

SCSB - SILAS DRIVE EXTENSION

ROADWAY CONSTRUCTION PLANS

FOR:
Suwannee County School Board
Mark Carver
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Phone: (386) 697-4151



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Chadwick W. Williams, PE 63144
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SHEET INDEX

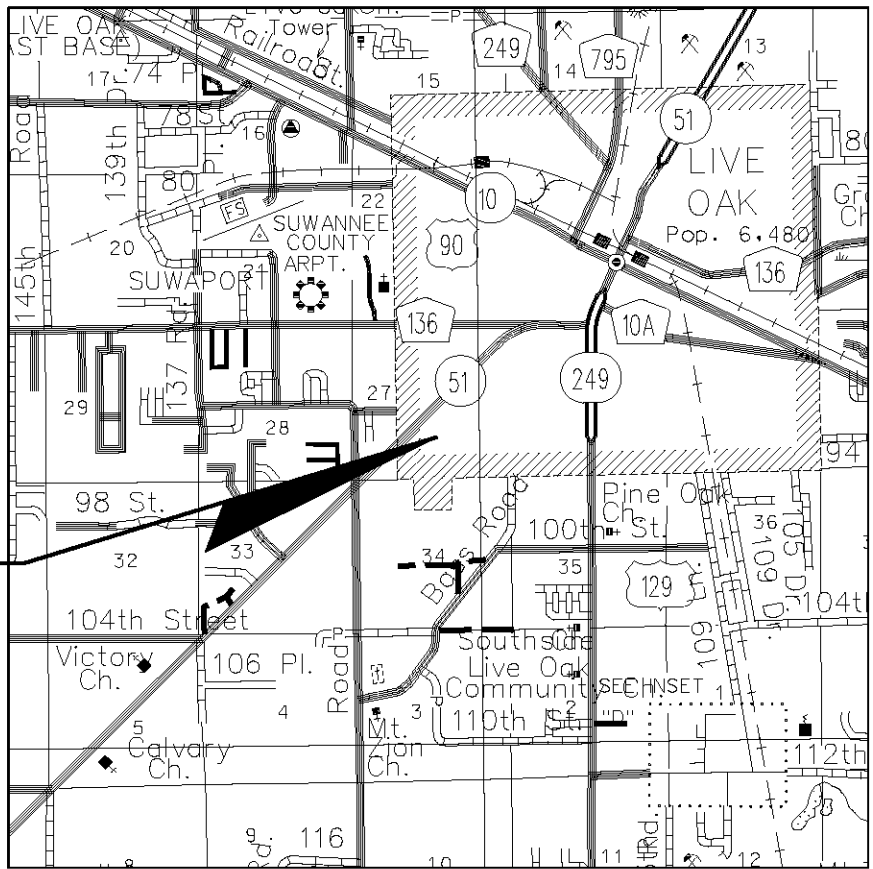
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XSC1 - XSC4	CROSS SECTIONS

LEGEND

EXISTING		PROPOSED	
CONCRETE MONUMENT FOUND	■	TELEPHONE POLE	⊕
IRON PIPE FOUND	●	TELEPHONE MANHOLE	⊕
ELECTRIC METER	⊕	ELECTRIC MANHOLE	⊕
ELECTRIC MANHOLE	⊕	ELECTRIC METER	⊕
LIGHT STANDARD	⊕	LIGHT	⊕
POWER POLE	⊕	STANDARD POWER POLE	⊕
SHARED POWER POLE W/ TRANSFORMER	⊕	POWER POLE SHARED	⊕
SHARED POWER POLE	⊕	POWER POLE SHARED W/ TRANSFORMER	⊕
TELEPHONE POLE	⊕	GAS METER	⊕
REDUCER	⊕	GAS VALVE	⊕
WATER METER	⊕	WATER METER	⊕
WATER VALVE	⊕	WATER VALVE	⊕
FIRE HYDRANT	⊕	WATER REDUCER	⊕
BACKFLOW PREVENTER	⊕	WATER TEE	⊕
SANITARY SEWER VALVE	⊕	WATER 90° BEND	⊕
SANITARY MANHOLE	⊕	SINGLE WATER SERVICE	⊕
STORMWATER MANHOLE	⊕	DOUBLE WATER SERVICE	⊕
FDOT STORMWATER MANHOLE	⊕	FIRE HYDRANT	⊕
GROUND CONTOUR	— 25 —	BACKFLOW PREVENTER	⊕
D.O.T. MARKER FOUND	+	SANITARY MANHOLE	⊕
GAS METER	⊕	SANITARY VALVE	⊕
GAS VALVE	⊕	SANITARY SINGLE SERVICE	⊕
SOIL BORING LOCATION	⊕	SANITARY DOUBLE SERVICE	⊕
SINGLE POST SIGN	⊕	GROUND CONTOUR	— 25 —
BENCH MARK	⊕	DITCH BLOCK	⊕
SECTION CORNER	⊕	STORMWATER MANHOLE	⊕
		FLOW ARROW	⊕
		HANDICAP PARKING	⊕
		MITERED END	⊕
		SIGN	⊕

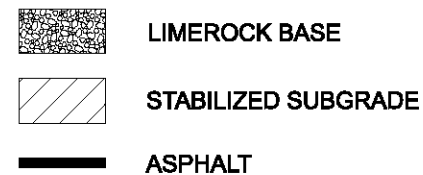
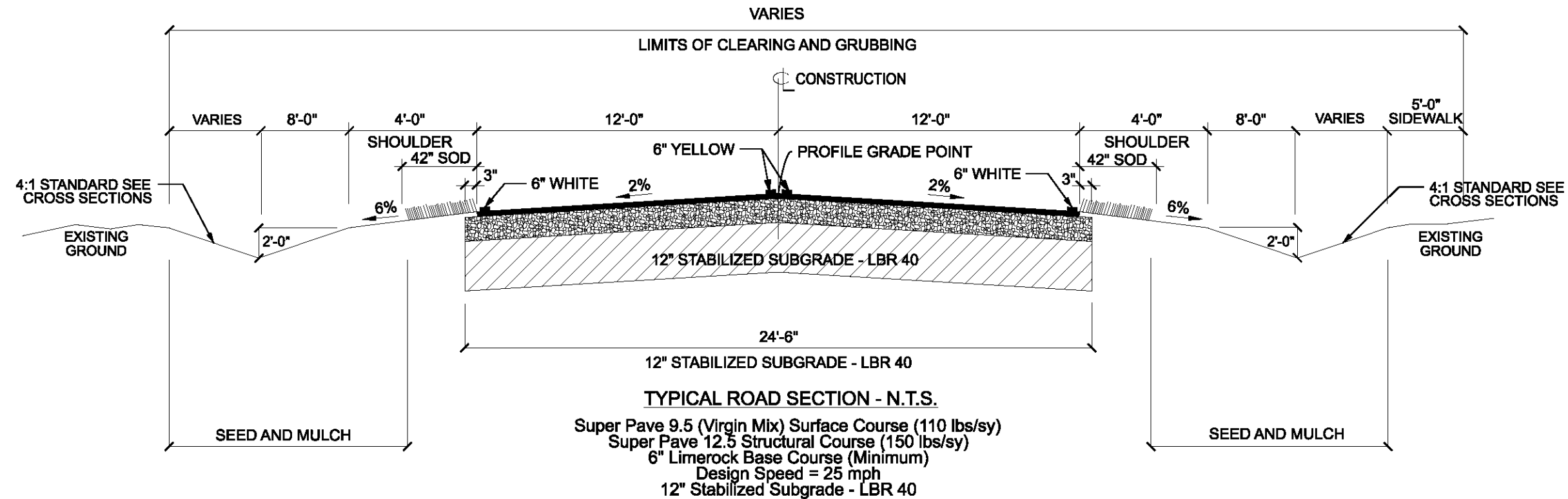
ABBREVIATIONS

PL	PROPERTY LINE	IP	IRON PIPE
CL	CENTER LINE	MH	MANHOLE
BL	BASE LINE	G	GAS
SAN	SANITARY SEWER	UC	UNDERGROUND CABLE
ST	STORM SEWER	OC	OVERHEAD CABLE
E	ELECTRIC	W	WATER LINE
OHE	OVERHEAD ELECTRIC	HDPE	HIGH-DENSITY POLYETHYLENE
UG	UNDERGROUND ELECTRIC	RCP	REINFORCED CONCRETE PIPE-ROUND
OHT	OVERHEAD TELEPHONE	RCPA	REINFORCED CONCRETE PIPE-ARC
UT	UNDERGROUND TELEPHONE	RCPE	REINFORCED CONCRETE PIPE-ELLIPTICAL
R	RADIUS	CMP	CORRUGATED METAL PIPE-ROUND
CO	CLEANOUT	CMPA	CORRUGATED METAL PIPE-ARC
BM	BENCH MARK	BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE
IE	INVERT ELEVATION	BCCSP	BITUMINOUS COATED CORRUGATED STEEL PIPE
LF	LINEAR FEET		



LOCATION MAP

SECTION 27, TOWNSHIP 2 SOUTH, RANGE 13 EAST
SUWANNEE COUNTY, FLORIDA



GENERAL NOTES

- The contractor shall verify all existing conditions and dimensions at the job site to insure that all new work will fit in the manner intended on the plans. Should any conditions exist that are contrary to those shown on the plans, the contractor shall notify the engineer of such differences immediately prior to proceeding with the work.
- The contractor shall maintain the construction site at all times in a secure manner. All open trenches and excavated areas shall be protected from access by the general public.
- Boundary and topographical information shown was obtained from a survey performed by J. Sherman Frier Inc., # LB 7170.
- Any public land corner within the limits of construction is to be protected. If a corner monument is in danger of being destroyed and has not been properly referenced, the contractor should notify the engineer.
- The site is located in Section 27 of Township 2 South, Range 13 East and Suwannee County, Florida.
- Contractors shall adhere to the Erosion Control Plan. All erosion control measures shall be implemented prior to construction and be continued until construction is complete.
- All disturbed areas not sodded shall be seeded with a mixture of long-term vegetation and quick-growing short-term vegetation for the following conditions. For the months from September through March, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of winter rye. For the months of April through August, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of millet.
- All construction signage shall be the responsibility of the contractor.
- The location of the utilities shown in the plans is approximate only. The exact location shall be determined by the contractor during construction.
- Contractor shall coordinate all work with other contractors within project limits.
- All stormwater pipes shall have a minimum cover of 6". Use Limerock backfill if pipe under pavement has less than 12" cover.
- Contractor shall sod all slopes of 3' horizontal to 1' vertical and staple sod all slopes of 2' horizontal to 1' vertical.
- All erosion control measures shall be implemented prior to construction and be continued until construction is complete. Contractor shall take necessary measures to minimize erosion, turbidity, nutrient loading and sedimentation to adjacent lands and low areas. The Erosion and Sediment Control Plan shall be maintained as designed and upgraded as needed as directed by Engineer or SRWMD personnel. Construction designs and specifications as outlined by the "Florida Erosion and Sediment Control Inspectors Manual" shall be adhered to.
- Construction and Materials – All construction and materials shall conform to the requirements of the Florida Department of Transportation Specifications for Road and Bridge Construction, Latest Edition. Certification by an approved testing laboratory is required (contractor responsibility). Payment shall be as specified in the bid proposal.
- Regulatory signage shall be performed by Suwannee County forces after project completion.
- See JSFA right of way maps for right of way details

REVISION NOTES

DATE

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SCSB - SILAS DR EXTENSION

GENERAL NOTES & DETAILS

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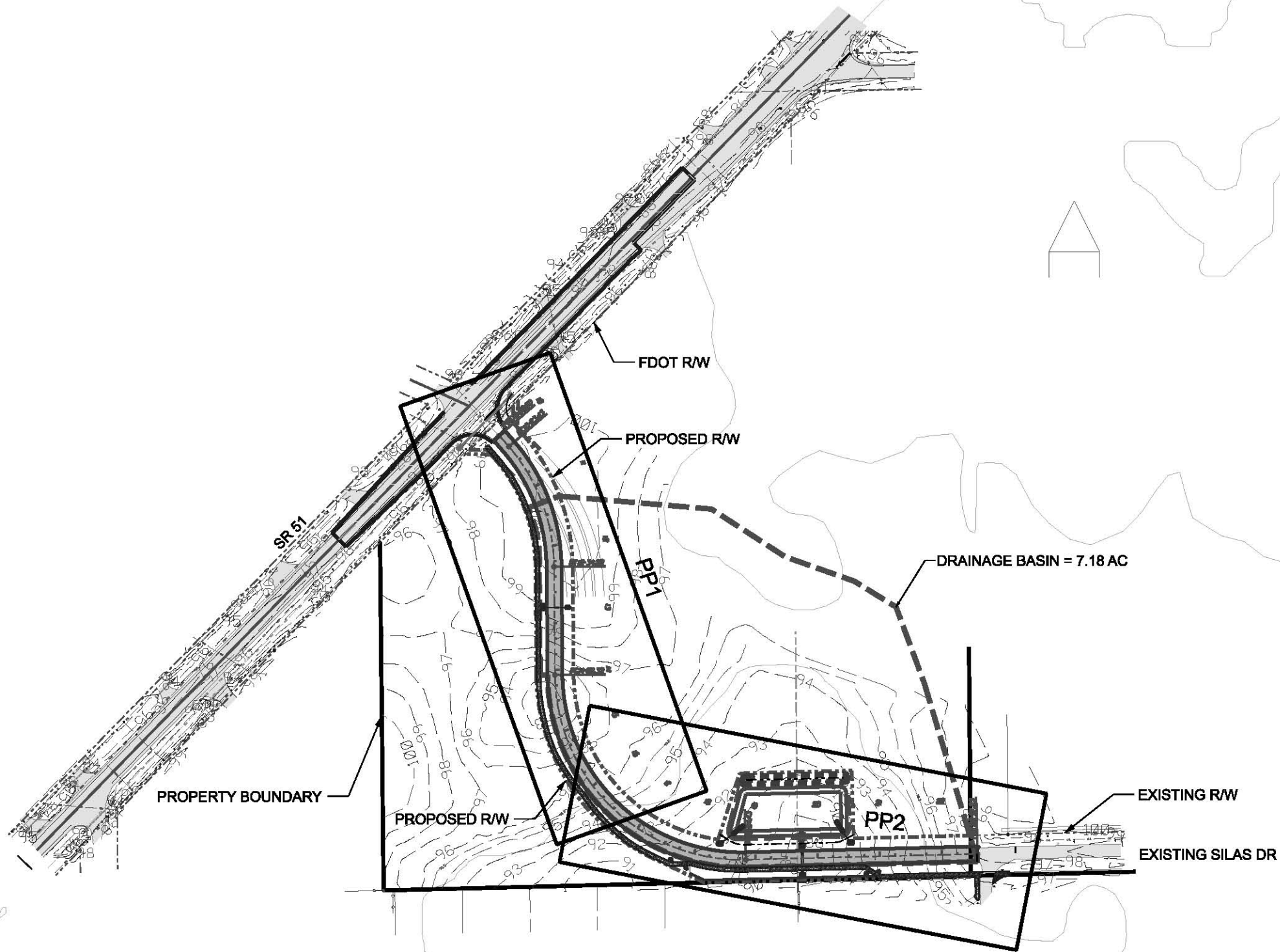
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PROJECT NUMBER

PF11-070

SHEET

1



REVISION NOTES

DATE

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SITE PLAN & KEY SHEET

DRAWN BY

MC

CHECKED BY

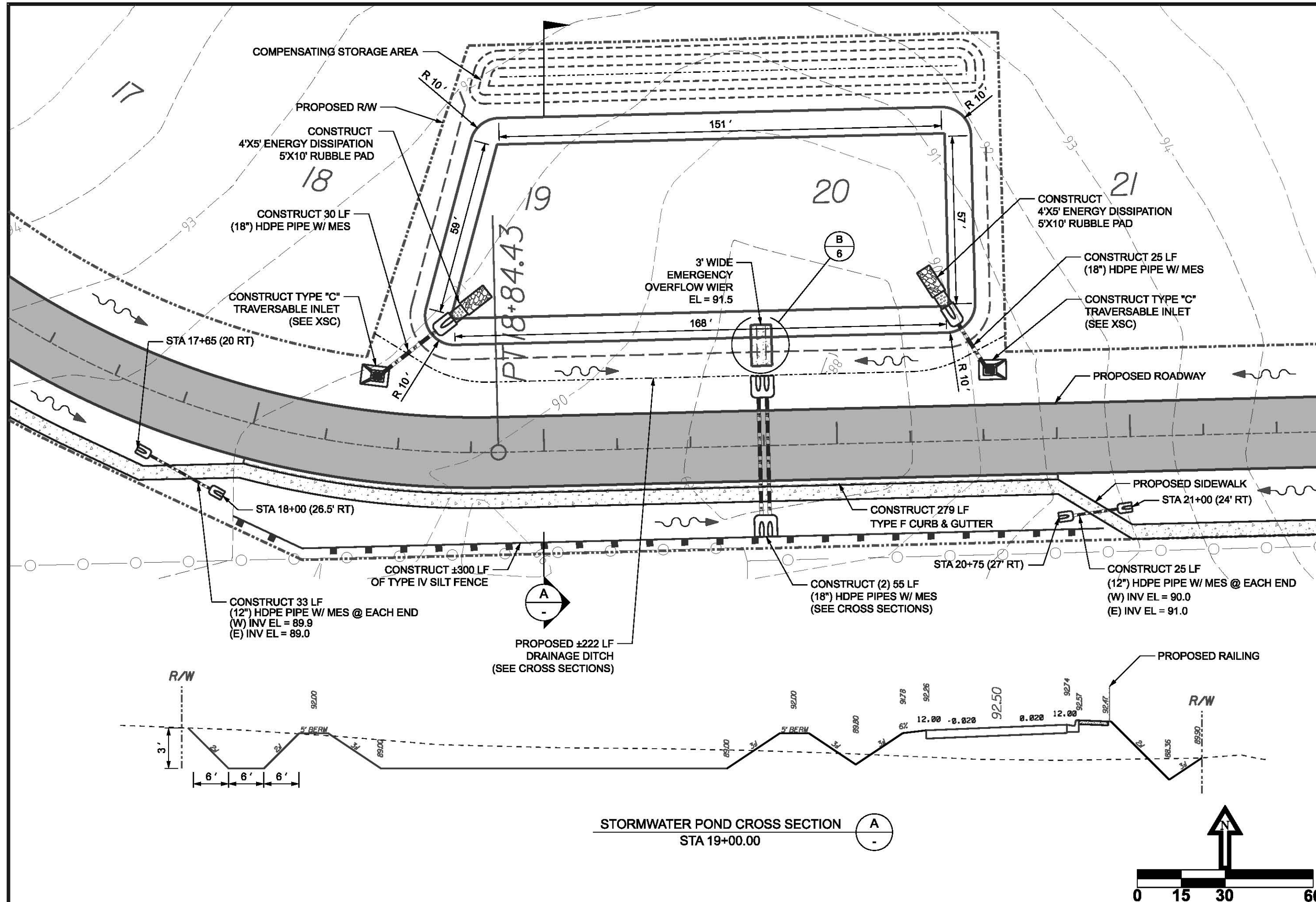
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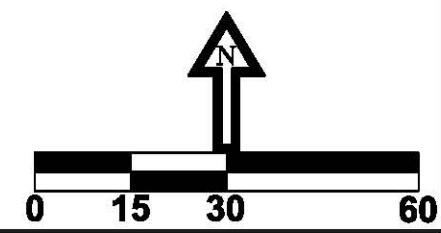
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2

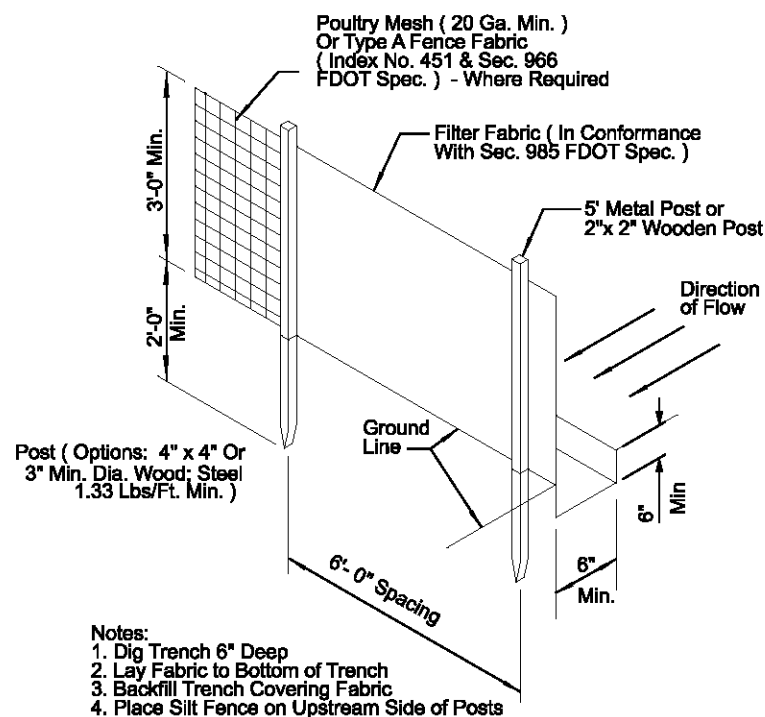


STORMWATER POND CROSS SECTION A
STA 19+00.00

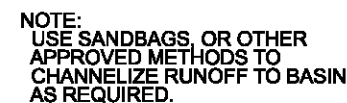


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STORMWATER PLAN	
DRAWN BY MC	CHECKED BY CW
PROJECT NUMBER PF11-070	
SHEET 3	

1. Contractor shall adhere to Suwannee County, SRWMD and other governing authorities for erosion and sediment control regulations. Contractor shall use BMP's from "The Florida Development Manual".
2. Sediment and erosion control facilities, storm drainage facilities and detention basins shall be installed prior to any other construction.
3. Erosion control measures shall be inspected weekly and after each rainfall and replaced as necessary.
4. Sediment and erosion control measures shall not be removed until all construction is complete and until a permanent ground cover has been established.
5. All open drainage swales shall be grassed and riprap shall be placed as required to control erosion.
6. Silt fences shall be located on site to prevent sediment and erosion from leaving right-of-way limits.
7. Additional erosion control devices shall be used as required.
8. Silt fence shall be cleaned or replaced when silt builds up to within one foot of top of silt fence.
9. During construction and after construction is complete, all structures shall be cleaned of all debris and excess sediment.
10. All grades areas shall be stabilized immediately with a temporary fast-growing cover and/or mulch.
11. A pad of rubble riprap shall be placed at the bottom of all collection flumes and collection pipe outlets.
12. All disturbed areas not sodded shall be seeded with a mixture of long-term vegetation and quick-growing short-term vegetation for the following conditions. For the months from September through March, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of winter rye. For the months of April through August, the mix shall consist of 70 pounds per acre of long-term seed and 20 pounds per acre of millet.
13. Staked silt fences shall be placed near all box culvert extensions in accordance with FDOT Standard Index 102.
14. Disturbed areas with shall be stabilized by sodding, grassing, and mulching. All side slopes steeper than 4:1 shall be adequately protected from erosion through the use of sodding.
15. All stabilization practices shall be initiated as soon as practicable in areas of the job where construction activities have temporarily or permanently stopped, but in no case shall the disturbed area be left unprotected for more than seven (7) days.
16. If the proposed erosion control plan does not work, the contractor should use the BMP's in the Florida Erosion and Sediment Control Inspector's manual to implement a plan that will work and meet actual field conditions.
17. All waste generated on the project shall be disposed of by the contractor in areas provided by contractor.
18. Loaded haul trucks shall be covered with tarps.
19. Excess dirt shall be removed daily.
20. This project shall comply with all water quality standards. Permit required from SRWMD has been obtained.
21. All pollution controls shall be maintained at all times.
22. Type IV silt fence shall be placed to prevent sediment. Silt fence shall be replaced after three (3) months or when sediment reaches one-half (1/2) the height of the fence.
23. Qualified personnel shall inspect the area used for storage of stockpiles, the silt fence and straw bales, the location where vehicles enter or exit the site, and the disturbed areas that have not been finally stabilized, at least once every seven (7) calendar days and within 24 hours of the end of a storm of 0.2 inches or greater.
24. Sites that have been finally stabilized with sod or grassing shall be inspected at least once every week.
25. Contractor is responsible for the construction and maintenance of all erosion and sedimentation controls during proposed construction.

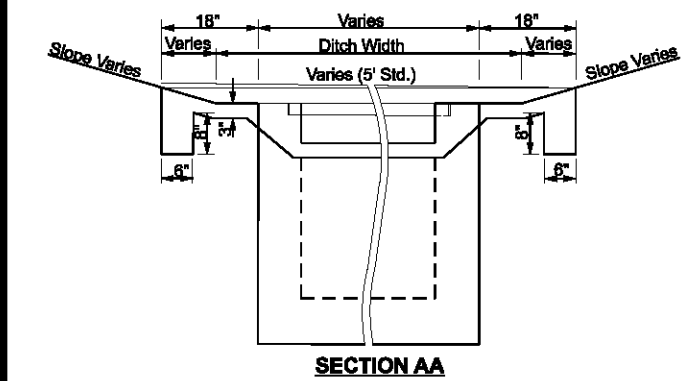
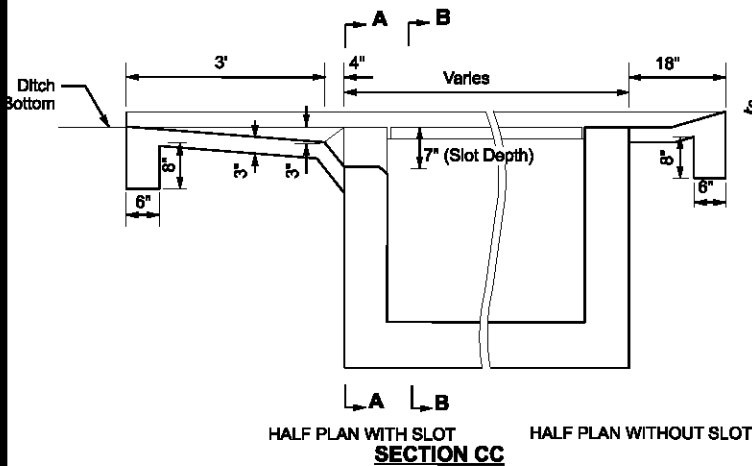
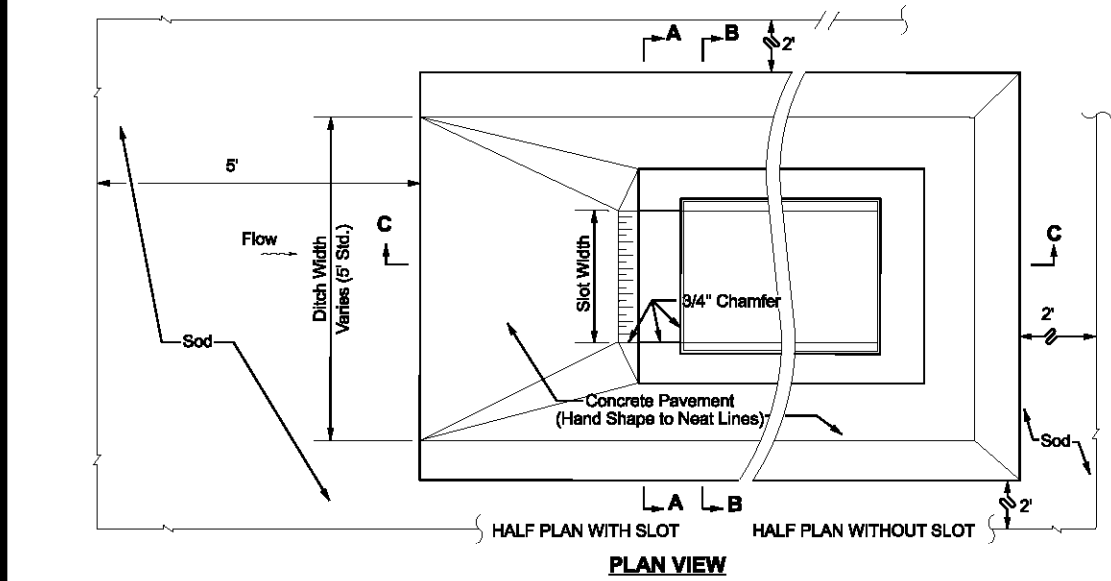


AS COMPARED TO TYPE III SILT FENCE, TYPE IV FENCE HAS GREATER STRENGTH AND HEIGHT WHICH REDUCES THE POSSIBILITY OF SEDIMENT AND WATER FROM OVERTOPPING THE FENCE. AS A RESULT, AVOID USING TYPE IV FENCE IN AREAS WHERE THE DETAINED WATER WOULD BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.



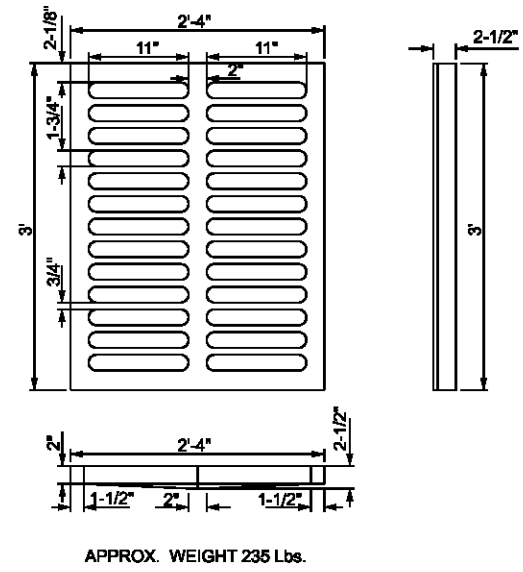
- NOTES:
- | | |
|---|--|
| 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. | 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. |
| | 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS ONTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. |

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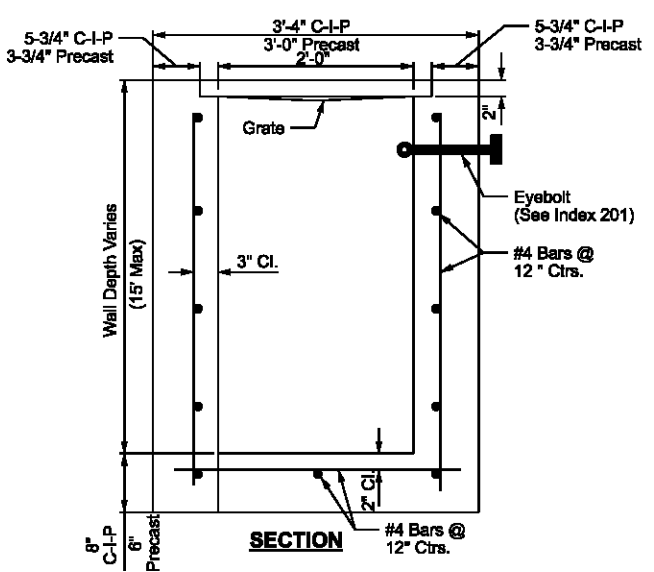
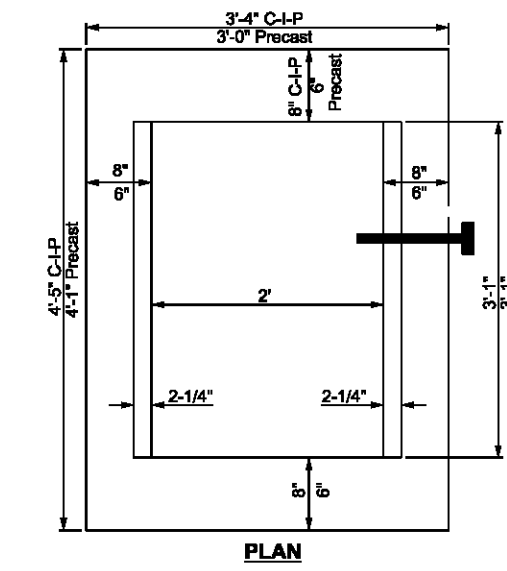
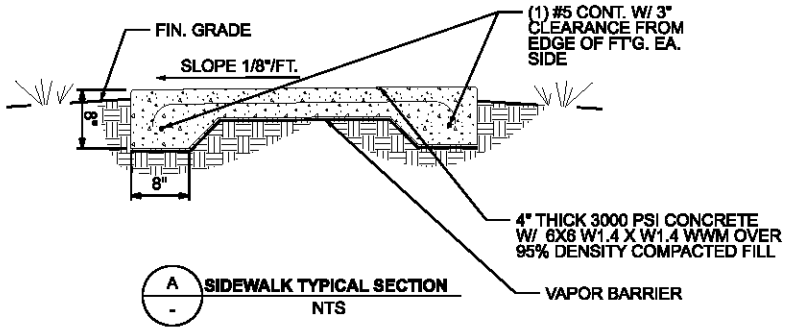
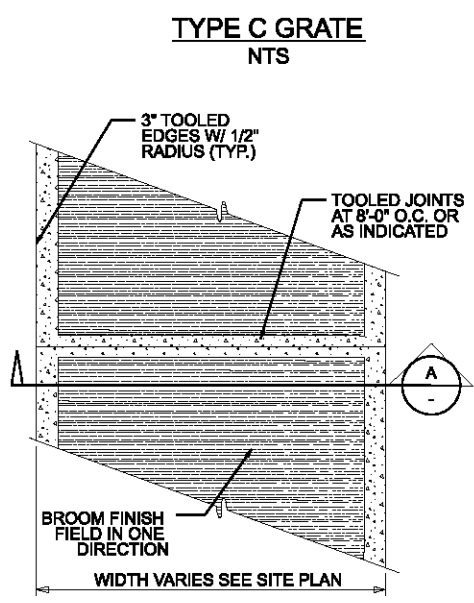


PAVEMENT AND SODDING QUANTITIES FOR TRAVERSABLE SLOTS						
Inlet	Pavement				Sod	
	Single Slot SY	Double Slot CY	Single Slot SY	Double Slot CY	Single Slot SY	Double Slot SY
C	4.87	0.77	6.16	0.93	12	16
D	5.99	0.91	7.70	1.10	14	19
E	5.88	0.91	7.37	1.08	14	18

TRAVERSABLE SLOTS DETAILS FOR DITCH BOTTOM INLETS
TYPES C, D, E, & H
NTS



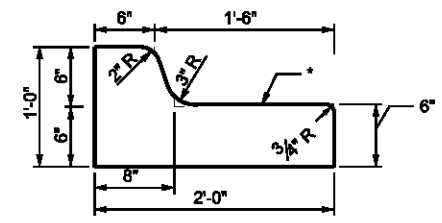
APPROX. WEIGHT 235 Lbs.



WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX SPACING BARS	WWF
0'-15"	A/2	0.20	12"	8"

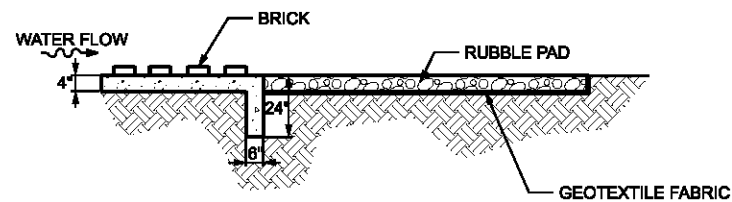
RECOMMENDED MAXIMUM PIPE SIZE:
2'-0" WALL 18" PIPE
3'-1" WALL 24" PIPE (18" WHERE ON 18" PIPE ENTERS A 2'-0" WALL)

TYPE C DITCH BOTTOM
NTS

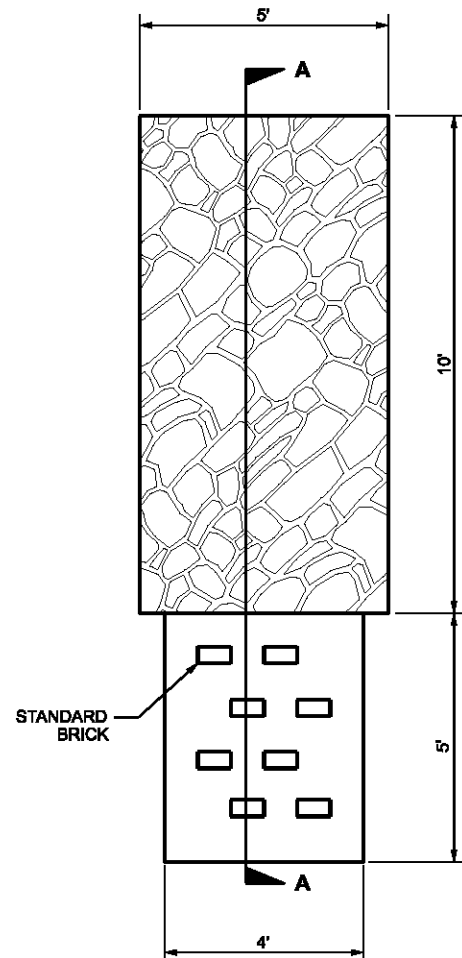


TYPE "F" CURB & GUTTER
NTS

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SCSB - SILAS DR EXTENSION		MISCELLANEOUS NOTES & DETAILS	
DRAWN BY MC		CHECKED BY CW	
PROJECT NUMBER PF11-070			
SHEET 5			



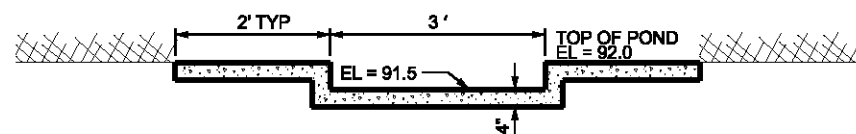
SECTION A-A



PLAN VIEW

ENERGY DISSIPATION & RUBBLE PADS

NTS

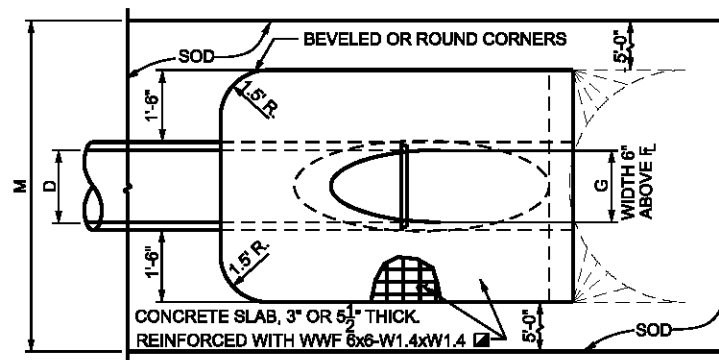


BOTTOM OF POND EL = 89.0

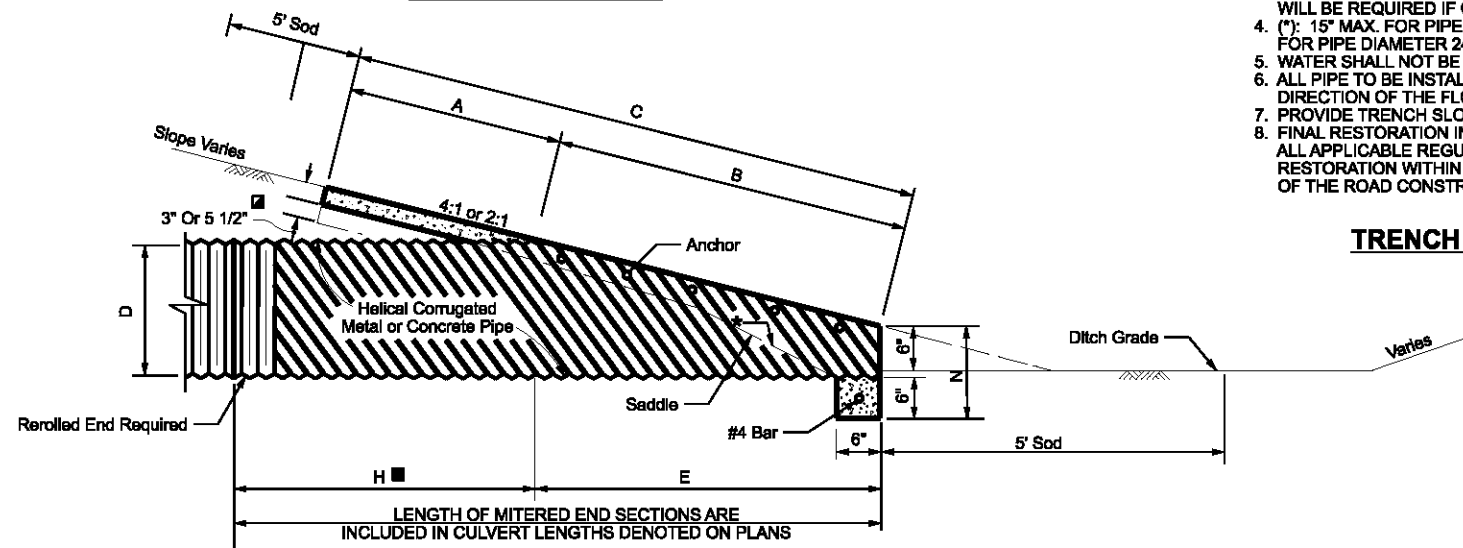
EMERGENCY OVERFLOW WEIR DETAIL

B
3

DIMENSIONS AND QUANTITIES												
4:1 SLOPE	D	X	A	B	C	E	F	G	H	M SINGLE PIPE	CONC. (cy) SINGLE PIPE	CONC. (sy) SINGLE PIPE
	15"	2'-7"	2.5'	3.09'	5.59'	3.0'	7'	1.23'	4'	4.33'	1.04'	0.44
	18"	2'-10"	2.5'	4.12'	6.62'	4.0'	8'	1.41'	4'	4.58'	1.04'	0.49
	24"	3'-5"	2.5'	6.18'	8.68'	6.0'	10'	1.73'	4'	5.08'	1.04'	0.65



TOP VIEW - SINGLE PIPE



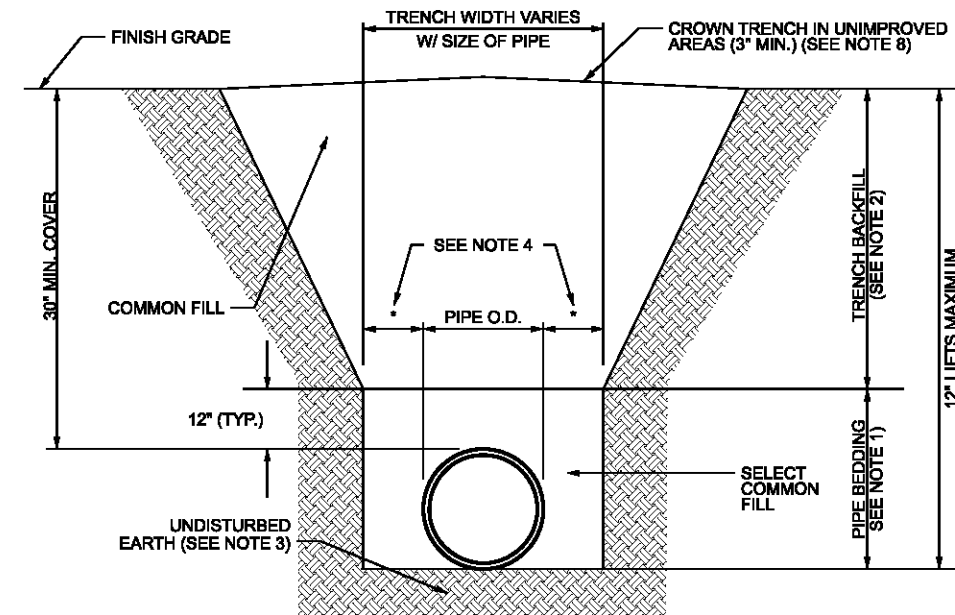
SECTION

- Values shown for estimating pipe quantities and are for information only
- The reinforced concrete slab shall be constructed for all sizes of cross drain pipe and cast in place with Class I concrete. Slabs shall be 5 1/2" thick unless 3" thickness is called for in plans.
- * SLOPE: 4:1 MITER: TO C.L. PIPE FOR PIPES 18" AND SMALLER. 2:1 FOR PIPES 24" AND LARGER. 2:1 MITER: TO C.L. PIPE FOR PIPES 18" AND SMALLER. 1:1 FOR PIPES 24" AND LARGER.

CROSS DRAIN MITERED END SECTION

SINGLE ROUND CONCRETE PIPE

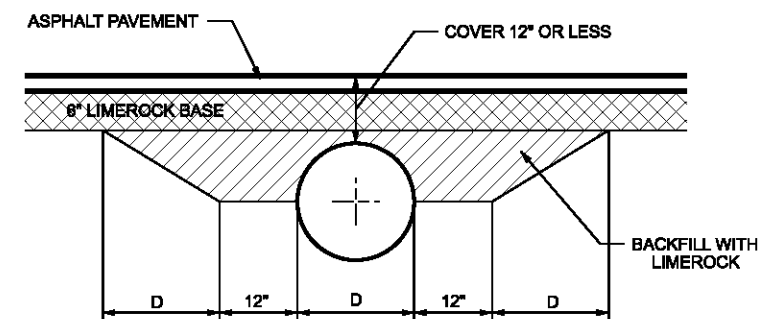
NTS



NOTES:

- PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
- TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
- PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK WILL BE REQUIRED IF OVER-EXCAVATION OCCURS.
- (*) 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
- WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
- ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
- PROVIDE TRENCH SLOPING AND BRACING AS REQUIRED FOR SAFETY.
- FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN PAVED AREAS SHALL COMPLY WITH THE REQUIREMENTS OF THE ROAD CONSTRUCTION SPECIFICATIONS.

TRENCH AND BACKFILL DETAIL NTS



BACKFILL DETAIL FOR PIPES WITH LESS THAN 12" COVER

NTS

REVISION NOTES

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SCSB - SILAS DR EXTENSION

MISCELLANEOUS NOTES & DETAILS

DRAWN BY
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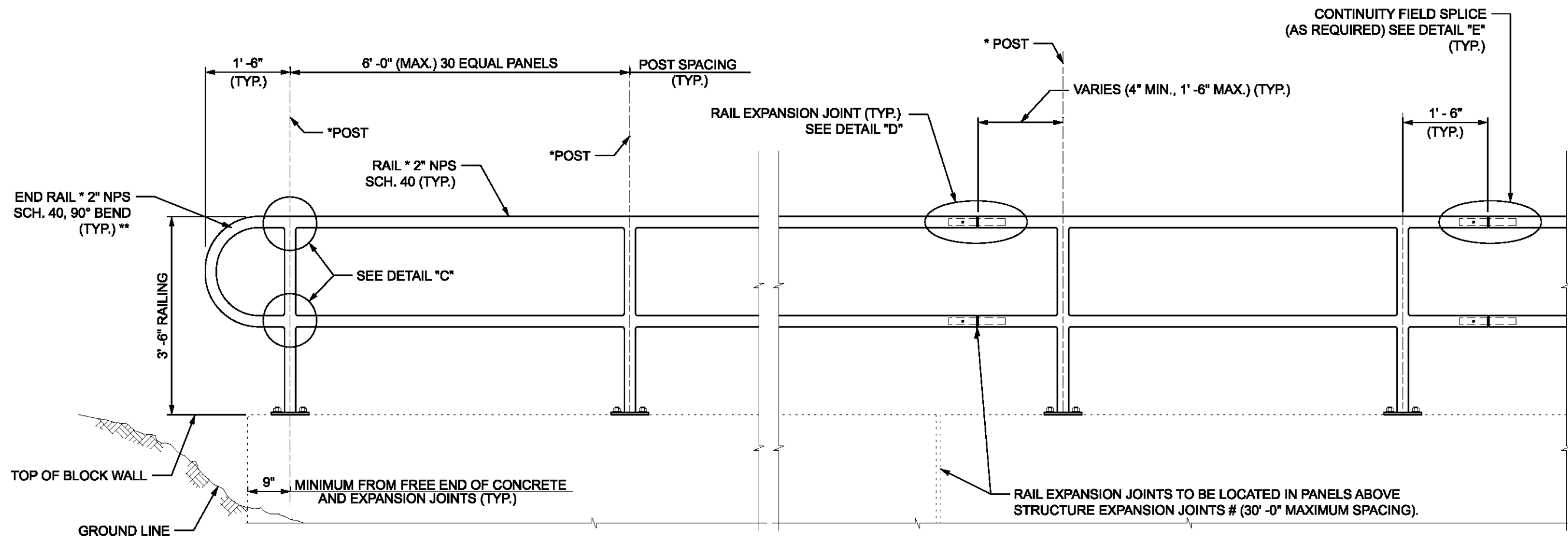
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PROJECT NUMBER

PF11-070

SHEET

6



ELEVATION

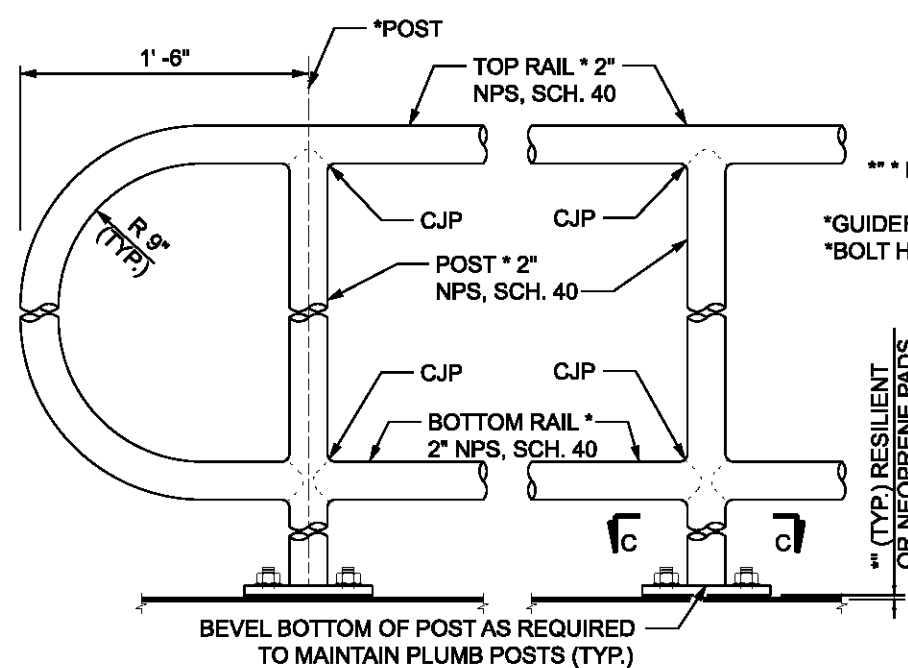
TYPICAL RAILING DETAILS & RAILINGS ON GRADES 0% TO 5%

NOTES:

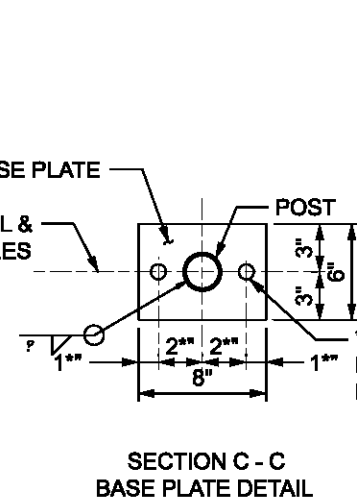
** End Rail bend varies for Railings on grades steeper than 2.4%.
NPS = Nominal Pipe Size

STRUCTURES EXPANSION JOINTS NOTE:

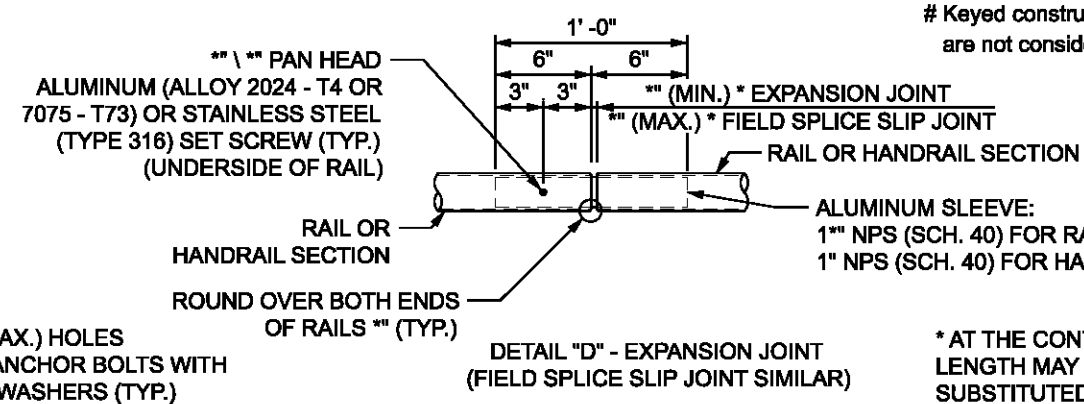
Keyed construction joints in Gravity Wall are not considered to be expansion joints.



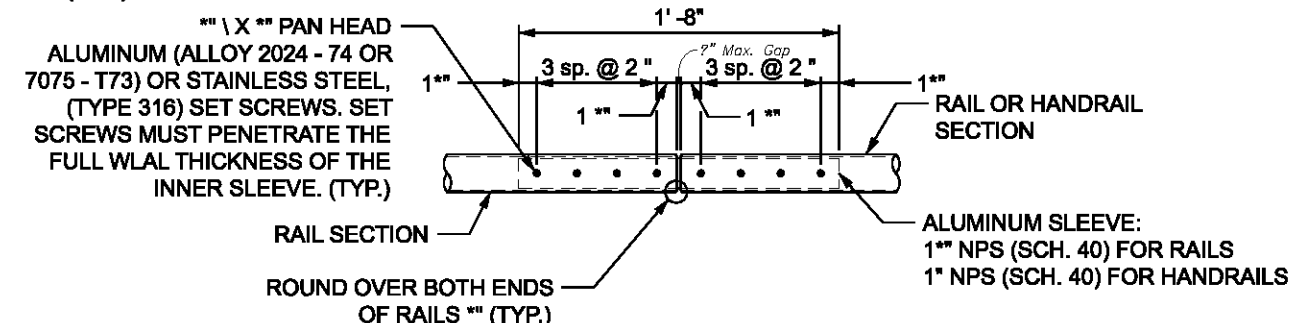
DETAIL "C" - RAIL CONNECTION
(INTERMEDIATE RAIL AND HANDRAIL NOT SHOWN)



SECTION C - C
BASE PLATE DETAIL



DETAIL "D" - EXPANSION JOINT
(FIELD SPLICE SLIP JOINT SIMILAR)



DETAIL "E" - CONTINUITY
FIELD SPLICE

REVISION NOTES

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SCSB - SILAS DR EXTENSION

HANDRAIL DETAILS

DRAWN BY MC

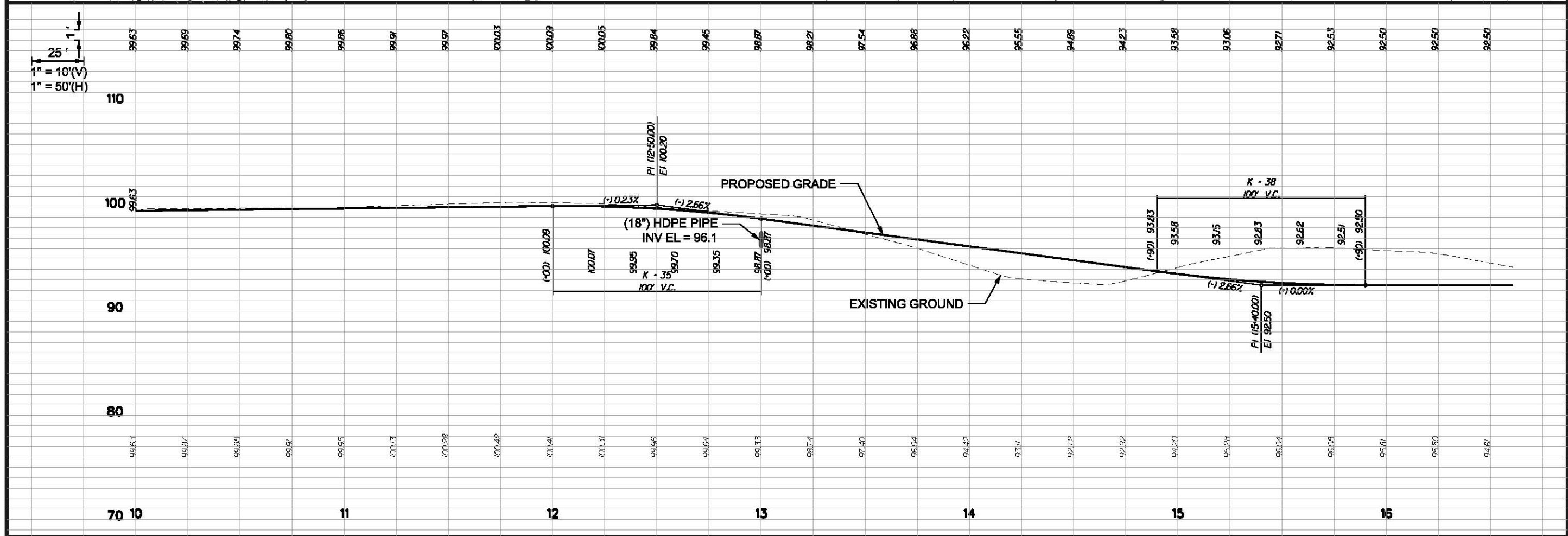
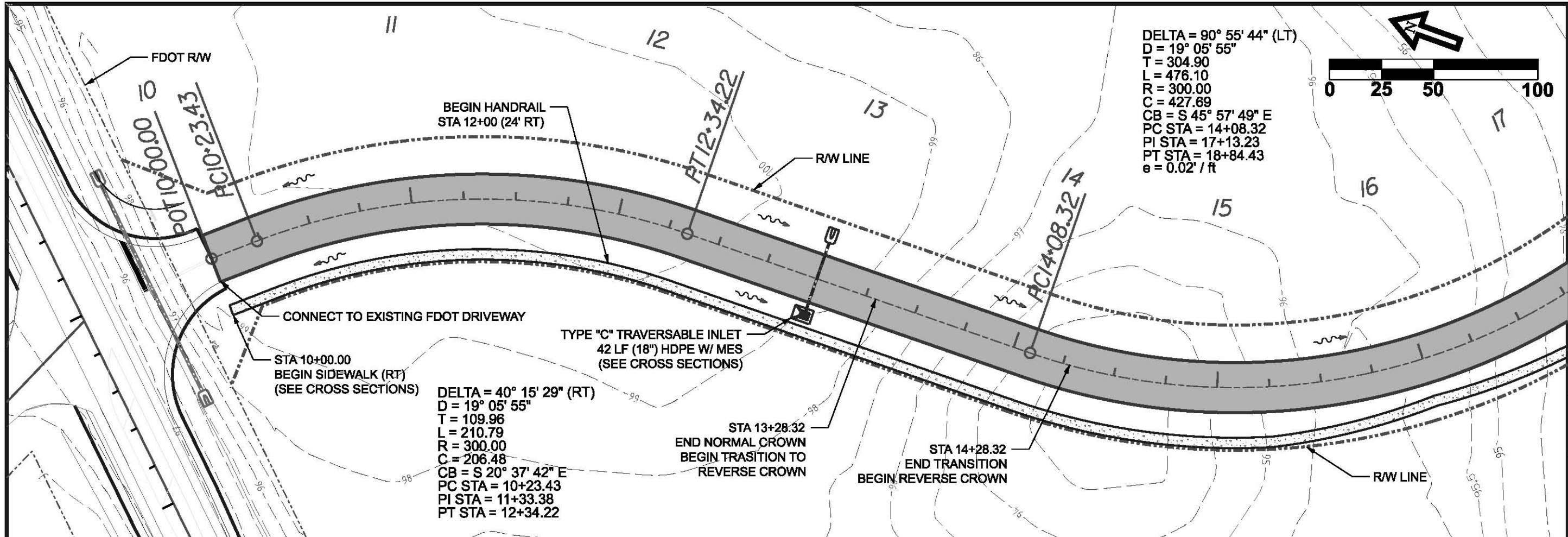
CHECKED BY CW

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SHEET

7



REVISION NOTES	
DATE	REVISION

SCSB - SW SILAS DR

PLAN & PROFILE

CENTERLINE # 1

PP1

PROJECT NUMBER
 PF11-070

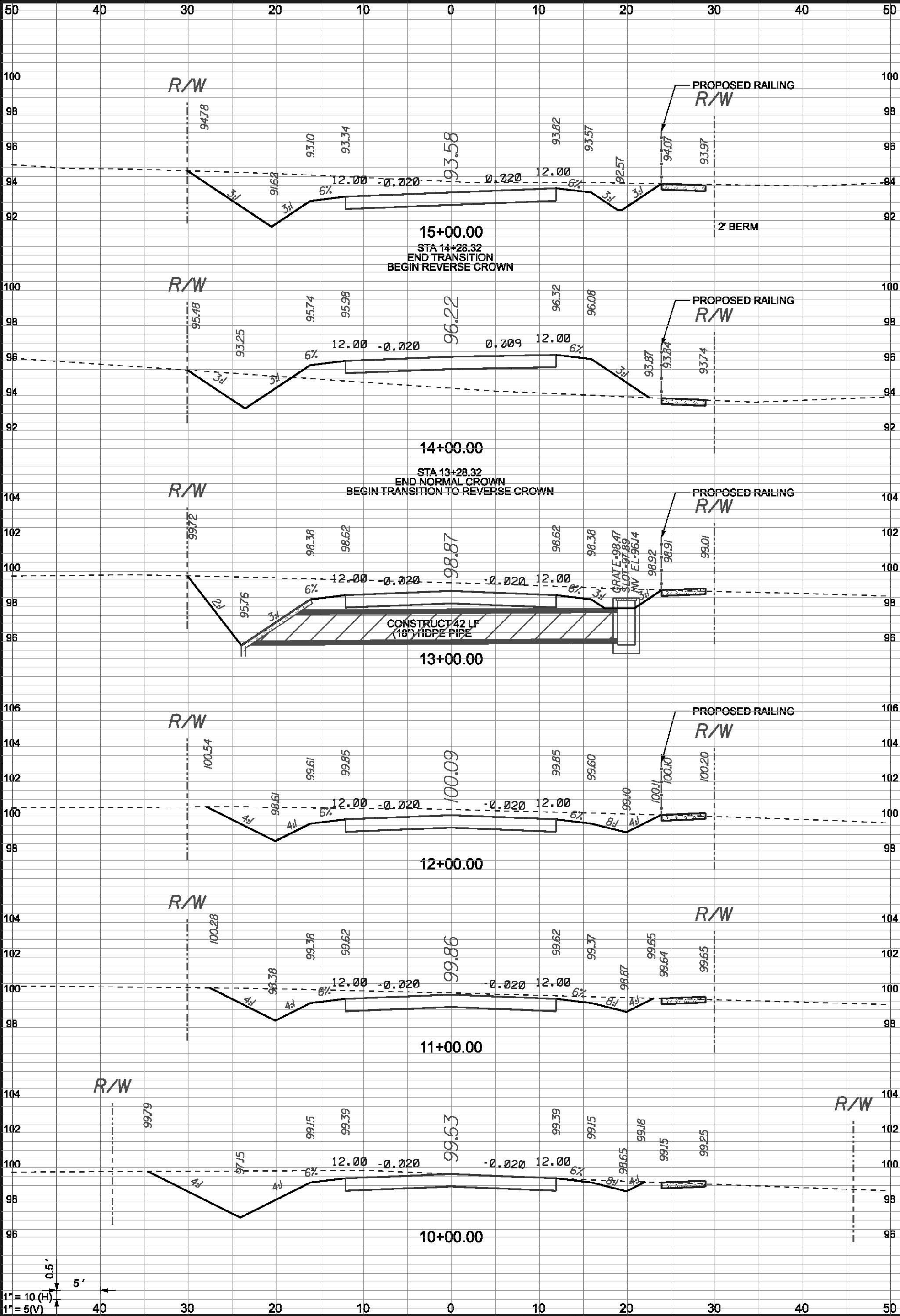
SHEET
 PP1

DRAWN BY
 MC


CHECKED BY
 CW

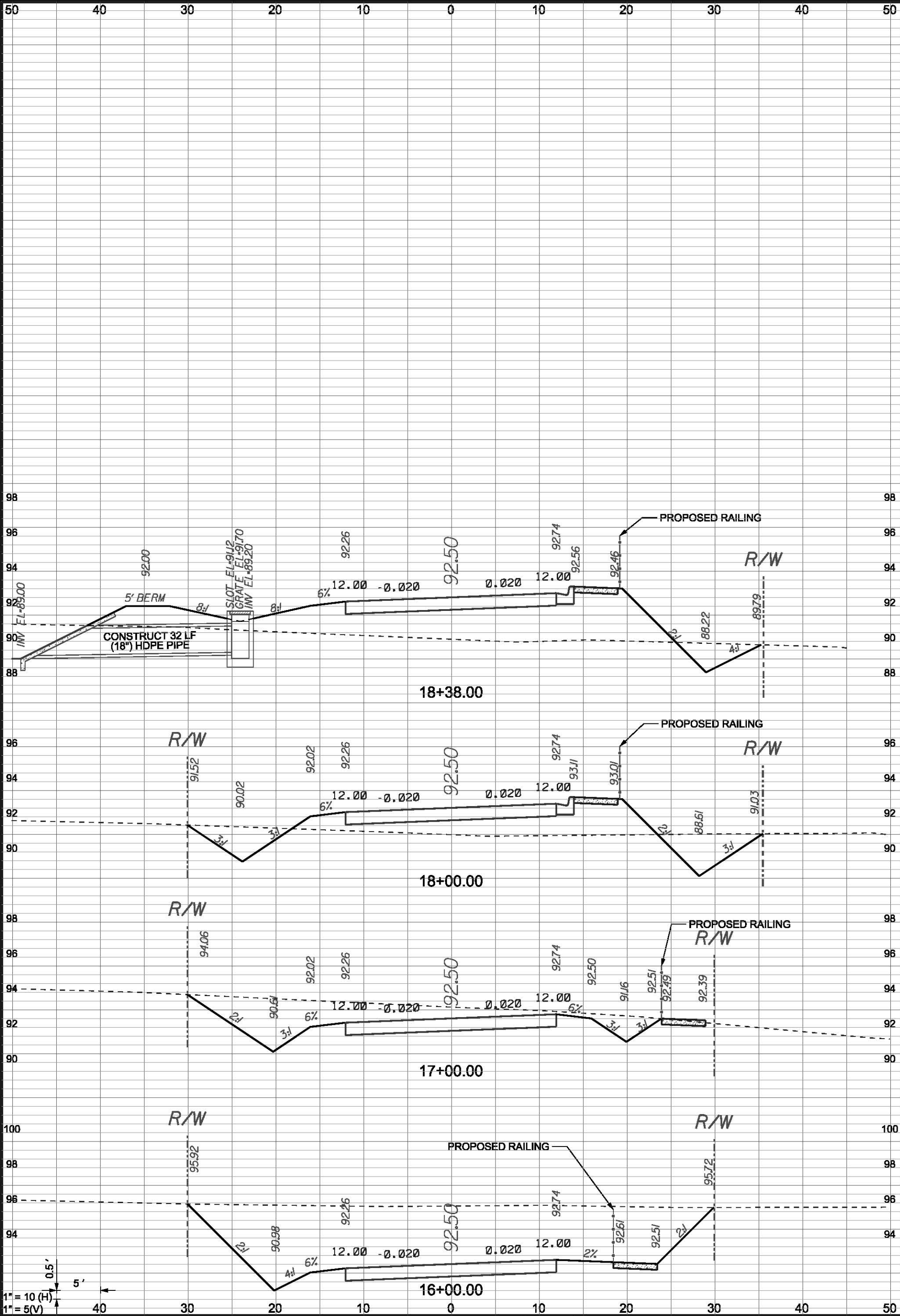
SCSB - SW SILAS DR
 130 W HOWARD ST
 LIVE OAK FL, 32064
 PHONE: (386) 362-3678
 FAX: (386) 362-6133


GTC Design Group, LLC
 176 NW LAKE JEFFREY RD
 LAKE CITY, FL 32055
 Auth. # 9461
 Structural / Civil Engineers
 Phone: (386) 719-9885
 Fax: (386) 719-8828
 www.gtcdesigngroup.com

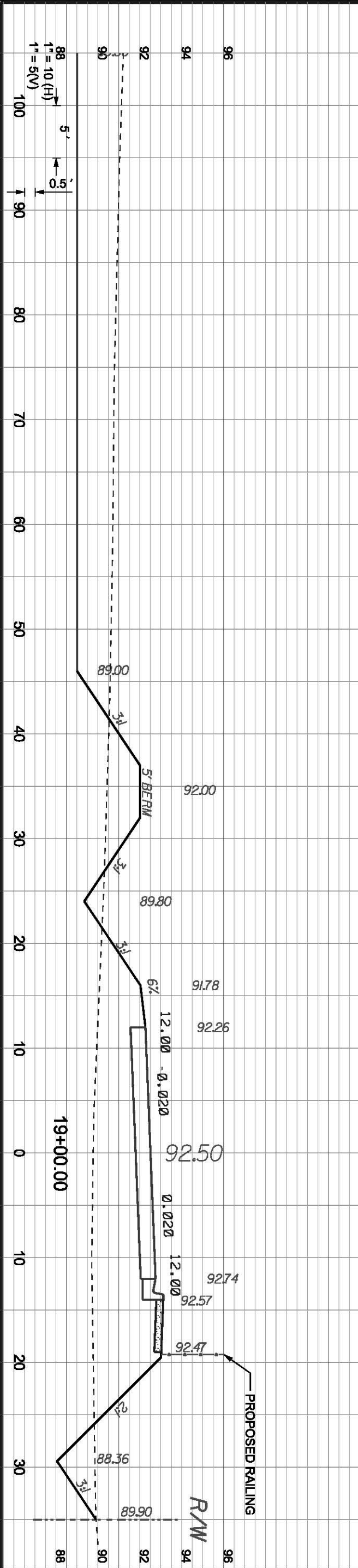
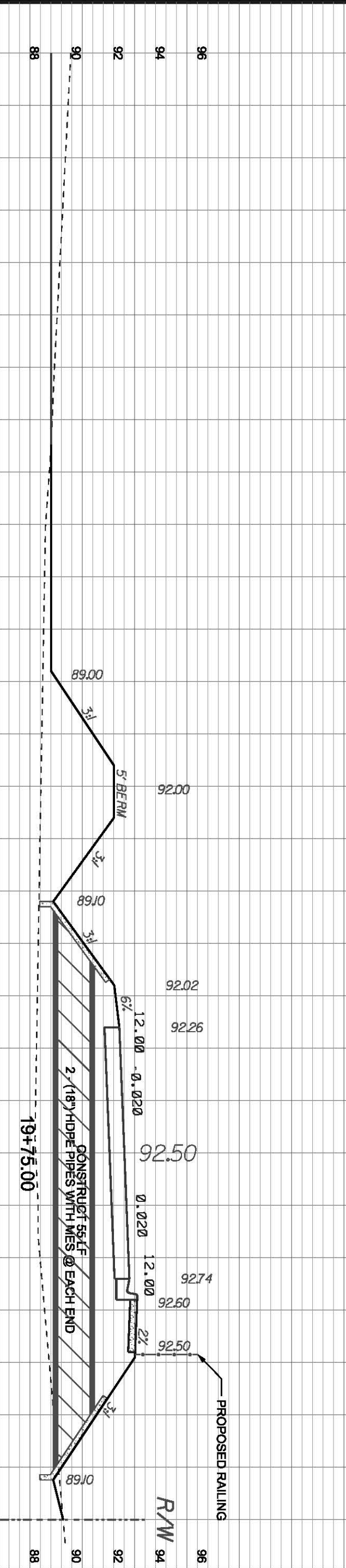
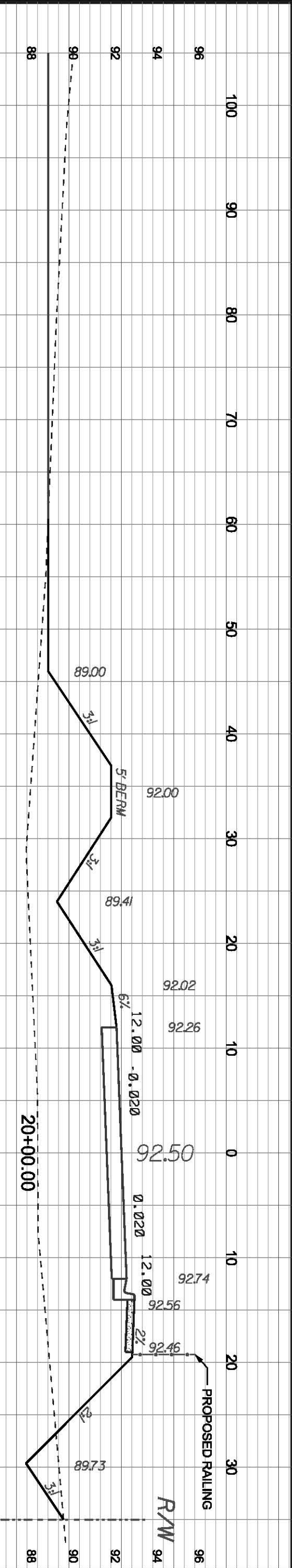


0.5'
5'
1" = 10' (H)
1" = 5' (V)

SHEET	PROJECT NUMBER	DRAWN BY MC	CHECKED BY CW	SCSB - SILAS DR EXTENSION CROSS SECTIONS CENTERLINE # 1		 GTC Design Group, LLC. 176 NW LAKE JEFFREY RD Auth. # 9481 Structural / Civil Engineers www.gtcdesigngroup.com	P.O. BOX 187 130 W HOWARD ST LAKE CITY, FL 32055 PHONE: (386) 362-3678 FAX: (386) 362-6133	DATE	REVISION NOTES



SHEET XSC2	PROJECT NUMBER PF11-070	DRAWN BY MC CHECKED BY CW	SCSB - SILAS DR EXTENSION CROSS SECTIONS CENTERLINE # 1	 GTC Design Group, LLC. 176 NW LAKE JEFFREY RD Auth. # 9481 Structural / Civil Engineers www.gtcdesigngroup.com	P.O. BOX 187 130 W HOWARD ST LIVE OAK FL, 32064 PHONE: (386) 362-3678 FAX: (386) 362-6133	DATE	REVISION NOTES



DATE	REVISION NOTES

P.O. BOX 187
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GTC Design Group, LLC. 176 NW LAKE JEFFREY RD
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www.gtcdesigngroup.com

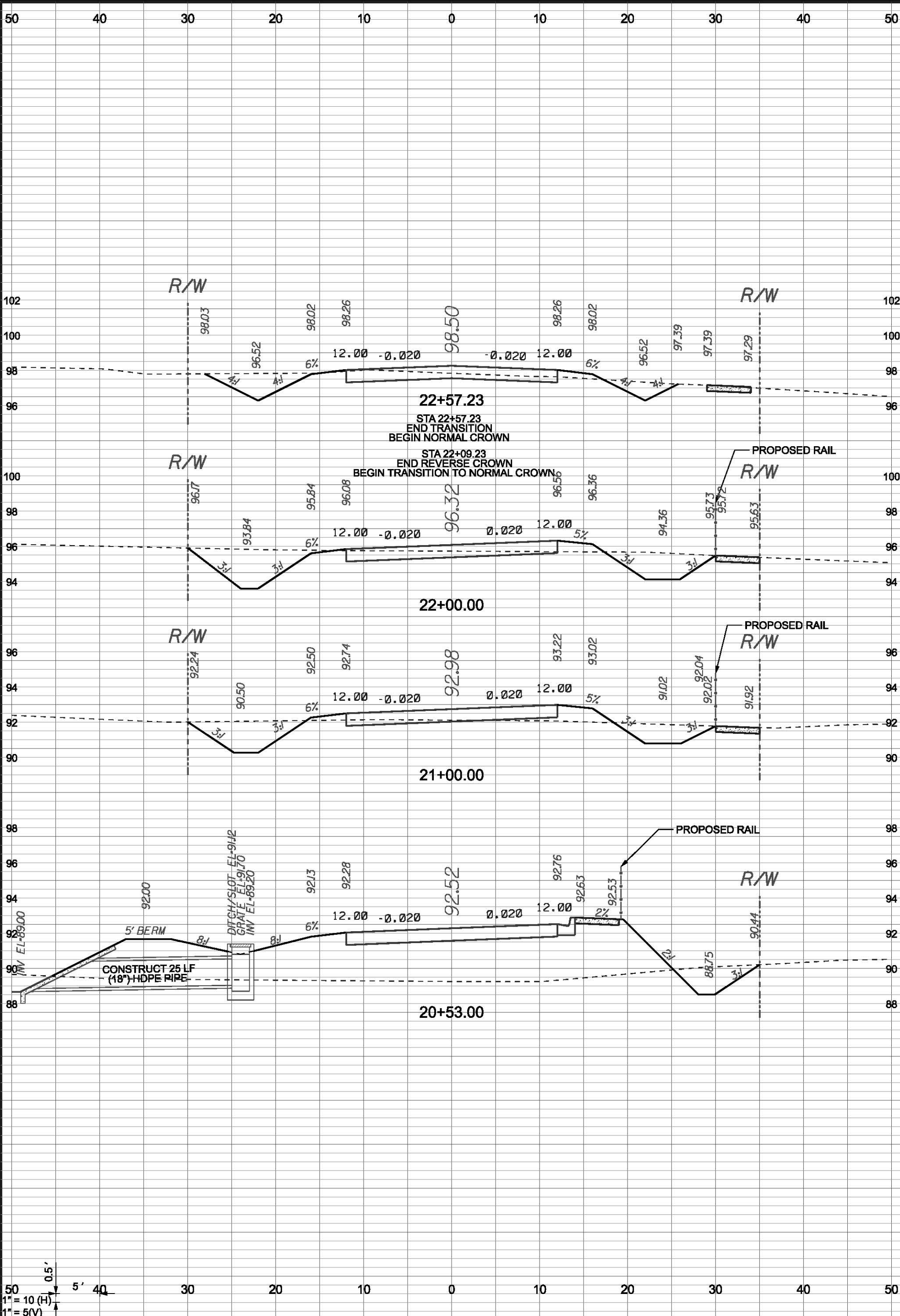
LAKE CITY, FL 32055
Phone: (386) 719-9885
Fax: (386) 719-8828


SCSB - SILAS DR EXTENSION

CROSS SECTIONS

CENTERLINE # 1

DRAWN BY	CHECKED BY
MC	CW
PROJECT NUMBER	
PF11-070	
SHEET	
XSC3	



SHEET XSC4	PROJECT NUMBER PF11-070	DRAWN BY MC CHECKED BY CW	SCSB - SILAS DR EXTENSION CROSS SECTIONS CENTERLINE # 1	 GTC Design Group, LLC. 176 NW LAKE JEFFREY RD Auth. # 9481 Structural / Civil Engineers www.gtcdesigngroup.com	P.O. BOX 187 130 W HOWARD ST LIVE OAK FL, 32064 PHONE: (386) 362-3678 FAX: (386) 362-6133	DATE	REVISION NOTES