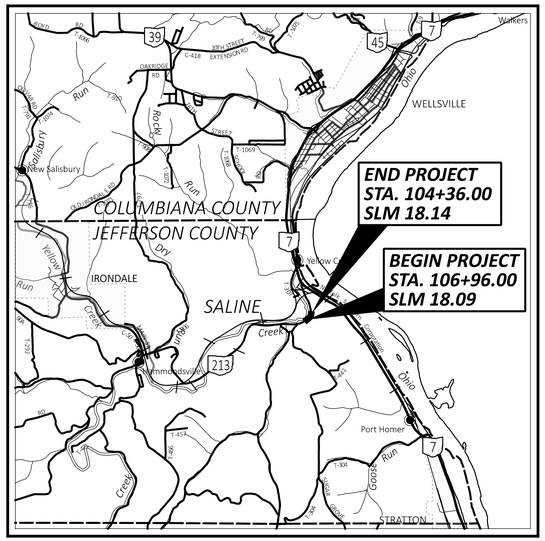


LOCATION MAP

LATITUDE: N 40°33'50" LONGITUDE: W 80°39'55"

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2026)	1,700
DESIGN YEAR ADT (2046)	1,900
DESIGN HOURLY VOLUME (2046)	250
DIRECTIONAL DISTRIBUTION	54%
TRUCKS (24 HOUR B&C)	9%
DESIGN SPEED	60 MPH
LEGAL SPEED	55 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
05 - MAJOR COLLECTOR (RURAL)

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVER

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
ODOT DISTRICT 11
CAPITAL PROGRAMS - ENGINEERING
NEW PHILADELPHIA, OHIO

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

JEF-213-18.09

SALINE TOWNSHIP

JEFFERSON COUNTY

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E230(712)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

ROCK SLOPE REPAIR ALONG 0.05 MILES (260 FT) OF S.R. 213 BY ROCK SCALING AND SLOPE DRAPE INSTALLATION. IN ADDITION, THIS PROJECT INCLUDES TRIM BLASTING, CATCHMENT CLEANUP, REMOVAL OF EXISITNG DRAINAGE CONDUIT, ROCKFALL BARRIER REPLACEMENT, ADJACENT SHOULDER REPLACEMENT, AND GUARDRAIL.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.3 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.3 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED) *

* ROUTINE MAINTENANCE PROJECT *

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET P.06, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Thomas D. Corey
District 11 Deputy Director

Pamela Boratyn
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	1/19/24	MT-96.11	7/21/23	TC-41.20	10/18/13			800-2023	1/17/25
BP-5.1	1/17/25	MT-96.20	1/17/25	TC-41.30	4/21/23			832	7/19/24
		MT-96.26	1/17/25	TC-42.20	10/18/13			862	1/17/25
DM-4.3	1/15/16	MT-97.10	4/19/19	TC-52.10	10/18/13			961	4/17/20
DM-4.4	1/15/16	MT-97.12	1/20/17	TC-52.20	1/15/21				
		MT-101.60	1/17/25	TC-61.30	7/19/24				
MGS-1.1	1/17/25	MT-101.70	7/19/24	TC-65.10	1/17/14				
MGS-2.1	1/17/25	MT-101.75	7/21/23	TC-65.11	1/17/25				
MGS-3.1	1/19/18	MT-101.90	7/17/20						
		MT-105.10	1/17/20						
RM-4.2	7/19/24								
RM-4.5	1/17/25								
RM-4.6	7/19/24								

SUPPLEMENTAL SPECIFICATIONS

SPECIAL PROVISIONS

ENGINEER'S SEAL	ENGINEER'S SEAL
ROADWAY	GEOTECHNICAL
STATE OF OHIO · BROCK S. HOVANICK E-86725 · REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO · CHRISTOPHER C. NOTZ E-80250 · REGISTERED PROFESSIONAL ENGINEER
Digitally signed by bhovanic Date: 2025.04.01 08:05:31-04'00'	Date: 2025.04.01 08:07:49-04'00'

TITLE SHEET

DESIGN AGENCY

DESIGNER JAR
REVIEWER BSH 3-17-23
PROJECT ID 115103
SHEET P.01 TOTAL 44

JEF-213-18.09

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:32:18 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_GT001.dgn

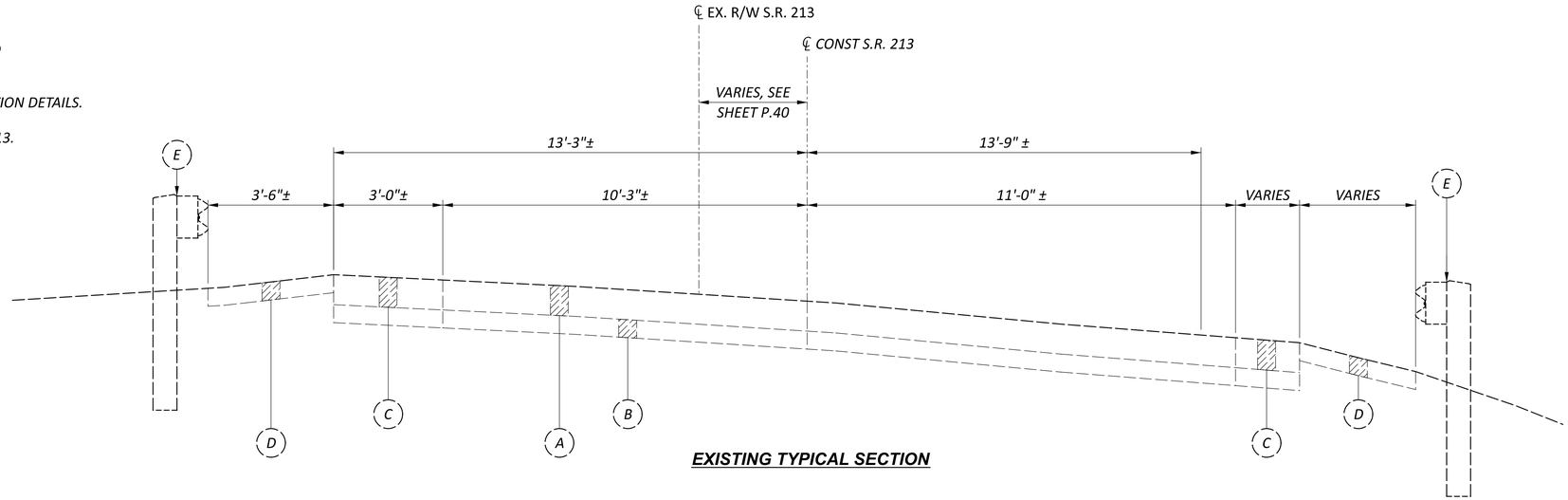
NOTES:

1. SAWCUT THE EXISTING PAVEMENT TO PROVIDE A NEAT JOINT PER C&MS 202.05. PAYMENT SHALL BE INCLUDED WITH ITEM 202 - PAVEMENT REMOVED.

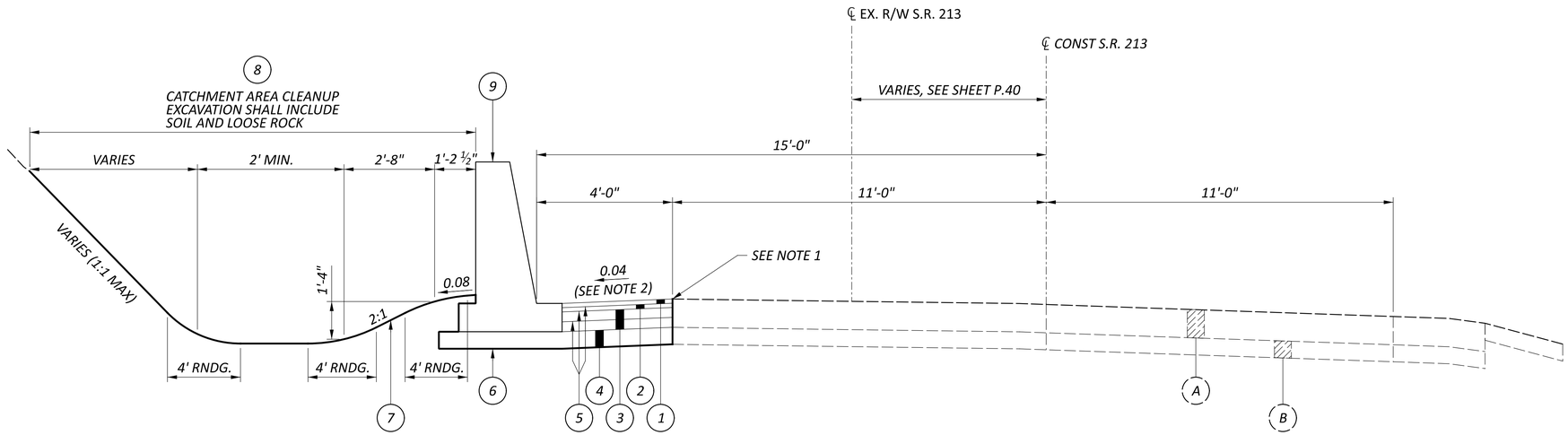
2. SEE SHEETS P.36 - P.37 FOR CONCRETE BARRIER ELEVATION DETAILS.

3. STATIONING SHOWN REFERENCES THE ℄ CONST. S.R. 213.

4. SEE SHEET P.40 FOR THE RELATIONSHIP OF ℄ R/W S.R. 213 TO ℄ CONST. S.R. 213.



EXISTING TYPICAL SECTION



NORMAL AND SUPERELEVATED TYPICAL SECTION

STA. 104+36.00 TO STA. 106+96.00

EXISTING LEGEND

- (A) EXISTING ASPHALT CONCRETE
- (B) EXISTING AGGREGATE BASE
- (C) EXISTING PAVED SHOULDER
- (D) EXISTING AGGREGATE SHOULDER
- (E) EXISTING GUARDRAIL

PROPOSED LEGEND

- (1) ITEM 441 - 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), PG70-22M
- (2) ITEM 441 - 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (449)
- (3) ITEM 301 - 7" ASPHALT CONCRETE BASE, PG64-22, (449)
- (4) ITEM 304 - 6" AGGREGATE BASE
- (5) ITEM 407 - TACK COAT (0.055 GAL/SY)
- (6) ITEM 204 - SUBGRADE COMPACTION
- (7) ITEM 659 - SEEDING AND MULCHING
- (8) ITEM 862 - EXCAVATION
- (9) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (SEE SHEET P.36)
- (10) ITEM 608 - CURB, TYPE 4-C
- (11) ITEM 606 - GUARDRAIL, TYPE MGS
- (12) ITEM 304 - 8" AGGREGATE BASE
- (13) ITEM 408 - PRIME COAT, AS PER PLAN (0.4 GAL/S.Y.)

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.02 TOTAL 44

JEF-213-18.09

NOTES:

1. SAWCUT THE EXISTING PAVEMENT TO PROVIDE A NEAT JOINT PER C&MS 202.05. PAYMENT SHALL BE INCLUDED WITH ITEM 202 - PAVEMENT REMOVED.

2. SEE SHEETS P.36 - P.37 FOR CONCRETE BARRIER ELEVATION DETAILS.

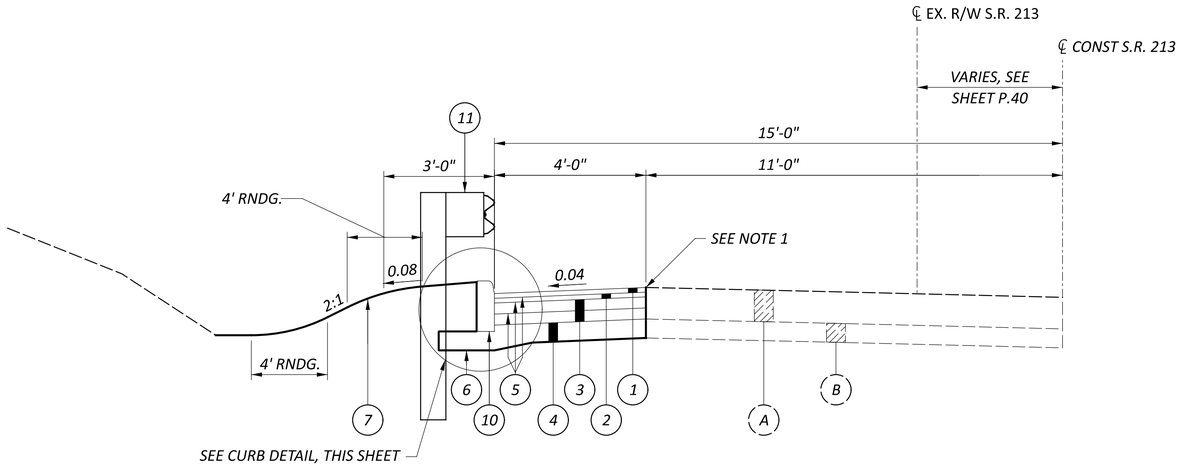
3. STATIONING SHOWN REFERENCES THE ℄ CONST. S.R. 213.

4. SEE SHEET P.40 FOR THE RELATIONSHIP OF ℄ R/W S.R. 213 TO ℄ CONST. S.R. 213.

5. FOR EXISTING AND PROPOSED LEGEND, SEE SHEET P.02.

[A] - VARIES 0.01 TO 0.04

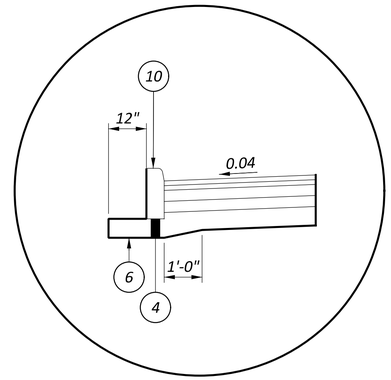
[B] - OR AS SHOWN IN CROSS SECTIONS



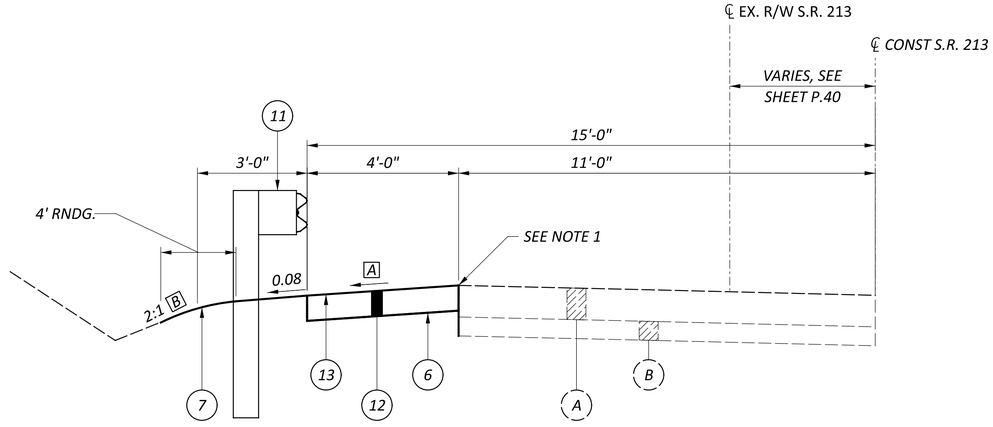
CURB SECTION

STA. 104+17.00 TO STA. 104+36.00

STA. 106+96.00 TO STA. 107+15.00



CURB DETAIL



GUARDRAIL SECTION

STA. 103+02.00 TO STA. 104+17.00

STA. 107+15.00 TO STA. 108+46.00

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.03 TOTAL 44

JEF-213-18.09

MODEL: Sheet 3 PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:32:31 PM USER: bhovanic
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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AEP OHIO POWER COMPANY
ATTN: CLARKE SAUNDERS
777 HOPEWELL DRIVE
HEATH, OHIO 43056
614-460-4794
CMSAUNDERS@AEP.COM

AT&T OHIO, INC.
ATTN: TORRICE ROBINSON
50 WEST BOWERY ST.
AKRON, OHIO 44308
330-734-5117
TR3463@ATT.COM

TC ENERGY
ATTN: ANTHONY WINTERS
4115 CORK BOCKTOWN ROAD
CLINTON, PA 15026
724-223-3944
ANTHONY_WINTERS@TCENERGY.COM

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

EXISTING PLANS

THE FOLLOWING EXISTING PLANS ARE AVAILABLE FOR REFERENCE AT THE DISTRICT 11 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, 2201 REISER AVE. S.E., NEW PHILADELPHIA, OHIO, 44663:

JEF-213-15.24 (1929)

IN ADDITION, THE EXISTING PLANS CAN BE FOUND ON THE DEPARTMENT'S WEBSITE AT THE FOLLOWING ADDRESS:

https://ftp.dot.state.oh.us/pub/Contracts/Attach

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITEM 408 - PRIME COAT, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED IN ACCORDANCE WITH C&MS "ITEM 408 - PRIME COAT", EXCEPT THE CONTRACTOR SHALL APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER, AS PER PLAN.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.
USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL	
POSITIONING METHOD:	ODOT VRS
MONUMENT TYPE:	TYPE B
VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM:	NAVD 88
GEOID:	GEOID 18
HORIZONTAL POSITIONING	
REFERENCE FRAME:	NAD 83 (2011)
ELLIPSOID:	GRS 1980
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM:	OHIO STATE PLANE, NORTH ZONE
COMBINED SCALE FACTOR:	1.00004941
ORIGIN OF COORDINATE SYSTEM:	0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ENDANGERED BAT HABITAT REMOVAL

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL MEETING MASH 2016 REQUIREMENTS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVING AND HAULING THE EXISTING CONCRETE BARRIER TO THE ADDRESS LISTED BELOW AND STOCKPILING THE MATERIAL IN A MANNER ACCEPTABLE TO THE ENGINEER.

ALL PARTS: 280 FT DELIVERED TO:

ODOT TORONTO OUTPOST
940 KINGSDALE RD
STEUBENVILLE, OH 43952
CONTACT: HUGH SUTHERIN
PHONE: 330-308-6582

ALL LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE PER FOOT FOR ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN.

EARTHWORK AND SEEDING TABLE

SHEET NO.	203 EXCAVATION C.Y.	203 EMBANKEMENT C.Y.	659 SEEDING AND MULCHING S.Y.
P.16	3	2	0
P.17	6	5	54
P.18	4	1	11
P.19	5	4	15
P.20	2	3	9
P.21	2	3	7
P.22	4	7	17
P.23	2	4	9
P.24	2	4	8
P.25	5	5	17
P.26	3	2	8
P.27	3	2	9
P.28	3	4	19
P.29	1	4	17
P.30	1	5	17
P.31	1	4	17
P.32	1	3	18
P.33	1	1	8
P.34	0	0	0
TOTALS CARRIED TO GENERAL SUMMARY	**49**	**63**	**260**

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659 - SOIL ANALYSIS TEST **2 EACH**
29 C.Y. x 1 TEST/10000 C.Y. = 0.003 EACH (MINIMUM OF 2 TESTS)

ITEM 659 - TOPSOIL **29 C.Y.**
260 S.Y. x 111 C.Y./1000 S.Y. = 28.86 C.Y.

ITEM 659 - REPAIR SEEDING AND MULTCHING **13 S.Y.**
260 S.Y. x 0.05 = 13 S.Y.

ITEM 659 - COMMERCIAL FERTILIZER **0.04 TON**
260 S.Y. x 9 x 30 LB/1000 S.F. x 1/2000 = 0.04 TON

ITEM 659 - LIME **0.05 ACRES**
260 S.Y. x 9 x 1 Ac./43560 S.F. = 0.05 ACRES

ITEM 659 - WATER **5 M. GAL.**
260 S.Y. x 9 x 300 Gal/1000/1000 x 2 app. = 1.40 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

PROJECT CONTROL: JEF-213-18.09, PID 115103

POINT ID	NORTHING	EASTING	ELEVATION	CODE	DESCRIPTION	STATION	OFFSET	ALIGNMENT
CP01	332318.755	2478413.833	675.506	CNPT	IPIN W/ ODOT CAP	22+07.52 / 104+56.75	46.44 RT / 41.64 RT	CLX_RW_S213 / CL_CONST_SR213
CP02	332202.616	2478306.177	677.713	CNPT	IPIN W/ ODOT CAP	23+78.73 / 106+24.98	45.64 RT / 40.77 RT	CLX_RW_S213 / CL_CONST_SR213
CP03	331952.503	2477976.266	683.424	CNPT	IPIN W/ ODOT CAP	28+02.40 /110+48.60	24.30 RT / 22.91 RT	CLX_RW_S213 / CL_CONST_SR213
CL1	332983.426	2478439.071	N/A	POT	0	14+97.50	CL	CLX_RW_S213
CL2	332591.491	2478512.041	N/A	PCC	0	18+96.17	CL	CLX_RW_S213
CL3	332224.873	2478396.745	N/A	PCC	0	22+96.23	CL	CLX_RW_S213
CL4	331756.035	2477182.291	N/A	PT	0	36+35.04	CL	CLX_RW_S213
CL5	332735.465	2478486.850	N/A	POT	0	100+00.00	CL	CL_CONST_SR213
CL6	332591.491	2478512.041	N/A	PC	0	101+46.16	CL	CL_CONST_SR213
CL7	332239.005	2478401.959	N/A	PT	0	105+29.76	CL	CL_CONST_SR213
CL8	332225.896	2478389.026	N/A	PC	0	105+48.17	CL	CL_CONST_SR213
CL9	331854.224	2477805.349	N/A	PT	0	112+46.02	CL	CL_CONST_SR213

GENERAL NOTES

DESIGN AGENCY

DESIGNER JAR
REVIEWER BSH 3-14-23
PROJECT ID 115103
SHEET P.04 TOTAL 44

JEF-213-18.09

ITEM 862 - EXCAVATION

REMOVAL OF ALL WASTE MATERIAL INCLUDING SCALED AND TRIM BLASTED MATERIAL AND TALUS DEBRIS (SOIL AND ROCK) LOCATED BETWEEN BASE OF CUT SLOPE AND ROADWAY TO ESTABLISH CROSS SECTIONS AS IDENTIFIED IN THE PLANS. IN PLACE BEDROCK SHALL NOT BE REMOVED REGARDLESS OF RELATIVE STRENGTH. LIMITS ARE DETERMINED FOR ESTIMATING PURPOSES AND WILL BE ADJUSTED BASED ON FIELD CONDITIONS.

THE EXCAVATION QUANTITY WILL BE DETERMINED BY THE "MEASURED IN VEHICILE" METHOD, PER SS 862.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO EXCAVATE AND DISPOSE OF THE MATERIAL AND ASSOCIATED DEBRIS. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD OF ITEM 862 - EXCAVATION. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED FOR EXCAVATION FROM STA. 104+36.00 TO STA. 106+96.00 AND SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 862 - EXCAVATION **444 CY**

ITEM 862 - SCALING

SLOPES ARE TO BE HAND SCALED AND NOT MECHANICALLY SCALED DUE TO THE NATURE OF THE SLOPE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED FOR SCALING FROM STA. 104+36.00 TO STA. 106+96.00 AND SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 862 - SCALING **60 HOURS**

ITEM 862 - TRIM BLASTING

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED FOR TRIM BLASTING FROM STA. 104+36 TO STA. 106+96 AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 862 - TRIM BLASTING **500 S.F.**

ITEM 862 - SLOPE DRAPE, AS PER PLAN

THE ROCKFALL PROTECTION SYSTEM IS ANTICIPATED TO BE A COMPOSITE SYSTEM AND SHALL BE DESIGNED FOR A MAXIMUM ROCKFALL BLOCK SIZE OF 3.5 CY, BE ABLE TO RETAIN THE AVERAGE ROCKFALL DEBRIS OF 9 CY, AS WELL AS HAVING A MAXIMUM APERTURE THAT DOES NOT ALLOW ROCKS WITH ANY DIMENSION GREATER THAN 6 INCHES TO PASS THROUGH. SUBMIT ITEM 862 - SCALING WORK PLAN AND SLOPE DRAPE INSTALLATION PLAN AS A COMBINED SUBMITTAL. SYSTEM DESIGN SHALL ASSUME THAT SCALING WILL REMOVE ANY BLOCKS LARGER THAN MAXIMUM BLOCK SIZE. THE ANTICIPATED COMPOSITE SYSTEM IS GENERICALLY REFERRED TO AS "CABLE NET" IN THE PLANS. SEE SS862 FOR ADDITIONAL REQUIREMENTS REGARDING MATERIALS, QUALIFICATIONS, SUBMITTALS, AND CONSTRUCTION METHODS.

AN ESTIMATED QUANTITY OF **1,594 SY**, WHICH INCLUDES A 10% INCREASE DUE TO IRREGULARITY OF SLOPE, HAS BEEN CARRIED TO THE GENERAL SUMMARY. MANUFACTURER SPECIFIED COMPONENTS ARE CONSIDERED INCIDENTAL TO THE SYSTEM.

ITEM 671 - EROSION CONTROL MAT, TYPE G

THE FOLLOWING QUANTITY CALCULATIONS HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 671 - EROSION CONTROL MAT, TYPE G **434 SY**
(260 FT * 15 FT)/9 = 434 SY

PAVEMENT MARKING

THE CONTRACTOR SHALL INSTALL PAVEMENT MARKINGS WITHIN THE PROJECT LIMITS.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 646 - EDGE LINE, 6"

STA. 104+36.00 TO STA. 106+96.00 (LT.)	=	0.05	MILE
STA. 104+36.00 TO STA. 106+96.00 (RT.)	=	0.05	MILE
	TOTAL=	**0.10**	**MILE**

ITEM 646 - CENTER LINE (DOUBLE SOLID)

STA. 104+36.00 TO STA. 106+96.00 = TOTAL= **0.05** **MILE**

RAISED PAVEMENT MARKERS (RPM)

THE CONTRACTOR SHALL REMOVE ALL EXISTING RAISED PAVEMENT MARKERS AND INSTALL NEW RPMS WITHIN THE PROJECT LIMITS. SPACING FOR THE NEW RPMS SHALL BE 40'.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 621 - RAISED PAVEMENT MARKER REMOVED

STA. 104+36.00 TO STA. 106+96.00 **8 EACH**

ITEM 621 - RPM

STA. 104+36.00 TO STA. 106+96.00 **8 EACH**

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVING AND HAULING THE EXISTING PORTABLE CONCRETE BARRIER TO THE ADDRESS LISTED BELOW AND STOCKPILING THE MATERIAL IN A MANNER ACCEPTABLE TO THE ENGINEER.

ALL PARTS: 280 FT DELIVERED TO:

ODOT TORONTO OUTPOST
940 KINGSDALE RD
STEUBENVILLE, OH 43952
CONTACT: HUGH SUTHERIN
PHONE: 330-308-6582

ALL LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE PER FOOT FOR ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN.

GENERAL NOTES

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.05 TOTAL 44

JEF-213-18.09

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:32:38 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_GN001.dgn

ITEM 614, MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 614 AND THE MAINTENANCE OF TRAFFIC DESCRIBED ON THIS SHEET.

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT EXCEPT AS NOTED BELOW.

IF REQUIRED TO FACILITATE WORK, THE CONTRACTOR MAY CLOSE TRAFFIC FOR SHORT 15-MINUTE DURATIONS AS APPROVED BY THE ENGINEER AND AS DETAILED WITHIN THE SHORT-DURATION CLOSING OF THE HIGHWAY NOTE ON THIS SHEET.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE FOLLOWING ESTIMATED QUANTITIY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC **20 CU. YD.**

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

SEQUENCE OF CONSTRUCTION

1.) INSTALL WORK ZONE PAVEMENT MARKINGS, INSTALL ALL WORK ZONE SIGNALS AND SIGNS, PORTABLE BARRIER, AND MAINTAIN TRAFFIC AS SHOWN ON SHEETS P.09 - P.10 AND STANDARD CONSTRUCTION DRAWINGS.

.) REMOVE EXISTING PORTABLE BARRIER AND SHOULDER. COMPLETE SLOPE REPAIR, CATCHMENT AREA WORK, ROCKFALL BARRIER, AND ADJACENT PAVED SHOULDER AND GUARDRAIL AS DETAILED IN THE PLANS.

3.) REMOVE PORTABLE BARRIER AND MAINTAIN BARREL ZONE WITH FLAGGERS. UTILIZING A BARREL ZONE WITH FLAGGERS, COMPLETE THE REMAINING SHOULDER AND GUARDRAIL WORK.

4.) UTILIZING A BARREL ZONE WITH FLAGGERS, COMPLETE ALL PERMENANT PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (Hauling.Permits@dot.ohio.gov) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

SHORT-DURATION CLOSING OF THE HIGHWAY

THE FOLLOWING NOTES SHALL APPLY FOR THE REQUIRED ROCK SCALING OF THE SLOPE:

1. THE CONTRACTOR SHALL COORDINATE CLOSURE TIMES WITH JEFFERSON COUNTY AND THE STATE OF OHIO TRAFFIC AND LAW ENFORCEMENT DEPARTMENTS IN COORDINATION WITH THE NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE.

2. NO CLOSURES SHALL BE PERMITTED BETWEEN THE HOURS OF 7:00 AM AND 9:00 AM AND BETWEEN 1:00 PM AND 6:00 PM WEEKDAYS. THE MAXIMUM DURATION OF TWO LANE CLOSURES SHALL NOT EXCEED 15 MINUTES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, TRAFFIC SHALL BE COMPLETELY CLEARED BEFORE BEGINNING THE NEXT CLOSURE. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $15 PER MINUTE PER LANE FOR EACH MINUTE THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL TWO (2) "WATCH FOR STOPPED TRAFFIC" SIGNS (SPECIAL) 1500 FEET UPSTREAM FROM THE "ROAD CONSTRUCTION AHEAD" SIGNS ON S.R. 213 EASTBOUND AND WESTBOUND. THE CONTRACTOR SHALL INSTALL ADDITIONAL "WATCH FOR STOPPED TRAFFIC" EVERY 1800 FEET UPSTREAM FROM THE "WATCH FOR STOPPED TRAFFIC" ON S.R. 213 IF TRAFFIC BACKUPS REACH THE FIRST SET OF SIGNS. THE NEED FOR THESE SIGNS SHALL BE CONSTANTLY MONITORED BY THE CONTRACTOR. ALL "WATCH FOR STOPPED TRAFFIC" SIGNS AND "PREPARE TO STOP" SIGNS SHALL BE EQUIPPED WITH A TYPE B HIGH INTENSITY FLASHING WARNING LIGHT.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER **25 M. GAL.**

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1 ¼ INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

OVERHEAD-MOUNTED WORK ZONE SIGNALS

SIGNALS SHALL BE OVERHEAD MOUNTED IN ACCORDANCE WITH THE DETAILS SHOWN ON TRAFFIC SCD MT-96.20.

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS P.09 - P.10 AND TRAFFIC SCDS MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

	ALL PHASES			
	1	2	3	4
	ALL RED	SR 213 (NORTHBOUND)	ALL RED	SR 213 (SOUTHBOUND)
MIN. GREEN	--	10	--	10
EXTENSION	--	4	--	4
MAX. GREEN	--	19	--	19
YELLOW	--	4	--	4
ALL RED	22	--	22	--
RECALL	ON	OFF	OFF	OFF

PROVIDE TIMING APPROPRIATE FOR THE SIGNAL LOCATION UNDER CONSIDERATION. TYPICAL FLOW RATES ARE DISPLAYED IN TABLE 697-2 IN THE ODOT TRAFFIC ENGINEERING MANUAL (TEM).

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE FREE DETECTION, FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

LIGHTING

LIGHTING SHALL BE PROVIDED AT EACH END OF THE LANE CLOSURE FOR THE CLOSING OF ONE LANE OF A TWO LANE HIGHWAY.

LIGHTING SHALL BE BY CONVENTIONAL METHODS, WITH LUMINAIRE ARMS ATTACHED TO THE SIGNAL SUPPORTS. AREA ILLUMINATION SHALL BE PROVIDED BY USING 150 WATT MINIMUM HIGH PRESSURE SODIUM LUMINARIES OR 250 WATT MINIMUM MERCURY LUMINARIES. THE MINIMUM HEIGHT OF THE LUMINAIRE SHALL BE 27 FT FROM THE GROUND SURFACE.

PAYMENT FOR LIGHTING SHALL INCLUDE DELIVERY, ERECTION, MAINTENANCE AND REMOVAL AS CALLED FOR IN THE PLANS. PAYMENT SHALL BE PER EACH. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, WORK ZONE LIGHTING SYSTEM **2 EACH**

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.06 TOTAL 44

JEF-213-18.09

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:32:45 PM USER: bhovanic
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ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- *DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE AND AT ANY TIME WHEN COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.*

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- *FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS.*

- *THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.*

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE ***40 HOURS***

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.07 TOTAL 44

JEF-213-18.09

MODEL: Sheet 3 PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:32:46 PM USER: bhovanic
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ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

ESTIMATED QUANTITIES FOR THIS WORK ARE TABULATED ON THE SUBSUMMARIES INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY FOR:

ITEM 614, BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL) **8 EACH**

ITEM 614, OBJECT MARKER, TWO WAY **8 EACH**

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

ESTIMATED QUANTITIES FOR THIS WORK ARE TABULATED ON THE SUBSUMMARIES INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY FOR:

ITEM 614, BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL) **4 EACH**

ITEM 614, OBJECT MARKER, TWO WAY **4 EACH**

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEMS.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT **0.22 MILES**
ITEM 614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT **0.18 MILES**

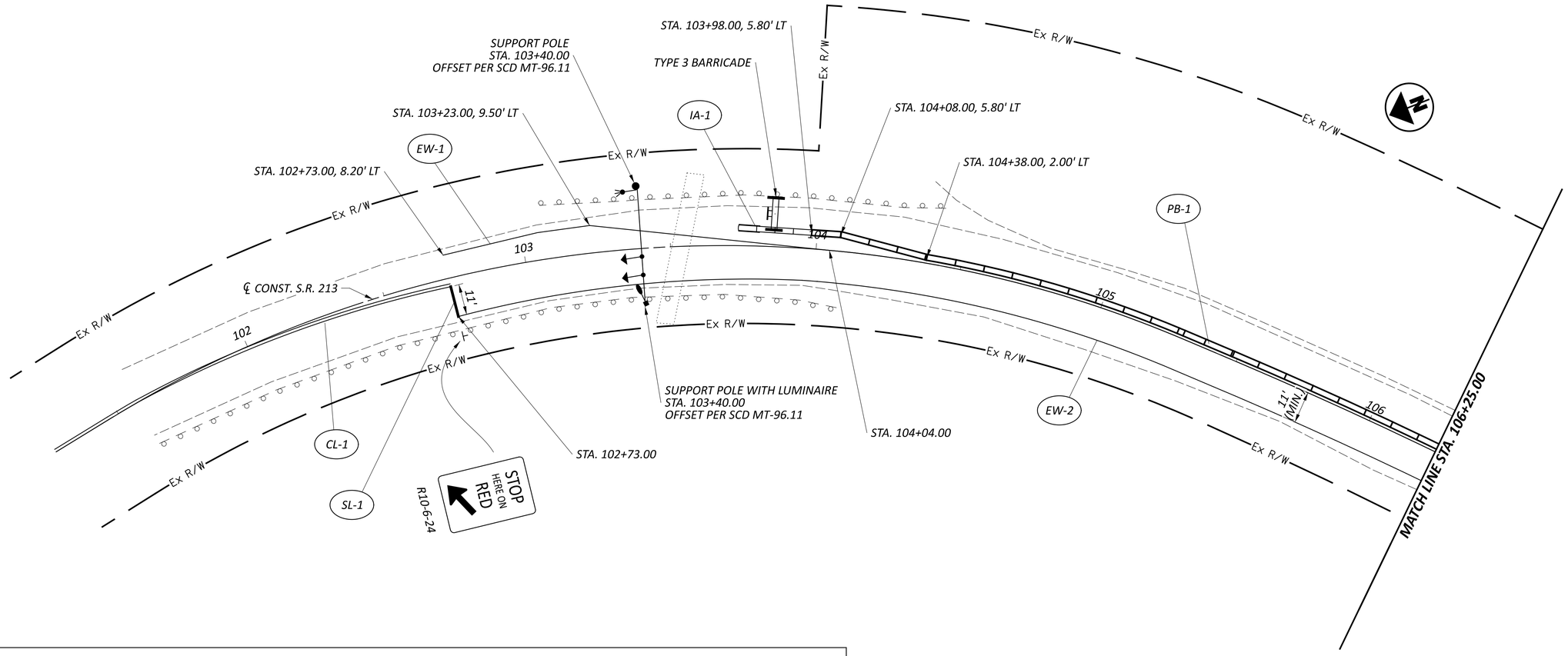
REF NO.	SHEET NO.	STATION TO STATION			SIDE	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	614 WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	614 WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (BIDIRECTIONAL)		622 PORTABLE BARRIER, UNANCHORED
						MILE	MILE	FT		EACH		FT
CL-1	P.09	97+73	TO	102+73	LT/RT	0.09						
CL-2	P.10	108+66	TO	113+66	RT	0.09						
SL-1	P.09	102+73	-	-	RT			11				
SL-2	P.10	108+66	-	-	LT/RT			11				
EW-1	P.09-P.10	102+73	TO	108+66	LT/RT		0.11					
EW-2	P.09-P.10	102+73	TO	108+66	RT		0.11					
IA-1	P.09	103+73	TO	103+98	LT					1		
IA-2	P.10	107+38	TO	107+63	LT					1		
PB-1	P.09-P.10	103+98	TO	107+38	LT							340
TOTALS CARRIED TO GENERAL SUMMARY						0.18	0.22	22		2		340

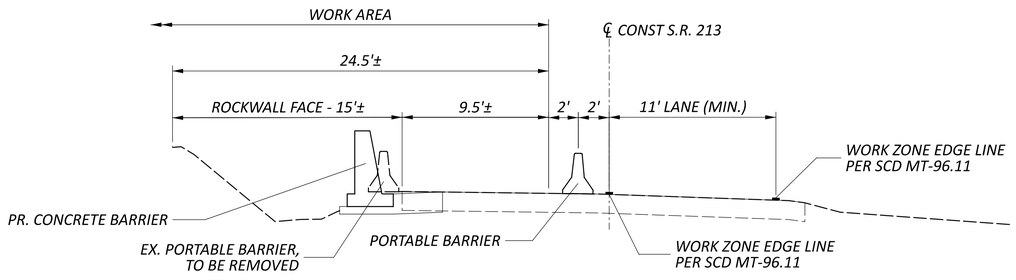
MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER JAR
REVIEWER BSH 3-14-23
PROJECT ID 115103
SHEET P.08 TOTAL 44

JEF-213-18.09





M.O.T TYPICAL SECTION

NOTES:

SEE STD. CONSTRUCTION DWG. MT-96.11, MT-96.20, AND MT-96.26 FOR DETAILS NOT SHOWN

FOR QUANTITIES, SEE SHEET P.08

LEGEND:

- *PORTABLE BARRIER*
- *WORK ZONE IMPACT ATTENUATOR*
- *WORK ZONE SIGNAL HEAD*
- *WORK ZONE DETECTOR UNIT*

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - S.R. 213
STA. 101+25.00 TO STA. 106+25.00

DESIGN AGENCY

DESIGNER	JAR
REVIEWER	BSH 3-14-23
PROJECT ID	115103
SHEET	P.09
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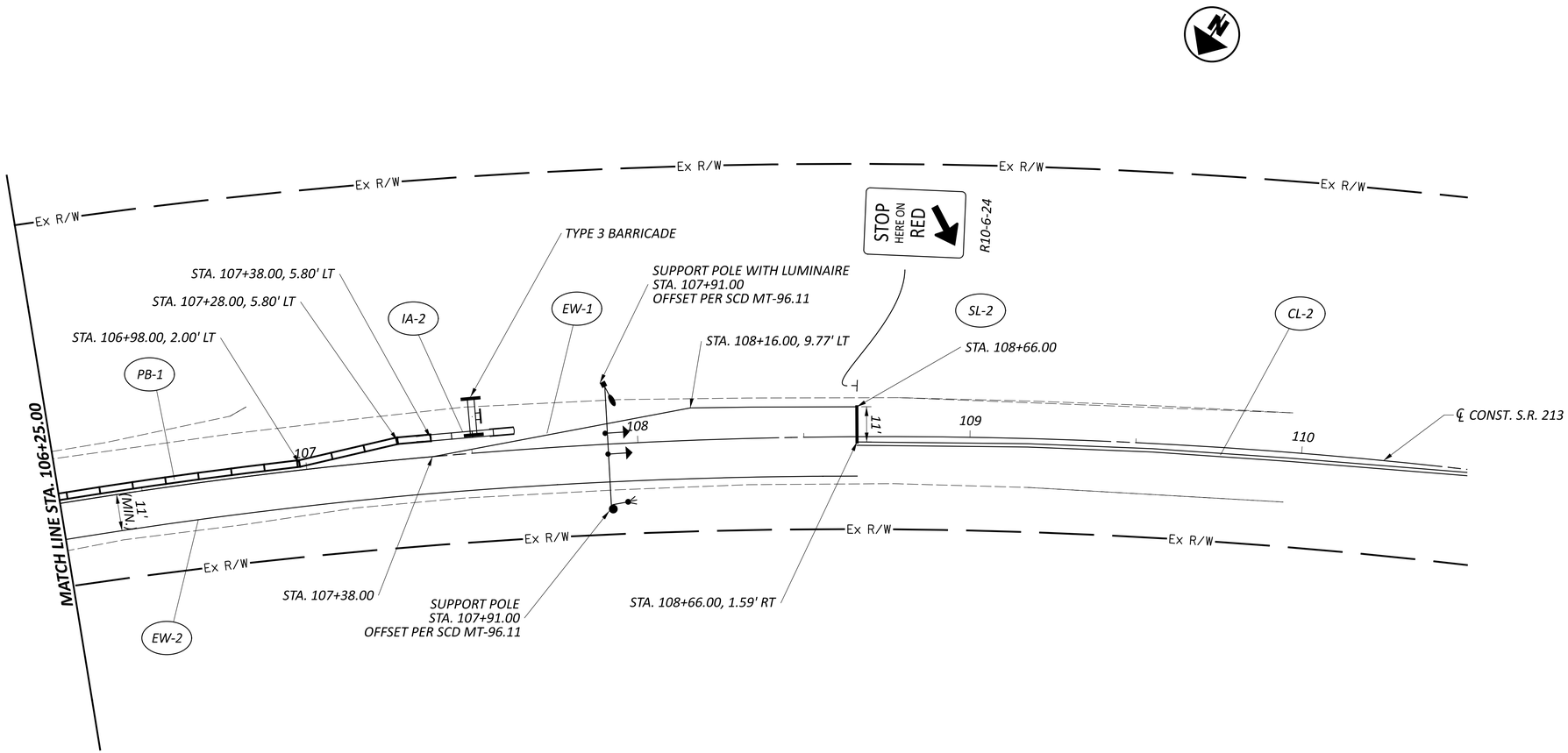

NOTES:

SEE STD. CONSTRUCTION DWG. MT-96.11, MT-96.20, AND MT-96.26 FOR DETAILS NOT SHOWN.

FOR QUANTITIES, SEE SHEET P.08.

FOR LEGEND, SEE SHEET P.09.

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - S.R. 213
STA. 106+25.00 TO STA. 110+50.00

DESIGN AGENCY

DESIGNER	JAR
REVIEWER	BSH 3-14-23
PROJECT ID	115103
SHEET	P.10
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SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.04	P.05				P.15				OFFICE CALCS	01/STR/06						
															ROADWAY	
LS										LS	201	11000	LS		CLEARING AND GRUBBING	
									143	143	202	23000	143	SY	PAVEMENT REMOVED	
					280					280	202	30701	280	FT	CONCRETE BARRIER REMOVED, AS PER PLAN	P.04
					26					26	202	35100	26	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
					140					140	202	38000	140	FT	GUARDRAIL REMOVED	
49										49	203	10000	49	CY	EXCAVATION	
63										63	203	20000	63	CY	EMBANKMENT	
									329	329	204	10000	329	SY	SUBGRADE COMPACTION	
										LS	208	10000	LS		PRE-BLAST CONDITION SURVEY	
					137.5					137.5	606	15050	137.5	FT	GUARDRAIL, TYPE MGS	
					2					2	606	26150	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
					2					2	606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					180					180	622	10161	180	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	P.36
					2					2	622	10201	2	EACH	BARRIER TRANSITION, AS PER PLAN	P.37
					2					2	622	25001	2	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	P.37
	60									60	862	00500	60	HOUR	SCALING	
	1,594									1,594	862	00601	1,594	SY	SLOPE DRAPE, AS PER PLAN	P.05
	444									444	862	00610	444	CY	EXCAVATION	
	500									500	862	00700	500	SF	TRIM BLASTING	
															EROSION CONTROL	
2										2	659	00100	2	EACH	SOIL ANALYSIS TEST	
29										29	659	00300	29	CY	TOPSOIL	
260										260	659	10000	260	SY	SEEDING AND MULCHING	
13										13	659	14000	13	SY	REPAIR SEEDING AND MULCHING	
0.04										0.04	659	20000	0.04	TON	COMMERCIAL FERTILIZER	
0.05										0.05	659	31000	0.05	ACRE	LIME	
5										5	659	35000	5	MGAL	WATER	
	434									434	671	15060	434	SY	EROSION CONTROL MAT, TYPE G	
										1,000	832	30000	1,000	EACH	EROSION CONTROL	
															PAVEMENT	
									22	22	301	56000	22	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
									61	61	304	20000	61	CY	AGGREGATE BASE	
									18	18	407	10000	18	GAL	TACK COAT	
									44	44	408	10001	44	GAL	PRIME COAT, AS PER PLAN	P.04
									4	4	441	70100	4	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
									5	5	441	70300	5	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
					38					38	609	24510	38	FT	CURB, TYPE 4-C	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 09-25-24

PROJECT ID 115103

SHEET P.11 TOTAL 44

JEF-213-18.09

SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	P.05	P.06	P.07	P.08	P.15					01/STR/06						
															TRAFFIC CONTROL	
	8									8	621	00100	8	EACH	RPM	
	8									8	621	54000	8	EACH	RAISED PAVEMENT MARKER REMOVED	
					5					5	626	00102	5	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)	
					6					6	626	00110	6	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
					69					69	630	02100	69	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
					11					11	630	08600	11	EACH	SIGN POST REFLECTOR	
					11					11	630	85100	11	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
					6					6	630	86002	6	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
	0.1									0.1	646	10010	0.1	MILE	EDGE LINE, 6"	
	0.05									0.05	646	10200	0.05	MILE	CENTER LINE	
															MAINTENANCE OF TRAFFIC	
			40							40	614	11110	40	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				2						2	614	12384	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
		2								2	614	12740	2	EACH	WORK ZONE LIGHTING SYSTEM	
		20								20	614	13000	20	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				8						8	614	13310	8	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)	
				4						4	614	13312	4	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
				12						12	614	13360	12	EACH	OBJECT MARKER, TWO WAY	
				0.18						0.18	614	21100	0.18	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
				0.18						0.18	614	21200	0.18	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
				0.22						0.22	614	22110	0.22	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
				0.22						0.22	614	22210	0.22	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
				22						22	614	26400	22	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
		25								25	616	10000	25	MGAL	WATER	
				340						340	622	41100	340	FT	PORTABLE BARRIER, UNANCHORED	
															INCIDENTALS	
		LS								LS	614	11000	LS		MAINTAINING TRAFFIC	
										4	619	16010	4	MNTH	FIELD OFFICE, TYPE B	
										LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 09-25-24

PROJECT ID 115103

SHEET P.12 TOTAL 44

JEF-213-18.09

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:01 PM USER: bhovanic
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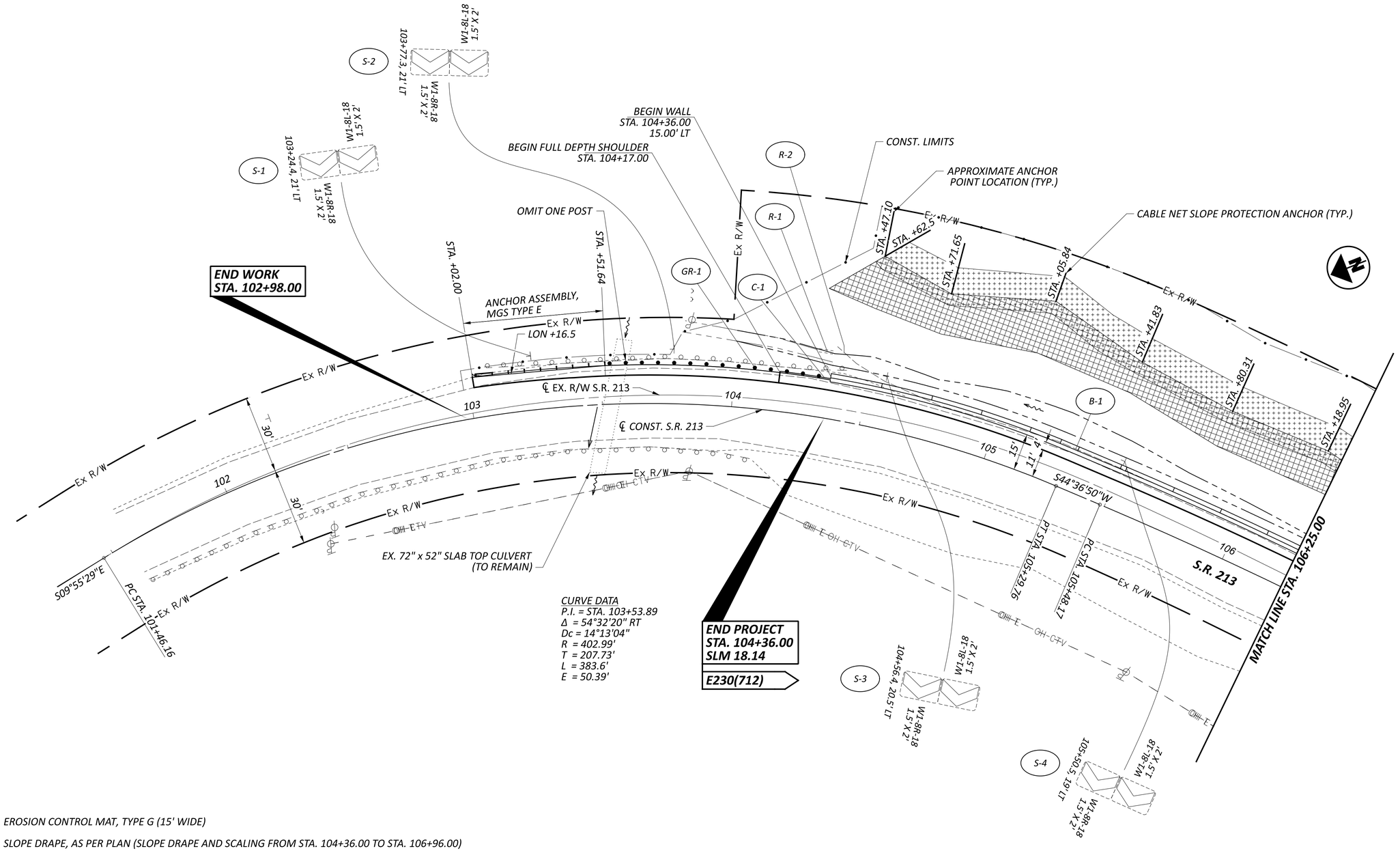

CURVE DATA
P.I. = STA. 103+53.89
Δ = 54°32'20" RT
Dc = 14°13'04"
R = 402.99'
T = 207.73'
L = 383.6'
E = 50.39'

END PROJECT
STA. 104+36.00
SLM 18.14

E230(712)

LEGEND:

- *ITEM 671, EROSION CONTROL MAT, TYPE G (15' WIDE)*
- *ITEM 862, SLOPE DRAPE, AS PER PLAN (SLOPE DRAPE AND SCALING FROM STA. 104+36.00 TO STA. 106+96.00)*

NOTE: ALL EXISTING SIGNS ARE TO BE REMOVED AND RESET ON NEW POSTS AT THE PROPOSED LOCATIONS SHOWN UNLESS OTHERWISE NOTED.

FOR ESTIMATED QUANTITIES, SEE SHEET P.15

FOR CONCRETE BARRIER DETAILS, SEE SHEETS P.36 - P.37

FOR SLOPE DRAPE DETAILS, SEE SHEETS P.38 - P.39

FOR THE RELATIONSHIP OF ℄ EX. RW S.R. 213 TO ℄ CONST. S.R. 213, SEE SHEET P.40

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN SHEET -S.R. 213
STA. 101+25.00 TO 106+25.00

DESIGN AGENCY

DESIGNER
JAR

REVIEWER
BSH 3-14-23

PROJECT ID
115103

SHEET P.13 TOTAL 44

JEF-213-18.09

MODEL: CLP_2 - SR213 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:10 PM USER: bhovanic
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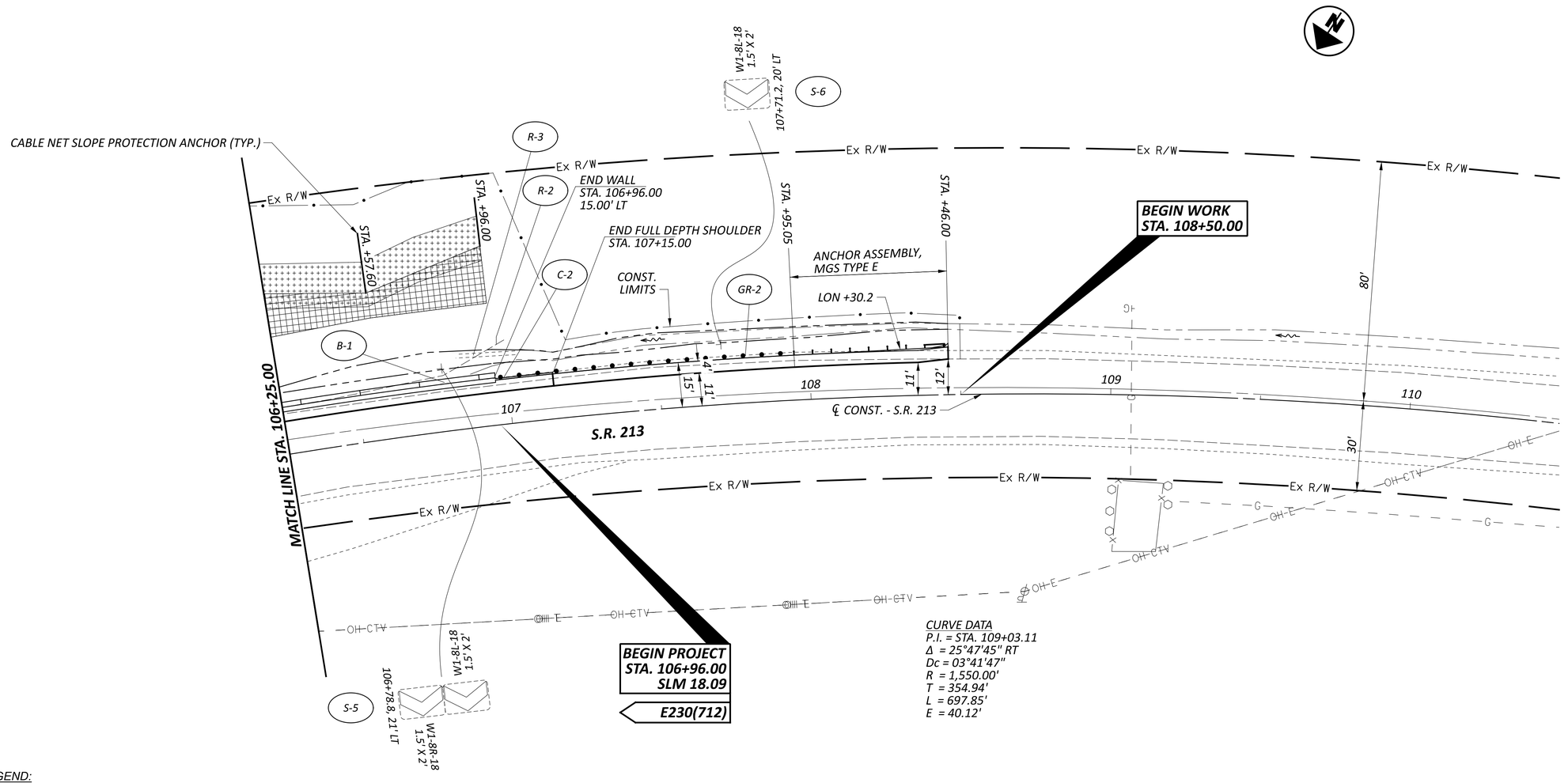

LEGEND:

- ITEM 671, EROSION CONTROL MAT, TYPE G (15' WIDE)
- ITEM 862, SLOPE DRAPE, AS PER PLAN (SLOPE DRAPE AND SCALING FROM STA. 104+36.00 TO STA. 106+96.00)

NOTE: ALL EXISTING SIGNS ARE TO BE REMOVED AND RESET ON NEW POSTS AT THE PROPOSED LOCATIONS SHOWN UNLESS OTHERWISE NOTED.

FOR ESTIMATED QUANTITIES, SEE SHEET P.15

FOR CONCRETE BARRIER DETAILS, SEE SHEETS P.36 - P.37

FOR SLOPE DRAPE DETAILS, SEE SHEETS P.38 - P.39

FOR THE RELATIONSHIP OF ℄ EX. RW S.R. 213 TO ℄ CONST. S.R. 213, SEE SHEET P.40

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET - S.R. 213
STA. 106+25.00 TO STA. 110+50.00

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.14 TOTAL 44

JEF-213-18.09

MODEL: CLP_2 - SR214 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:11 PM USER: bhovanic
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REF NO.	SHEET NO.	STATION TO STATION			SIDE	202 CONCRETE BARRIER REMOVED, AS PER PLAN	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 GUARDRAIL REMOVED	606 GUARDRAIL, TYPE MGS	606 ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350 OR MASH 2016)	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	609 CURB, TYPE 4-C	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	622 BARRIER TRANSITION, AS PER PLAN	622 CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	626 BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)	626 BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 SIGN POST REFLECTOR	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL				
						FT	FT	FT	FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH				
C-1	P.13	104+17.00	TO	104+36.00	LT							19													
C-2	P.14	106+96.00	TO	107+15.00	LT							19													
GR-1	P.13	103+02.00	TO	104+36.00	LT			140	62.5	1	1						3								
GR-2	P.14	106+96.00	TO	108+46.00	LT				75	1	1						3								
B-1	P.13-P.14	104+36.00	TO	106+96.00	LT								180	2	2	5									
R-1	P.13	104+30	TO	104+35	LT		5																		
R-2	P.13-P.14	104+37	TO	107+00	LT	280																			
R-3	P.14	106+84	TO	107+03	LT		21																		
S-1	P.13	103+24	-	-	LT													11.5	2	2	1				
S-2	P.13	103+77	-	-	LT													11.5	2	2	1				
S-3	P.13	104+56	-	-	LT													11.5	2	2	1				
S-4	P.13	105+51	-	-	LT													11.5	2	2	1				
S-5	P.14	106+79	-	-	LT													11.5	2	2	1				
S-6	P.14	107+71	-	-	LT													11.5	1	1	1				
TOTALS CARRIED TO GENERAL SUMMARY						280	26	140	137.5	2	2	38	180	2	2	5	6	69	11	11	6				

ESTIMATED QUANTITIES

DESIGN AGENCY

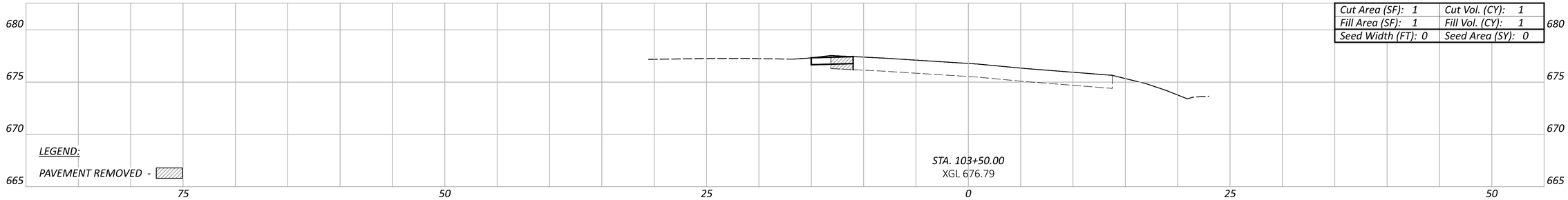
DESIGNER JAR

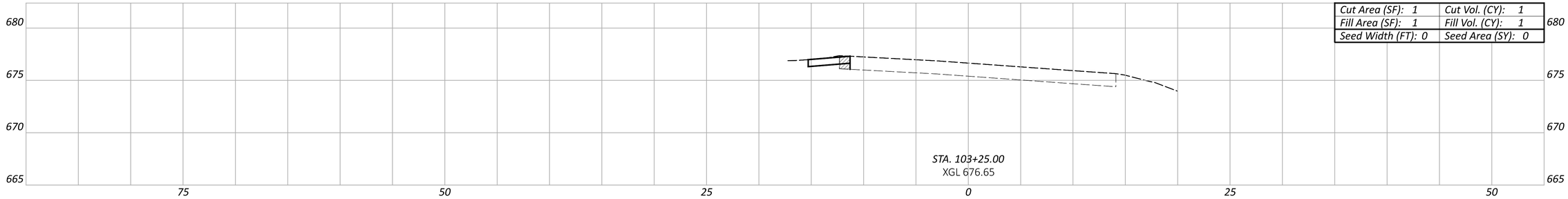
REVIEWER BSH 09-25-24

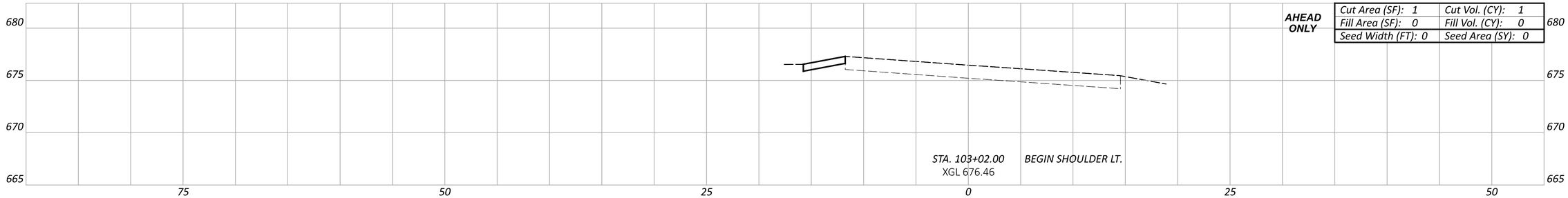
PROJECT ID 115103

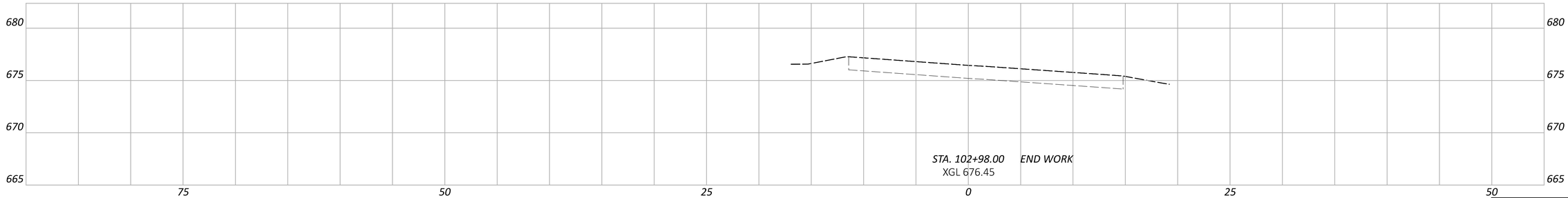
SHEET P.15 | TOTAL 44

JEF-213-18.09









CROSS SECTIONS - S.R. 213
STA. 102+98.00 TO STA. 103+50.00

JEF-213-18.09

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pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_XS005.dgn

DESIGN AGENCY

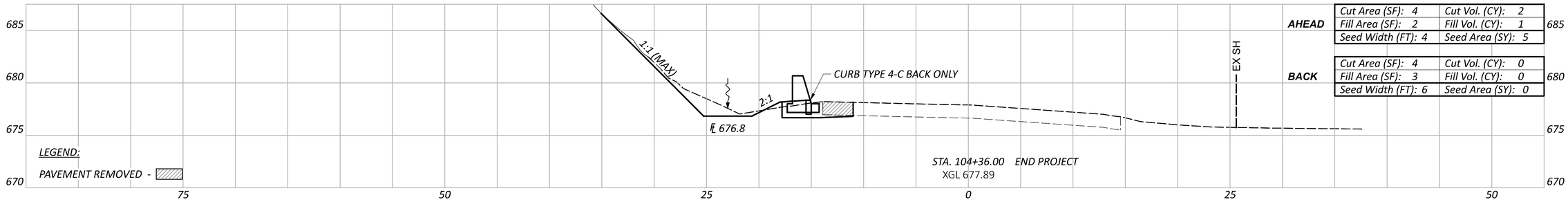
DESIGNER
JAR

REVIEWER
BSH 3-14-23

PROJECT ID
115103

Sheet Totals		
Seeding	Cut	Fill
0	3	2

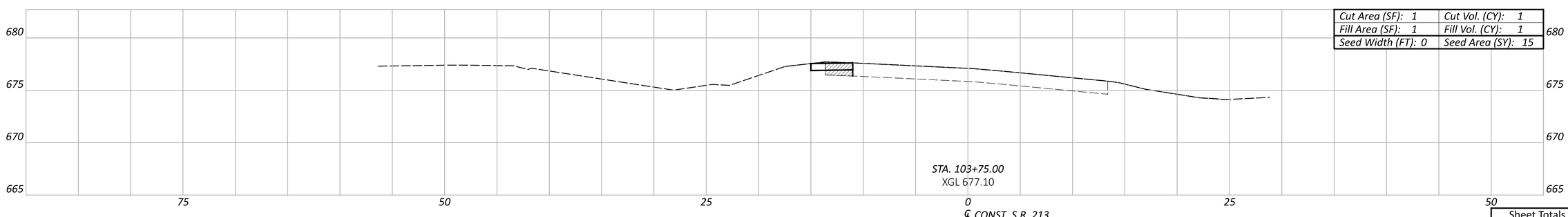
SHEET P.16 TOTAL 44



AHEAD		
Cut Area (SF): 4	Cut Vol. (CY): 2	
Fill Area (SF): 2	Fill Vol. (CY): 1	
Seed Width (FT): 4	Seed Area (SY): 5	

BACK		
Cut Area (SF): 4	Cut Vol. (CY): 0	
Fill Area (SF): 3	Fill Vol. (CY): 0	
Seed Width (FT): 6	Seed Area (SY): 0	

Cut Area (SF): 1	Cut Vol. (CY): 3	
Fill Area (SF): 2	Fill Vol. (CY): 3	
Seed Width (FT): 11	Seed Area (SY): 34	



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Fill Area (SF): 1	Fill Vol. (CY): 1	
Seed Width (FT): 0	Seed Area (SY): 15	

Sheet Totals		
Seeding	Cut	Fill
54	6	5

CROSS SECTIONS - S.R. 213
STA. 103+75.00 TO STA. 104+36.00

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.17 TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 103+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:26 PM USER: bhovanic
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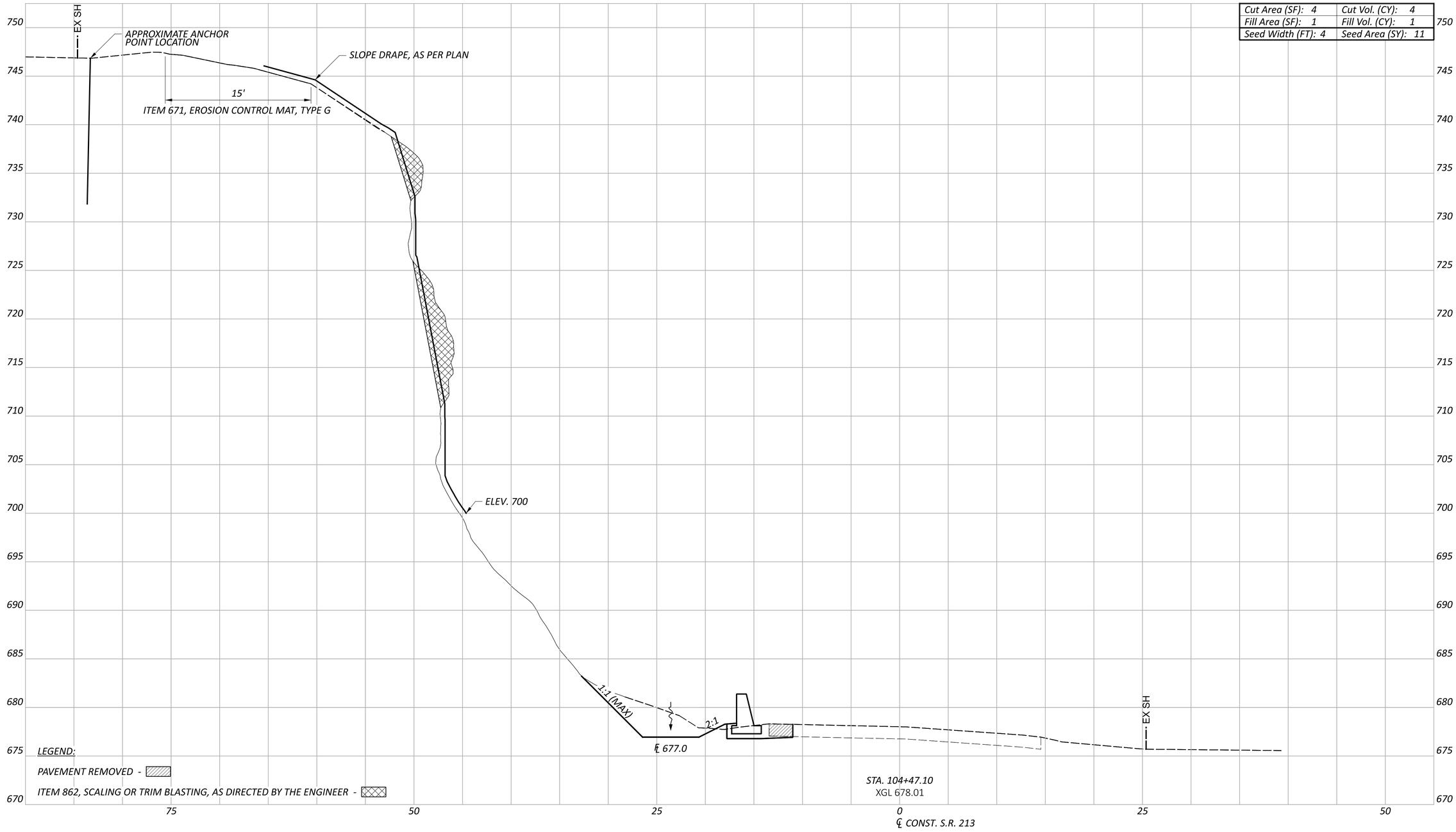
Cut Area (SF): 4	Cut Vol. (CY): 4
Fill Area (SF): 1	Fill Vol. (CY): 1
Seed Width (FT): 4	Seed Area (SY): 11



LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

STA. 104+47.10
XGL 678.01

CROSS SECTIONS - S.R. 213
STA. 104+47.10

JEF-213-18.09

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DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.18 | TOTAL 44

Cut Area (SF): 4	Cut Vol. (CY): 5
Fill Area (SF): 2	Fill Vol. (CY): 4
Seed Width (FT): 4	Seed Area (SY): 15

EX SH

APPROXIMATE ANCHOR POINT LOCATION

SLOPE DRAPE, AS PER PLAN

15'

ITEM 671, EROSION CONTROL MAT, TYPE G

ELEV. 700

1:1 (MAX)

2:1

℄ 677.2

EX SH

LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

STA. 104+71.65
XGL 678.26

℄ CONST. S.R. 213

765 760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

75 50 25 0 25 50

CROSS SECTIONS - S.R. 213
STA. 104+71.65

JEF-213-18.09

MODEL: CLP_213 - 104+71.65 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:28 PM USER: bhovanic
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DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.19 TOTAL 44

Cut Area (SF): 4	Cut Vol. (CY): 2
Fill Area (SF): 4	Fill Vol. (CY): 3
Seed Width (FT): 4	Seed Area (SY): 9

EX SH

APPROXIMATE ANCHOR POINT LOCATION

SLOPE DRAPE, AS PER PLAN

15'

ITEM 671, EROSION CONTROL MAT, TYPE G

ELEV. 700

1:1 (MAX)

2:1

℄ 677.3

EX SH

LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

STA. 105+05.84
XGL 678.55

℄ CONST. S.R. 213

770 765 760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

75 50 25 0 25 50

CROSS SECTIONS - S.R. 213
STA. 105+05.84

JEF-213-18.09

MODEL: CLP_213 - 105+05.84 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:28 PM USER: bhovanic
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DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.20 TOTAL 44

Cut Area (SF): 3	Cut Vol. (CY): 2
Fill Area (SF): 5	Fill Vol. (CY): 3
Seed Width (FT): 4	Seed Area (SY): 7

EX SH

SLOPE DRAPE, AS PER PLAN

15'

ITEM 671, EROSION CONTROL MAT, TYPE G

ELEV. 700

1:1 (MAX)

2:1

℄ 677.5

EX SH

STA. 105+25.00
XGL 678.72

℄ CONST. S.R. 213

LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

770 765 760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675

75 50 25 0 25 50

CROSS SECTIONS - S.R. 213
STA. 105+25.00

JEF-213-18.09

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DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.21 TOTAL 44

Cut Area (SF): 3	Cut Vol. (CY): 4
Fill Area (SF): 5	Fill Vol. (CY): 7
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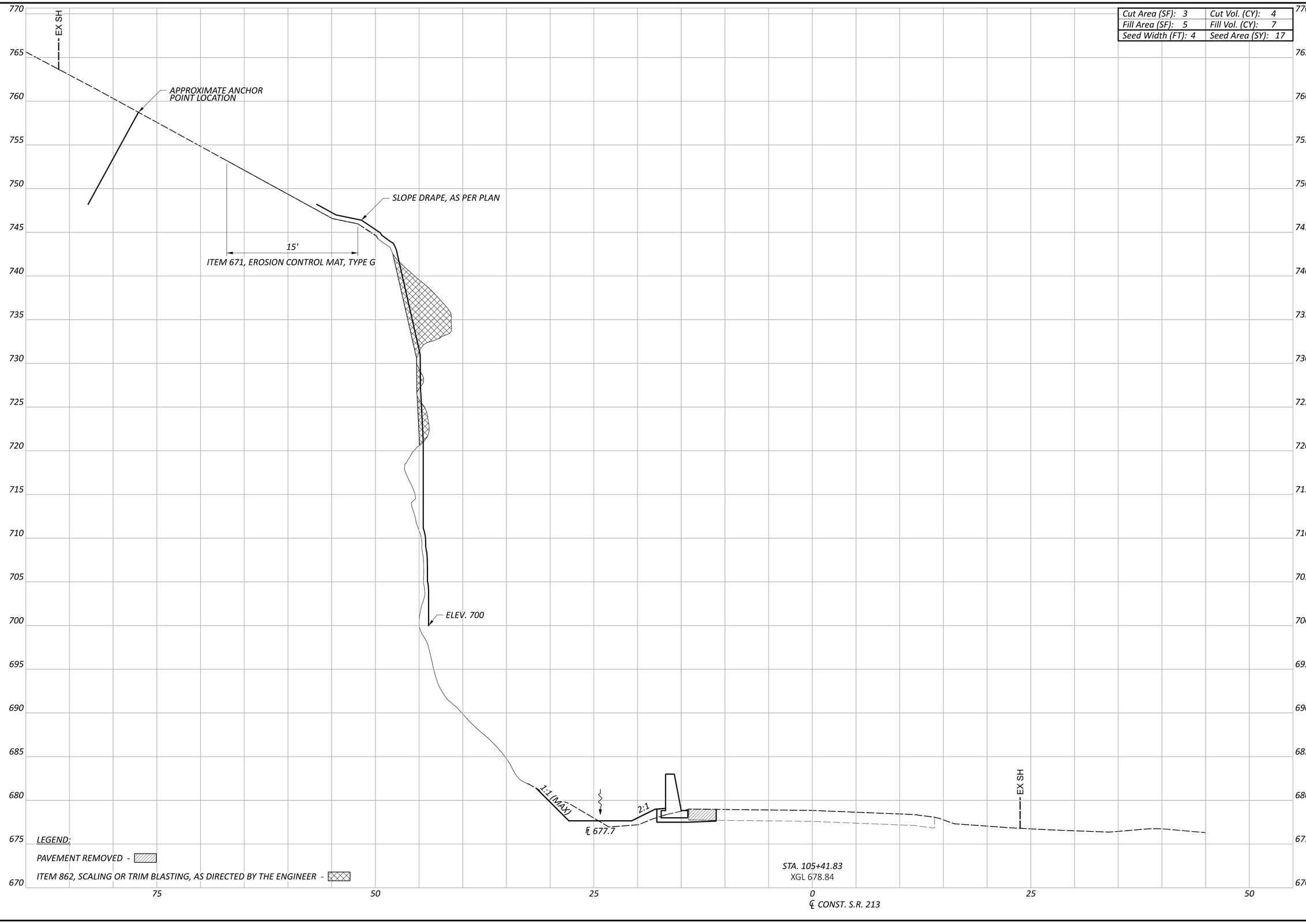

CROSS SECTIONS - S.R. 213
STA. 105+41.83

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.22 TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 105+41.83 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:29 PM USER: bhovanic
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Cut Area (SF): 3	Cut Vol. (CY): 2
Fill Area (SF): 5	Fill Vol. (CY): 4
Seed Width (FT): 4	Seed Area (SY): 9

765 760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

EX SH

APPROXIMATE ANCHOR POINT LOCATION

SLOPE DRAPE, AS PER PLAN

15'

ITEM 671, EROSION CONTROL MAT, TYPE G

ELEV. 700

1:1 (MAX)

2:1

℄ 678.0

EX SH

75 50 25 0 25 50

℄ CONST. S.R. 213

STA. 105+80.31
XGL 679.13

LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

CROSS SECTIONS - S.R. 213
STA. 105+80.31

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.23 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 105+80.31 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:30 PM USER: bhovanic
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Cut Area (SF): 3	Cut Vol. (CY): 2
Fill Area (SF): 6	Fill Vol. (CY): 4
Seed Width (FT): 4	Seed Area (SY): 8

765 760 755 750 745 740 735 730 725 720 715 710 705 700 695 690 685 680 675 670

EX SH

SLOPE DRAPE, AS PER PLAN

15'

ITEM 671, EROSION CONTROL MAT, TYPE G

ELEV. 700

1:1 (MAX)

2:1

℄ 678.2

EX SH

LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

STA. 106+00.00
XGL 679.32

75 50 25 0 25 50

℄ CONST. S.R. 213

CROSS SECTIONS - S.R. 213
STA. 106+00.00

JEF-213-18.09

MODEL: CLP_213 - 106+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:30 PM USER: bhovanic
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DESIGN AGENCY

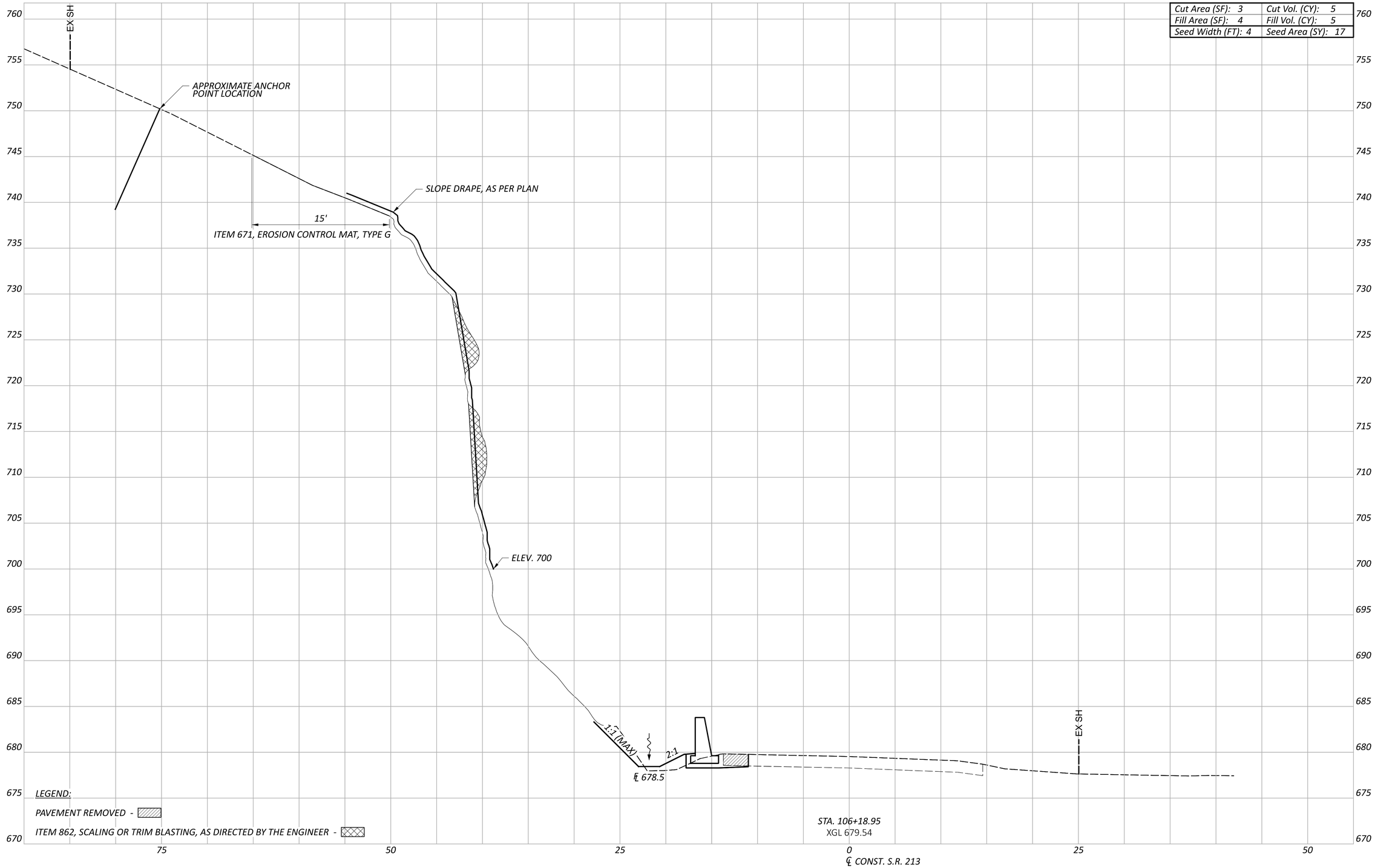
DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.24 | TOTAL 44

Cut Area (SF): 3	Cut Vol. (CY): 5
Fill Area (SF): 4	Fill Vol. (CY): 5
Seed Width (FT): 4	Seed Area (SY): 17



LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

STA. 106+18.95
XGL 679.54

CROSS SECTIONS - S.R. 213
STA. 106+18.95

DESIGN AGENCY

DESIGNER: JAR
REVIEWER: BSH 3-14-23
PROJECT ID: 115103
SHEET: P.25 TOTAL: 44

JEF-213-18.09

MODEL: CLP_213 - 106+18.95 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:30 PM USER: bhovanic
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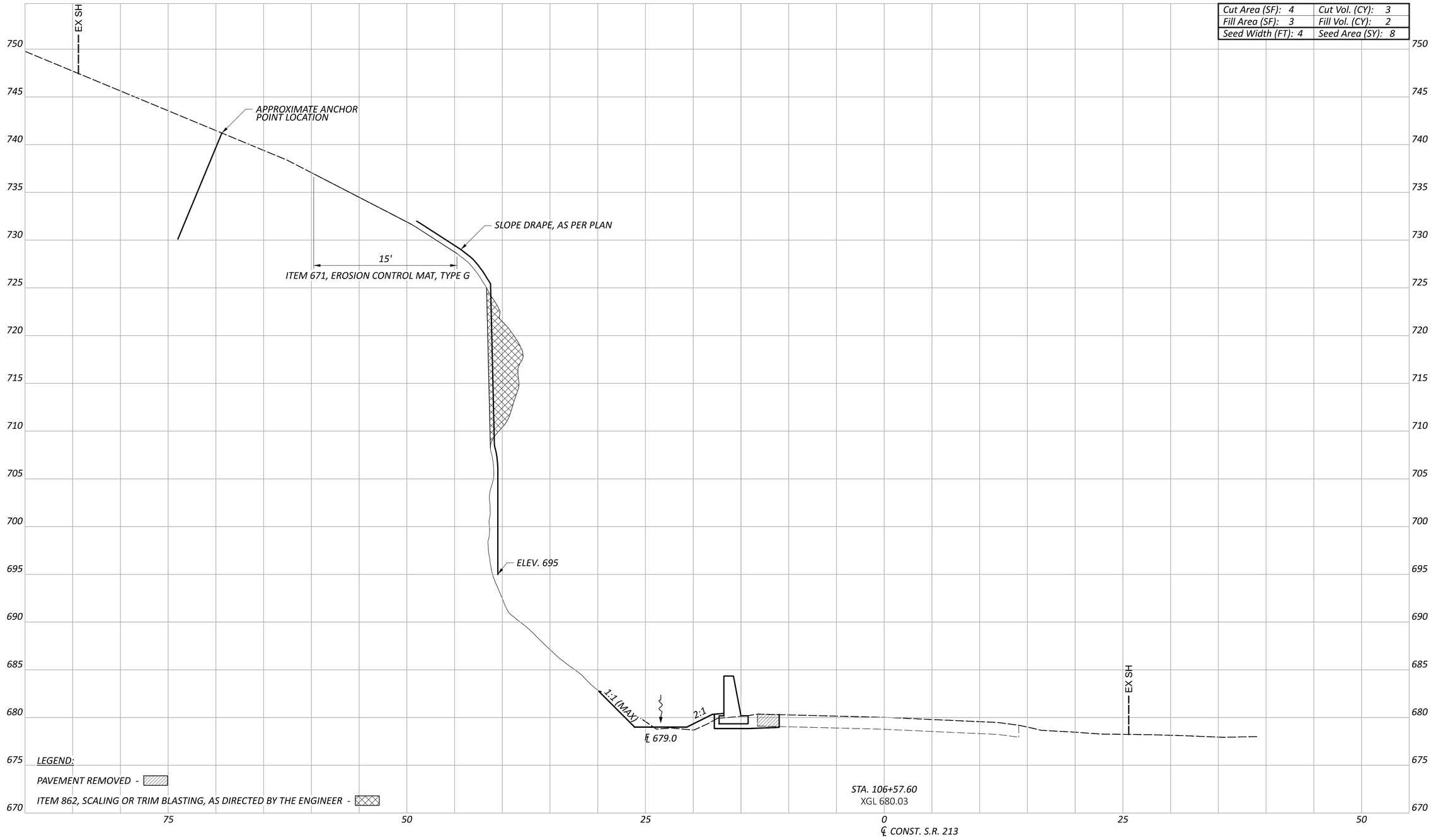
Seed Width (FT): 4	Seed Area (SY): 8



LEGEND:

PAVEMENT REMOVED -

ITEM 862, SCALING OR TRIM BLASTING, AS DIRECTED BY THE ENGINEER -

STA. 106+57.60
XGL 680.03

CROSS SECTIONS - S.R. 213
STA. 106+57.60

DESIGN AGENCY

DESIGNER: JAR
REVIEWER: BSH 3-14-23
PROJECT ID: 115103
SHEET: P.26 | TOTAL: 44

JEF-213-18.09

MODEL: CLP_213 - 106+57.60 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:31 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_XS005.dgn

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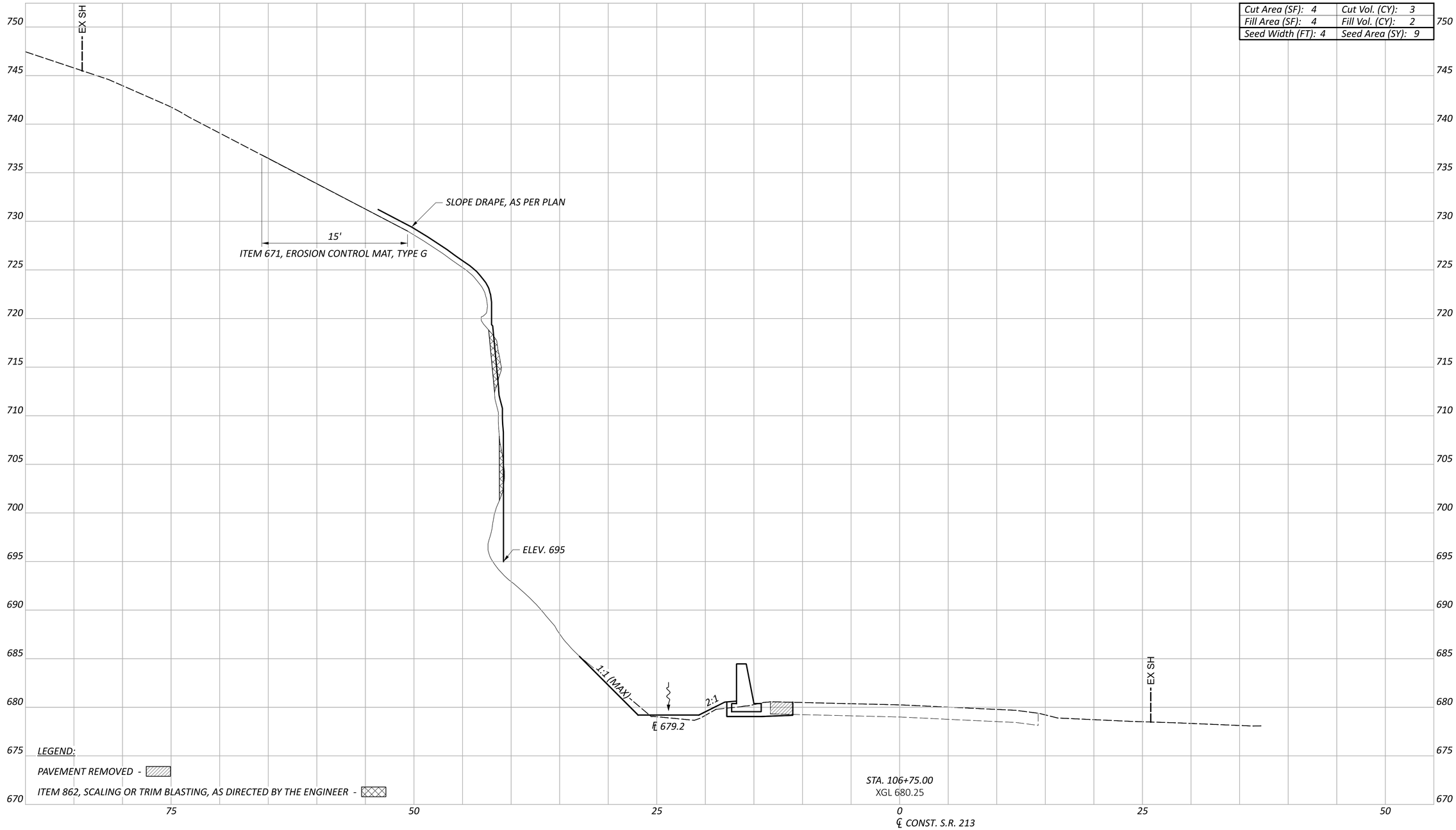
Seed Width (FT): 4	Seed Area (SY): 9



CROSS SECTIONS - S.R. 213
STA. 106+75.00

JEF-213-18.09

MODEL: CLP_213 - 106+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:31 PM USER: bhovanic
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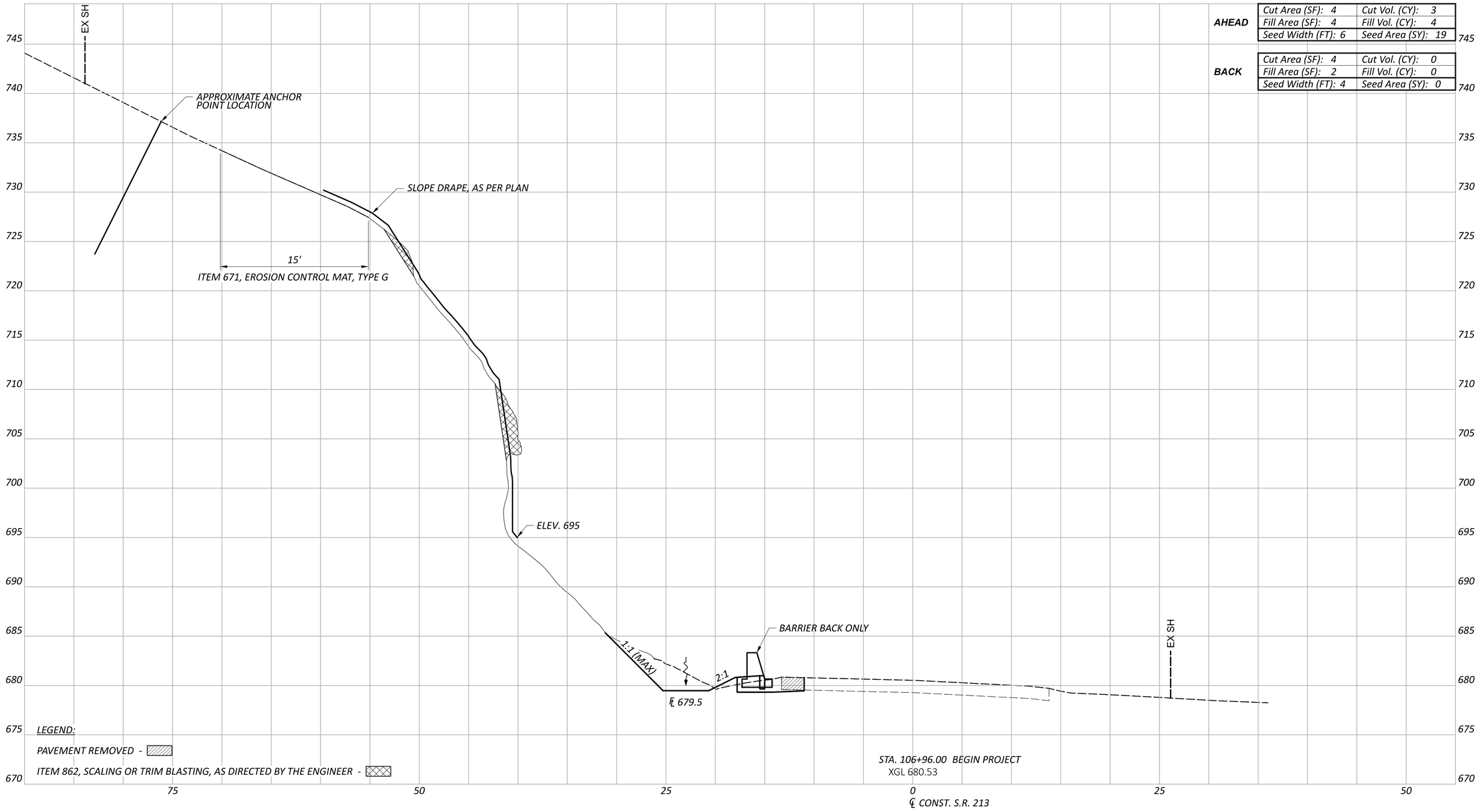
DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.27 TOTAL 44



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	Fill Area (SF): 4	Fill Vol. (CY): 4
	Seed Width (FT): 6	Seed Area (SY): 19

BACK	Cut Area (SF): 4	Cut Vol. (CY): 0
	Fill Area (SF): 2	Fill Vol. (CY): 0
	Seed Width (FT): 4	Seed Area (SY): 0

JEF-213-18.09

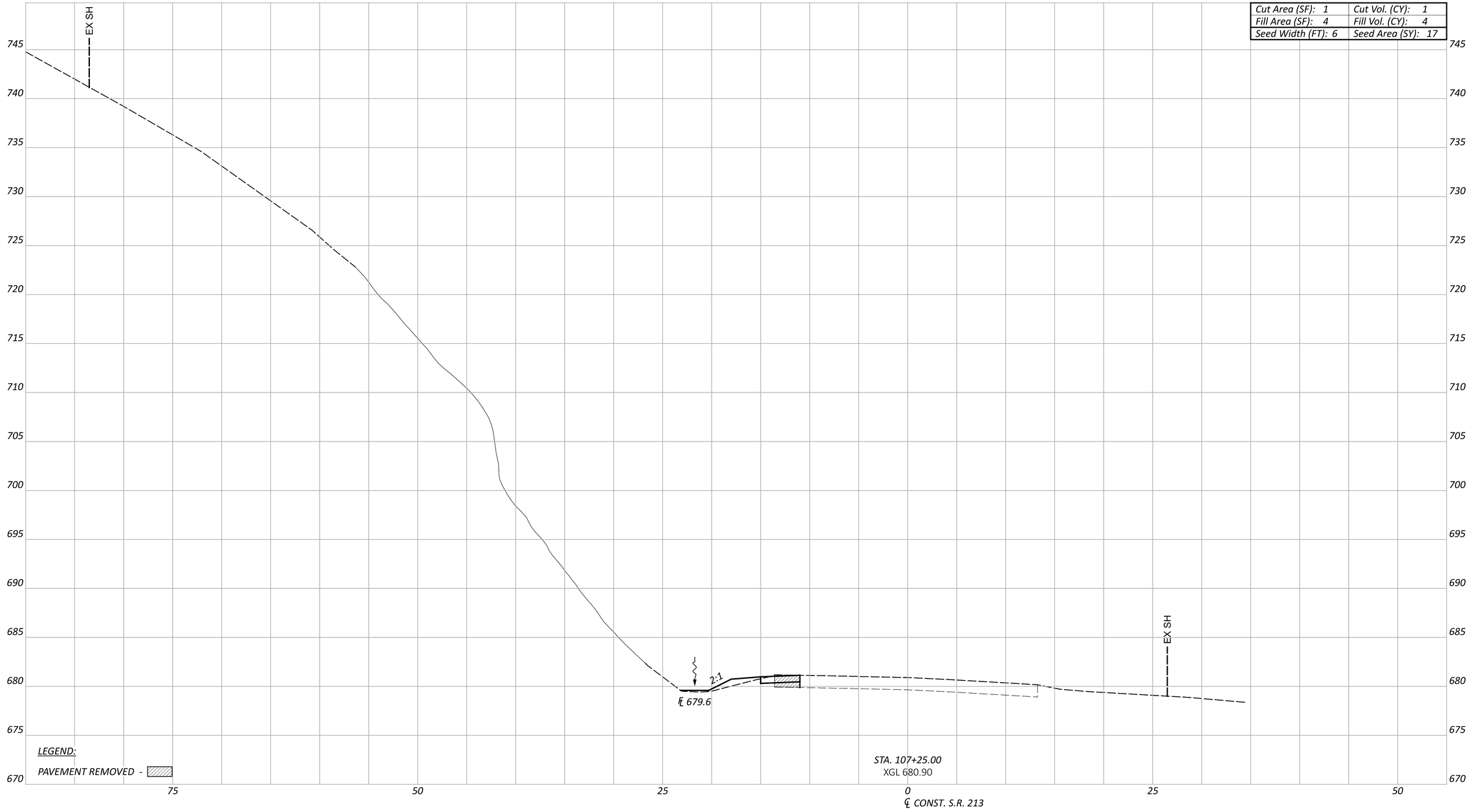
MODEL: CLP_213 - 106+96.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:32 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_XS005.dgn

CROSS SECTIONS - S.R. 213
STA. 106+96.00

DESIGN AGENCY

DESIGNER JAR
REVIEWER BSH 3-14-23
PROJECT ID 115103
SHEET P.28 TOTAL 44

Cut Area (SF): 1	Cut Vol. (CY): 1
Fill Area (SF): 4	Fill Vol. (CY): 4
Seed Width (FT): 6	Seed Area (SY): 17



CROSS SECTIONS - S.R. 213
STA. 107+25.00

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.29 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 107+25.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:32 PM USER: bhovanic
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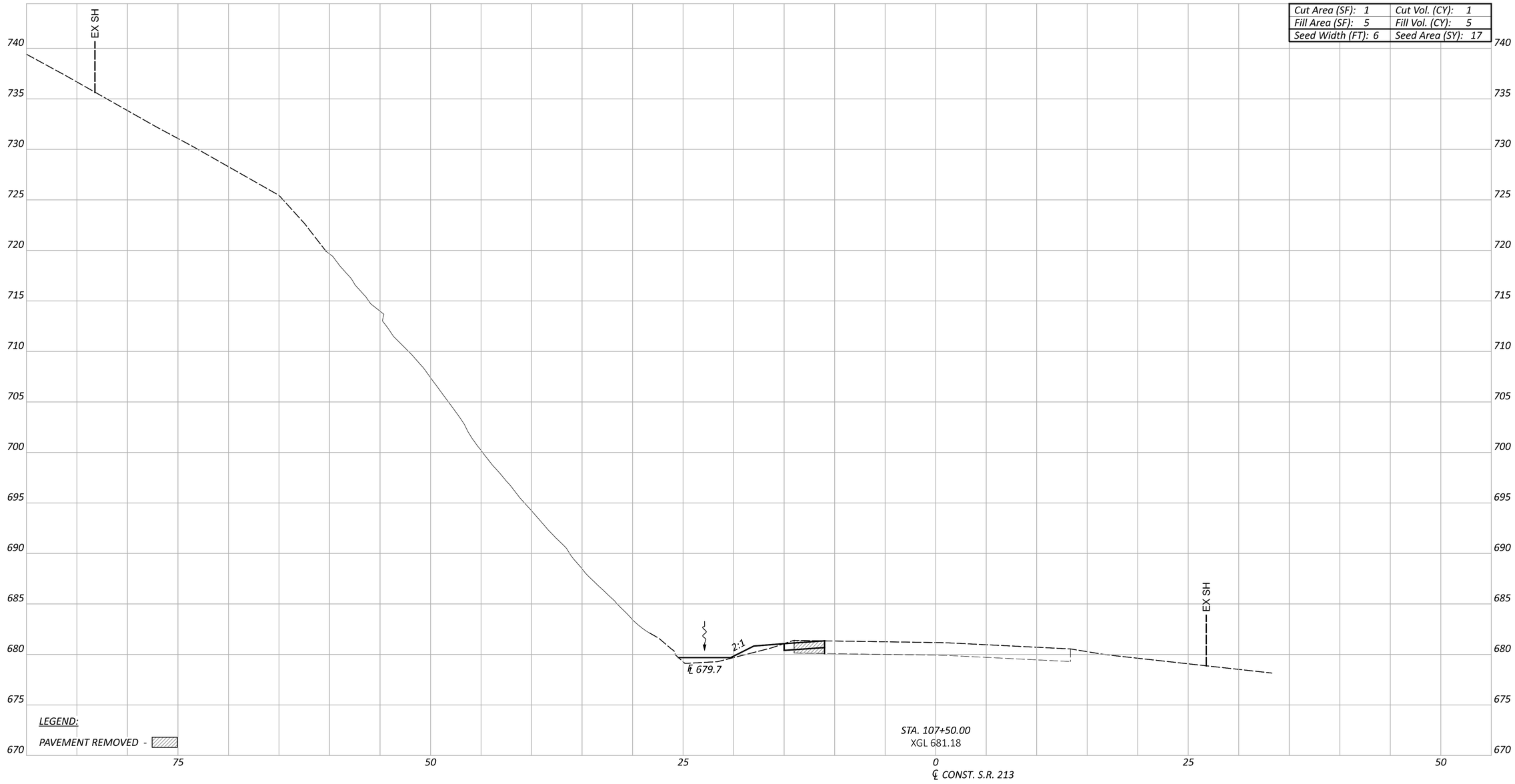
Cut Area (SF): 1	Cut Vol. (CY): 1
Fill Area (SF): 5	Fill Vol. (CY): 5
Seed Width (FT): 6	Seed Area (SY): 17



LEGEND:

PAVEMENT REMOVED -

STA. 107+50.00
XGL 681.18

CROSS SECTIONS - S.R. 213
STA. 107+50.00

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

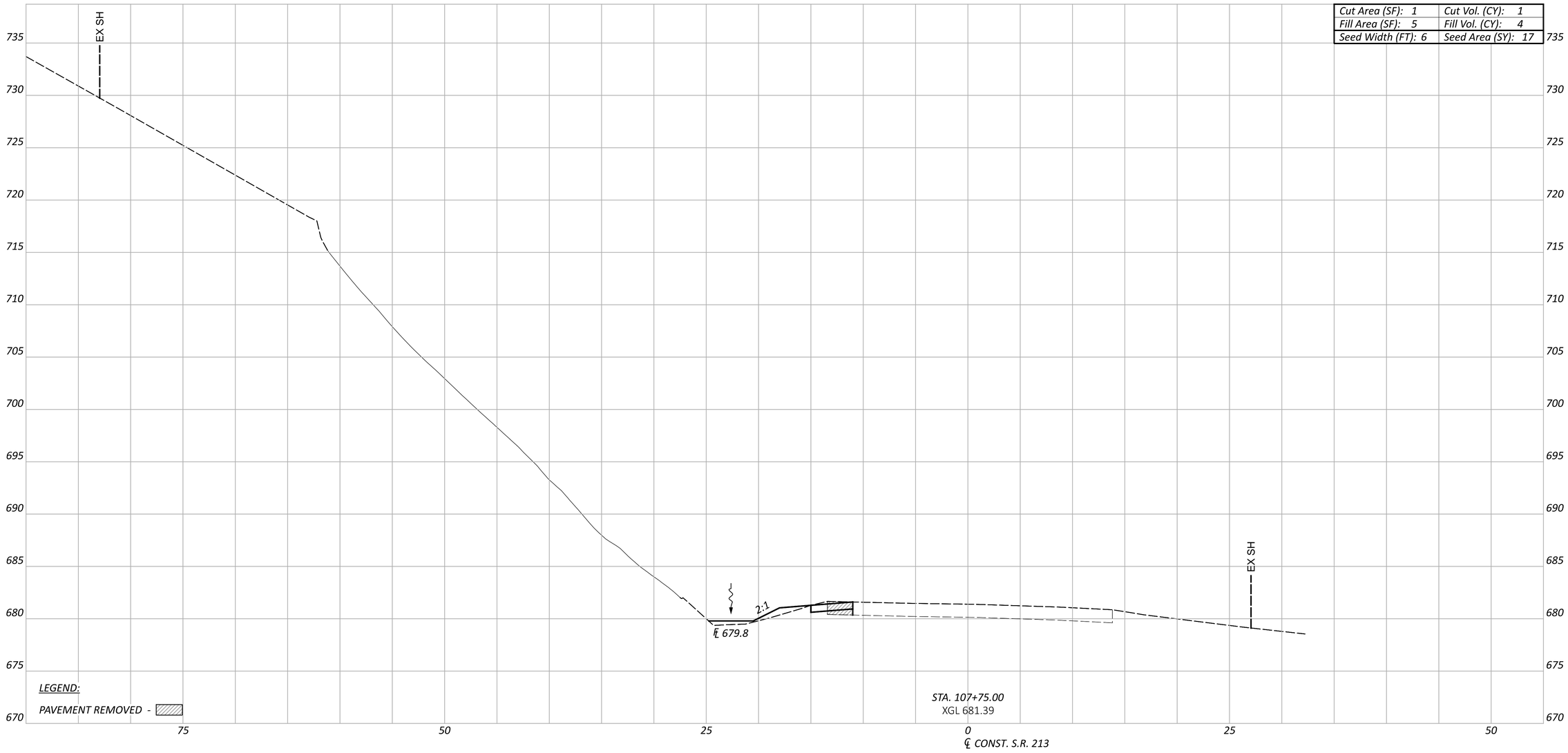
PROJECT ID 115103

SHEET P.30 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 107+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:33 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_XS005.dgn

Cut Area (SF): 1	Cut Vol. (CY): 1
Fill Area (SF): 5	Fill Vol. (CY): 4
Seed Width (FT): 6	Seed Area (SY): 17



LEGEND:

PAVEMENT REMOVED -

STA. 107+75.00
XGL 681.39

CROSS SECTIONS - S.R. 213
STA. 107+75.00

DESIGN AGENCY

DESIGNER
JAR

REVIEWER
BSH 3-14-23

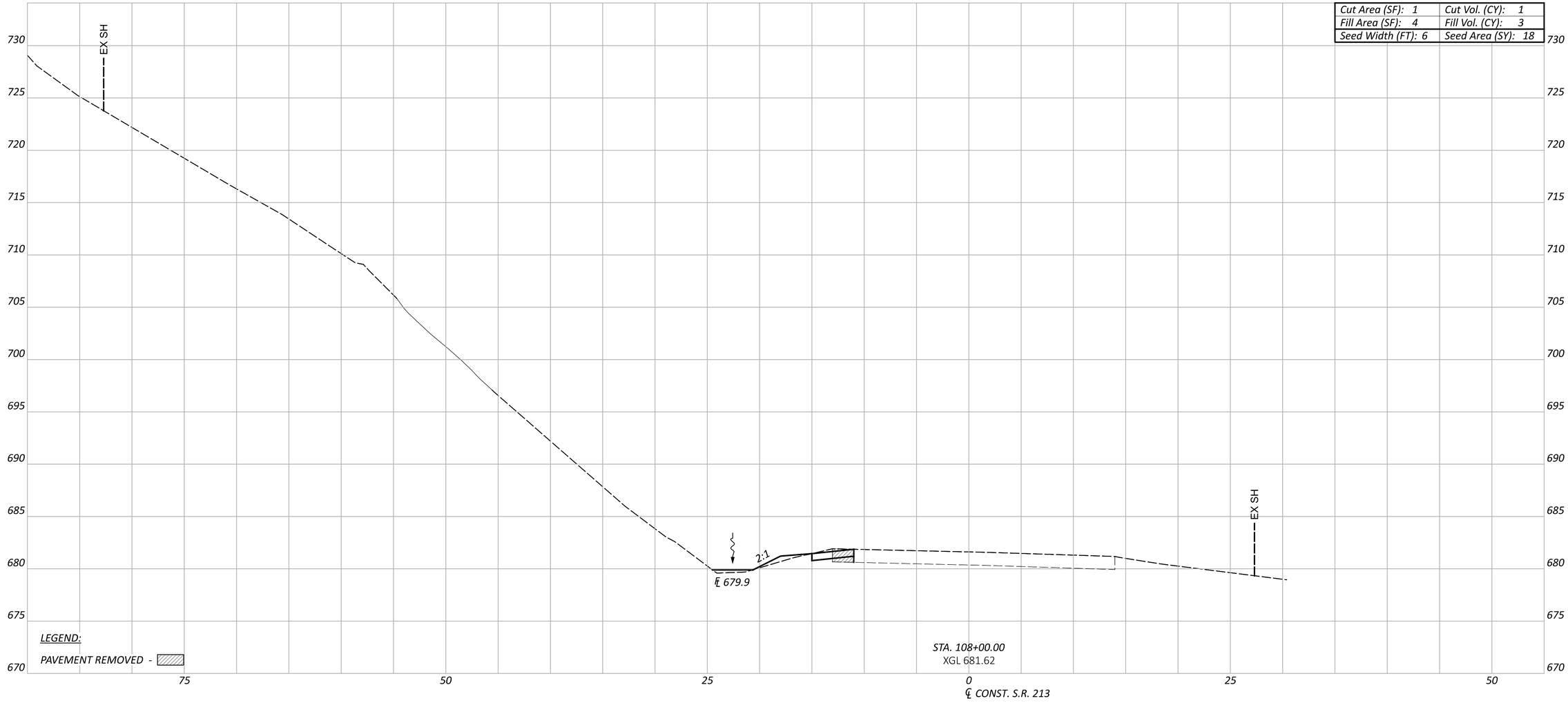
PROJECT ID
115103

SHEET P.31 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 107+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:33 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_XS005.dgn

Cut Area (SF): 1	Cut Vol. (CY): 1
Fill Area (SF): 4	Fill Vol. (CY): 3
Seed Width (FT): 6	Seed Area (SY): 18



CROSS SECTIONS - S.R. 213
STA. 108+00.00

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.32 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 108+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:34 PM USER: bhovanic
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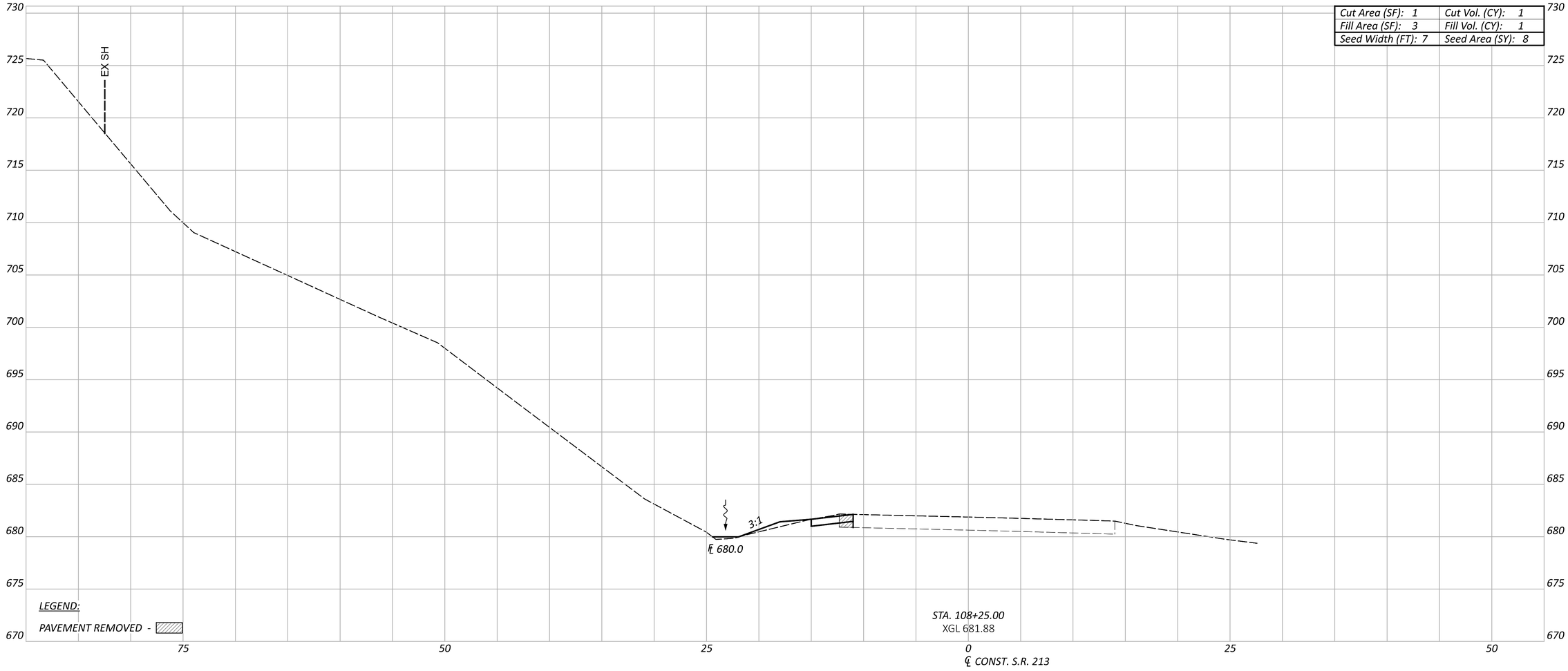

Cut Area (SF): 1	Cut Vol. (CY): 1
Fill Area (SF): 3	Fill Vol. (CY): 1
Seed Width (FT): 7	Seed Area (SY): 8

CROSS SECTIONS - S.R. 213
STA. 108+25.00

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.33 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 108+25.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:34 PM USER: bhovanic
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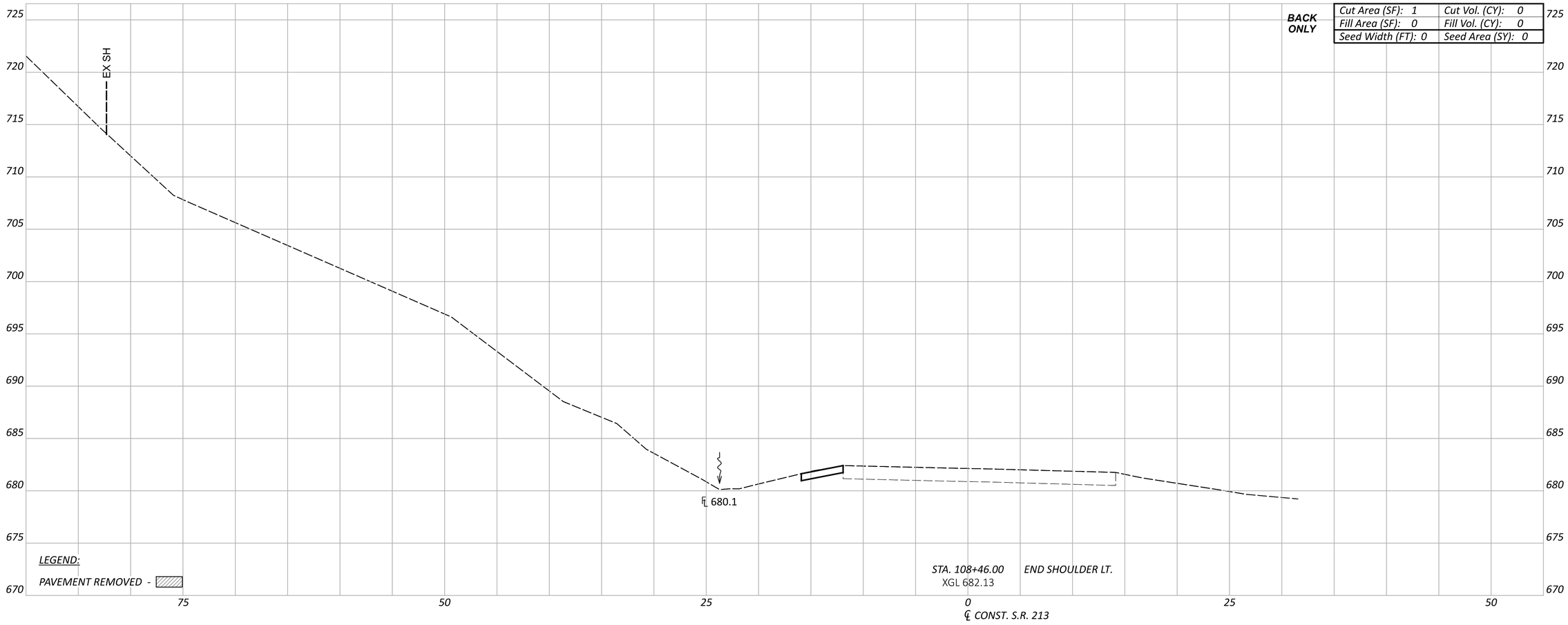

CROSS SECTIONS - S.R. 213
STA. 108+46.00

DESIGN AGENCY

DESIGNER
JAR

REVIEWER
BSH 3-14-23

PROJECT ID
115103

SHEET P.34 | TOTAL 44

JEF-213-18.09

MODEL: CLP_213 - 108+46.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:34 PM USER: bhovanic
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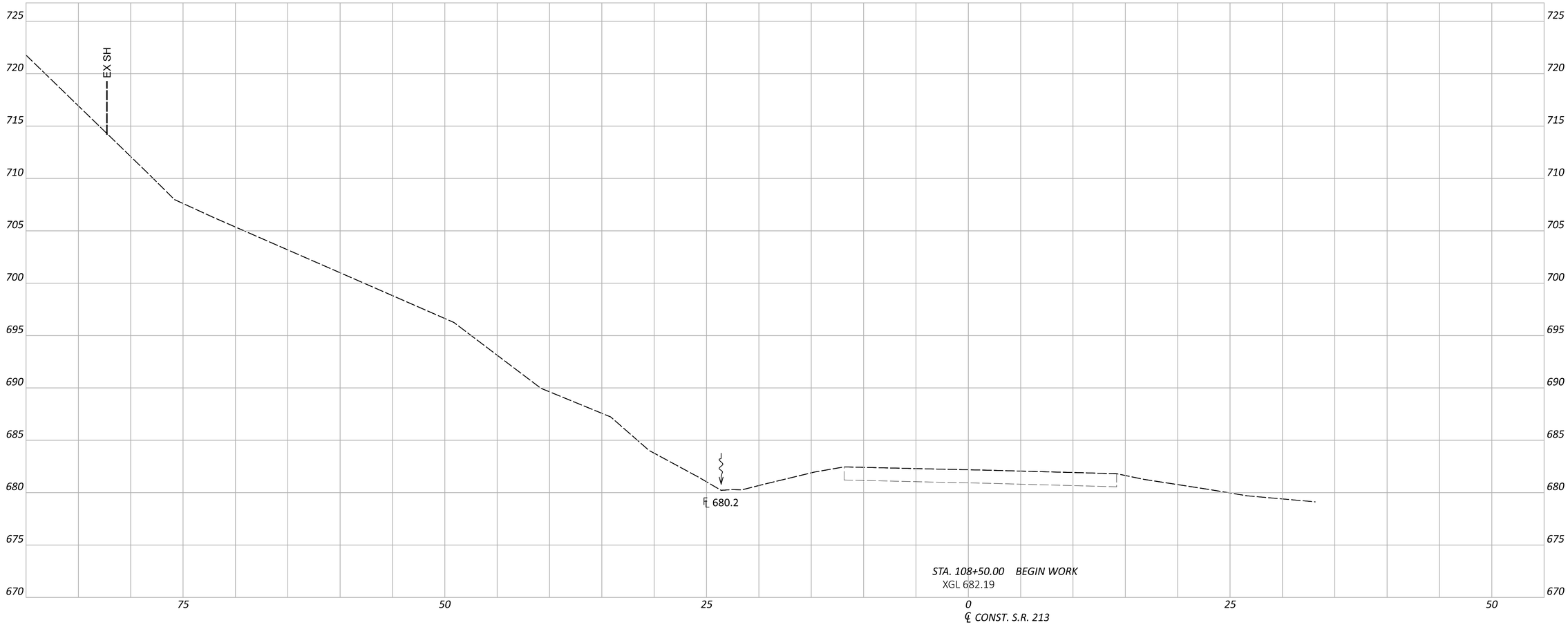

JEF-213-18.09

MODEL: CLP_213 - 108+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:35 PM USER: bhovanic
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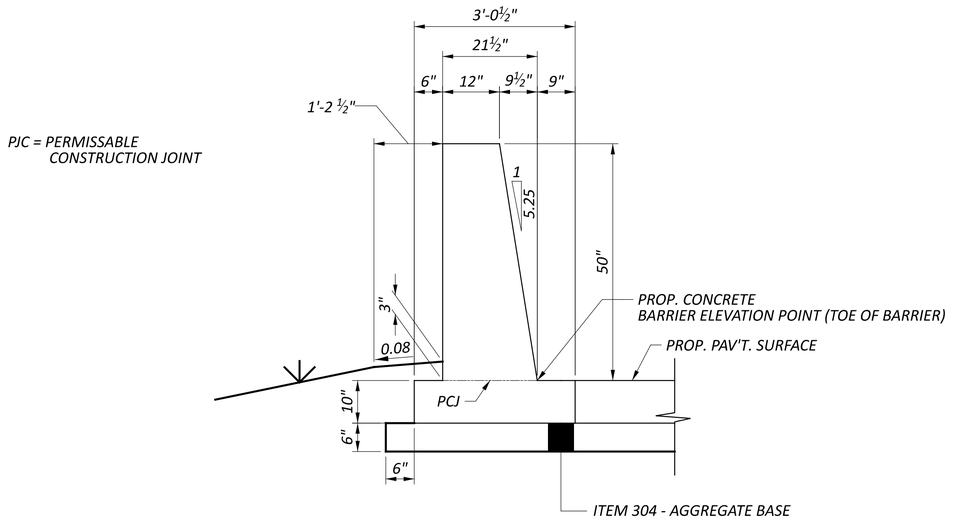
CROSS SECTIONS - S.R. 213
STA. 108+50.00

DESIGN AGENCY

DESIGNER: JAR
REVIEWER: BSH 3-14-23
PROJECT ID: 115103
SHEET: P.35 | TOTAL: 44



ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 622 AND SCD RM-4.5, THE CONCRETE BARRIER SHALL BE CONSTRUCTED AS DETAILED ABOVE.

ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER FOOT FOR ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.

BARRIER ELEVATION TABLE

STATION	LEFT SIDE					
	PAVEMENT EDGE ELEVATION	SHOULDER WIDTH (FT)	SHOULDER CROSS SLOPE	ELEVATION CORRECTION	TOE OF BARRIER	REMARKS
104+17.00	677.96	4.00	-0.0400	-0.160	677.80	BEGIN CURB
104+36.00	678.14	3.25	-0.0400	-0.130	678.01	BEGIN BARRIER
104+75.00	678.49	3.25	-0.0400	-0.130	678.36	
105+00.00	678.58	3.25	-0.0400	-0.130	678.45	
105+25.00	678.83	3.25	-0.0400	-0.130	678.70	
105+29.76	678.87	3.25	-0.0400	-0.130	678.73	P.T.
105+48.17	679.02	3.25	-0.0400	-0.130	678.89	P.C.
105+50.00	679.03	3.25	-0.0400	-0.130	678.90	
105+75.00	679.23	3.25	-0.0400	-0.130	679.10	
106+00.00	679.51	3.25	-0.0400	-0.130	679.38	
106+25.00	679.85	3.25	-0.0400	-0.130	679.72	
106+50.00	680.22	3.25	-0.0400	-0.130	680.09	
106+75.00	680.51	3.25	-0.0400	-0.130	680.38	
106+96.00	680.79	3.25	-0.0400	-0.130	680.66	END BARRIER
107+15.00	681.03	4.00	-0.0400	-0.160	680.87	END CURB

CONCRETE BARRIER DETAILS

DESIGN AGENCY

DESIGNER JAR

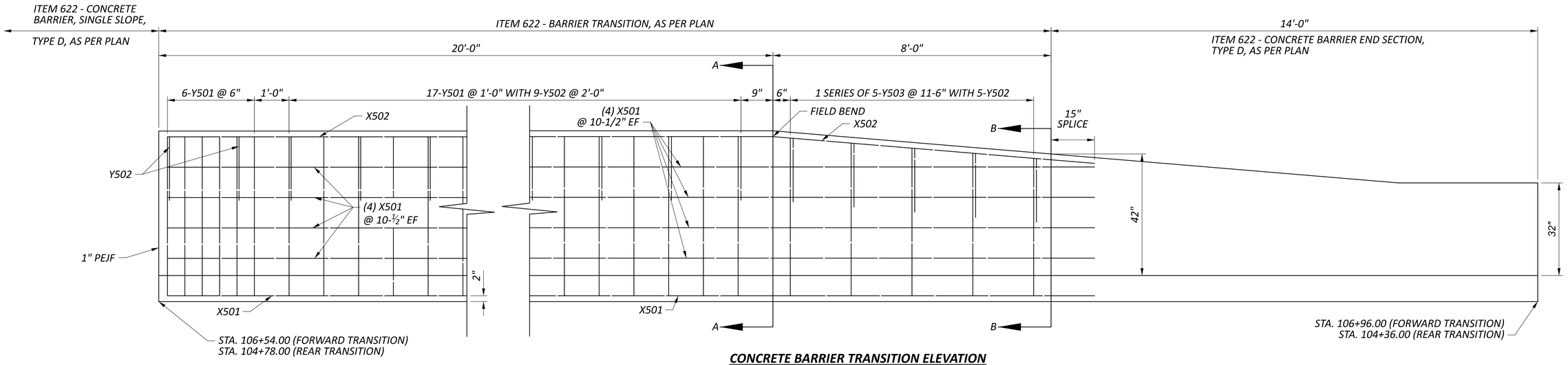
REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.36 TOTAL 44

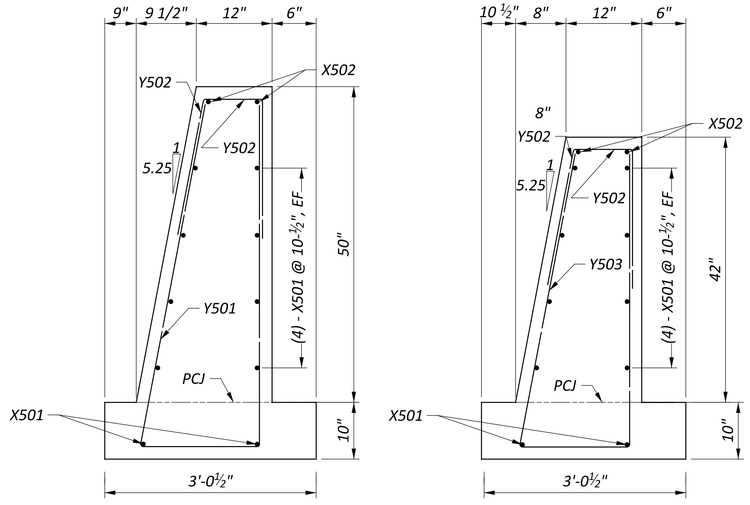
JEF-213-18.09

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:41 PM USER: bhovantic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11\Jefferson\115103\400-Engineering\Roadway\Sheets\115103_GM001.dgn



CONCRETE BARRIER TRANSITION ELEVATION

(FORWARD TRANSITION SHOWN, REAR TRANSITION OPPOSITE HAND)



SECTION A-A

SECTION B-B

NOTES:

1. SEE SCD RM-4.5 FOR ITEM 622 -SINGLE SLOPE BARRIER, TYPE D FOR ADDITIONAL DETAILS NOT SHOWN

2. PROVIDE EXPANSION JOINTS AT REGULAR INTERVALS ALONG LENGTH OF TYPE D BARRIER. EXPANSION JOINTS SHOULD BE SPACED AT A MINIMUM OF EVERY 100' AND A MAXIMUM OF 200'. Y501 BARS SHALL BE SPACED AT 6" ADJACENT TO EACH EXPANSION JOINT AS DETAILED BELOW AND AS PER SCD RM-4.5. END ANCHORAGES ADJACENT TO EXPANSION JOINTS WILL NOT BE PAID SEPERATELY.

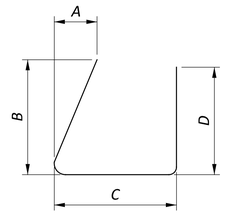
3. CONTRACTION JOINTS SHALL MEET REQUIREMENTS OF SCD RM-4.5 EXCEPT THAT THEY SHALL BE 2 INCH MINIMUM DEPTH.

4. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, S501 IS A NO. 5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

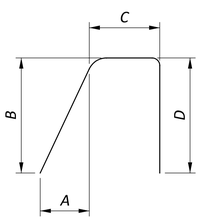
5. ALL REINFORCING STEEL SHALL BE EPOXY COATED.

6. SEE SCD RM-4.6 FOR ITEM 622 - CONCRETE BARRIER, END SECTION, TYPE D FOR REINFORCING STEEL AND ADDITIONAL DETAILS NOT SHOWN.

PCJ = PERMISSIBLE CONSTRUCTION JOINT
PEJF = PREFORMED EXPANSION JOINT FILLER
EF = EACH FACE



TYPE-1



TYPE-2

ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN

THE CONCRETE BARRIER END SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF C&MS 622 AND SCD RM-4.6, EXCEPT THAT THE TOE OF THE BASE SHALL EXTEND 5" BEYOND THE BOTTOM OF THE FACE AND FACE OF CURB TO MATCH THE BASE OF THE THE CONCRETE BARRIER TRANSITION AS SHOWN ON THIS SHEET.

ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY, INCLUDING REINFORCEMENT, TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM 622 - CONCRETE BARRIER END SECTION, AS PER PLAN.

ITEM 622 - BARRIER TRANSITION, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 622 AND SCD RM-4.5, THE CONCRETE BARRIER TRANSITION SHALL BE CONSTRUCTED AS SHOWN ON SHEETS P.36 - P.37. THE FOLLOWING STEEL REINFORCEMENT TABLE HAS BEEN INCLUDED FOR INFORMATION ONLY:

DIMENSIONS								
MARK	NUMBER TOTAL	LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS A	B	C	D
Y501	23	10' - 4"	248	1	0' - 10"	4' - 6"	1' - 6"	4' - 6"
Y502	16	4' - 2"	70	2	0' - 4"	1' - 10"	0' - 8"	1' - 10"
	1	8' - 10"			0' - 9"	3' - 10"	1' - 4"	3' - 10"
Y503	SERIES	to	50	1	to	to	to	to
	5	10' - 4"			0' - 10"	4' - 6"	1' - 6"	4' - 6"
X501	8	29' - 1"	243	STR				
X502	2	29' - 1"	61	STR	FIELD BEND AS NECESSARY			
TOTAL (FOR INFORMATION ONLY)			672					

ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY, INCLUDING REINFORCEMENT, TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM 622 - BARRIER TRANSITION, AS PER PLAN.

CONCRETE BARRIER DETAILS

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

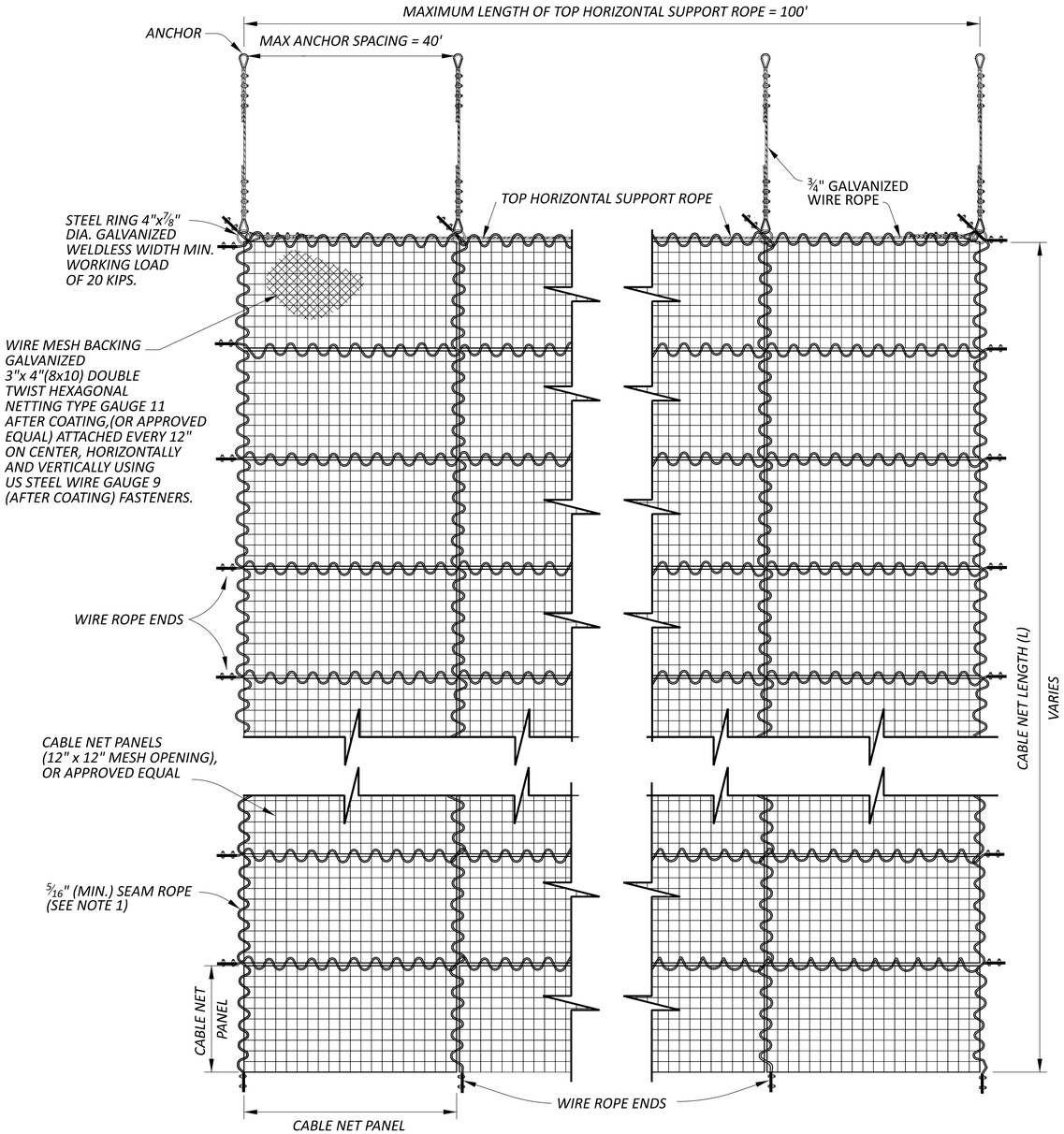
PROJECT ID 115103

SHEET P.37 TOTAL 44

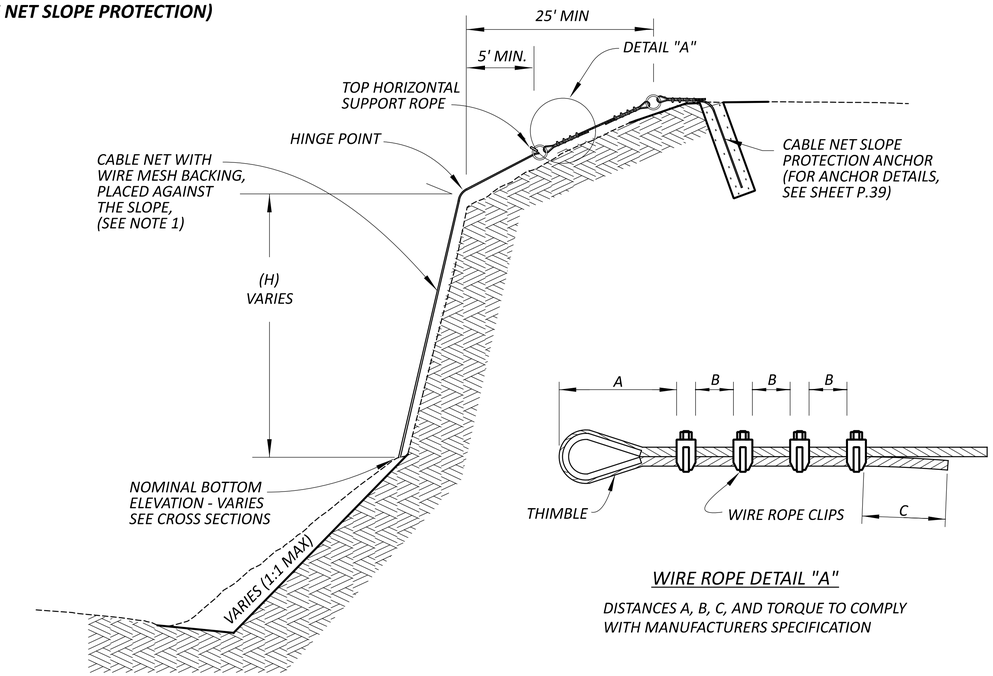
JEF-213-18.09

MODEL: Sheet 3 PAPERSIZE: 34x22 (in.) DATE: 1/24/2025 TIME: 2:33:42 PM USER: bhovanic
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 11Jefferson\115103\400-Engineering\Roadway\Sheets\115103_GM001.dgn

ITEM 862 - SLOPE DRAPE, AS PER PLAN (CABLE NET SLOPE PROTECTION)

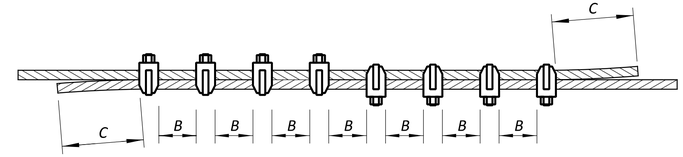


FRONT SLOPE ELEVATION



WIRE ROPE DETAIL "A"

DISTANCES A, B, C, AND TORQUE TO COMPLY WITH MANUFACTURERS SPECIFICATION



WIRE ROPE SPLICING (TYP.)

WITH MANUFACTURERS SPECIFICATION

TABLE 1
SLOPE DRAPE DIMENSIONS

ANCHOR STATION	BOTTOM ELEVATION	TOP ELEVATION	HEIGHT (FT)	LENGTH (FT)	AREA (SF)
					462
104+47.10	700.00	745.63	45.6	55.2	
					1332
104+71.65	700.00	747.98	48	53.3	
					2000
105+05.84	700.00	755.92	55.9	63.7	
					2114
105+41.83	700.00	747.78	47.8	53.8	
					1987
105+80.31	700.00	744.40	44.4	49.5	
					1866
106+18.95	700.00	740.57	40.6	47.1	
					1689
106+57.60	695.00	731.57	36.6	40.3	
					1592
106+96.00	695.00	729.78	34.8	42.6	
			TOTAL AREA OF DRAPE:	13042	SF
			13042 / 9 =	1449	SY
			SLOPE IRREGULARITY INCREASE (10%):	145	SY
			TOTAL TO GENERAL SUMMARY:	**1594**	**SY**

AREA IS OBTAINED AS SHOWN IN THE FOLLOWING EXAMPLE:

STA. 105+80.31 L = 49.5
STA. 106+18.95 L = 47.1
((49.5 + 47.1)/2) x 38.64 = 1,866 SF

NOTES:

1. *WIRE MESH BACKING MUST BE FASTENED TO THE CABLE NET PRIOR TO PLACEMENT ON THE SLOPE*

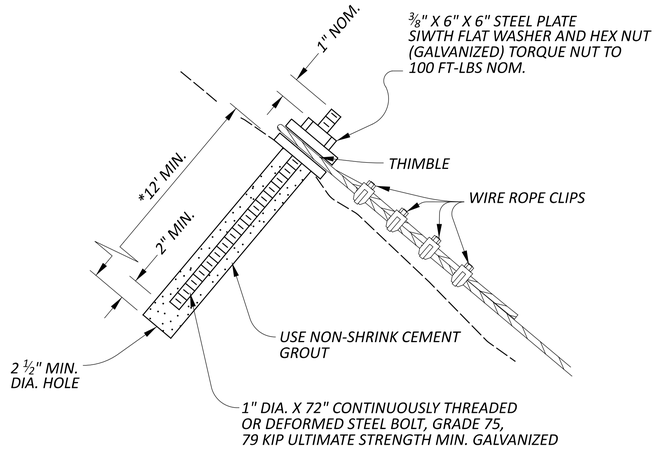
SLOPE DRAPE DETAILS

DESIGN AGENCY

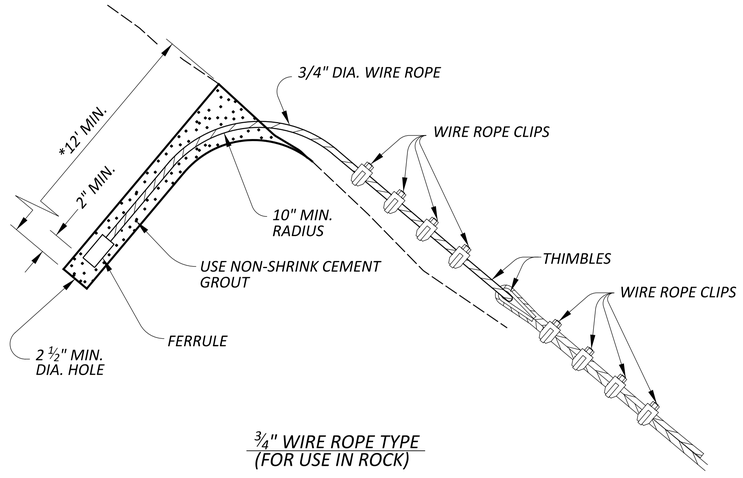
DESIGNER JAR
REVIEWER BSH 3-14-23
PROJECT ID 115103
SHEET P.38 | TOTAL 44

JEF-213-18.09

SLOPE DRAPE ANCHORS



STEEL BOLT ANCHOR TYPE
(FOR USE IN ROCK)



3/4" WIRE ROPE TYPE
(FOR USE IN ROCK)

NOTES:

1. CONTRACTOR MAY SELECT FROM THESE OPTIONS WHERE ANCHORS ARE INSTALLED IN SOIL OR ROCK.

2. MINIMUM WORKING LOAD 20 KIPS.

** MINIMUM DEPTH*

SLOPE DRAPE DETAILS

DESIGN AGENCY

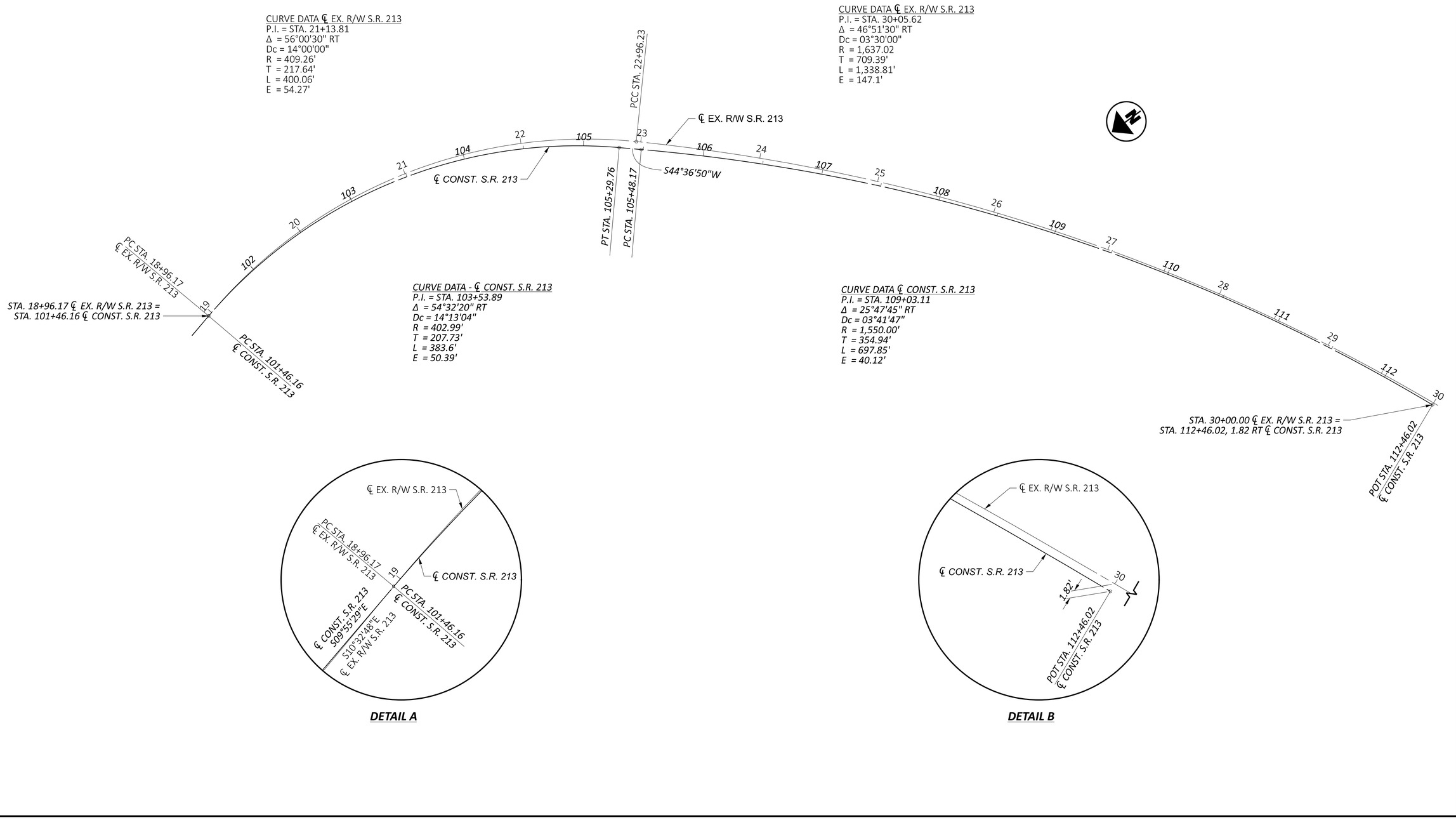
DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.39 TOTAL 44

JEF-213-18.09



HORIZONTAL SCALE IN FEET
0 20 40 80

S.R. 213 - CENTERLINE RELATIONSHIP INFORMATION

DESIGN AGENCY

DESIGNER JAR

REVIEWER BSH 3-14-23

PROJECT ID 115103

SHEET P.40 TOTAL 44

JEF-213-18.09

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PROJECT DESCRIPTION

ROCK SLOPE REPAIR ALONG 0.05 MILES (260 FEET) OF S.R. 213 BY ROCK SCALING AND SLOPE DRAPE INSTALLATION. IN ADDITION, THIS PROJECT INCLUDES TRIM BLASTING, CATCHMENT CLEANUP, REMOVAL OF EXISTING DRAINAGE CONDUIT, ROCKFALL BARRIER REPLACEMENT, ADJACENT SHOULDER REPLACEMENT, AND GUARDRAIL.

HISTORIC RECORDS

NO HISTORICAL GEOTECHNICAL RECORDS WERE FOUND FOR THIS PROJECT AREA. ROCKFALL HAS BEEN HISTORICALLY REPORTED BEING PRODUCED FROM THIS SLOPE, WITH OCCASIONAL IMPACTS TO THE ROADWAY. A PORTABLE CONCRETE BARRIER WAS INSTALLED ADJACENT TO THE ROADWAY AFTER A SIGNIFICANT ROCKFALL EVENT IN 2008.

GEOLOGY

THE PROJECT IS LOCATED WITHIN THE NON-GLACIATED MUSKINGUM-PITTSBURGH PLATEAU PHYSIOGRAPHIC REGION WHICH IS CHARACTERIZED BY HIGH RELIEF TERRAIN CONTAINING RELATIVELY FLAT BROAD VALLEYS CONTAINING GLACIALLY DEPOSITED OUTWASH. THIN RESIDUAL SOILS ARE LOCATED ALONG THE RIDGE TOP AND HILLSIDE AND THIN TO THICK COLLUVIAL SOILS ARE LOCATED AT THE BASE OF THE HILL. THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) INTERACTIVE GEOLOGIC MAP INDICATES THAT THE OVERBURDEN SOILS ARE UNDERLAIN BY PENNSYLVANIAN-AGED SHALE, SILTSTONE, SANDSTONE, CONGLOMERATE, AND SUBORDINATE AMOUNTS OF LIMESTONE, CLAY, FLINT, AND COAL. THE CONEMAUGH GROUP COMPRISES THE BEDROCK FOR THE UPPER HILLSIDES AND RIDGE TOPS AND THE ALLEGHENY GROUP COMPRISES THE BEDROCK OF THE LOWER HILLSIDES AND VALLEY FLOORS.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNEL FROM THE OFFICE OF GEOTECHNICAL ENGINEERING (OGE) ON FEBRUARY 21, 2024 TO PERFORM OUTCROP LOGGING OF EXPOSED BEDROCK STRATA. EXPOSED BEDROCK, RESULTING OF A BEDROCK CUT SLOPE, IS PRESENT ALONG THE SOUTHERN PORTION OF THE PROJECT. THE CUT FACE IS HIGHLY FRACTURED RESULTING IN RAVELING AS WELL AS EXPERIENCING AREAS OF WEATHERING. A PORTABLE CONCRETE BARRIER HAS BEEN INSTALLED ALONG THE SHOULDER OF THE ROADWAY TO INCREASE THE EFFECTIVENESS OF THE CATCHMENT AREA. FALLEN DEBRIS WAS NOTED WITHIN THE CATCHMENT AREA BETWEEN THE BASE OF THE CUT AND AGAINST THE BACK OF THE PORTABLE BARRIER WITH EVIDENCE OF RECENT CLEANOUT OF TALUS AND ROCKFALL DEBRIS. ABOVE THE BEDROCK FACE THE HILLSIDE CONTINUES AS A WOODED SLOPE. ALONG THE NORTH SIDE OF THE ROADWAY IS A GRAVEL PULL OFF WITH A SHORT VEGETATED SLOPE LEADING TO YELLOW CREEK. THE PAVEMENT WAS NOTED AS BEING IN VERY GOOD CONDITION.

EXPLORATION FINDINGS

THE PROJECT AREA IS PRESENT JUST BEFORE A CUTTING BEND OF YELLOW CREEK WHICH IS JUST BEFORE THE CONFLUENCE WITH THE OHIO RIVER. THE SLOPE IMMEDIATELY TO THE SOUTH OF THE ROADWAY IS A ROCK CUT SECTION CREATED FOR THE EXISTING ROADWAY. THE LOWER PORTION OF THE SLOPE IS COMPRISED OF A BASAL SILTSTONE OVERLAIN BY A SHALE FROM THE ALLEGHENY GROUP. THE SILTSTONE WAS OLIVE GRAY AND BLACK IN COLOR AND DESCRIBED AS BEING HIGHLY WEATHERED AND WEAK TO SLIGHTLY STRONG, VERY THIN TO THIN BEDDED AND SLIGHTLY ARGILLACEOUS. THE SHALE WAS OLIVE GRAY WITH GRAYISH BROWN AND DESCRIBED AS BEING SEVERELY TO HIGHLY WEATHERED, WEAK AND LAMINATED WITH CARBONACEOUS LAYERS. THE SHALE EXPRESSES DIFFERENTIAL WEATHERING RELATIVE TO THE OVERLYING STRATA.

THE UPPER SLOPE IS COMPRISED OF SANDSTONE AND SILTSTONE FROM THE CONEMAUGH GROUP. IMMEDIATELY OVERLYING THE SHALE COMPRISING THE MIDDLE OF CUT IS GRAYISH BROWN AND OLIVE GRAY SILTSTONE WHICH IS HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG, THIN BEDDED AND CONTAINS A SLIGHTLY ARENACEOUS LAYER. THE TOP OF THE CUT FACE IS COMPRISED OF BROWN SANDSTONE WHICH IS SLIGHTLY STRONG, THIN TO MEDIUM BEDDED TOWARDS THE BASE BECOMING MEDIUM TO THICK BEDDED AT THE TOP. THE CUT FACE GENERALLY HAS A SAW-TOOTHED APPEARANCE WHERE LESS WEATHERABLE MATERIAL HAS FAILED DUE TO THE INTERSECTING JOINTS CREATING DISLODGED BLOCKS AND COLUMNS. THESE BLOCKS AND COLUMNS FALL DUE TO LOSS OF BASAL SUPPORT FROM WEATHERING OF THE UNDERLYING SHALE STRATUM. WITHIN THE LESS RESISTANT STRATUM THE WEATHERING HAS BEEN INTENSIFIED ALONG THE JOINT SETS. THREE (3) PRIMARY JOINT SETS WERE NOTED WITH SET ONE EXPRESSED BETWEEN 190° AND 215°; SET TWO EXPRESSED BETWEEN 290° AND 310°; AND SET THREE EXPRESSED BETWEEN 60° AND 70°.

SPECIFICATIONS

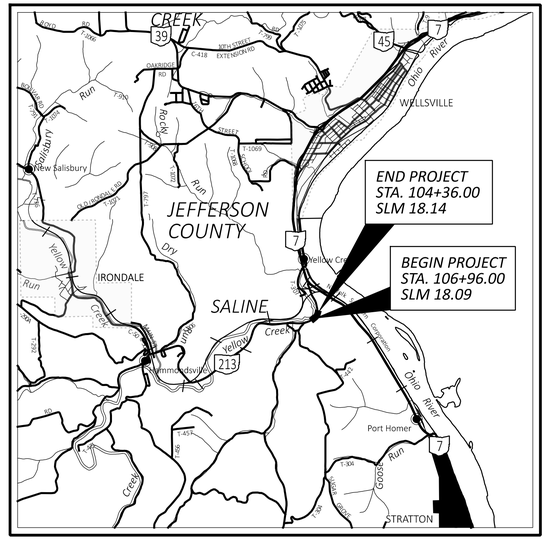
THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 2024.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE GEOTECHNICAL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

LEGEND

DESCRIPTION	ODOT CLASS
SANDSTONE	VISUAL
SHALE	VISUAL
SILTSTONE	VISUAL
INDICATES EXPOSED BEDROCK.	



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

RECON. -	PPP	02/21/24
DRAWN -	ARR	11/29/24
REVIEWED -	SAT	11/29/24

GEOTECHNICAL PROFILE - ROCK SLOPE

DESIGN AGENCY

DESIGNER ARR

REVIEWER SAT 11/29/24

PROJECT ID 115103

SUBSET 1 | TOTAL 4

SHEET P.41 | TOTAL 44

JEF-213-18.09

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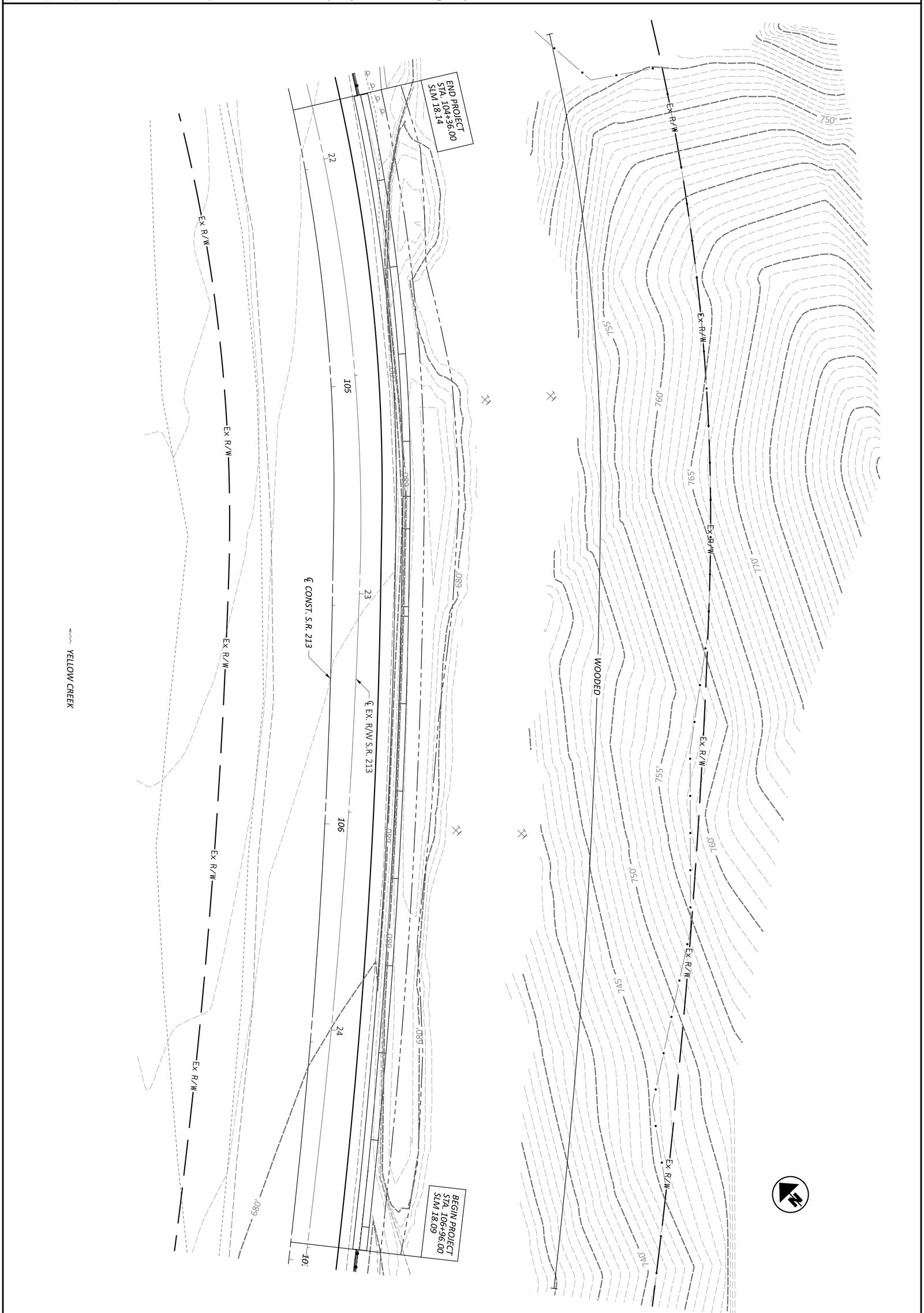
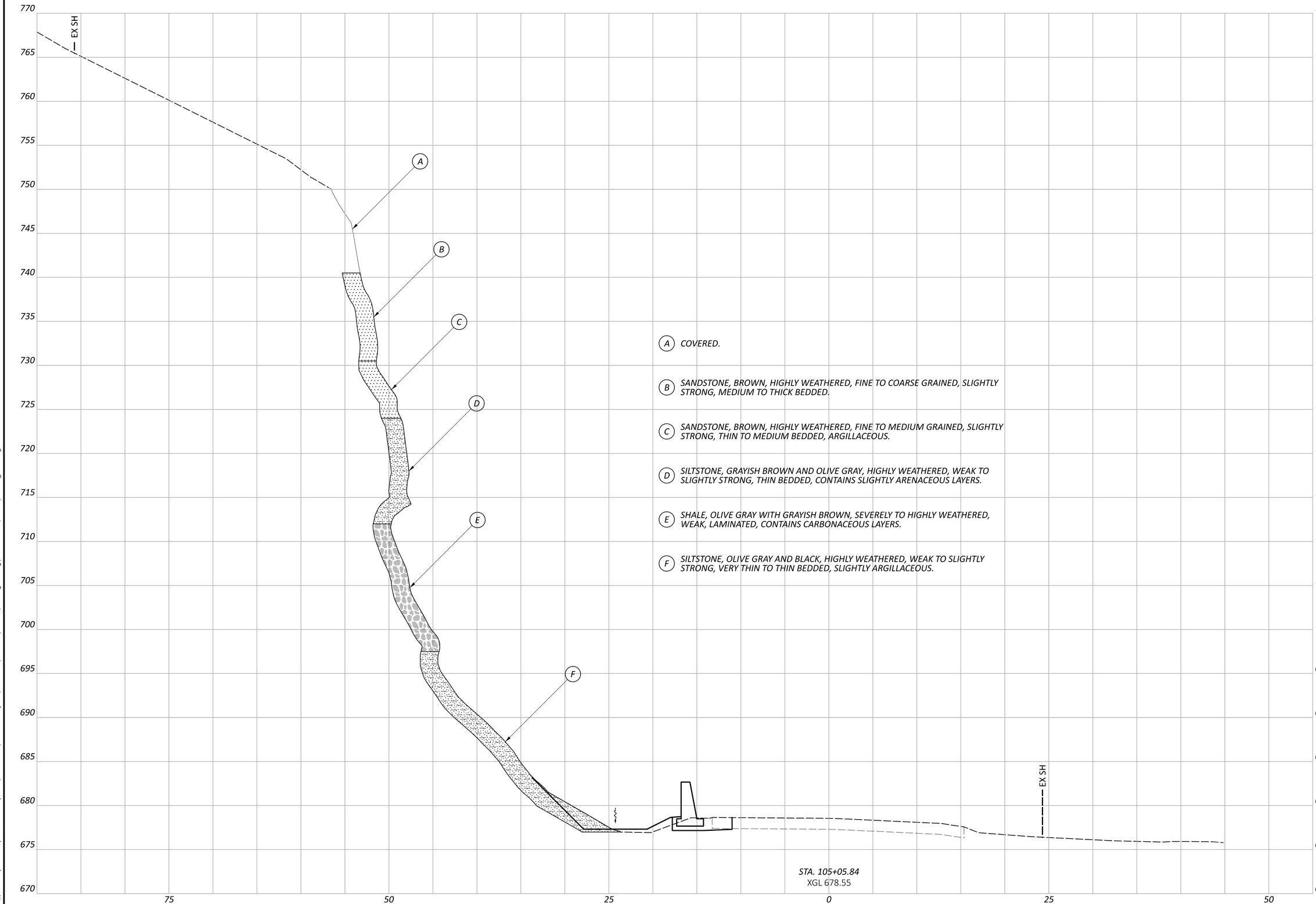


DESIGNER ARR	DESIGN AGENCY	GEOTECHNICAL PROFILE - ROCK SLOPE STA. 104+31 TO STA. 107+01 S.R. 213	HORIZONTAL SCALE IN FEET 0 10 5 20
REVIEWER SAT 11/29/24			
PROJECT ID 115103			
SUBSET 2 TOTAL 4			
SHEET P.42 TOTAL 44			



A COVERED.

B SANDSTONE, BROWN, HIGHLY WEATHERED, FINE TO COARSE GRAINED, SLIGHTLY STRONG, MEDIUM TO THICK BEDDED.

C SANDSTONE, BROWN, HIGHLY WEATHERED, FINE TO MEDIUM GRAINED, SLIGHTLY STRONG, THIN TO MEDIUM BEDDED, ARGILLACEOUS.

D SILTSTONE, GRAYISH BROWN AND OLIVE GRAY, HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG, THIN BEDDED, CONTAINS SLIGHTLY ARENACEOUS LAYERS.

E SHALE, OLIVE GRAY WITH GRAYISH BROWN, SEVERELY TO HIGHLY WEATHERED, WEAK, LAMINATED, CONTAINS CARBONACEOUS LAYERS.

F SILTSTONE, OLIVE GRAY AND BLACK, HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG, VERY THIN TO THIN BEDDED, SLIGHTLY ARGILLACEOUS.

GEOTECHNICAL PROFILE - ROCK SLOPE CROSS SECTION STA. 105+05.84 S.R. 213

DESIGN AGENCY

DESIGNER ARR

REVIEWER SAT 11/29/24

PROJECT ID 115103

SUBSET 3 TOTAL 4

SHEET P.43 TOTAL 44

JEF-213-18.09

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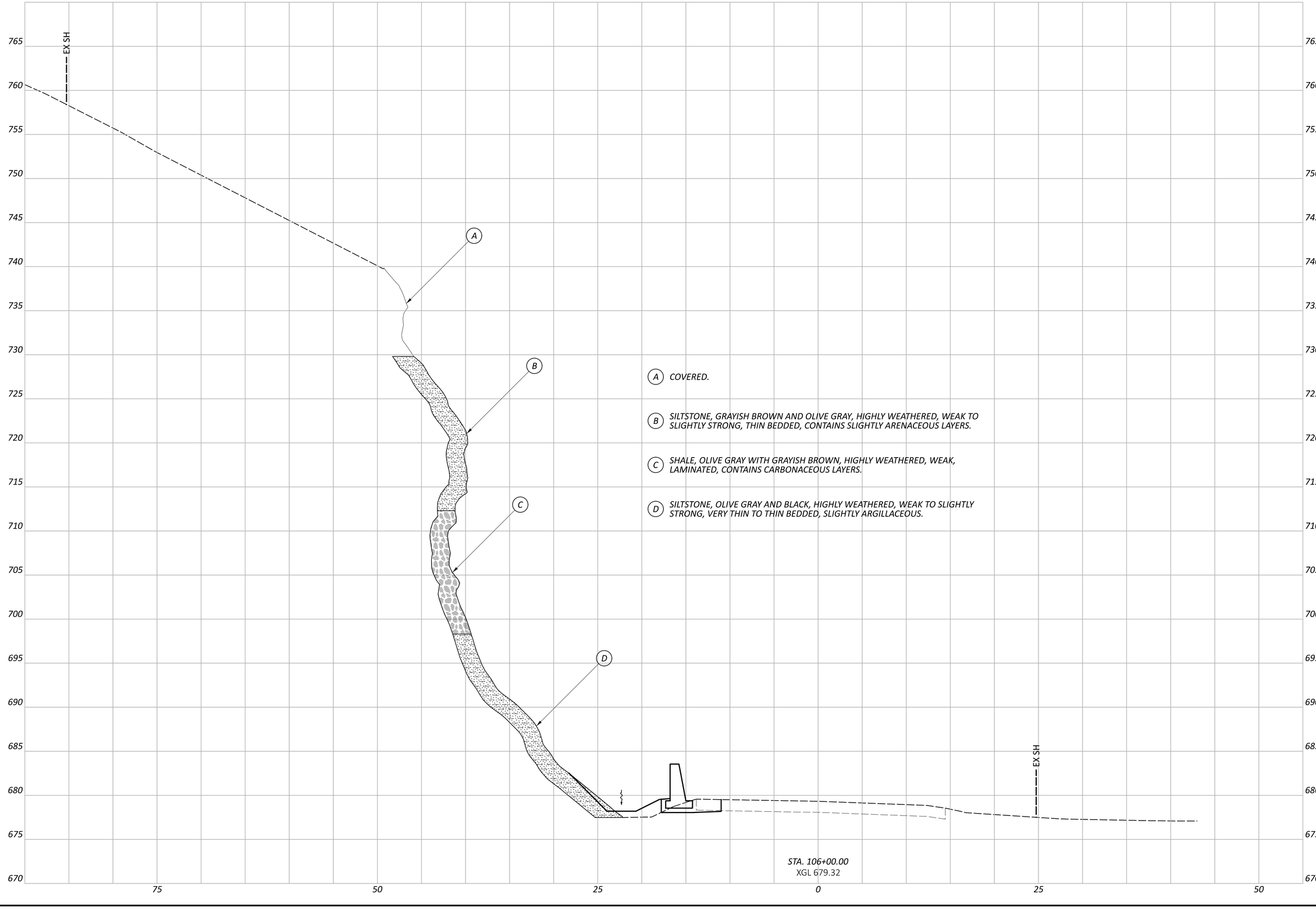

GEOTECHNICAL PROFILE - ROCK SLOPE
CROSS SECTION STA. 106+00.00 S.R. 213

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DESIGN AGENCY

DESIGNER	ARR
REVIEWER	SAT 11/29/24
PROJECT ID	115103
SUBSET / TOTAL	4 / 4
SHEET / TOTAL	P.44 / 44