055	R056	R057	R058	R059	R060	R061	R062 F	R063
DBH (INCH)	18	12	10	10	12	9	18	20	16	20	15	12	6	7	9	7	24	24	24	7	21	24	15	8	8	6	6	6	8	8	6	10	7	7
SRP (FT)	9	6	5	5	6	4.5	9	10	8	10	7.5	6	3	3.5	4.5	3.5	12	12	12	3.5	10.5	12	7.5	4	4	3	3	3	4	4	3	5	3.5	3.5
SRP IMPACT (%)	0	0	0	0	0	0	0	0	35	29	66	91	100	45	89	0	29	9	78	0	0	0	27	0	0	0	0	0	45	100	100	100	0	25
CRZ (FT)	23.4	15.6	13	13	15.6	11.7	23.4	26	20.8	26	19.5	15.6	7.8	9.1	11.7	9.1	31.2	31.2	31.2	9.1	27.3	31.2	19.5	10.4	10.4	7.8	7.8	7.8	10.4	10.4	7.8	13	9.1	9.1
CRZ IMPACT (%)	0	0	0	0	0	0	0	0	47	48	56	64	92	48	65	23	41	32	58	0	10	18	43	0	0	0	5	11	42	74	96	86	0	51

NOTES:

- 1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
- 2. ALL TREES ON THE SITE GREATER THAN 6" SHALL BE PROTECTED USING TREE PROTECTION FENCING.
- 3. INSTALL EROSION CONTROL MATS ON ALL SLOPES STEEPER THAN 2.5:1 OR GREATER THAN 10 FEET IN HEIGHT IN AREAS OF CONCENTRATED FLOW.
- 4. A TURBIDITY CURTAIN SHALL BE USED DOWNSTREAM OF ACTIVE CHANNEL DISTURBING ACTIVITY, PER GDOT DETAIL D-51, IN CONJUNCTION WITH A PUMPED DIVERSION. BOTH CAN BE MOVED AS CONSTRUCTION SEQUENCING WARRANTS.
- 5. WETLANDS TO BE RESTORED WITH NATIVE PLANTINGS AND ANY TEMPORARY FILLS REMOVED TO RE-ESTABLISH WETLAND ELEVATIONS TO PRE-CONSTRUCTION CONTOURS, SEE PLANTING PLAN FOR MORE DETAILS.
- 6. NO MACHINE TRENCHING THROUGH CRITICAL ROOT ZONE (CRZ). HAND-DIG WHERE SILT FENCE CROSSES THE CRZ OF ANY TREE. ROOT PRUNE AS NEEDED ACCORDING TO ISA/ANSI PROFESSIONAL STANDARDS.
- 7. HAUL RD SHALL BE CONSTRUCTED PER THE GSWCC REQUIREMENTS FOR CONSTRUCTION ROAD STABILIZATION.
- 8. MATERIAL STORAGE OR CONSTRUCTION LAYOUT CAN TAKE PLACE IN THE LOCATION OF THE EXISTING SANITARY SEWER EASEMENT. MATERIAL PILES SHALL BE SURROUNDED BY SILT FENCING AND COVERED AT END OF DAY AND WHEN ACCESS IS NOT ACTIVELY NEEDED.
- 9. CONTRACTOR SHALL HAVE A PLAN TO MAINTAIN PEDESTRIAN ACCESS THROUGH THE EXISTING WALKING PATH AND SHALL COORDINATE WITH THE CITY AND ENGINEER.
- 10.PLYWOOD AND/OR GROUND PROTECTION MATS OVER 4-5 INCHES OF WOOD CHIPS SHALL BE PLACED ON ROUTES AND IN AREAS WHERE THE CRZ MAY BE IMPACTED.



TEMPORARY EASEMENTS
PROPERTY BOUNDARIES
LIMITS OF DISTURBANCE

EXISTING WETLAND

SURVEYED TREES

REMOVED TREES

STRUCTURAL ROOT PLATE (SRP)

SRP ENCROACHMENT

(TREE PRESCRIPTION REQUIRED)

CRITICAL ROOT ZONE (CRZ)

CRZ ENCROACHMENT (TREE PRESCRIPTION REQUIRED)



FOR REFERENCE ONLY NOT FOR CONSTRUCTION

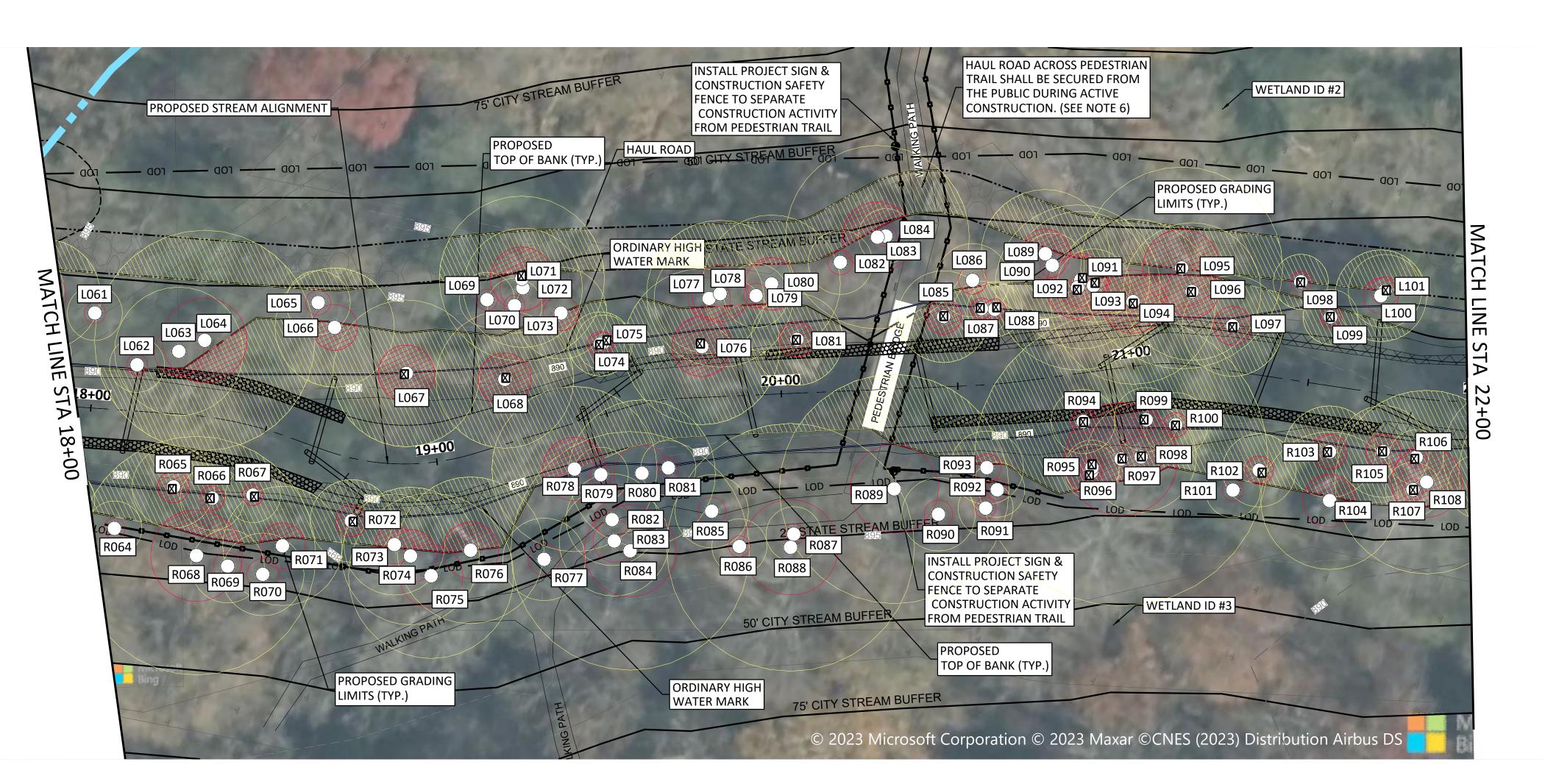
ACAD Rel: 24.1s (LMS Tech) Filename: N:\WTU\Drawings\ESC-TR-SHTS1.dwg Last Saved: 11/14/2023 3:30 PM Saved By: 02875

Plot Date: 11/14/2023 4:03 PM Plot By: 02875 Filename: N:\WTU\Drawings\ESC-TR-SHTS1.dwg

EAMBANK REST HEY CANDLER I MURPHEY CREEK 5 TO M **>** ∞ 5 2 N.FORK NANC FROM I-2

TR-2

TORATION LAKE

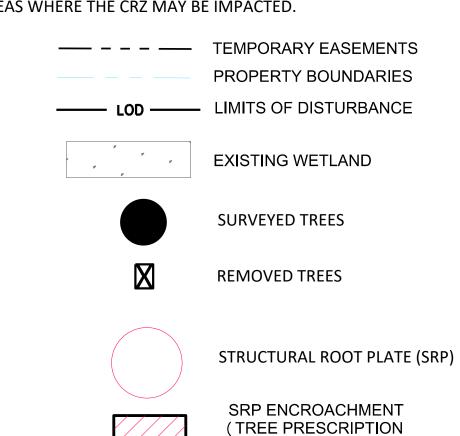


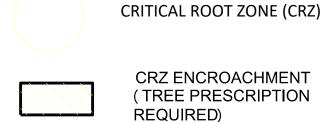
TREE ID	L061	L062	L063	L064	L065	L066	L067	L068	L069	L070	L071	L072	L073	L074	L075	L076	L077	L078	L079	L080	L081	L082	L083	L084	L085	L086	L087	L088	L089	L090	L091	L092	L093	L094	L095	L096	L097	L098	L099	L100	L101				
DBH (INCH)	6	6	14	24	7	13	16	15	6	6	18	13	10	7	6	17	12	16	7	15	10	7	20	6	10	8	6	6	14	7	15	18	8	18	22	15	11	6	6	10	8				
SRP (FT)	3	3	7	12	3.5	6.5	8	7.5	3	3	9	6.5	5	3.5	3	8.5	6	8	3.5	7.5	5	3.5	10	3	5	4	3	3	7	3.5	7.5	9	4	9	11	7.5	5.5	3	3	5	4				
SRP IMPACT (%)	0	23	15	34	0	63	100	100	0	0	40	12	51	100	100	100	25	23	8	14	100	1	37	0	100	21	100	100	35	0	55	66	81	96	90	92	100	50	100	31	49				
CRZ (FT)	7.8	7.8	18.2	31.2	9.1	16.9	20.8	19.5	7.8	7.8	23.4	16.9	13	9.1	7.8	22.1	15.6	20.8	9.1	19.5	13	9.1	26	7.8	13	10.4	7.8	7.8	18.2	9.1	19.5	23.4	10.4	23.4	28.6	19.5	14.3	7.8	7.8	13	10.4				
CRZ IMPACT (%)	0	40	42	62	40	66	85	91	3	4	49	48	52	100	100	82	56	66	32	58	89	26	30	26	73	37	95	98	59	40	78	79	72	91	69	92	97	66	73	60	54				
								_											RIGH	IT BAN	K (LOO	KING D	OWNS	TREAM	1)	_										_									
TREE ID	R064	R065	R066	R067	R068	R069	R070	R071	R072	R073	R074	R075	R076	R077	R078	R079	R080	R081	R082	R083	R084	R085	R086	R087	R088	R089	R090	R091	R092	R093	R094	R095	R096	R097	R098	R099	R100	R101	R102	R103	R104	R105	R106	R107	₹108
DBH (INCH)	6	9	7	6	26	8	9	13	9	11	15	18	16	9	18	6	16	6	10	12	26	8	6	6	27	25	8	6	6	8	7	6	6	32	12	7	7	6	8	10	15	10	6	6	20
SRP (FT)	3	4.5	3.5	3	13	4	4.5	6.5	4.5	5.5	7.5	9	8	4.5	9	3	8	3	5	6	13	4	3	3	13.5	12.5	4	3	3	4	3.5	3	3	16	6	3.5	3.5	3	4	5	7.5	5	3	3	10
SRP IMPACT (%)	0	100	100	100	22	0	0	32	100	60	34	6	50	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	100	100	100	73	98	100	100	0	99	100	41	100	100	100	90
CRZ (FT)	7.8	11.7	9.1	7.8	33.8	10.4	11.7	16.9	11.7	14.3	19.5	23.4	20.8	11.7	23.4	7.8	20.8	7.8	13	15.6	33.8	10.4	7.8	7.8	35.1	32.5	10.4	7.8	7.8	10.4	9.1	7.8	7.8	41.6	15.6	9.1	9.1	7.8	10.4	13	19.5	13	7.8	7.8	26
CRZ IMPACT (%)	24	100	100	100	37	10	5	44	83	54	43	29	43	0	53	18	29	0	0	0	5	0	0	0	1	26	0	0	1 1	45	100	90	83	58	72	100	100	25	72	100	46	100	100	86	66

LEFT BANK (LOOKING DOWNSTREAM)

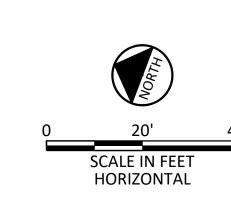


- 1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
- 2. ALL TREES ON THE SITE GREATER THAN 6" SHALL BE PROTECTED USING TREE PROTECTION FENCING.
- 3. INSTALL EROSION CONTROL MATS ON ALL SLOPES STEEPER THAN 2.5:1 OR GREATER THAN 10 FEET IN HEIGHT IN AREAS OF CONCENTRATED FLOW.
- 4. A TURBIDITY CURTAIN SHALL BE USED DOWNSTREAM OF ACTIVE CHANNEL DISTURBING ACTIVITY, PER GDOT DETAIL D-51, IN CONJUNCTION WITH A PUMPED DIVERSION. BOTH CAN BE MOVED AS CONSTRUCTION SEQUENCING WARRANTS.
- 5. WETLANDS TO BE RESTORED WITH NATIVE PLANTINGS AND ANY TEMPORARY FILLS REMOVED TO RE-ESTABLISH WETLAND ELEVATIONS TO PRE-CONSTRUCTION CONTOURS, SEE PLANTING PLAN FOR MORE DETAILS.
- 6. NO MACHINE TRENCHING THROUGH CRITICAL ROOT ZONE (CRZ). HAND-DIG WHERE SILT FENCE CROSSES THE CRZ OF ANY TREE. ROOT PRUNE AS NEEDED ACCORDING TO ISA/ANSI PROFESSIONAL STANDARDS.
- 7. HAUL RD SHALL BE CONSTRUCTED PER THE GSWCC REQUIREMENTS FOR CONSTRUCTION ROAD STABILIZATION.
- 8. MATERIAL STORAGE OR CONSTRUCTION LAYOUT CAN TAKE PLACE IN THE LOCATION OF THE EXISTING SANITARY SEWER EASEMENT. MATERIAL PILES SHALL BE SURROUNDED BY SILT FENCING AND COVERED AT END OF DAY AND WHEN ACCESS IS NOT ACTIVELY NEEDED.
- 9. CONTRACTOR SHALL HAVE A PLAN TO MAINTAIN PEDESTRIAN ACCESS THROUGH THE EXISTING WALKING PATH AND SHALL COORDINATE WITH THE CITY AND ENGINEER.
- 10.PLYWOOD AND/OR GROUND PROTECTION MATS OVER 4-5 INCHES OF WOOD CHIPS SHALL BE PLACED ON ROUTES AND IN AREAS WHERE THE CRZ MAY BE IMPACTED.





REQUIRED)



Know what's **below. Call** before you dig.

FOR REFERENCE ONLY NOT FOR CONSTRUCTION

TORATION

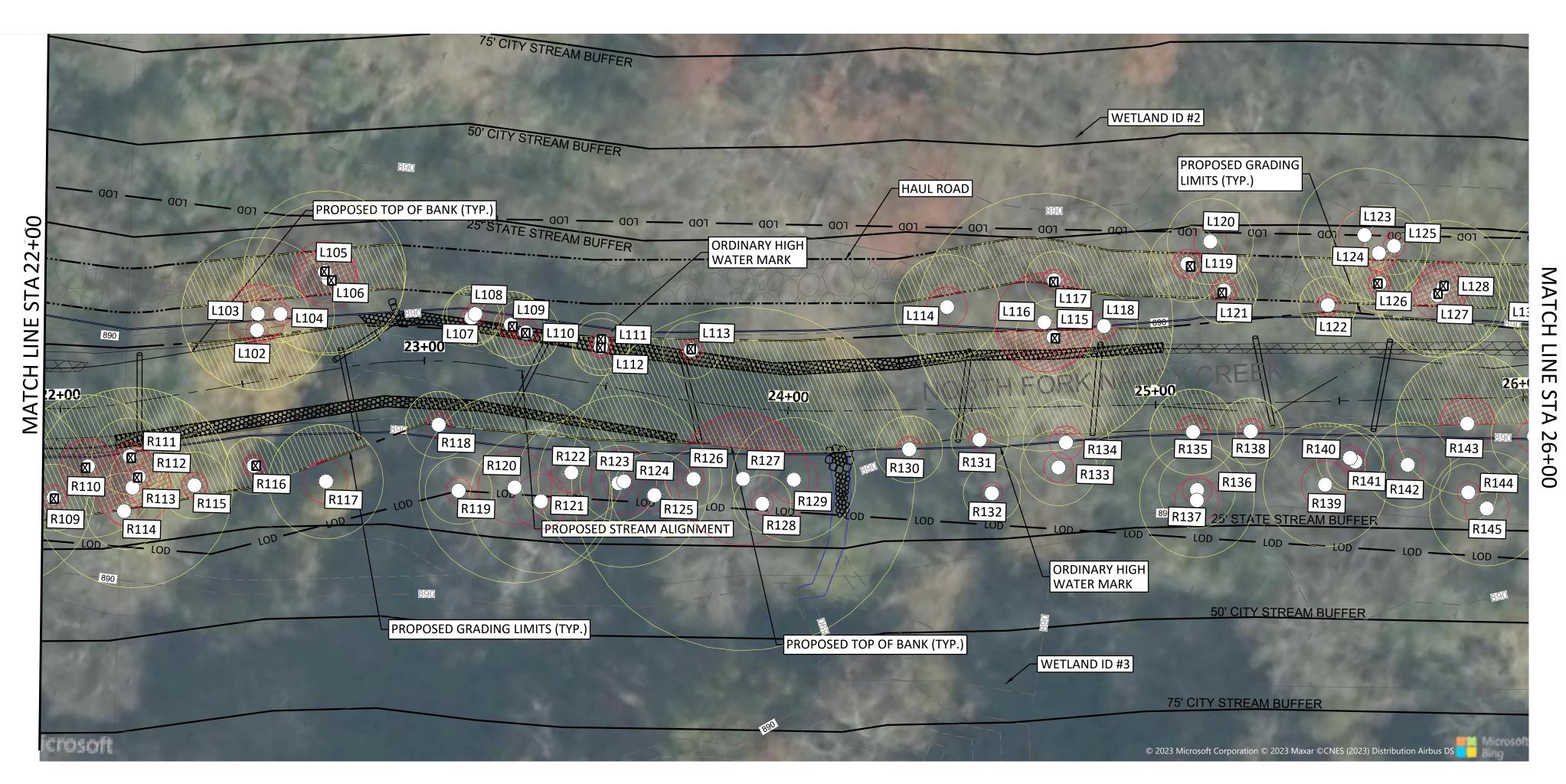
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N.FORK NANC FROM I-2

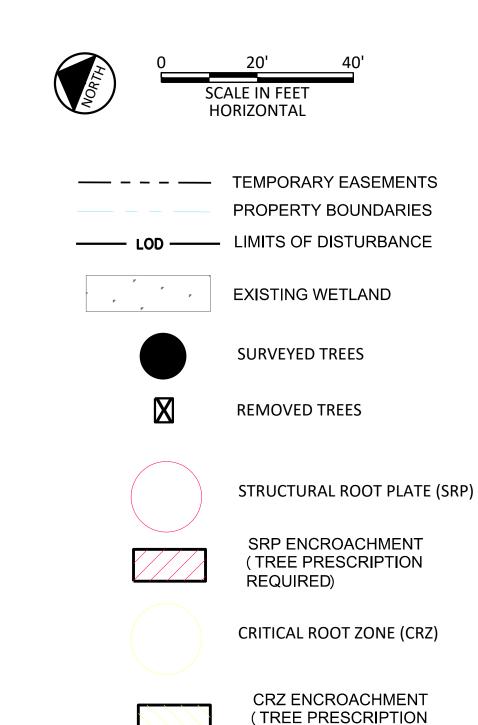
TR-3



															LEF	T BANK	(LOO	KING D	OWNS	TREAM	1)																
TREE ID	L102	L103	L104	L105	L106	L107	L108	L109	L110	L111	L112	L113	L114	L115	L116	L117	L118	L119	L120	L121	L122	L123	L124	L125	L126	L127	L128										
DBH (INCH)	6	16	6	17	16	6	6	7	7	6	6	6	11	8	27	6	7	8	9	7	6	14	10	6	6	13	14										
SRP (FT)	3	8	3	8.5	8	3	3	3.5	3.5	3	3	3	5.5	4	13.5	3	3.5	4	4.5	3.5	3	7	5	3	3	6.5	7										
SRP IMPACT (%)	12	29	0	82	82	0	0	15	47	72	98	100	14	79	46	75	35	92	7	88	47	1	27	0	100	78	92										
CRZ (FT)	7.8	20.8	7.8	22.1	20.8	7.8	7.8	9.1	9.1	7.8	7.8	7.8	14.3	10.4	35.1	7.8	9.1	10.4	11.7	9.1	7.8	18.2	13	7.8	7.8	16.9	18.2										
CRZ IMPACT (%)	34	63	27	44	48	28	27	41	49	59	72	73	55	62	64	60	45	65	32	67	77	27	41	19	87	68	60										
															RIG	HT BAN	K (LOC	KING [OWNS	STREAM	M)																
TREE ID	R109	R110	R111	R112	R113	R114	R115	R116	R117	R118	R119	R120	R121	R122	R123	R124	R125	R126	R127	R128	R129	R130	R131	R132	R133	R134	R135	R136	R137	R138	R139	R140	R141	R142	R143	R144	R145
DBH (INCH)	7	15	8	6	21	8	7	6	12	7	7	20	15	11	8	18	9	6	36	6	13	7	6	6	8	9	9	8	12	7	13	7	6	9	15	6	12
SRP (FT)	3.5	7.5	4	3	10.5	4	3.5	3	6	3.5	3.5	10	7.5	5.5	4	9	4.5	3	18	3	6.5	3.5	3	3	4	4.5	4.5	4	6	3.5	6.5	3.5	3	4.5	7.5	3	6
SRP IMPACT (%)	100	100	100	100	82	42	99	100	2	51	0	0	0	0	0	0	0	0	21	0	0	25	37	0	0	18	41	0	0	36	0	0	0	0	52	0	0
CRZ (FT)	9.1	19.5	10.4	7.8	27.3	10.4	9.1	7.8	15.6	9.1	9.1	26	19.5	14.3	10.4	23.4	11.7	7.8	46.8	7.8	16.9	9.1	7.8	7.8	10.4	11.7	11.7	10.4	15.6	9.1	16.9	9.1	7.8	11.7	19.5	7.8	15.6
CRZ IMPACT (%)	87	89	100	100	62	47	72	90	29	53	0	15	1	11	0	21	0	0	33	0	21	40	46	0	3	37	46	0	0	45	1	1	0	1	51	0	0

NOTES:

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- 9. ALL MATERIALS STORED IN FLOODPLAIN WILL BE ANCHORED TO PREVENT FLOTATION.
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REQUIRED)

FOR REFERENCE ONLY

NOT FOR CONSTRUCTION

TORATION LAKE CREEK STREAMBANK RESTANDLER **>** ∞ , 5 2 N.FORK NANC FROM I-2 TR-4

ACAD Rel: 24.1s (LMS Tech) Filename: N:\WTU\Drawings\ESC-TR-SHTS1.dwg Last Saved: 11/14/2023 3:30 PM Saved By: 02875

												LEF	T BANK	(LOOH	KING D	OWNS ⁻	ΓREAM)													
TREE ID	L129	L130	L131	L132	L133	L134	L135	L136	L137	L138	L139	L140	L141	L142	L143	L144	L145	L146	L147	L148	L149	L150	L151	L152	L153	L154	L155	L156	L157	L158	L159
DBH (INCH)	16	6	15	12	7	6	8	11	12	6	6	8	10	7	10	11	6	10	6	19	12	6	10	8	24	15	8	7	8	8	10
SRP (FT)	8	3	7.5	6	3.5	3	4	5.5	6	3	3	4	5	3.5	5	5.5	3	5	3	9.5	6	3	5	4	12	7.5	4	3.5	4	4	5
SRP IMPACT (%)	82	47	69	90	62	100	69	0	9	0	0	0	0	0	0	0	0	0	0	0	59	18	0	42	4	0	0	0	0	0	0
CRZ (FT)	20.8	7.8	19.5	15.6	9.1	7.8	10.4	14.3	15.6	7.8	7.8	10.4	13	9.1	13	14.3	7.8	13	7.8	24.7	15.6	7.8	13	10.4	31.2	19.5	10.4	9.1	10.4	10.4	13
CRZ IMPACT (%)	48	59	82	59	61	74	57	24	33	0	7	0	0	0	0	0	0	0	0	29	43	37	23	48	33	0	0	0	0	0	0
												RIGH	HT BAN	K (LOO	KING E	OWNS	TREAN	/ 1)													
TREE ID	R146	R147	R148	R149	R150	R151	R152	R153	R154	R155	R156	R157	R158	R159	R160	R161	R162	R163	R164	R165	R166	R167	R168	R169	R170	R171	R172	R173	R174		
DBH (INCH)	9	10	12	6	7	6	8	9	18	10	16	9	7	15	14	12	24	9	6	8	14	8	6	6	7	10	11	16	6		
SRP (FT)	4.5	5	6	3	3.5	3	4	4.5	9	5	8	4.5	3.5	7.5	7	6	12	4.5	3	4	7	4	3	3	3.5	5	5.5	8	3		
SRP IMPACT (%)	7	0	0	0	0	0	29	0	12	5	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	25		
CRZ (FT)	11.7	13	15.6	7.8	9.1	7.8	10.4	11.7	23.4	13	20.8	11.7	9.1	19.5	18.2	15.6	31.2	11.7	7.8	10.4	18.2	10.4	7.8	7.8	9.1	13	14.3	20.8	7.8		
CRZ IMPACT (%)	33	6	1	0	0	0	42	0	34	31	46	1	0	5	16	0	8	0	0	26	17	0	0	1	0	3	0	44	40		

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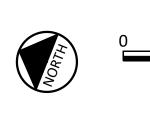
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N.FORK NANC FROM I-2

TR-5

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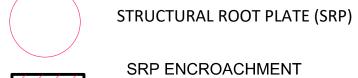
SCALE IN FEET HORIZONTAL

— – – – TEMPORARY EASEMENTS PROPERTY BOUNDARIES LIMITS OF DISTURBANCE

EXISTING WETLAND

SURVEYED TREES

REMOVED TREES



(TREE PRESCRIPTION REQUIRED)

CRITICAL ROOT ZONE (CRZ)

CRZ ENCROACHMENT (TREE PRESCRIPTION REQUIRED)

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