CIVIL ENGINEER

Rivers & Associates, Inc.
Greenville, NC

Rivers & ASSOCIATES, INC.
Since 1918

107 East Second Street
Greenville, NC 27858
(252) 752-4135

Contact: J. DWIGHT VERNELSON, PE
dvernelson@riversandassociates.com

OWNER / DEVELOPER

Greenville Utilities Commission

3355 NC Highway 43
Greenville, NC 27834

P.O. Box 1847
Greenville, NC 27835
(252) 551-1580

Contact: Nicholas L. Peaden, PE
Substation & Controls Engineer
peadennl@guc.com

SITE DEVELOPMENT PLANS FOR

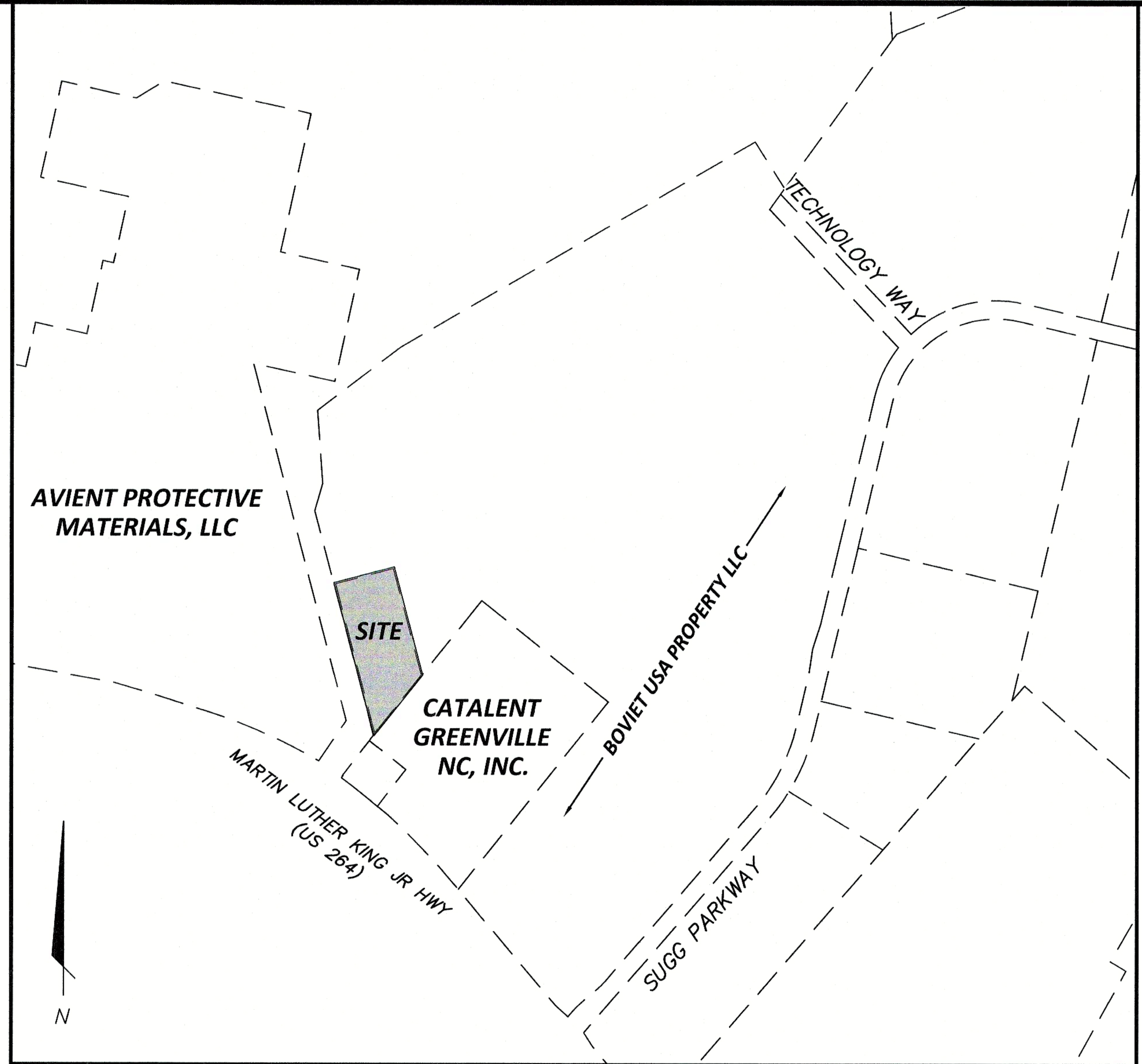
GREENVILLE UTILITIES COMMISSION
BOVIET SUBSTATION

SITE DATA:

- PARCEL NO. 93613
- SITE ADDRESS: 5442 MLK, JR. HWY GREENVILLE, NC 27834 (revision 1)
- REFERENCE: D.B. 4723, PGs. 695-702 & M.B. 94, PGs. 107-108
- TOTAL AREA: 3.62 ACRES (157,902 S.F.)
- ZONING: IU (UNOFFENSIVE INDUSTRY)
- LAND USE CLASSIFICATION (LUC): 3
- PUBLIC STREET SETBACK: 25 FEET (PER ARTICLE G)
- SIDE SETBACK: 6 FEET (PER ARTICLE G)
- REAR SETBACK: 6 FEET (PER ARTICLE G)
- MAX HEIGHT (ABOVE GRADE): NONE
- MAX. LOT COVERAGE (EXCLUDING DRIVES AND PARKING): 50%
- PROPOSED LOT COVERAGE: 33.3%
- BUFFER REQUIREMENT ADJACENT TO IU ZONING; 6' TYPE 'B'
- PARKING: N/A
- IMPERVIOUS AREA:
  A. EXISTING: 0 S.F.
  B. PROPOSED: 104,125 S.F.
  C. PERCENT IMPERVIOUS: 66.0%
- TOTAL DISTURBED AREA: 4.5 ACRES

GENERAL NOTES:

1. CONTACT NORTH CAROLINA ONE CALL CENTER, INC. (NC811) TO HAVE ALL UNDERGROUND UTILITIES LOCATED 72 HOURS PRIOR TO EXCAVATION OR TRENCHING.
2. ALL REQUIRED IMPROVEMENTS SHALL CONFROM TO THE CITY OF GREENVILLE AND GREENVILLE UTILITIES DESIGN STANDARDS AND SPECIFICATIONS.
3. PROPERTY IS LOCATED IN A ZONE 'X' (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE 500 YEAR FLOODPLAIN), PER FEMA FLOOD INSURANCE RATE MAP 3720468800K PANEL 4688, EFFECTIVE 7/7/2014.
4. STORMWATER: THIS PROJECT IS LOCATED IN THE TAR-PAMLICO BASIN.
5. WATER AND SEWER: NO OCCUPIABLE STRUCTURE IS PROPOSED. WATER AND SEWER SERVICE ARE NOT PROVIDED.
6. REFUSE COLLECTION SHALL BE PROVIDED BY PRIVATE SERVICE.
7. REFER TO ELECTRICAL PLAN FOR COORDINATION OF PROPOSED ELECTRICAL SUBSTATION FACILITIES.
8. EROSION CONTROL PLAN APPROVAL FROM NCDEQ REQUIRED PRIOR TO SITE PLAN APPROVAL. (revision 1)
9. STORMWATER PLAN APPROVAL REQUIRED PRIOR TO SITE PLAN APPROVAL. (revision 1)



Vicinity Map

SCALE: 1" = 500'

SHEET INDEX	
C1	COVER SHEET
C2	EXISTING CONDITIONS
C3	EROSION CONTROL - PHASE I
C4	EROSION CONTROL - PHASE II
C5	EROSION CONTROL DETAILS
C6	EROSION CONTROL DETAILS
C7	SITE PLAN
C8	GRADING PLAN
C9	STORMWATER CONTROL PLAN/DETAILS
L1	LANDSCAPE PLAN

811
CALL BEFORE YOU DIG!
WWW.NC811.ORG
N.C. ONE-CALL CENTER
IT'S THE LAW!

30' 0 15' 30'
SCALE 1 inch = 30 ft

City of Greenville Site Plan Approval
Date ____________

☐ Approved ☐ Approved as Noted ____________

Zoning	Engineering
Surveyor/Floodplain	Inspections
Fire/Rescue	GUC Electric
GUC Water/Sewer	GUC Gas
NCDOT	Vegetation
Traffic Services	Notes

**Site Plan Approval ONLY. Engineer/Architect/Surveyor shall be responsible for adequacy of design, errors or omissions in the plans. All plans shall meet all specifications, standards, and applicable regulations.*

NC License: F-0334
Rivers & ASSOCIATES, INC. Since 1918
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers Planners Surveyors Landscape Architects

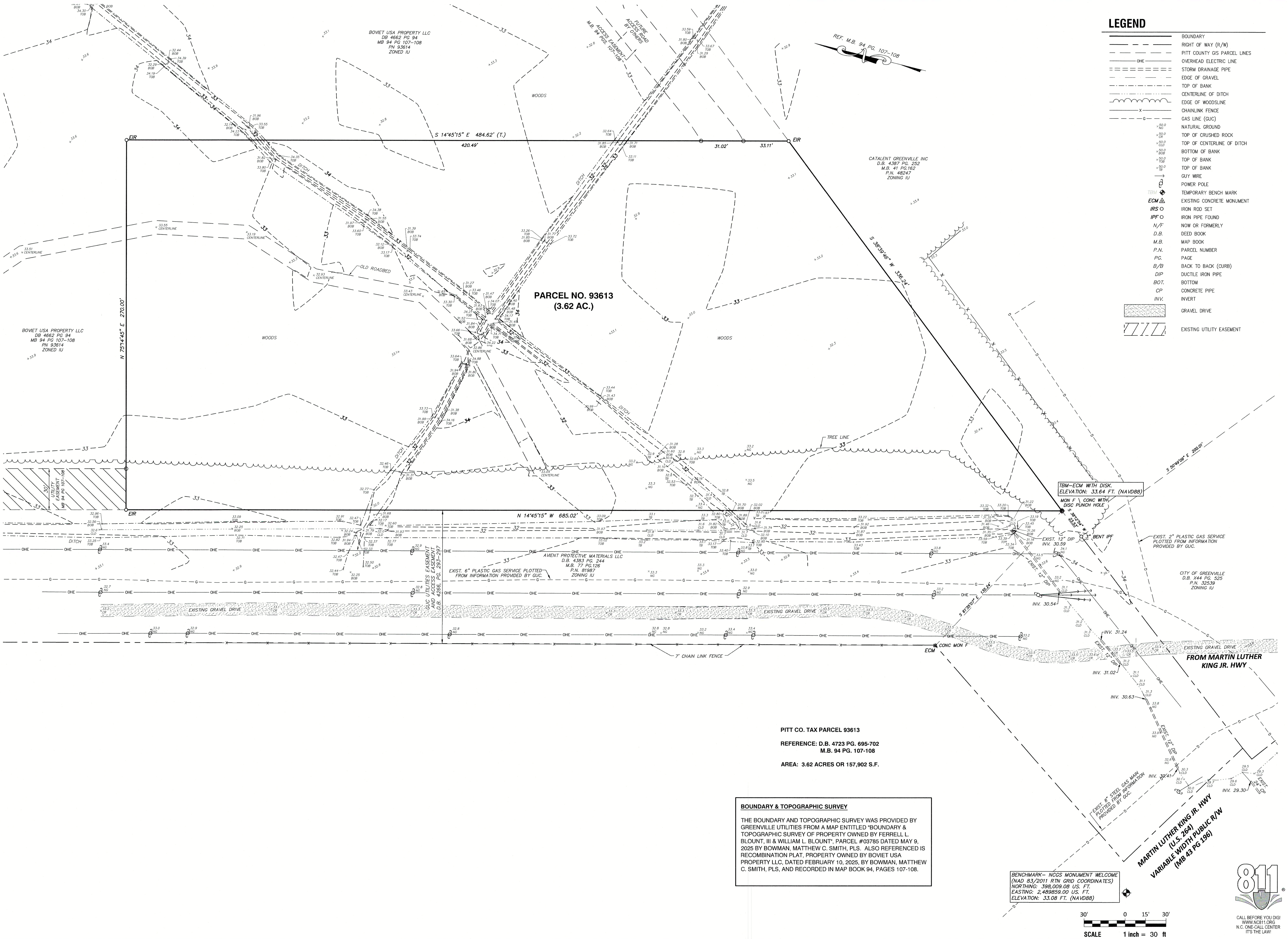
NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER J. DWIGHT VERNELSON
01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

BOVIET SUBSTATION
GREENVILLE UTILITIES COMMISSION
CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA
COVER SHEET

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C1



LEGEND

	BOUNDARY
	RIGHT OF WAY (R/W)
	PITT COUNTY GIS PARCEL LINES
OHE	OVERHEAD ELECTRIC LINE
	STORM DRAINAGE PIPE
	EDGE OF GRAVEL
	TOP OF BANK
	CENTERLINE OF DITCH
	EDGE OF WOODSLINE
X	CHAINLINK FENCE
G	GAS LINE (GUC)
×50.0 NG	NATURAL GROUND
×50.0 CR	TOP OF CRUSHED ROCK
×50.0 CLD	TOP OF CENTERLINE OF DITCH
×50.0 BOB	BOTTOM OF BANK
×50.0 TOB	TOP OF BANK
×50.0 TB	TOP OF BANK
	GUY WIRE
	POWER POLE
TBM	TEMPORARY BENCH MARK
ECM	EXISTING CONCRETE MONUMENT
IRS	IRON ROD SET
IPF	IRON PIPE FOUND
N/F	NOW OR FORMERLY
D.B.	DEED BOOK
M.B.	MAP BOOK
P.N.	PARCEL NUMBER
PG.	PAGE
B/B	BACK TO BACK (CURB)
DIP	DUCTILE IRON PIPE
BOT.	BOTTOM
CP	CONCRETE PIPE
INV.	INVERT
	GRAVEL DRIVE
	EXISTING UTILITY EASEMENT

PITT CO. TAX PARCEL 93613

REFERENCE: D.B. 4723 PG. 695-702
M.B. 94 PG. 107-108

AREA: 3.62 ACRES OR 157,902 S.F.

BOUNDARY & TOPOGRAPHIC SURVEY

THE BOUNDARY AND TOPOGRAPHIC SURVEY WAS PROVIDED BY GREENVILLE UTILITIES FROM A MAP ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY OF PROPERTY OWNED BY FERRELL L. BLOUNT, III & WILLIAM L. BLOUNT", PARCEL #03785 DATED MAY 9, 2025 BY BOWMAN, MATTHEW C. SMITH, PLS. ALSO REFERENCED IS RECOMBINATION PLAT, PROPERTY OWNED BY BOVIET USA PROPERTY LLC, DATED FEBRUARY 10, 2025, BY BOWMAN, MATTHEW C. SMITH, PLS, AND RECORDED IN MAP BOOK 94, PAGES 107-108.

BENCHMARK– NCGS MONUMENT WELCOME
(NAD 83/2011 RTN GRID COORDINATES)
NORTHING: 398,009.08 US. FT.
EASTING: 2,489859.00 US. FT.
ELEVATION: 33.08 FT. (NAVD88)

SCALE 30' 0 15' 30'
1 inch = 30 ft

811
CALL BEFORE YOU DIG!
WWW.NC811.ORG
N.C. ONE-CALL CENTER
IT'S THE LAW!

NC License: F-0334
Rivers & ASSOCIATES, INC. Since 1918
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers
Planners
Surveyors
Landscape Architects

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER
01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

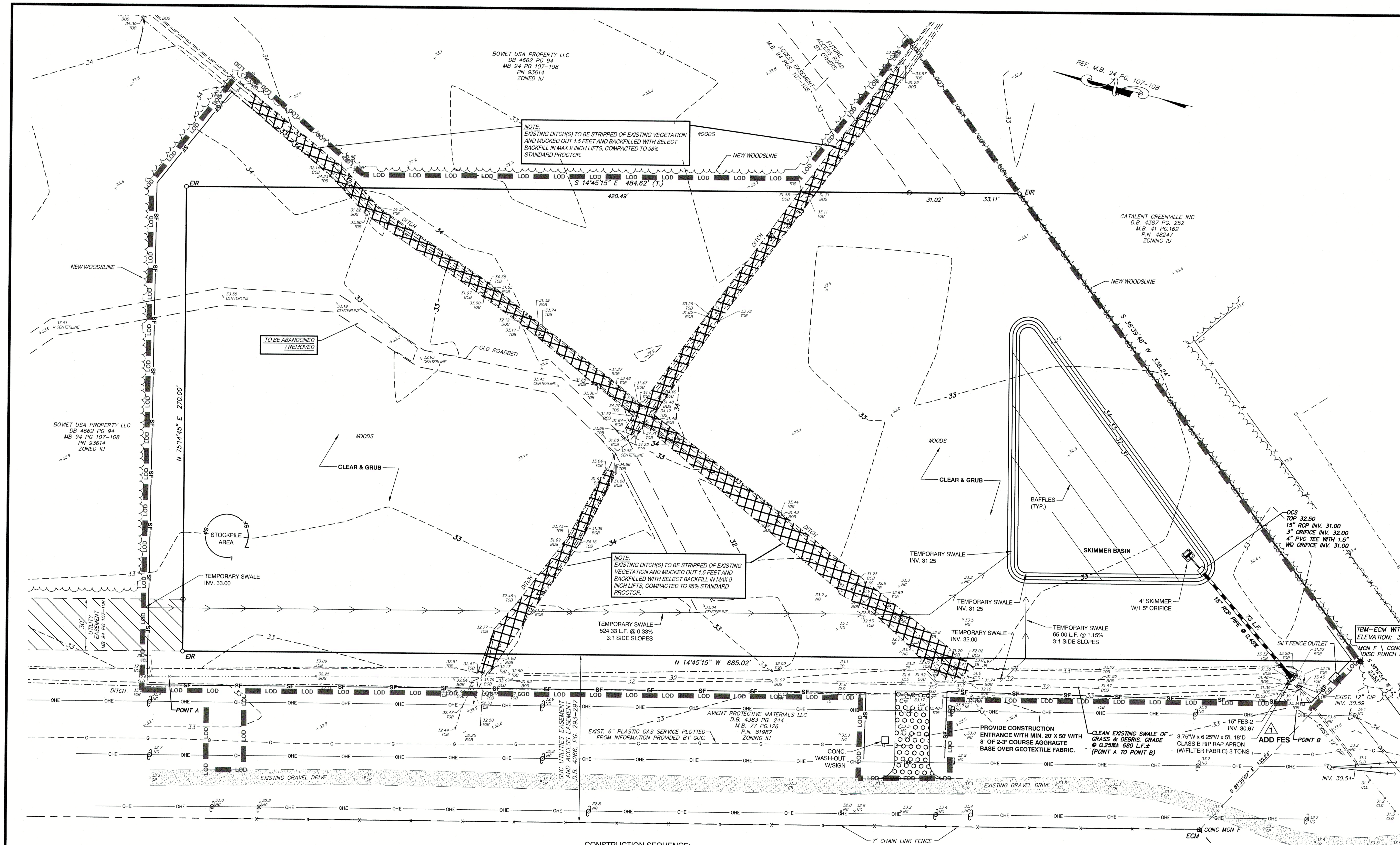
BOVIET SUBSTATION

GREENVILLE UTILITIES COMMISSION

CITY OF GREENVILLE – PITT COUNTY – NORTH CAROLINA

EXISTING CONDITIONS

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C2



LEGEND:

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
SILT FENCE OUTLET	SF
TEMP SWALE	
EXISTING CONTOURS	9, 10
PROPOSED CONTOURS	9, 10
CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
ROCK INLET SEDIMENT TRAP	
TSB	TEMPORARY SEDIMENT BASIN
TDS	TEMPORARY DIVERSION SWALE
WATTLE	
OCS	OUTLET CONTROL STRUCTURE
RCP	REINFORCED CONCRETE PIPE
WQ	WATER QUALITY
L.F.	LINEAR FEET
INV.	INVERT
DI	DROP INLET
DIP	DUCTILE IRON PIPE
PROPOSED GRAVEL DRIVE	
EXISTING GRAVEL DRIVE	

CONSTRUCTION SCHEDULE:

1. OBTAIN PLAN APPROVALS AND ALL APPLICABLE PERMITS.
2. FLAG LIMITS OF ROUGH GRADING FOR SUBSTATION SITE AND ESTABLISH GRADE LIMITS AS NEEDED.
3. SCHEDULING OF A PRECONSTRUCTION CONFERENCE WITH THE ENGINEERING DIVISION IS REQUIRED PRIOR TO INITIATING LAND DISTURING ACTIVITIES. FOR SCHEDULING PLEASE CALL (252) 329-4467. A 24-HOUR NOTICE IS REQUIRED. NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE NOTIFYING THE CITY OF THE DATE TO THE LAND DISTURBING ACTIVITY.

PHASE 1 . CLEARING,GRUBBING,SEDIMENT BASIN, AND PIPING

1. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
2. INSTALL THE PERIMETER SILT FENCES AS THE FIRST CONSTRUCTION ACTIVITY, CLEAR ENOUGH TO INSTALL SILT FENCE, DIVERSION SWALES AND TEMPORARY SKIMMER BASIN.
3. INSTALL TEMPORARY SKIMMER BASIN, DIVERSIONS, AND PERMANENT PIPING AS PER PHASE 1 PLAN
4. BEGIN CLEARING AND GRUBBING STRIP SITE OF TOPSOIL AND STOCKPILE IN THE DESIGNATED AREA.
5. TEMPORARY SEED ALL FILL SLOPES AND COMPLETE PHASE 1 CLEARING, GRUBBING, SEDIMENT BASIN, AND PIPING.

CONTINUE TO PHASE 2: SITE, GRADING, AND PIPING - SHEET C4.

PHASE 2. SITE, GRADING, AND PIPING

1. INSTALL CONCRETE WASHOUT AREA PRIOR TO CONSTRUCTION OF STORM DRAINAGE STRUCTURES.
2. INSTALL STORM DRAINAGE PIPING AND END OF DAY MEASURES.
3. INSTALL HARDWARE CLOTH AND INLET PROTECTION AROUND ALL INLET CATCH BASINS.AND YARD INLETS
4. INSTSTALL SILT BAGS WITHIN ALL FINISHED OR EXISTING CATCH BASINS
5. BEGIN IMPORTING FILL FOR THE CONSTRUCTION OF THE SUBSTATION PADS.
6. ROUGH GRADE YARD AREA.
7. INSTALL UTILITIES ACROSS SITE
8. FINAL GRADE THE SUBSTATION PADS.
9. FINE GRADE AND POUR PADS, FINE GRADE PARKING SUBGRADE. AND INSTALL GRAVEL.
10. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR FLATTER INCLUDING ALL OTHER SLOPES 4:1 OR FLATTER. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 7 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR STEEPER INCLUDING ALL PERMANENT DIKES, SWALES, DITCHES AND SLOPES AND DISTRUBANCES WITHIN HIGH QUALITY WATER (HQWQ) ZONES.
11. PERMANENT GROUND COVER SHALL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90 CALENDAR DAYS (WHICHEVER IS SHORTER).
12. INSTALL E&SC MEASURES AT ANY AREAS USED FOR CONTRACTOR EQUIPMENT STAGING, MATERIALS LAYDOWN, SPOIL OR WASTE AREAS. TO FACILITATE IN CLEANUP, A LAYER OF FINES, SANDS OR SCREENINGS SHOULD BE PLACED ON ANY PAVED SURFACES BEFORE DEPOSITION OF EXCAVATED MATERIAL.
13. DE-WATERING OF ANY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
14. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED BY THE CITY ENGINEER OR OWNER IF DEEMED NECESSARY.
15. FINE GRADE DISTURBED AREAS, AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.
16. ONCE 80% STABILIZATION HAS BEEN ACHIEVED, REMOVE ALL TEMPORARY MEASURES AND CONVERT TEMPORARY SEDIMENT BASIN TO PERMANENT WET POND.
17. MAINTAIN PERMANENT VEGETATION BY TOP DRESSING WITH 700 LBS PER ACRE OF FERTILIZER EVERY 6 MONTHS UNTIL THE COMPLETION OF THE PROJECT.
18. WITHIN 6" OF FINAL GRADE, RE-DISTRIBUTE 6" OF TOP SOIL
19. FINE GRADE, PERMANENTLY SEED AND MULCH ALL LANDSCAPED AREAS
20. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES UPON COMPLETION AND STABILIZATION OF PROJECT.

CONSTRUCTION SEQUENCE:

THE PROJECT CONSISTS OF CONSTRUCTING AN ELECTRICAL SUBSTATION, STORMWATER FACILITY, DEMOLITION, CLEARING & GRUBBING.

1.	CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE EROSION CONTROL OFFICER PRIOR TO INITIATING ANY LAND DISTURBING ACTIVITY.	
2.	INSTALLATION OF EROSION CONTROL MEASURES (SILT FENCE)	1 WEEK
3.	INSTALLATION OF TEMPORARY SKIMMER BASIN	3 WEEKS
4.	DEMOLITION / CLEARING & GRUBBING OPERATIONS	3 WEEKS
5.	CONSTRUCTION OF STORM DRAINAGE	1 WEEK
6.	ROUGH GRADING SITE	3 WEEKS
7.	PLACEMENT OF STONE BASE	2 WEEKS
8.	INSTALLATION OF CONCRETE PADS	2 WEEKS
9.	FINE GRADING	1 WEEK
10.	REMOVAL OF TEMPORARY SKIMMER BASIN, AFTER EROSION CONTROL OFFICER APPROVAL AND INSTALLATION OF PERMANENT STORMWATER FACILITY.	3 WEEKS
11.	LANDSCAPING / SEEDING AND MULCHING/SOD	1 WEEK
12.	CONSTRUCTION OF SUBSTATION STRUCTURES AND GENERATORS	24 WEEKS

SEVERAL OF THE ITEMS LISTED ABOVE MAY BE CONSTRUCTED SIMULTANEOUSLY. AN ANTICIPATED TIME SCHEDULE OF 7 MONTHS IS ANTICIPATED FOR THIS PROJECT.

SKIMMER BASIN DEWATERING SEQUENCE:

1. AFTER SITE IS STABILIZED WITH 80% OF PERMANENT GROUND COVER (GRASS, MULCH, ROCK, PAVEMENT, ETC), THEN CONTRACTOR SHALL CONTACT EROSION CONTROL INSPECTOR AND REQUEST PERMISSION TO REMOVE THE TEMPORARY SKIMMER BASIN.
2. IF THERE IS STANDING WATER IN THE BASIN, THEN DEWATER THE BASIN USING A PORTABLE PUMP, GENERATOR AND SEDIMENT FILTER BAG. PLACE THE PUMP ON TOP OF THE BERM. HOOK UP THE INTAKE HOSE TO THE TEMPORARY SKIMMER AND PLACE THE SKIMMER IN THE BASIN WATER. HOOK UP THE DISCHARGE HOSE TO A SEDIMENT FILTER BAG AND PLACE THE SEDIMENT FILTER BAG ON THE DOWNHILL SIDE OF THE BERM AT THE DRAINAGE OUTLET.
3. RUN THE DEWATERING PUMP UNTIL THE BASIN IS DEWATERED. CONTRACTOR TO OBSERVE THE DEWATERING PROCESS TO ENSURE THAT THE SEDIMENT FILTER BAG IS FUNCTIONING PROPERLY AND NO SEDIMENT IS LEAVING THE SITE. EMPTY THE SEDIMENT FROM THE FILTER BAG AS NEEDED IN AN APPROVED SPOIL MATERIAL LOCATION AND PROMPTLY INSTALL SEED, STRAW AND TACK ON THE SEDIMENT. DO NOT DUMP SEDIMENT IN STREAM BUFFERS, WETLANDS, STREAMS, STORM PIPE SYSTEMS, OR OTHER ENVIRONMENTAL AREAS.
4. FOLLOWING THIS, THEN THE BASIN CAN BE REMOVED. CONTINUE WITH SITE IMPROVEMENTS AND CONSTRUCTION OF WET POND.

Temporary Skimmer Basin
GUC Boviet Substation
MLK JR Hwy
Greenville, NC

Discharge Calculation	
4.50	Disturbed Area (Acres)
0.35	Rational C
5	Time of Concentration (min)
8.03	Intensity (in/hr) Atlas 14
12.65	Peak Flow from 10-year Storm (cfs)

SKIMMER	
4	Skimmer Size (inches)
0.333	Head on Skimmer (ft)
1.5	Orifice Size (1/4 inch increments)
2.70	Dewatering Time (days)
	Suggest about 3 days

Skimmer Size (inches)
1.5
2
2.5
3

Dimension Calculation	
8,100	Required Volume (ft^3) = 1800 x DA
4,110	Required Surface Area (ft^2) = 325 * Q(cfs)
45.3	Suggested Width (ft)
90.7	Suggested Length (ft)
--	Trial Top Width at Spillway Invert (ft)
--	Trial Top Length at Spillway Invert (ft)
--	Trial Side Slope Ratio Z:1
--	Trial Depth (ft)

Elevation (ft)	Area (sq. ft)	Inc Vol (cu ft)	Total Vol (cu ft)
31	8600	0	0
32	9469	9035	9035
32.75	10137	7352	16387
33	10363	9916	18951
34	11281	10822	29773

16,387	Actual Volume (ft^3)	Okay
10,137	Actual Surface Area (ft^2)	Okay

Spillway Calculation		
25	Trial Weir Length (ft)	
0.5	Trial Depth of Flow (ft)	
26.5	Spillway Capacity (cfs)	Okay
0.31	Actual Depth (ft)	
1.66	Velocity (cfs)	
32.75	Spillway Top Elev (ft)	
33.06	10-yr WSEL (ft)	
34	Basin Top	
0.94	Freeboard	

1 REVISED CALCS

LIMITS OF DISTURBANCE = 4.5 AC.

BENCHMARK– NCGS MONUMENT WELCOME (NAD 83/2011 RTN GRID COORDINATES)
NORTHING: 398,009.08 US. FT.
EASTING: 2,489859.00 US. FT.
ELEVATION: 33.08 FT. (NAVD88)

SCALE 30' 0 15' 30' — 1 inch = 30 ft

811 — CALL BEFORE YOU DIG! WWW.NC811.ORG N.C. ONE-CALL CENTER IT'S THE LAW!

Rivers & ASSOCIATES, INC. Since 1918
NC License: F-0334
Engineers Planners Surveyors Landscape Architects
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135

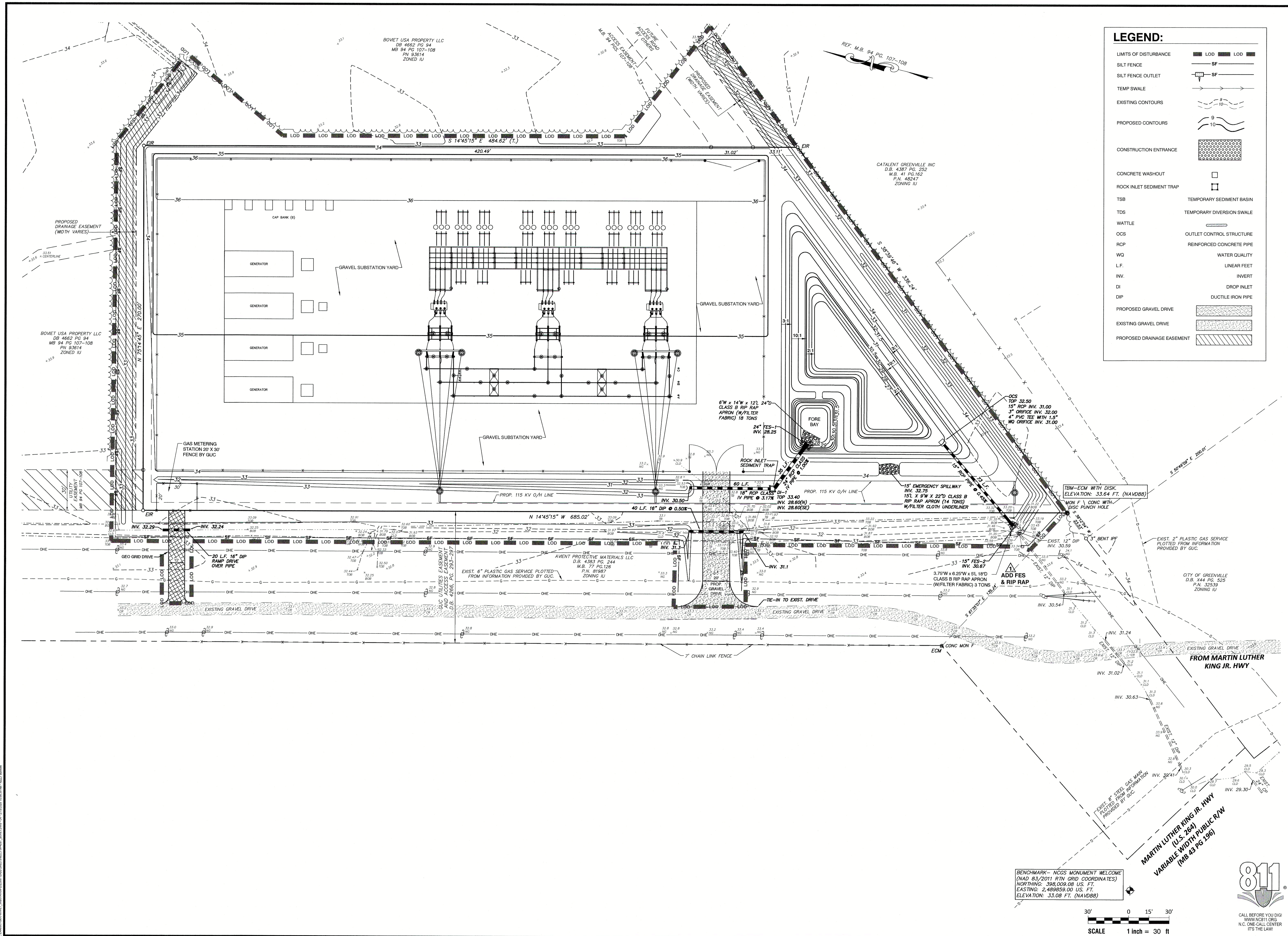
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 13055 J. DWIGHT VERMELSON — 01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

BOVIET SUBSTATION
GREENVILLE UTILITIES COMMISSION
CITY OF GREENVILLE – PITT COUNTY – NORTH CAROLINA
EROSION CONTROL - PHASE I

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C3


BOVIET USA PROPERTY LLC
DB 4662 PG 94
MB 94 PG 107-108
PN 93614
ZONED IU
REF. M.B. 94 PG. 107-108
CATALENT GREENVILLE INC
D.B. 4387 PG. 252
M.B. 41 PG.162
P.N. 48247
ZONING IU
PROPOSED DRAINAGE EASEMENT (WIDTH VARIES)
S 14°45'15" E 484.62' (T.)
420.49'
N 75°14'45" E 270.00'
N 14°45'15" W 685.02'
CAP BANK (E)
GENERATOR
GENERATOR
GENERATOR
GENERATOR
GRAVEL SUBSTATION YARD
GRAVEL SUBSTATION YARD
GRAVEL SUBSTATION YARD
GAS METERING STATION 20' X 30' FENCE BY GUC
FORE BAY
6'W x 14'W x 12'L 24"D CLASS B RIP RAP APRON (W/FILTER FABRIC) 18 TONS
24" FES-1 INV. 28.25
ROCK INLET SEDIMENT TRAP
OCS TOP 32.50 15" RCP INV. 31.00 3" ORIFICE INV. 32.00 4" PVC TEE WITH 1.5" WQ ORIFICE INV. 31.00
15" EMERGENCY SPILLWAY INV. 32.75 15'L X 9'W X 22"D CLASS B RIP RAP APRON (14 TONS) W/FILTER CLOTH UNDERLINER
DI-1 TOP 33.40 INV. 28.60(N) INV. 28.60(SE)
18" RCP CLASS IV PIPE @ 3.17%
40 L.F. 16" DIP @ 0.50%
20 L.F. 16" DIP RAMP DRIVE OVER PIPE
GEO GRID DRIVE
PROP. 115 KV O/H LINE
AVIENT PROTECTIVE MATERIALS LLC D.B. 4383 PG. 244 M.B. 77 PG.126 P.N. 81987 ZONING IU
EXIST. 6" PLASTIC GAS SERVICE PLOTTED FROM INFORMATION PROVIDED BY GUC.
GUC UTILITIES EASEMENT AND ACCESS EASEMENT D.B. 4266, PG. 293-297
PROP. GRAVEL DRIVE
TIE-IN TO EXIST. DRIVE
EXISTING GRAVEL DRIVE
7' CHAIN LINK FENCE
15" FES-2 INV. 30.67
3.75'W x 6.25'W x 5'L 18"D CLASS B RIP RAP APRON (W/FILTER FABRIC) 3 TONS
ADD FES & RIP RAP
TBM-ECM WITH DISK. ELEVATION: 33.64 FT. (NAVD88)
MON F CONC WITH DISC PUNCH HOLE
EXIST. 2" PLASTIC GAS SERVICE PLOTTED FROM INFORMATION PROVIDED BY GUC.
CITY OF GREENVILLE D.B. X44 PG. 525 P.N. 32539 ZONING IU
FROM MARTIN LUTHER KING JR. HWY
EXIST. 8" STEEL GAS MAIN PLOTTED FROM INFORMATION PROVIDED BY GUC.
MARTIN LUTHER KING JR. HWY (U.S. 264) VARIABLE WIDTH PUBLIC R/W (MB 43 PG 196)
FUTURE ACCESS ROAD BY OTHERS
ACCESS EASEMENT M.B. 94 PG 107-108
UTILITY EASEMENT MB 94 PG 107-108
CONC MON F
ECM
S 50°49'09" E 200.01'
S 38°39'46" W 336.24'

LEGEND:

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
SILT FENCE OUTLET	SF
TEMP SWALE	
EXISTING CONTOURS	9, 10
PROPOSED CONTOURS	9, 10
CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
ROCK INLET SEDIMENT TRAP	
TSB	TEMPORARY SEDIMENT BASIN
TDS	TEMPORARY DIVERSION SWALE
WATTLE	
OCS	OUTLET CONTROL STRUCTURE
RCP	REINFORCED CONCRETE PIPE
WQ	WATER QUALITY
L.F.	LINEAR FEET
INV.	INVERT
DI	DROP INLET
DIP	DUCTILE IRON PIPE
PROPOSED GRAVEL DRIVE	
EXISTING GRAVEL DRIVE	
PROPOSED DRAINAGE EASEMENT	

BENCHMARK– NCGS MONUMENT WELCOME
(NAD 83/2011 RTN GRID COORDINATES)
NORTHING: 398,009.08 US. FT.
EASTING: 2,489859.00 US. FT.
ELEVATION: 33.08 FT. (NAVD88)

SCALE 1 inch = 30 ft

811 CALL BEFORE YOU DIG! WWW.NC811.ORG N.C. ONE-CALL CENTER IT'S THE LAW!

Rivers & Associates, Inc.
Engineers Planners Surveyors Landscape Architects
Since 1918
NC License F-0334
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER
01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

BOVIET SUBSTATION

GREENVILLE UTILITIES COMMISSION

CITY OF GREENVILLE – PITT COUNTY – NORTH CAROLINA

EROSION CONTROL - PHASE II

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C4

EROSION CONTROL NOTES:

1. ALL WORK WILL BE DONE IN ACCORDANCE WITH NCDEQ EROSION AND SEDIMENT CONTROL ORDINANCE. SCHEDULING A PRE-CONSTRUCTION CONFERENCE WITH NCDEQ EROSION CONTROL OFFICER IS REQUIRED PRIOR TO INITIATING LAND DISTURBING ACTIVITIES. FOR SCHEDULING, PLEASE CALL (252) 946-6481. A 24 HOUR NOTICE IS REQUIRED. NO PERSON MAY INITIATE LAND DISTURBING ACTIVITY BEFORE NOTIFYING THE CITY OF THE DATE OF THE LAND DISTURBING ACTIVITY. NO LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL THE APPROPRIATE EROSION CONTROL MEASURES MAY PROCEED UNTIL MEASURES ARE INSPECTED AND APPROVED BY THE NCDEQ EROSION CONTROL OFFICER.

2. PRIOR TO CLEARING OPERATIONS, SILT FENCE SHALL BE INSTALLED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ROCK INLET SEDIMENT TRAPS SHALL BE PLACED AROUND ALL DRAINAGE STRUCTURES TO COLLECT SURFACE RUNOFF AND CONTROL SILTATION AND AND RELEASE WATER AT A GRADUAL RATE. ALL EASEMENTS OUTSIDE OF THE PARKING LOT WHERE STORM PIPES ARE INSTALLED WILL BE GRADED, SEEDED AND MULCHED. THE SILT FENCE, CONSTRUCTION ENTRANCES, TEMPORARY DIVERSION SWALES AND THE SKIMMER BASINS SHOULD BE INSTALLED PRIOR TO DEMOLITION, GRADING, AND INSTALLING STORM SEWER.

3. SUBSTATION YARD SHALL HAVE STONE BASE PLACED ON THEM FOR STABILIZATION AND SHOULDERS SHALL BE SEEDED TO STABILIZE THE SOIL. ALL OTHER DISTURBED AREAS SHALL HAVE VEGETATION ESTABLISHED TO PROVIDE STABILIZATION. SEED BED PREPARATION SHALL BE CONDUCTED ACCORDING TO NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (D.O.T.). THE GROUND SURFACE SHALL BE CLEARED OF STUMPS, STONES, ROOTS, CABLES, WIRE, GRADE STAKES, AND OTHER MATERIALS THAT MIGHT HINDER PROPER GRADING, TILLAGE, SEEDING OR SUBSEQUENT MAINTENANCE OPERATIONS. GRADES ON THE AREA TO BE SEEDED SHALL BE MAINTAINED IN A TRUE AND EVEN CONDITION. MAINTENANCE SHALL INCLUDE ANY NECESSARY REPAIRS TO PREVIOUSLY GRADED AREAS. ALL GRADED AREAS SHALL BE THOROUGHLY TILLED TO A DEPTH OF AT LEAST FOUR (4) INCHES BY PLOWING, DISKING, HARROWING, OR OTHER APPROVED METHODS UNTIL THE CONDITION OF THE SOIL IS ACCEPTABLE. ON SITES WHERE SOIL CONDITIONS ARE SUCH THAT HIGH CLAY CONTENT AND EXCESSIVE COMPACTION CAUSE DIFFICULTY IN GETTING CLODS AND LUMPS EFFECTIVELY PULVERIZED, THE CONTRACTOR SHALL USE THE ROTARY TILLAGE MACHINERY UNTIL THE MIXING OF THE SOIL IS ACCEPTABLE AND NO CLODS OR CLUMPS REMAIN LARGER THAN 1 1/2 INCHES IN DIAMETER. A FIRM AND COMPACT SEEDBED IS REQUIRED AND AFTER BEING GRADED, THE SEEDBED SHALL BE LIGHTLY COMPACTED WITH A LAND ROLLER, SUCH AS A CULTIPACKER, BEFORE AND AFTER SEEDING. LIMESTONE SHALL BE DOLOMITIC AGRICULTURE GROUND LIMESTONE CONTAINING NOT LESS THAN 10 PERCENT MAGNESIUM OXIDE. LIME SHALL BE UNIFORMLY APPLIED AT THE RATE OF 2 TONS PER ACRE. FERTILIZER SHALL BE UNIFORMLY APPLIED AT A RATE OF 500 POUNDS PER ACRE OF 10_20_20 ANALYSIS. THE FERTILIZER SHALL BE INCORPORATED INTO THE UPPER THREE OR FOUR INCHES OF PREPARED SEEDBED JUST PRIOR TO THE LAST TILLAGE OPERATION, BUT IN NO CASE SHALL IT BE APPLIED MORE THAN THREE DAYS PRIOR TO SEEDING. FERTILIZER SHALL BE USED IMMEDIATELY AFTER DELIVERY OR STORED IN A MANNER THAT WILL NOT PERMIT IT TO HARDEN OR DESTROY ITS EFFECTIVENESS.

WHEN HYDROSEEDING EQUIPMENT IS USED FOR SEEDING, FERTILIZER SHALL BE APPLIED SIMULTANEOUSLY WITH SEED, USING THE ABOVE RATES OF APPLICATION. SEED SHALL BE CERTIFIED SEED OR EQUIVALENT BASED ON NORTH CAROLINA SEED IMPROVEMENT ASSOCIATION REQUIREMENTS FOR CERTIFICATION. ALL SEED SHALL BE FURNISHED IN SEALED STANDARD CONTAINERS. SEED THAT HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED PRIOR TO SEEDING WILL NOT BE ACCEPTABLE. SEEDING SHALL BE ACCOMPLISHED WITH HAND PLANTERS, POWER_DRAWN PLANTERS, HAND PACKERS, OR HYDROSEEDING EQUIPMENT AT THE FOLLOWING RATES:

SEED BED PREPARATION:
1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3" DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP ENTIRE AREA 8" DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, REASONABLY UNIFORM SEEDBED IS PREPARED 4" TO 6" DEEP.
6. SPREAD SEED ON FRESHLY PREPARED SEEDBED AND COVER LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACKER AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

PERMANENT SEEDING:

APPLY DOLEMATIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE. IF HYDRATED LIME IS USED, FOLLOW RECOMMENDATION FROM SOIL TEST. COST OF THE TEST SHALL BE BORNE BY THE CONTRACTOR.

APPLY 10-10-10 FERTILIZER OUTSIDE OF NCDOT RIGHT-OF-WAY AT A RATE OF 1,000 POUNDS PER ACRE.

APPLY 10-20-20 FERTILIZER WITHIN NCDOT RIGHT-OF-WAY AT A RATE OF 500 POUNDS PER ACRE.

PROVIDE PERMANENT SEEDING IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING SEEDING SCHEDULES:

OUTSIDE OF DOT R/W
(JANUARY 1 - MARCH 31)
COMMON BERMUDA GRASS (UNHULLED) - 20 POUNDS PER ACRE

(APRIL 1 - JULY 31)
COMMON BERMUDA GRASS (HULLED) - 15 POUNDS PER ACRE
CENTIPEDE - 8 POUNDS PER ACRE

(AUGUST 1 - DECEMBER 31)
COMMON BERMUDA GRASS (UNHULLED) - 15 POUNDS PER ACRE
TALL FESCUE - 120 POUNDS PER ACRE
CENTIPEDE - 8 POUNDS PER ACRE

WITHIN DOT R/W
(JANUARY 1 - DECEMBER 31)
FESCUE -50 POUNDS PER ACRE
PENSACOLA BAHIAGRASS -25 POUNDS PER ACRE
CENTIPEDE -5 POUNDS PER ACRE

TEMPORARY SEEDING:

SUMMER (APRIL 15 - AUGUST 15)
GERMAN MILLET -40 POUNDS PER ACRE

WINTER (AUGUST 16 - APRIL 14)
RYE GRAIN -120 POUNDS PER ACRE

SOIL AMENDMENTS FOR TEMPORARY SEEDING
LIMESTONE -2000 POUNDS PER ACRE
FERTILIZER 10-10-10 -750 POUNDS PER ACRE

SEED BED PROTECTION:
STRAW MULCH - 2 TONS PER ACRE (VISUAL)
ASPHALT TACK - 0.03 GALLONS PER SQUARE YARD

4. GROUND STABILIZATION (PER NCG010000)
   a. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
   i. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
   ii. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
   b. CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:
   i. EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
   ii. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES.
   iii. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.
   iv. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.
   v. ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.
   vi. FOR PORTIONS OF PROJECTS WITHIN ONE MILE AND DRAINING TO TROUT WATERS AND HIGH QUALITY WATERS AS CLASSIFIED BY THE ENVIRONMENTAL MANAGEMENT COMMISSION, STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.
   vii. FOR PORTIONS OF PROJECTS LOCATED IN OUTSTANDING RESOURCE WATERS WATERSHEDS AS CLASSIFIED BY THE ENVIRONMENTAL MANAGEMENT COMMISSION, STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.
   viii. PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TO DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E&SC PLAN OR ADDED BY THE PERMITTING AUTHORITY.

5. SELF INSPECTION AND REPORTING REQUIREMENTS (PER NCG010000)

MINIMUM SELF INSPECTION AND REPORTING REQUIREMENTS ARE AS FOLLOWS UNLESS OTHERWISE APPROVED IN WRITING BY THE DIVISION OF WATER QUALITY.
   a. A RAIN GAUGE SHALL BE MAINTAINED IN GOOD WORKING ORDER ON THE SITE UNLESS ANOTHER RAIN MONITORING DEVICE HAS BEEN APPROVED BY THE PERMITTING AUTHORITY.
   b. A WRITTEN RECORD OF THE DAILY RAINFALL AMOUNTS SHALL BE RETAINED AND ALL RECORDS SHALL BE MADE AVAILABLE TO DWQ OR AUTHORIZED AGENT UPON REQUEST (NOTE: IF NO RAINFALL OCCURRED, THE PERMITTEE MUST RECORD "ZERO").
   c. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. INSPECTION RECORDS MUST BE MAINTAINED FOR EACH INSPECTION EVENT AND FOR EACH MEASURE. AT A MINIMUM, INSPECTION OF MEASURES MUST OCCUR AT THE FREQUENCY INDICATED BELOW:
      I. ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS, AND
      II. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.50 INCHES OF RAIN PER 24 HOUR PERIOD.
      III. TIMES WHEN A DETERMINATION THAT ADVERSE WEATHER CONDITIONS PREVENTED INSPECTIONS SHOULD BE DOCUMENTED ON THE INSPECTION RECORD.
   d. ONCE LAND DISTURBANCE HAS BEGUN ON THE SITE, STORMWATER RUNOFF DISCHARGE OUTFALLS SHALL BE INSPECTED BY OBSERVATION FOR EROSION, SEDIMENTATION AND OTHER STORMWATER DISCHARGE CHARACTERISTICS SUCH AS CLARITY, FLOATING SOLIDS, AND OIL SHEENS. INSPECTIONS OF THE OUTFALLS SHALL BE MADE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.50 INCHES OF RAIN PER 24 HOUR PERIOD.
   e. INSPECTIONS ARE ONLY REQUIRED TO BE MADE DURING NORMAL BUSINESS HOURS. WHEN ADVERSE WEATHER CONDITIONS WOULD CAUSE THE SAFETY OF THE INSPECTION PERSONNEL TO BE IN JEOPARDY, THE INSPECTION CAN BE DELAYED UNTIL IT IS DEEMED SAFE TO PERFORM THESE DUTIES. IF THE INSPECTION CANNOT BE DONE ON THAT DAY, IT MUST BE COMPLETED ON THE FOLLOWING BUSINESS DAY.
   f. TWENTY-FOUR HOUR REPORTING FOR VISIBLE SEDIMENT DEPOSITION
      I. THE PERMITTEE SHALL REPORT TO THE DIVISION OF WATER QUALITY CENTRAL OFFICE OR THE APPROPRIATE REGIONAL OFFICE ANY VISIBLE SEDIMENT BEING DEPOSITED IN ANY STREAM OR WETLAND OR ANY NONCOMPLIANCE WHICH MAY ENDANGER HEALTH OR THE ENVIRONMENT. (SEE SECTION IX OF THIS PERMIT FOR CONTACT INFORMATION.) ANY INFORMATION SHALL BE PROVIDED ORALLY OR ELECTRONICALLY WITHIN 24 HOURS FROM THE TIME THE PERMITTEE BECAME AWARE OF THE CIRCUMSTANCES. VISIBLE DISCOLORATION OR SUSPENDED SOLIDS IN THE EFFLUENT SHOULD BE RECORDED ON THE INSPECTION RECORD AS PROVIDED BELOW.
      II. A WRITTEN SUBMISSION SHALL BE PROVIDED TO THE APPROPRIATE REGIONAL OFFICE OF THE DWQ WITHIN 5 DAYS OF THE TIME THE PERMITTEE BECOMES AWARE OF THE CIRCUMSTANCES. THE WRITTEN SUBMISSION SHALL CONTAIN A DESCRIPTION OF THE SEDIMENT DEPOSITION AND ACTIONS TAKEN TO ADDRESS THE CAUSE OF THE DEPOSITION. THE DIVISION OF WATER QUALITY STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS.
   g. RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS 30 DAYS SHALL REMAIN ON THE SITE AND AVAILABLE FOR AGENCY INSPECTORS AT ALL TIMES DURING NORMAL WORKING HOURS, UNLESS THE PERMITTING AUTHORITY PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE THIS REQUIREMENT NOT PRACTICAL. OLDER RECORDS MUST BE MAINTAINED FOR A PERIOD OF ONE YEAR AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. THE RECORDS MUST PROVIDE THE DETAILS OF EACH INSPECTION INCLUDING OBSERVATIONS, AND ACTIONS TAKEN IN ACCORDANCE WITH THIS PERMIT. THE PERMITTEE SHALL RECORD THE REQUIRED RAINFALL AND MONITORING OBSERVATIONS ON THE "INSPECTION RECORD FOR ACTIVITIES UNDER STORMWATER GENERAL PERMIT NCG010000" FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT IS INCLUSIVE OF ALL OF THE ELEMENTS CONTAINED IN THE DIVISION'S FORM. ELECTRONIC STORAGE OF RECORDS WILL BE ALLOWED IF APPROVED BY THE PERMITTING AUTHORITY.
   h. INSPECTION RECORDS MUST INCLUDE, AT A MINIMUM, THE FOLLOWING:
      I. CONTROL MEASURE INSPECTIONS: INSPECTION RECORDS MUST INCLUDE AT A MINIMUM:
         1. IDENTIFICATION OF THE MEASURES INSPECTED,
         2. DATE AND TIME OF THE INSPECTION,
         3. NAME OF THE PERSON PERFORMING THE INSPECTION,
         4. INDICATION OF WHETHER THE MEASURES WERE OPERATING PROPERLY,
         5. DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE,
         6. CORRECTIVE ACTIONS TAKEN AND
         7. DATE OF ACTIONS TAKEN.
      II. STORMWATER DISCHARGE INSPECTIONS: INSPECTION RECORDS MUST INCLUDE AT A MINIMUM:
         1. IDENTIFICATION OF THE DISCHARGE OUTFALL INSPECTED,
         2. DATE AND TIME OF THE INSPECTION,
         3. NAME OF THE PERSON PERFORMING THE INSPECTION,
         4. EVIDENCE OF INDICATORS OF STORMWATER POLLUTION SUCH AS OIL SHEEN, FLOATING OR SUSPENDED SOLIDS OR DISCOLORATION,
         5. INDICATION OF VISIBLE SEDIMENT LEAVING THE SITE,
         6. ACTIONS TAKEN TO CORRECT/PREVENT SEDIMENTATION AND
         7. DATE OF ACTIONS TAKEN.
      III. VISIBLE SEDIMENTATION FOUND OUTSIDE THE SITE LIMITS: INSPECTION RECORDS MUST INCLUDE:
         1. AN EXPLANATION AS TO THE ACTIONS TAKEN TO CONTROL FUTURE RELEASES,
         2. ACTIONS TAKEN TO CLEAN UP OR STABILIZE THE SEDIMENT THAT HAS LEFT THE SITE LIMITS AND
         3. THE DATE OF ACTIONS TAKEN.
      IV. VISIBLE SEDIMENTATION FOUND IN STREAMS OR WETLANDS: ALL INSPECTIONS SHOULD INCLUDE EVALUATION OF STREAMS OR WETLANDS ONSITE OR OFFSITE (WHERE ACCESSIBLE) TO DETERMINE IF VISIBLE SEDIMENTATION HAS OCCURRED.
      V. VISIBLE STREAM TURBIDITY - IF THE DISCHARGE FROM A SITE RESULTS IN VISIBLE STREAM TURBIDITY, INSPECTION RECORDS MUST RECORD THAT EVIDENCE AND ACTIONS TAKEN TO REDUCE SEDIMENT CONTRIBUTIONS. SITES DISCHARGING TO STREAMS NAMED ON THE STATE'S 303(D) LIST AS IMPAIRED FOR SEDIMENT-RELATED CAUSES MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING, INSPECTIONS OR APPLICATION OF MORE-STRINGENT MANAGEMENT PRACTICES IF IT IS DETERMINED THAT THE ADDITIONAL REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS. IF A DISCHARGE COVERED BY THIS PERMIT ENTERS A STREAM SEGMENT THAT IS LISTED ON THE IMPAIRED STREAM LIST FOR SEDIMENT-RELATED CAUSES, AND A TOTAL MAXIMUM DAILY LOAD (TMDL) HAS BEEN PREPARED FOR THOSE POLLUTANTS, THE PERMITTEE MUST IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE SITE IS CONSISTENT WITH THE ASSUMPTIONS AND MEETS THE REQUIREMENTS OF THE APPROVED TMDL. THE DWQ 303(D) LIST CAN BE FOUND AT: HTTP://H2O.ENR.STATE.NC.US/TMDL/GENERAL_303D.HTM/

6. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL ALL SEEDING IS ESTABLISHED AND CONSTRUCTION AREAS HAVE BEEN STABILIZED.

7. TEMPORARY SEEDING - SEED IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS WITH REGARD TO SEED TYPE, RATE OF APPLICATION, FERTILIZER, ETC. TEMPORARY SEEDING WILL BE DONE IN THOSE AREAS THAT ARE BARE AND NO WORK WITHIN 14 DAYS.

8. INSTALL AND MAINTAIN ROCK INLET SEDIMENT TRAPS AROUND ALL CATCH BASINS, DROP INLETS OR JUNCTION BOXES AND ELSEWHERE AS INDICATED ON PLAN OR AS DIRECTED BY ENGINEER.

9. EROSION CONTROL MEASURES TO BE REMOVED UPON STABILIZATION, WHEN ADEQUATE VEGETATION HAS OCCURRED (±80%).

10. PROVIDE 20' X 50' X 8" STONE CONSTRUCTION ENTRANCES AS NEEDED.

11. ALL DEWATERING OPERATIONS WILL BE FILTERED PRIOR TO LEAVING THE SITE.

12. STREETS WILL BE SWEPT AS NEEDED, BUT A MINIMUM OF ONCE A WEEK WHILE GRADING OPERATIONS ARE UNDERWAY.

13. STOCKPILE TOPSOIL FOR USE IN LANDSCAPING.

14. SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES STEEPER THAN 3:1. ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.

15. CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. WHEN INSPECTION REVEALS THE TRAP TO BE REDUCED TO 50% OF DESIGN CAPACITY, OR THE DEVICE TO BE DEFICIENT IN ITS INTENDED PURPOSE SUCH AS FABRIC DETERIORATION FOR SILT FENCES, THE CONTRACTOR SHALL RESTORE THE DEVICE TO ITS ORIGINAL CONDITION. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO $5,000.00 PER DAY OF VIOLATION.

16. THE CITY ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.

17. ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATIONS AND RULES. IN ADDITION, LOCAL CITY AND COUNTY ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND-DISTURBING ACTIVITY. APPROVAL BY THE CITY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.

18. "EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES (INCLUDING TIMBERING AND DEMOLITION) OCCUR." THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT DEQ.NC.GOV/NCG01. PLEASE NOTE, THE E-NOI FORM MAY ONLY BE FILLED ONCE THE PLANS HAVE BEEN APPROVED. A COPY OF THE E&SC PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.

19. "WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN." AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCG01 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). AN ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.

20. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT SCMS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. NCDEQ EROSION CONTROL OFFICER SHOULD BE NOTIFIED 10-DAYS PRIOR TO REMOVAL OF A BASIN." (GS 113A-57(3), 15A NCAC 04B .0113)

21. "PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND S&E PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT." (NCG01 PART III SECTIONS A AND B, 15A NCAC 04B .0131)

22. PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND TAR-PAMLICO RIVER BASINS. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER QUALITY (DWQ). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, WASHINGTON REGIONAL OFFICE AT (252) 946-6481.

CONSTRUCTION SCHEDULE

PHASE 1

1. OBTAIN PLAN APPROVALS AND ALL APPLICABLE PERMITS.
2. FLAG LIMITS OF CLEARING/GRUBBING AND ROUGH GRADING.
3. HOLD PRECONSTRUCTION MEETING WITH CONTRACTOR, EROSION CONTROL ADMINISTRATOR (252-946-3900), PROJECT ENGINEER AND OWNER BEFORE WORK BEGINS.
4. INSTALL THE PERIMETER SEDIMENT FENCES AS THE FIRST CONSTRUCTION ACTIVITY.
5. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.
6. INSTALL TEMPORARY SEDIMENT BASIN AND TEMPORARY DIVERSION SWALE PER PLAN.
7. INSTALL CONCRETE WASHOUT AREA WITH SIGN.
8. INSTALL STORM SEWER WITH ROCK INLET SEDIMENT TRAPS.
9. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR FLATTER INCLUDING ALL OTHER SLOPES 4:1 OR FLATTER. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 7 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR STEEPER.
10. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED BY THE STATE OR OWNER IF DEEMED NECESSARY.

PHASE 2

11. INSTALL STONE IN GRAVEL SUBSTATION YARD.
12. REMOVE TEMPORARY SKIMMER BASIN AFTER EROSION CONTROL OFFICER APPROVAL HAS BEEN GRANTED.
13. INSTALL STORMWATER WET POND AND REVISE OUTLET STRUCTURE AND PIPING.
14. INSTALL ALL PLANTING RELATED TO STORMWATER WET POND.
15. UPON STABILIZATION OF THE STORMWATER WET POND, INSTALL STORM DRAINAGE INCLUDING ALL TEMPORARY EROSION CONTROL MEASURES ASSOCIATED WITH DRAINAGE STRUCTURES AN OUTLETS.
16. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR FLATTER INCLUDING ALL OTHER SLOPES 4:1 OR FLATTER. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 7 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR STEEPER.
17. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES, FINE GRADE DISTURBED AREAS, AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.
18. MAINTAIN PERMANENT VEGETATION BY TOP DRESSING WITH 700 LBS PER ACRE OF FERTILIZER EVERY 6 MONTHS UNTIL THE COMPLETION OF THE PROJECT.
19. WITHIN 6" OF FINAL GRADE, RE-DISTRIBUTE 6" OF TOP SOIL
20. FINE GRADE, PERMANENTLY SEED AND MULCH ALL LANDSCAPED AREAS.
21. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES UPON COMPLETION AND STABILIZATION OF PROJECT.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING — EFFECTIVE: 04/01/19

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS
1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

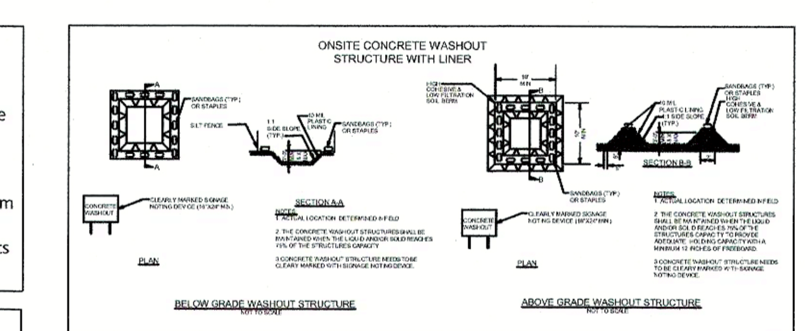
EQUIPMENT AND VEHICLE MAINTENANCE
1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE
1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS
1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT
1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS
1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES
1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE
1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING — EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6)]. • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19

NEW STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
SLOPES STEEPER THAN 3:1	7 DAYS	NONE EXCEPT FOR PERIMETER AND HQW ZONES
SLOPES 3:1 OR FLATTER	14 DAYS	NONE
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE

NC License: F-0334
Rivers & ASSOCIATES, INC. Since 1918
riversandassociates.com
Engineers Planners Surveyors Landscape Architects
107 East Second Street
Greenville, NC 27858
(252) 752-4135

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER J. DWIGHT VERNELSON
01-28-26

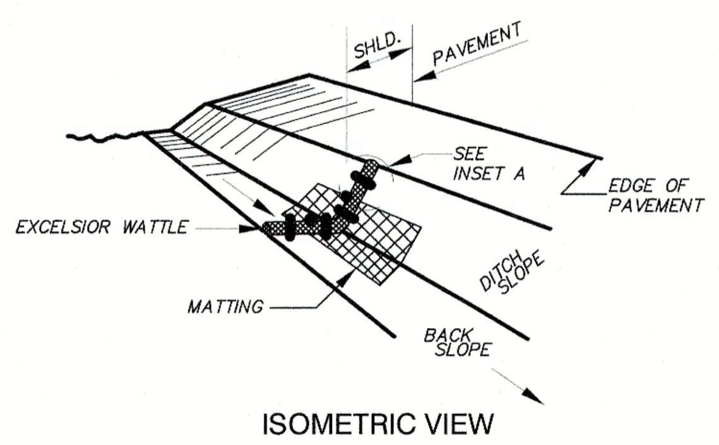
REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

BOVIET SUBSTATION
GREENVILLE UTILITIES COMMISSION
CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA
EROSION CONTROL NOTES & DETAILS

DATE: JANUARY 12, 2026
DESIGNED BY: JW
DRAWN BY: KB
CHECKED BY: JDV
PROJECT No. 2025087
DRAWING No. W-4267
SCALE: AS NOTED
SHEET No. C5

L:\LANDDEV\GUC-BOVIET_SUBSTATION 2025087\CADD\SHEETS\KELLY\W-4267_BOVIET.DWG - C5 - 2/11/2026 2:53:34 PM - KELLY BERRINI



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

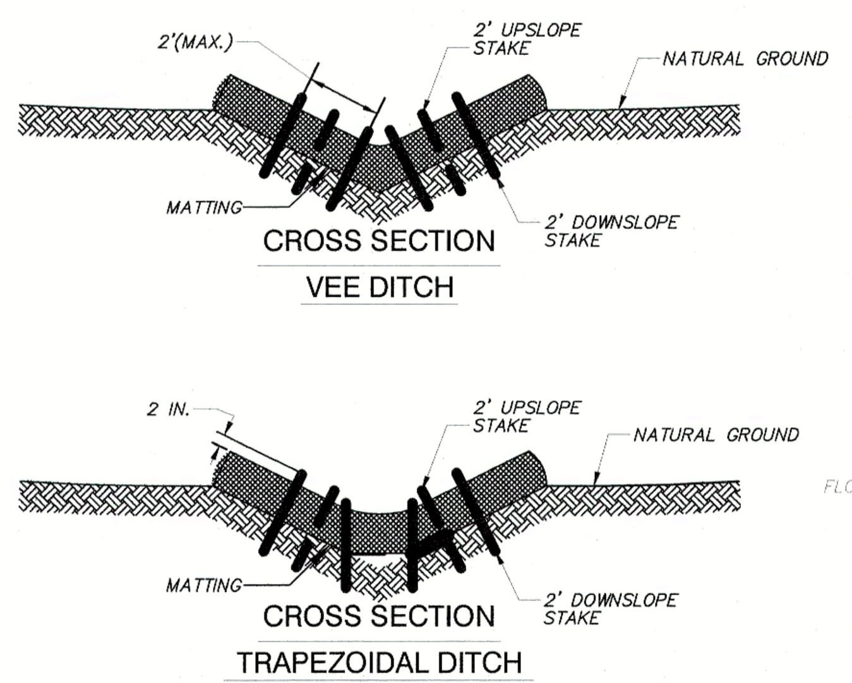
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

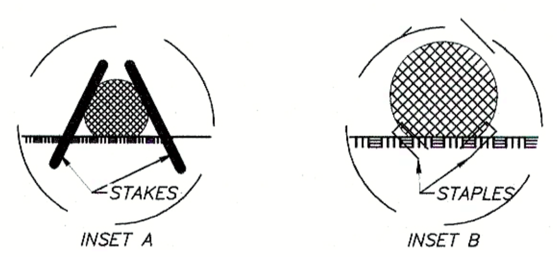
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

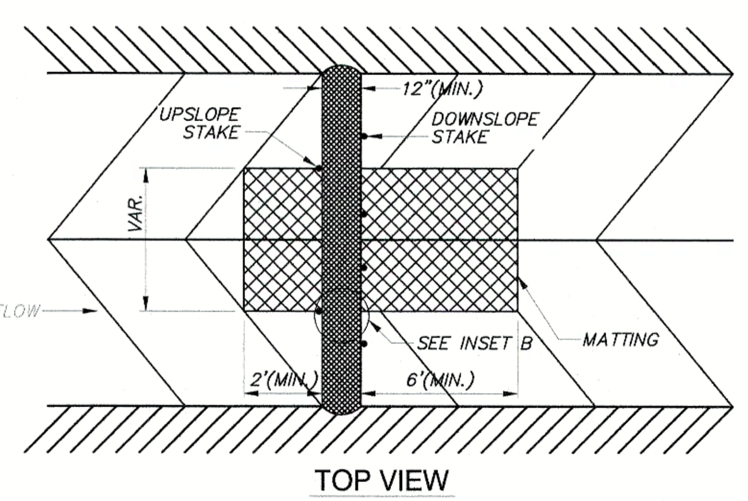
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A "U" SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

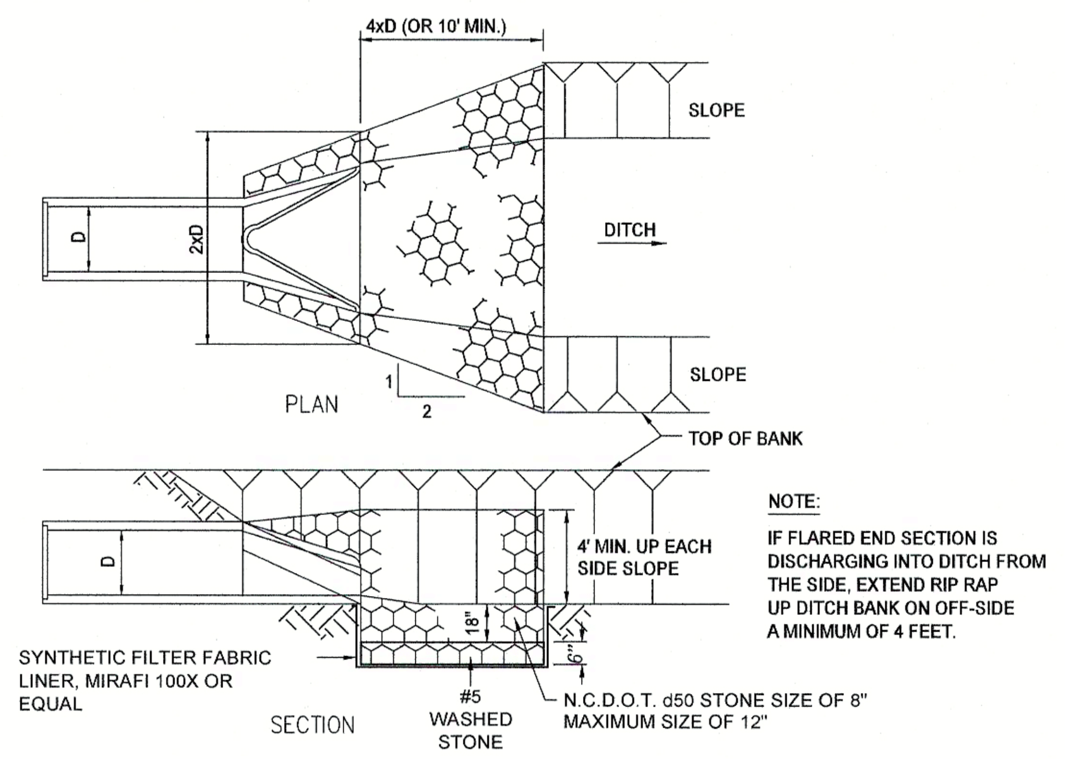






1 EXCELSIOR WATTLE DETAIL

N.T.S.



RIP RAP OUTLET PROTECTION

CONSTRUCTION SPECIFICATIONS:

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN ON THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP SO THE TOP LAYER IS ABOVE THE DOWNSTREAM LAYER A MINIMUM OF 1 FOOT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HRD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFILL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLE STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT THE SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE:

INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT ($\frac{1}{2}$ INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

3 FLARED END SECTION WITH RIP RAP

N.T.S.

ROCK CHECK DAM

CONSTRUCTION SPECIFICATIONS

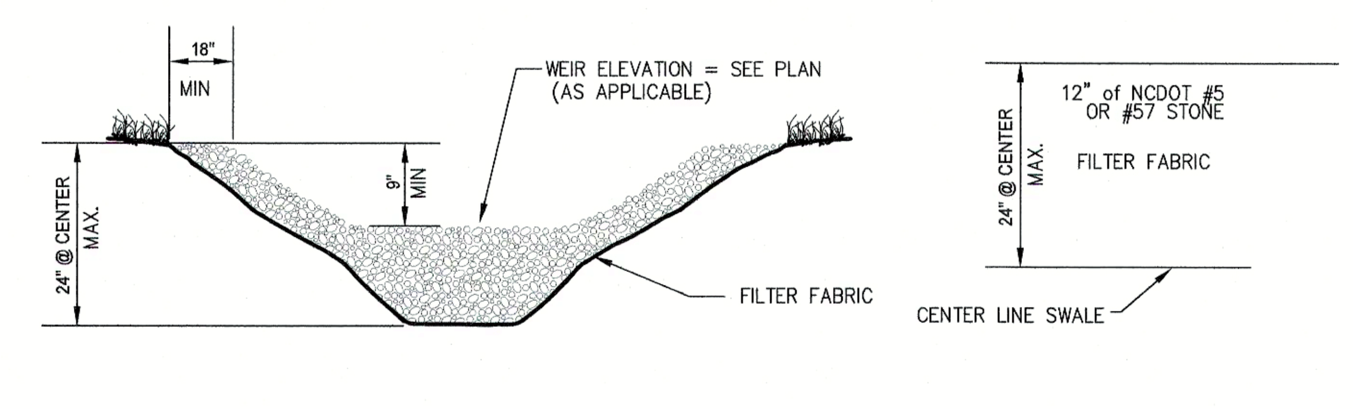
1. PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
2. KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
3. EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
4. SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAME AS THE TOE ELEVATION OF THE UPPER DAM.
5. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
6. MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM DAM IS STABLE.
7. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

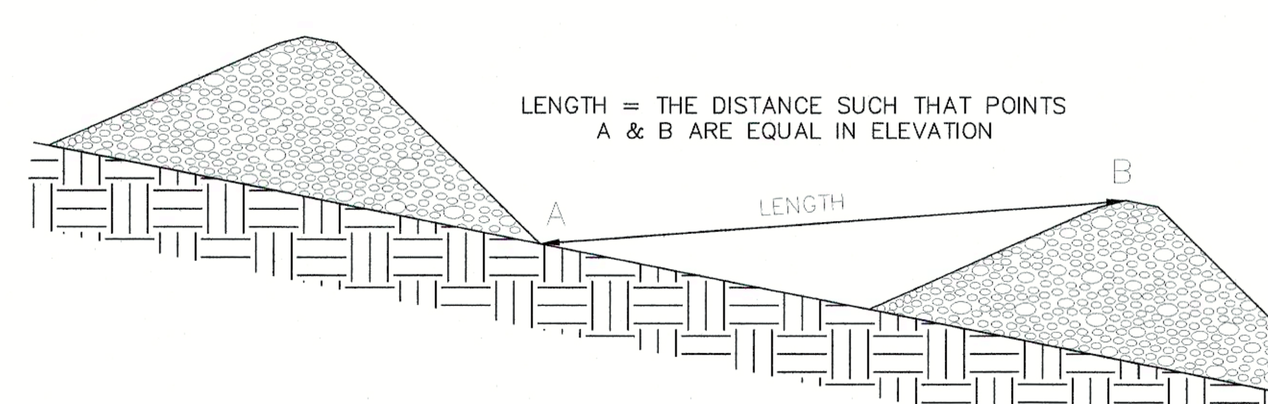
MAINTENANCE

INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED.

ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIPRAP LINER IN THAT PORTION OF THE CHANNEL

REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.





2 ROCK SILT CHECK DAM

N.T.S.

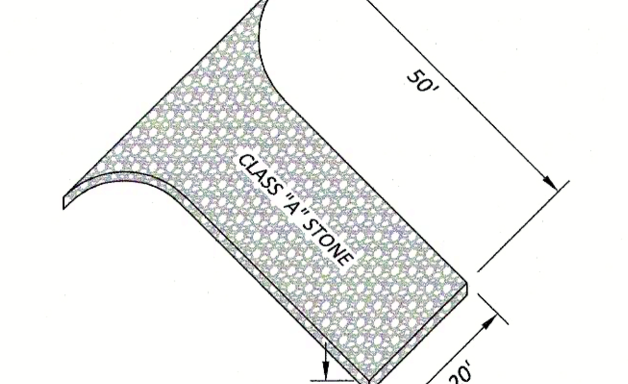
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATIONS:

1) CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2) PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
3) PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4) USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

MAINTENANCE:

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.



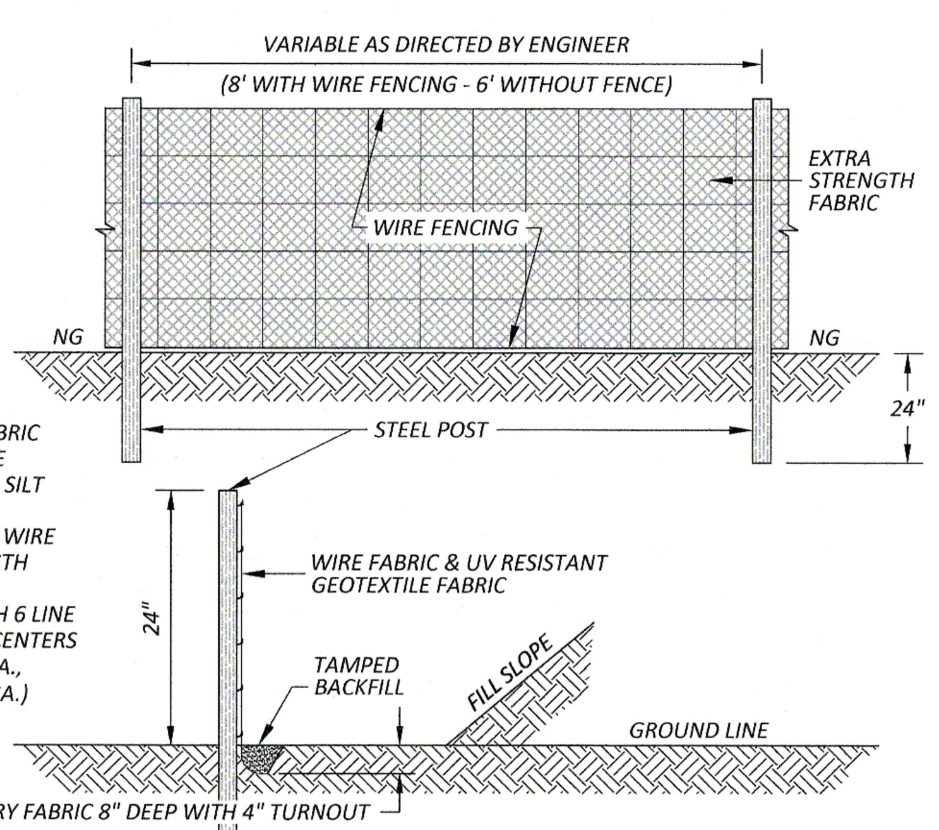
NOTES

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS "A" STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE

NOTE: PLACE FILTRATION GEOTEXTILE BENEATH STONE

4 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S.
W-SPEC-6



NOTES:

1. USE STANDARD STRENGTH FABRIC WITH 8' POST SPACING & WIRE FENCING WHERE REINFORCED SILT FENCE IS REQUIRED.
2. USE 6' POST SPACING AND NO WIRE FENCING WITH EXTRA STRENGTH FABRIC.
3. WIRE FENCING TO BE 32" WITH 6 LINE WIRES & STAY WIRES ON 12" CENTERS (BOTTOM & TOP WIRES - 10 GA., INTERMEDIATE WIRES - 12.5 GA.)

SILT FENCE

MAINTENANCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL, MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

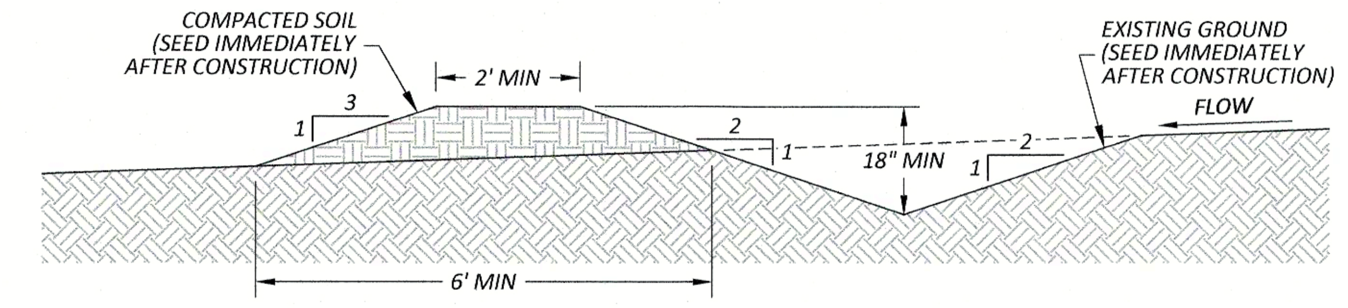
SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

5 STANDARD SILT FENCE

N.T.S.



6 TEMPORARY DIVERSION DITCH

N.T.S.

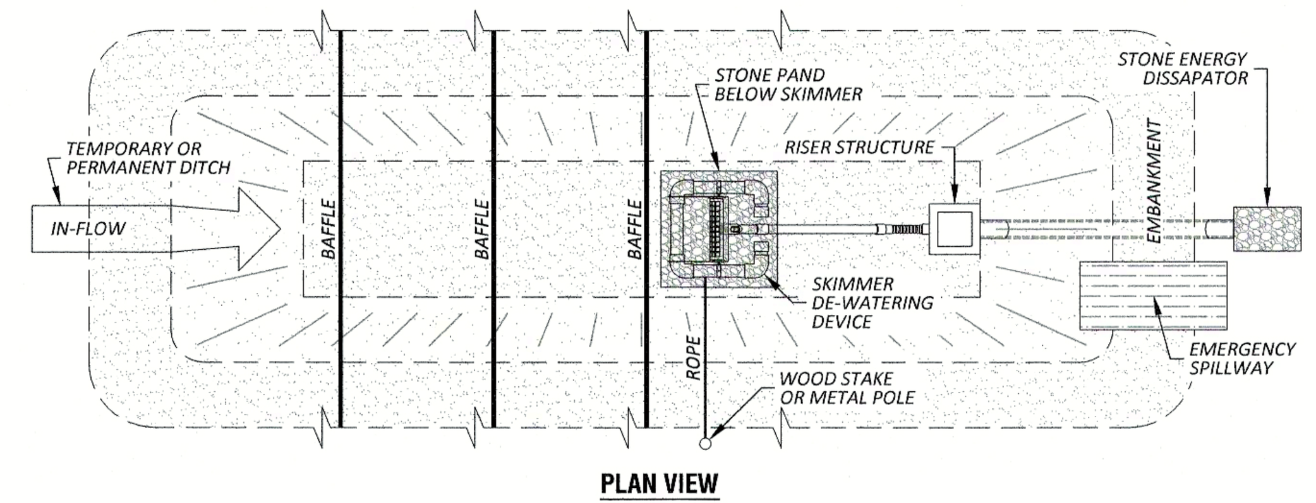
TEMPORARY DIVERSIONS

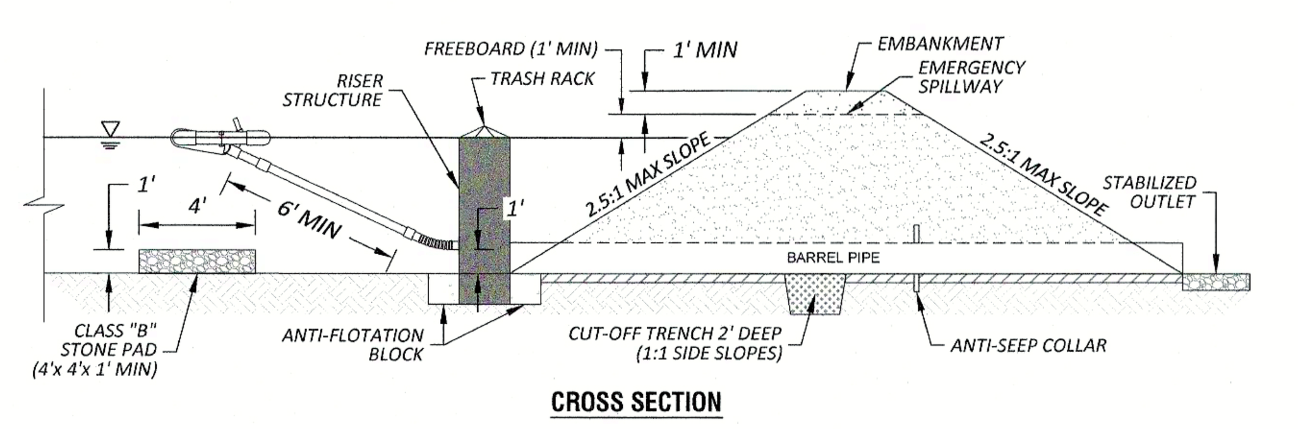
CONSTRUCTION SPECIFICATIONS:

1. REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL.
2. ENSURE THAT THE MINIMUM CONSTRUCTED CROSS SECTION MEETS ALL DESIGN REQUIREMENTS.
3. ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
4. PROVIDE SUFFICIENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE REGARDING AND CLEANOUT.
5. VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.

MAINTENANCE:

INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.





TEMPORARY SKIMMER BASIN (TSB) WITH RISER BARREL

SKIMMER BASIN

CONSTRUCTION SPECIFICATIONS:

1. CLEAR, GRUB AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA. PLACE TEMPORARY SEDIMENT CONTROL MEASURES BELOW BASIN AS NEEDED.
2. ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LIFTS NOT TO EXCEED 9 INCHES, AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 6 INCHES TO ALLOW FOR SETTLEMENT.
3. SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS. PREVENT THE SKIMMING DEVICE FROM SETTLING INTO THE MUD BY EXCAVATING A SHALLOW PIT UNDER THE SKIMMER OF PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER.
4. PLACE THE BARREL (TYPICALLY 4-INCH SCHEDULE 40 PVC PIPE) ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM THE FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES.

PLACE A MINIMUM DEPTH OF 2 FEET OF COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. IN NO CASE SHOULD THE PIPE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.

5. ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURERS INSTRUCTIONS, OR AS DESIGNED.
6. LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE BARREL PIPE. ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. BE SURE TO ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN. THIS WILL BE USED TO PULL THE SKIMMER TO THE SIDE FOR MAINTENANCE.
7. EARTHEN SPILLWAYS - INSTALL THE SPILLWAY IN UNDISTURBED SOIL TO THE GREATEST EXTENT POSSIBLE. THE ACHIEVEMENT OF PLANNED ELEVATIONS, GRADE, DESIGN WIDTH, AND ENTRANCE AND EXIT CHANNEL SLOPES ARE CRITICAL TO THE SUCCESSFUL OPERATION OF THE SPILLWAY. THE SPILLWAY SHOULD BE LINED WITH LAMINATED PLASTIC OR IMPERMEABLE GEOTEXTILE FABRIC. THE FABRIC MUST BE WIDE AND LONG ENOUGH TO COVER THE BOTTOM AND SIDES AND EXTEND ONTO THE TOP OF THE DAM FOR ANCHORING IN A TRENCH. THE EDGES MAY BE SECURED WITH 8-INCH STAPLES OR PINS. THE FABRIC MUST BE LONG ENOUGH TO EXTEND DOWN THE SLOPE AND EXIT ONTO STABLE GROUND. THE WIDTH OF THE FABRIC MUST BE ONE PIECE, NOT JOINED OR SPLICED; OTHERWISE WATER CAN GET UNDER THE FABRIC. IF THE LENGTH OF THE FABRIC IS INSUFFICIENT FOR THE ENTIRE LENGTH OF THE SPILLWAY, MULTIPLE SECTIONS, SPANNING THE COMPLETE WIDTH, MAY BE USED. THE UPPER SECTION(S) SHOULD OVERLAP THE LOWER SECTION(S) SO THAT WATER CANNOT FLOW UNDER THE FABRIC. SECURE THE UPPER EDGE AND SIDES OF THE FABRIC IN A TRENCH WITH STAPLES OR PINS.
8. INLETS - DISCHARGE WATER INTO THE BASIN IN A MANNER TO PREVENT EROSION. USE TEMPORARY SLOPE DRAINS OR DIVERSIONS WITH OUTLET PROTECTION TO DIVERT SEDIMENT-LADEN WATER TO THE UPPER END OF THE POOL AREA TO IMPROVE BASIN TRAP EFFICIENCY
9. EROSION CONTROL - CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS MINIMIZED. DIVERT SURFACE WATER AWAY FROM BARE AREAS. COMPLETE THE EMBANKMENT BEFORE THE AREA IS CLEARED. STABILIZE THE EMERGENCY SPILLWAY EMBANKMENT AND ALL OTHER DISTURBED AREAS ABOVE THE CREST OF THE PRINCIPAL SPILLWAY IMMEDIATELY AFTER CONSTRUCTION.
10. INSTALL POROUS BAFFLES.
11. AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND STABILIZE PROPERLY.

MAINTENANCE:

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OF THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.

IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.

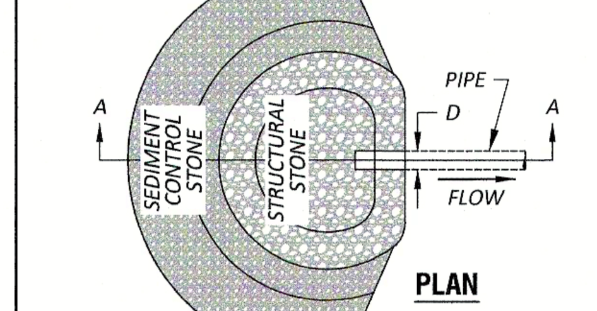
IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.

FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

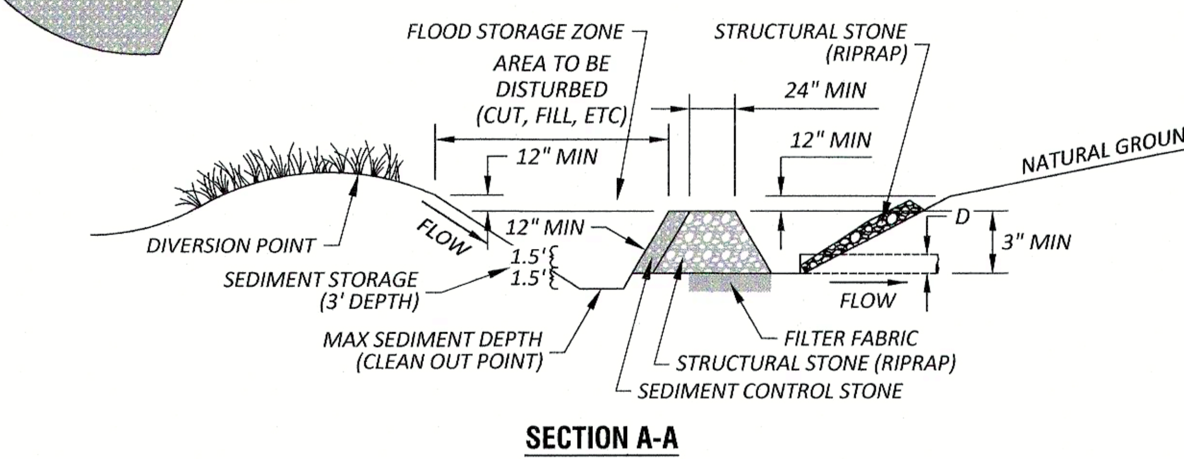
7 SEDIMENT BASIN WITH SKIMMER

N.T.S.
W-SPEC-3



NOTES:

1. STRUCTURAL STONE SHALL BE CLASS "1" RIPRAP.
2. SEDIMENT CONTROL STONE SHALL BE WASHED # 57 STONE PER NCDOT SSRS SECTION 1042.
3. GRAVEL & RIPRAP FILTER BERM BASIN DETAIL IS DESIGNED TO PROTECT EXISTING PIPE INVERTS AT 10 ACRES OR LESS.



8 TEMPORARY ROCK PIPE INLET PROTECTION

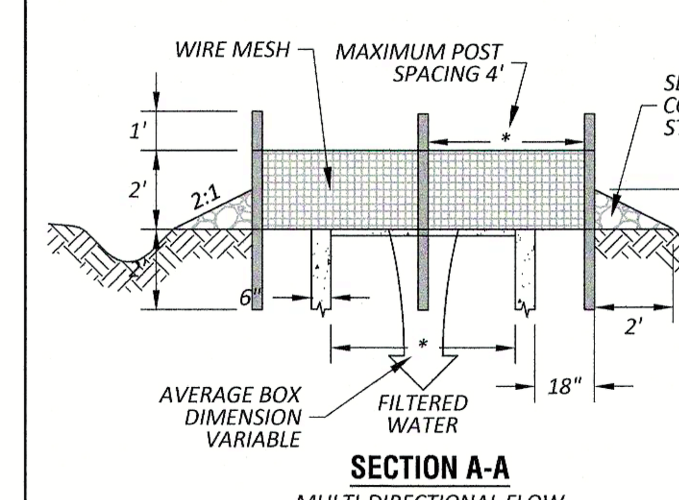
N.T.S.

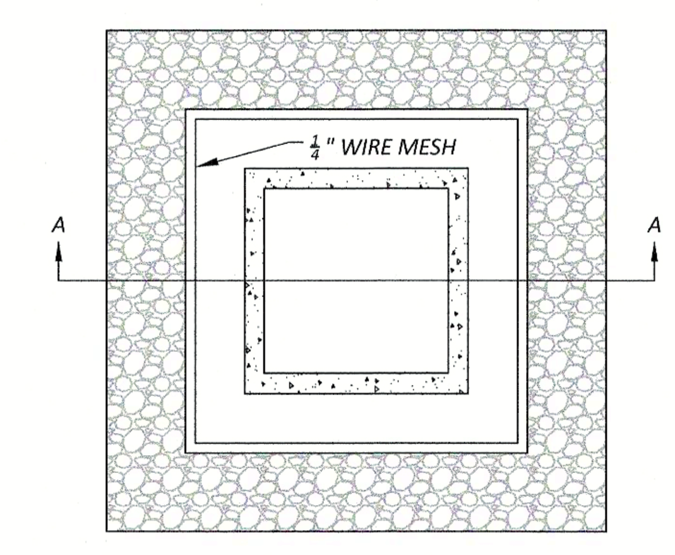
NOTES:

1. SEDIMENT CONTROL STONE SHALL BE # 5 OR # 57 WASHED STONE.
2. WIRE MESH SHALL BE HARDWARE CLOTH, 19 GUAGE (MIN) & SHALL HAVE $\frac{1}{4}$" MESH OPENINGS.
3. TOP OF WIRE MESH SHALL BE A MINIMUM OF 1' BELOW THE SHOULDER OR ANY DIVERSION POINT.
4. PLACE A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING.
5. 5) THE SELF-FASTENER ANGLE STEEL TYPE POST SHALL BE 5' IN HEIGHT & INSTALLED 2' DEEP (MIN).

MAINTENANCE:

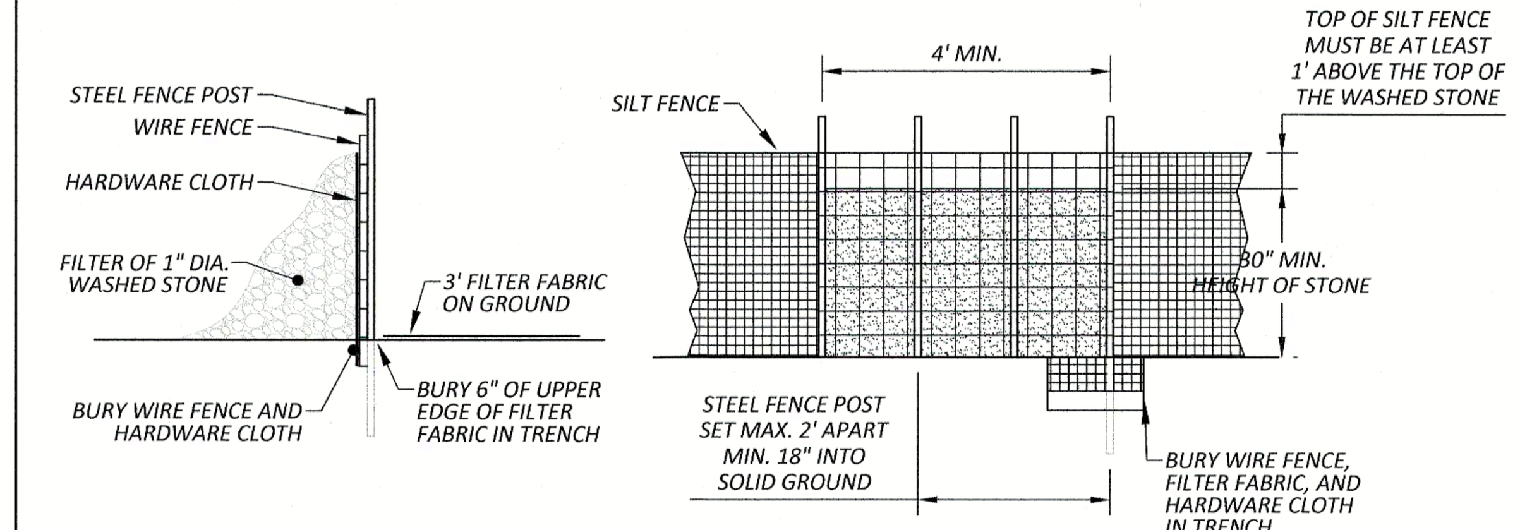
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT ($\frac{1}{2}$" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.





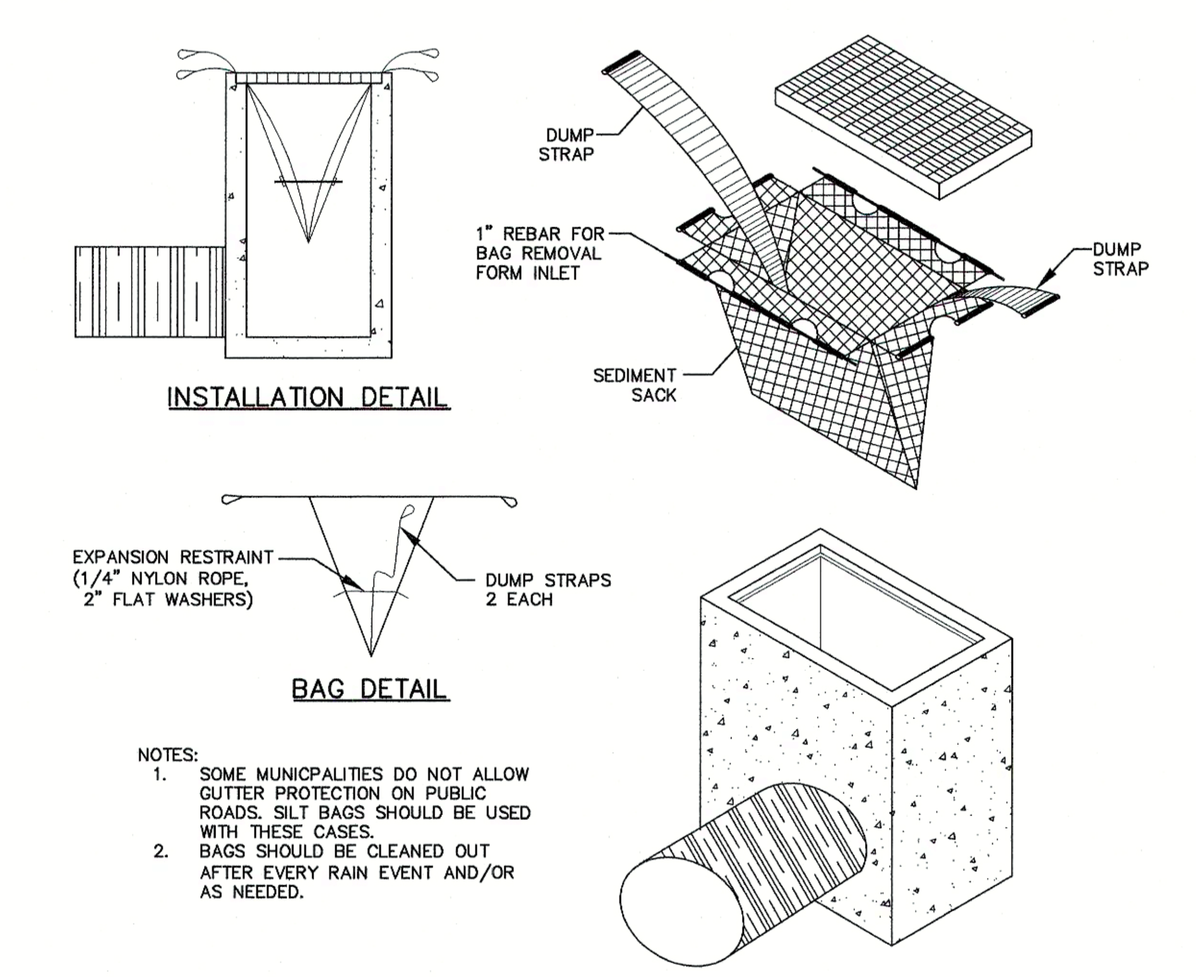
9 ROCK INLET SEDIMENT TRAP

N.T.S.



10 SILT FENCE OUTLET

N.T.S.



NOTES:

1. SOME MUNICIPALITIES DO NOT ALLOW GUTTER PROTECTION ON PUBLIC ROADS. SILT BAGS SHOULD BE USED WITH THESE CASES.
2. BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.

11 SILT BAG DETAIL

N.T.S.

NC License: F-0334

Rivers & ASSOCIATES, INC. Since 1918

Engineers Planners Surveyors Landscape Architects

riversandassociates.com

107 East Second Street
Greenville, NC 27858
(252) 752-4135

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER J. DWIGHT VERNELSON

01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

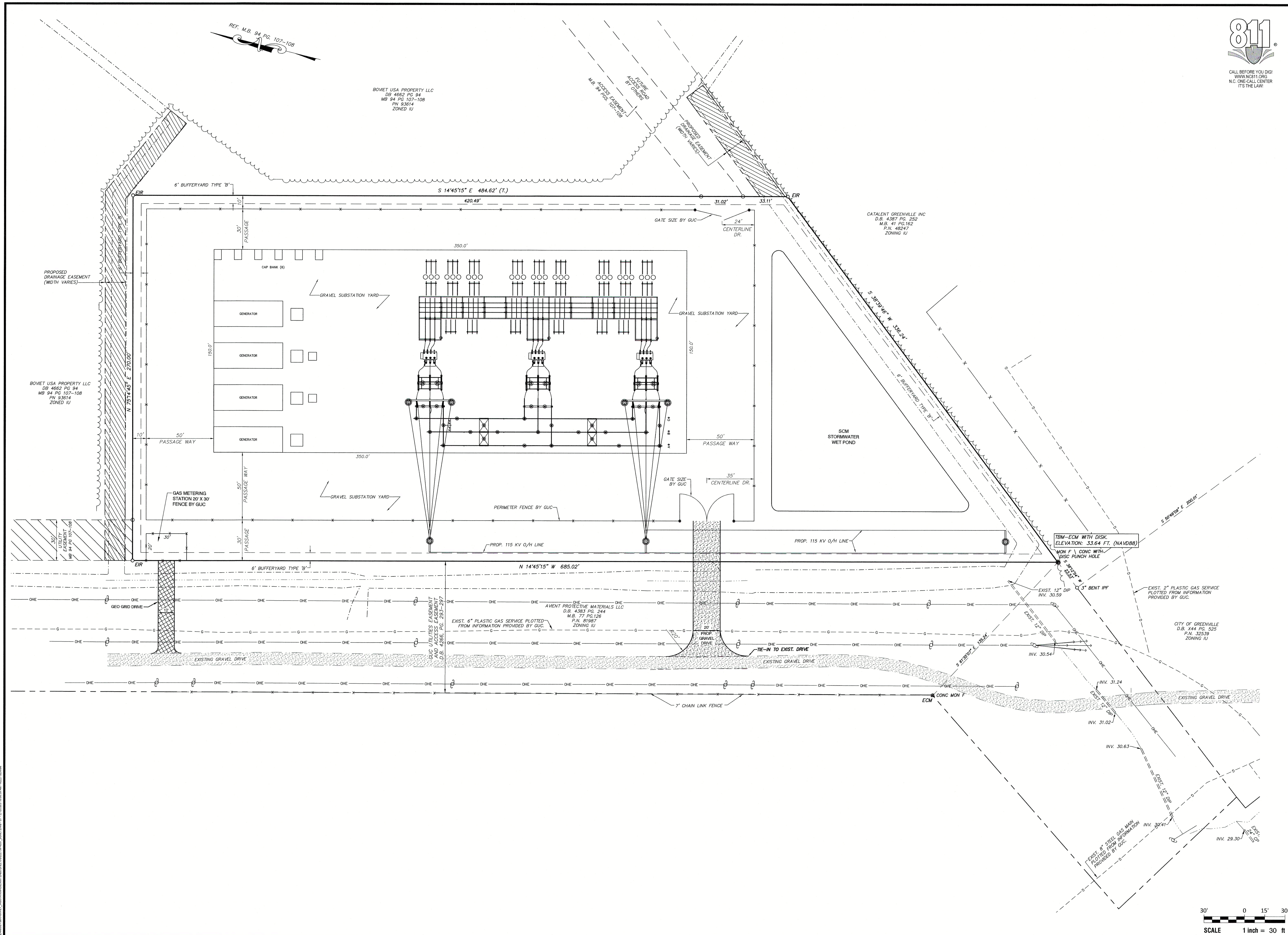
BOVIET SUBSTATION

GREENVILLE UTILITIES COMMISSION

CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA

EROSION CONTROL NOTES & DETAILS

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C6


REF. M.B. 94 PG. 107-108
BOVIET USA PROPERTY LLC
DB 4662 PG 94
MB 94 PG 107-108
PN 93614
ZONED IU
FUTURE ACCESS ROAD BY OTHERS
ACCESS EASEMENT M.B. 94 PGS. 107-108
PROPOSED DRAINAGE EASEMENT (WIDTH VARIES)
CALL BEFORE YOU DIG!
WWW.NC811.ORG
N.C. ONE-CALL CENTER
IT'S THE LAW!
6' BUFFERYARD TYPE 'B'
S 14°45'15" E 484.62' (T.)
420.49'
31.02'
33.11'
EIR
GATE SIZE BY GUC
24' CENTERLINE DR.
CATALENT GREENVILLE INC
D.B. 4387 PG. 252
M.B. 41 PG.162
P.N. 48247
ZONING IU
350.0'
CAP BANK (6)
GRAVEL SUBSTATION YARD
GENERATOR
150.0'
N 75°14'45" E 270.00'
S 38°39'46" W 336.24'
50' PASSAGE WAY
10'
30' PASSAGE
SCM STORMWATER WET POND
GAS METERING STATION 20' X 30' FENCE BY GUC
PERIMETER FENCE BY GUC
GATE SIZE BY GUC
35' CENTERLINE DR.
PROP. 115 KV O/H LINE
TBM-ECM WITH DISK. ELEVATION: 33.64 FT. (NAVD88)
MON F CONC WITH DISC PUNCH HOLE
N 14°45'15" W 685.02'
30' UTILITY EASEMENT MB 94 PG 107-108
GEO GRID DRIVE
AVIENT PROTECTIVE MATERIALS LLC
D.B. 4383 PG. 244
M.B. 77 PG.126
P.N. 81987
ZONING IU
EXIST. 6" PLASTIC GAS SERVICE PLOTTED FROM INFORMATION PROVIDED BY GUC.
GUC UTILITIES EASEMENT AND ACCESS EASEMENT D.B. 4266, PG. 293-297
PROP. GRAVEL DRIVE
TIE-IN TO EXIST. DRIVE
EXISTING GRAVEL DRIVE
7' CHAIN LINK FENCE
ECM
CONC MON F
EXIST. 12" DIP
INV. 30.59
3" BENT IPF
EXIST. 2" PLASTIC GAS SERVICE PLOTTED FROM INFORMATION PROVIDED BY GUC.
CITY OF GREENVILLE
D.B. X44 PG. 525
P.N. 32539
ZONING IU
S 50°48'09" E 200.01'
INV. 30.54
INV. 31.24
INV. 31.02
INV. 30.63
INV. 30.41
INV. 29.30
EXIST. 8" STEEL GAS MAIN PLOTTED FROM INFORMATION PROVIDED BY GUC.
SCALE
1 inch = 30 ft

Rivers & ASSOCIATES, INC. Since 1918

NC License: F-0334

Engineers Planners Surveyors Landscape Architects

riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER

01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

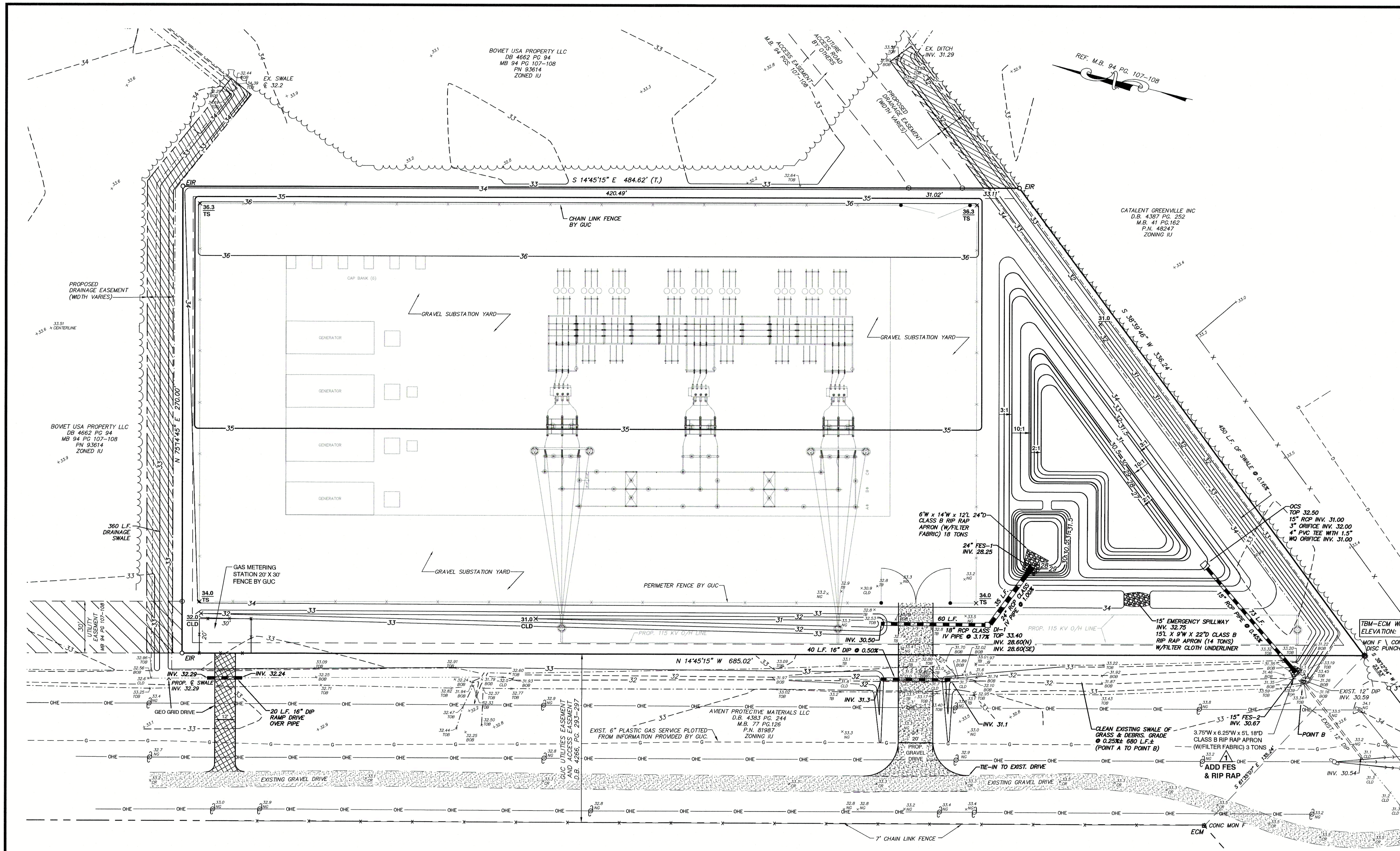
BOVIET SUBSTATION

GREENVILLE UTILITIES COMMISSION

CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA

SITE PLAN

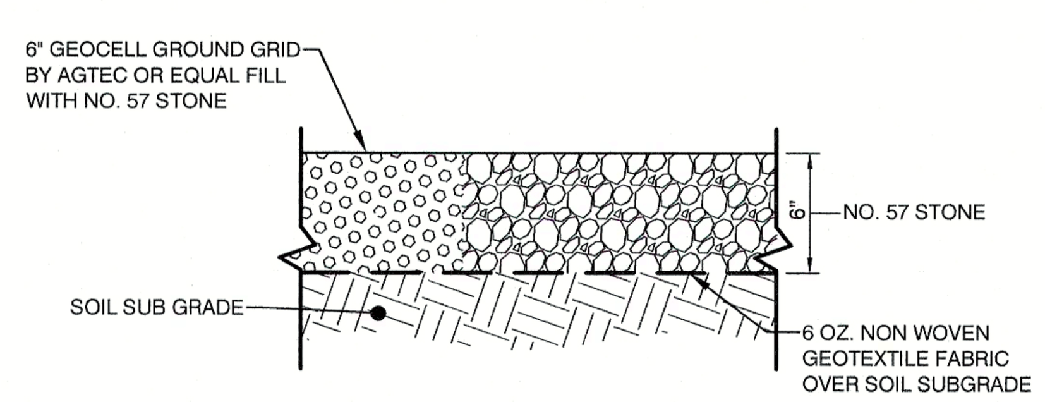
DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C7



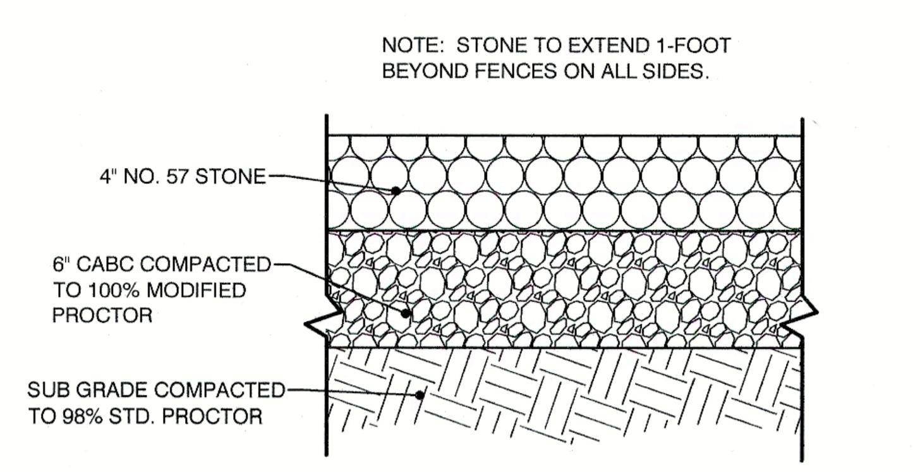
LEGEND:

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
SILT FENCE OUTLET	SF
TEMP SWALE	
EXISTING CONTOURS	
PROPOSED CONTOURS	
CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
ROCK INLET SEDIMENT TRAP	
TSB	TEMPORARY SEDIMENT BASIN
TDS	TEMPORARY DIVERSION SWALE
WATTLE	
OCS	OUTLET CONTROL STRUCTURE
RCP	REINFORCED CONCRETE PIPE
WQ	WATER QUALITY
L.F.	LINEAR FEET
INV.	INVERT
DI	DROP INLET
DIP	DUCTILE IRON PIPE
TS	TOP OF STONE
NG	NATURAL GROUND
TOB	TOP OF BANK
CLD	CENTERLINE DITCH
BOB	BOTTOM OF BANK
PROPOSED GRAVEL DRIVE	
EXISTING GRAVEL DRIVE	
PROPOSED DRAINAGE EASEMENT	

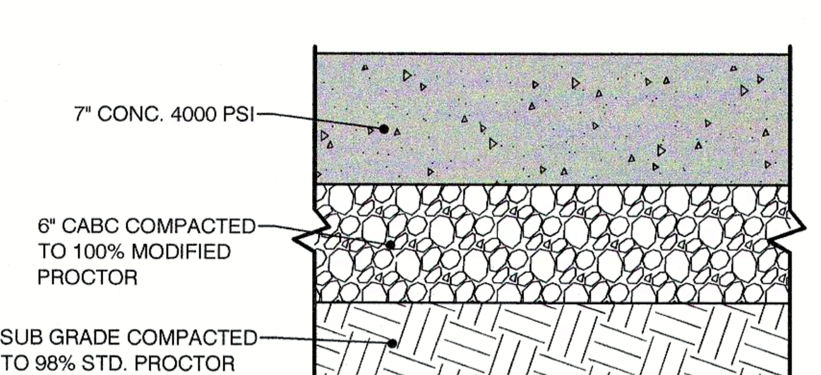
NOTE: FOR SOIL CONDITIONS AND PAVEMENT DESIGN SEE GEOTECHNICAL REPORT BY SOLID GROUND NC DATED MAY 29, 2025, PROJECT NO. NC25-0130



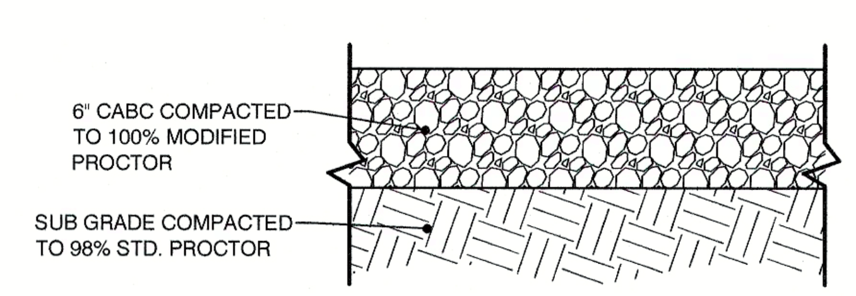
GEO GRID DRIVE - CROSS SECTION
NTS



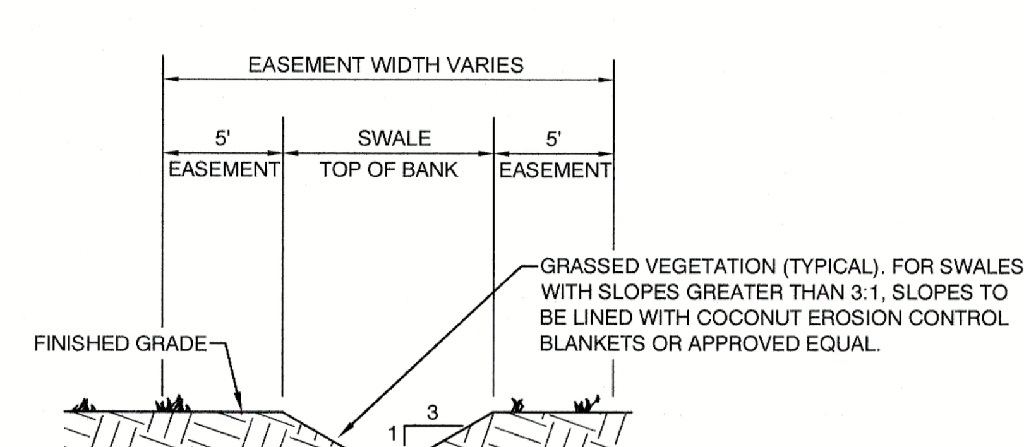
GRAVEL SUB-STATION YARD PAVEMENT SECTION
NTS



CONCRETE PAVEMENT SECTION
NTS



GRAVEL DRIVE - PAVEMENT SECTION
NTS



TYPICAL SWALE CROSS SECTION
NTS

SCALE 1 inch = 30 ft

CALL BEFORE YOU DIG! WWW.NC811.ORG N.C. ONE-CALL CENTER IT'S THE LAW!

Rivers & ASSOCIATES, INC. Since 1918
Engineers Planners Surveyors Landscape Architects
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
NC License: F-0334

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 13055 01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

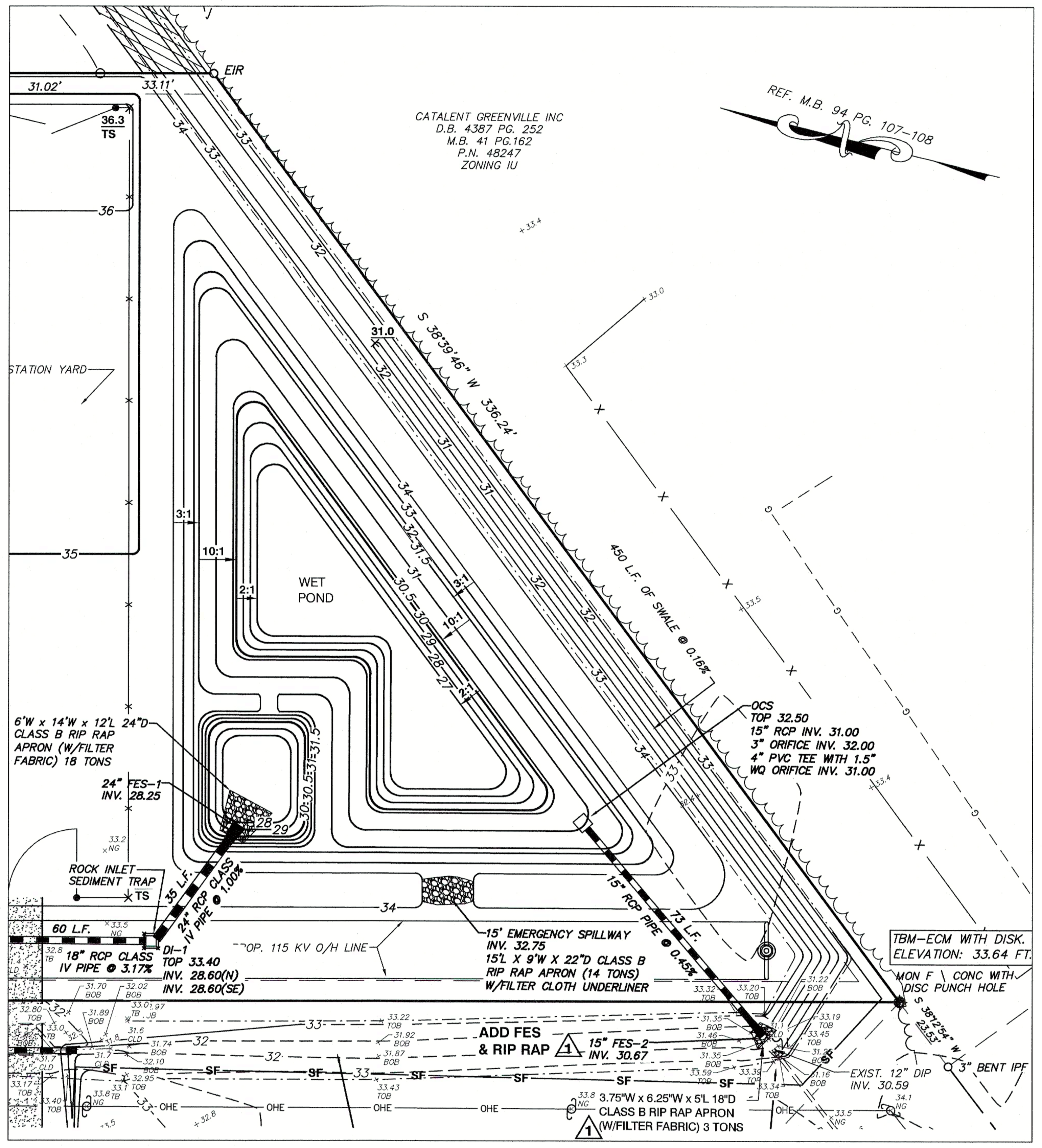
BOVIET SUBSTATION

GREENVILLE UTILITIES COMMISSION

CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA

GRADING PLAN

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C8



SCM PLAN VIEW

30' 0 15' 30'

SCALE 1 inch = 30 ft

PERMANENT SEEDING SPECIFICATIONS

SEEDING MIXTURE

SPECIES	RATE (LB/ACRES)
PREMIUM BERMUDA	60

NURSE PLANTS

BETWEEN APR. 15 AND AUG. 15, ADD 10 LB/ACRE GERMAN MILLET OR 15 LB/ACRE SUDAN GRASS PRIOR TO MAY 1 OR AFTER AUG 15, ADD 25 LB/ACRE RYE (GRAIN)

SEEDING DATES

	BEST	POSSIBLE
EARLY SPRING:	FEB. 15-MAR. 20	FEB. 15-APR. 30
FALL:	SEPT. 1-SEPT. 30	SEPT. 1-OCT. 31

SOIL AMENDMENTS

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TEST IS NOT AVAILABLE APPLY 2 TONS/ACRE AGRICULTURAL GRADE LIMESTONE AND 1,000LBS/ACRE OF 10-10-10 FERTILIZER, OR APPLY 3,000-5,000 LB/ACRE SUDANGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 25 LB/ACRE RYE (GRASS)

MULCH

APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR ROVING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DICK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

IF GROWTH IS LESS THAN FULL ADEQUATE, REFERTILIZE THE SECOND YEAR. ACCORDING TO SOIL TESTS OR TOPDRESS WITH 500 LB/ACRE 10-10-10 FERTILIZER. MOW AS NEEDED. RESEED, FERTILIZE AND MULCH DAMAGED AREAS IMMEDIATELY.

MAINTENANCE

INSPECTION ACTIVITIES - (FREQUENCY)

WHERE MAINTENANCE REQUIRES DEWATERING, DO SO BY MEANS OF DEWATERING PUMP.

AFTER CONSTRUCTION

INSPECT AFTER SEVERAL STORM EVENTS FOR BANK STABILITY, VEGETATION GROWTH, DRAINAGE SYSTEM FUNCTIONING, AND STRUCTURAL DAMAGE.

SEMI-ANNUAL INSPECTION

INSPECT FOR INVASIVE VEGETATION, DIFFERENTIAL SETTLEMENT, CRACKING; EROSION, LEAKAGE, OR TREE GROWTH ON THE EMBANKMENT; THE CONDITION OF THE RIPRAP IN THE INLET, OUTLET, AND PILOT CHANNELS; SEDIMENT ACCUMULATION IN THE BASIN; CLOGGING OF OUTLET; AND THE VIGOR AND DENSITY OF THE VEGETATION ON THE BASIN SIDE SLOPES AND FLOOR. CORRECT OBSERVED PROBLEMS AS NECESSARY.

NOTE SIGNS OF HYDROCARBON BUILDUP SUCH AS FLOATING OIL ON WATER SURFACE. - INSPECT FOR DAMAGE TO THE EMBANKMENT AND INLET/OUTLET STRUCTURES. REPAIR AS NECESSARY. -MONITOR FOR SEDIMENT ACCUMULATION IN THE FACILITY AND FOREBAY. EXAMINE INLET AND OUTLET DEVICES TO ENSURE THEY ARE FREE OF DEBRIS AND ARE OPERATIONAL.

MAINTENANCE ACTIVITIES - (FREQUENCY)

ONE TIME

- REPLACE WET POND VEGETATION TO MAINTAIN AT LEAST 50% OF SURFACE AREA COVERAGE IN WET POND PLANTS AFTER THE SECOND GROWING SEASON.

AS NEEDED

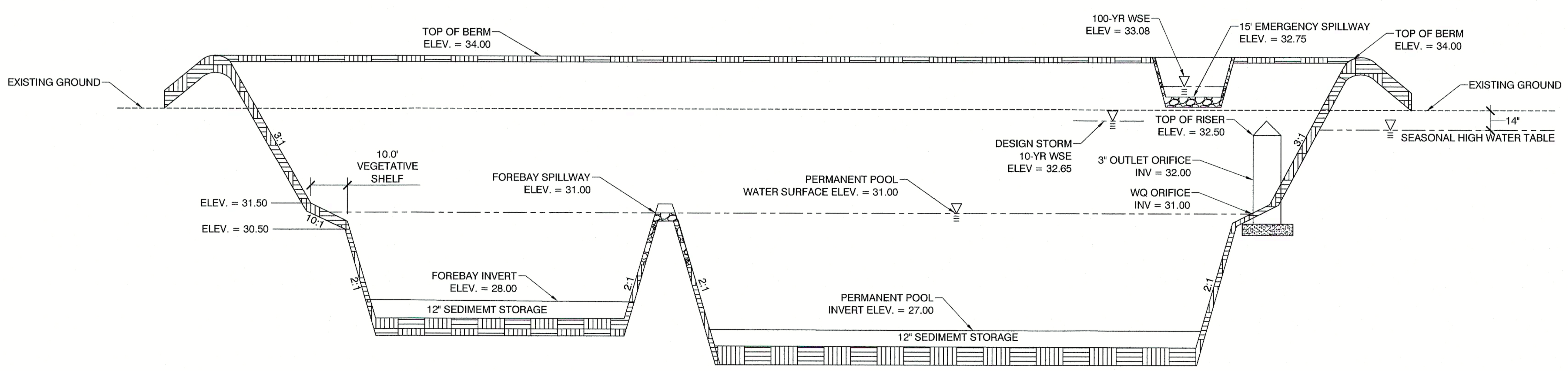
- REPAIR UNDERCUT AREAS, EROSION TO BANKS, AND BOTTOM AS REQUIRED. WHERE PERMITTED BY THE DEPARTMENT OF FISH AND GAME OR OTHER AGENCY REGULATIONS, STOCK CONSTRUCTED WET PONDS REGULARLY WITH MOSQUITO FISH (GAMBUSIA SPP.) TO ENHANCE NATURAL MOSQUITO AND MIDGE CONTROL.

3 TO 4 TIMES PER YEAR

- CLEAN AND REMOVE DEBRIS FROM INLET AND OUTLET STRUCTURES.
- MOW SIDE SLOPES AND REMOVE GRASS CLIPPINGS. REMOVE LITTER AND DEBRIS FROM BANKS, BASIN BOTTOM, TRASH RACKS, OUTLET STRUCTURES, AND VALVES AS REQUIRED.

ANNUAL (IF NEEDED)

- -SUPPLEMENT WET POND PLANTS IF A SIGNIFICANT PORTION HAVE NOT ESTABLISHED (AT LEAST 50% OF THE SURFACE AREA).
- -REMOVE NUISANCE PLANT SPECIES.
- -CLEAN FOREBAY TO AVOID ACCUMULATION IN MAIN WET POND AREA TO MINIMIZE WHEN THE MAIN WET POND AREA NEEDS TO BE CLEANED.
- -HARVEST PLANT SPECIES IF VEGETATION BECOMES TOO THICK CAUSING FLOW BACKUP AND FLOODING. MORE FREQUENT PLANT HARVESTING MAY BE REQUIRED BY LOCAL VECTOR CONTROL AGENCIES.
- -FERTILIZE NEW VEGETATION ONE TIME ONLY. THE OWNER SHALL NOT FERTILIZE VEGETATION AFTER THE INITIAL OCCURRENCE.
- -MONITOR SEDIMENT ACCUMULATIONS, AND REMOVE SEDIMENT WHEN THE ACCUMULATED SEDIMENT VOLUME EXCEEDS 10-20% OF THE BASIN VOLUME, PLANTS ARE "CHOKED" WITH SEDIMENT, OR THE WET POND BECOMES EUTROPHIC. IT IS SUGGESTED THAT THE MAIN AREA BE CLEANED ONE HALF AT A TIME WITH AT LEAST ONE GROWING SEASON IN BETWEEN CLEANINGS. THIS WILL HELP TO PRESERVE THE VEGETATION AND ENABLE THE WET POND TO RECOVER MORE QUICKLY FROM THE CLEANING.



SCM SECTION VIEW

N.T.S.

EMBANKMENT COMPACTION

1. ALL FILL MATERIAL FOR THE EMBANKMENT SHOULD BE PLACED IN LAYERS (OR LIFTS) NO GREATER THAN 6" THICK.
2. THE LARGEST SIZE PARTICLE SHOULD NOT BE GREATER THAN ⅓rd THE HEIGHT OF THE LIFT THAT IS 2".
3. EACH LAYER SHOULD BE THOROUGHLY COMPACTED BEFORE THE NEXT LAYER IS PLACED.
4. THE COMPACTION EFFORT ACHIEVED SHOULD BE ON AVERAGE 98% STANDARD PROCTOR ASTM D698.
5. THE MINIMUM COMPACTION EFFORT SHOULD BE 95% STANDARD PROCTOR ASTM D698.
6. THE MATERIAL FORMING THE EMBANKMENT SHOULD BE PLACED WITH SUFFICIENT MOISTURE TO ENSURE PROPER COMPACTION. THE MOISTURE CONTENT SHOULD BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT (OMC).
7. BEFORE EACH ADDITIONAL 6" LIFT IS ADDED TO THE EMBANKMENT, THE PRECEDING LIFT SHOULD BE SCARIFIED TO ENSURE THAT THE TWO LIFTS ARE PROPERLY JOINED.
8. A WHEELED SCRAPER OR TRUCK SHOULD BE USED FOR PLACING THE CLAY ON THE DAM SITE. THE CLAY SHOULD THEN BE SPREAD BY THE USE OF THE BLADE ON A TAMPER FOOT ROLLER FROM A BULLDOZER TOWING A TAMPER FOOT ROLLER (SHEEPSFOOT ROLLER).

POND NOTES

1. TOP OF BERM AND ALL SIDE SLOPES SHALL BE EITHER SODDED OR HYDROSEEDED TO ESTABLISH A DENSE STAND OF NON CLUMPING TURF GRASS.
2. NO TREES SHRUBS OR WOODY VEGETATION IS ALLOWED ON THE TOP OF BERM OR SLOPES.
3. NO RIP RAP OR STONE IS ALLOWED IN THE BERM EMBANKMENT.
4. CONTRACTOR TO WATER PLANTINGS AND GRASS AS NEEDED
5. CONTRACTOR SHALL NOT BE RELEASED UNTIL AFTER THE POND HAS BEEN ASBUILT SURVEYED, PE CERTIFIED AND ACCEPTED BY CITY OF GREENVILLE.

STORMWATER WET POND PLANTING SPECIFICATIONS

1. ALL HERBACEOUS PLANTS WITHIN THE WET POND PROPER SHALL BE INSTALLED BETWEEN MARCH 15 AND JULY 31.
2. UNLESS OTHERWISE DESIGNATED, PLANTS SHOULD BE INSTALLED AS LARGE DRIFTS (I.E., MASSES OF A SINGLE SPECIES) WITHIN THEIR RESPECTIVE PLANTING AREAS.
3. INSTALL A SLOW RELEASE FERTILIZER TABLET NEXT TO EACH PLANT WITHIN THE WET POND PROPER. FOR HERBACEOUS SPECIES USE AG SAFE AQUATIC-TABS 20-10-5, 90 DAY CONTINUOUS FEEDING, 5 GRAMS, OR EQUIVALENT.
4. ALL PLANTS SHALL BE DIRECTLY DESCENDED FROM INDIVIDUALS GROWING WILD WITHIN 200 MILES OF THE PROJECT SITE. IF SUITABLE STOCK CANNOT BE OBTAINED, PLANTS OF OTHER GENETIC PROVENANCES MAY BE UTILIZED WITH THE APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
5. PLANT MATERIAL SHOULD CONFORM TO AMERICAN STANDARD NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. (SEE PLANT LIST AND NOTES 6 & 7).
6. ALL PLANT MATERIAL TO BE CONTAINER GROWN PLANTS OF AT LEAST 4.0 CUBIC INCHES CAPACITY.
7. A MINIMUM OF THREE(3) DIFFERENT SPECIES.

VEGETATIVE SHELF PLANTS:	(50 PLANTS PER 200 SF)
TOTAL:	4,568 SF = 1142 PLANTS

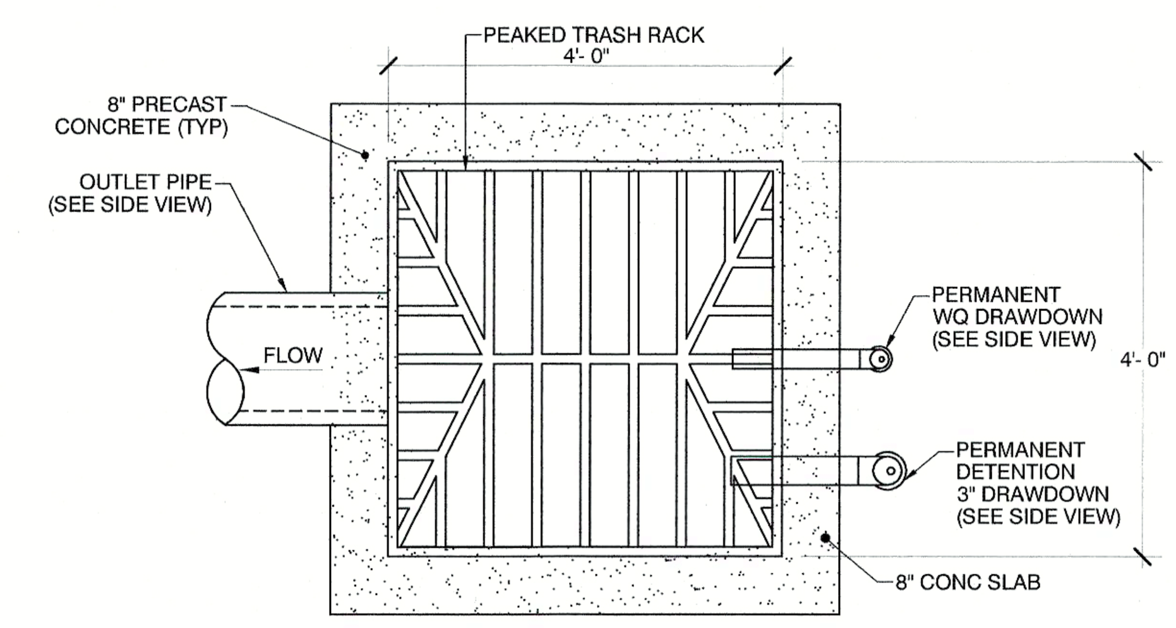
STORMWATER WET POND PLANTING TABLE

BOTANICAL NAME	COMMON NAME	QUANTITY
ASCLEPIAS INCARNATA	SWAMP MILKWEED	191
EUPATORIADELPHUS DUBIUS	DWARF JOE PYE WEED	191
CAREX TENERA	QUILL SEDGE	190
HIBISCUS LAEVIS	SCARLET ROSE MALLOW	190
RHYNCHOSPORA COLORATA	STARRUSH WHITETOP	190
LOBELIA ELONGATA	LONGLEAF LOBELIA	190

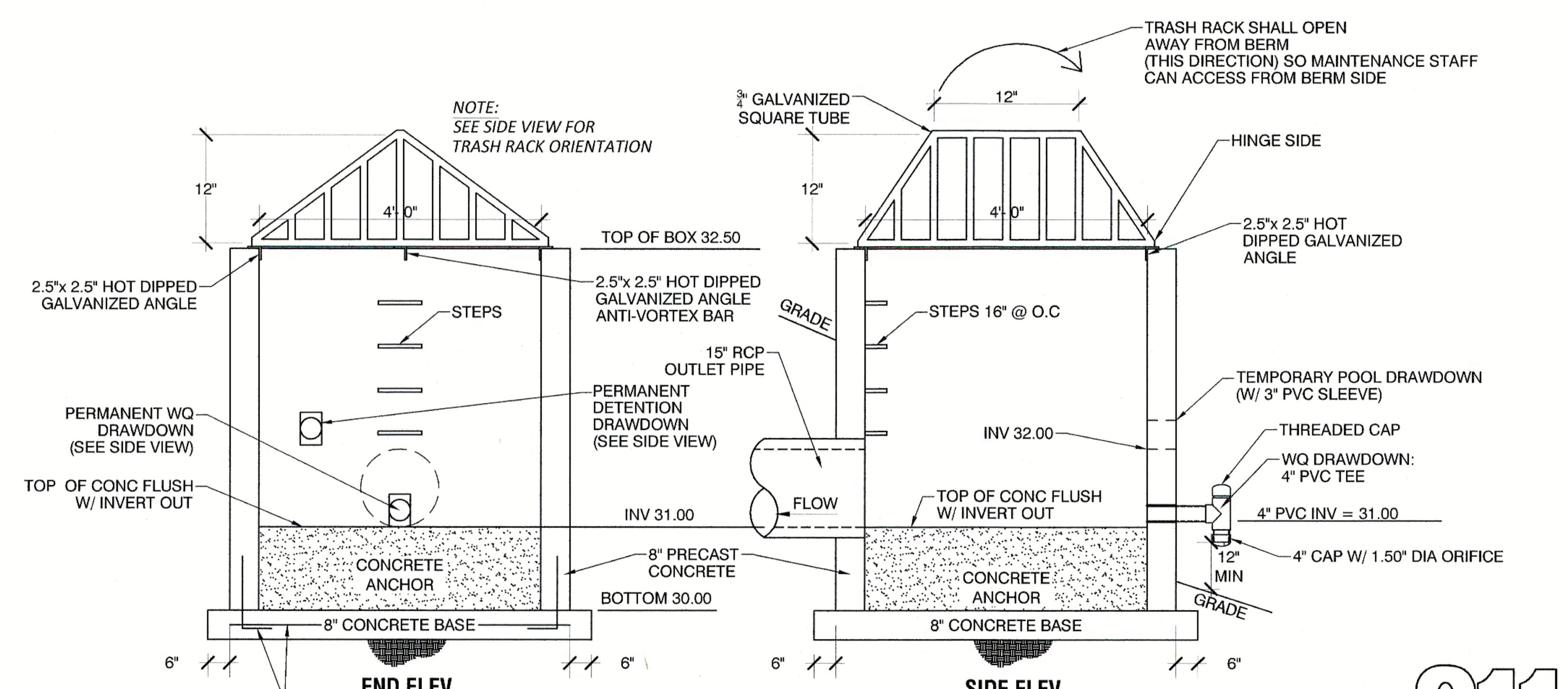
MELLOW MARSH FARMS (919) 742 1200

OUTLET CONTROL STRUCTURE NOTES

1. STRUCTURE SHALL BE PRECAST CONCRETE
2. PRECASTER SHALL DESIGN AND FURNISH ALL STEEL REINFORCING, WALL THICKNESS AND HARDWARE.
3. MANUFACTURE ENTIRE CONCRETE AS ONE SECTION WITH NO JOINTS IF PRACTICAL.
4. ANY JOINTS SHALL BE WATER TIGHT AND BE CONSTRUCTED FOR ANTI-FLOTATION. THEY SHALL HAVE (4) GALVANIZED STEEL PLATES 12" X 12" X ¼", ONE PER SIDE. EACH PLATE SHALL HAVE (4) GALVANIZED STEEL BOLTS (¼" DIA X 8" L MIN), FOR ANTI-FLOTATION.
5. THROUGHOUT GRADING OPERATION, TEMPORARY SKIMMER SHALL BE IN PLACE.



PLAN



OUTLET CONTROL STRUCTURE

N.T.S.

CALL BEFORE YOU DIG! WWW.NC811.ORG N.C. ONE-CALL CENTER IT'S THE LAW!

NC License: F-0334
Rivers & ASSOCIATES, INC. Since 1918
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers Planners Surveyors Landscape Architects

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER J. DWIGHT HERMELSON 01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

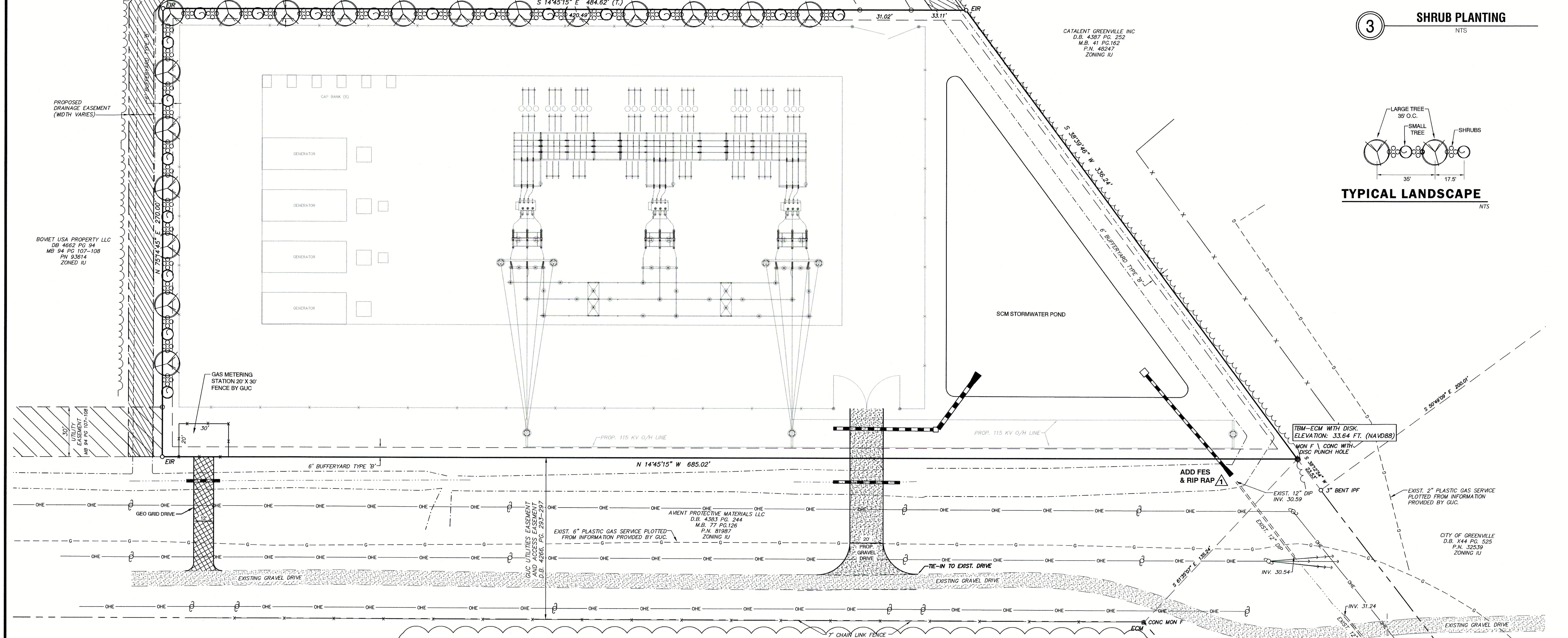
BOVIET SUBSTATION

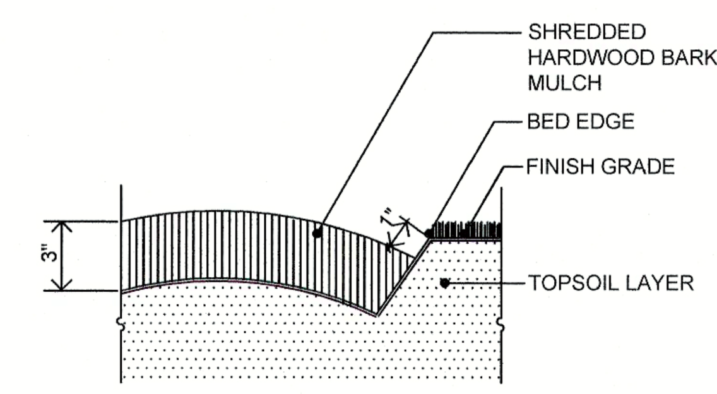
GREENVILLE UTILITIES COMMISSION

CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA

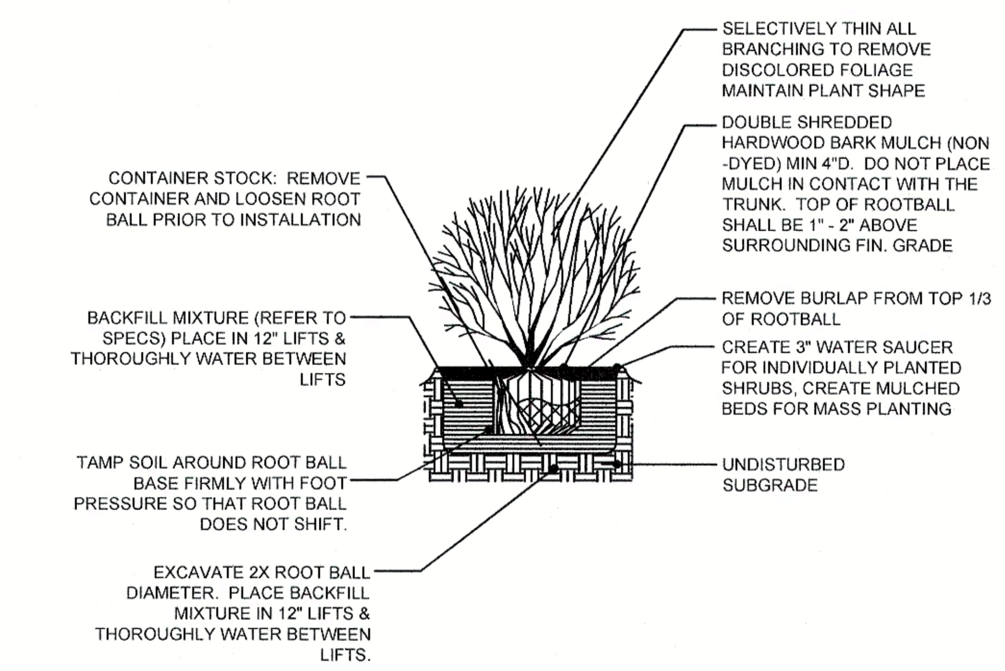
STORMWATER CONTROL PLAN - DETAILS

DATE:	JANUARY 12, 2026
DESIGNED BY:	MP
DRAWN BY:	KB
CHECKED BY:	MP
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	C9





2 PLANTING BED EDGE
NTS



3 SHRUB PLANTING
NTS

TYPICAL LANDSCAPE
NTS

BUFFERYARD:

⚠1

1. SITE DATA: LAND AREA FOR VEGETATION REQUIREMENTS: 3.62 ACRES

   A. REQ'D VEGETATION FOR LOT
   - FIVE (5) LARGE TREES: X 3.6 = 18 REQUIRED - 18 PROVIDED
   - TEN (10) SMALL TREES: X 3.6 = 36 REQUIRED - 19 PROVIDED (51 SHRUBS SUBSTITUTED FOR 17 SMALL TREES)
   - TWENTY FIVE (25) SHRUBS: X 3.6 = 90 REQUIRED - 144 PROVIDED

   B. VEGETATION SUBSTITUTION
   - ONE (1) LARGE TREE MAY SUBSTITUTE FOR TWO (2) SMALL TREES OR FIVE (5) SHRUBS
   - ONE (1) SMALL TREE MAY SUBSTITUTE FOR THREE (3) SHRUBS

   C. REQUIRED STREET VEGETATION: NONE

   D. REQUIRED SCREENING VEGETATION: NONE

2. MINIMUM PLANT SIZES SHALL BE IN ACCORDANCE WITH THE ZONING REQUIREMENTS AS FOLLOWS: CALIPER MEASUREMENTS SHALL BE TAKEN AT SIX INCHES ABOVE GRADE.

   A. LARGE TREE: SINGLE STEM — 10 FT. HEIGHT & 2" CALIPER
      MULTI-STEM — 10 FT. HEIGHT

   B. SMALL TREE: 8 FT. HEIGHT & 1.5" CALIPER

   C. SHRUBS: 18" HEIGHT, EXCEPT AS PROVIDED UNDER SECTION 9-4-267(a)

3. ALL REQUIRED PLANT MATERIAL (LARGE AND SMALL TREES, SCRUBS) LOCATED IN A SCREENING BUFFERYARD (C, D, E & F) SHALL BE EVERGREEN.

4. EXISTING SUBSTITUTE VEGETATION MATERIALS HAVE BEEN NOTED INCLUDING THEIR SPECIFIC LOCATION(S), TYPE(S), AND SIZE(S).

5. EXISTING SUBSTITUTE MATERIAL SHALL BE PROTECTED FROM SITE DEVELOPMENT ACTIVITIES IN ACCORDANCE WITH SECTION 9-4-265(F). [IF APPLICABLE]

6. NO PORTION OF ANY PARKING AREA, INCLUDING ANY DRIVEWAY, PARKING SPACE, DRIVE AISLE, OR TURNING AREA, SHALL BE LOCATED MORE THAN THIRTY (30) FEET FROM AN ON-SITE SMALL TREE OR MORE THAN SEVENTY-FIVE (75) FEET FROM AN ON-SITE LARGE TREE. FOR PURPOSES OF THIS SECTION, THE MEASUREMENT SHALL BE FROM THE FARTHEST EDGE OF THE SUBJECT AREA TO THE CENTER OF THE BASE OF THE CLOSEST QUALIFYING TREE.

7. SITE PLAN APPROVAL FROM THE RESPECTIVE EASEMENT HOLDER SHALL BE CONSTRUED AS APPROVAL OF ALL NOTED ENCROACHMENTS AS SHOWN ON THIS PLAN.

8. THE FOLLOWING VEGETATION MATERIALS, AS LISTED BY COMMON NAME, SHALL CONSTITUTE NOT MORE THAN TWENTY-FIVE (25) PERCENT OF THE TOTAL REQUIREMENT FOR THE SPECIFIC CATEGORY:

   LARGE TREE CATEGORY - RIVER BIRCH.

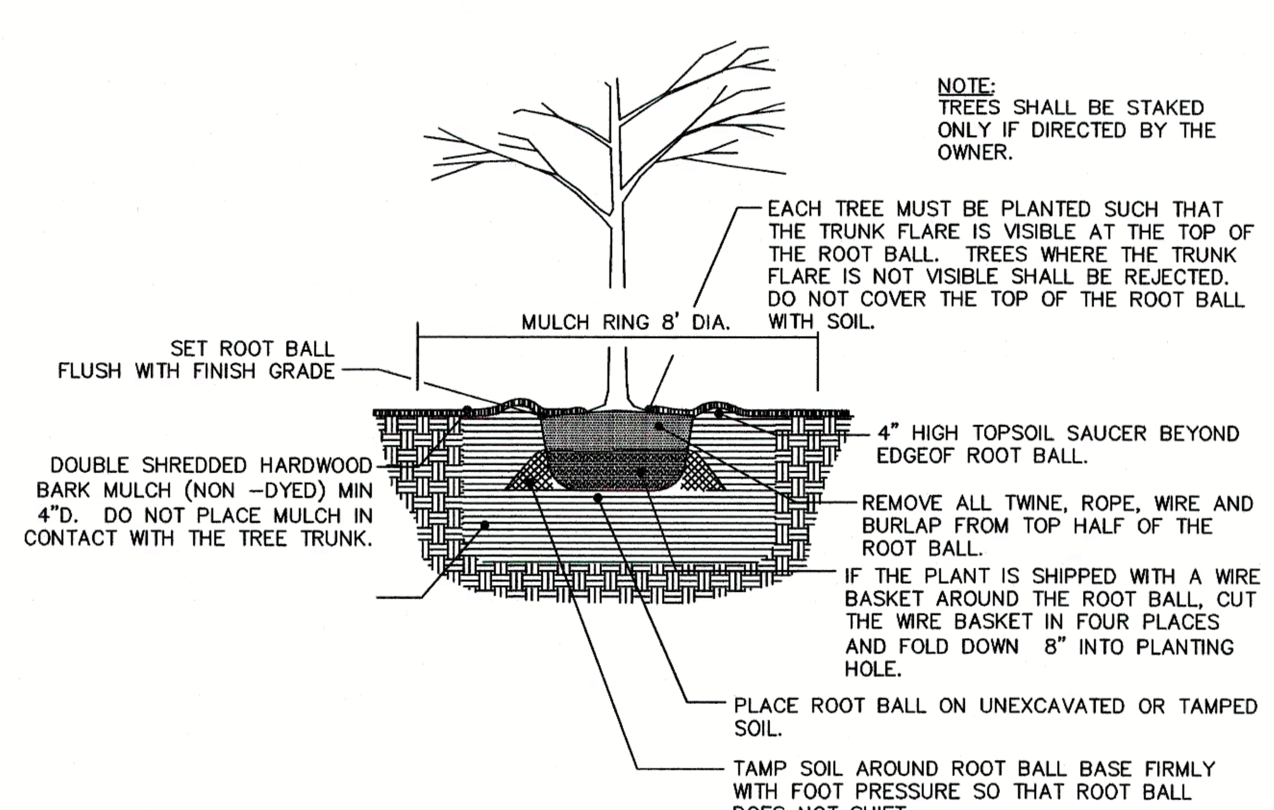
   (3) EVERGREEN SHRUB CATEGORY - RED TIP PHOTINIA.

   SMALL TREE CATEGORY - ARISTOCRAT PEAR, CAPITOL PEAR, AND CLEVELAND SELECT PEAR.

9. ALL CONTAINER PADS SHALL BE ENCLOSED ON THREE (3) SIDES IN ACCORDANCE WITH SECTION 9-4-268(H).

10. ALL PARKING AREAS SHALL BE SCREENED IN ACCORDANCE WITH SECTION 9-4-268(L)(9) OF THE CITY CODE. VEGETATION MATERIALS SHALL BE EVERGREEN.

11. EXISTING VEGETATION TO BE VERIFIED AT TIME OF INSPECTION.



4 LARGE & SMALL TREE PLANTING
NTS

811
CALL BEFORE YOU DIG!
WWW.NC811.ORG
N.C. ONE-CALL CENTER
IT'S THE LAW!

30' 0 15' 30'
SCALE 1 inch = 30 ft

NC License: F-0334
Rivers & ASSOCIATES, INC. Since 1918
riversandassociates.com
107 East Second Street
Greenville, NC 27858
(252) 752-4135
Engineers Planners Surveyors Landscape Architects

NORTH CAROLINA PROFESSIONAL SEAL 13055 ENGINEER J. DWIGHT VERMELSON
01-28-26

REVISIONS:

NO.	DESCRIPTION	DATE	BY
1	CITY REVIEW COMMENTS	1/28/26	KB

BOVIET SUBSTATION
GREENVILLE UTILITIES COMMISSION
CITY OF GREENVILLE ~ PITT COUNTY ~ NORTH CAROLINA
LANDSCAPING PLAN

DATE:	JANUARY 12, 2026
DESIGNED BY:	JW
DRAWN BY:	KB
CHECKED BY:	JDV
PROJECT No.	2025087
DRAWING No.	W-4267
SCALE:	AS NOTED
SHEET No.	L1