GENERAL NOTES

1. AS-BUILT REQUIRED PRIOR TO FINAL BUILDING INSPECTION

2. THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

3. THE ONLY MATERIAL TO BE BURIED ON-SITE IS VEGETATIVE MATERIAL, PROVIDED IT IS NOT BURIED WITHIN 100' OF ANY PROPERTY LINE OR ENCLOSED STRUCTURE. CONSTRUCTION WASTE MAY NEITHER BE BURNED NOR BURIED AND MUST BE TAKEN TO A STATE APPROVED LANDFILL.

4. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL AND LOCAL CODES.

5. ALL MATERIALS AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE FAYETTE COUNTY STANDARDS AND THE GEORGIA DEPARTMENT OF TRANSPORTATION, AS APPLICABLE.

6. DEVIATION FROM THESE PLANS AND SPECIFICATIONS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.

7. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATIONS AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATING, RELOCATION AND TIE-IN TO PUBLIC UTILITIES. ALSO, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL INSPECTORS, INCLUDING COUNTY AND CITY INSPECTORS PRIOR TO BEGINNING SITE CONSTRUCTION.

8. THERE MAY BE ADDITIONAL UTILITIES THAN THOSE SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS AND NECESSARY INVERTS OF ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE DEPARTMENT OF THE UTILITY COMPANIES. THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATIONS AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATING, RELOCATING AND TIE-IN TO THE PUBLIC UTILITIES.

9. IF CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO ORIGINAL CONDITION AND QUALITY, AS APPROVED BY THE ENGINEER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.

10. LAND DISTURBANCE PERMIT TO BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION.

11. CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED IN RIGHT-OF-WAY AND MUST BE STORED WITHIN SITE.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A MARKED-UP SET OF DESIGN DRAWINGS SHOWING ALL " AS-BUILT " CONDITIONS. THESE "RECORD DRAWINGS" SHALL BE MADE AVAILABLE TO THE DESIGNER AND/OR THE COUNTY INSPECTOR UPON REQUEST. THE MARK-UPS SHALL BE AT THE SITE AT ALL TIMES AND SHALL BE UTILIZED BY THE CONTRACTOR TO DEVELOP FINAL RECORD DRAWINGS.

13. STUMPS AND CONSTRUCTION DEBRIS SHALL BE DEPOSITED IN A PROPERLY PERMITTED LANDFILL.

14. THIS PROPERTY IS NOT LOCATED IN A 100 YEAR FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBER FOR THIS AREA IS 13113C0107E, AND THE DATE OF SAID MAP IS SEPTEMBER 26, 2008. THIS DETERMINATION WAS MADE BY GRAPHICALLY DETERMINING THE POSITION OF THIS SITE ON SAID FIRM MAP UNLESS NOTED OTHERWISE.

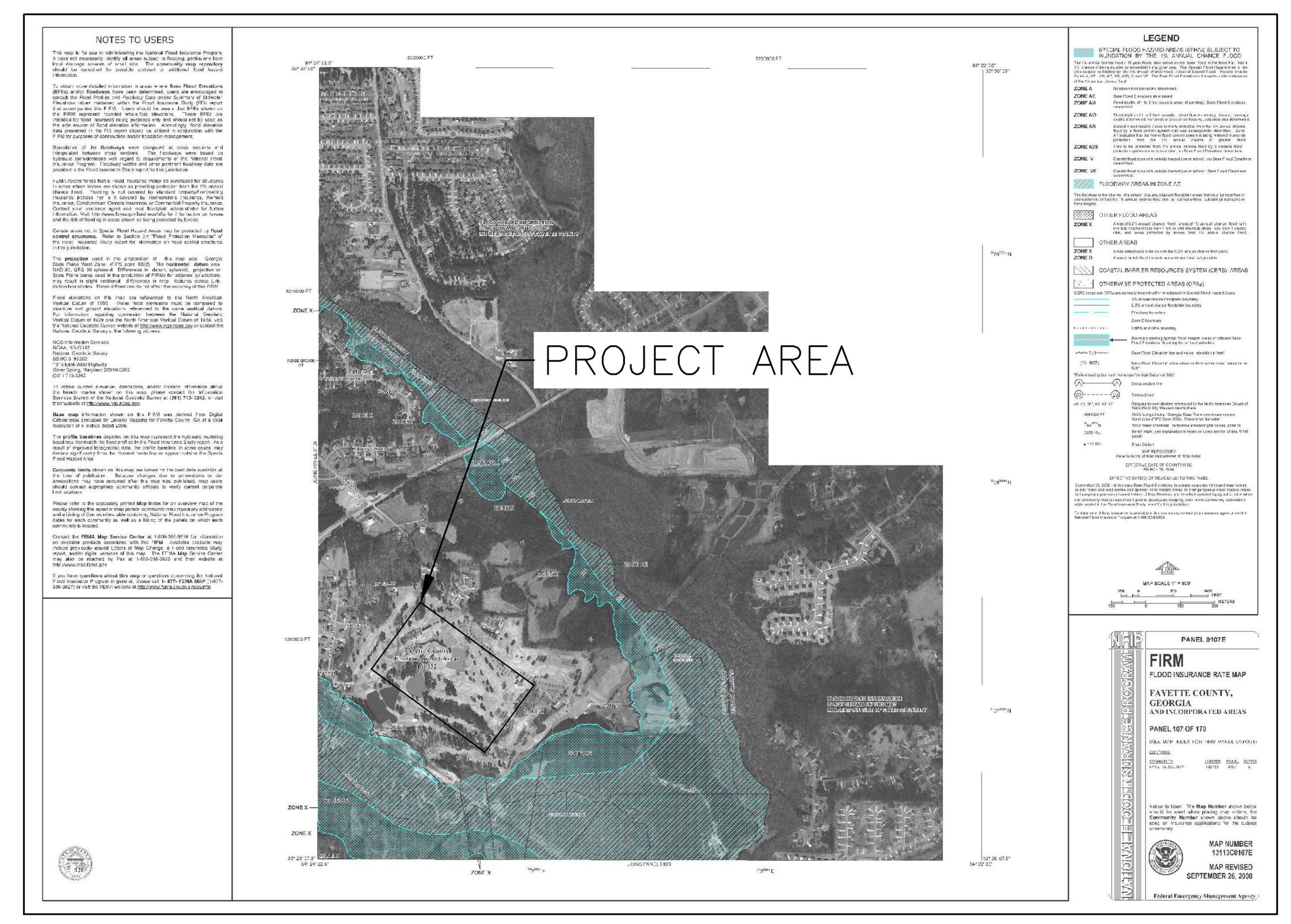
15. THE CONTRACTOR SHALL TELEPHONE TOLL FREE 1-800-282-7411 A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY EXCAVATION AS SHOWN AND NOTED ON THE PLANS FOR A UTILITY LOCATION SERVICE.

16. ALL APPROPRIATE SITE WORK SHALL CONFORM TO ADA STANDARDS.

APPROVAL REVIEW STAMPS

LOCATION MAP (NTS)

FEMA MAP



FEMA STATEMENT

THIS PROPERTY IS NOT LOCATED IN A 100 YEAR FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBER FOR THIS AREA IS 13113C0107E AND THE DATE OF SAID MAP IS SEPTEMBER 26, 2008.

REQUIRED ENGINEER'S INSPECTION

AS PER THE GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION, NPDES GENERAL PERMITS FOR CONSTRUCTION ACTIVITY GAR100001, GAR100002, & GAR100003; PART IV, A., 7 REQUIRES THE EROSION CONTROL PLAN DESIGN PROFESSIONAL TO MAKE A SITE INSPECTION. FOR STAND ALONE PROJECTS THAT BEGIN CONSTRUCTION ACTIVITY AFTER THE EFFECTIVE DATE OF THIS PERMIT, THE PRIMARY PERMITEE MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN, EXCEPT WHEN THE PRIMARY PERMITEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL, TO INSPECT THE INSTALLATION OF THE CONTROL MEASURES (BMP'S) WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER THE INITIAL CONSTRUCTION ACTIVITIES COMMENCE. FOR CONSTRUCTION ACTIVITIES WHERE CONSTRUCTION BEGAN ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THE INSPECTION IS TO OCCUR WITHIN SEVEN (7) DAYS AFTER THE PLAN HAS BEEN IMPLEMENTED. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMP'S HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PRIMARY PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED

GEORGIA811
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Contact 811 before you dig.

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

PROJECT INFORMATION

FAYETTE COUNTY SHERIFF VEHICLE TACTICAL TRAINING FACILITY

ADDRESS: 340 HEWELL ROAD
JONESBORO, GA 30238
LAND LOTS 172 OF THE 5TH DISTRICT
FAYETTE COUNTY, GEORGIA

TOTAL AREA: 51 ACRES
DISTURBED AREA: 48.3 ACRES

OWNER:

NAME: FAYETTE COUNTY
ADDRESS: 155 JOHNSON AVENUE
FAYETTEVILLE, GA 30214
CONTACT: BARRY BABB
PHONE: (770)- 706-4800

SHEET INDEX

SHEET	DRAWING NAME	SHEET NAME	PLAN DATE	LAST REVISED
1	C-000	COVER SHEET	04/01/2022	
2	C-100	EXISTING CONDITIONS AND DEMOLITION PLAN	04/01/2022	
3	C-200	OVERALL SITE AND UTILITY PLAN	04/01/2022	
4	C-201	SITE AND UTILITY PLAN	04/01/2022	
5	C-202	SITE AND UTILITY PLAN	04/01/2022	
6	C-203	SITE AND UTILITY PLAN	04/01/2022	
7	C-204	ROADWAY PROFILE	04/01/2022	
8	C-205	ROADWAY PROFILE	04/01/2022	
9	C-206	ROADWAY PROFILE	04/01/2022	
10	C-207	ROADWAY PROFILE	04/01/2022	
11	C-208	ROADWAY PROFILE	04/01/2022	
12	C-209	ROADWAY PROFILE	04/01/2022	
13	C-210	ROADWAY PROFILE	04/01/2022	
14	C-211	TYPICALS	04/01/2022	
15	C-300	GRADING AND DRAINAGE PLAN	04/01/2022	
16	C-301	GRADING AND DRAINAGE PLAN	04/01/2022	
17	C-302	GRADING AND DRAINAGE PLAN	04/01/2022	
18	C-400	STORM PROFILES		
19	C-401	STORM PROFILES	04/01/2022	
20	C-402	STORM PROFILES	04/01/2022	
21	C-403	STORMWATER MANAGEMENT SHEET	04/01/2022	
22	C-404	STORMWATER MANAGEMENT DATA	04/01/2022	
23	C-501	CONSTRUCTION DETAILS	04/01/2022	
24	C-502	CONSTRUCTION DETAILS	04/01/2022	
25	ER-000	EROSION CONTROL COVER SHEET	04/01/2022	
26	ER-100	EROSION CONTROL NOTES	04/01/2022	
27	ER-200	EROSION CONTROL PLAN - INITIAL PHASE	04/01/2022	
28	ER-300	EROSION CONTROL PLAN - INTERMEDIATE PHASE	04/01/2022	
29	ER-400	EROSION CONTROL PLAN - FINAL PHASE	04/01/2022	
30	ER-500	EROSION CONTROL DETAILS	04/01/2022	
31	ER-501	EROSION CONTROL DETAILS	04/01/2022	

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF
VEHICLE TACTICAL TRAINING FACILITY
LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. MCNALLY
GSWCC CERT #78081

SHEET TITLE
COVER SHEET

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
NONE	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-000
SHEET 1 of 31

Plot Scale: 1"=##', Drawing Rotation: ###°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:40 PM
Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Cover, Notes& Details.dwg

EXISTING CONDITIONS/ DEMOLITION NOTES

1. THIS PROPERTY MAY BR SUBJECT TO EASEMENTS, CLAIMS, PRESCRIPTIONS, SUBSURFACE CONDITIONS, OR OTHER MATTERS OF TITLE WHICH ARE NOT VISIBLE, NOT RECORDED, OR NOT DISCLOSED IN THE TITLE COMMITMENT PROVIDED BY THE OWNER, THE PURCHASER, OR ANY AGENTS THEREOF.

2. THE UTILITIES SHOWN ARE FOR THE CLIENTS CONVENIENCE ONLY – THERE MAY BE OTHER UNDERGROUND UTILITIES NOT SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE UNDERGROUND UTILITIES SHOWN OR NOT SHOWN. ALL DAMAGES MADE TO EXISTING UTILITIES BY THE OWNER OR THE OWNERS AGENT, SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER, OR THE OWNERS AGENT, I.E. UNDERGROUND TANKS, GAS LINES, WATER LINES, SEWER LINES, ETC.

3. ACCORDING TO THE F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 13113C0107E, EFFECTIVE 09/26/2008, FOR FAYETTE COUNTY, GEORGIA, THIS PROPERTY DOES LIE WITHIN A 100 YEAR FLOOD PLAIN AS DEFINED BY F.E.M.A.

4. BOUNDARY AND RIGHT-OF-WAY INFORMATION SHOWN HEREON IS DERIVED FROM INFORMATION PROVIDED BY FAYETTE COUNTY.

5. TOPOGRAPHIC INFORMATION SHOWN HEREON IS DERIVED FROM GIS INFORMATION PROVIDED BY FAYETTE.

6. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS LOCATED ON THE SITE AND COORDINATE ANY DISCREPANCIES WITH THE DESIGN PROFESSIONAL.

7. ALL TREES LOCATED INSIDE THE LOD ARE TO BE REMOVED.

8. ALL GOLF CART PATHS INSIDE THE LOD ARE TO BE DEMOLISHED.

FEMA STATEMENT

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IF ANY CONFLICTS, DISCREPANCIES OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

GEORGIA811
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24 HOUR CONTACT:
BARRY BABB
TEL: (770)– 706-4800

100 0 100 200 300
SCALE IN FEET

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED No. 41446 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
EXISTING CONDITIONS AND DEMOLITION PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=100'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-100
SHEET 2 of 31

Plot Scale: 1"=100' Drawing Rotation: 45.0° Plot Style: Design.ctb Plotted By: Olivia Guajardo on 4/1/2022, 1:41 PM

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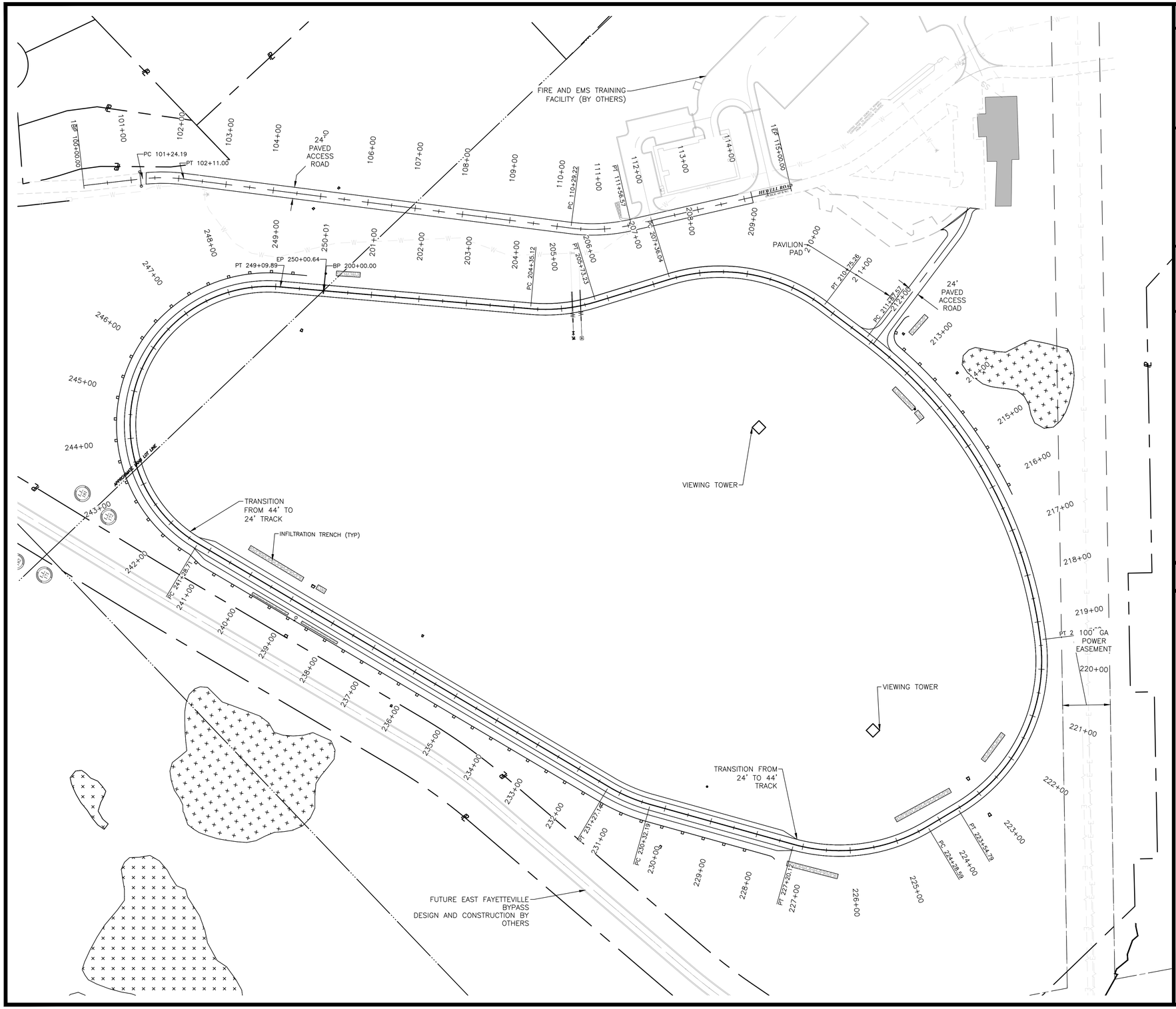

SITE PLAN NOTES

1. THE SITE CONTRACTOR SHALL COORDINATE SERVICE ROUTING OF ALL GAS, TELEPHONE, AND ELECTRICAL LINES WITH THE APPROPRIATE UTILITY COMPANY. ALL CONSTRUCTION MUST COMPLY WITH EACH UTILITY'S STANDARDS AND SPECIFICATIONS AND NOT INTERFERE WITH TREE PLANTING SITES OR EXISTING TREES TO BE PRESERVED.

LEGEND

- PROPERTY AND EXISTING R/W LINE
- LAND LOT LINE
- PARKING SPACE COUNT (#)
- BUILDING SETBACK LINE
- FENCE
- ACCESS EASEMENT
- POND
- CONCRETE

IF ANY CONFLICTS, DISCREPANCIES OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

UTILITY NOTES

24 HOUR CONTACT:
BARRY BABB
TEL: (770)– 706–4800

100 0 100 200 300
SCALE IN FEET

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FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 34914 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
OVERALL SITE PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=100'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-200
SHEET 3 of 31

Plot Scale: 1"=100'. Drawing Rotation: 335.7°. - Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 1:41 PM

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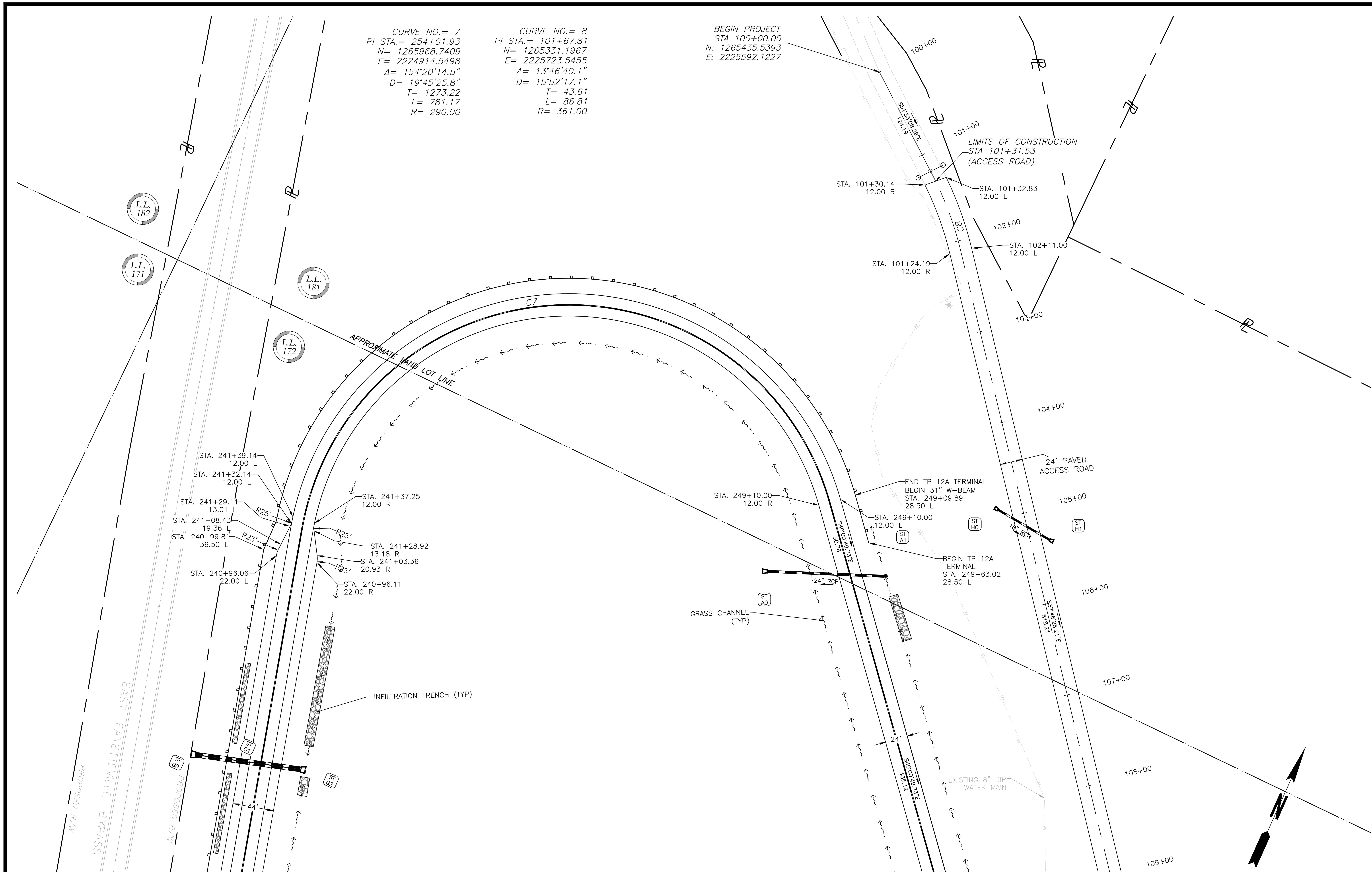

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D= 19°45'25.8"
T= 1273.22
L= 781.17
R= 290.00
CURVE NO.= 8
PI STA.= 101+67.81
N= 1265331.1967
E= 2225723.5455
Δ= 13°46'40.1"
D= 15°52'17.1"
T= 43.61
L= 86.81
R= 361.00
BEGIN PROJECT
STA 100+00.00
N: 1265435.5393
E: 2225592.1227
LIMITS OF CONSTRUCTION
STA 101+31.53
(ACCESS ROAD)
STA. 101+30.14
12.00 R
STA. 101+32.83
12.00 L
STA. 102+11.00
12.00 L
STA. 101+24.19
12.00 R
L.L. 182
L.L. 171
L.L. 181
L.L. 172
C7
C8
APPROXIMATE LAND LOT LINE
24' PAVED
ACCESS ROAD
STA. 241+39.14
12.00 L
STA. 241+32.14
12.00 L
STA. 241+29.11
13.01 L
STA. 241+08.43
19.36 L
STA. 240+99.81
36.50 L
STA. 240+96.06
22.00 L
STA. 241+37.25
12.00 R
STA. 241+28.92
13.18 R
STA. 241+03.36
20.93 R
STA. 240+96.11
22.00 R
R25'
STA. 249+10.00
12.00 R
END TP 12A TERMINAL
BEGIN 31" W-BEAM
STA. 249+09.89
28.50 L
STA. 249+10.00
12.00 L
BEGIN TP 12A
TERMINAL
STA. 249+63.02
28.50 L
24" RCP
18" RCP
GRASS CHANNEL
(TYP)
INFILTRATION TRENCH (TYP)
EXISTING 8" DIP
WATER MAIN
24'
44'
EAST FAYETTEVILLE BYPASS
PROPOSED R/W
ST A0
ST A1
ST H0
ST H1
ST G0
ST G1
ST G2
N
100+00
101+00
102+00
103+00
104+00
105+00
106+00
107+00
108+00
109+00

SEE SHEET C-202

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

50 0 50 100 150
SCALE IN FEET

CROY

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

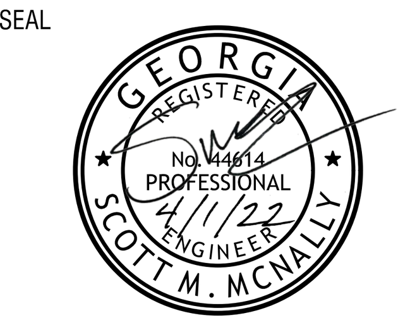
VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL



GSWCC CERT #78081

SHEET TITLE
SITE AND UTILITY PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=50'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-201

Plot Scale: 1"=50', Drawing Rotation: 335.7°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:41 PM
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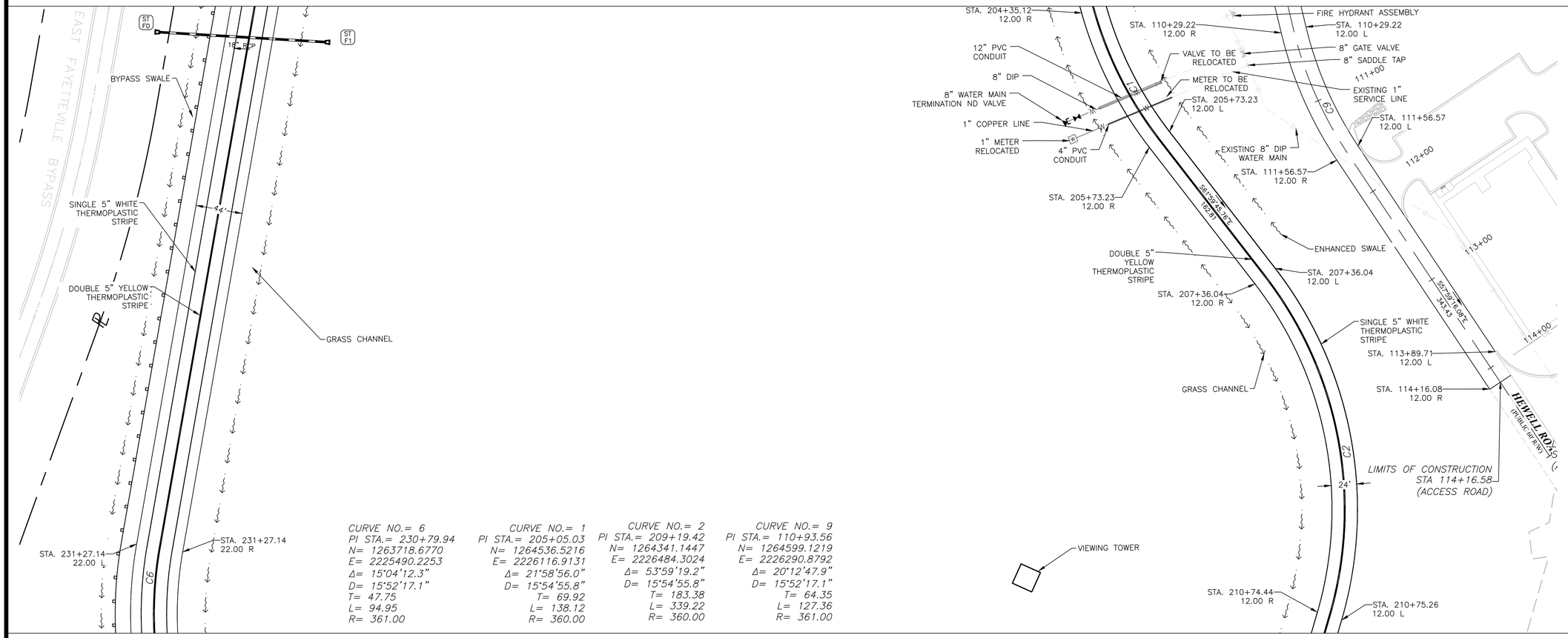
SEE SHEET C-201



CURVE NO.= 6
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D= 15°52'17.1"
T= 47.75
L= 94.95
R= 361.00

CURVE NO.= 1
PI STA.= 205+05.03
N= 1264536.5216
E= 2226116.9131
Δ= 21°58'56.0"
D= 15°54'55.8"
T= 69.92
L= 138.12
R= 360.00

CURVE NO.= 2
PI STA.= 209+19.42
N= 1264341.1447
E= 2226484.3024
Δ= 53°59'19.2"
D= 15°54'55.8"
T= 183.38
L= 339.22
R= 360.00

CURVE NO.= 9
PI STA.= 110+93.56
N= 1264599.1219
E= 2226290.8792
Δ= 20°12'47.9"
D= 15°52'17.1"
T= 64.35
L= 127.36
R= 361.00

SEE SHEET C-203

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

50 0 50 100 150
SCALE IN FEET

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED No. 34614 PROFESSIONAL ENGINEER 4/11/22 SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
SITE AND UTILITY PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=50'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-202
SHEET 5 of 31

Plot Scale: 1"=50'; Drawing Rotation: 335.7°; Plot Style: Design.ctb; Plotted By: Olivia Guajardo on 4/1/2022, 1:41 PM
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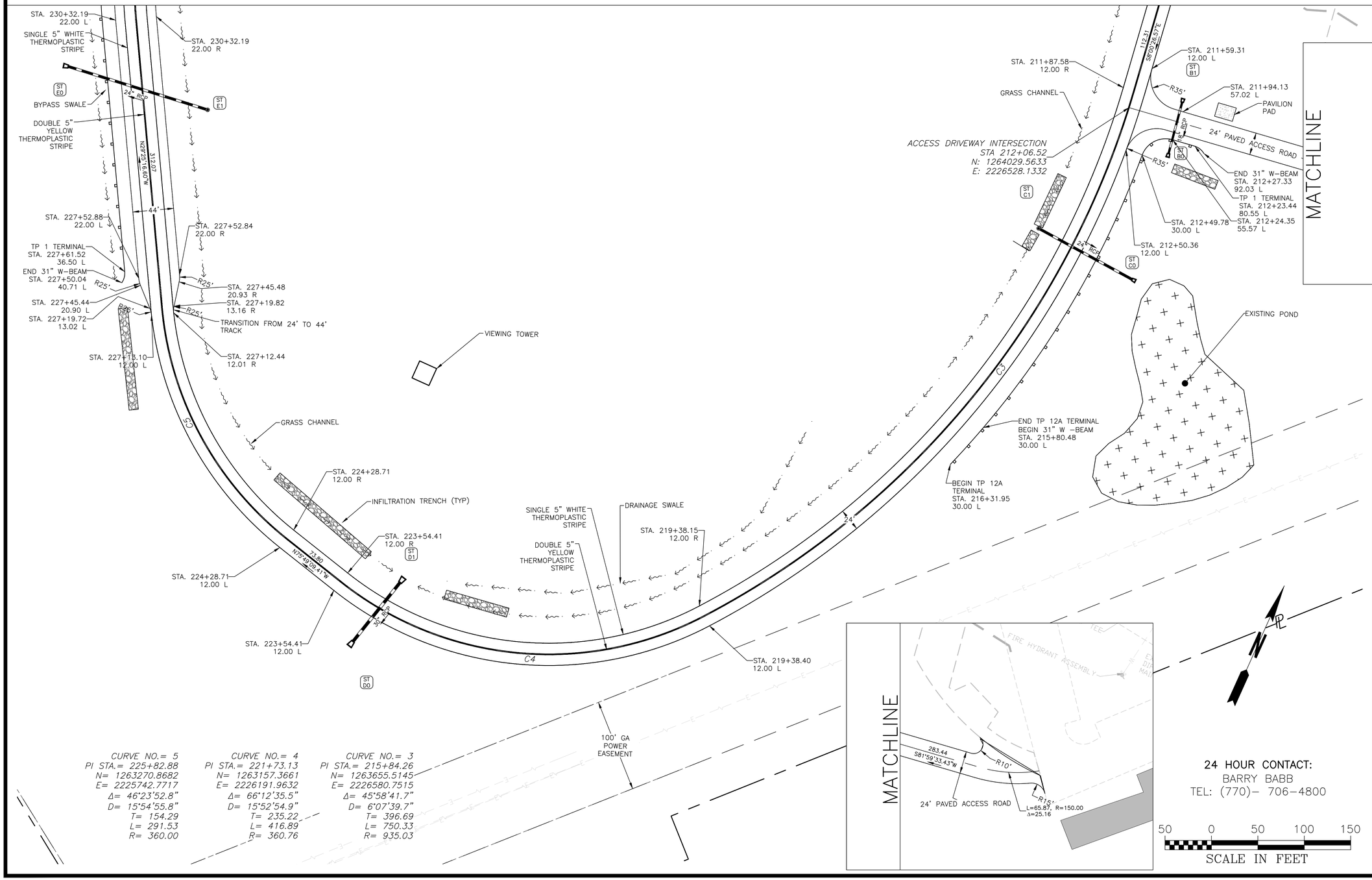
SEE SHEET C-202



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T= 154.29
L= 291.53
R= 360.00

CURVE NO.= 4
PI STA.= 221+73.13
N= 1263157.3661
E= 2226191.9632
Δ= 66°12'35.5"
D= 15°52'54.9"
T= 235.22
L= 416.89
R= 360.76

CURVE NO.= 3
PI STA.= 215+84.26
N= 1263655.5145
E= 2226580.7515
Δ= 45°58'41.7"
D= 6°07'39.7"
T= 396.69
L= 750.33
R= 935.03

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

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MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 34614 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
SITE AND UTILITY PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=50'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-203

Plot Scale: 1"=50' Drawing Rotation: 335.7° Plot Style: Design.ctb Plotted By: Olivia Guajardo on 4/1/2022, 1:42 PM

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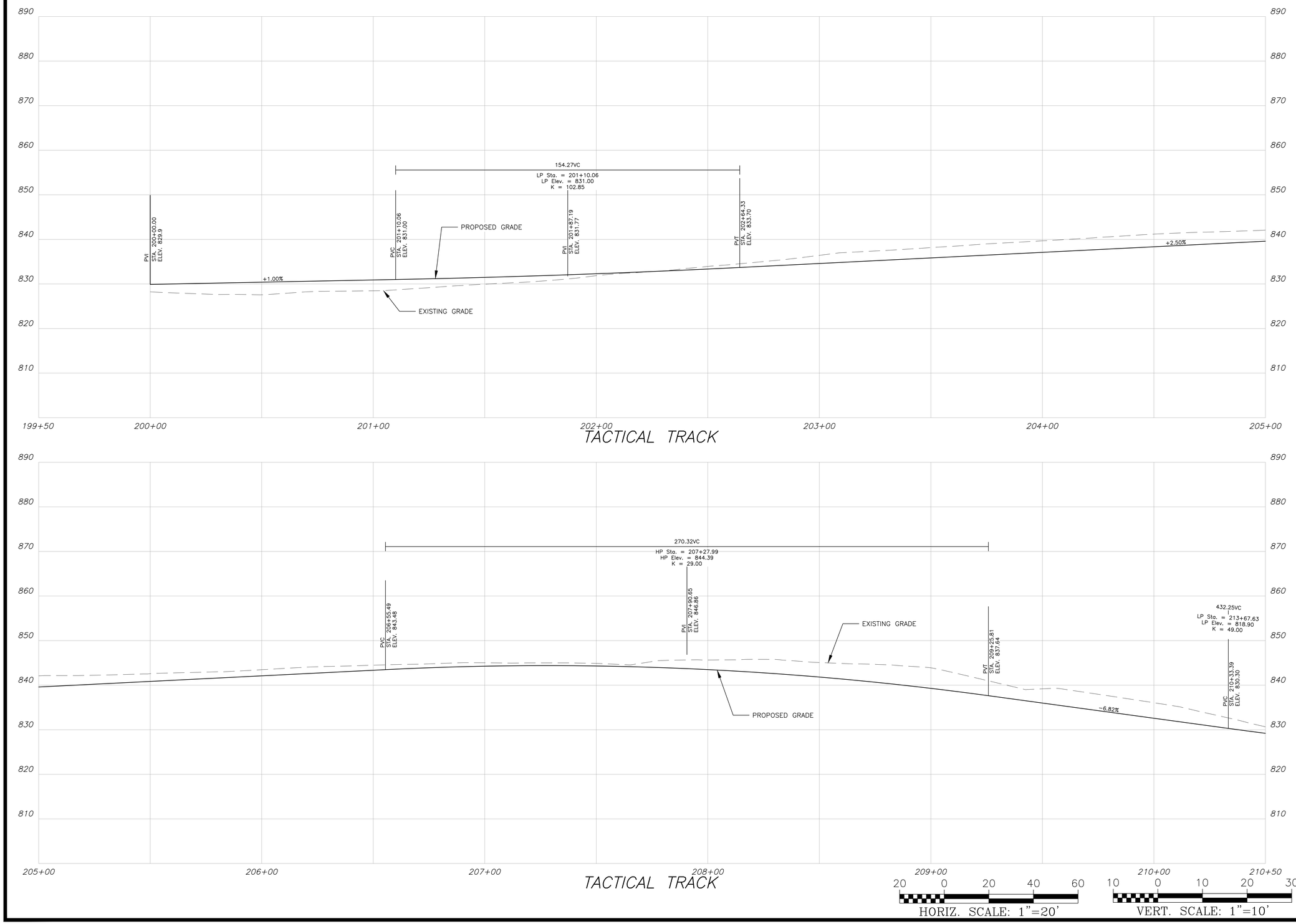


CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED SCOTT M. MCNALLY PROFESSIONAL ENGINEER 14128

GSWCC CERT #78081

SHEET TITLE
ROADWAY PROFILE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

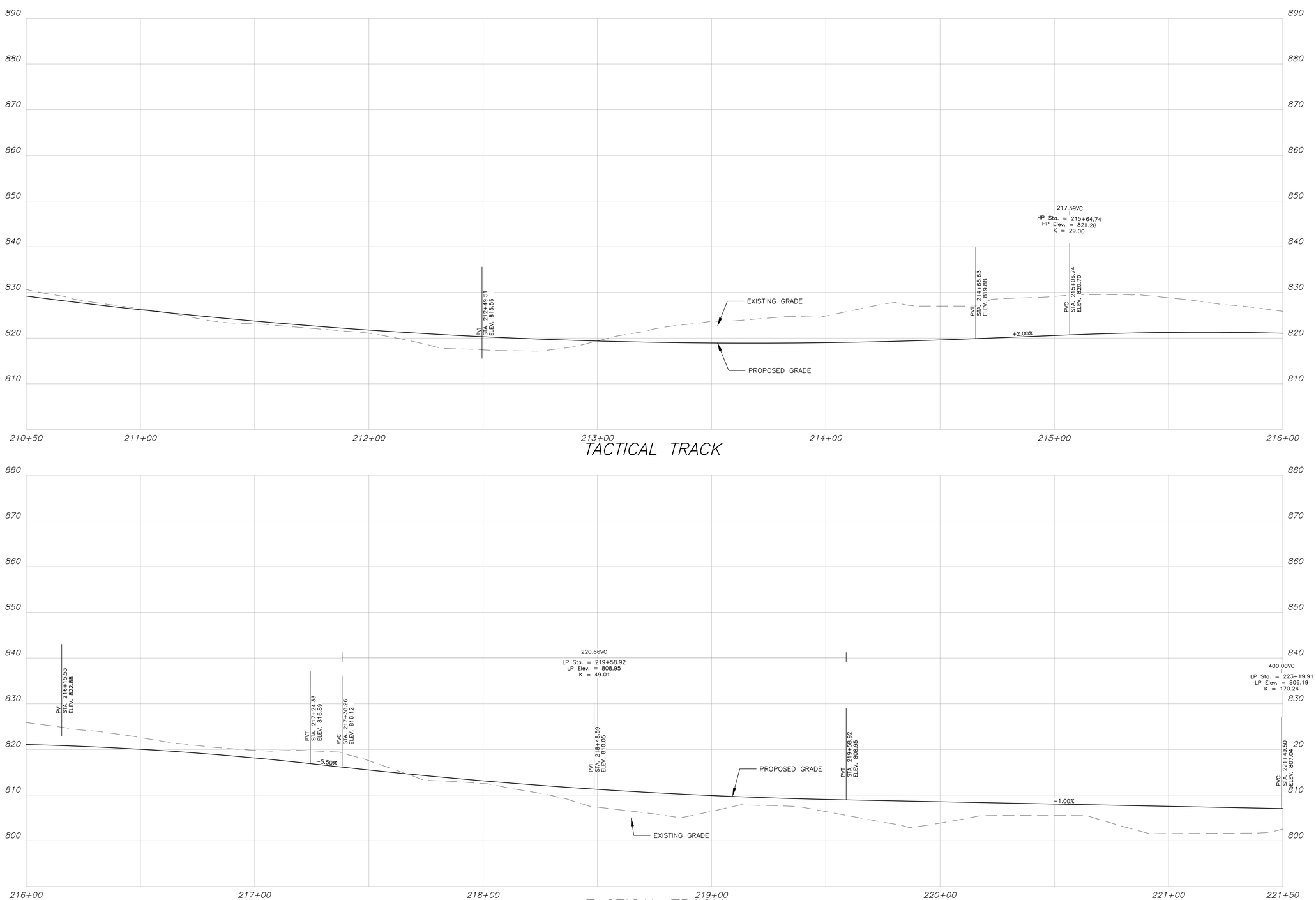
PROJECT NUMBER
1866.033

DRAWING NUMBER
C-204

SHEET 7 of 31

Plot Scale: 1"=20'. Drawing Rotation: ####°. Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 1:42 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg



CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

Plot Scale: 1"=20'. Drawing Rotation: ####°. Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 1:42 PM

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 36614 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
ROADWAY PROFILE

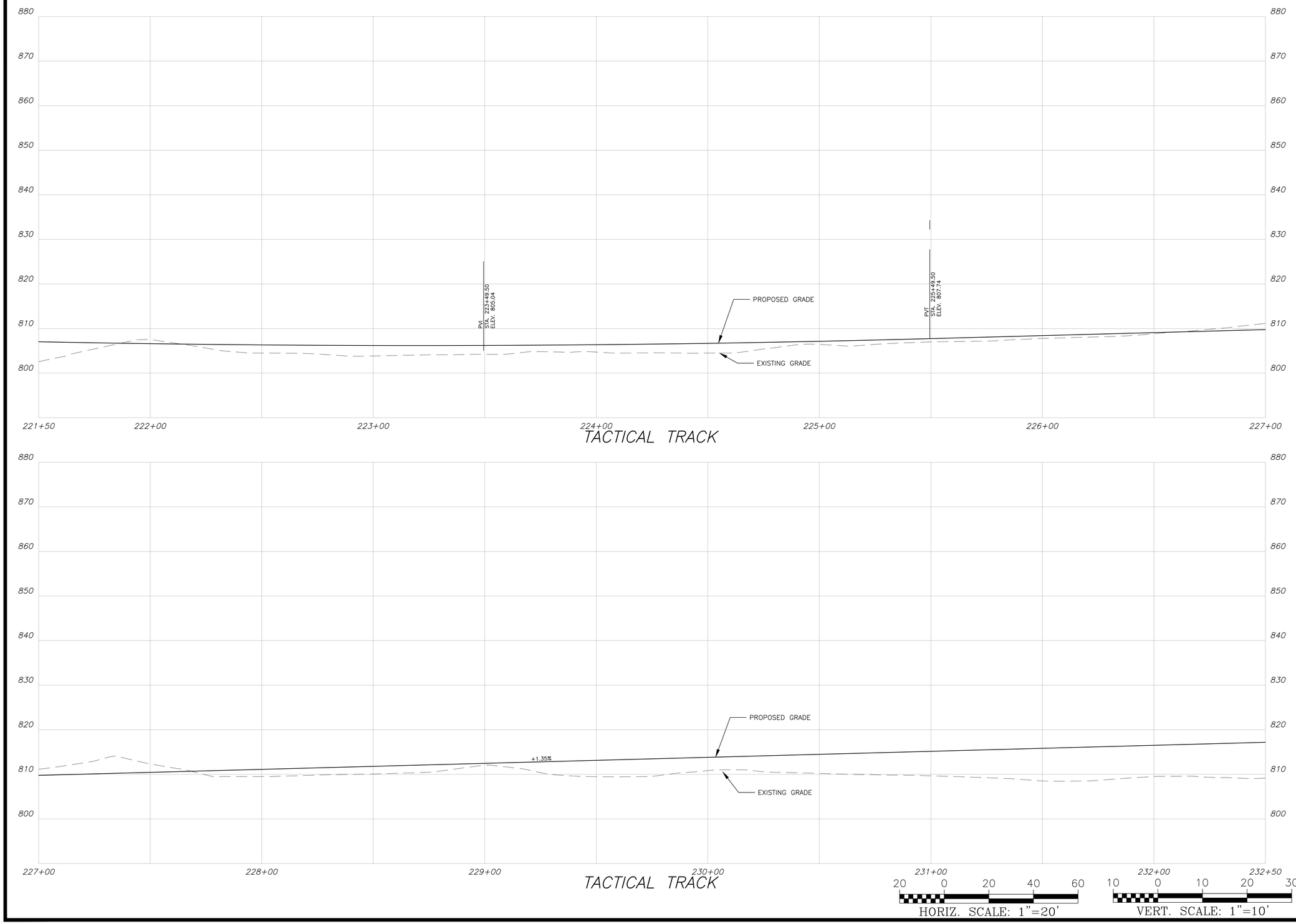
DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-205

SHEET 8 of 31

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg



CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA
REGISTERED
No. 34614
PROFESSIONAL
ENGINEER
SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
ROADWAY PROFILE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-206
SHEET 9 of 31

Plot Scale: 1"=20'. Drawing Rotation: ####°. Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 1:42 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 34814 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
ROADWAY PROFILE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

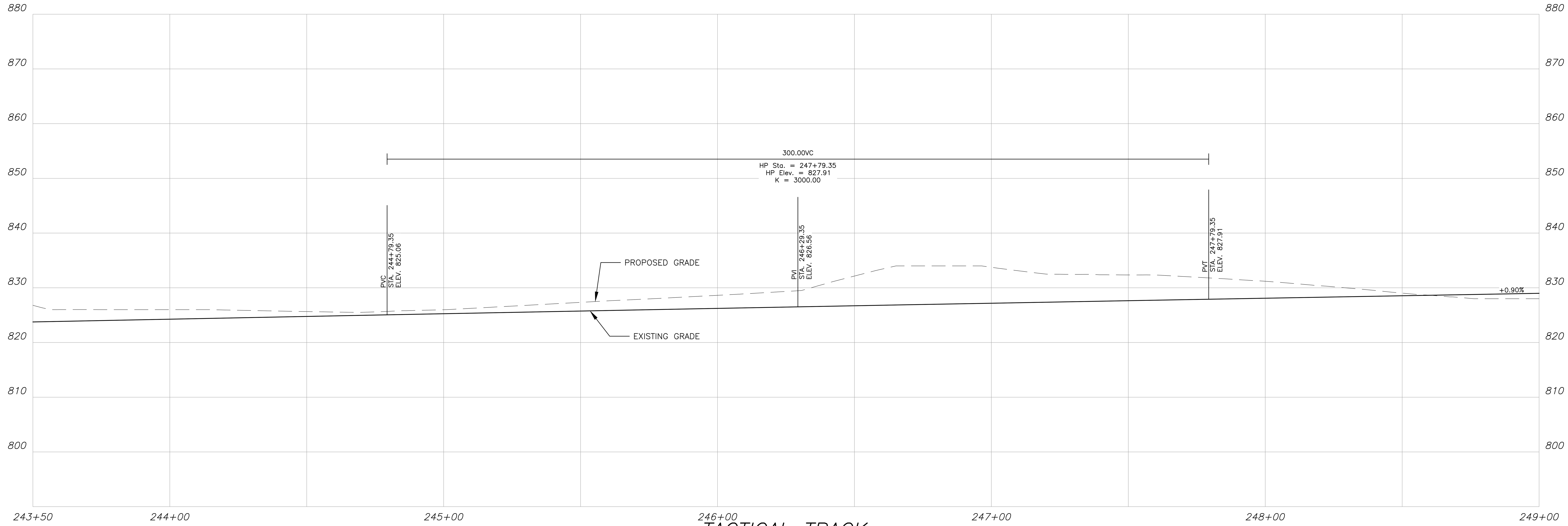
PROJECT NUMBER
1866.033

DRAWING NUMBER
C-207

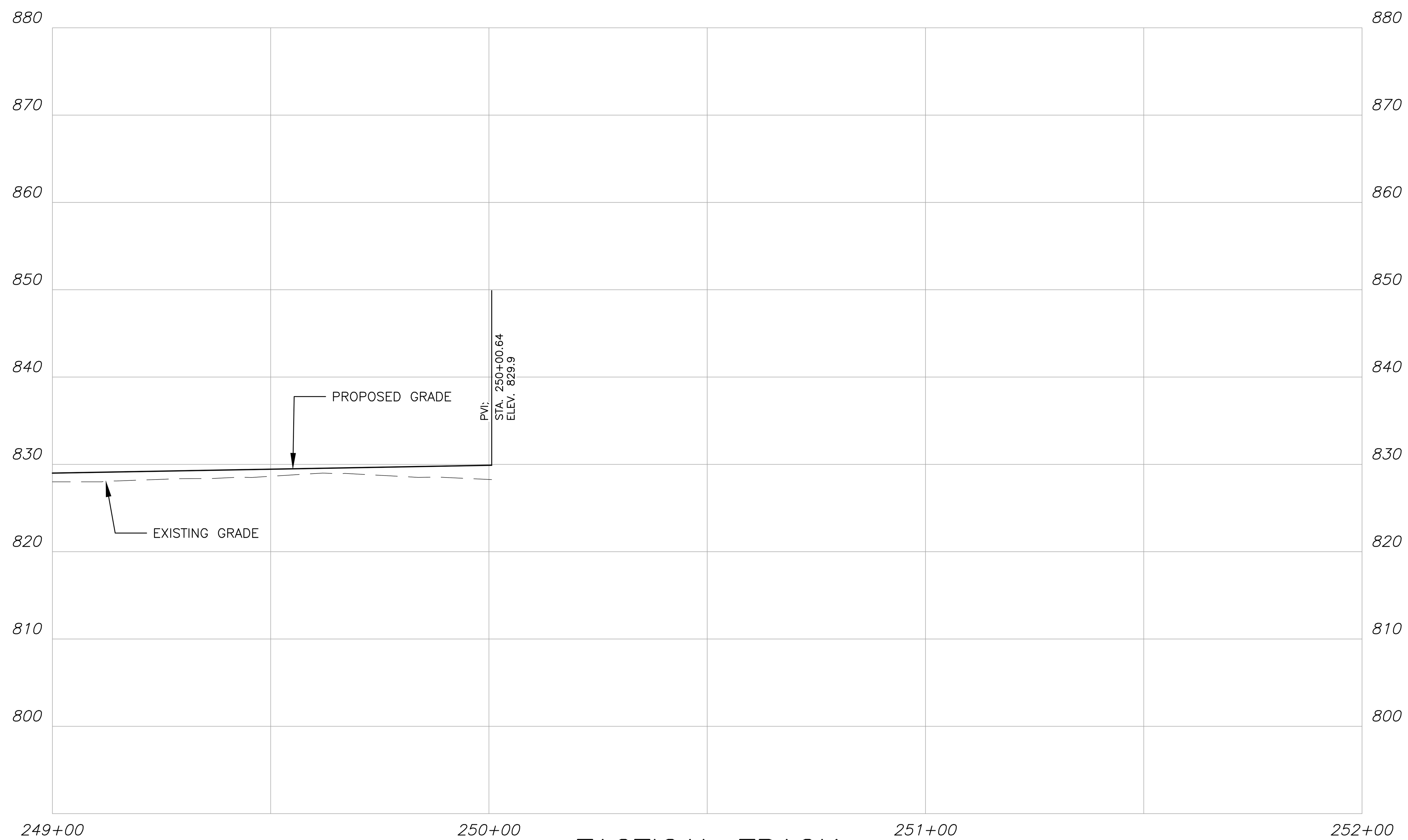
SHEET 10 of 31

Plot Scale: 1"=20'. Drawing Rotation: ####°. Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 1:42 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg



TACTICAL TRACK



TACTICAL TRACK

HORIZ. SCALE: 1"=20'

VERT. SCALE: 1"=10'

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GSWCC CERT #78081

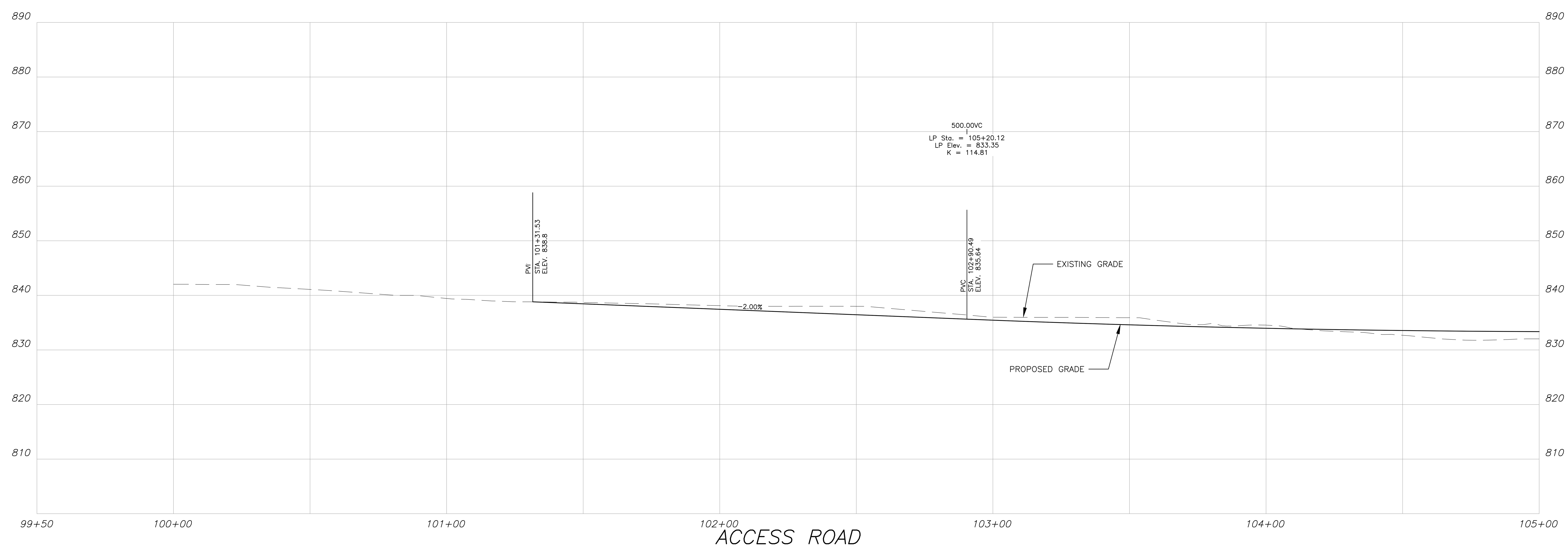
SHEET TITLE
ROADWAY PROFILE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

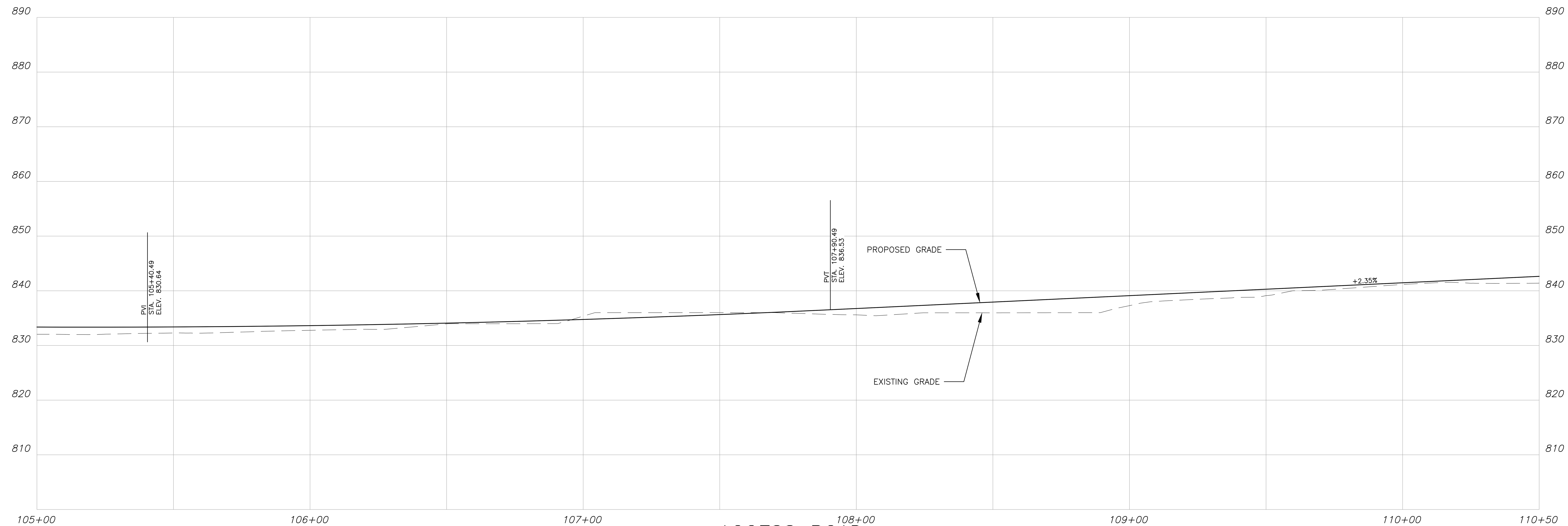
PROJECT NUMBER
1866.033

DRAWING NUMBER
C-208

Plot Scale: 1"=20', Drawing Rotation: #####°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:42 PM



ACCESS ROAD



ACCESS ROAD

HORIZ. SCALE: 1"=20'

VERT. SCALE: 1"=10'

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER
SCOTT M. MCNALLY

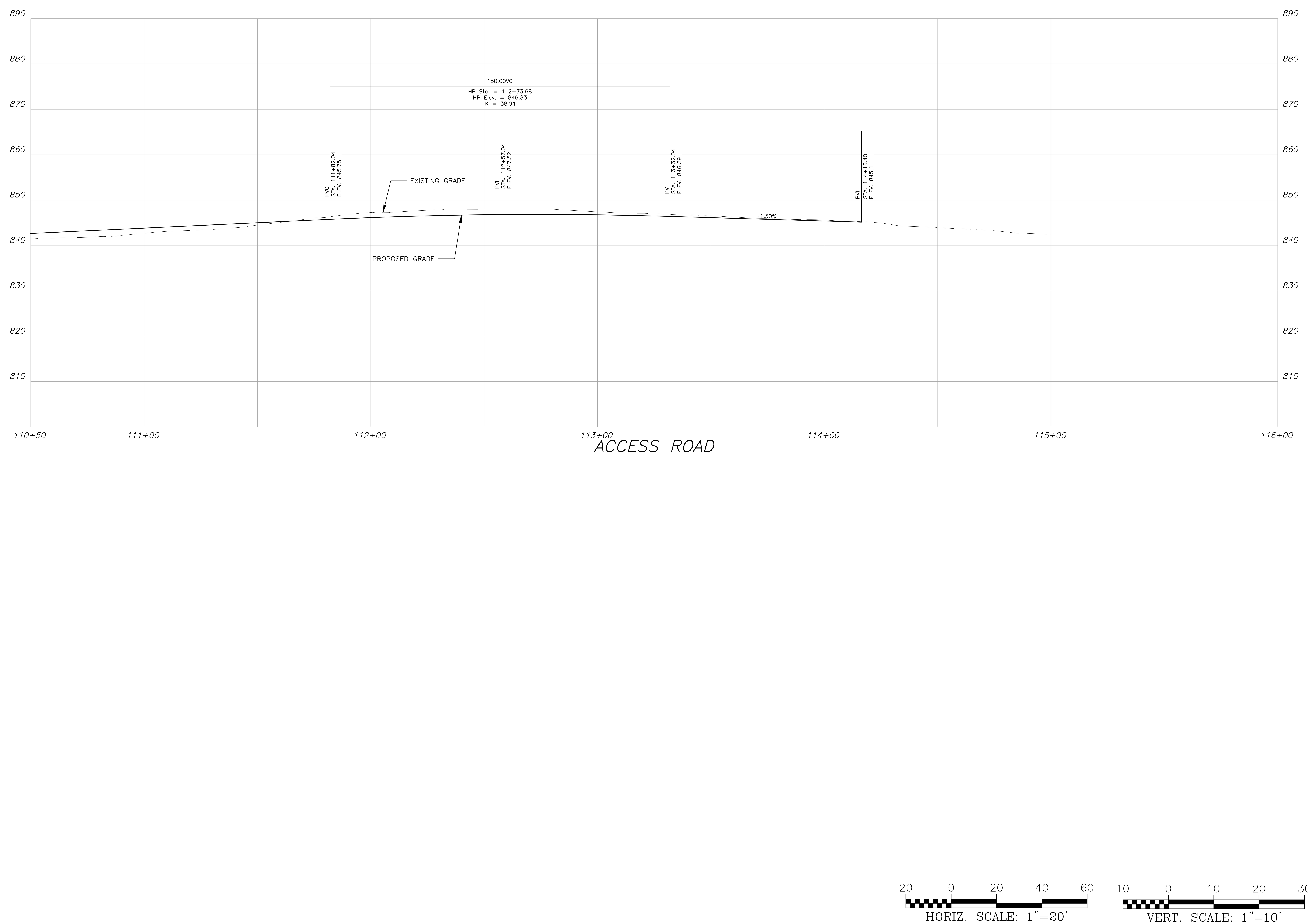
GSWCC CERT #78081

SHEET TITLE
ROADWAY PROFILE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-209



CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

Plot Scale: 1"=20', Drawing Rotation: ####°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:43 PM

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

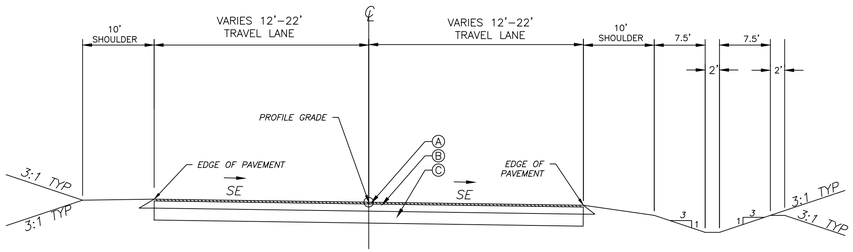
SHEET TITLE
ROADWAY PROFILE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=20'	04/01/2022

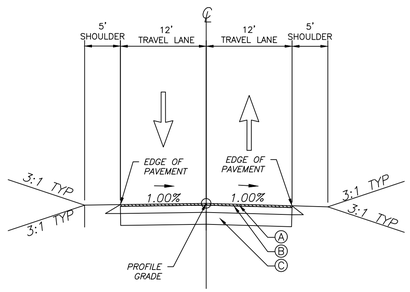
PROJECT NUMBER
1866.033

DRAWING NUMBER
C-210

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg



TYPICAL SECTION #1
TACTICAL TRAINING TRACK
STA. 200+00.00 TO STA. 250+00.76



TYPICAL SECTION #4
ACCESS ROAD
STA. 100+00.00 TO STA. 115+00.00

NOTE: CONTRACTORS REFER TO GDOT STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS, LATEST EDITION.

Ⓐ 1.5" RECYCLED ASPHALTIC CONCRETE 12.5mm SUPERPAVE, INCL BITUM MATL & H LIME (165 LB/SY)
Ⓑ 3" RECYCLED ASPHALTIC CONCRETE 19 mm SUPERPAVE, INCL BITUM MATL & H LIME (220 LB/SY)
Ⓒ 8" GRADED AGGREGATE BASE

TYPICAL SECTION #2
TACTICAL TRAINING TRACK
STA. 200+00.00 TO STA. 250+00.76

TYPICAL SECTION #3
BERM
STA. 227+49.14 TO STA. 243+13.54

24 HOUR CONTACT:
BARRY BABB
TEL: (770)– 706–4800

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971–5407 FAX: (770) 971–0620

Plot Scale: 1"=10' Drawing Rotation: ###° Plot Style: Design.ctb Plotted By: Olivia Guajardo on 4/1/2022, 1:43 PM

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. MCNALLY 4/1/22

GSWCC CERT #78081

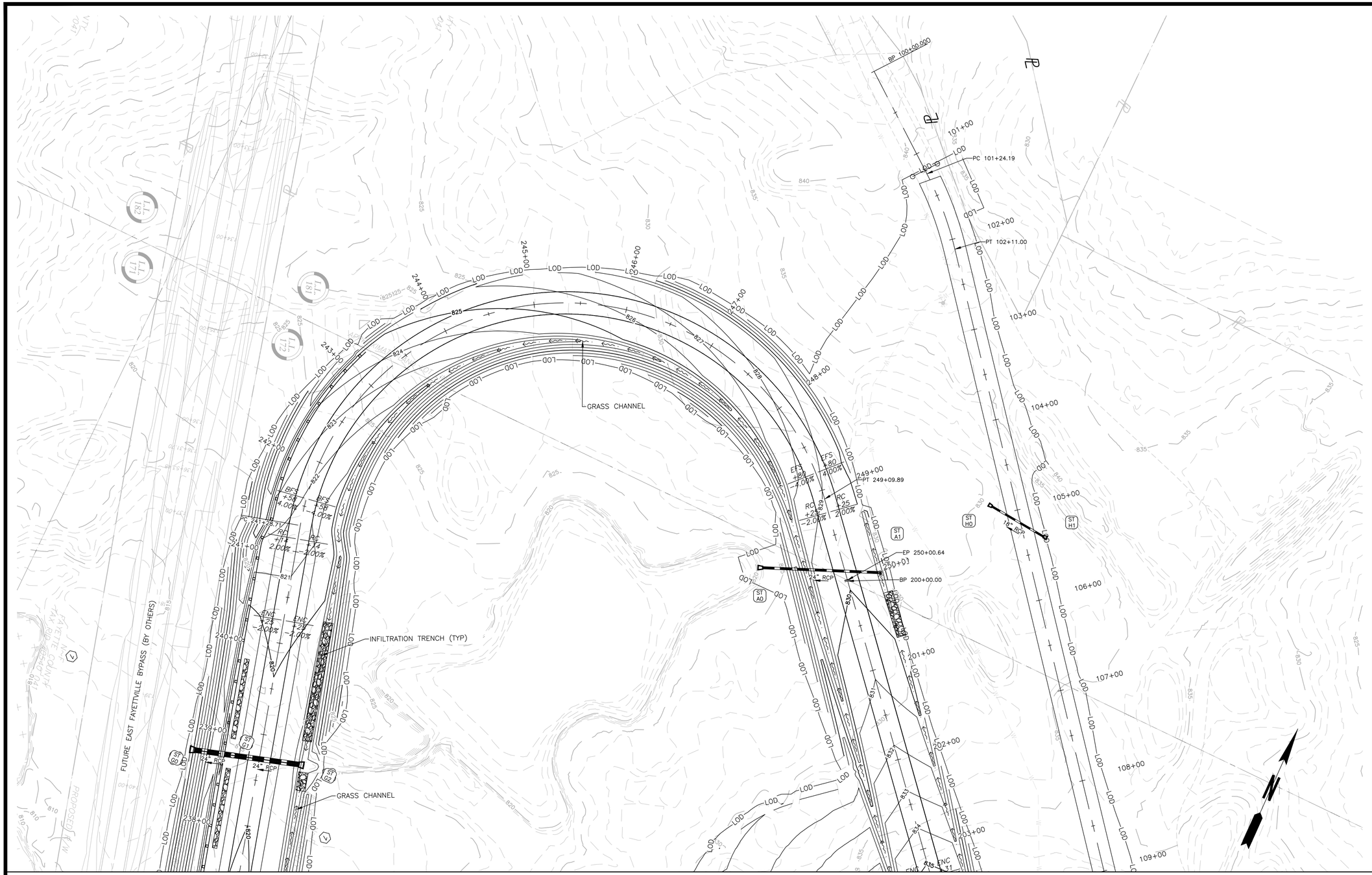
SHEET TITLE
TYPICALS

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
NTS	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-211

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county -sheriff vehicle tactical training track\engineering\Design\1866.033_Typicals.dwg



24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

50 0 50 100 150
SCALE IN FEET

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. MCNALLY 24674

GSWCC CERT #78081

SHEET TITLE
GRADING AND DRAINAGE PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=50'	04/01/2022

PROJECT NUMBER
1866.033

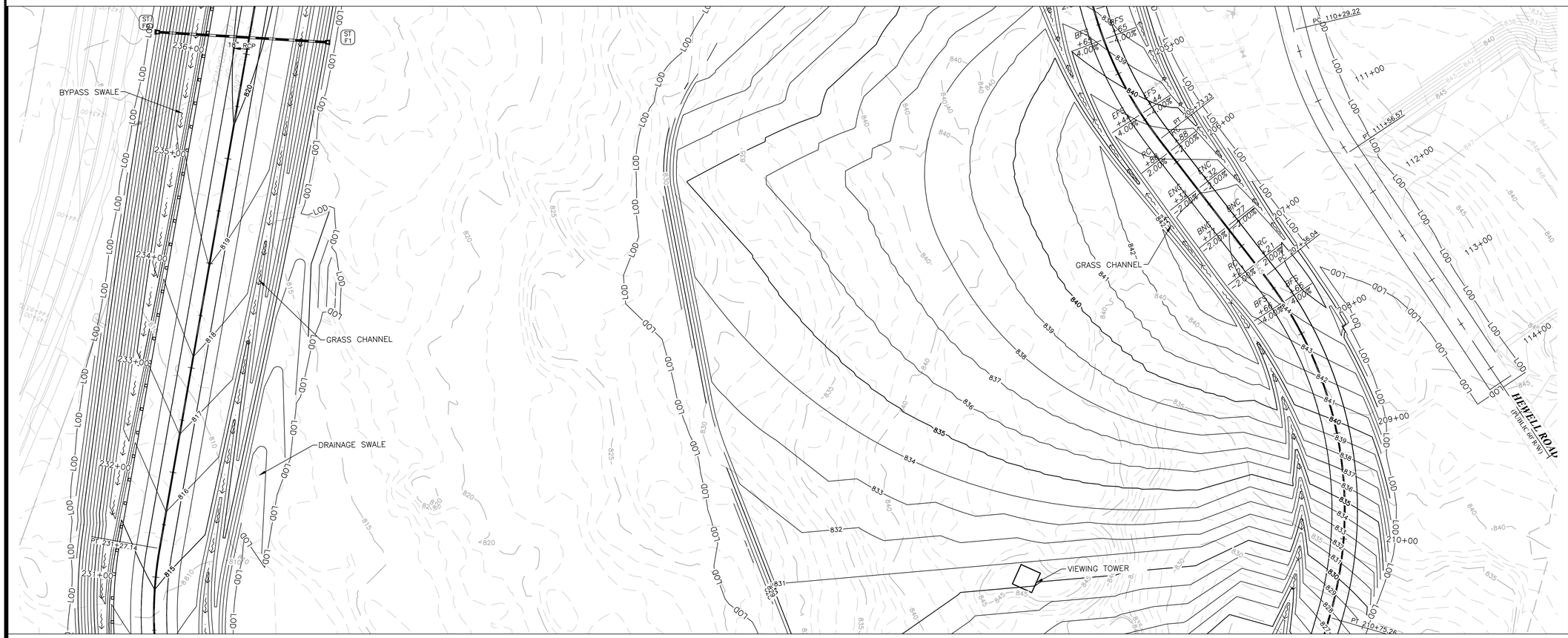
DRAWING NUMBER
C-300

SHEET 15 of 31

Plot Scale: 1"=50'. Drawing Rotation: 335.7°- Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 3:12 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg

SEE SHEET C-301



SEE SHEET C-303

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

50 0 50 100 150
SCALE IN FEET

CROY

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 34014 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
GRADING AND DRAINAGE PLAN

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=50'	04/01/2022

PROJECT NUMBER
1866.033

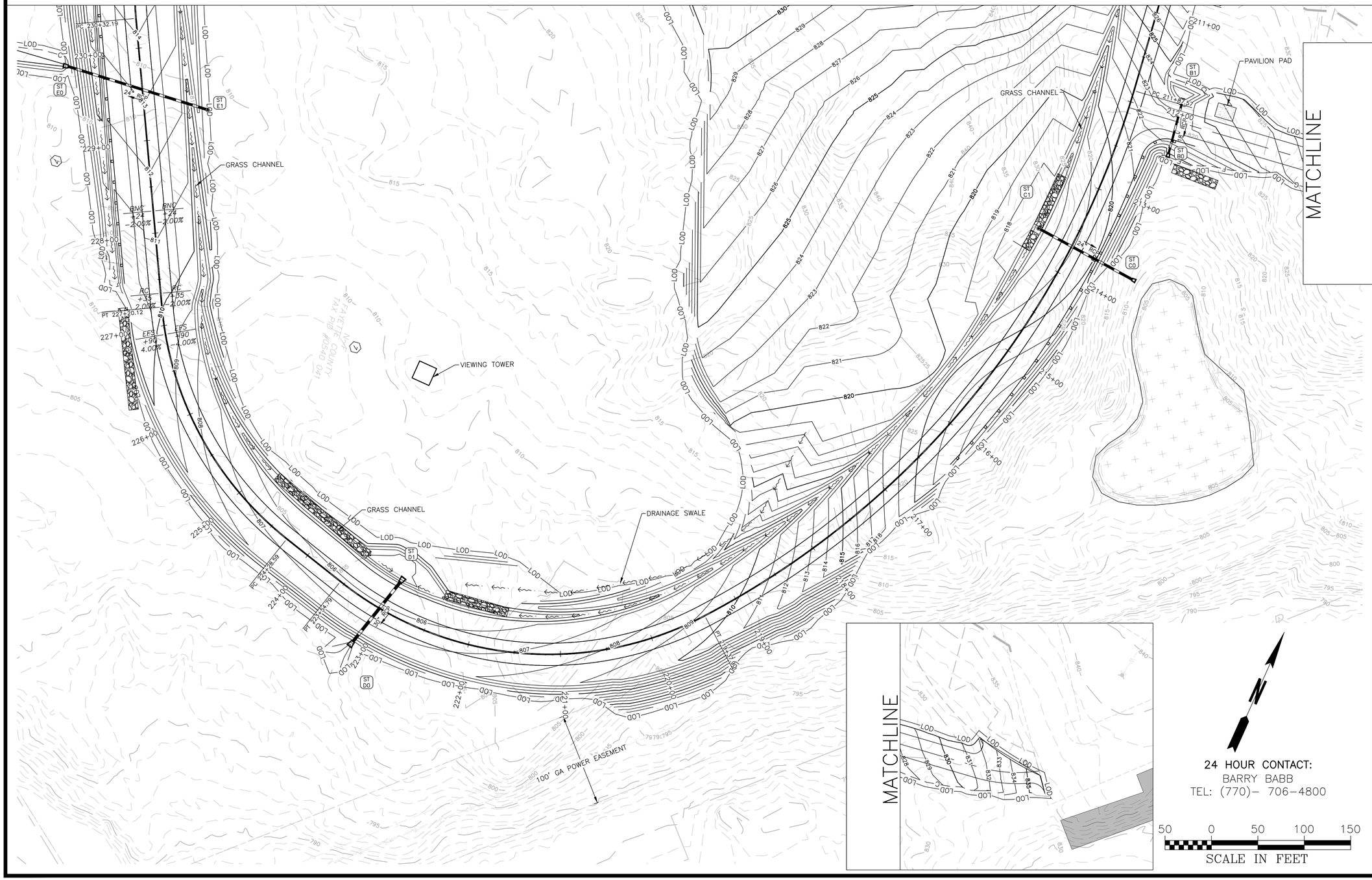
DRAWING NUMBER
C-301

SHEET 16 of 31

Plot Scale: 1"=50'. Drawing Rotation: 335.7°. Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 3:12 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg

SEE SHEET C-302



ISSUED FOR CONSTRUCTION

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. 34614
4/1/22
SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
GRADING AND DRAINAGE PLAN

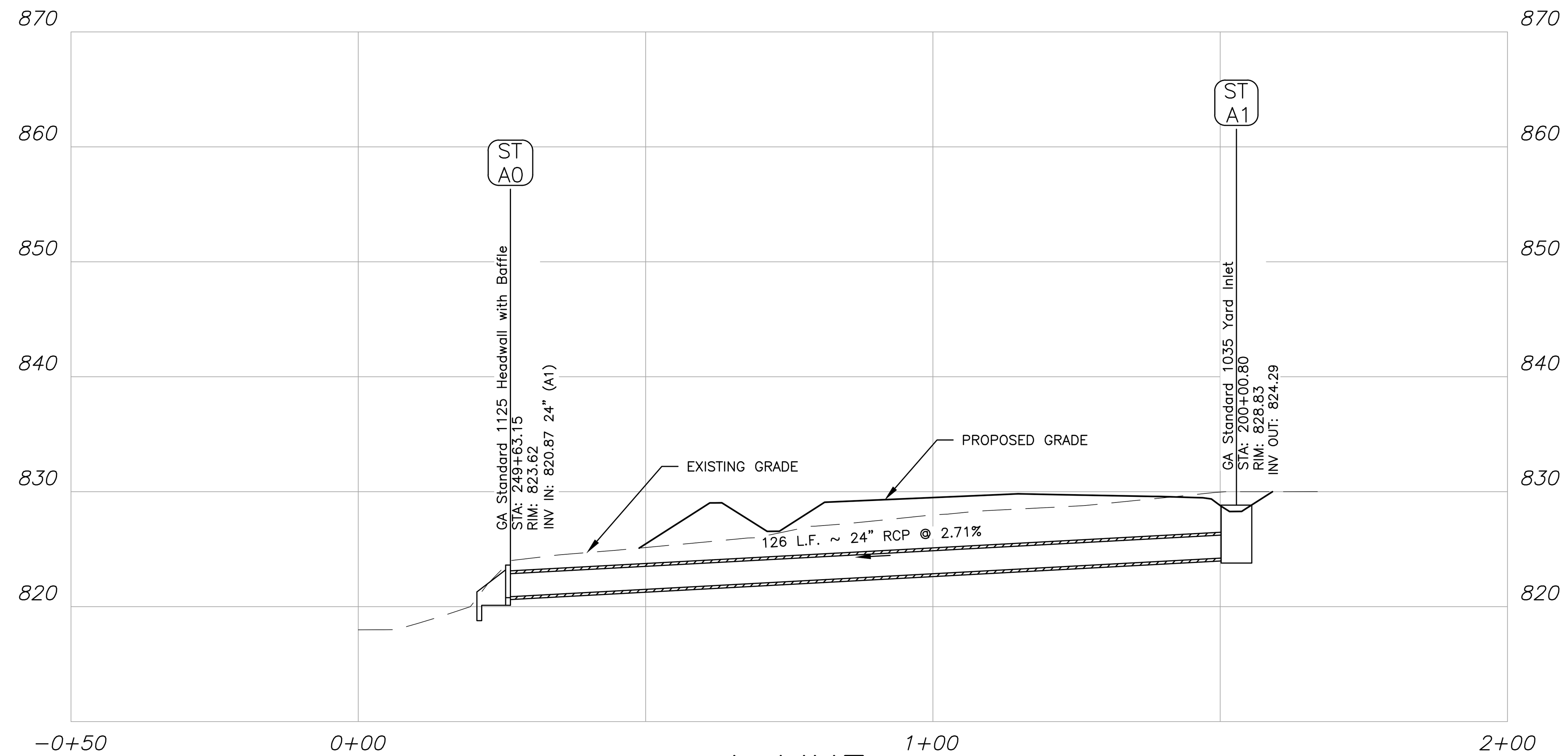
DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=50'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-302
SHEET 17 of 31

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

Plot Scale: 1"=50'; Drawing Rotation: 335.7°; Plot Style: Design.ctb; Plotted By: Olivia Guajardo on 4/1/2022, 3:12 PM
Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg



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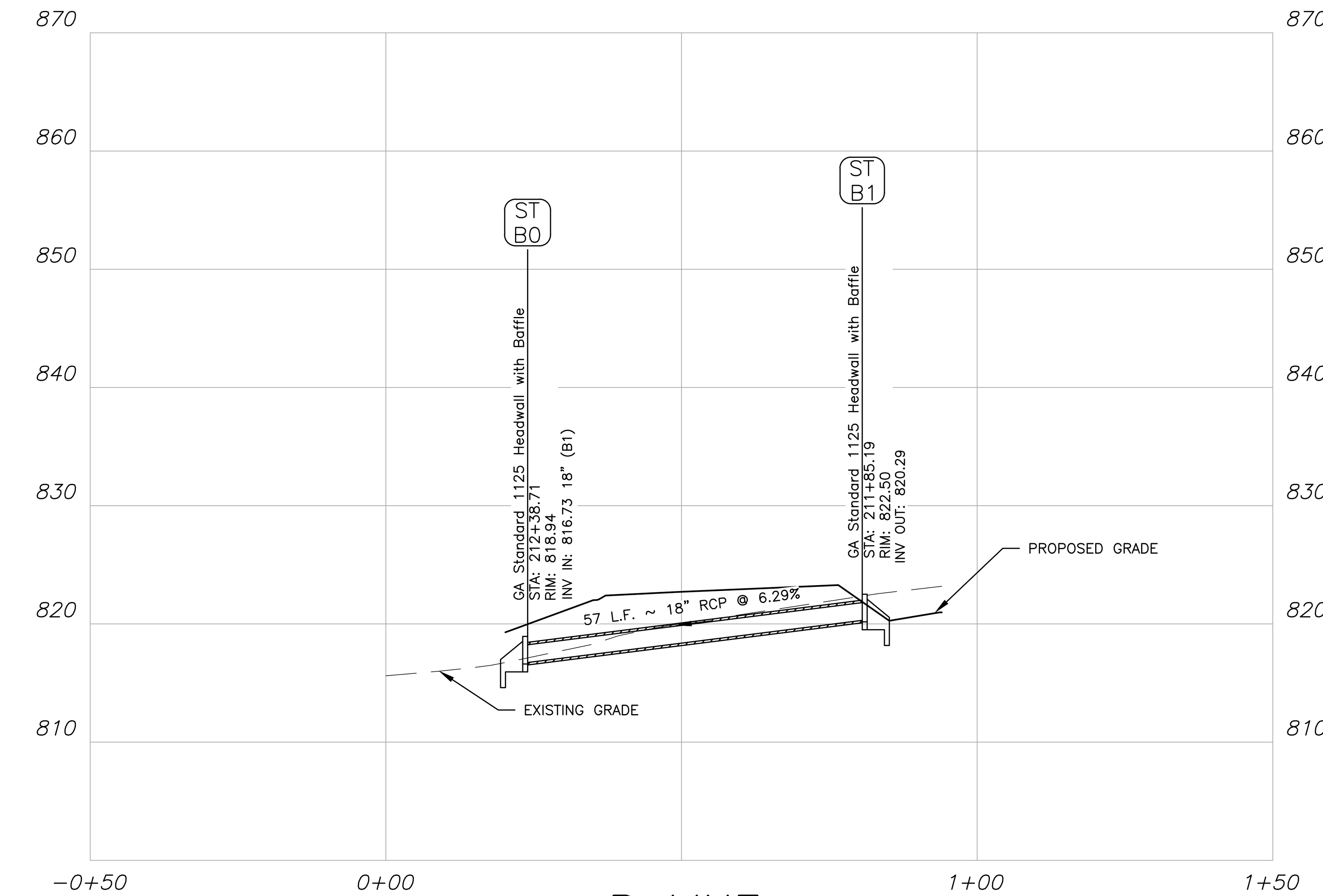
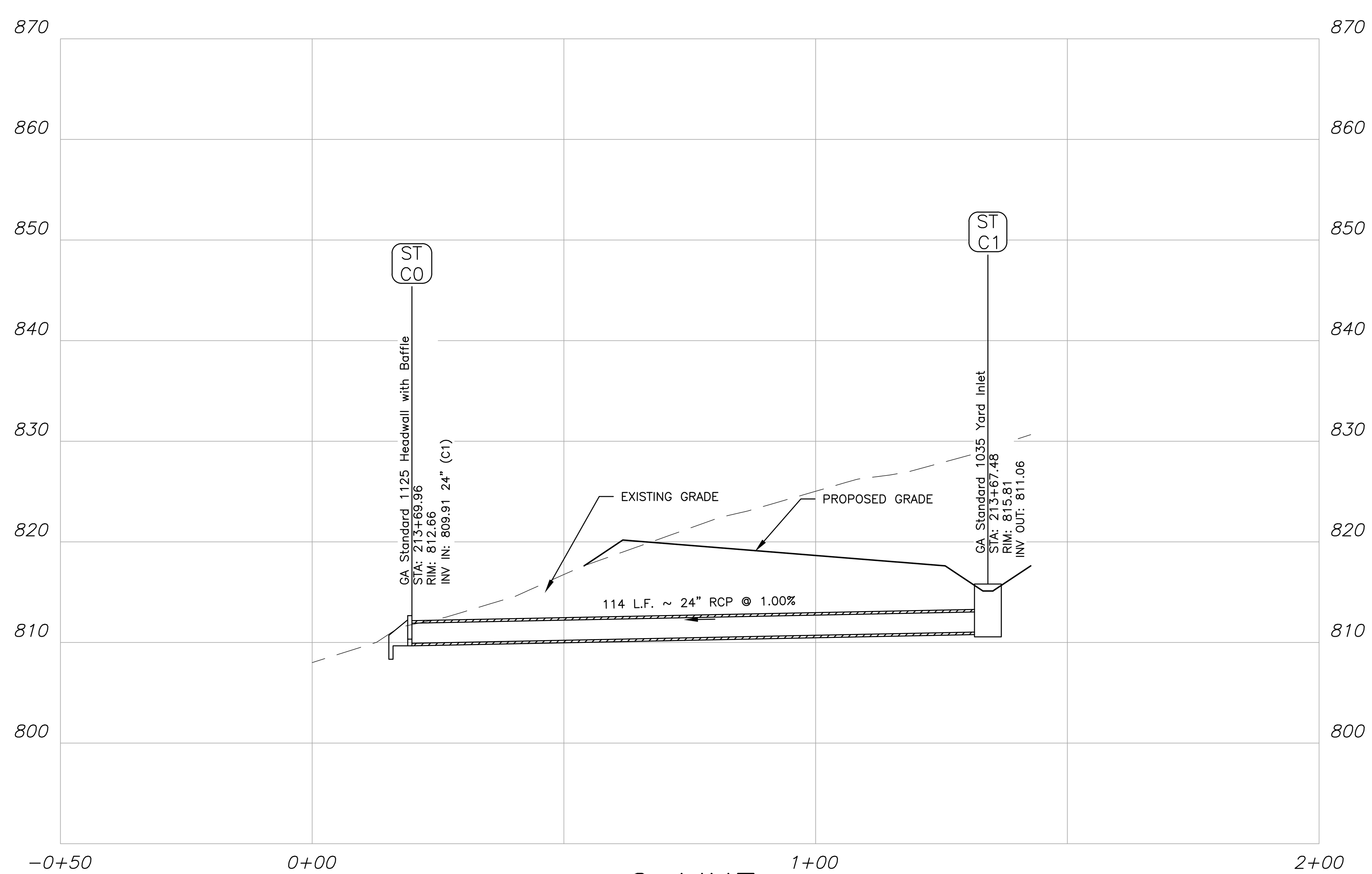
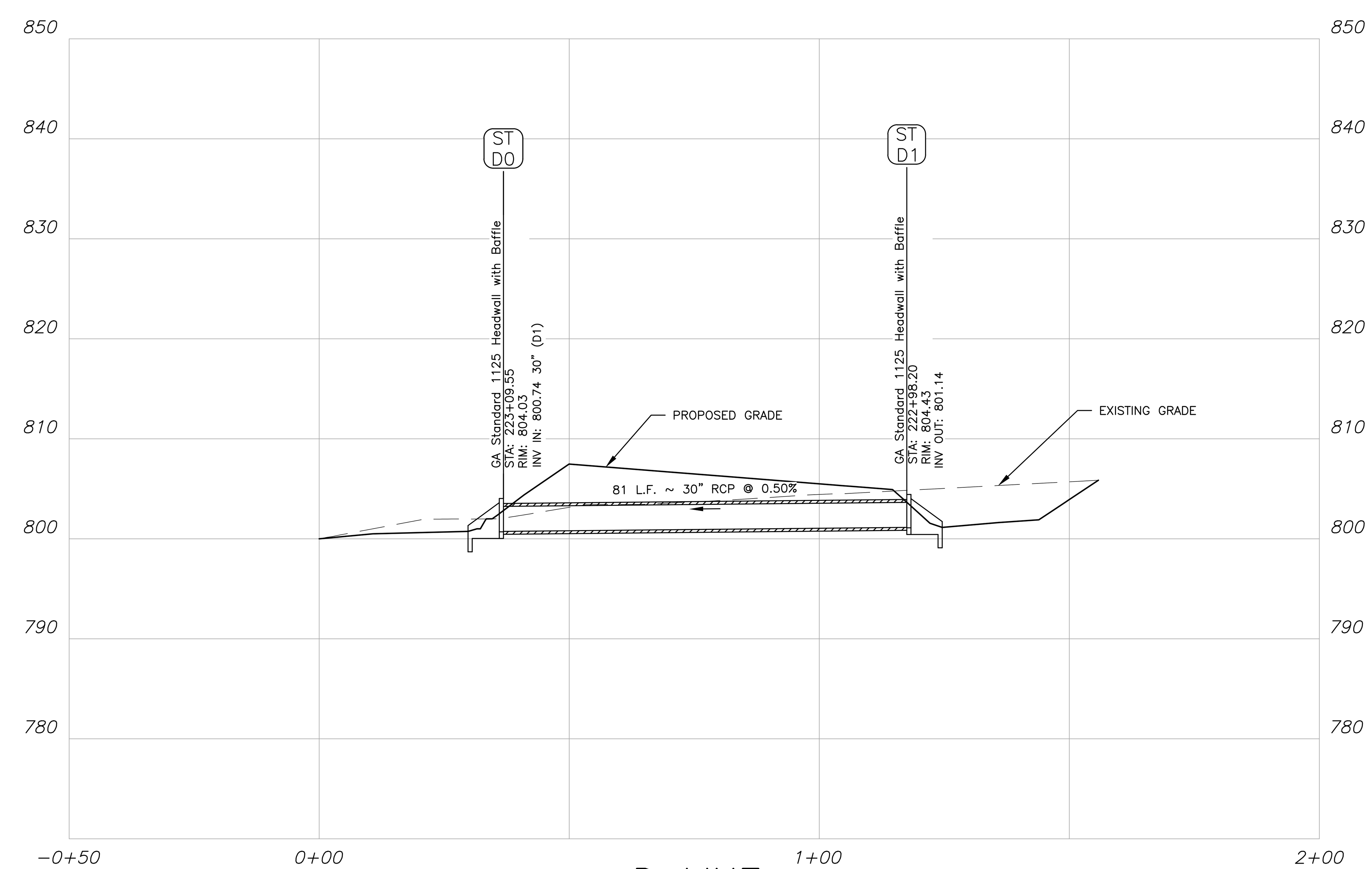


B LINE



C LINE



D LINE

20 0 20 40 60
HORIZ. SCALE: 1"=20'

10 0 10 20 30
VERT. SCALE: 1"=10'

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. McNALLY

GSWCC CERT #78081

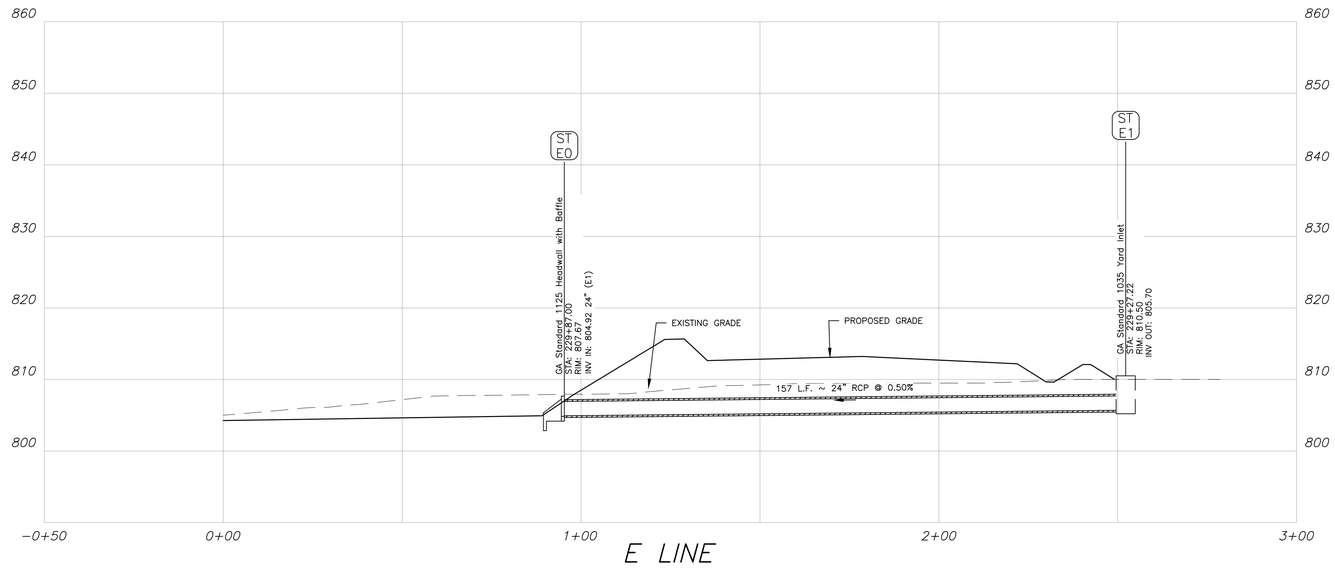
SHEET TITLE
STORM PROFILES

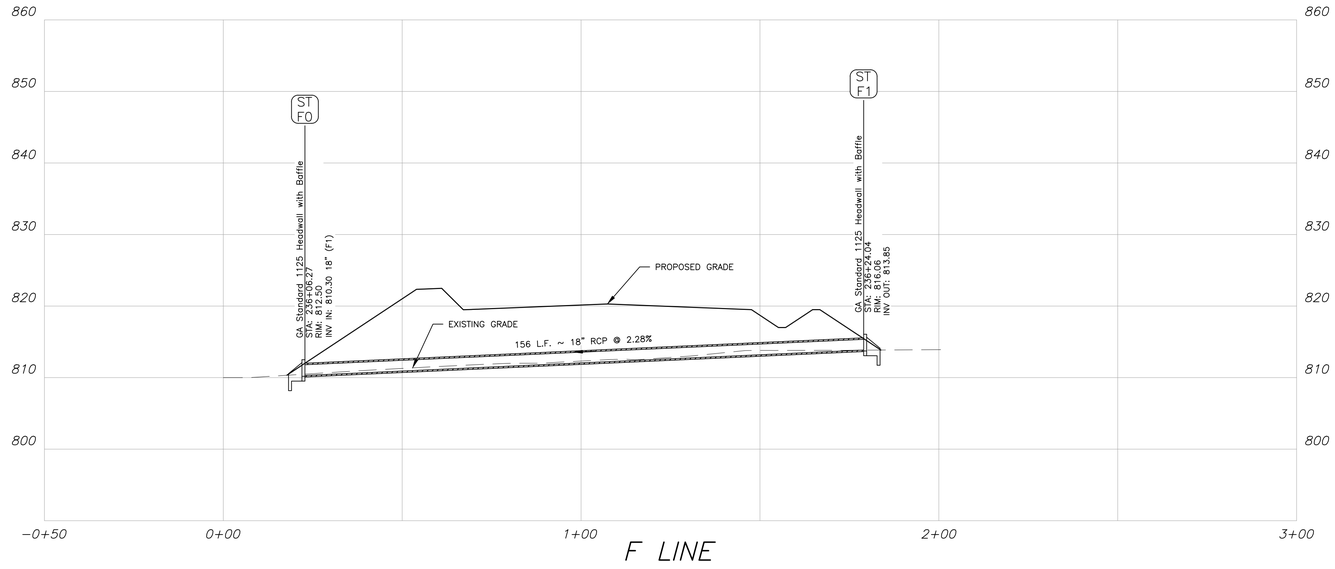
DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
AS SHOWN	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-400

SHEET 18 of 31





20 0 20 40 60
HORIZ. SCALE: 1"=20'

10 0 10 20 30
VERT. SCALE: 1"=10'

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 34614 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
STORM PROFILES

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
AS SHOWN	04/01/2022

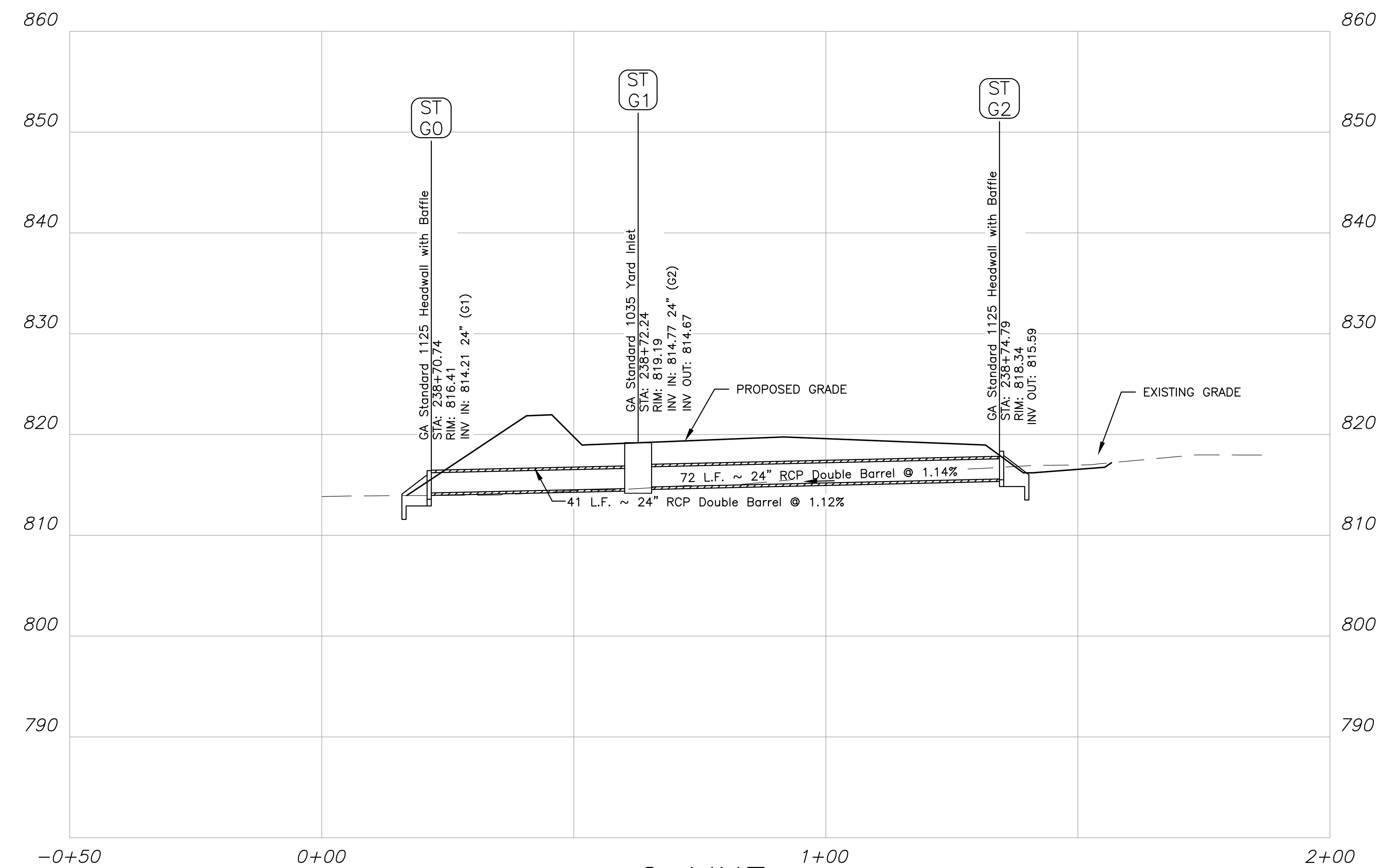
PROJECT NUMBER
1866.033

DRAWING NUMBER
C-401

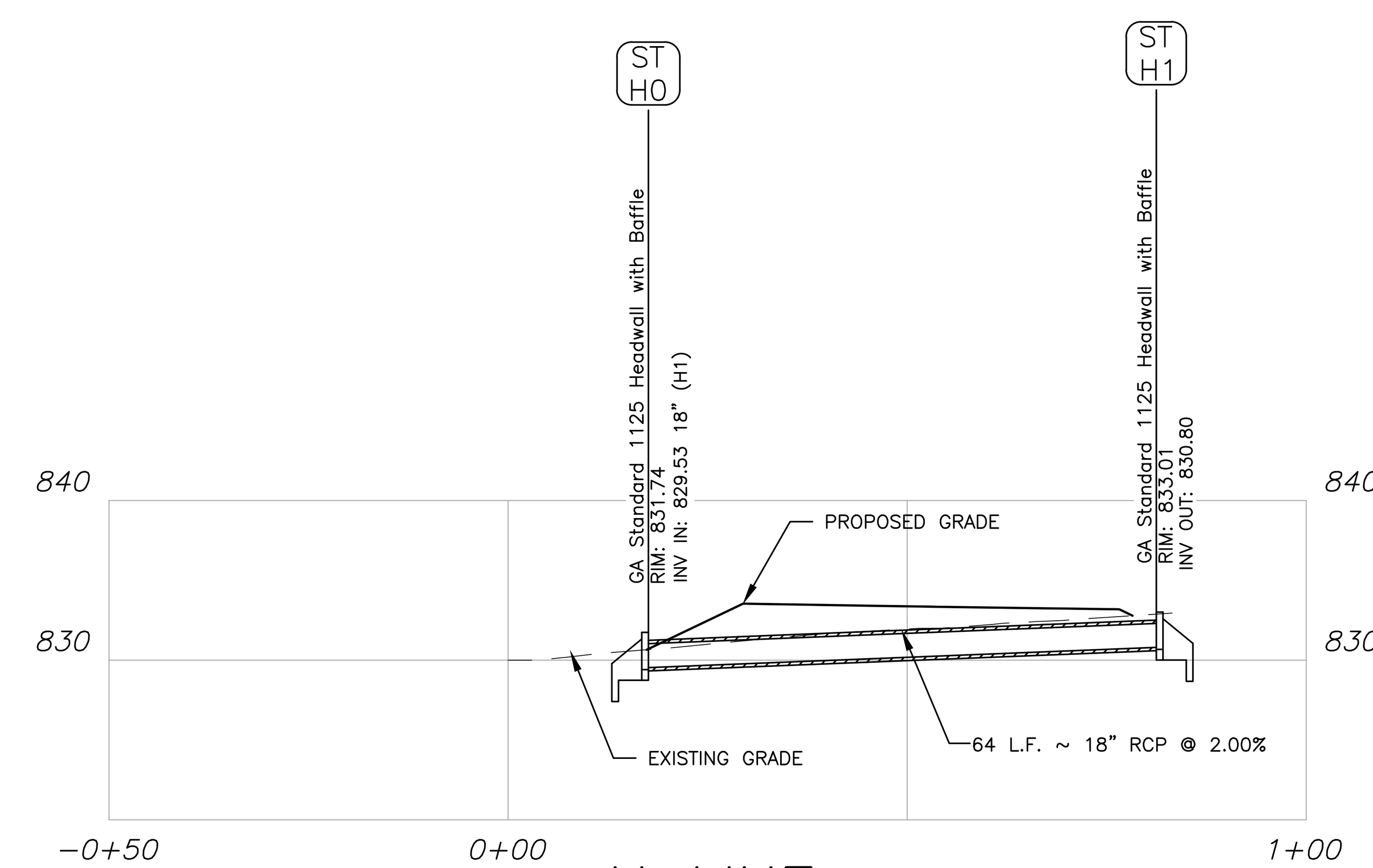
SHEET 19 of 31

Plot Scale: 1"=###"; Drawing Rotation: ####°; Plot Style: Design.ctb; Plotted By: Olivia Guijardo on 4/1/2022, 1:44 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg



G LINE



H LINE

20 0 20 40 60

HORIZ. SCALE: 1"=20'

10 0 10 20 30

VERT. SCALE: 1"=10'

CROY

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. MCNALLY 4/1/22

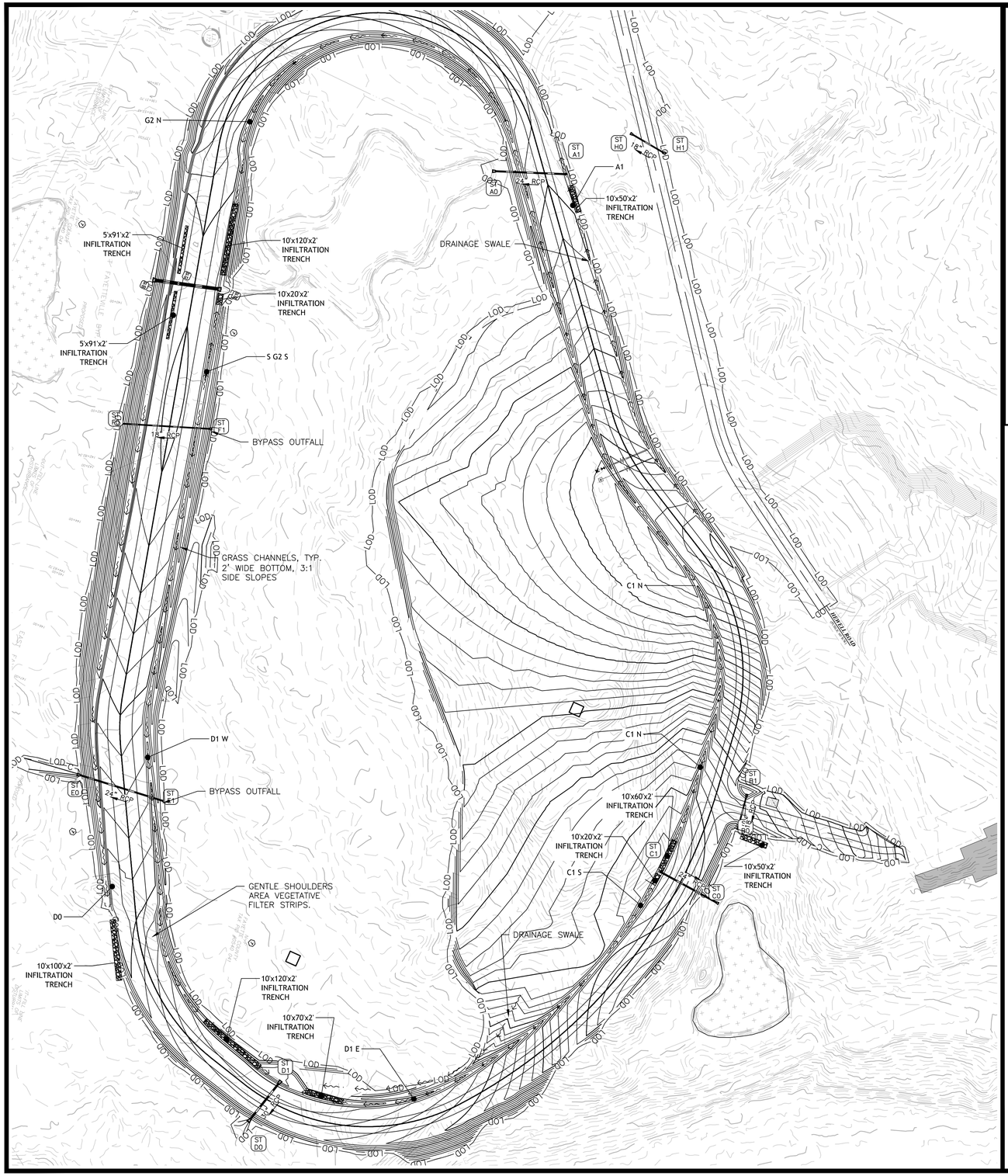
GSWCC CERT #78081

SHEET TITLE
STORM PROFILES

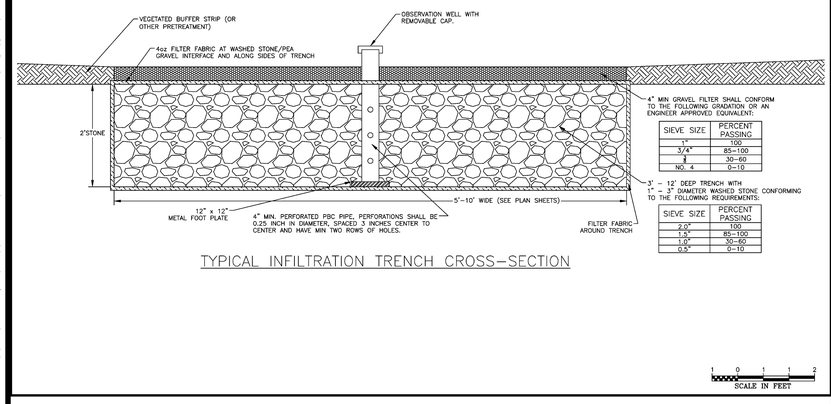
DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
AS SHOWN	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-402



STORMWATER MANAGEMENT FOR THE DRIVING TRACK IS A TREATMENT TRAIN CONSISTING OF CONVEYANCE AND STORAGE BMPS TO REDUCE AND TREAT OF STORMWATER RUNOFF. RUNOFF FROM THE DRIVING TRACK WILL SHEET FLOW OVER VEGETATIVE FILTER STRIPS INTO GRASS CHANNELS ALONG THE TRACK. AT THE DOWNSTREAM POINT OF THE CHANNELS, SHALLOW INFILTRATION TRENCHES WILL BE INSTALLED BEFORE EXITING VIA STORM CULVERTS CONVEYED UNDER THE TRACK INTO THE FLOODPLAIN OF MORNING CREEK. ALSO REFER TO SHEET C-404 FOR ADDITIOANL DETAILS AND DESIGN INFORMATION.



TYPICAL INFILTRATION TRENCH CROSS-SECTION

1 0 1 2
SCALE IN FEET

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

100 0 100 200 300
SCALE IN FEET

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA
AUGUST ERWIN
No. 44614
PROFESSIONAL
ENGINEER
SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
STORMWATER MANAGEMENT SHEET

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=100'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-403

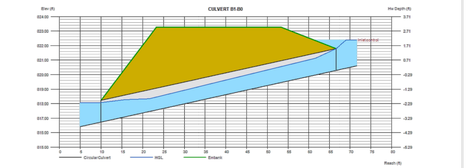
Plot Scale: 1"=100'. Drawing Rotation: 335.7°. Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 3:12 PM
Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Design.dwg

Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. — Thursday, Mar 31 2022

CULVERT B1-B0

Invert Elev Dn (ft)	= 816.73	**Calculations**	
Pipe Length (ft)	= 56.58	Qmin (cfs)	= 5.38
Slope (%)	= 6.29	Qmax (cfs)	= 9.54
Invert Elev Up (ft)	= 820.29	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 18.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 18.0	Qtotal (cfs)	= 9.48
No. Barrels	= 1	Qpipe (cfs)	= 9.48
n-Value	= 0.013	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Concrete	Veloc Dn (ft/s)	= 5.68
Culvert Entrance	= Square edge w/headwall (C)	Veloc Up (ft/s)	= 6.31
Coeff. K,M,c,Y,k	= 0.0098, 2, 0.0398, 0.67, 0.5	HGL Dn (ft)	= 818.07
		HGL Up (ft)	= 821.48
Embankment		Hw Elev (ft)	= 822.39
Top Elevation (ft)	= 823.27	Hw/D (ft)	= 1.40
Top Width (ft)	= 30.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 50.00		

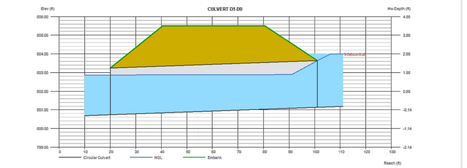


Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. — Thursday, Mar 31 2022

CULVERT D1-D0

Invert Elev Dn (ft)	= 800.74	**Calculations**	
Pipe Length (ft)	= 81.00	Qmin (cfs)	= 14.57
Slope (%)	= 0.49	Qmax (cfs)	= 27.33
Invert Elev Up (ft)	= 801.14	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 30.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 30.0	Qtotal (cfs)	= 26.57
No. Barrels	= 1	Qpipe (cfs)	= 26.57
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Concrete	Veloc Dn (ft/s)	= 5.97
Culvert Entrance	= Square edge w/headwall (C)	Veloc Up (ft/s)	= 7.21
Coeff. K,M,c,Y,k	= 0.0098, 2, 0.0398, 0.67, 0.5	HGL Dn (ft)	= 802.67
		HGL Up (ft)	= 802.90
Embankment		Hw Elev (ft)	= 803.99
Top Elevation (ft)	= 805.50	Hw/D (ft)	= 1.14
Top Width (ft)	= 40.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 100.00		

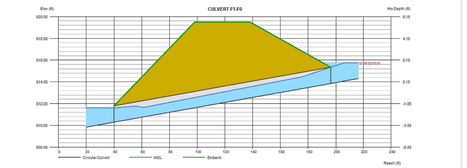


Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. — Thursday, Mar 31 2022

CULVERT F1-F0

Invert Elev Dn (ft)	= 810.30	**Calculations**	
Pipe Length (ft)	= 156.15	Qmin (cfs)	= 4.33
Slope (%)	= 2.27	Qmax (cfs)	= 8.45
Invert Elev Up (ft)	= 813.85	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 18.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 18.0	Qtotal (cfs)	= 8.43
No. Barrels	= 1	Qpipe (cfs)	= 8.43
n-Value	= 0.013	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Concrete	Veloc Dn (ft/s)	= 5.14
Culvert Entrance	= Square edge w/headwall (C)	Veloc Up (ft/s)	= 5.94
Coeff. K,M,c,Y,k	= 0.0098, 2, 0.0398, 0.67, 0.5	HGL Dn (ft)	= 811.61
		HGL Up (ft)	= 814.97
Embankment		Hw Elev (ft)	= 815.74
Top Elevation (ft)	= 819.50	Hw/D (ft)	= 1.26
Top Width (ft)	= 40.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 50.00		

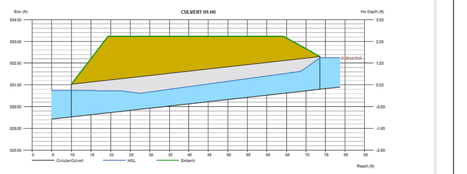


Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. — Thursday, Mar 31 2022

CULVERT H1-H0

Invert Elev Dn (ft)	= 829.53	**Calculations**	
Pipe Length (ft)	= 63.62	Qmin (cfs)	= 3.47
Slope (%)	= 2.00	Qmax (cfs)	= 6.00
Invert Elev Up (ft)	= 830.80	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 18.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 18.0	Qtotal (cfs)	= 5.97
No. Barrels	= 1	Qpipe (cfs)	= 5.97
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Concrete	Veloc Dn (ft/s)	= 3.87
Culvert Entrance	= Square edge w/headwall (C)	Veloc Up (ft/s)	= 5.10
Coeff. K,M,c,Y,k	= 0.0098, 2, 0.0398, 0.67, 0.5	HGL Dn (ft)	= 830.75
		HGL Up (ft)	= 831.74
Embankment		Hw Elev (ft)	= 832.24
Top Elevation (ft)	= 833.22	Hw/D (ft)	= 0.96
Top Width (ft)	= 45.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 200.00		



100 YEAR STORM

Line	ToLine	LineLength	Incr.Area	TotalArea	RunoffCoeff	IncrC x A	TotalC x A	InletTime	TimeConc	RnfallInt	TotalRunoff	AdnlFlow	TotalFlow	CapacFull	Veloc	PipeSize	PipeSlope	Inv ElevDn	Inv ElevUp	HGLDn	HGLUp	Grnd/RimDn	Grnd/RimUp	Line ID
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	Outfall	63.624	1.22	1.22	0.5	0.61	0.61	5	5	9.8	6	0	6	16.07	4.57	18	2	829.53	830.8	830.71	831.75	831.74	833.01	H0<H1
2	Outfall	126.352	5.44	5.44	0.38	2.07	2.07	14.6	14.6	7.4	15.24	0	15.24	40.31	5.99	24	2.71	820.87	824.29	822.51	825.7	823.62	828.83	A0<A1
3	Outfall	56.582	2.29	2.29	0.46	1.05	1.05	7.4	7.4	9.1	9.54	0	9.54	28.54	6.1	18	6.29	816.73	820.29	818.03	821.48	818.94	822.5	B0<B1
4	Outfall	41.021	0.47	16.15	0.6	0.28	5.93	5	16.7	7	41.49	0	41.49	51.89	8.29	24 (2b)	1.12	814.21	814.67	815.83	816.05	816.41	819.19	G0<G1
5	4	71.686	15.68	15.68	0.36	5.64	5.64	16.6	16.6	7	39.64	0	39.64	52.41	8.99	24 (2b)	1.14	814.77	815.59	816.07	816.94	819.19	818.34	G1<G2
6	Outfall	156.155	4.66	4.66	0.3	1.4	1.4	23.5	23.5	6	8.45	0	8.45	17.15	5.64	18	2.27	810.3	813.85	811.56	814.98	812.5	816.06	F0<F1
7	Outfall	114.408	7.48	7.48	0.34	2.54	2.54	22.8	22.8	6.1	15.59	0	15.59	24.57	6.09	24	1.01	809.91	811.06	811.55	812.48	812.66	815.81	C0<C1
8	Outfall	156.879	6.59	6.59	0.3	1.98	1.98	21.2	21.2	6.3	12.53	0	12.53	17.28	5.34	24	0.5	804.92	805.7	806.49	806.97	807.67	810.5	E0<E1
9	Outfall	80.647	10.09	10.09	0.37	3.73	3.73	14.9	14.9	7.3	27.33	0	27.33	31.29	6.64	30	0.5	800.74	801.14	802.8	803	804.03	804.43	D0<D1

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 40411 SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
STORMWATER MANAGEMENT DATA

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
NONE	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-404

SHEET 22 of 31

Plot Scale: 1"=#"; Drawing Rotation: 0.0° - Plot Style: Design.ctb, Plotted By: Olivia Guijardo on 4/1/2022, 1:45 PM

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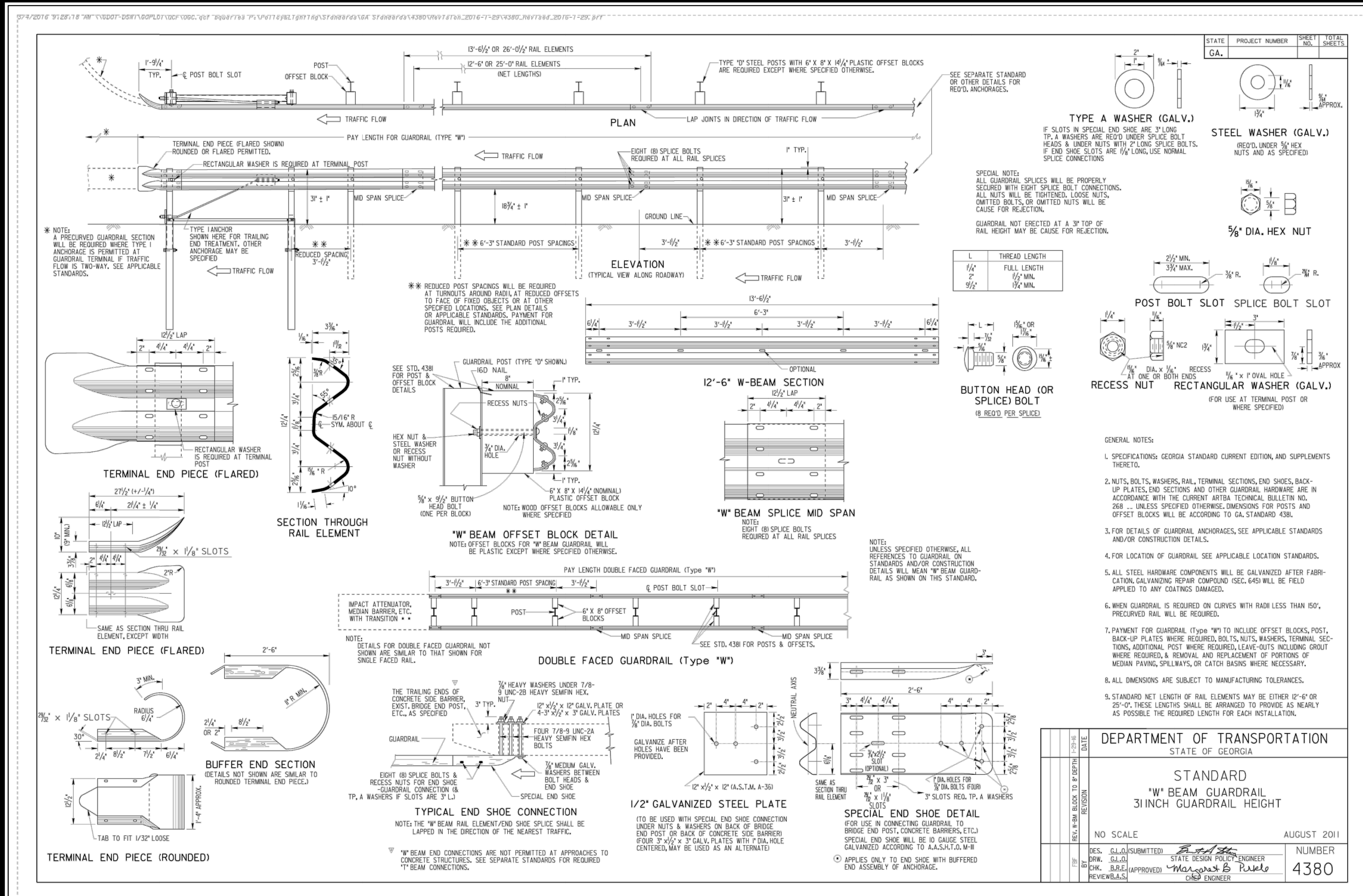

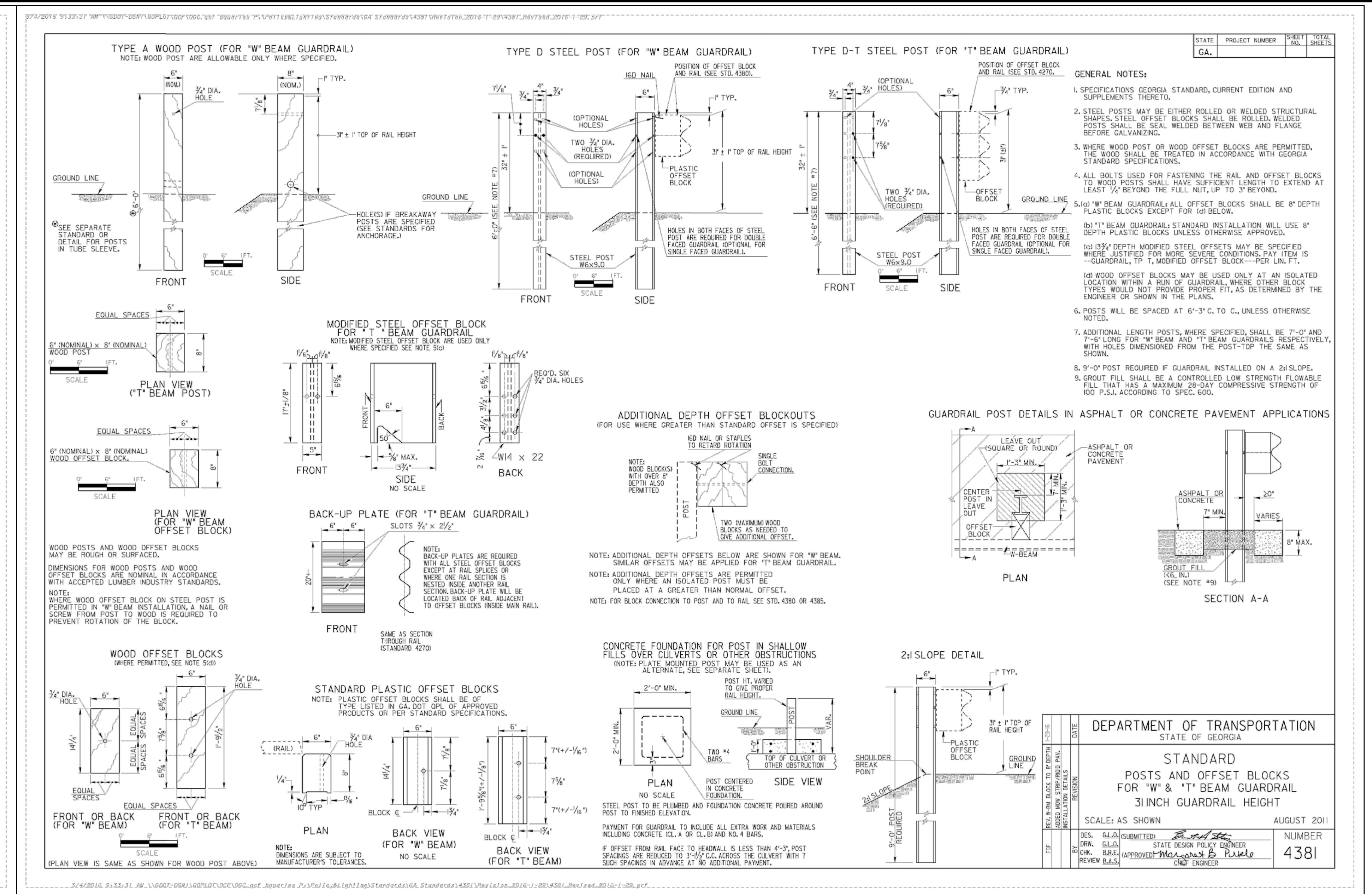

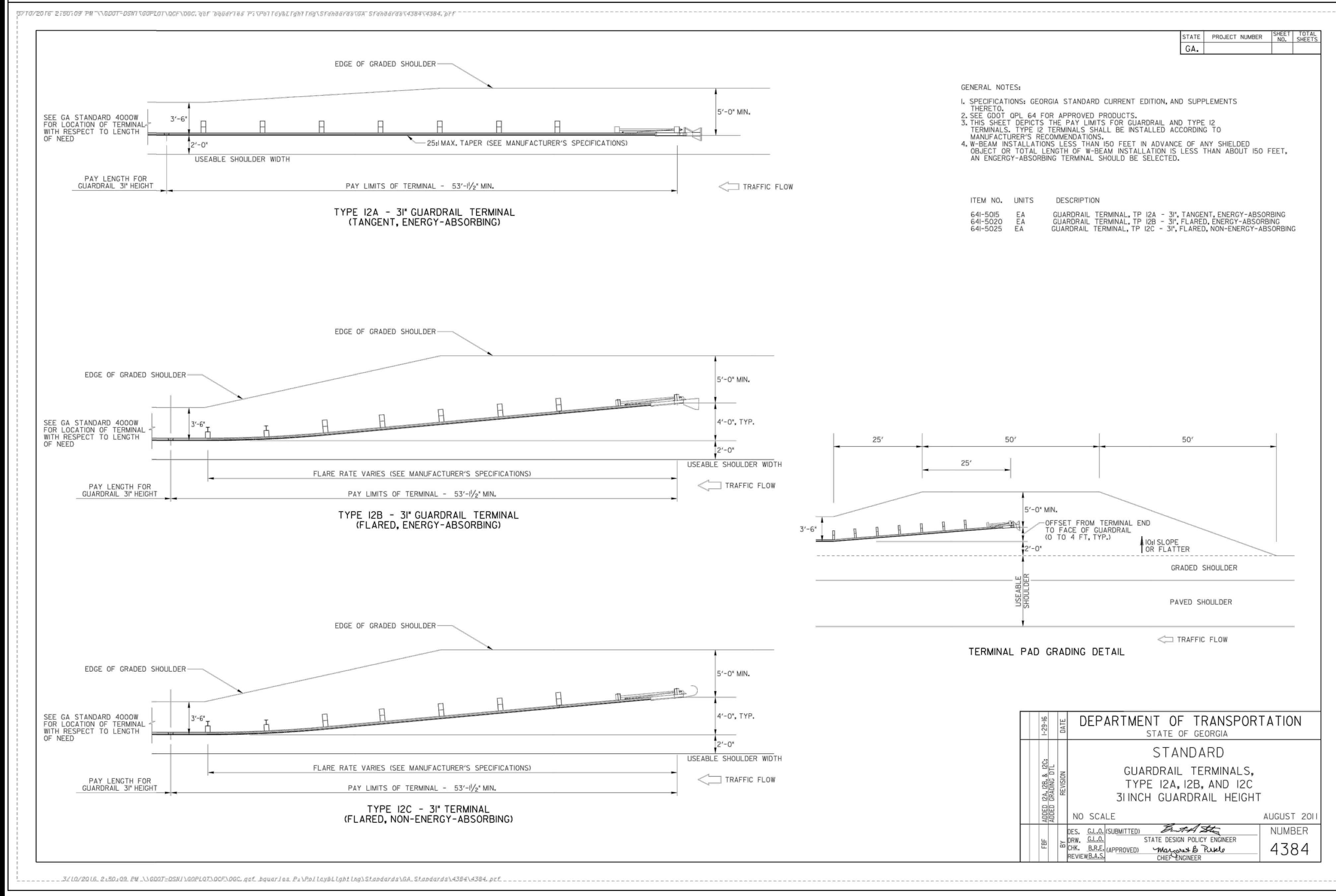

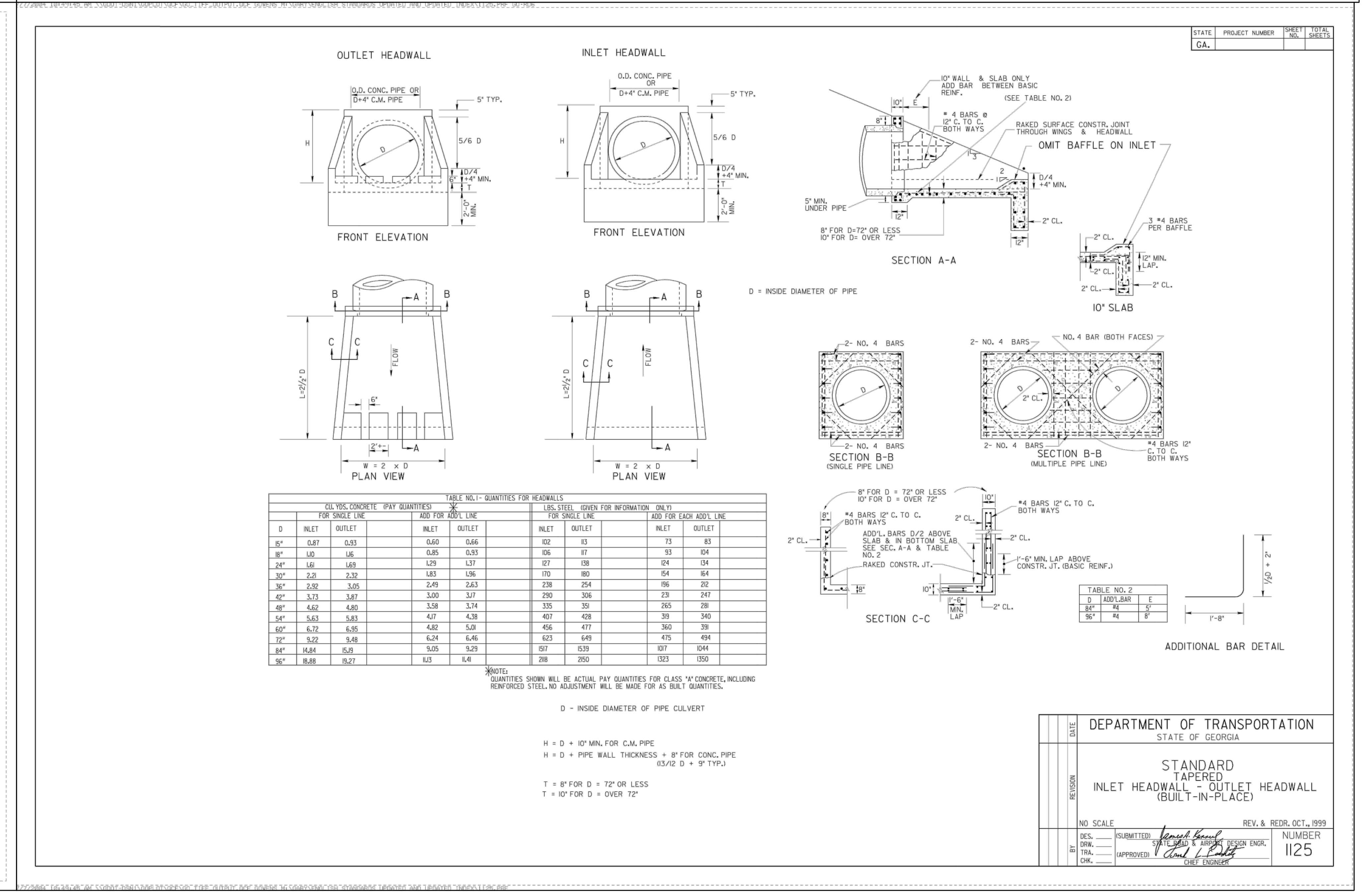

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MARIETTA, GA 30062
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Plot Scale: 1"=##', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:45 PM

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER SCOTT M. MCNALLY 4/1/22

GSWCC CERT #78081

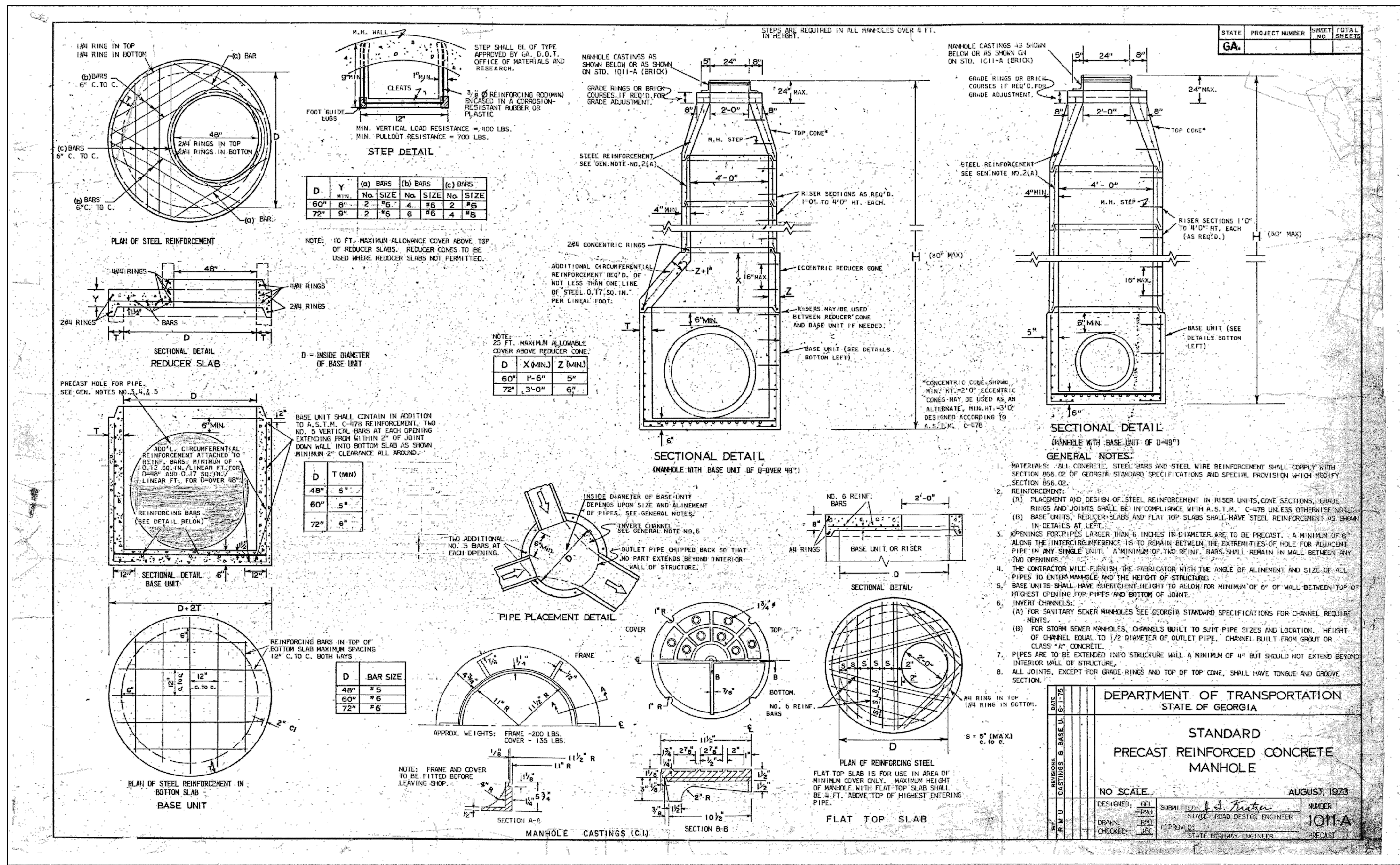
SHEET TITLE
CONSTRUCTION DETAILS

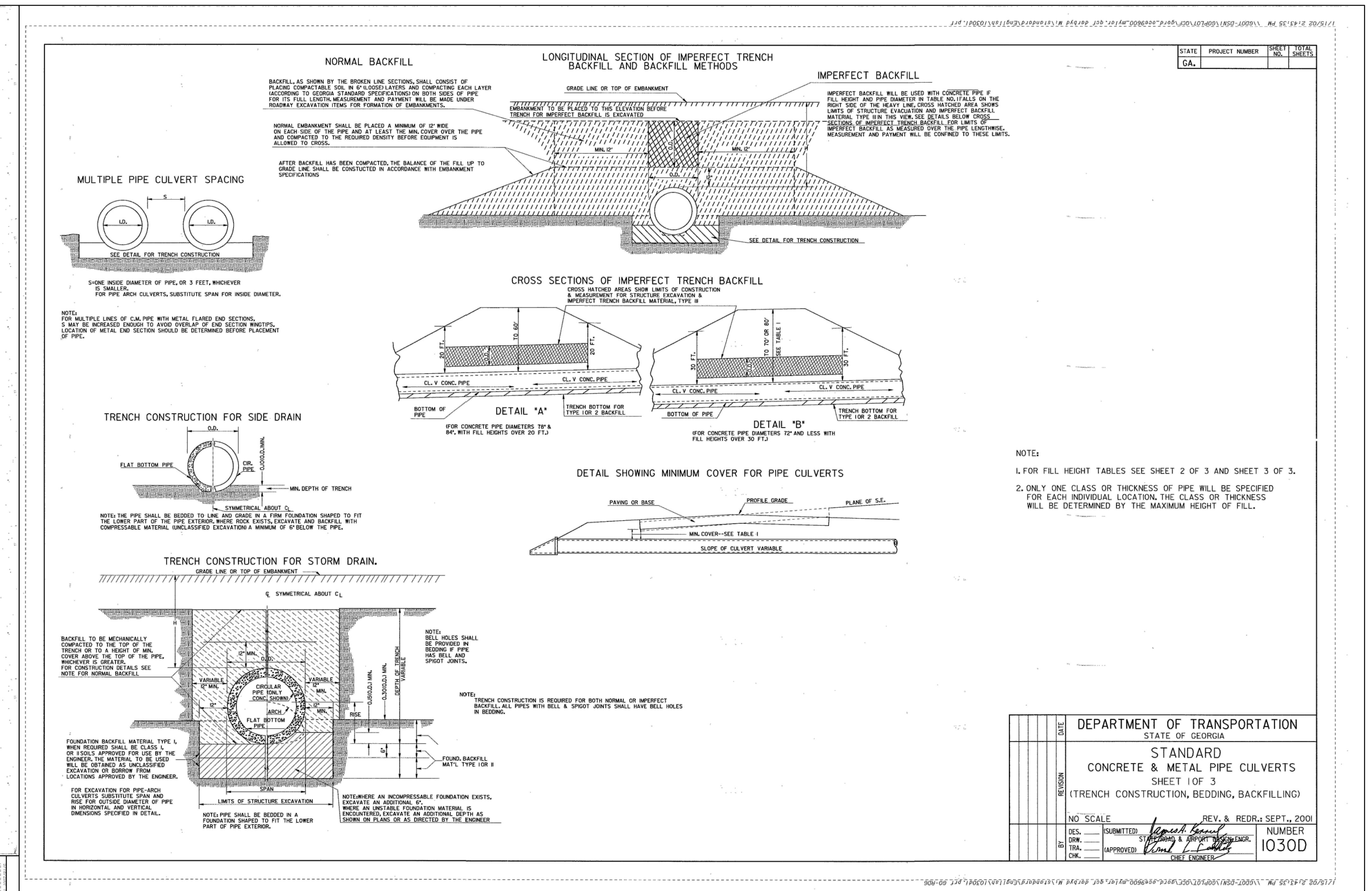
DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
NONE	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-500

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Cover, Notes& Details.dwg





PIPE DIAMETER (INCHES)	TYPE	MINIMUM COVER (INCHES)	1 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	PIPE DIAMETER (INCHES)
			HEIGHT OF FILL IN FEET ABOVE TOP OF PIPE												
12	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		12
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.075	
15	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		15
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.105	
18	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		18
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105	
24	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		24
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	
	ALUM 1	12	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105		
30	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		30
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	
	ALUM 1	12	.075	.075	.075	.075	.075	.105	.105	.105	.135	.135			
36	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		36
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	
	ALUM 1	12	.075	.105	.105	.105	.105	.105	.135	.135	.135	.135			
	ALUM 2	12	.060	.060	.060	.060	.075	.075	.105	.105	.105	.135			
42	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		42
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.138	
	ALUM 1	12	.105	.105	.135	.135	.164	.164							
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.105	.105	.135	.135			
48	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		48
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	
	ALUM 1	12	.105	.105	.135	.164	.164	.164							
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.105	.135	.135	.164	.164		
54	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		54
	STEEL 1	12	.079	.079	.079	.079	.079	.079	.079	.109	.138	.138	.168		
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168	
	ALUM 1	15	.105	.105	.135	.164	.164	.164							
	ALUM 2	15	.060	.060	.060	.075	.075	.105	.135	.135	.164	.164			
60	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		60
	STEEL 1	12	.109	.109	.109	.109	.109	.109	.109	.109	.138	.168			
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	.168	.168	
	ALUM 1	15	.135	.135	.164	.164	.164	.164							
	ALUM 2	15	.060	.060	.075	.105	.105	.135	.135	.164	.164				
66	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V			66
	STEEL 1	12	.138	.138	.138	.138	.138	.138	.138	.138	.168	.168			
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.109	.109	.138	.168	.168		
	ALUM 1	18	.164	.164	.164	.164	.164								
	ALUM 2	18	.075	.075	.105	.105	.135	.135	.164	.164					
72	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V			72
	STEEL 1	12	.138	.138	.138	.138	.138	.138	.138	.138	.168				
	STEEL 2	12	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168			
	ALUM 1	18	.164	.164	.164	.164	.164								
	ALUM 2	18	.075	.075	.105	.105	.135	.164	.164	.164					
78	CONCRETE	12	III	III	IV	V	V	V	V	V	V				78
	STEEL 1	15	.168	.168	.168	.168	.168	.168	.168	.168					
	STEEL 2	15	.064	.064	.064	.064	.079	.109	.109	.138	.168	.168			
	ALUM 2	21	.075	.075	.105	.105	.135	.164	.164						
84	CONCRETE	12	III	III	IV	V	V	V	V	V	V				84
	STEEL 1	15	.168	.168	.168	.168	.168	.168	.168	.168					
	STEEL 2	15	.064	.064	.064	.079	.079	.109	.109	.138	.168				
	ALUM 2	21	.105	.105	.105	.135	.135	.164	.164						
90	CONCRETE	12	III	III											90
	STEEL 2	18	.064	.064	.064	.079	.109	.109	.138	.138	.168				
	ALUM 2	24	.105	.105	.135	.135	.164								
96	CONCRETE	12	III	III											96
	STEEL 2	18	.079	.079	.079	.079	.109	.109	.138	.168					
	ALUM 2	24	.105	.105	.135	.135	.164								
102	CONCRETE	12	III	III											102
	STEEL 2	24	.079	.079	.079	.109	.109	.138	.138	.168					
	ALUM 2	24	.135	.164	.164										
108	CONCRETE	12	III	III											108
	STEEL 2	24	.109	.109	.109	.109	.109	.138	.138	.168					
	ALUM 2	24	.135	.164											
114	CONCRETE														114
	STEEL 2	24	.109	.109	.109	.109	.109	.138	.168						
	ALUM 2	24	.164	.164											
120	CONCRETE														120
	STEEL 2	24	.109	.109	.109	.109	.138	.138	.168						
	ALUM 2	24	.164	.164											

TABLE NO. 1 ROUND PIPE - CONCRETE - CORRUGATED STEEL - CORRUGATED ALUMINUM
MINIMUM CLASS OF CONCRETE OR MINIMUM THICKNESS OF STEEL AND ALUMINUM

IMPERFECT BACKFILL IS NOT REQUIRED FOR CONDTIONS SHOWN ON THE LEFT SIDE OF THE HEAVY LINE. USE NORMAL BACKFILL.

FOR CONDITIONS TO THE RIGHT OF THE HEAVY LINE, CLASS V CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "A" OR "B" ON SHEET 1 OF 3.

TABLE NO. 3 - (INFORMATION ONLY)

	COR. METAL THICKNESS	EQUIVALENT GAGE
STEEL	.064	16
	0.079	14
	0.109	12
	0.138	10
	0.168	8
ALUMINUM	0.060	16
	0.075	14
	0.105	12
	0.135	10
	0.164	8

STEEL 1 OR ALUM 1 DENOTES CORRUGATION PROFILE 2 2/3" X 1/2"

STEEL 2 OR ALUM 2 DENOTES CORRUGATION PROFILE 3" X 1" (OR 5" X 1" FOR STEEL PIPE ONLY)

ALL STEEL AND ALUMINUM PIPE SHALL BE LOCK-SEAM OR WELDED-SEAM (HELICAL) CONSTRUCTION.

MINIMUM COVER VALUES APPLY TO HS-20 LIVE LOAD. MINIMUM COVER NEEDED FOR CONSTRUCTION VEHICLES MAY BE GREATER AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

TRENCH CONSTRUCTION IS REQUIRED FOR CONDITIONS ON BOTH SIDES OF HEAVY LINE. SEE SHEET 1 OF 3.

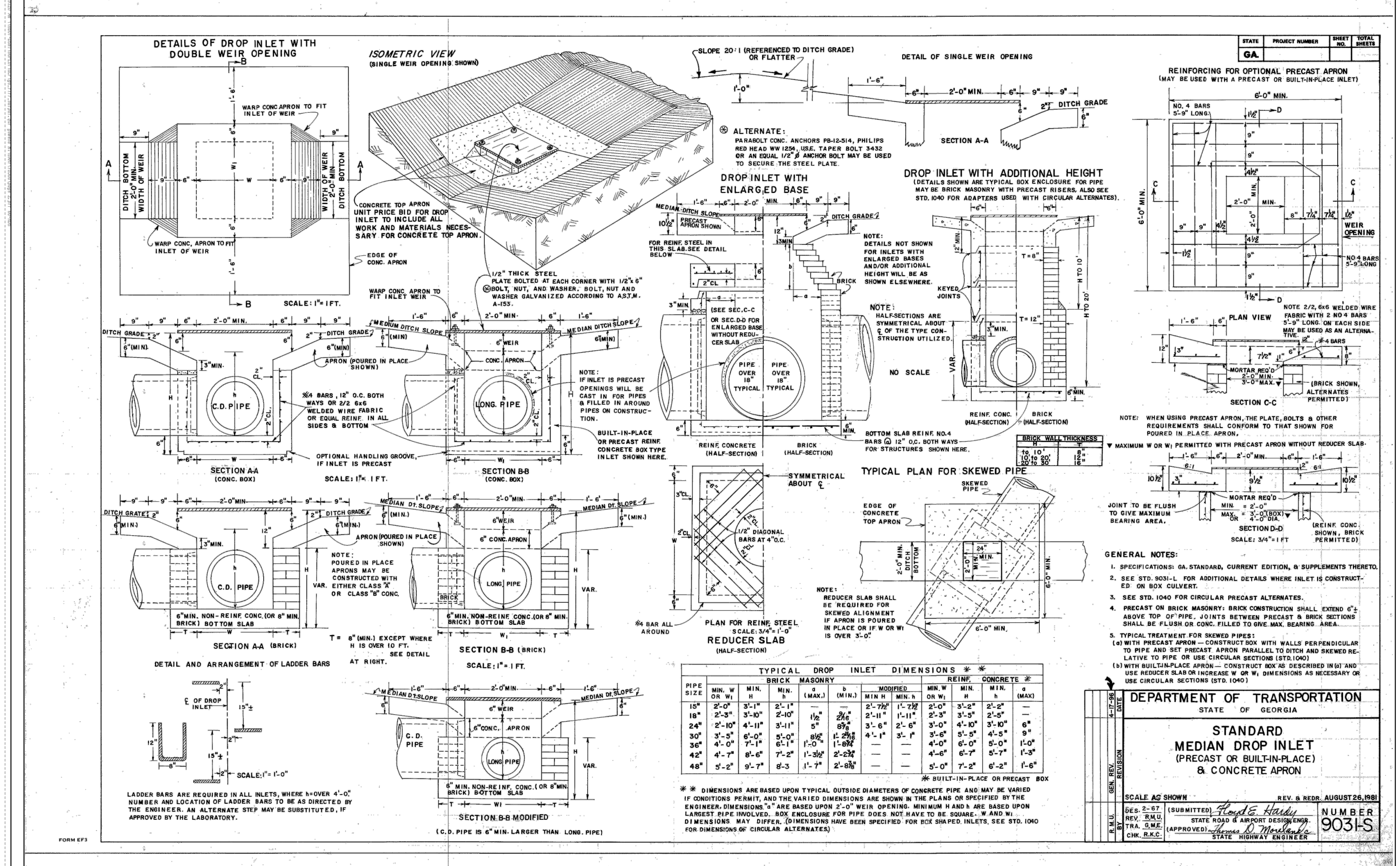
FOR CONDITIONS TO RIGHT OF HEAVY LINE, CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO SPECIFICATIONS AND THIS STANDARD.

TABLE VALUES FOR ALUMINUM CORRUGATED PIPE (OR ALUMINUM SPIRAL RIB PIPE) ARE COMPUTED BASED UPON ALCLAD ALLOY 3004-H34 HAVING MINIMUM YIELD STRENGTH, fy=24,000 PSI. IF ALUMINUM PIPE IS OTHERWISE FURNISHED AS 3004-H32 (fy=20,000 PSI), THE TABLE NO. 1 ALLOWABLE FILL HEIGHTS SHALL BE ADJUSTED AS FOLLOWS:

A. ALL MINIMUM COVER VALUES SHALL BE INCREASED BY 15 PERCENT. (EXAMPLE: 12 INCHES BECOMES 13.8 INCHES)
B. ALL HEIGHT OF FILL VALUES SHALL BE DECREASED BY 15 PERCENT. (EXAMPLE: 35-40 FEET BECOMES 29.7-34.0 FEET)

BY	REVISION	DATE
	GEN. REV. NOTES	9-26-01
GJP	ADDED SEAM CONST. NOTE	3-9-99

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
STANDARD
CONCRETE & METAL PIPE CULVERTS
SHEET 2 OF 3
(FILL HEIGHTS FOR CONCRETE & CORRUGATED METAL PIPE)
NO SCALE
OCTOBER 21, 1998
NUMBER 1030D



CROY

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 41122 SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
CONSTRUCTION DETAILS

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
NONE	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
C-501

EROSION, SEDIMENTATION, & POLLUTION CONTROL PLANS FOR CONSTRUCTION OF

FAYETTE COUNTY SHERIFF VEHICLE TACTICAL TRAINING FACILITY

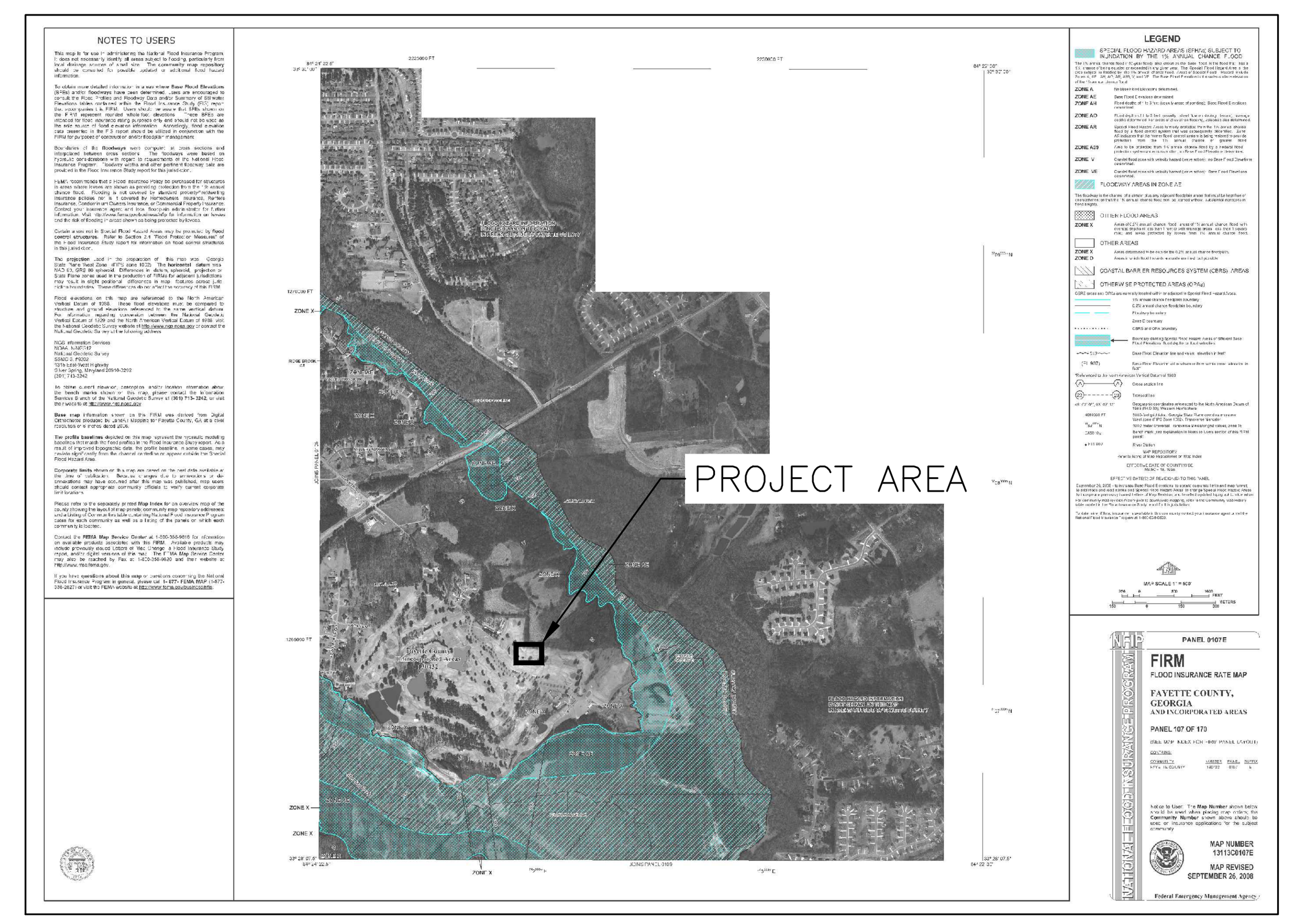
CITY OF FAYETTEVILLE, GEORGIA

CROY ENGINEERING PROJECT NO. 1866.033

MAY, 2022

LOCATION MAP

(NTS)

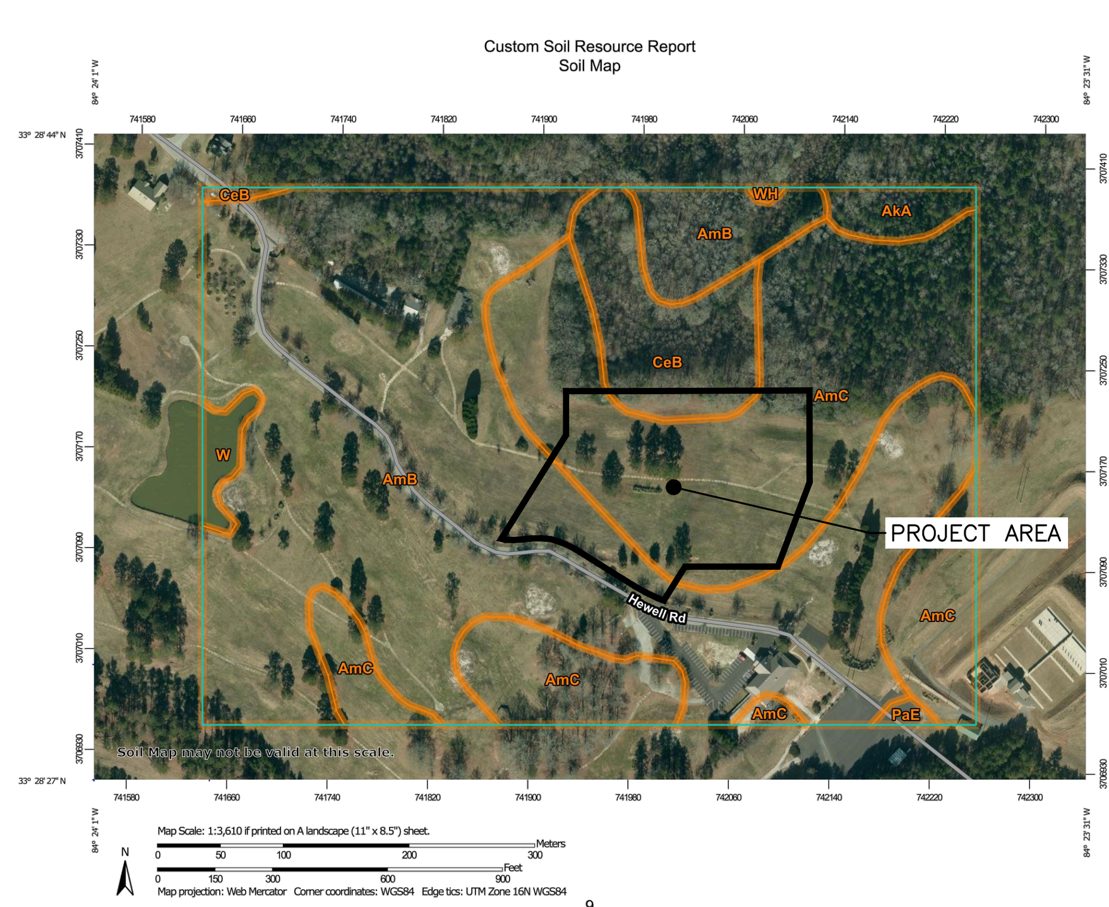


FEMA MAP

FEMA STATEMENT

A PORTION OF THIS PROPERTY MAY LIE WITHIN THE 100 YEAR FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBER FOR THIS AREA IS 13113C0107E AND THE DATE OF SAID MAP IS SEPTEMBER 26, 2008.

SOILS LEGEND



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AkA	Altavista sandy loam, 0 to 3 percent slopes	1.0	1.6%
AmB	Appling sandy loam, 2 to 6 percent slopes	37.4	57.4%
AmC	Appling sandy loam, 6 to 10 percent slopes	21.6	33.1%
CeB	Cecil sandy loam, 2 to 6 percent slopes	4.2	6.5%
PaE	Pacolet sandy loam, 10 to 25 percent slopes	0.2	0.3%
W	Water	0.7	1.1%
WH	Wehadkee soils, 0 to 2 percent slopes, frequently flooded	0.1	0.1%
Totals for Area of Interest		**65.1**	**100.0%**

GEORGIA811
www.Georgia811.com
Contact 811 before you dig.

24 HOUR CONTACT:
BARRY BABB
TEL: (770)- 706-4800

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

Project Name: FAYETTE COUNTY SHERIFF VECHICLE TACTICAL TRAINING TRACK **Address:** 340 Hewell Rd
City/County: Fayette **Date on Plans:**
Name & email of person filling out checklist: SCOTT MCNALLY; SMCNALLY@CROYENG.COM

TO BE SHOWN ON ES&PC PLAN

Plan Page #	Included Y/N	No.	Item
ER-000	Y	1	The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
ER-000	Y	2	Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)
N/A	N/A	3	Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. * (A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)
ER-100	Y	4	The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
ER-100	Y	5	Provide the name, address, email address, and phone number of primary permittee.
ER-100	Y	6	Note total and disturbed acreages of the project or phase under construction.
ER-200	Y	7	Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
ER-100	Y	8	Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
ER-100	Y	9	Description of the nature of construction activity and existing site conditions.
ER-000	Y	10	Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
ER-100	Y	11	Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
ER-100	Y	12	Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on **Part IV page 19** of the permit.
ER-100	Y	13	Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on **Part IV page 19** of the permit. *
ER-100	Y	14	Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with **Part IV.A.5 page 25** of the permit. *
ER-100	Y	15	Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
N/A	N/A	16	Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
N/A	N/A	17	Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." *
N/A	N/A	18	Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
ER-100	Y	19	Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."
ER-100	Y	20	Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
ER-100	Y	21	Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
ER-000	Y	22	Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
ER-100	Y	23	If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *
ER-100	Y	24	BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *
ER-100	Y	25	Provide BMPs for the remediation of all petroleum spills and leaks.
ER-100	Y	26	Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *
ER-100	Y	27	Description of practices to provide cover for building materials and building products on site. *
ER-100	Y	28	Description of the practices that will be used to reduce the pollutants in storm water discharges. *
ER-100	Y	29	Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
ER-100	Y	30	Provide complete requirements of Inspections and record keeping by the primary permittee. *
ER-100	Y	31	Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
HYDRO	HYDRO	32	Provide complete details for Retention of Records as per Part IV.F. of the permit. *
HYDRO	HYDRO	33	Description of analytical methods to be used to collect and analyze the samples from each location. *
ER-100	Y	34	Appendix B rationale for NTU values at all outfall sampling points where applicable. *
ER-100	Y	35	Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *
ER-100	Y	36	A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. *
ER-000	Y	37	Graphic scale and North arrow.
ER-200 & ER-300	Y	38	Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: (see table below)
ER-300	Y	39	Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
N/A	N/A	40	Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
N/A	N/A	41	Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
N/A	N/A	42	Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
ER-100	Y	43	Delineation and acreage of contributing drainage basins on the project site.
HYDRO	HYDRO	44	Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *
HYDRO	HYDRO	45	An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
N/A	N/A	46	Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
ER-000 & ER-100	Y	47	Soil series for the project site and their delineation.
ER-200 & ER-400	Y	48	The limits of disturbance for each phase of construction.
ER-300	Y	49	Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.
ER-200 & ER-400	Y	50	Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
ER-500	Y	51	Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
ER-500	Y	52	Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.

Contour table for item 38:

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

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

Effective APRIL 1, 2022

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF
VEHICLE TACTICAL TRAINING FACILITY
LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA REGISTERED No. 44614 PROFESSIONAL ENGINEER SCOTT M. MCNALLY 4/1/22

GSWCC CERT #78081

SHEET TITLE
EROSION CONTROL COVER SHEET

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
NONE	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
ER-000

Plot Scale: 1"=##', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:45 PM
Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Cover, Notes& Details.dwg

ES&PCP GENERAL NOTES

1. THE APPLICABLE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN CHECKLIST IS LOCATED ON ER-000.
2. LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE, AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL IS LOCATED ON ER-000.
3. LIMITS OF DISTURBANCE SHALL BE NO GREATER THAN 50 ACRES AT ANY ONE TIME WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE EPD DISTRICT OFFICE. IF EPD APPROVES THE REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME, THE PLAN MUST INCLUDE AT LEAST 4 OF THE BMPS LISTED IN APPENDIX 1 OF THIS CHECKLIST.
4. 24 HOUR LOCAL CONTACT INFORMATION (TO BE DETERMINED AT AWARD OF CONTRACT):
   NAME:BARRY BABB
   PHONE: (770)- 706-4800
5. PRIMARY PERMITTEE CONTACT INFORMATION:
   NAME:BARRY BABB
   PHONE:(770)- 706-4800
6. TOTAL SITE AREA = 51 AC.
   TOTAL DISTURBED AREA = 48.3 AC.
7. THE GPS LOCATION OF THE CONSTRUCTION EXIT FOR THE SITE IS LOCATED ON 33.478478'N, 84.399085'W.
8. INITIAL DATE OF THE PLAN:
   SEE REVISION REFERENCE LOCATED ON ER-000 FOR DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS.

PROJECT NARRATIVE

THE NATURE OF CONSTRUCTION ACTIVITY IS THE CONSTRUCTION OF A TACTICAL TRAINING TRACK, PIT MANEUVER AREA AND VIEWING TOWER.

10. VICINITY MAP SHOWING SITE'S RELATION TO SURROUNDING AREAS IS LOCATED ON ER-000. SURROUNDED BY UNDEVELOPED OPEN SPACE.
11. THE RECEIVING WATERS FROM THIS CONSTRUCTION PLAN IS FLINT RIVER WHICH IS APART OF THE GREATER FLINT WATERSHED BASIN.
12. "I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION."
    SIGNATURE: _____ DATE: 4/1/22
13. "I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAFE DISPOSAL OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORMWATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR100001."
    SIGNATURE: _____ DATE: 4/1/22
14. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION. IN ACCORDANCE WITH PART IV.A.5 PAGE 25 OF THIS PERMIT.
15. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
16. PROVIDE A DESCRIPTION OF ANY BUFFER ENCROACHMENTS AND INDICATE WHETHER A BUFFER VARIANCE IS REQUIRED. NO BUFFER VARIANCE IS REQUIRED.
17. AMENDMENTS/REVISIONS TO THE ES&PC PLAN, WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY A DESIGN PROFESSIONAL.
18. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
19. THE ESCAPE OF SEDIMENT FROM THE SITE SHOULD BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES TO LAND DISTURBING ACTIVITIES.
20. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
21. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
22. ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT, OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF AN IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART III. C. OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX 1 LISTING ALL THE BMPS THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT.
23. A TMDL PLAN FOR SEDIMENT DOES NOT APPLY TO THE RECEIVING WATERS.

24. READY MIX CHUTE WASH-DOWN

THE WASHING OF READY-MIX CONCRETE DRUMS AND DUMP TRUCK BODIES USED IN THE DELIVERY OF PORTLAND CEMENT CONCRETE IS PROHIBITED ON THIS SITE. IN ACCORDANCE WITH STANDARD SPECIFICATION 107 - LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC, ONLY THE DISCHARGE "CONCRETE UTILIZED IN PORTLAND CEMENT CONCRETE MIXTURES" IS ALLOWED MAY BE RINSED FREE OF FRESH CONCRETE REMAINS. THE CONTRACTOR SHALL EXCAVATE A PIT OUTSIDE OF STATE WATER BUFFERS, AT LEAST 25 FEET FROM ANY STORM DRAIN AND OUTSIDE OF THE TRAVEL WAY, INCLUDING SHOULDERS, FOR A WASH/PIT AREA. THE PIT SHALL BE LARGE ENOUGH TO STORE ALL WASH-DOWN WATER WITHOUT OVERTOPPING THE PIT. IMMEDIATELY AFTER THE WASH-DOWN OPERATIONS ARE COMPLETED AND AFTER THE WASH-DOWN WATER HAS SOAKED INTO THE GROUND, THE PIT SHALL BE FILLED IN, AND THE GROUND ABOVE SHALL BE GRADED TO MATCH THE ELEVATION OF THE SURROUNDING AREAS SMOOTHED OUT. ALTERNATE WASH DOWN PLANS MUST BE APPROVED BY THE PROJECT ENGINEER.
WASH-DOWN PLANS DESCRIBE PROCEDURES THAT PREVENT WASH DOWN WATER FROM ENTERING STREAMS AND RIVERS. NEVER DISPOSE OF WASH-DOWN WATER DOWN A STORM DRAIN. ESTABLISH A WASH-DOWN WATER PIT LOCATION THAT INCLUDES THE FOLLOWING: (1) THE PIT IS LOCATED AWAY FROM A STORM DRAIN, STREAM OR RIVER, (2) THE PIT IS ACCESSIBLE TO THE VEHICLE BEING USED FOR WASH-DOWN, (3) THE PIT HAS ENOUGH CAPACITY FOR WASH-DOWN WATER, AND (4) MAKE SURE YOU HAVE PERMISSION TO USE THE AREA FOR WASH-DOWN. ON SOME SITES, YOU MAY NOT HAVE PERMISSION OR ACCESS TO A LOCATION WHICH ALLOWS FOR A WASH-DOWN PIT. IN THOSE CASES, THE CONTRACTOR MAY HAVE TO WASH-DOWN INTO A WHEELBARROW OR OTHER CONTAINER AND CARRY THE CONTAINER FOR TRANSPORT TO A PROPER DISPOSAL SITE. FOR ADDITIONAL INFORMATION, REFER TO THE GEORGIA SMALL BUSINESS ENVIRONMENTAL ASSISTANCE PROGRAM'S 'A GUIDE FOR READY MIX CHUTE/HOPPER WASH-DOWN'.

SILT FENCE INSTALLATIONS WITH J-HOOKS AND SPURS

SILT FENCE SHOULD NEVER RUN CONTINUOUS WITHOUT J-HOOKS OR SPURS. THE SILT FENCE SHOULD TURN BACK INTO THE FILL OR SLOPE TO CREATE SMALL POCKETS THAT TRAP SILT AND FORCE STORMWATER TO FLOW THROUGH THE SILT FENCE. THIS TECHNIQUE OR CONFIGURATION IS COMMONLY REFERRED TO AS J-HOOKS OR SPURS. THE J-HOOKS OR SPURS SHALL BE INSTALLED ON ALL SILT FENCES THAT ARE LOCATED AROUND THE PERIMETER OF THE PROJECT AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE J-HOOKS AND SPURS SHALL BE SPACED IN ACCORDANCE WITH THE TYPICAL LOCATION DETAILS FOR SILT FENCES / BALED STRAW. SPACING FOR J- HOOKS OR SPURS SHALL NOT BE LESS THAN 50 FEET EXCEPT AS NOTED. SILT FENCES THAT ARE NEAR THE OUTLET OF CULVERTS, CROSS DRAINS, AND STORM DRAINS SHALL HAVE A MINIMUM OF 3 J-HOOKS OR SPURS ON BOTH SIDES OF THE STRUCTURE AT SPACING NOT TO EXCEED 30 FEET. J-HOOKS OR SPURS SHALL BE PAID FOR AS SILT FENCE ITEMS PER FOOT. ALL COSTS AND OTHER INCIDENTAL ITEMS ARE INCLUDED IN COST OF INSTALLING AND MAINTAINING THE SILT FENCE.

25. SPILL CLEANUP AND CONTROL PRACTICES

1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE AVAILABLE TO SITE PERSONNEL.
2. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
4. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
5. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
6. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
7. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
8. FOR SPILLS LESS THAT 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS THE CAPACITY OF GREATER THAN 650 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.
THIS CONSTRUCTION PROJECT DISCHARGES INTO, OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT.

26. POST-CONSTRUCTION BMPS

ALL PERMANENT, POST-CONSTRUCTION BMPS ARE SHOWN IN THE CONSTRUCTION PLANS AND IN THE ESPCP PLAN. THE POST-CONSTRUCTION BMPS FOR THIS PROJECT CONSISTS OF TEMPORARY SEEDING, PERMANENT MULCHING, DOUBLE ROW OF SILT FENCE WITH STRAW IN BETWEEN, STONE CHECK DAMS, ROCK FILTER DAMS, DIVERSION, COMPOST FILTER SOCKS, INLET SEDIMENT TRAP, TEMPORARY SEDIMENT TRAP, SLOPE STABILIZATION AND STORM DRAIN OUTLET PROTECTION. THE POST-CONSTRUCTION BMPS WILL PROVIDE PERMANENT STABILIZATION OF THE SITE AND PREVENT ACCELERATED TRANSPORTATION OF SEDIMENT AND POLLUTANTS INTO RECEIVING WATERS.

27. OTHER CONTROLS

THE ES&PC PLAN SHALL BE IN COMPLIANCE WITH WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS DURING AND AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THE CONTRACTOR SHALL CONTROL DUST FROM THE SITE IN ACCORDANCE WITH CURRENT EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS TO DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. MINIMIZATION OF EXPOSURE IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND TO STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

PRODUCT SPECIFIC PRACTICES

1. PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLES AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATERS,, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL IS REQUIRED BY LOCAL AND STATE REGULATIONS.
2. PAINT/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED INTO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS, AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASHOUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.
4. FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR ON THE ESWCC MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
5. BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

WASTE DISPOSAL

LOCATE WASTE COLLECTION AREAS AWAY FROM STREETS, GUTTERS, WATERCOURSES AND STORM DRAINS. WASTE COLLECTION AREAS, SUCH AS DUMPSTERS, ARE OFTEN BEST LOCATED NEAR CONSTRUCTION SITE ENTRANCES TO MINIMIZE TRAFFIC ON DISTURBED SOILS. THE PLAN SHOULD INCLUDE SECONDARY CONTAINMENT AROUND LIQUID WASTE COLLECTION AREAS TO FURTHER MINIMIZE THE LIKELIHOOD OF CONTAINMENT DISCHARGES. SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL NOT BE DISCHARGED TO WASTERS OF THE STATE, EXCEPT AS AUTHORIZED BY SECTION 404 PERMIT.

28. THIS ES&PC PLAN EMPLOYS SEVERAL PRACTICES THAT ARE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES. SEVERAL EROSION CONTROL BMP'S ARE USED TO REDUCE THE AMOUNT OF SEDIMENT RUNNING OFF SITE, INCLUDING SLOPE STABILIZATION, CHECK DAM, RETROFIT, SEDIMENT BARRIER WITH MULCH, INLET SEDIMENT TRAPS WITH EXCAVATED INLET, INLET SEDIMENT TRAP, TEMPORARY SEDIMENT TRAP AND STORM DRAIN OUTLET PROTECTION.
29. SEQUENCE OF LAND DISTURBANCE ACTIVITIES
    START MAY, 2022
    STOP DECEMBER, 2022

ANTICIPATED CONSTRUCTION ACTIVITY SCHEDULE

CONSTRUCTION ACTIVITY	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
INSTALL CONSTRUCTION EXIT								
INSTALL SEDIMENT CONTROLS								
MAINTAIN EROSION CONTROL DEVICES								
CLEARING AND GRADING								
INSTALL & MAINTAIN TEMPORARY VEGETATION & MULCH								
PERM. LANDSCAPING & STABILIZE Ds3								
CLEANUP SITE & REMOVE TEMPORARY BMP's								

30. INSPECTIONS

1. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (a) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (b) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
2. MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
3. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (a) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (b) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (c) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.a(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
4. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THE PERMIT (i.e., UNTIL AT NOTICE OF TERMINATION HAS BEEN SUBMITTED) THE AREAS OF THE THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
5. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
6. A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (i.e., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.a.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION SITE THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY THE END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MANTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A CERTIFICATION THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.C.2. OF THIS PERMIT.

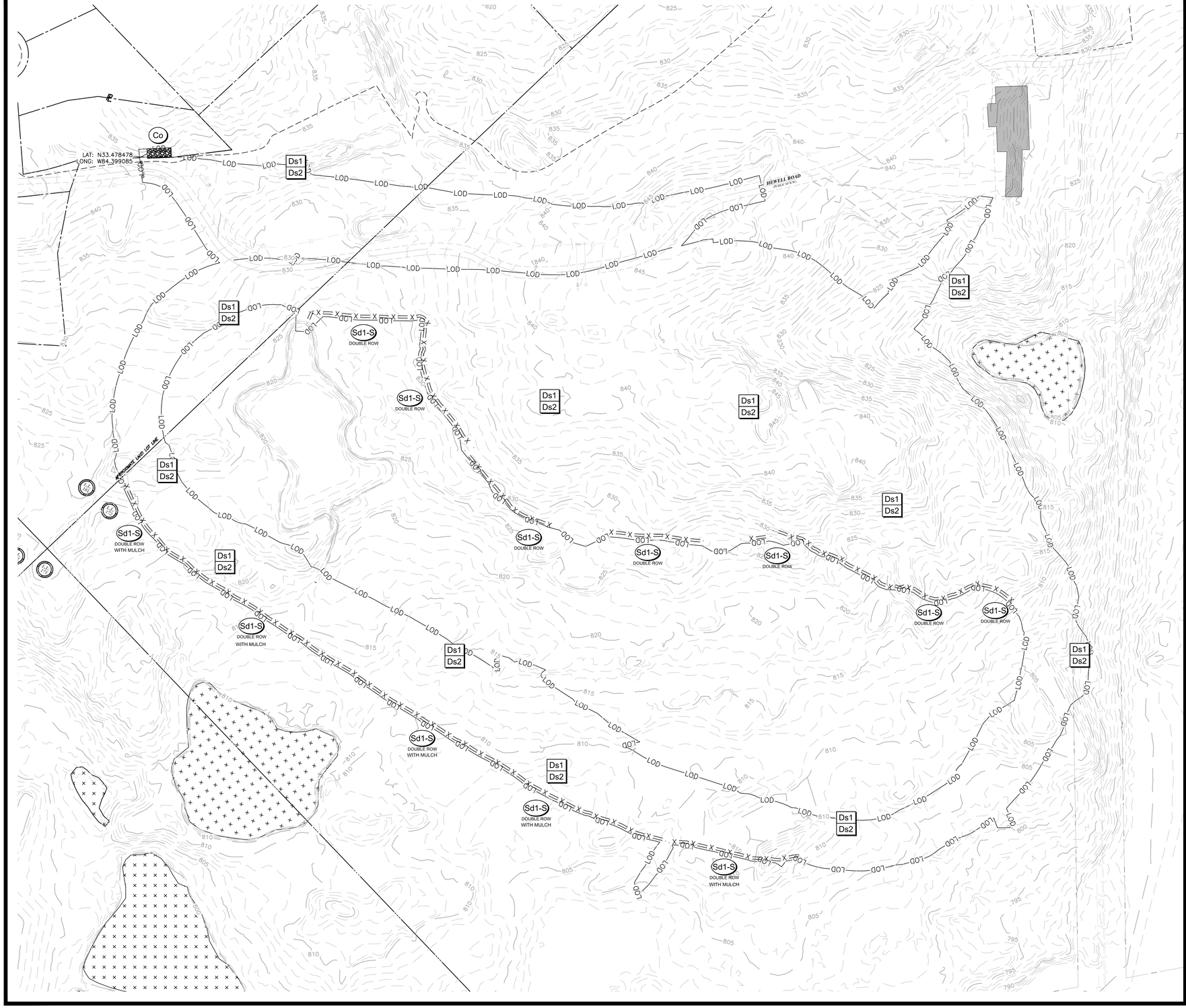
31. SAMPLING FREQUENCY

1. THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW, FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.
2. HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
3. SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:
   A. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT. AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION;
   B. IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO THE SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER COMES FIRST;
   C. AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;
   D. WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND
   E. EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

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

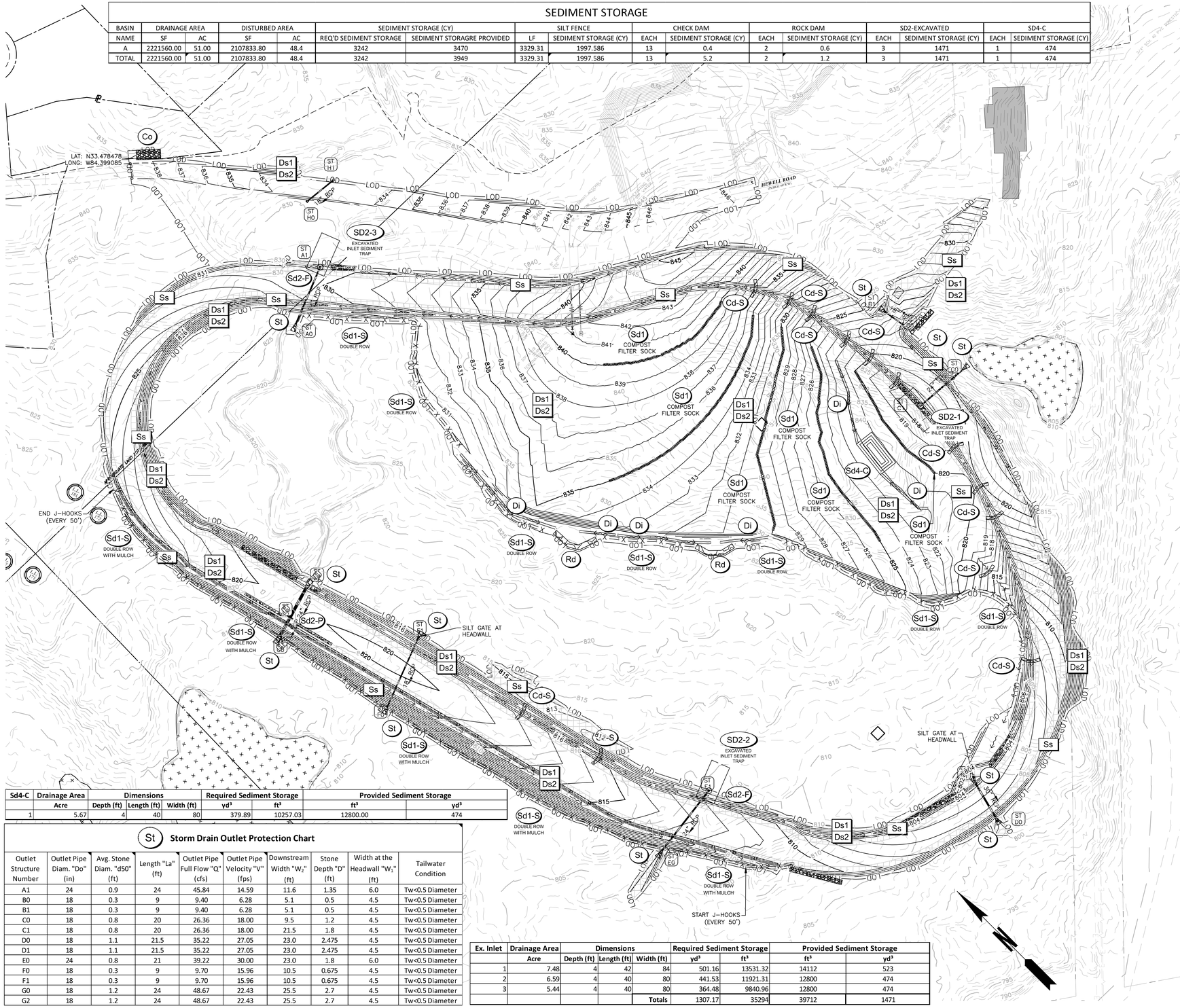
REPORTING

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.C.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.
2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
   A. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
   B. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
   C. THE DATE(S) ANALYSES WERE PERFORMED;
   D. THE TIME(S) ANALYSES WERE INITIATED;
   E. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
   F. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
   G. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
   H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
   I. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN
3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT


Co
CONSTRUCTION EXIT
LAT: N33.478478
LONG: W84.399085
LOD
Ds1
Ds2
HEWELL ROAD
(PUBLIC ROW)
APPROXIMATE LAND LOT LINE
Sd1-S
DOUBLE ROW
DOUBLE ROW
WITH MULCH
X
X
X

SEDIMENT STORAGE

BASIN	DRAINAGE AREA		DISTURBED AREA		SEDIMENT STORAGE (CY)		SILT FENCE		CHECK DAM		ROCK DAM		SD2-EXCAVATED		SD4-C	
NAME	SF	AC	SF	AC	REQ'D SEDIMENT STORAGE	SEDIMENT STORAGRE PROVIDED	LF	SEDIMENT STORAGE (CY)	EACH	SEDIMENT STORAGE (CY)	EACH	SEDIMENT STORAGE (CY)	EACH	SEDIMENT STORAGE (CY)	EACH	SEDIMENT STORAGE (CY)
A	2221560.00	51.00	2107833.80	48.4	3242	3470	3329.31	1997.586	13	0.4	2	0.6	3	1471	1	474
TOTAL	2221560.00	51.00	2107833.80	48.4	3242	3949	3329.31	1997.586	13	5.2	2	1.2	3	1471	1	474



Sd4-C	Drainage Area	Dimensions			Required Sediment Storage		Provided Sediment Storage	
	Acre	Depth (ft)	Length (ft)	Width (ft)	yd³	ft³	ft³	yd³
1	5.67	4	40	80	379.89	10257.03	12800.00	474

St Storm Drain Outlet Protection Chart

Outlet Structure Number	Outlet Pipe Diam. "Do" (in)	Avg. Stone Diam. "d50" (ft)	Length "La" (ft)	Outlet Pipe Full Flow "Q" (cfs)	Outlet Pipe Velocity "V" (fps)	Downstream Width "W_2" (ft)	Stone Depth "D" (ft)	Width at the Headwall "W_1" (ft)	Tailwater Condition
A1	24	0.9	24	45.84	14.59	11.6	1.35	6.0	Tw<0.5 Diameter
B0	18	0.3	9	9.40	6.28	5.1	0.5	4.5	Tw<0.5 Diameter
B1	18	0.3	9	9.40	6.28	5.1	0.5	4.5	Tw<0.5 Diameter
C0	18	0.8	20	26.36	18.00	9.5	1.2	4.5	Tw<0.5 Diameter
C1	18	0.8	20	26.36	18.00	21.5	1.8	4.5	Tw<0.5 Diameter
D0	18	1.1	21.5	35.22	27.05	23.0	2.475	4.5	Tw<0.5 Diameter
D1	18	1.1	21.5	35.22	27.05	23.0	2.475	4.5	Tw<0.5 Diameter
E0	24	0.8	21	39.22	30.00	23.0	1.8	6.0	Tw<0.5 Diameter
F0	18	0.3	9	9.70	15.96	10.5	0.675	4.5	Tw<0.5 Diameter
F1	18	0.3	9	9.70	15.96	10.5	0.675	4.5	Tw<0.5 Diameter
G0	18	1.2	24	48.67	22.43	25.5	2.7	4.5	Tw<0.5 Diameter
G2	18	1.2	24	48.67	22.43	25.5	2.7	4.5	Tw<0.5 Diameter

Ex. Inlet	Drainage Area	Dimensions			Required Sediment Storage		Provided Sediment Storage	
	Acre	Depth (ft)	Length (ft)	Width (ft)	yd³	ft³	ft³	yd³
1	7.48	4	42	84	501.16	13531.32	14112	523
2	6.59	4	40	80	441.53	11921.31	12800	474
3	5.44	4	40	80	364.48	9840.96	12800	474
				Totals	1307.17	35294	39712	1471

EROSION CONTROL NOTES

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.

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

NO LAND DISTURBANCE, CONSTRUCTION PROCESSES, OR STORAGE OF EQUIPMENT OR MATERIALS SHALL TAKE PLACE WITHIN A DESIGNATED TREE PROTECTION AREA IN ORDER TO PREVENT DIRECT PHYSICAL ROOT DAMAGE THAT OCCURS DURING SITE CLEARING AND GRADING AND CAN CAUSE TRANSPORT OR FEEDER ROOTS TO BE CUT, TORN, OR REMOVED; INDIRECT ROOT DAMAGE CAUSED FROM GRADE CHANGES; AND TRUNK AND CROWN DAMAGE CAUSED BY DIRECT CONTACT WITH LAND CLEARING MACHINERY OR GALLING OF ADJACENT TREES.

USE OF ALTERNATIVE BMPs WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMPs AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE FOUND AT www.gaswcc.georgia.gov.

USE OF ALTERNATIVE BMP FOR APPLICATION TO THE EQUIVALENT BMP LIST. PLEASE REFER TO APPENDIX A–2 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA 2016 EDITION.

INTERMEDIATE PHASE II NARRATIVE:

DURING DEMOLITION AND GRADING ACTIVITIES, INITIAL PHASE BMPS ARE TO BE MAINTAINED. SEDIMENT STORAGE WILL BE HANDLED BY DOUBLE ROW OF SILT FENCE WITH MULCH IN BETWEEN AND STONE CHECK DAMS ALONG THE SWALES. DIVERSIONS WILL BE CONSTRUCTED FOR THE ROCK DAMS, AND COMPOST FILTER SOCKS INSTALLED ON THE DESIGNATED AREAS. FILTER RINGS WILL BE CONSTRUCTED AROUND THE LABELED STORM STRUCTURES AND THE STORM INLET LOCATED WITHIN THE EXCAVATED INLET TRAP WILL REQUIRE A FILTER FABRIC WITH SUPPORTING FRAME. CHANNEL STABILIZATION IS TO BE INSTALLED IN LABELED AREAS.

DISTURBED AREA STABILIZATION SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE MANUAL. CLEAN OUT ACCUMULATED SILT AND SEDIMENT STORED IN BMPs. IMPLEMENTATION AND MAINTENANCE OF ALL BMPs SHALL BE ACCORDING TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. DETAILS FOR THE PROPOSED BMPs ARE INCLUDED ON SHEETS ER–400–401.

STRUCTURAL BMP LEGEND

Co	CONSTRUCTION EXIT
Cd-S	STONE CHECK DAMS
Di	DIVERSION
Rd	ROCK FILTER DAM
Sd1-S DOUBLE ROW	DOUBLE ROW SILT FENCE–TYPE SENSITIVE WITH LOOSE MULCH IN–BETWEEN
Sd1	COMPOST FILTER SOCK
Sd2-F	INLET SEDIMENT TRAP– FILTER FABRIC WITH SUPPORTING FRAME
Sd2-P	INLET SEDIMENT TRAP– CURB INLET PROTECTION
Sd2-1 EXCAVATED INLET SEDIMENT TRAP	EXCAVATED INLET SEDIMENT TRAP
St	STORM DRAIN OUTLET PROTECTION
Sd4-C	TEMPORARY SEDIMENT TRAP– ROCK OUTLET
LOD	INTERMEDIATE PHASE DISTURBED AREA: 30.00 ACRES

VEGETATIVE BMP LEGEND

Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)
Ss	SLOPE STABILIZATION

24 HOUR CONTACT:
BARRY BABB
TEL: (770)– 706–4800

100 0 100 200 300
SCALE IN FEET

CROY
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971–5407 FAX: (770) 971–0620

FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 34614 PROFESSIONAL ENGINEER SCOTT M. MCMALLY 4/1/22

GSWCC CERT #78081

SHEET TITLE
EROSION CONTROL PLAN - INTERMEDIATE PHASE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=100'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
ER-300
SHEET 28 of 31

Plot Scale: 1"=100' Drawing Rotation: 44.9° Plot Style: Design.ctb. Plotted By: Olivia Guajardo on 4/1/2022, 1:46 PM

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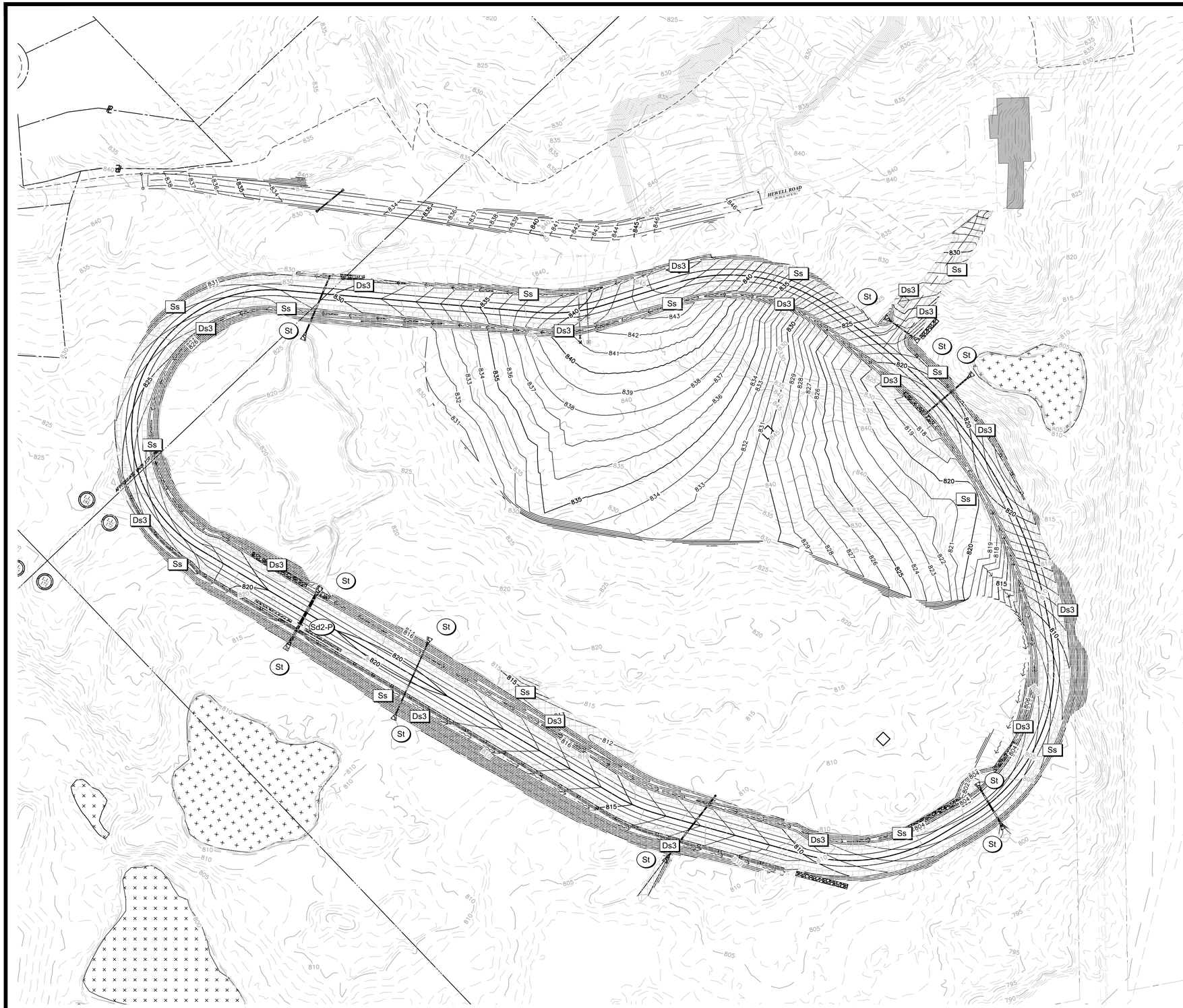

EROSION CONTROL NOTES

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.

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

NO LAND DISTURBANCE, CONSTRUCTION PROCESSES, OR STORAGE OF EQUIPMENT OR MATERIALS SHALL TAKE PLACE WITHIN A DESIGNATED TREE PROTECTION AREA IN ORDER TO PREVENT DIRECT PHYSICAL ROOT DAMAGE THAT OCCURS DURING SITE CLEARING AND GRADING AND CAN CAUSE TRANSPORT OR FEEDER ROOTS TO BE CUT, TORN, OR REMOVED; INDIRECT ROOT DAMAGE CAUSED FROM GRADE CHANGES; AND TRUNK AND CROWN DAMAGE CAUSED BY DIRECT CONTACT WITH LAND CLEARING MACHINERY OR GALLING OF ADJACENT TREES.

USE OF ALTERNATIVE BMPs WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMPs AS CERTIFIED BY A DESIGN PROFESSIONAL (UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE FOUND AT www.gaswcc.georgia.gov.

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

FINAL PHASE NARRATIVE:

ONCE THE GRADING IS COMPLETE ACCUMULATED SEDIMENT FROM BMPs SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY IN PREPARATION OF FINAL CONSTRUCTION. CHANNEL STABILIZATION, SLOPE STABILIZATION AND PERMANENT GRASSING WILL BE INSTALLED AND MAINTAINED AS SHOWN. ONCE AREAS OF DISTURBANCE IN THIS PHASE ARE COMPLETELY STABILIZED AND ALL PERMANENT BMPs ARE IN PLACE AND FUNCTIONING PROPERLY, ALL TEMPORARY BMPs SHALL BE REMOVED.

IMPLEMENTATION AND MAINTENANCE OF ALL BMPs SHALL BE ACCORDING TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. DETAILS FOR THE PROPOSED BMPs ARE INCLUDED ON SHEETS ER-500.

STRUCTURAL BMP LEGEND

St — STORM DRAIN OUTLET PROTECTION

VEGETATIVE BMP LEGEND

Ds3 — DISTURBED AREA STABILIZATION (WITH PERMAMENT SEEDING)

Ss — SLOPE STABILIZATION

24 HOUR CONTACT:
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100 0 100 200 300
SCALE IN FEET

CROY
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MARIETTA, GA 30062
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FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
EROSION CONTROL PLAN - FINAL PHASE

DRAWN BY	CHECKED BY
ORG	SMM
SCALE	ISSUE DATE
1"=100'	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
ER-400

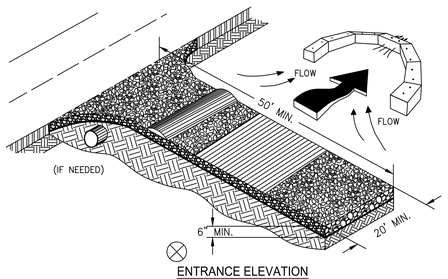
SHEET 29 of 31

Plot Scale: 1"=100' Drawing Rotation: 44.9° Plot Style: Design.ctb Plotted By: Olivia Guajardo on 4/1/2022, 1:47 PM

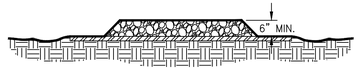
Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Erosion.dwg

Co CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM



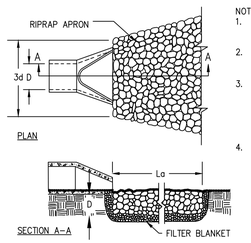
ENTRANCE ELEVATION



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

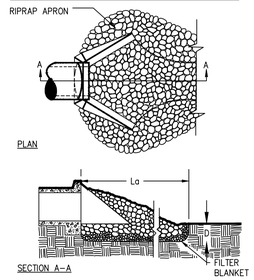
St RIPRAP OUTLET PROTECTION

PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL



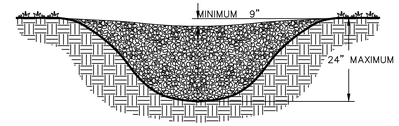
NOTES:
1. Lo IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSTHAN 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET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

PIPE OUTLET TO WELL DEFINED CHANNEL

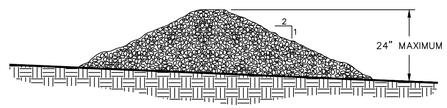


Cd-S STONE CHECK DAM

CROSS SECTION

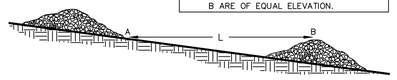


PROFILE VIEW



SPACING BETWEEN CHECK DAMS

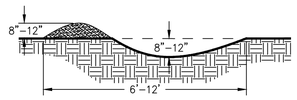
A = THE TOE OF THE UPSTREAM CHECK DAM.
B = TOP OF THE DOWNSTREAM CHECK DAM.
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).

Di TYPICAL DIVERSION ACROSS ROAD

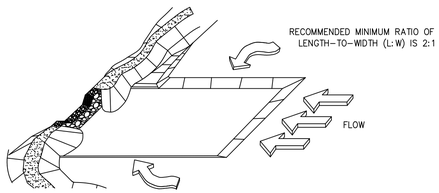
CROSS SECTION



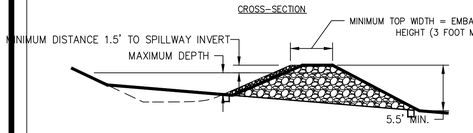
Sd4-C TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT

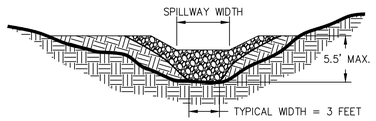
ROCK OUTLET



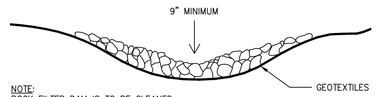
CROSS-SECTION



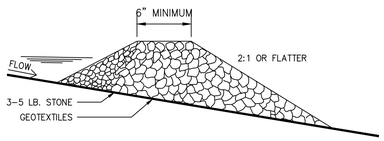
PROFILE THROUGH EMBANKMENT



Rd ROCK FILTER DAM



NOTE:
ROCK FILTER DAM IS TO BE CLEANED OUT WHEN VOLUME BECOMES HALF FULL.

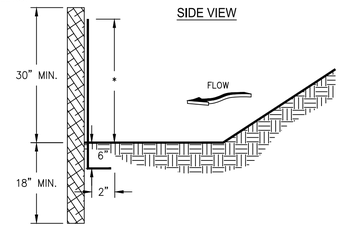


NOTE:
ROCK SIZE DETERMINED ACCORDING TO SPECIFICATIONS SET FORTH IN APPENDIX C.

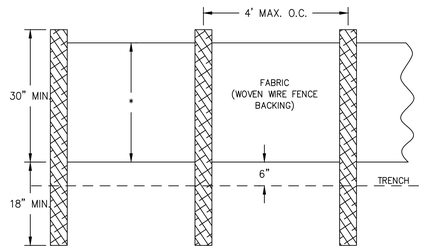
Sd1-S SILT FENCE - TYPE SENSITIVE

DOUBLE ROW

SIDE VIEW



FRONT VIEW

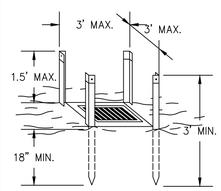


NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

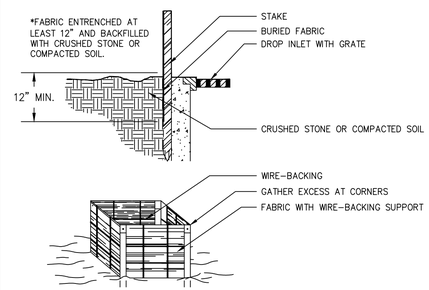
FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

Sd2-F

STEEL FRAME AND SILT FENCE INSTALLATION



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



CROY

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FAYETTE COUNTY SHERIFF

VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA REGISTERED No. 46614 PROFESSIONAL ENGINEER SCOTT M. MCNALLY

GSWCC CERT #78081

SHEET TITLE
EROSION CONTROL DETAILS

DRAWN BY	CHECKED BY
TBA	SMM
SCALE	ISSUE DATE
NONE	04/01/2022

PROJECT NUMBER
1866.033

DRAWING NUMBER
ER-500

SHEET 30 of 31

Plot Scale: 1"=##"; Drawing Rotation: 0.0° - Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:47 PM

Drawing Location: p:\Marietta\1866 fayette county\1866.033 fayette county sheriff vehicle tactical training track\engineering\Design\1866.033_Cover, Notes& Details.dwg

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

N.T.S.

SPECIFICATIONS

Mulching Without Seeding

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

Site Preparation

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

Mulching Materials

Select one of the following materials and apply at the depth indicated:

1. *Dry straw or hay* shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. *Wood waste* (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. *Polyethylene film* shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. *Dry straw or hay mulch* and *wood chips* shall be applied uniformly by hand or by mechanical equipment.
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Apply polyethylene film on exposed areas.

Anchoring Mulch

1. *Straw* or *hay mulch* can be pressed into the soil with a disk harrow with the disk set straight or with a special 'packer disk'. Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. **Straw or hay mulch shall be anchored immediately after application.**

   Straw or hay mulch spread with special blower-type equipment may be anchored. Tackifiers, binders and hydraulic mulch with tackifier specifically designed for taking straw can be substituted for emulsified asphalt. Please refer to specification **Tackifiers and binders**. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
2. Netting of the appropriate size shall be used to anchor *wood waste.* Openings of the netting shall not be larger than the average size of the wood waste chips.
3. *Polyethylene film* shall be anchor trenched at the top as well as incrementally as necessary.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

N.T.S.

SPECIFICATIONS

Grading and Shaping

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

Seedbed Preparation

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

Lime and Fertilizer

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

Seeding

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See table below.

Mulching

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

Irrigation

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

PLANT, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS

SPECIES	BROADCAST RATES PER ACRE	BROADCAST RATES PER 1000 SQ. FT.	PLANTING DATES FOR SOUTHERN PIEDMONT REGION (J F M A M J J A S O N D)	REMARKS
BARLEY (Horduem vulgare) alone / in mixture	144 lbs. / 24 lbs.	3.3 lbs. / 0.6 lb.		14,000 seed per pound. Winterhardy. Use on productive soils.
LESPEDEZA,ANNUAL (Lespedeza striata) alone / in mixture	40 lbs. / 10 lbs.	0.9 lb. / 0.2 lb.		200,000 seed per pound. May volunteer for several years. Use inoculant EL.
LOVEGRASS, WEEPING (Horduem vulgare) alone / in mixture	4 lbs. / 2 lbs.	0.1 lb. / 0.05 lb.		1,500,000 seed per pound. May last for several years. Mix with Sericea lespedeza.
MILLET, BROWNTOP (Panicum fascicalatum) alone / in mixture	40 lbs. / 10 lbs.	0.9 lb. / 0.2 lb.		137,000 seed per pound. Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.
MILLET, PEARL (Pennesetum glaucum) alone	50 lbs.	1.1 lb.		88,000 seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
OATS (Avena sativa) alone / in mixture	128 lbs. / 32 lbs.	2.9 lbs. / 0.7 lb.		13,000 seed per pound. Use on productive soils. Not as winterhardy as rye or barley.
RYE (Secale cereale) alone / in mixture	168 lbs. / 28 lbs.	3.9 lbs. / 0.6 lb.		18,000 seed per pound. Quick cover. Drought tolerant and winterhardy.
RYEGRASS, ANNUAL (Lolium temulentum) alone	40 lbs.	0.9 lb.		227,000 seed per pound. Dense cover. Very competitive and is not to be used in mixtures.
SUDANGRASS (Sorghum Sudanese) alone	60 lbs.	1.4 lb.		55,000 seed per pound. Good on droughty sites. Not recommended for mixtures.
WHEAT (Triticum Aestivum) alone / in mixture	180 lbs. / 30 lbs.	4.1 lbs. / 0.7 lb.		15,000 seed per pound.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

N.T.S.

Seedbed Preparation

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

Broadcast Plantings

1. Tillage, at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used.
2. Tillage may be done with any suitable equipment.
3. Tillage should be done on the contour where feasible.
4. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. hydraulic seeding may also be used.

Individual Plants

5. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
6. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
7. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Innoculants

All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria. the innoculant shall be a pure culture prepared specifically for the seed species and used within the dates on the container.

A mixing medium recommended by the manufacturer shall be used to bond the innoculant to the seed. for conventional seeding, use twice the amount of innoculant recommended by the manufacturer. For hydraulic seeding, four times the amount of innoculant recommended by the manufacturer shall be used.

All inoculated seed shall be protected from the sun and high temperatures and shall be planted the same day inoculated. No inoculated seed shall remain in the hydroseeder longer than one hour.

Planting

Hydraulic Seeding

Mix the seed (innoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a culti-packer-seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. the seed must be uniformly distributed and planted at the proper depth.

Individual Plants

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots.
Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface.
Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Mulching

Mulch is required for all permanent vegetation applications. mulch applied to seeded areas shall achieve 75% to 100% soil cover. When selecting a mulch, design professionals should consider the mulch's functional longevity, vegetation establishment enhancement, and erosion control effectiveness. Select the mulching material from the following and apply as indicated:

1. Dry straw or dry hay of good quality and free of weed seeds can be used. dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
2. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Dry straw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
3. One thousand pounds of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
4. Sericea Lespedeza hay containing mature seed shall be applied at a rate of three tons per acre.
5. Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is **NOT** appropriate for seeded areas.
6. When using temporary erosion control blankets or block sod, mulch is not required.
7. Bituminous treated roving may be applied on planted areas, slopes, in ditches or dry water- ways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting the mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods:

1. Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk"' or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and
2. 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
3. Synthetic tackifiers, binders or hydraulic mulch specifically designed to tack straw, shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. All tackifiers, binders or hydraulic mulch specifically designed to tack straw should be verified nontoxic through EPA 2021.0 testing. Refer to **Tackifiers-Tac**
4. Rye or wheat can be included with fall and winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one-half bushel per acre.
5. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Bedding Material

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

Material	Depth
Grain Straw	4" TO 6"
Grass Hay	4" TO 6"
Pine Needles	3" TO 5"
Wood Waste	4" TO 6"

Irrigation

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

Topdressing

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

Second Year and Maintenance Fertilization

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

Lime Maintenance Application

Apply one ton of agricultural lime every 4 to 6 years or as indicated by soil tests. Soil tests can be conducted to determine more accurate requirements, if desired.

Use And Management

Mow Sericea Lespedeza only after frost to ensure that the seeds are mature. mow between November and march.

Bermudagrass, Bahia grass and Tall Fescue may be mowed as desired. Maintain at least 6 inches of top growth under any use and management. Moderate use of top growth is beneficial after establishment.

Exclude traffic until the plants are well established. Because of the quail nesting season, mowing should not take place between may and September.

FERTILIZER REQUIREMENTS

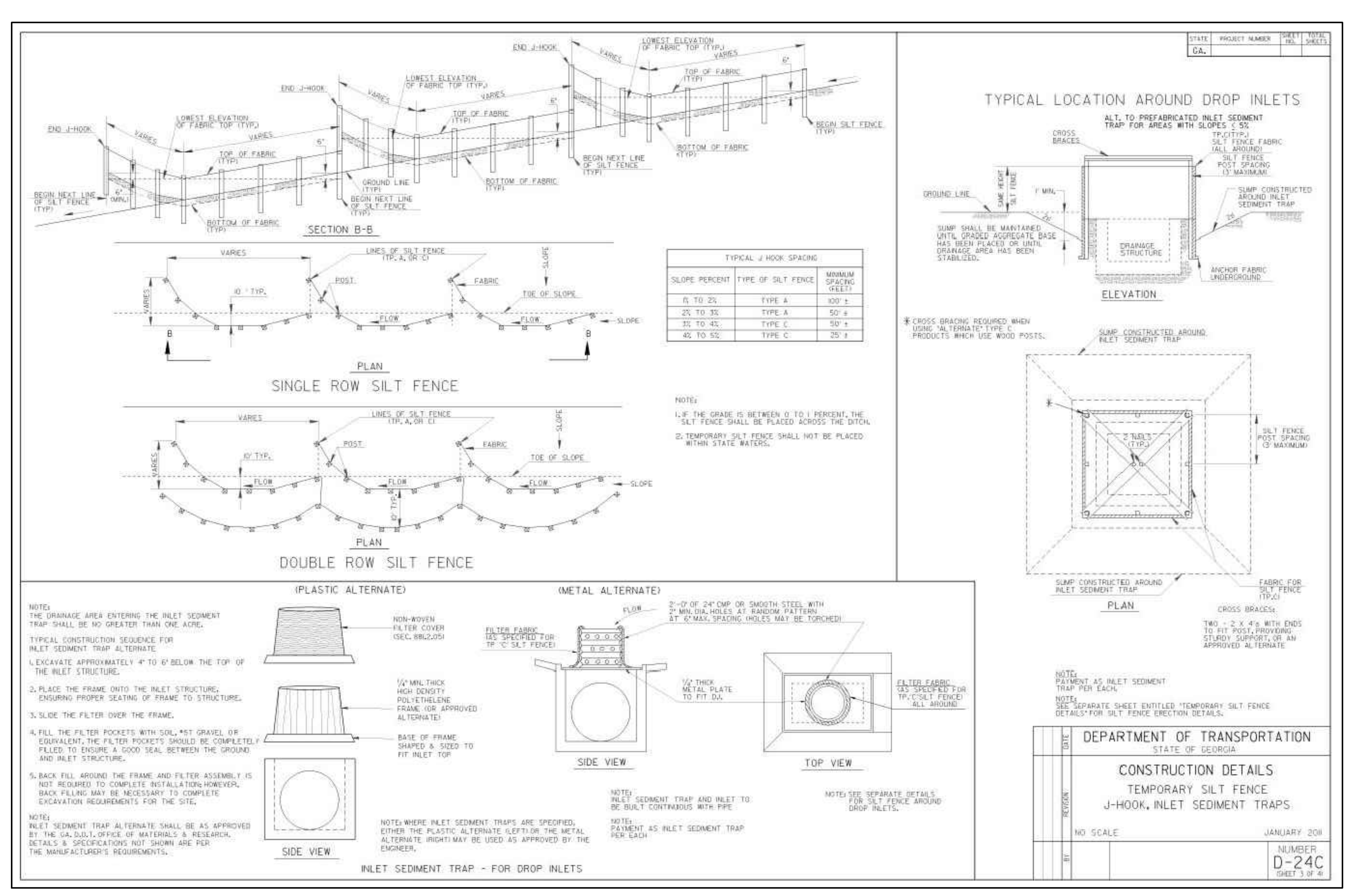
TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	NITROGEN TOP DRESSING RATE
1. Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. ----- 30 lbs./ac.
2. Cool season grasses and legumes	First Second Maintenance	6-12-12 0-10-10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

PLANT, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER

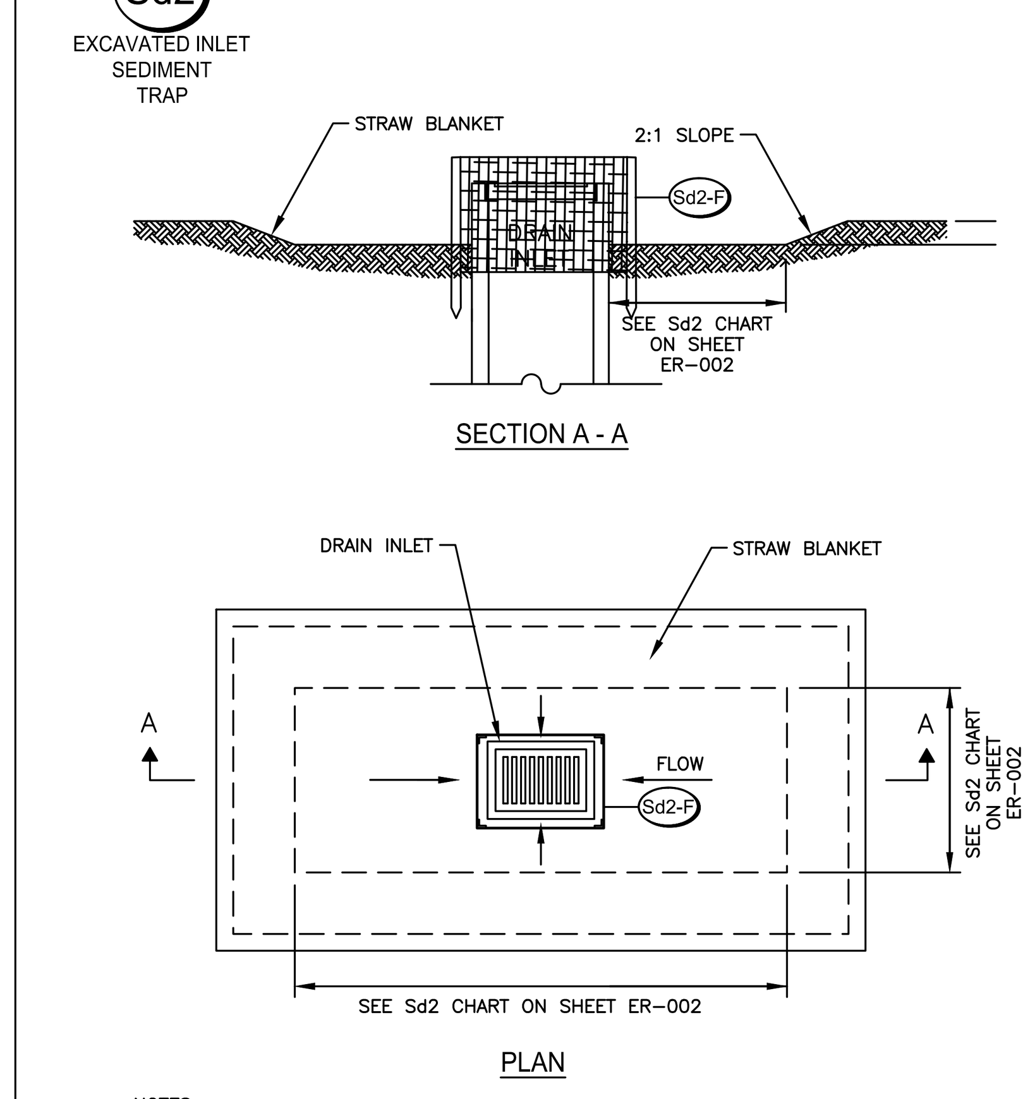
SPECIES	BROADCAST RATES PER ACRE	BROADCAST RATES PER 1000 SQ. FT.	PLANTING DATES FOR SOUTHERN PIEDMONT REGION (J F M A M J J A S O N D)	REMARKS
BAHIA, PENSACOLA (Paspalum notatum) alone or w/ temp. cover / with other perennials	60 lbs. / 30 lbs.	1.4 lb. / 0.7 lb.		166,000 seed per pound. Low growing. Sod forming. Slow to establish. Plant with a companion crop. Will spread into bermuda pastures and lawns. Mis with Sericea lespedeza or weeping lovegrass.
BAHIA, WILMINGTON (Paspalum notatum) alone or w/ temp. cover / with other perennials	60 lbs. / 30 lbs.	1.4 lb. / 0.7 lb.		
BERMUDA, COMMON (Cynodon dactylon) alone / with other perennials	10 lbs. / 6 lbs.	0.2 lb. / 0.1 lb.		1,787,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.
BERMUDA, COMMON (Cynodon dactylon) with temporary cover / with other perennials	10 lbs. / 6 lbs.	0.2 lb. / 0.1 lb.		Plant with winter annuals. Plant with tall fescue.
BERMUDA SPRIGS (Cynodon dactylon) Coastal, Common, or Tift 44	40 cu. ft.	0.9 cu. ft.		A cubic foot contains approximately 650 sprigs. A bushel contains 1.25 cubic feet or approximately 800 sprigs.
CENTIPEDE (Eremochloa ophiuroides)	Block sod only			Drought tolerant. Full sun or partial shade. Effective adjacent to concrete and in concentrated flow areas. Irrigation is needed until fully established. Do not plant near pastures. Winterhardy as far north as Athens and Atlanta.
CROWNVETECH (Coronilla varia) with winter annuals or cool season grasses	15 lbs.	0.3 lb.		100,000 seed per pound. Dense growth. Drought tolerant and fire resistant. Attractive rose, pink, and white blossoms spring to late fall. Mix with 30 pounds of Tall fescue or 15 pounds or rye. Inoculate seed with M inoculant.
FESCUE, TALL (Festuca arundinacea) alone / with other perennials	50 lbs. / 30 lbs.	1.1 lb. / 0.7 lb.		227,000 seed per pound. Use alone only on better sites. Not for droughty soils. Mix with perennial lespedezas or crownvetch. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic fields.
LESPEDEZA, SERICA (Lespedeza cuneata) scarified / unscarified / seed-bearing hay	60 lbs. / 75 lbs. / 3 tons	1.4 lbs. / 1.7 lbs. / 138 lbs.		350,000 seed per pound. Widely adapted. Low maintenance. Mix with weeping lovegrass, common bermuda, bahia, or tall fescue. Takes 2 to 3 years to become fully established. Excellent on roadbanks. Inoculate seed with EL inoculant.
LESPEDEZA (Lespedeza virgata DC) or (Lespedeza cuneata G. Don) scarified / unscarified	60 lbs. / 75 lbs.	1.4 lbs. / 1.7 lbs.		300,000 seed per pound. Height of growth is 18 to 24 inches. Advantageous in urban areas. Spreading-type growth has bronze coloration. Mix with Weeping lovegrass, Common bermuda, bahia, tall fescue or winter annuals. Do not mix with Sericea lespedeza. Slow to develop solid stands. Inoculate seed with EL inoculate.
LESPEDEZA, SHRUB (Lespedeza bicolor) (Lespedeza thumbergii) plants	3' x 3'			Provide wildlife food and cover.
LOVEGRASS, WEEPING (Eragrostis curvula) alone / with other perennials	4 lbs. / 2 lbs.	0.1 lb. / 0.05 lb.		1,500,000 seed per pound. Quick cover. Drought tolerant. Grows well with Sericea lespedeza on roadbanks.
PANICGRASS, ATLANTIC COASTAL (Panicum amarum var. amarulum)	20 lbs.	0.5 lb.		Grows well on coastal sand dunes, borrow areas, and gravel pits. Provides winter cover for wildlife. Mix with Sericea lespedeza except on sand dunes.
REED CANARY GRASS (Phalaris arundinacea) alone / with other perennials	50 lbs. / 30 lbs.	1.1 lbs. / 0.7 lb.		Grows similar to tall fescue.
SUNFLOWER, 'AZTEC' MAXIMILLIAM (Helianthus maximiliani)	10 lbs.	0.2 lb.		227,000 seed per pound. Mix with weeping lovegrass or other low-growing grasses or legumes.

DURABLE SHRUBS AND GROUND COVERS FOR PERMANENT COVER

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



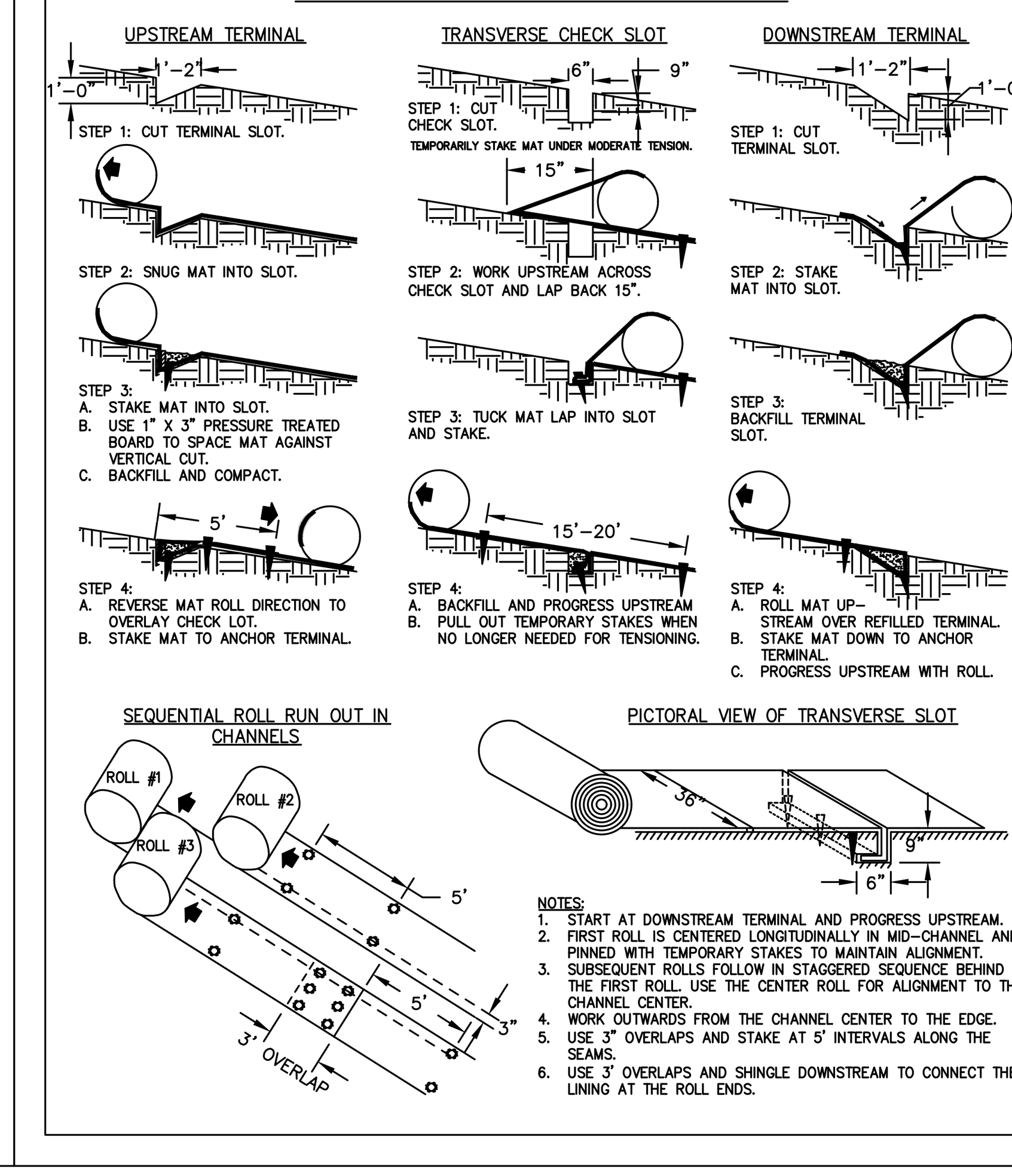
Sd2 EXCAVATED INLET TRAP



NOTES:

1. SEE Sd2 CHART ON ER-002 FOR TRAP DIMENSIONS.
2. A RECTANGULAR SHAPE WITH 2:1 LENGTH TO WIDTH RATION IS RECOMMENDED.
3. SEDIMENT TRAP SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP

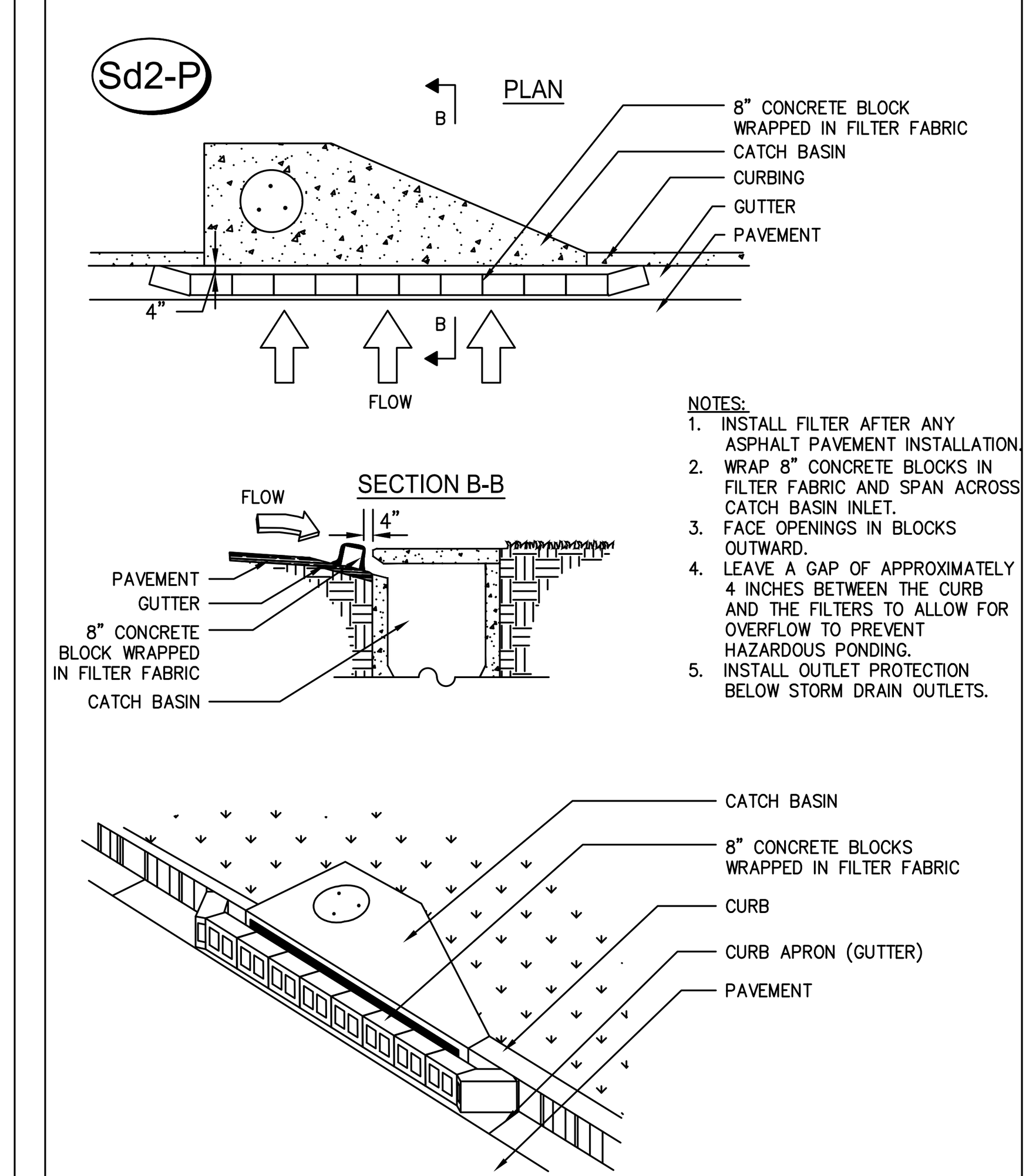
Ss TYPICAL INSTALLATION GUIDELINES FOR ROLLED EROSION CONTROL PRODUCTS (RECP)



NOTES:

1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
5. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS.
6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.

Sd2-P CURB INLET FILTER "PIGS IN BLANKET"



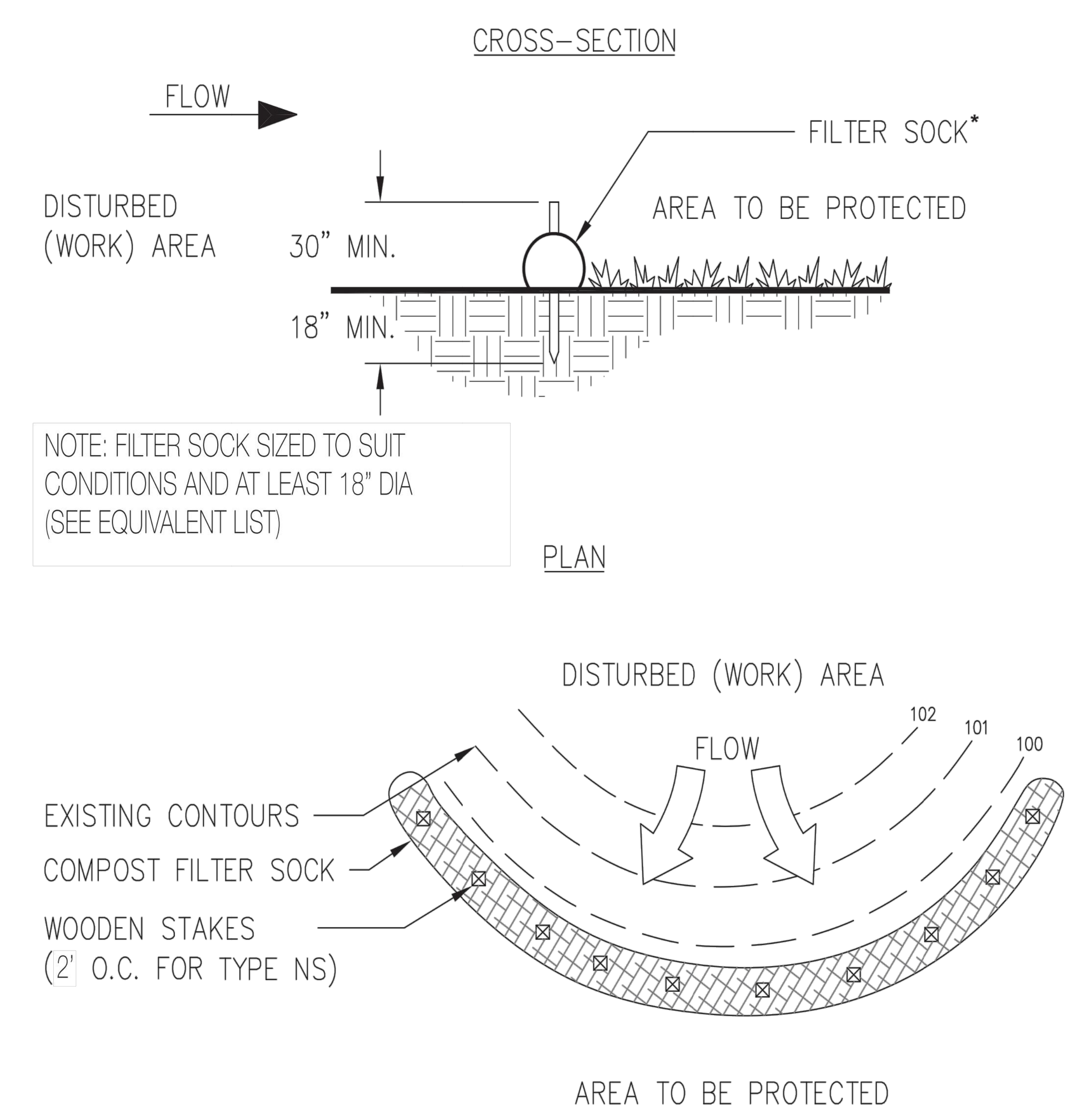
NOTES:

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

EROSION AND SEDIMENT CONTROL

Sd1

TYPE B COMPOST FILTER SOCK



*HEIGHT IS TO BE SHOWN ON THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN

Figure 6-27.3

GSWCC 2016 Edition

6-143

CROY

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

FAYETTE COUNTY SHERIFF

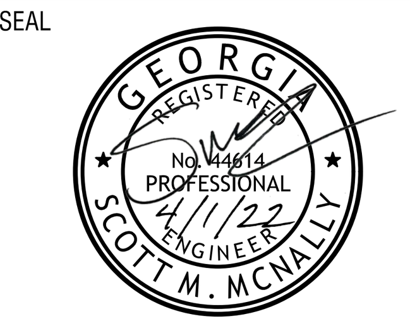
VEHICLE TACTICAL TRAINING FACILITY

LAND LOT(S) 172
OF THE 5TH DISTRICT, 5TH SECTION
FAYETTE COUNTY, GEORGIA

ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL



GSWCC CERT #78081

SHEET TITLE	EROSION CONTOL DETAILS
DRAWN BY: TBA	CHECKED BY: SMM
SCALE: NONE	ISSUE DATE: 04/01/2022
PROJECT NUMBER	1866.033
DRAWING NUMBER	ER-501

SHEET 31 of 31

Plot Scale: 1"=##', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Olivia Guajardo on 4/1/2022, 1:47 PM