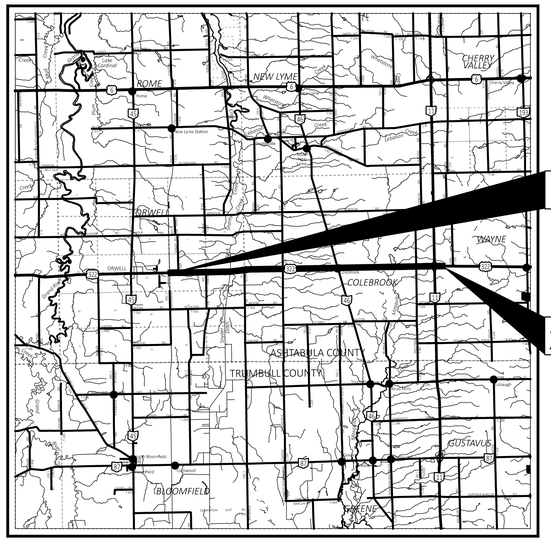
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

ATB-322-8.11

COLEBROOK, ORWELL AND WAYNE TOWNSHIPS

VILLAGE OF ORWELL

ASHTABULA COUNTY



LOCATION MAP

LATITUDE: 41°32'09" N LONGITUDE: 80°48'36" W

N

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

DESIGN DESIGNATION (REFERENCED FROM TMMS DATA)

CURRENT ADT (2023)	3,796
DESIGN YEAR ADT (2023)	3,796
DESIGN HOURLY VOLUME (2021)	357
DIRECTIONAL DISTRIBUTION	63%
TRUCKS (24 HOUR B&C)	281
DESIGN SPEED	65
LEGAL SPEED	55

DESIGN FUNCTIONAL CLASSIFICATION: 04 - RURAL MINOR ARTERIAL

NHS PROJECT ..... NO

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES
ATB-322-12.18	
LANE WIDTH	9/27/24
SHOULDER WIDTH	9/27/24
ATB-322-13.99	
LANE WIDTH	9/27/24

ADA DESIGN WAIVERS

NONE

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 4 CAPITAL PLANNING
2088 SOUTH ARLINGTON ROAD
AKRON OHIO 44306

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E220687

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESURFACING US 322 FROM 8.11 TO 15.24 IN ASHTABULA COUNTY. INCLUDES MINOR REHAB TO 3 STRUCTURES, REPLACEMENT OF ONE CULVERT, AND REPLACEMENT OF ONE STRUCTURE.

EARTH DISTURBED AREAS

ROADWAY RESURFACING
(INCLUDING STRUCTURE REHAB: ATB-322-9.649 AND ATB-322-13.554)

PROJECT EDA:	3.69 ACRES
ESTIMATED CONTRACTOR EDA:	0.25 ACRES
NOTICE OF INTENT EDA:	N/A (MAINTENANCE PROJECT)

CULVERT REPLACEMENT: ATB-322-12.175

PROJECT EDA:	0.38 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	N/A (NOT REQUIRED)

STRUCTURE REPLACEMENT: ATB-322-13.986

PROJECT EDA:	0.58 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	N/A (NOT REQUIRED)

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 REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS P.7 AND P.8.

Arthur G. Noirot Jr., P.E.
District 04 Deputy Director

Pamela Boratyn
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	1/19/24	MT-97.10	4/19/19	MGS-1.1	1/17/25		
BP-3.2	1/18/19	MT-97.12	1/20/17	MGS-2.1	1/17/25		
BP-4.1	7/19/13	MT-99.20	4/19/19	MGS-2.3	1/20/23		
		MT-101.60	1/17/25	MGS-4.2	1/17/25		
DM-1.1	1/17/25	MT-101.90	7/17/20	MGS-5.3	7/15/16		
DM-4.2	7/20/12	MT-105.10	1/17/20				
DM-4.3	1/15/16						
DM-4.4	1/15/16	TC-41.20	10/18/13				
		TC-42.20	10/18/13				
HW-2.2	7/20/18	TC-52.10	10/18/13				
		TC-52.20	1/15/21				
AS-1-15	1/20/23	TC-61.30	7/19/24				
DBR-3-11	7/15/11	TC-64.10	7/21/23				
DS-1-92	7/15/22	TC-65.10	1/17/14				
		TC-65.11	1/17/25				
		TC-71.10	4/21/23				

SUPPLEMENTAL SPECIFICATIONS

800-2023	1/17/25
821	4/20/12
832	7/19/24
836	1/19/24
844	1/17/25
848	7/19/24
872	1/17/25
874	4/17/20
875	1/17/25
921	7/19/24
940	4/17/15

SPECIAL PROVISIONS

WPC	2/14/25
ASBESTOS	6/30/23

ENGINEER'S SEAL	ENGINEER'S SEAL
P.1 - P.22	P.23 - P.52
STATE OF OHIO MICHAEL J. PALAGANO E-89701 REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO LINDSAY WALKER E-77992 REGISTERED PROFESSIONAL ENGINEER

TITLE SHEET

DESIGN AGENCY

DESIGNER NKF

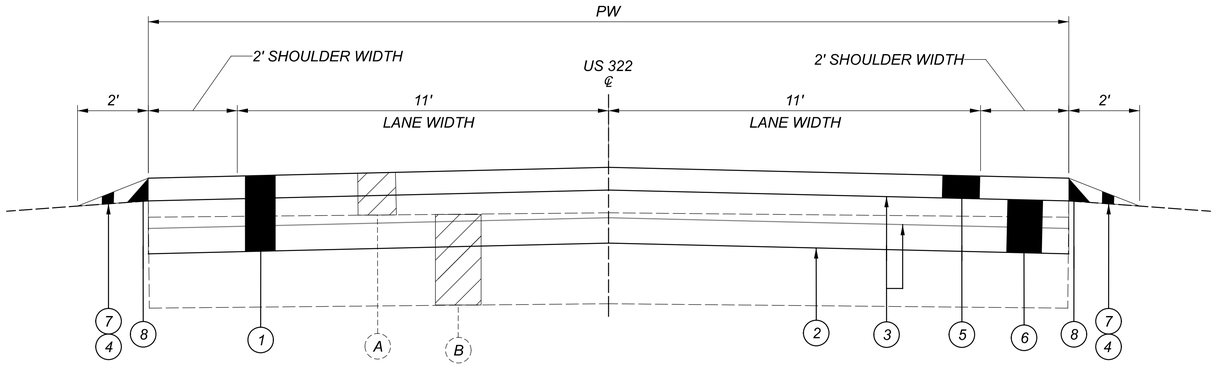
REVIEWER MJP 12-30-24

PROJECT ID 113810

SHEET P.1 TOTAL 52

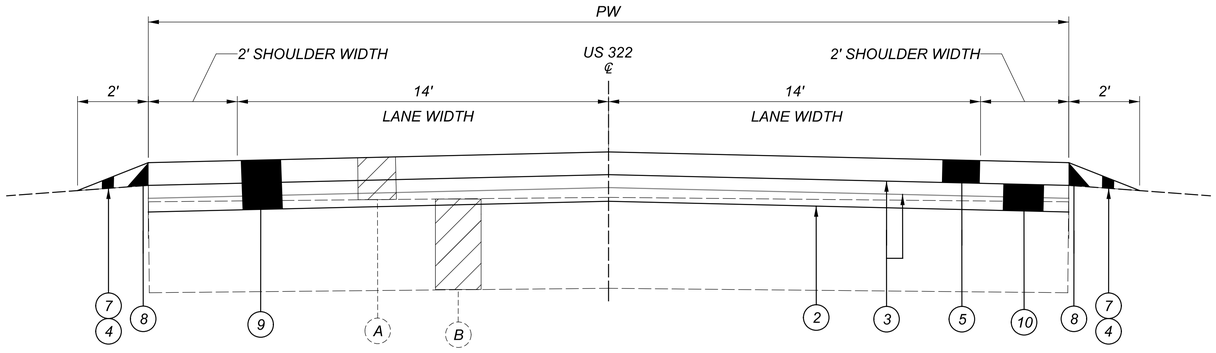
ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 11:17:45 AM USER: mpalagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\113810\400-Engineering\Roadway\Sheets\113810_GT001.dgn



TYPICAL SECTION 1
EX. ASPHALT BASE SLM 8.11-14.90

TYPICAL SECTION 1				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
US 322	8.11	9.65	1.54	26
US 322	9.65	12.49	2.84	26
US 322	12.49	13.55	1.06	30
US 322	13.55	14.9	1.35	30



TYPICAL SECTION 2
EX. ASPHALT BASE SLM 14.90-15.24

TYPICAL SECTION 2				
ROUTE	SLM		LENGTH (MILES)	PW FEET
	FROM	TO		
US 322	14.90	14.95	0.05	30
US 322	14.95	14.98	0.03	37
US 322	14.98	15.02	0.04	44
US 322	15.06	15.12	0.06	37
US 322	15.12	15.16	0.04	44
US 322	15.16	15.19	0.03	37
US 322	15.19	15.24	0.05	30

LEGEND

1. *ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T = 5")*
2. *ITEM 407, NON-TRACKING TACK COAT @ 0.08 GAL/SY*
3. *ITEM 407, NON-TRACKING TACK COAT @ 0.05 GAL/SY*
4. *ITEM 408, PRIME COAT, AS PER PLAN @ 0.4 GAL/SY*
5. *ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (446), PG70-22M, (T = 1.5")*
6. *ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446), (T = 1.75") (TWO LIFTS)*
7. *ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T = 1" AVG.)*
8. *ITEM 209, PREPARE SUBGRADE FOR SHOULDER PAVING SAFETY EDGE, PER SCD BP-3.2*
9. *ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T = 3")*
10. *ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446), (T = 3")*

A. *EXISTING ASPHALT SURFACE (T = 3"±)*
B. *EXISTING ASPHALT BASE (T = 11"±)*

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER NKF
REVIEWER MJP 04-29-24
PROJECT ID 113810
SHEET P-2 TOTAL 52

ATB-322-8.11

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

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.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. (PREVIOUS CONSTRUCTION PLANS, PROJECT NO. 21438 AND 22442, SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 4 OFFICE). PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY WITH A UNIFORM THICKNESS OF 1.5 INCHES AND TWO LAYERS OF INTERMEDIATE COURSE VARYING IN THICKNESS FROM 1.75 INCHES TO 3 INCHES AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS HAVE BEEN SUPPLIED AS REFERENCE DOCUMENTS FOR THIS PROJECT AND ARE AVAILABLE ON THE ODOT FTP SITE AT https://ftp.dot.state.oh.us/pub/contracts/Attach/ FOR THIS PROJECT. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS:

ROUTE	S.L.M. TO	S.L.M.	LANE WIDTH
US 322	8.11	15.24	12'

RUMBLE STRIPES

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE ALONG THE FOLLOWING ROUTES WITHIN THE PROJECT LIMITS:

EDGE LINE:	CENTER LINE:
US 322: SLM 8.11 - 9.65	US 322: SLM 8.11 - 9.65
US 322: SLM 9.67 - 13.56	US 322: SLM 9.67 - 13.56
US 322: SLM 13.59 - 15.24	US 322: SLM 13.59 - 15.24

ITEM 618, RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	15 MILES
ITEM 618, RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	8 MILES
ITEM 874, LONGITUDINAL JOINT PREPARATION	42,240 FT

LINEAR GRADING

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

THE CONTRACTOR IS REQUIRED TO PLACE ITEM 617 WITHIN A PERIOD NOT TO EXCEED 7 DAYS. REFER TO THE AS PER PLAN NOTE FOR REQUIREMENTS.

EXPOSED EARTH OUTSIDE OF THE LIMITS OF ITEM 617 ARE REQUIRED TO BE SEEDED AND MULCHED WITHIN 7 DAYS OF PLACEMENT OF ITEM 617. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 832.

THE QUANTITY OF ITEM 209 IS NOT PERMITED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

209, LINEAR GRADING, 753 STA.

ITEM 408 - PRIME COAT, AS PER PLAN

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.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER SCD BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASPHALT SURFACE COURSE.

DRIVEWAYS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A MINIMUM WIDTH OF 2' MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS WORK.

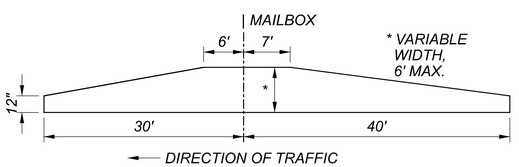
IN THE EVENT THAT THE ENGINEER DETERMINES ADDITIONAL WORK IS NECESSARY TO PROPERLY ADDRESS FIELD CONDITIONS, AN ITEM FOR WEARING COURSE REMOVED HAS BEEN PROVIDED. THE REMOVAL DEPTH IS DEPENDENT UPON THE ELEVATION DIFFERENCE AND ALLOW FOR 1"-2" OF COMPACTED ASPHALT MATERIAL TO BE PLACED.

FIELD DRIVEWAYS

THIS ITEM WILL CONSIST OF PLACING ITEM 411, STABILIZED CRUSHED AGGREGATE. THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING FIELD DRIVEWAYS. FIELD DRIVES WILL BE PLACED AFTER THE COMPLETION OF THE SURFACE COURSE AND SHALL HAVE AN AVERAGE 2 INCH THICKNESS. ALL GRADING TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE FIELD DRIVES WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 411, AGGREGATE BASE. AN ESTIMATED QUANTITY OF 30 CU. YD. HAS BEEN CARRIED TO THE GENERAL SUMMARY.

PAVED MAILBOX APPROACHES

ALL EXISTING MAIL BOX APPROACHES WILL BE PAVED WITH ASPHALT CONCRETE. THE BUILDUP OF THE ASPHALT PAVEMENT SHALL MATCH THE MAINLINE PAVING. THE LIMITS OF THE PAVING SHALL MATCH THE EXISTING MAILBOX APPROACH LIMITS. PAYMENT FOR THE WORK SHALL BE INCLUDED IN THE MAINLINE PAVING QUANTITIES, SEPARATE QUANTITIES FOR THE MAILBOX APPROACHES ARE NOT PROVIDED.



ENDANGERED SPECIES HABITAT
INDIANA BAT/NORTHERN LONG-EARED BAT
(ADJACENT TO ATB-322-13.55 STRUCTURE ONLY)

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 TO CONSTRUCT THE 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.

ENDANGERED SPECIES
EASTERN MASSASAUGA RATTLESNAKE

THE PROJECT SITE AT ATB-322-13.55 IS WITHIN THE RANGE OF THE EASTERN MASSASAUGA RATTLESNAKE (SISTRURUS CATENATUS), A STATE ENDANGERED AND FEDERAL THREATENED SPECIES. IF EASTERN MASSASAUGA RATTLESNAKES ARE ENCOUNTERED IN THE WORK AREA(S) DURING CONSTRUCTION, NO PERSON SHALL HARM OR KILL THE SNAKES OR ATTEMPT TO HANDLE THE EASTERN MASSASAUGA RATTLESNAKE.
ALL CONSTRUCTION OPERATIONS AT THE WORK AREA(S) SHALL TEMPORARILY CEASE AND ODOT OFFICE OF ENVIRONMENTAL SERVICES (OES) - ECOLOGICAL SECTION (614-466-5129 OR 614-466-5112) AND THE UNITED STATES FISH AND WILDLIFE SERVICE (USFWS) COLUMBUS FIELD OFFICE (614-416-8993) WILL BE IMMEDIATELY CONTACTED. CONSTRUCTION OPERATIONS WILL NOT RESUME UNTIL COORDINATION WITH ODOT OES AND USFWS HAS BEEN CONCLUDED.

PROTECTION OF DRINKING WATER RESOURCES

PORTIONS OF THE PROJECT ARE LOCATED WITHIN THE INNER MANAGEMENT ZONE AND SOURCE WATER PROTECTION AREA ASSOCIATED WITH THE VILLAGE OF ORWELL'S COMMUNITY WATER SYSTEM, THE SOURCE WATER PROTECTION AREA FOR THE COLEBROOK LOUNGE NONCOMMUNITY SYSTEM, AND THE INLAND SURFACE WATER SOURCE WATER AREA WATERSHED ASSOCIATED WITH THE CITY OF WARREN COMMUNITY SYSTEM. BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETRO-CHEMICALS, AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS.
A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS, OR OTHER MATERIALS THAT COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE VILLAGE OF ORWELL VOLUNTEER FIRE DEPARTMENT (911) AND THE OEPA SPILLS HOTLINE (800-282-9378) MUST BE CONTACTED WITHIN 30 MINUTES OF KNOWLEDGE OF THE RELEASE.

GENERAL NOTES

DESIGN AGENCY

DESIGNER NKF

REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P.3 TOTAL 52

ATB-322-8.11

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pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\113810\400-Engineering\Roadway\Sheets\113810_GN001.dgn

ITEM 623 – MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 623.05 FOR MONUMENT BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (A MINIMUM OF 1'-0" OUTSIDE THE CASTING) AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

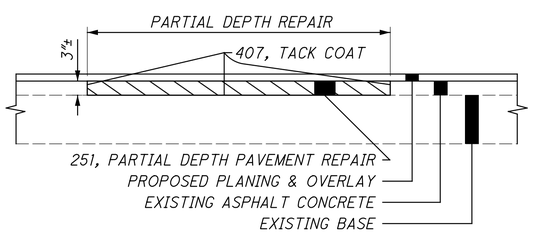
623 - MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN, 6 EACH

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR (441), 1,330 SQ. YD.



STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

ATB-322-9.649
ATB-322-10.224
ATB-322-13.554

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL 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 A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, RESHAPING UNDER GUARDRAIL AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:

1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:

1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1 (448), UNDER GUARDRAIL, AS PER PLAN.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

BARRIER REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS.

202, REMOVAL MISC.: BARRIER REFLECTOR, 52 EACH
626, BARRIER REFLECTOR, TYPE 2, (BI-DIRECTIONAL), 65 EACH

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLAN

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION PLANS. THE FORMAL AS-BUILT CONSTRUCTION PLANS SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. AS-BUILT CONSTRUCTION PLANS SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINE AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION PLANS.

THE CONTRACTOR'S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL AS-BUILT CONSTRUCTION PLANS. THE CONTRACTOR'S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR'S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION PLANS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE AS-BUILT CONSTRUCTION PLAN IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION PLANS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION PLANS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPTIAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

GENERAL NOTES

DESIGN AGENCY

DESIGNER NKF
REVIEWER MJP 04-29-24
PROJECT ID 113810
SHEET P.4 TOTAL 52

ATB-322-8.11

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT BI-DIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.

5. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

6. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.

7. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

8. A QUANTITY OF 75 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

10. THE CONTRACTOR SHALL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE WORK ZONE MARKING SIGNS AND THEIR SUPPORTS WITHIN THE WORK LIMITS. THESE SIGNS INCLUDE "NO EDGE LINES", "DO NOT PASS" AND "PASS WITH CARE". ALL OTHER SIGNS WILL BE INCIDENTAL TO THE LUMP SUM PAY ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS AS PER CMS 614.04.

11. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC. PLACEMENT OF THE INTERMEDIATE COURSE SHALL FOLLOW MILLING OPERATIONS AND THAT TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH SCD MT-101.90.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

US 322, SLM 8.11 - 14.90

PHASE 1: INTERMEDIATE COURSE
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 6.79 MILE
614, WORK ZONE MARKING SIGN, (ALL PHASES), 24 EACH

PHASE 2: SURFACE COURSE
614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 6.79 MILE

TO BE USED AS DIRECTED BY THE ENGINEER
614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 13.58 MILE

US 322, SLM 14.90 - 15.24

PHASE 1: MILLED SURFACE
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 0.34 MILE
614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT, 196 FT

PHASE 2: INTERMEDIATE COURSE
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 0.34 MILE
614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT, 196 FT

PHASE 3: SURFACE COURSE
614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 0.34 MILE
614, WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT, 196 FT

TO BE USED AS DIRECTED BY THE ENGINEER
614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 0.68 MILE

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.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

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 SHALL NOT BE PERMITTED AT PROJECT COST NOR TIME COMPENSATION. 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 (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 PERIODS WHERE TRAFFIC NEEDS TO BE DIRECTED CONTRARY TO A TRAFFIC CONTROL DEVICE (FLAGGER, SIGN [E.G. STOP SIGN, STREET OR HIGHWAY SIGNS, ETC], SIGNAL OR OTHER DEVICE USED TO REGULATE, WARN OR GUIDE TRAFFIC). TRAFFIC IN THIS INSTANCE INCLUDES VEHICULAR, PEDESTRIAN AND/OR SHARED USE PATH USERS.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (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 BY THE ENGINEER:

FOR LANE CLOSURES THAT MEET ALL OF THE CRITERIA LISTED BELOW: 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 (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

CRITERIA:
- ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND,
- AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
- AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

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), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICES IN WORK ZONES.

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 SHIFT DURATION SHALL NOT BE LESS THAN THE LEO'S MINIMUM SHOW-UP TIME REQUIRED BY THEIR LAW ENFORCEMENT AGENCY. 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 50 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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DROPOFFS AT SIDE STREETS AND DRIVEWAYS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE MILLED SURFACES AND SURFACE COURSE OF SIDE STREET APPROACHES/DRIVEWAYS GREATER THAN 1.25 INCH. THE CONTRACTOR SHALL PLACE A 12:1 ASPHALT WEDGE FOR ALL RESULTING ELEVATION DIFFERENCES GREATER THAN 1.25 INCH PRIOR TO OPENING TO TRAFFIC. THE PAVING OF INTERSECTION APPROACHES AND DRIVEWAYS, PER THE NOTES ON SHEET P.3, SHALL BE PERFORMED WITHIN 7 DAYS OF MAINLINE SURFACE COURSE BEING APPLIED AND A DROPOFF BEING CREATED BETWEEN THE NEW SURFACE COURSE AND THE MILLED/EXISTING SIDE ROAD OR DRIVEWAY SURFACE. THE CONTRACTOR MAY ELECT TO PLACE A 12:1 ASPHALT WEDGE IN LIEU OF COMPLETING THE PAVING, HOWEVER THE ASPHALT CONCRETE USED FOR THE WEDGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 – MAINTAINING TRAFFIC AND SHALL INCLUDE THE REMOVAL OF THE WEDGE BEFORE THE INTERSECTION/DRIVEWAY IS PAVED.

TO ACCOUNT FOR MATERIAL TO INSTALL DROPOFF WEDGES, THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
411, STABILIZED CRUSHED AGGREGATE, (DRIVEWAYS), 500 CY.
411, STABILIZED CRUSHED AGGREGATE, (INTERSECTIONS), 70 CY.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER NKF

REVIEWER MJP 11-29-21

PROJECT ID 113810

SHEET P:5 TOTAL 10

ATB-322-8.11

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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
ROAD & RAMP CLOSURES	>= 2WEEKS	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 PATTERNS 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.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE (SLM 8.11 TO 14.90)
2 PHASES (INTERMEDIATE AND SURFACE COURSE)

TRAFFIC SHALL NOT BE PERMITTED ON MILLED SURFACES AT ANY TIME. ACCESS TO ALL DRIVEWAYS AND INTERSECTIONS SHALL BE MAINTAINED AT ALL TIMES. INTERMEDIATE COURSE MUST BE PLACED WITHIN THE SAME DAY.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE (SLM 14.90 TO 15.24)
3 PHASES (MILLED, INTERMEDIATE, AND SURFACE COURSE)

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 5 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $10,000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

ASPHALT PAVING LIMITATION

THE CONTRACTOR SHALL NOT ANTICIPATE OR SCHEDULE PLACING ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE, ETC.) BETWEEN NOVEMBER 1 AND APRIL 1 WHEN SUBMITTING THEIR INITIAL BAR CHART PROGRESS SCHEDULE TO THE DISTRICT CONSTRUCTION ENGINEER (DCE) AS SPECIFIED IN CMS SECTION 108.02A. THIS LIMITATION SHALL ALSO INCLUDE INITIAL BASE LINE SCHEDULES AND ALL UPDATES IF A CPM SCHEDULE IS REQUIRED.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH CMS 614.03.

THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614 PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN, 12 SIGN MONTH
ASSUMING 2 SIGNS FOR 6 MONTHS

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN) (ATB-322-12.48) (ATB-322-13.99)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD & RAMP CLOSURES	>= 2WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (ATB-322-12.18)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 14 CONSECUTIVE DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.7. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS ROADWAY CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF ATB-322-13.99.

MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (ATB-322-13.99)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 21 CONSECUTIVE DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.8. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS ROADWAY CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF ATB-322-12.18.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-2208) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER NKF

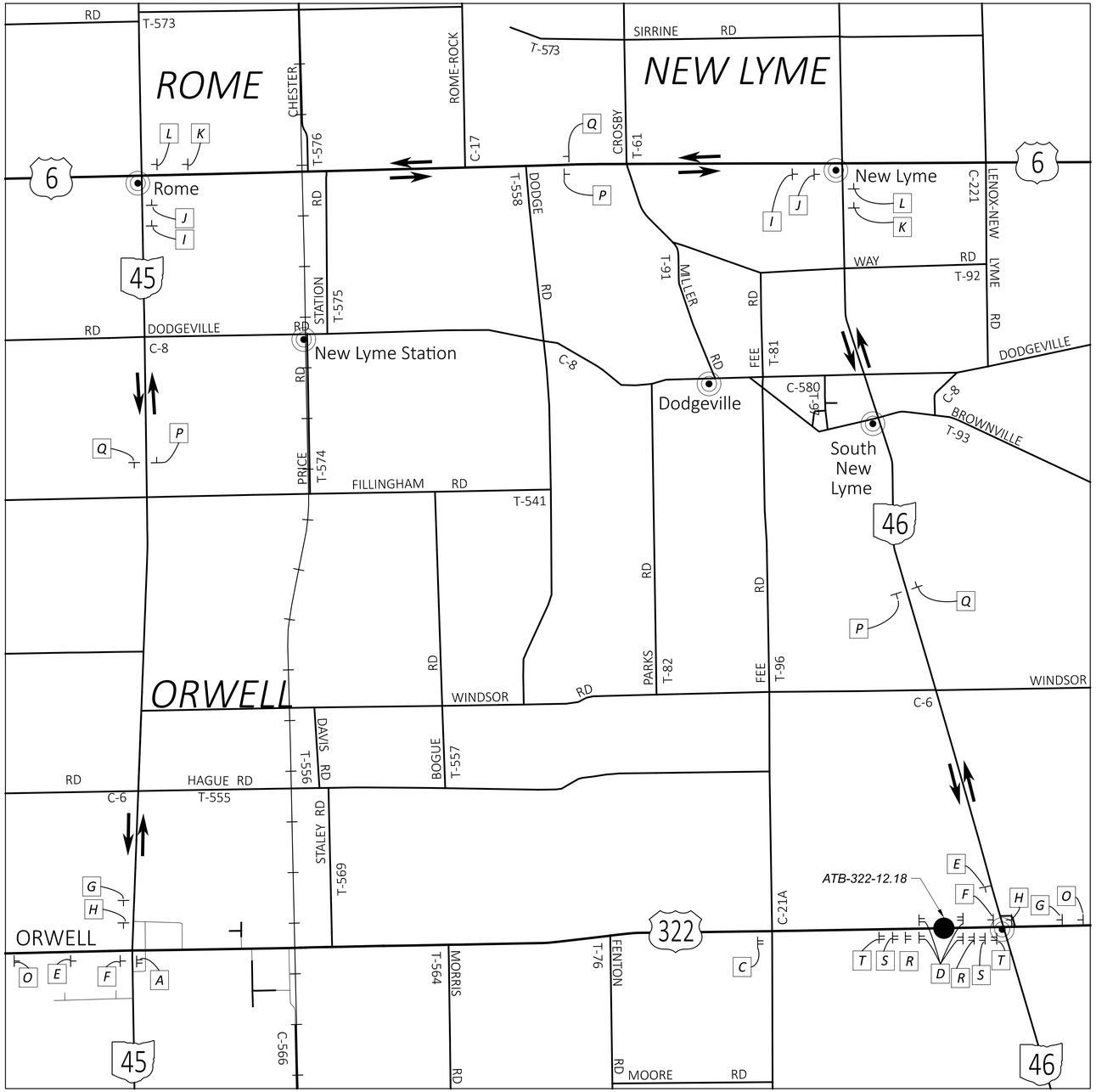
REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P:6 TOTAL 52

ATB-322-8.11

MODEL: SHEET 2 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 7:47:43 AM USER: mpallagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\113810\400-Engineering\MOT\Sheets\113810_MN001.dgn



DETOUR ROUTE FOR: ATB-322-12.18

DETOUR ROUTE: US 322 / SR 46 / US 6 / SR 45

CLOSE STRUCTURE ATB-322-12.18 PER STANDARD CONSTRUCTION DRAWING MT-101.60

 # ON TYPE III BARRICADE WITH TYPE B FLASHERS MOUNTED PER SCD MT-101.60

TYPE A WARNING LIGHT

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

NOT TO SCALE

A

\#

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3a-60

DETOUR

M4-10L-48

B

\#

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3a-60

DETOUR

M4-10R-48

C

\#

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3a-60

D

\#

ROAD CLOSED

R11-2-48

E

DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M5-1-21

F

DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M6-1-21

G

DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M5-1-21

H

DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M6-1-21

I

DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M5-1-21

J

DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M6-1-21

K

DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M5-1-21

L

DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M6-1-21

M

NOT USED

N

NOT USED

O

DETOUR AHEAD

W20-2-48

P

DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*

Q

DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*

R

ROAD CLOSED AHEAD

W20-3-48

500 FEET

W16-2P-30

S

ROAD CLOSED AHEAD

W20-3-48

1000 FEET

W16-2P-30

T

ROAD WORK AHEAD

W20-1-48

MAINTENANCE OF TRAFFIC DETOUR PLAN - ATB-322-12.18

DESIGN AGENCY

DESIGNER	NKF
REVIEWER	MJP 04-29-24
PROJECT ID	113810
SHEET	P.7
TOTAL	52

ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 7:47:50 AM USER: mpalagan
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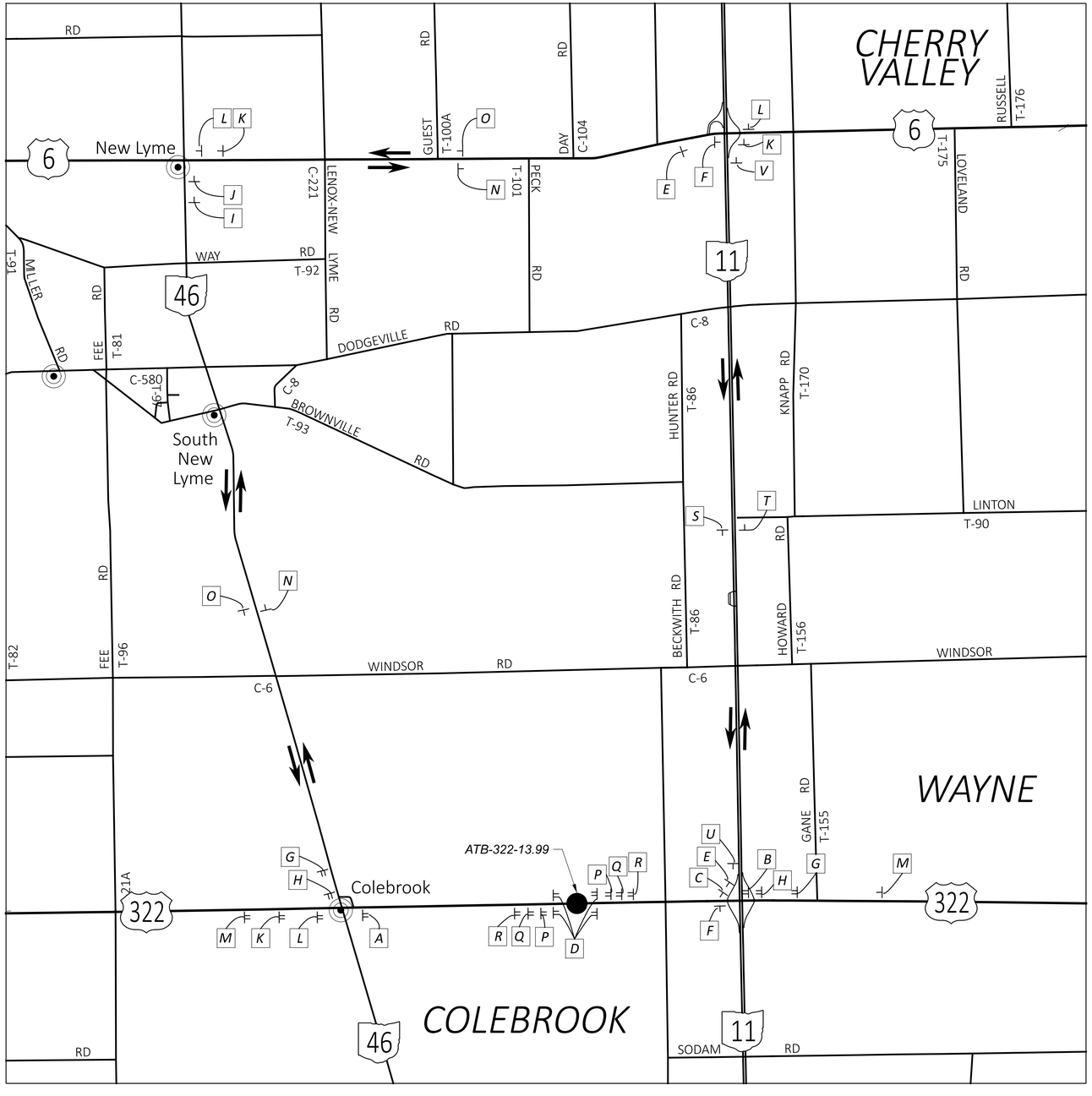

DETOUR ROUTE FOR: ATB-322-13.99

NOT TO SCALE

DETOUR ROUTE: US 322 / SR 11 / US 6 / SR 46

CLOSE STRUCTURE ATB-322-12.18 PER STANDARD CONSTRUCTION DRAWING MT-101.60

 # ON TYPE III BARRICADE WITH TYPE B FLASHERS MOUNTED PER SCD MT-101.60

TYPE A WARNING LIGHT

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

A #
ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
DETOUR
M4-10L-48

B #
ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
DETOUR
M4-10R-48

C #
ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60

D #
ROAD CLOSED
R11-2-48

E
DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M5-1-21

F
DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M6-1-21

G
DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M5-1-21

H
DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M6-1-21

I
DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M5-1-21

J
DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*
M6-1-21

K
DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M5-1-21

L
DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*
M6-1-21

M
DETOUR AHEAD
W20-2-48

N
DETOUR *M4-8-24*
EAST *M3-2-24*
322 *M1-4-30-3*

O
DETOUR *M4-8-24*
WEST *M3-4-24*
322 *M1-4-30-3*

P
ROAD CLOSED AHEAD
W20-3-48
500 FEET
W16-2P-30

Q
ROAD CLOSED AHEAD
W20-3-48
1000 FEET
W16-2P-30

R
ROAD WORK AHEAD
W20-1-48

S
DETOUR *M4-7-36*
EAST *M3-4-36*
322 *M1-4-36-3*

T
DETOUR *M4-8-36*
WEST *M3-4-36*
322 *M1-4-36-3*

U
DETOUR *M4-8-36*
EAST *M3-2-36*
322 *M1-4-45-3*
M6-2R-30

V
DETOUR *M4-8-36*
WEST *M3-4-36*
322 *M1-4-45-3*
M6-2R-30

MAINTENANCE OF TRAFFIC DETOUR PLAN - ATB-322-13.99

DESIGN AGENCY

DESIGNER NKF
REVIEWER MJP 04-29-24
PROJECT ID 113810
SHEET P.8 TOTAL 52

ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 7:48:01 AM USER: mpalagan
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SHEET NUM.													PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	11	14	25	26	32	34	36	42	43	49	52	01/STR/05	02/STR/04	03/STR/10	04/STR/47						
																					ROADWAY	
									LS					LS			201	11000	LS		CLEARING AND GRUBBING, AS PER PLAN, (ATB-322-12.18)	
				LS											LS		201	11000	LS		CLEARING AND GRUBBING, AS PER PLAN, (ATB-322-13.99)	
												LS		LS			202	11000	LS		STRUCTURE REMOVED (ATB-322-12.18)	
												2		2			202	20010	2	EACH	HEADWALL REMOVED	
					157					151				151	157		202	23000	308	SY	PAVEMENT REMOVED	
										44				44			202	35100	44	FT	PIPE REMOVED, 24" AND UNDER	
			2,456		713								2,456		713		202	38000	3,169	FT	GUARDRAIL REMOVED	
	52												52				202	98100	52	EACH	REMOVAL MISC.: BARRIER REFLECTOR	4
						70	32				170			170	102		203	10000	272	CY	EXCAVATION	
						309	33				160			160	342		203	20000	502	CY	EMBANKMENT	
					122					187				187	122		204	10000	309	SY	SUBGRADE COMPACTION	
			23.76										23.76				209	15000	23.76	STA	RESHAPING UNDER GUARDRAIL	
753													753				209	60200	753	STA	LINEAR GRADING	
		750											750				209	72000	750	STA	PREPARING SUBGRADE FOR SHOULDER PAVING	
					450										450		606	15050	450	FT	GUARDRAIL, TYPE MGS	
			2,550							425			2,550	425			606	15100	2,975	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
					50										50		606	17360	50	FT	GUARDRAIL, TYPE MGS, LONG-SPAN	
			14		3					2			14	2	3		606	26150	19	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	4
			2		1					2			2	2	1		606	26550	5	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			12										12				606	35140	12	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
	6												6				623	39501	6	EACH	MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN	4
					1										1		SPECIAL	69050100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	26
	LS												LS				SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	4
																					EROSION CONTROL	
												16		16			601	32100	16	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
				252					187					187	252		659	00300	439	CY	TOPSOIL	
				2,278					1,689					1,689	2,278		659	10000	3,967	SY	SEEDING AND MULCHING	
				113					84					84	113		659	14000	197	SY	REPAIR SEEDING AND MULCHING	
				0.32					0.23					0.23	0.32		659	20000	0.55	TON	COMMERCIAL FERTILIZER	
				0.47					0.35					0.35	0.47		659	31000	0.82	ACRE	LIME	
				13					9					9	13		659	35000	22	MGAL	WATER	
					738										738		670	00720	738	SY	DITCH EROSION PROTECTION MAT, TYPE B	
													3,000				832	30000	3,000	EACH	EROSION CONTROL	
										556				556			836	10000	556	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
																					DRAINAGE	
												5		5			601	11000	5	SY	RIPRAP, TYPE D	
												1.7		1.7			602	20000	1.7	CY	CONCRETE MASONRY	
				50					50					50	50		611	00900	100	FT	6" CONDUIT, TYPE B	
				50					50					50	50		611	01400	100	FT	6" CONDUIT, TYPE E	
				50					50					50	50		611	01500	100	FT	6" CONDUIT, TYPE F	
										36				36			611	07900	36	FT	18" CONDUIT, TYPE D	
												72		72			611	53000	72	FT	38" X 60" CONDUIT, TYPE A, 706.04	
																					PAVEMENT	
	1,330												1,330				251	01000	1,330	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
		7,450											7,450				254	01000	7,450	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (T = 3")	
		112,338											112,338				254	01000	112,338	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (T = 5")	
					73					57				57	73		301	56000	130	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
					20					39				39	20		304	20000	59	CY	AGGREGATE BASE	
		15,655			16					22			15,655	22	16		407	20000	15,693	GAL	NON-TRACKING TACK COAT	
		6,659			235								6,659		235		408	10001	6,894	GAL	PRIME COAT, AS PER PLAN	3
30													600				411	10000	600	CY	STABILIZED CRUSHED AGGREGATE	
		5,030											5,030				441	10100	5,030	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	
		9,725											9,725				441	10200	9,725	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	

GENERAL SUMMARY

ATB-322-8.11

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DESIGN AGENCY

DESIGNER CMW

REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P.9 | TOTAL 52

SHEET NUM.											PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	5	6	11	12	13	14	26	43	52	01/STR/05	02/STR/04	03/STR/10	04/STR/47						
							23				23				441	50201	23	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN (UNDER GUARDRAIL)	4
				463				17			463		17		617	10101	480	CY	COMPACTED AGGREGATE, AS PER PLAN	
15											15				618	41000	15	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
8											8				618	43000	8	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
42,240											42,240				874	20000	42,240	FT	LONGITUDINAL JOINT PREPARATION	
																			TRAFFIC CONTROL	
					489						489				621	00100	489	EACH	RPM	
					391						391				621	54000	391	EACH	RAISED PAVEMENT MARKER REMOVED	
	65						40	17	16		105	16	17		626	00110	138	EACH	BARRIER REFLECTOR, TYPE 2, (BIDIRECTIONAL)	
	45							36	38		45	38	36		630	02100	119	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
	6								10		6	10			630	80100	16	SF	SIGN, FLAT SHEET, 730.20	
	6								1		6	1			630	84900	7	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								3					3		630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
	6							3	2		6	2	3		630	86002	11	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
						14.26					14.26				646	10010	14.26	MILE	EDGE LINE, 6"	
						7.13					7.13				646	10200	7.13	MILE	CENTER LINE	
						196					196				646	10310	196	FT	CHANNELIZING LINE, 12"	
						52					52				646	10400	52	FT	STOP LINE	
						168					168				646	10600	168	FT	TRANSVERSE/DIAGONAL LINE	
						114					114				646	10800	114	SF	ISLAND MARKING	
						4					4				646	20300	4	EACH	LANE ARROW	
																			RETAINING WALLS	
										LS		LS			503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
																			STRUCTURE REPAIRS	
																			FOR ATB-322-10.224 ESTIMATED QUANTITIES	17
																			FOR ATB-322-13.554 ESTIMATED QUANTITIES	17
																			FOR ATB-322-9.649 ESTIMATED QUANTITIES	17
																			STRUCTURES OVER 20 FOOT SPAN	
																			FOR ATB-322-13.896 ESTIMATED QUANTITIES	36
		50									50				614	11110	50	HOUR	**MAINTENANCE OF TRAFFIC** LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			LS								LS				614	12420	LS		DETOUR SIGNING	
		24									24				614	12460	24	EACH	WORK ZONE MARKING SIGN	
		75									75				614	13000	75	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
			12								12				614	18601	12	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
		7.47									7.47				614	21100	7.47	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
		7.13									7.13				614	21550	7.13	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
		14.26									14.26				614	22360	14.26	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
		392									392				614	23010	392	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
		196									196				614	23690	196	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
																			INCIDENTALS	
											LS				614	11000	LS		MAINTAINING TRAFFIC	
											12				619	16010	12	MNTH	FIELD OFFICE, TYPE B	
											LS				623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LS				624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

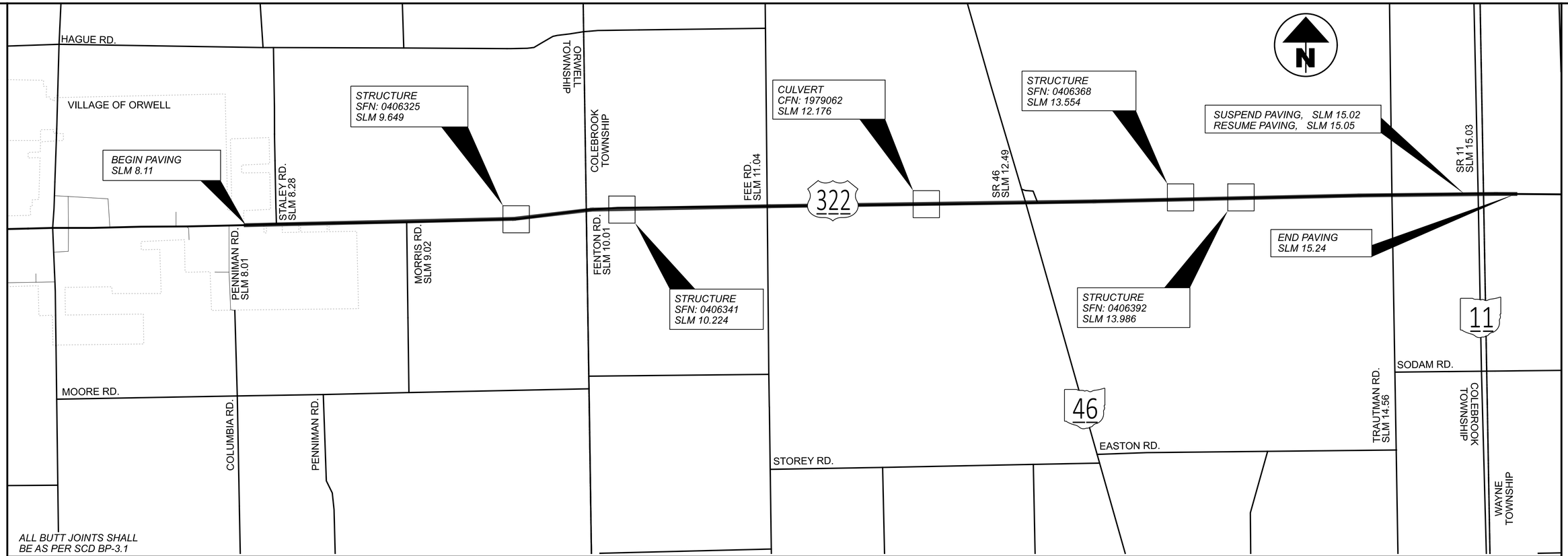
DESIGNER
CMW

REVIEWER
MJP 04-29-24

PROJECT ID
113810

SHEET P.10 | TOTAL 52

ATB-322-8.11



ALL BUTT JOINTS SHALL BE AS PER SCD BP-3.1

PAVEMENT CALCULATIONS

SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA		254 PAVEMENT PLANING, ASPHALT CONCRETE, (T = 5")	254 PAVEMENT PLANING, ASPHALT CONCRETE, (T = 3")	407 NON-TRACKING TACK COAT @ 0.08 GAL/SY	407 NON-TRACKING TACK COAT @ 0.05 GAL/SY	408 PRIME COAT, AS PER PLAN @ 0.4 GAL/SY	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M, (T = 1.5")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446), (T = 3")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446), (T = 1.75") (TWO LIFTS)	617 COMPACTED AGGREGATE, AS PER PLAN, (T = 1" AVG)	209 PREPARING SUBGRADE FOR SHOULDER PAVING	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M (SAFETY EDGE)	407 NON-TRACKING TACK COAT @ 0.09 GAL/SY (SAFETY EDGE)					
					FT	FT	SY	SY		SY	SY	GAL	GAL	GAL	CY	CY	CY	CY	STA	CY	GAL							
US 322																												
8.11	TO	9.65	1	L/R	8110.08	26	23429.12			23429.12		1874.33	1171.46	1441.79	976.21		1952.43	100.12	162.20	8.14	17.57							
9.65	TO	12.49	1	L/R	14995.20	26	43319.47			43319.47		3465.56	2165.97	2665.81	1804.98		3609.96	185.13	299.90	15.04	32.49							
12.49	TO	13.57	1	L/R	5702.40	30	19008.00			19008.00		1520.64	950.40	1013.76	792.00		1584.00	70.40	114.05	5.72	12.36							
13.57	TO	14.90	1	L/R	7011.84	30	23372.80			23372.80		1869.82	1168.64	1246.55	973.87		1947.73	86.57	140.24	7.03	15.19							
14.90	TO	14.95	2	L/R	264.00	30	880.00				880.00	70.40	44.00	46.93	36.67	42.78		3.26	5.28	0.26	0.57							
14.95	TO	14.98	2	L/R	158.40	37	651.20				651.20	52.10	32.56	28.16	27.13	31.66		1.96	3.17	0.16	0.34							
14.98	TO	15.02	2	L/R	211.20	44	1032.53				1032.53	82.60	51.63	37.55	43.02	50.19		2.61	4.22	0.21	0.46							
15.05	TO	15.12	2	L/R	369.60	37	1519.47				1519.47	121.56	75.97	65.71	63.31	73.86		4.56	7.39	0.37	0.80							
15.12	TO	15.16	2	L/R	211.20	44	1032.53				1032.53	82.60	51.63	37.55	43.02	50.19		2.61	4.22	0.21	0.46							
15.16	TO	15.19	2	L/R	158.40	37	651.20				651.20	52.10	32.56	28.16	27.13	31.66		1.96	3.17	0.16	0.34							
15.19	TO	15.24	2	L/R	264.00	30	880.00				880.00	70.40	44.00	46.93	36.67	42.78		3.26	5.28	0.26	0.57							
INTERSECTIONS																												
8.11	TO	14.90		L/R	VARIES	10.00		911.31		911.31		72.90	45.57		37.97	75.94												
14.90	TO	15.24		L/R	VARIES	10.00		802.68			802.68	64.21	40.13		33.45		39.02											
DRIVEWAYS																												
8.11	TO	14.90		L/R	VARIES	2.00		15.00		15.00		1.20	0.75		0.63	1.25												
14.90	TO	15.24		L/R	VARIES	2.00		0.20			0.20	0.02	0.01		0.01		0.01											
MAILBOX APPROACHES																												
8.11	TO	14.90		L/R	VARIES			2281.42		2281.42		182.51	114.07		95.06	190.12												
									SUBTOTALS	0.00	112337.12	7449.81	9582.95	5989.35	6658.90	4991.12	590.43	9133.14	462.42	749.13	37.57	81.16	0.00	0.00	0.00	0.00	0.00
									TOTALS CARRIED TO GENERAL SUMMARY	0	112338	7450	9583	5990	6659	4992	591	9134	463	750	38	82	0	0	0	0	0

DESIGN AGENCY

DESIGNER NKF

REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P:11 TOTAL 52

ATB-322-8.11

LOCATION								621	621				621	REMARKS
COUNTY	ROUTE	SECTION (S.L.M.)						RPM (YELLOW/YELLOW)	RPM (WHITE/RED)				RAISED PAVEMENT MARKER REMOVED	
		FROM	TO					EACH	EACH				EACH	
ATB	322	8.11	12.49					289					231	
ATB	322	12.49	15.24					194	6				160	INCLUDES TURN LANES AT SR 11 RAMPS
TOTALS CARRIED TO GENERAL SUMMARY								483	6				391	

RAISED PAVEMENT MARKER SUBSUMMARY

DESIGN AGENCY

DESIGNER NKF

REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P.12 TOTAL 52

ATB-322-8.11

GENERAL SPEC: 640
MATERIAL TYPE: 646

EDGE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE, 6" TOTAL	WHITE EDGE LINE, 6" HIGHWAY	WHITE EDGE LINE, 6" RAMP	YELLOW EDGE LINE, 6" TOTAL	YELLOW EDGE LINE, 6" HIGHWAY	YELLOW EDGE LINE, 6" RAMP	COMMENTS
ATB	322	8.11	SUNRISE AVE.	15.24	SR 11	14.26						
TOTAL						14.26			0			

LANE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	6" LANE LINE DASHED	6" LANE LINE SOLID	COMMENTS
TOTAL									

CENTER LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
ATB	322	8.11	SUNRISE AVE.	15.24	SR 11	7.13	3.88	
TOTAL						7.13	3.88	

AUXILIARY

CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE, 8"	CHANNEL LINE, 12"	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	ISLAND MARKING	SYMBOL MARKINGS RxR	SYMBOL MARKINGS SCHOOL 72"	SYMBOL MARKINGS SCHOOL 96"	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	REDUCT. ARROW	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	DOTTED LINES, 6"	COMMENTS
			FT	FT	FT	FT	FT	FT	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	
ATB	US 322 @ SR 11 SB RAMPS	14.941		92				84	57				2								
ATB	US 322 @ SR 11 NB RAMPS	15.115		104				84	57				2								
ATB	US 322 @ SR 46 INTERSECTION	12.480			52																
TOTAL				196	52			168	114				4								

PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY

DESIGNER NKF

REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P.13 TOTAL 52

ATB-322-8.11

GUARDRAIL SUBSUMMARY

REFERENCE NUMBER	COUNTY	ROUTE	SLM RANGE			SIDE	202 GUARDRAIL REMOVED (FT)	209 RESHAPING UNDER GUARDRAIL (STA)		441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN, (UNDER GUARDRAIL) (CY)	606 GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)						606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) (EACH)	606 ANCHOR ASSEMBLY, MGS TYPE T (EACH)	606 BRIDGE TERMINAL ASSEMBLY, TYPE 4 (EACH)	626 BARRIER REFLECTOR, TYPE 2, (BIDIRECTIONAL) (EACH)			COMMENTS
				TO																			
GR-1	ATB	322	9.63		9.65	RT	127	1.06		1.18	137.5						1		1	2			
GR-2	ATB	322	9.62		9.65	LT	129	1.58		1.19	137.5						1		1	2			
GR-3	ATB	322	9.67		9.68	RT	86	0.53		0.80	87.5						1		1	2			
GR-4	ATB	322	9.67		9.69	LT	133	1.06		1.23	137.5						1		1	2			
GR-5	ATB	322	10.16		10.22	RT	289	3.17		2.68	300						1		1	4			
GR-6	ATB	322	10.20		10.22	LT	105	1.06		0.97	112.5						1		1	2			
GR-7	ATB	322	10.22		10.25	RT	166	1.58		1.54	175						1		1	3			
GR-8	ATB	322	10.22		10.26	LT	204	2.11		1.89	212.5						1		1	3			
GR-9	ATB	322	13.52		13.55	RT	158	1.58		1.46	162.5						1		1	3			
GR-10	ATB	322	13.53		13.55	LT	150	1.06		1.39	150						1		1	3			
GR-11	ATB	322	13.57		13.59	RT	106	1.06		0.98	112.5						1		1	2			
GR-12	ATB	322	13.57		13.59	LT	79	1.06		0.73	87.5							1	1	2			
GR-13	ATB	322	13.96		14.02	RT	346	3.17		3.20	350						2			5			
GR-14	ATB	322	13.96		14.03	LT	378	3.70		3.50	387.5						1	1		5			
TOTALS CARRIED TO GENERAL SUMMARY							2456	23.76	0	23	2550	0	0	0	0	0	14	2	12	40			

DESIGN AGENCY

DESIGNER NKF

REVIEWER MJP 04-29-24

PROJECT ID 113810

SHEET P.14 TOTAL 52

ATB-322-8.11

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2012 INTERMIM SPECIFICATIONS, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	DATED 1/20/2023
DBR-3-11	DATED 7/15/2011
DS-1-92	DATED 7/15/2022

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

SS 844	DATED 4/20/2018
SS 848	DATED 1/15/2021

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS, SECTIONS 102.05, 105.02, AND 513.04*. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK

ATB-322-9.649 (OVER ROCK CREEK)
- REMOVE CONCRETE WEARING SURFACE AND REPLACE WITH A FIBER REINFORCED CONCRETE OVERLAY
- INSTALL NEW DRIP STRIPS
- INSTALL DEEP BEAM RETROFIT RAILING PER SCD DBR-3-11
- PATCH UNSOUND AREAS OF EXISTING CONCRETE SURFACE ON DECK EDGES AND ABUTMENTS
- CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS
- CHANNEL CLEANOUT

ATB-322-10.224 (OVER STREAM)
- PAVE OVER STRUCTURE WITH MAINLINE PAVING
- CHANNEL CLEANOUT AROUND INLET AND OUTLET
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS
- CHANNEL CLEANOUT

ATB-322-13.554 (OVER MOSQUITO CREEK)
- REMOVE ASPHALT WEARING SURFACE AND REPLACE WITH A FIBER REINFORCED CONCRETE OVERLAY
- INSTALL NEW DRIP STRIPS
- INSTALL DEEP BEAM RETROFIT RAILING PER SCD DBR-3-11
- PATCH UNSOUND AREAS OF EXISTING CONCRETE SURFACE ON DECK EDGES AND ABUTMENTS
- CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED
- PERFORM PILE ENCASEMENTS
- CHANNEL CLEANOUT
- CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/ /CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

ITEM 202 - REMOVAL MISC.: CHANNEL CLEANOUT

THIS WORK WILL CONSIST OF RE-ESTABLISHING THE ORIGINAL CHANNEL PROFILE BY REMOVING SEDIMENT BUILDUP, VEGETATION, AND DEBRIS FROM THE EXISTING CHANNEL WITHIN STATE RIGHT-OF-WAY LIMITS AS SPECIFIED IN THE PLANS FOR STRUCTURES ATB-322-9.649, ATB-322-10.224, AND ATB-322-13.554. ANY TREES LOCATED WITHIN CHANNEL OR BANK LIMITS, OR UNDER/INSIDE BRIDGE LIMITS WILL BE INCLUDED UNDER ITEM 201, CLEARING AND GRUBBING. ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17 OF THE CMS WITH THE APPROVAL OF THE ENGINEER. NO AREAS OF EXISTING CHANNEL PROTECTION SHALL BE REMOVED IN ORDER TO RESTORE THE ORIGINAL CHANNEL PROFILE. AFFECTED CHANNEL AREAS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CHANNEL CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202 REMOVAL MISC.: CHANNEL CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CHANNEL CLEANOUT.

EROSION REPAIR

THE FOLLOWING QUANTITIES FOR EACH STRUCTURE SHALL BE USED TO REPAIR EROSION AT THE FOLLOWING LOCATIONS AS DIRECTED BY THE PROJECT ENGINEER.

STRUCTURE ATB-322-9.649 (FORWARD FOOTERS)
ITEM 203, EMBANKMENT, 3 CY
ITEM 601, DUMPED ROCK FILL, TYPE C, 3 CY

STRUCTURE ATB-322-9.649 (REAR FOOTERS)
ITEM 203, EMBANKMENT, 3 CY
ITEM 601, DUMPED ROCK FILL, TYPE C, 3 CY

STRUCTURE ATB-322-13.554 (FORWARD FOOTERS)
ITEM 203, EMBANKMENT, 4 CY
ITEM 601, DUMPED ROCK FILL, TYPE C, 4 CY

STRUCTURE ATB-322-13.554 (REAR FOOTERS)
ITEM 203, EMBANKMENT, 4 CY
ITEM 601, DUMPED ROCK FILL, TYPE C, 4 CY

ITEM SPECIAL, STEEL DRIP STRIP

AFTER REMOVAL OF THE EXISTING WEARING COURSE, INSTALL STEEL DRIP STRIPS ON EACH EDGE OF STRUCTURES ATB-322-9.649 AND ATB-322-15.554. INSTALLATION IS TO BE AS PER SCD DS-1-92.

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE UNDERSIDE OF THE DECK WITHOUT SOUNDING.

AFTER SPALLED CONCRETE IS REMOVED THE EXISTING EXPOSED REINFORCING STEEL SHALL BE BLAST CLEANED. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVES WITH CONTAINMENT, OR VACUUM BLASTING. APPLY A ZINC RICH PRIMER, PER CMS 708.02.B, OVER ALL EXPOSED STEEL SURFACES. THE APPLICATION OF THE PRIMER SHALL FOLLOW CMS 514 AND ALL MANUFACTURER REQUIREMENTS.

THE DEPARTMENT WILL MEASURE THIS WORK AS THE ACTUAL AREA IN SQUARE YARDS OF CONCRETE SPALLS REMOVED.

CONCRETE SPALL REMOVAL WILL BE PAID AT THE UNIT BID PRICE FOR SPECIAL – STRUCTURE MISC.: CONCRETE SPALL REMOVAL WITH ZINC PRICH PRIMER APPLIED. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

SPALL REMOVAL ON STRUCTURES ATB-322-9.649 & ATB-322-13.554 NOT OVER TRAVEL LANES AND PAVED SHOULDERS

THE FOLLOWING WORK AND QUANTITIES SHALL BE USED ON THIS STRUCTURE TO REPAIR THE CONCRETE SPALLS OVER TRAVEL LANES AND PAVED SHOULDERS:

ATB-322-9.649:
ITEM SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED, 10 SY

ATB-322-13.554:
ITEM SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED, 4 SY

SPECIAL - STRUCTURES: ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS

AFTER THE LOOSE MATERIALS ARE REMOVED FROM THE EXISTING PILE ENCASEMENTS APPLY A ZINC RICH PRIMER, PER CMS 708.02.B, TO ALL EXPOSED STEEL SURFACES INCLUDING THE EXISTING PILE ENCASEMENTS AND EXPOSED EXISTING H PILES. THE APPLICATION OF THE PRIMER SHALL FOLLOW CMS 514 AND ALL MANUFACTURER REQUIREMENTS.

THE DEPARTMENT WILL MEASURE THIS WORK AS THE ACTUAL AREA IN SQUARE FEET OF THE EXISTING PILE ENCASEMENTS.

THIS WORK WILL BE PAID AT THE UNIT BID PRICE FOR SPECIAL - STRUCTURES: ZINC RICH PRIMER APPLIED TO EXSITING PILE ENCASEMENTS. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR EACH STRUCURE.

ATB-322-9.646:
SPECIAL, ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS, 810 SF

ATB-322-13.554:
SPECIAL, ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS, 315 SF

ITEM SPECIAL - PILE ENCASEMENT

INSPECT AND REMOVE ALL THE EXISTING LOOSE CONCRETE AND EXISTING CMP PILE ENCASEMENTS FROM THE EXISTING PILE ENCASEMENTS.

ENCASE ALL EXISTING PILE ENCASEMENTS FOR THE CAPPED PILE PIERS IN CONCRETE CONFORMING TO CMS 511 (QC1, F'C = 4.0 KSI). PROVIDE A CONCRETE SLUMP BETWEEN 6 TO 8 INCHES WITH THE USE OF A SUPERPLASTICIZER. PLACE THE CONCRETE WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (CMS 707.33), OR PVC PIPE (CMS 707.42). THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO THE CONCRETE PIER CAP. POSITION THE PIPE SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE. THE DEPARTMENT WILL MEASURE PILE ENCASEMENT BY THE NUMBER OF FEET.

THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE BOTTOM OF THE PIER CAP. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM - SPECIAL, PILE ENCASEMENT.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR EACH STRUCTURE.

ATB-322-9.649, 98 FT
ATB-322-13.554, 80 FT

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION

REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH AN ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT.

THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 20 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF ___ GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.

THE FOLLOWING QUANTITIES AND ANODE SPACINGS HAVE BEEN PROVIDED FOR EACH STRUCTURE.

ATB-322-9.649
ABUTMENTS: ANODE SPACING @ __ IN C/C
DECK EDGE: ANODE SPACING @ __ IN C/C
ITEM 844, GALVANIC ANODE PROTECTION, __ EACH
ITEM 844, GALVANIC DISTRIBUTED ANODE SYSTEM, LUMP

ATB-322-13.554
ABUTMENTS: ANODE SPACING @ __ IN C/C
DECK EDGE: ANODE SPACING @ __ IN C/C
ITEM 844, GALVANIC ANODE PROTECTION, __ EACH
ITEM 844, GALVANIC DISTRIBUTED ANODE SYSTEM, LUMP

STRUCTURE NOTES
ATB-322-9.649, ATB-322-10.224, ATB-322-13.554
OVER ROCK CREEK, OVER STREAM, OVER MOSQUITO CREEK

SFN
VARIES

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJP

REVIEWER
MJA 04-29-24

PROJECT ID
113810

SUBSET	TOTAL
1	8

SHEET	TOTAL
P.15	52

ATB-322-8.11

ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
ITEM 848 - FULL DEPTH REPAIR, AS PER PLAN
ITEM 848 - WEARING COURSE REMOVED, ASPHALT, AS PER PLAN
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN

(ATB-322-9.646), (ATB-322-13.554)

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRO DEMOLITION" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED, PROPOSED OVERLAY, AND THE DEPTH OF HYDRODEMOLITION SHALL BE AS SPECIFIED IN THE PLANS.

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 848.12) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

AGG TYPE	FINE AGG (LB)	#8 COARSE AGG (LB)*	AGG TOTAL (LB)*	CEMENT CONTENT (LB)	MICRO SILICA (LB)	WATER TO CEMENTITIOUS RATIO	AIR CONTENT +/- 2%	FIBER (1 ½" POLYPROPYLENE) (LB)**
GRAVEL	1410	1430	2840	600	50	0.4	8	1
LIMESTONE	1410	1450	2860	600	50	0.4	8	1
SLAG	1300	1350	2650	600	50	0.4	8	1

** ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127*

*** FIBER MESH SHALL BE 100% VIRGIN POLYPROPYLENE IN A FIBRILLATED-NETWORK FORM AND SHALL BE 1 1/4" IN LENGTH.*

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, MICRO-SILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED. FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C127

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

(SEE 848.21) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 848.23) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 848.29) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.14 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 848.29) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PST (4.2 Mpa).

(SEE 848.30) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 11:00 AM.

(SEE 848.31) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE: HIGH-PRESSURE WATER BLASTING WITH, OR WITHOUT, ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING.

ATB-322-9.649 (ABUTMENTS)
ITEM 519, PATCHING CONCRETE STRUCTURES, AS PER PLAN, 10 SF

ATB-322-9.649 (DECK EDGE)
ITEM 519, PATCHING CONCRETE STRUCTURES, AS PER PLAN, 10 SF

ATB-322-13.554 (ABUTMENTS)
ITEM 519, PATCHING CONCRETE STRUCTURES, AS PER PLAN, 50 SF

ATB-322-13.554 (DECK EDGE)
ITEM 519, PATCHING CONCRETE STRUCTURES, AS PER PLAN, 25 SF

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION

REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH AN ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT.

THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 20 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 200 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.

THE FOLLOWING QUANTITIES AND ANODE SPACINGS HAVE BEEN PROVIDED FOR EACH STRUCTURE.

ATB-322-9.649
ABUTMENTS: ANODE SPACING @ 18 IN C/C
DECK EDGE: ANODE SPACING @ 12 IN C/C
ITEM 844, GALVANIC ANODE PROTECTION, __ EACH
ITEM 844, GALVANIC DISTRIBUTED ANODE SYSTEM, LUMP

ATB-322-13.554
ABUTMENTS: ANODE SPACING @ 18 IN C/C
DECK EDGE: ANODE SPACING @ 12 IN C/C
ITEM 844, GALVANIC ANODE PROTECTION, __ EACH
ITEM 844, GALVANIC DISTRIBUTED ANODE SYSTEM, LUMP

STRUCTURE NOTES
ATB-322-9.649, ATB-322-10.224, ATB-322-13.554
OVER ROCK CREEK, OVER STREAM, OVER MOSQUITO CREEK

SFN
VARIES

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJP

REVIEWER
MJA 04-29-24

PROJECT ID
113810

SUBSET	TOTAL
2	8

SHEET	TOTAL
P.16	52

ATB-322-8.11

CALC:	NKF	DATE:	5/15/2024
CHECKED:	MJP	DATE:	4/29/2024

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
ATB-322-9.649 0406325 04/STR/47	ATB-322-10.224 0406341 02/STR/04	ATB-322-13.554 0406368 04/STR/47										
LS	LS	LS						201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS	1 / 8
LS	LS	LS						202	98000	LS	REMOVAL MISC.: CHANNEL CLEANOUT	1 / 8
6		8						203	20000	CY	EMBANKMENT	
98		80						SPECIAL	50771200	FT	PILE ENCASEMENT	1 / 8
4		9						512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
171		185						517	75600	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
810		315						SPECIAL	53000600	SF	STRUCTURES: ZINC RICH PRIMER APPLIED TO EXISTING PILE ENCASEMENTS	1 / 8
10		4						SPECIAL	53000800	SY	STRUCTURES MISC.: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED	1 / 8
6		8						601	27000	CY	DUMPED ROCK FILL, TYPE C	
20		75						844	10000	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION	
462		497						848	10001	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/4")	2 / 8
462		497						848	20001	SY	SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN (T = 1/4")	2 / 8
10		9						848	30001	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	2 / 8
17		16						848	50000	SY	HAND CHIPPING	
LS		LS						848	50100	LS	TEST SLAB	
1		1						848	50201	CY	FULL DEPTH REPAIR, AS PER PLAN	2 / 8
		497						848	50301	SY	WEARING COURSE REMOVED, ASPHALT, AS PER PLAN	2 / 8
		600						254	01000	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = VARIES 3"-5 1/2")	
		108						407	20000	GAL	NON-TRACKING TACK COAT	
		42						441	70100	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
72		48						516	10000	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL	
39		45						SPECIAL	51822300	FT	STEEL DRIP STRIP	1 / 8
LS		LS						503	11100	LS	COFFERDAMS AND EXCAVATION BRACING	

STRUCTURE ESTIMATED QUANTITIES
ATB-322-9.649, ATB-322-10.224, ATB-322-13.554
OVER ROCK CREEK, OVER STREAM, OVER MOSQUITO CREEK

SFN
VARIES

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJP

REVIEWER
MJA 04-29-24

PROJECT ID
113810

SUBSET	TOTAL
3	8

SHEET	TOTAL
P.17	52

ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 7:48:47 AM USER: mpalagan
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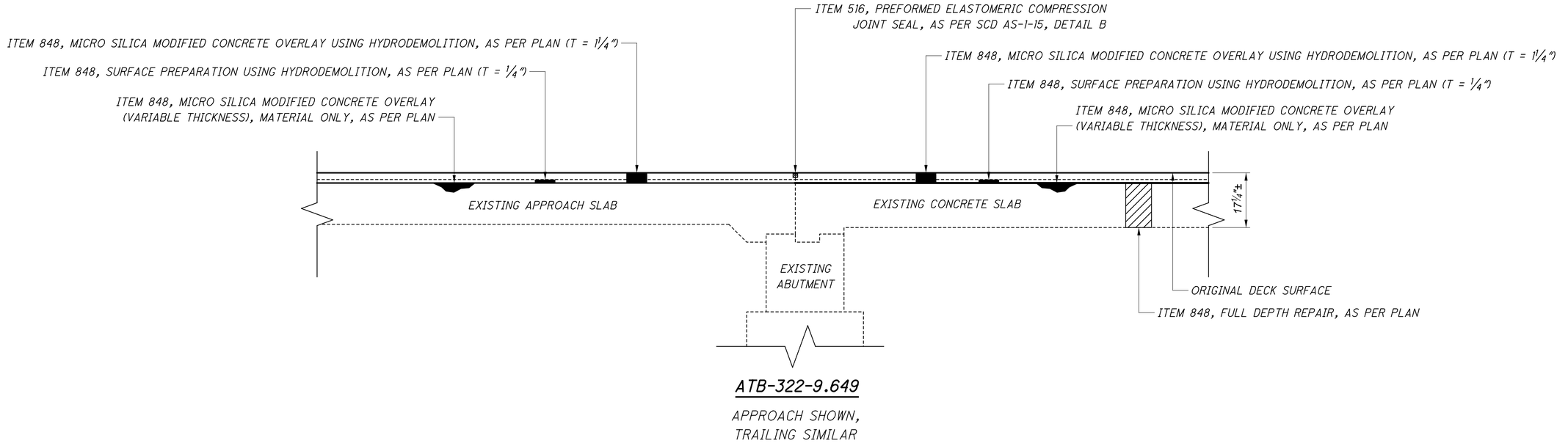


ATB-322-9.649

APPROACH SHOWN, TRAILING SIMILAR

	BRIDGE DECK											APPROACH SLABS											
					848	848	848	848	848	848	SPECIAL						848	848	848	848		516		
BRIDGE NUMBER	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA		MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/4")	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1/4")	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	HAND CHIPPING	TEST SLAB	FULL DEPTH REPAIR, AS PER PLAN	STEEL DRIP STRIP	LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)		MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/4")	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1/4")	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	HAND CHIPPING		PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL		
	FT	FT	SQ YD		SY	SY	CY	SY		CY	FT	FT	FT	SQ YD			SY	SY	CY	SY		FT		
ATB-322-9.646	85.50	36.00	342.00		342.00	342.00	6.65	11.97	LS	1.00	39.00	15.00	36.00	60.00	REAR		60.00	60.00	1.17	2.10		36.00		
												15.00	36.00	60.00	FWD		60.00	60.00	1.17	2.10		36.00		

STRUCTURE DETAILS
ATB-322-9.649
OVER ROCK CREEK

SFN 0406325

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJA

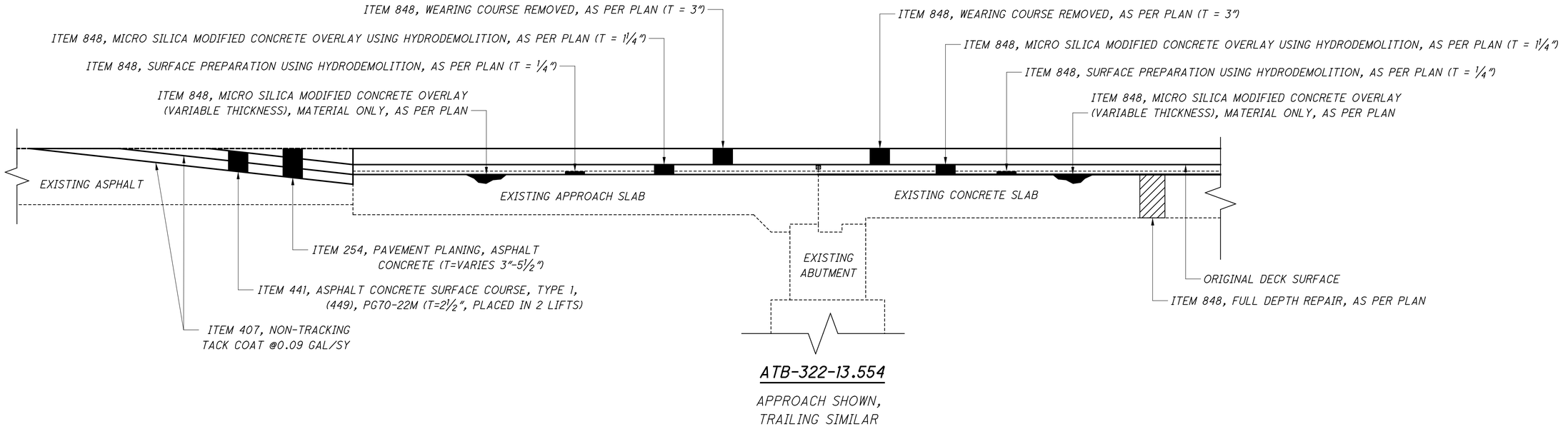
REVIEWER: MJP 04-29-24

PROJECT ID: 113810

SUBSET	TOTAL
4	8

SHEET	TOTAL
P.18	52

ATB-322-8.11



ATB-322-13.554

APPROACH SHOWN, TRAILING SIMILAR

ASPHALT TRANSITION AS PER BP-3.1

	BRIDGE DECK												APPROACH SLABS											
				848	848	848	848	848	848	848	SPECIAL						848	848	848	848	848	516	254	407	441
BRIDGE NUMBER	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/4")	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1/4")	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	HAND CHIPPING	TEST SLAB	FULL DEPTH REPAIR, AS PER PLAN	WEARING COURSE REMOVED, ASPHALT, AS PER PLAN (T = 3")	STEEL DRIP STRIP		LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/4")	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1/4")	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	HAND CHIPPING	WEARING COURSE REMOVED, ASPHALT, AS PER PLAN (T = 3")	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL	PAVEMENT PLANING, ASPHALT CONCRETE (T = VARIES 3"-5 1/2")	NON-TRACKING TACK COAT @0.09 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M (T = 2 1/2")
	FT	FT	SQ YD	SY	SY	CY	SY		CY	SY	FT		FT	FT	SQ YD		SY	SY	CY	SY	SY	FT	SY	GAL	CY
ATB-322-13.554	92.50	40.50	416.25	416.25	416.25	6.94	12.49	LS	1.00	416.25	45.00		15.00	24.00	40.00	REAR	40.00	40.00	0.67	1.20	40.00	24.00	300.00	54.00	20.83
													15.00	24.00	40.00	FWD	40.00	40.00	0.67	1.20	40.00	24.00	300.00	54.00	20.83

STRUCTURE DETAILS
ATB-322-13.554
OVER MOSQUITO CREEK

SFN 0406368

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJA

REVIEWER MJP 04-29-24

PROJECT ID 113810

SUBSET	TOTAL
5	8

SHEET	TOTAL
P.19	52

ATB-322-8.11

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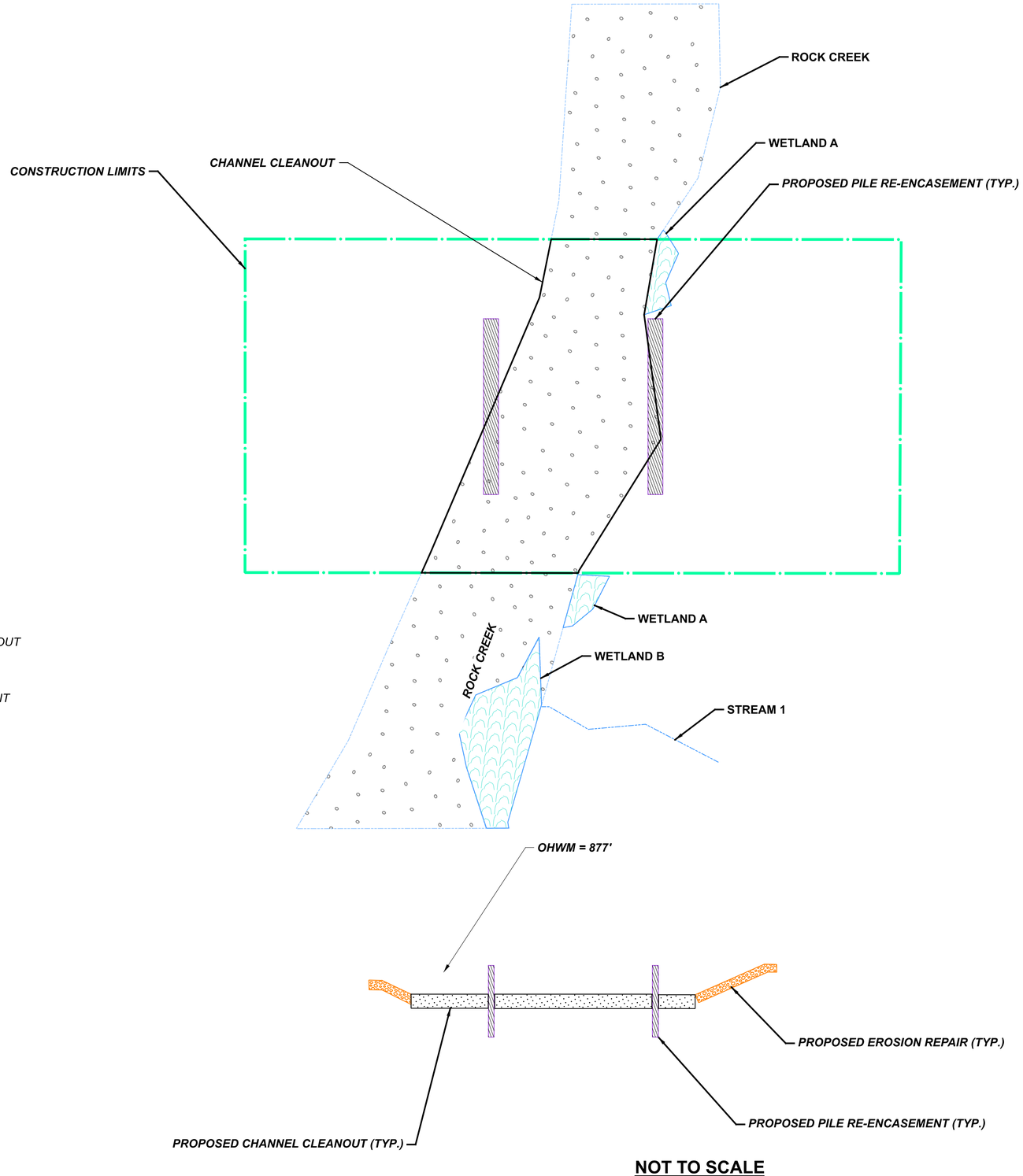
FOR REFERENCE ONLY



LEGEND

= CHANNEL CLEANOUT

= EROSION REPAIR

= PIER ENCASEMENT

NOT TO SCALE

STRUCTURE PLAN
ATB-322-9.649
OVER ROCK CREEK

SFN 0406325

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJA

REVIEWER: MJP 04-29-24

PROJECT ID: 113810

SUBSET	TOTAL
6	8

SHEET	TOTAL
P.20	52

ATB-322-8.11

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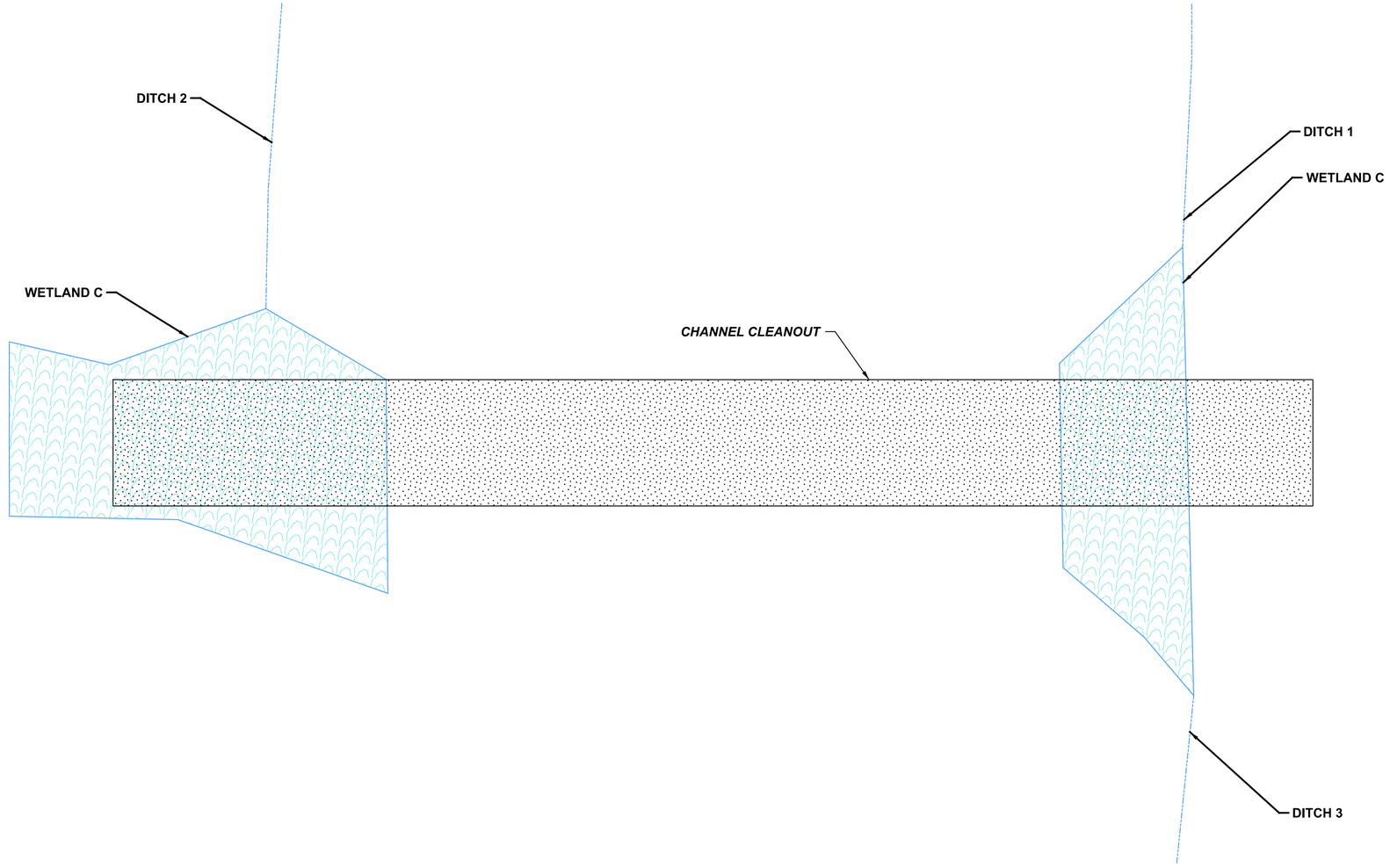
LEGEND

= *CHANNEL CLEANOUT*

FOR REFERENCE ONLY



NOT TO SCALE

STRUCTURE PLAN
ATB-322-10.224
OVER STREAM

ATB-322-8.11

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 7:49:06 AM USER: mpallegan
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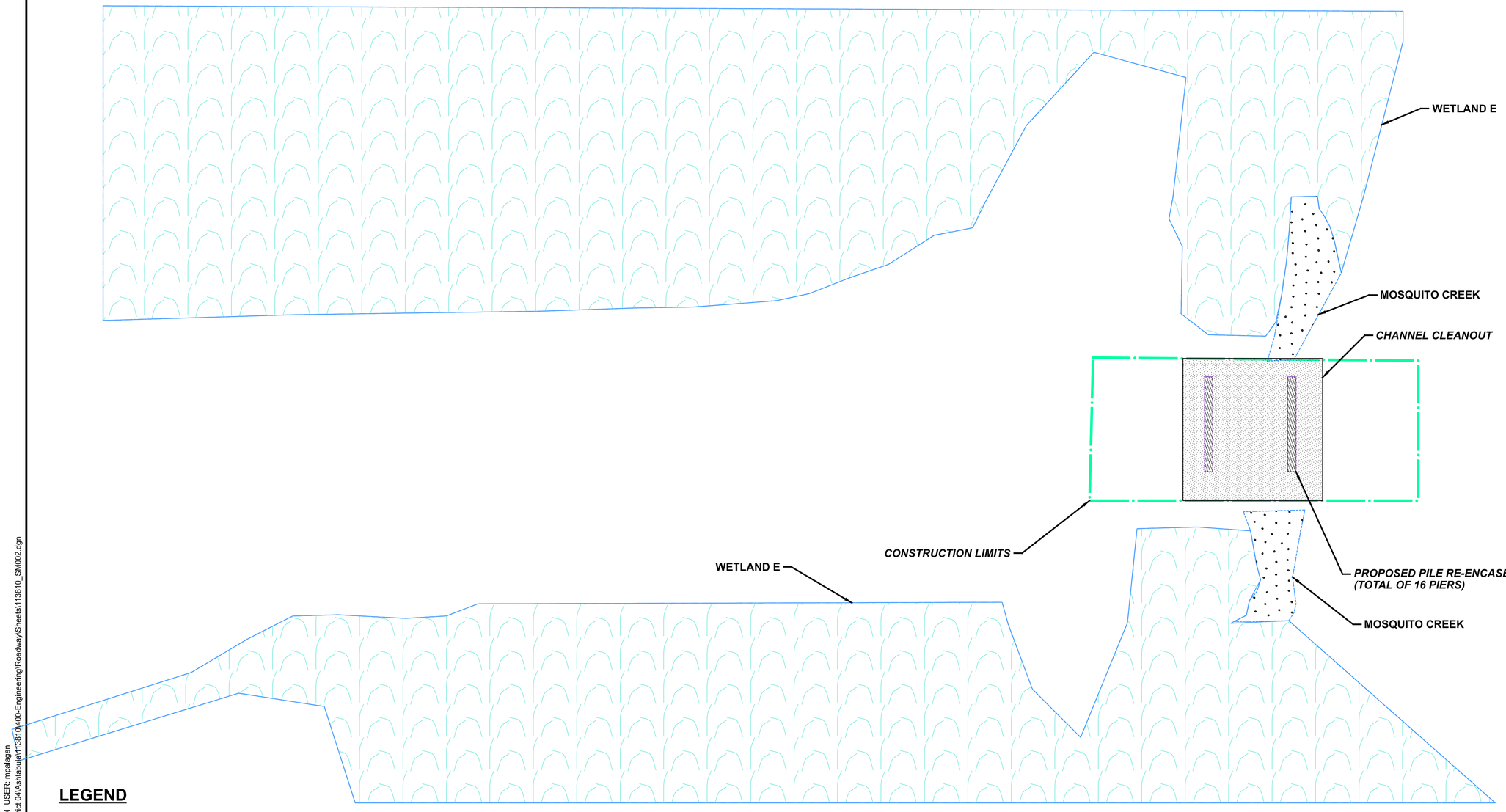
SFN	0406341
DESIGN AGENCY	
DESIGNER	NKF
CHECKER	MJA
REVIEWER	MJP 04-29-24
PROJECT ID	113810
SUBSET	7
TOTAL	8
SHEET	P.21
TOTAL	52

FOR REFERENCE ONLY

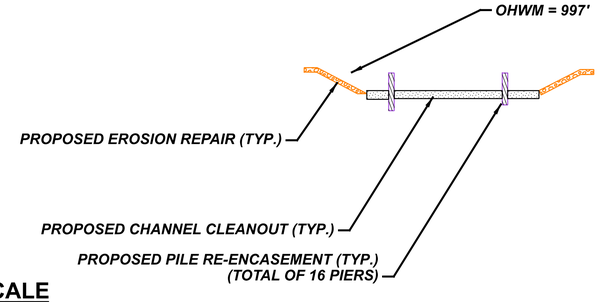


LEGEND

= CHANNEL CLEANOUT

= EROSION REPAIR

= PIER ENCASEMENT



NOT TO SCALE

STRUCTURE PLAN
ATB-322-13.554
OVER MOSQUITO CREEK

SFN 0406368

DESIGN AGENCY

DESIGNER	CHECKER
NKF	MJA

REVIEWER: MJP 04-29-24

PROJECT ID: 113810

SUBSET	TOTAL
8	8

SHEET	TOTAL
P.22	52

ATB-322-8.11

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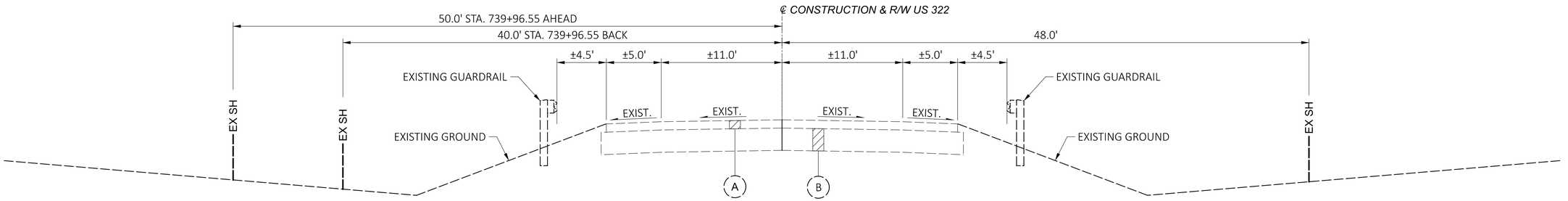
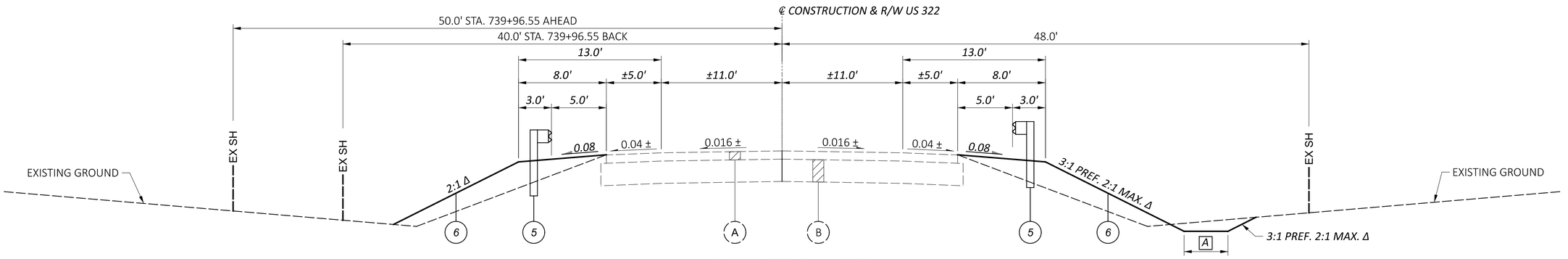


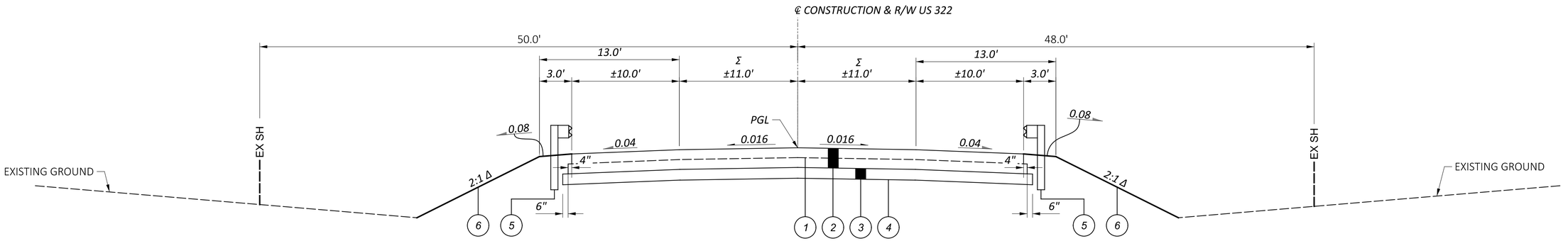
EXISTING SECTION - US 322



PROPOSED SECTION - US 322

LEFT:
STA. 738+86.56 TO STA. 739+97.00 = 110.44 FT.
STA. 740+41.00 TO STA. 742+18.24 = 177.24 FT.
RIGHT:
STA. 738+73.62 TO STA. 739+97.00 = 123.38 FT.
STA. 740+41.00 TO STA. 741+64.58 = 123.50 FT.

[A] *DITCH WIDTH =*
4.0' FROM STA. 738+36.10 TO STA. 740+02.40
3.0' FROM STA. 740+35.83 TO STA. 742+14.41



PROPOSED SECTION - US 322

STA. 739+97.00 TO STA. 740+09.13 = 12.13 FT.
STA. 740+29.13 TO STA. 740+41.00 = 11.87 FT.

LEGEND

1. *ITEM 407 - NON-TRACKING TACK COAT (RATE AT 0.055 GAL./SY)*
2. *ITEM 301 -11" ASPHALT CONCRETE BASE, PG64-22, (449) (PLACED IN TWO EQUAL 5-1/2" LIFTS)*
3. *ITEM 304 - 6" AGGREGATE BASE*
4. *ITEM 204 - SUBGRADE COMPACTION*
5. *ITEM 606 - GUARDRAIL, TYPE MGS*
6. *ITEM 659 - SEEDING AND MULCHING*

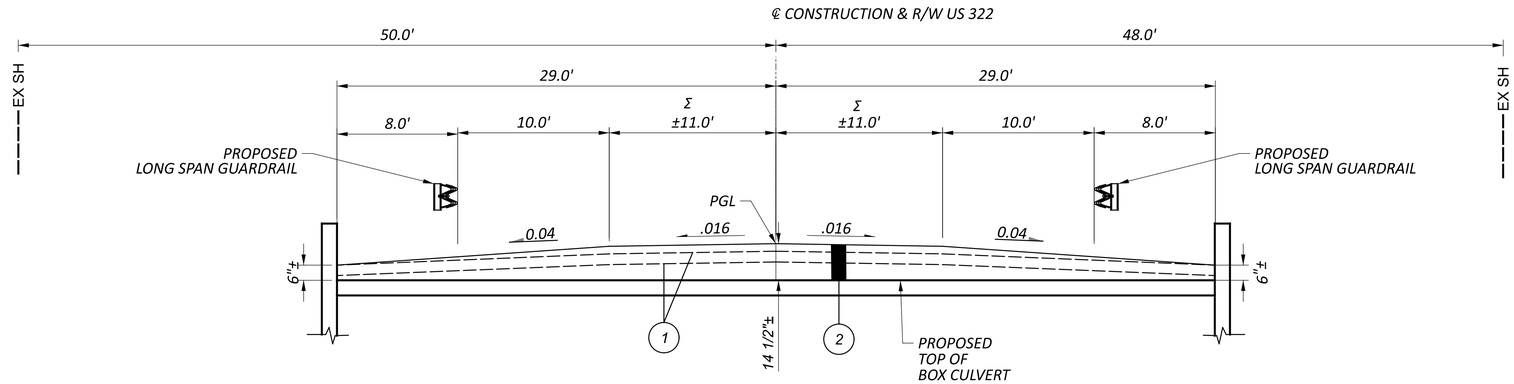
(A) EX. 3" ASPHALT CONCRETE PAVEMENT
(B) EX. 9" PORTLAND CEMENT CONCRETE BASE

Δ - OR AS SHOWN IN CROSS-SECTIONS
Σ - NDC = 12' (DESIGN EXCEPTION NEEDED)

TYPICAL SECTIONS - ATB-322-13.99

DESIGN AGENCY
2LMN
DESIGNER
JJR
REVIEWER
LAW 07/15/24
PROJECT ID
113810
SHEET P.23 TOTAL 52

ATB-322-8.11



PROPOSED SECTION - US 322 - (OVER BOX CULVERT)

STA. 740+09.13 TO STA. 740+29.13 = 20.00 FT.

LEGEND

(1) *ITEM 407 - NON-TRACKING TACK COAT (RATE AT 0.055 GAL./SY)*

(2) *ITEM 301 - VARIABLE 6"- 14 1/2" ASPHALT CONCRETE BASE, PG64-22, (449) (PLACED IN THREE VARIABLE COURSES, 6" MAX. - 3" MIN.)*

Σ - NDC = 12' (DESIGN EXCEPTION NEEDED)

TYPICAL SECTIONS - ATB-322-13.99

DESIGN AGENCY
2LMN

DESIGNER
JJR

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.24 TOTAL 52

ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:34:27 AM USER: Jessica_Grubb
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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.

ROUNDING

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

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.

SEEDING AND MULCHING

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

659, TOPSOIL	252	CU. YD.
659, SEEDING AND MULCHING	2278	SQ. YD.
659, REPAIR SEEDING AND MULCHING	113	SQ. YD.
659, COMMERCIAL FERTILIZER	0.32	TON
659, LIME	0.47	ACRES
659, WATER	13	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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION, SEE TABLE BELOW.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
COUNTY : ATB ROUTE: 322 SECTION 13.99
PID#: 113810
SURVEY DATE: MAY 2023

POSITIONING METHOD: STATIC
MONUMENT TYPE: B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2018

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000)
ELLIPSOID: GRS80
MAP PROJECTION: SINGAL PARALLEL LAMBERT CONIC CONFORMAL
COORDINATE SYSTEM: ASHTABULA COUNTY LDP
SCALE FACTOR: 1.000032
ORIGIN OF LATTITUDE: N 41-51-00
ORIGIN OF LONGITUDE: E 279-15-00
FALSE NORTHING (USFT): 328083.3333333
FALSE EASTING (USFT): 164041.6666667

UNITS:
FURNISH UNITS IN U.S. SURVEY FEET.
USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 3.28083333333 U.S. SURVEY FEET.

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.

CONTROL POINTS

POINT	STATION	OFFSET	N	E	Z
CP10	731+73.34	17.97' RT.	213555.897	167707.904	1010.182
CP20	740+03.13	24.34' LT.	213597.530	168537.738	1004.753
CP30	749+48.46	34.47' RT.	213537.945	169483.015	1013.908
MN735	735+70.45	0	213573.546	168105.034	1009.997
MN769	769+78.78	0	213570.758	171513.361	1050.513
BM1	740+09.43	22.77' LT.	213595.952	168544.033	1005.602

FARM DRAINS

PROVIDE UNOBSTRUCTED OUTLETS TO ALL FARM DRAINS ENCOUNTERED DURING CONSTRUCTION. REPLACE EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY WITHIN THE (RIGHT OF WAY)(CONSTRUCTION) LIMITS WITH ITEM 611, CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

OUTLET EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES INTO THE ROADWAY.

DITCH USING ITEM 611, TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION IS ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. INTERCEPT LATERAL FIELD TILES WHICH CROSS THE ROADWAY WITH ITEM 611, TYPE E CONDUIT, AND CARRY IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS IS DETERMINED BY THE ENGINEER AND PAYMENT MADE ON FINAL MEASUREMENTS.

PROVIDE EROSION CONTROL PADS AT THE OUTLET END OF ALL FARM DRAINS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE.

PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES IS INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

611 6" CONDUIT, TYPE B 50 FT.
611 6" CONDUIT, TYPE E 50 FT.
611 6" CONDUIT, TYPE F 50 FT.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE).

GENERAL NOTES - ATB-322-13.99

DESIGN AGENCY
2LMN
DESIGNER
JJR
REVIEWER
LAW 07/15/24
PROJECT ID
113810
SHEET P.25 TOTAL 52

ATB-322-8.11

REF NO.	SHEET NO.	STATION TO STATION			202 GUARDRAIL REMOVED FT			202 PAVEMENT REMOVED SY	606 GUARDRAIL, TYPE MGS FT	606 GUARDRAIL, TYPE MGS, LONG-SPAN FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 ANCHOR ASSEMBLY, MGS TYPE T EACH	626 BARRIER REFLECTOR, TYPE 2, (BIDIRECTIONAL) EACH	SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE EACH	617 COMPACTED AGGREGATE, AS PER PLAN CY	408 PRIME COAT, AS PER PLAN GAL	204 SUBGRADE COMPACTION SY	301 ASPHALT CONCRETE BASE, PG64-22, (449) 11" (PLACED IN TWO 5 ½" COURSES) CY	304 AGGREGATE BASE 6" CY	407 NON-TRACKING TACK COAT (RATE OF APPLICATION @ 0.055 GAL./SY) GAL		630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	670 DITCH EROSION PROTECTION MAT, TYPE B SY
GR-1	P.27	738+55.9 RT.	TO	741+91.0 RT.	337.5										9	128									
GR-2	P.27	738+43.8 LT.	TO	742+18.7 LT.	375										8	107									
G-1	P.27	738+36.1 RT.	TO	741+64.6 RT.					200	25.0	2		8												
G-2	P.27	738+86.6 LT.	TO	742+18.7 LT.					250.0	25.0	1	1	9												
S-1	P.27	740+05.2 RT.																				12	1	1	
S-2	P.27	740+34.8 LT.																				12	1	1	
S-3	P.27	740+37.6 RT.																				12	1	1	
MB-1	P.27	742+00.0 LT.												1											
EC-1	P.27	738+36.1 RT.	TO	739+93.1 RT.																					132
EC-2	P.27	740+45.1 RT.	TO	742+14.8 RT.																					266
EC-3	P.27	740+45.4 LT.	TO	742+10.0 LT.																					340
PAVEMENT CALCULATIONS																									
STA. 739+97.00 TO STA. 740+09.13																	61	18	10	4					
STA. 740+09.13 TO STA. 740+29.13																		37		8					
STA. 740+29.13 TO STA. 740+41.00																	61	18	10	4					
STA. 739+97.00 TO STA. 740+41.00								157																	
TOTALS CARRIED TO GENERAL SUMMARY					713			157	450	50	3	1	17	1	17	235	122	73	20	16		36	3	3	738

ATB-322-8.11

ROADWAY, DRAINAGE & PAVEMENT SUBSUMMARY - ATB-322-13.99

DESIGN AGENCY
2LMN

DESIGNER
JJR

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.26 TOTAL 52

Δ - GUARDRAIL EXTENDED BEYOND LON DUE TO LONG SPAN GUARDRAIL STANDARDS AS PER SCD MGS-2.3 (MIN. 62.5' BEYOND LAST LONG SPAN POST)

EASTON BROTHERS INC.
1427 US ROUTE 322
PN: 10-014-00-008-01
COMMERCIAL

EASTON JEREMY T.
1485 US ROUTE 322
PN: 10-014-00-007-00
RESIDENTIAL

BEGIN WORK STA. 738+24.68

Δ GUARDRAIL LON STA. 739+61.45

BEGIN FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT STA. 739+97.00

END FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT STA. 740+41.00

END WORK STA. 742+21.71

ITEM 202 GUARDRAIL REMOVED

ITEM 606 GUARDRAIL, TYPE MGS

ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E

ITEM 202 ANCHOR ASSEMBLY REMOVED, TYPE E

CONSTRUCTION LIMITS

STREAM 2 (DO NOT DISTURB BEYOND CONST. LIMITS)

WETLAND F

25.0' LONG-SPAN

ITEM 606 GUARDRAIL, TYPE MGS

12.5' ITEM 606 ANCHOR ASSEMBLY, MGS TYPE T

ITEM 202 GUARDRAIL REMOVED

WETLAND F

UNT TO MOSQUITO CREEK

EX. OVERHEAD ELECTRIC

TMP

CP20

BM#1

EX. EDGE OF SHOULDER

EX. EDGE OF PAVEMENT

ITEM 202 ANCHOR ASSEMBLY, REMOVED, TYPE T

ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE

℄ CONSTRUCTION & R/W US 322

EX. EDGE OF PAVEMENT

EX. EDGE OF SHOULDER

ITEM 202 ANCHOR ASSEMBLY REMOVED, TYPE E

ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E

ITEM 606 GUARDRAIL, TYPE MGS

EX. OVERHEAD TELECOM/FO

ITEM 202 GUARDRAIL REMOVED

PROP. 18' (SPAN) x 6' (RISE) CONDUIT, TYPE A, 706.05

EXIST. CONCRETE SLAB BRIDGE (TO BE REMOVED)

EX. GAS (DND)

WETLAND F

GUARDRAIL LON STA. 738+87.85

AREA FOR SEDIMENT REMOVAL SEE SHEETS P.30 AND P.33 FOR DETAILS

UNT TO MOSQUITO CREEK

ZAK WANDA & ZAK SANDRA ET AL
1414 US ROUTE 322
PN: 10-014-00-006-00
AGRICULTRUAL

S89°57'11"E

LEGEND

- STREAM 2 (DO NOT DISTURB BEYOND CONSTRUCTION LIMITS)
- UNT TO MOSQUITO CREEK
- ITEM 670 DITCH EROSION PROTECTION MAT TYPE B
- Ψ - SAW CUT
- WETLAND F (DO NOT DISTURB BEYOND CONSTRUCTION LIMITS)

GRAPHIC GRADE

STA. 740+97.00 ELEV. 1005.66

STA. 741+41.00 ELEV. 1005.57

EX. PROFILE GRADE

EXIST. CONCRETE SLAB BRIDGE (TO BE REMOVED)

PROP. 18' (SPAN) x 6' (RISE) CONDUIT, TYPE A, 706.05

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - ATB-322-13.99
STA. 738+00.00 TO STA. 743+00.00 (SLM 13.99)

ATB-322-8.11

MODEL: IL3810_GP20I PAPERSIZE: 34x22 (In.) DATE: 3/31/2025 TIME: 9:35:35 AM USER: Jessica.Grubb
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 04\Ashtabula\IL3810\401-Engineering.2LMN\Roadway\Sheets\IL3810_GP20I.dgn

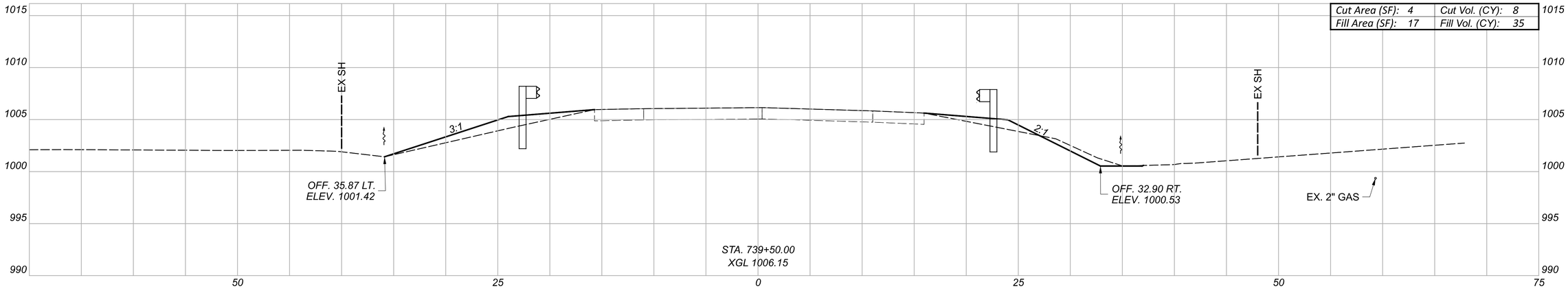
DESIGN AGENCY 2LMN

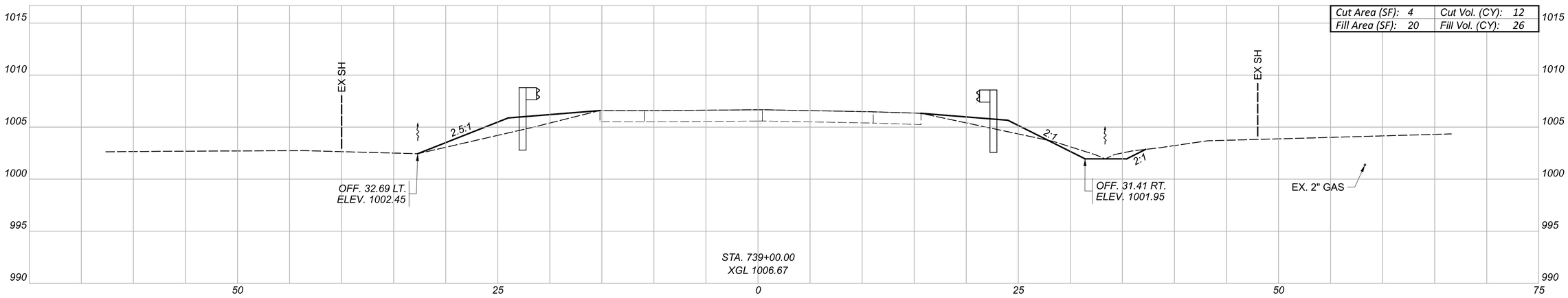
DESIGNER JJR

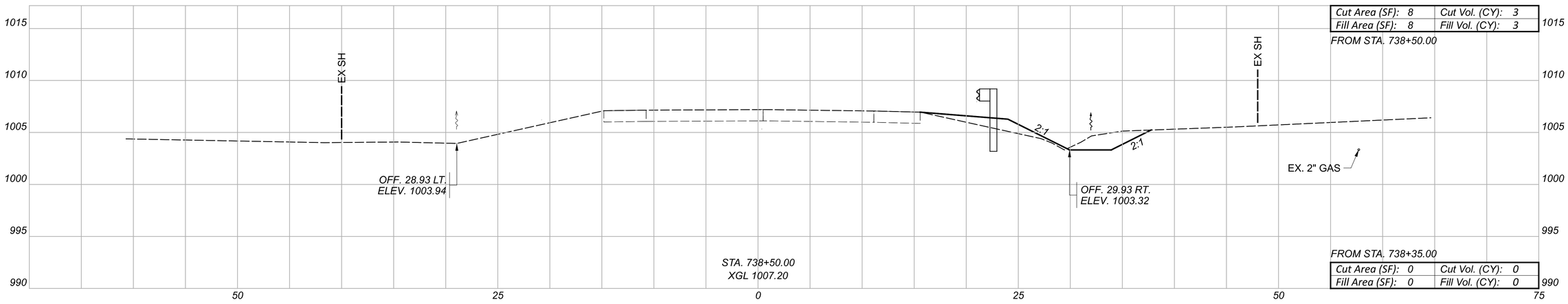
REVIEWER LAW 07/15/24

PROJECT ID 113810

SHEET P.27 TOTAL 52







CROSS SECTIONS - ATB-322-13.99
STA. 738+50.00 TO STA. 739+50.00

Sheet Totals	
Cut	Fill
23	64

DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.28 TOTAL 52

ATB-322-8.11

MODEL: 113810_XS201 PAPERSIZE: 34x22 (In.) DATE: 3/31/2025 TIME: 9:35:53 AM USER: Jessica.Grubb
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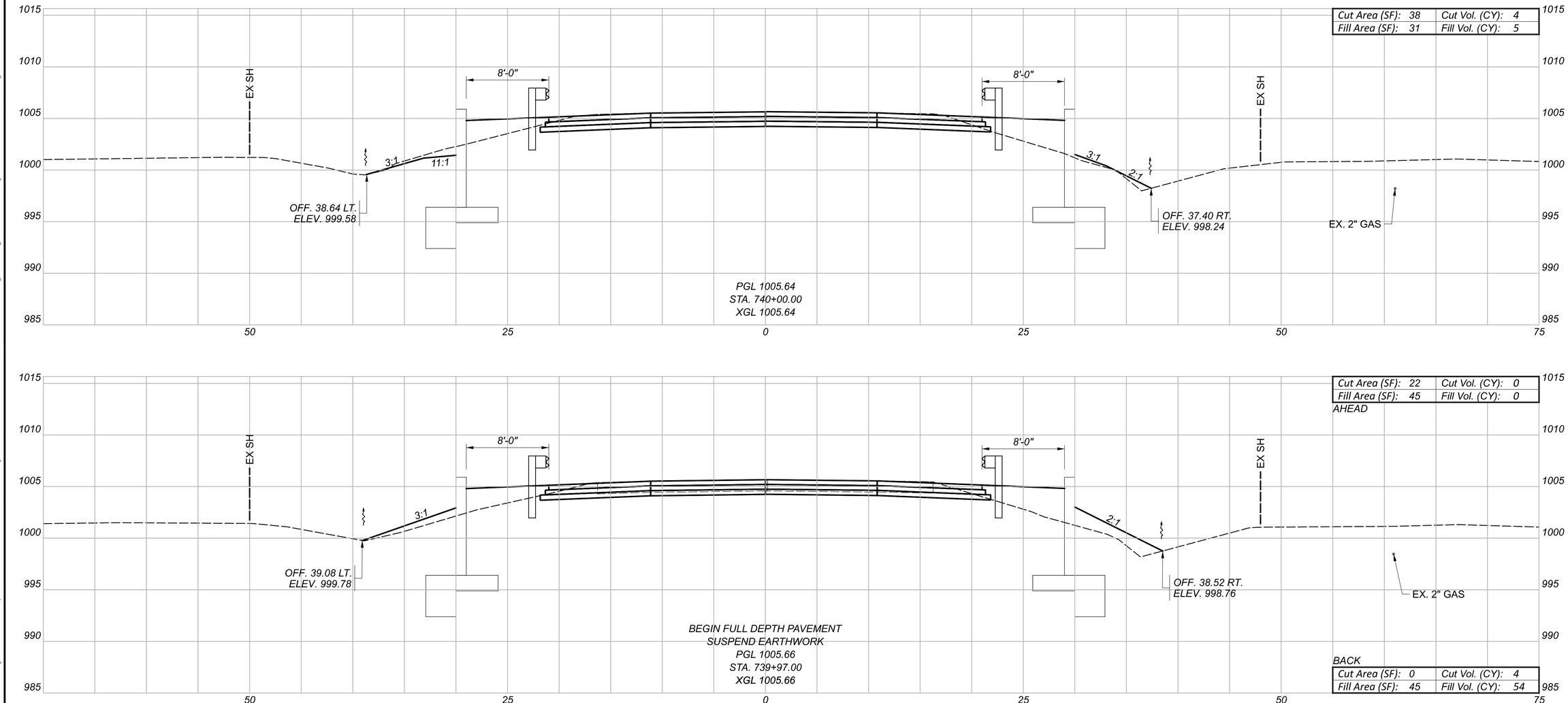

CROSS SECTIONS - ATB-322-13.99
STA. 739+97.00 TO STA. 740+00.00

ATB-322-8.11

Sheet Totals	
Cut	Fill
6	57

DESIGN AGENCY
2LMN

DESIGNER	MAK
REVIEWER	LAW 07/15/24
PROJECT ID	113810
SHEET	P.29
TOTAL	52

MODEL: 113810_XS202 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:35:55 AM USER: Jessica.Grubb
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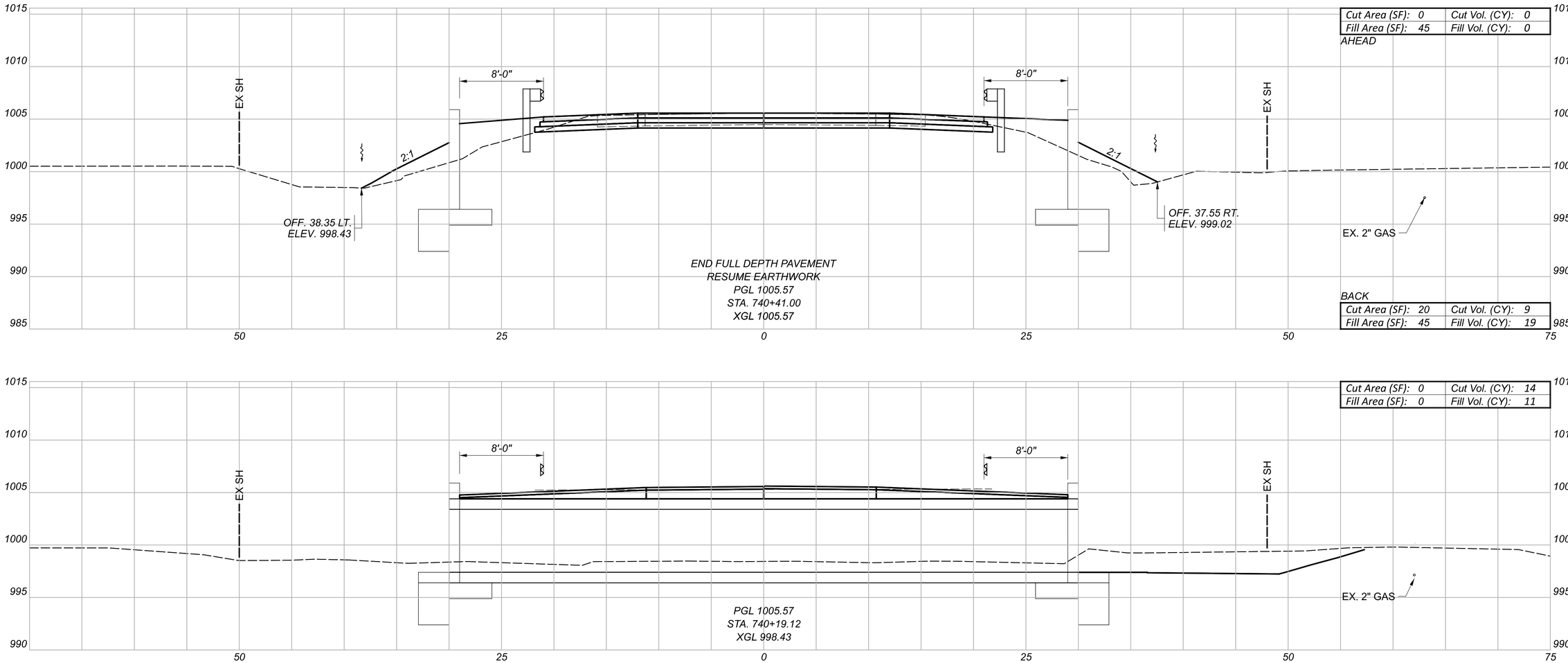
ATB-322-8.11



CROSS SECTIONS - ATB-322-13.99
STA. 740+19.12 TO STA. 740+41.00

DESIGN AGENCY
2LMN

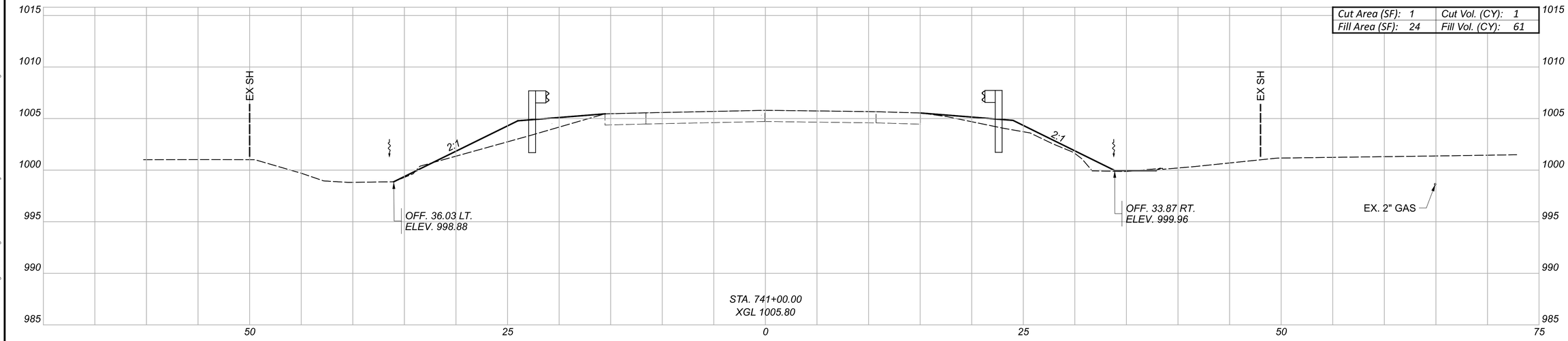
DESIGNER
MAK

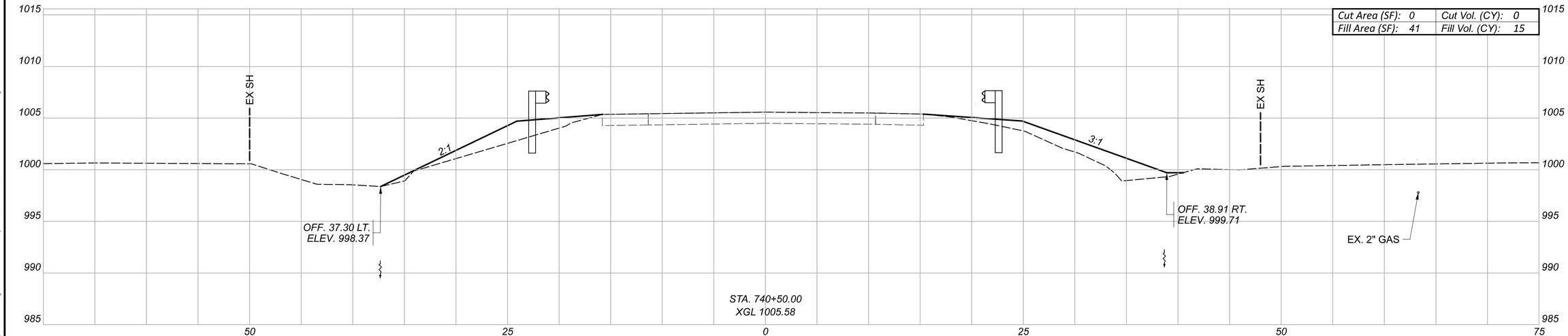
REVIEWER
LAW 07/15/24

PROJECT ID
113810

Sheet Totals	
Cut	Fill
38	42

SHEET	TOTAL
P.30	52





ATB-322-8.11

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CROSS SECTIONS - ATB-322-13.99
STA. 740+50.00 TO STA. 741+00.00

Sheet Totals	
Cut	Fill
1	76

DESIGN AGENCY
2LMN

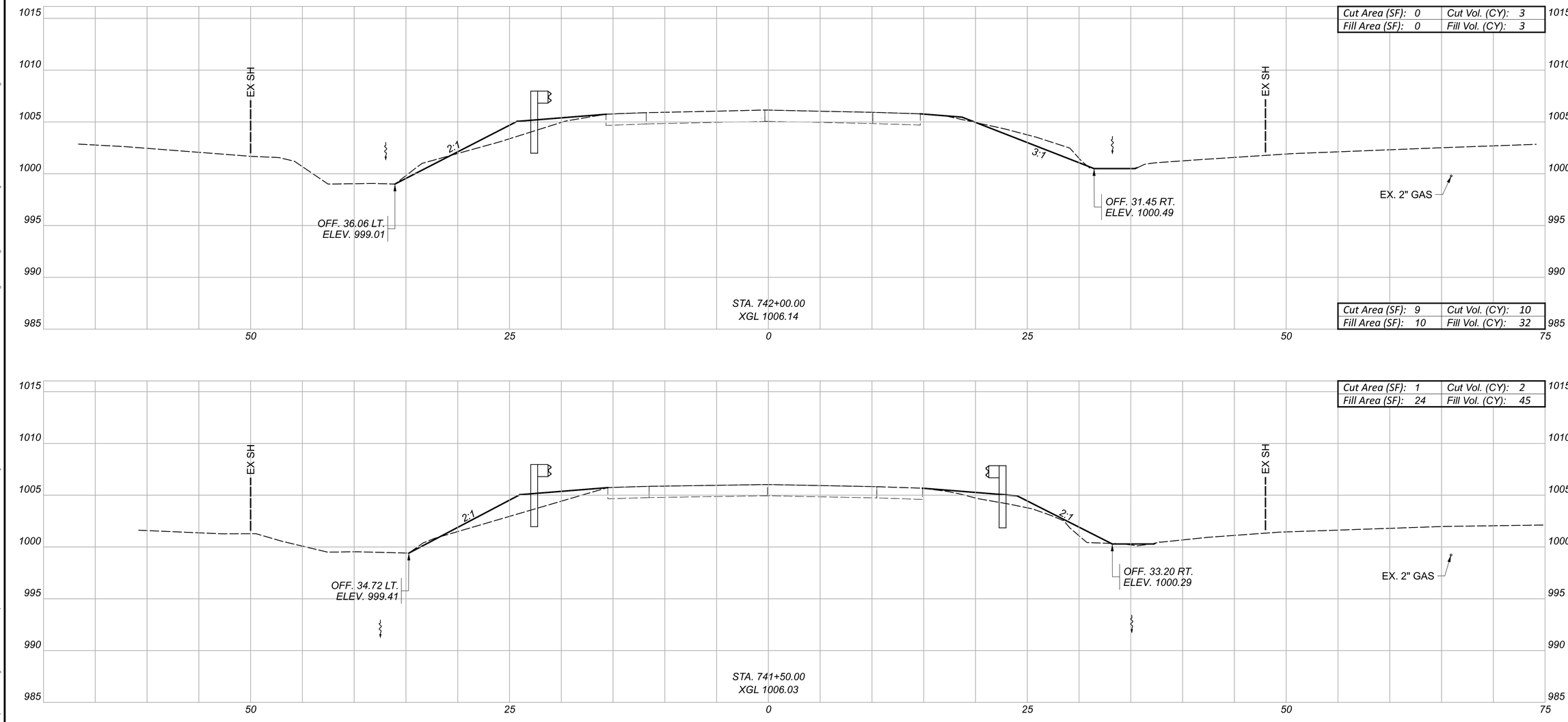
DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.31 TOTAL 52

SHEET	EXCAVATION	EMBANKMENT
P.28	23 CU YDS	64 CU YDS
P.29	8 CU YDS	59 CU YDS
P.30	23 CU YDS	30 CU YDS
P.31	1 CU YDS	76 CU YDS
P.32	15 CU YDS	80 CU YDS
TOTALS	**70 CU YDS**	**309 CU YDS**



CROSS SECTIONS - ATB-322-13.99
STA. 741+50.0 TO STA. 742+00.00

Sheet Totals	
Cut	Fill
15	90

DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.32 | TOTAL 52

ATB-322-8.11

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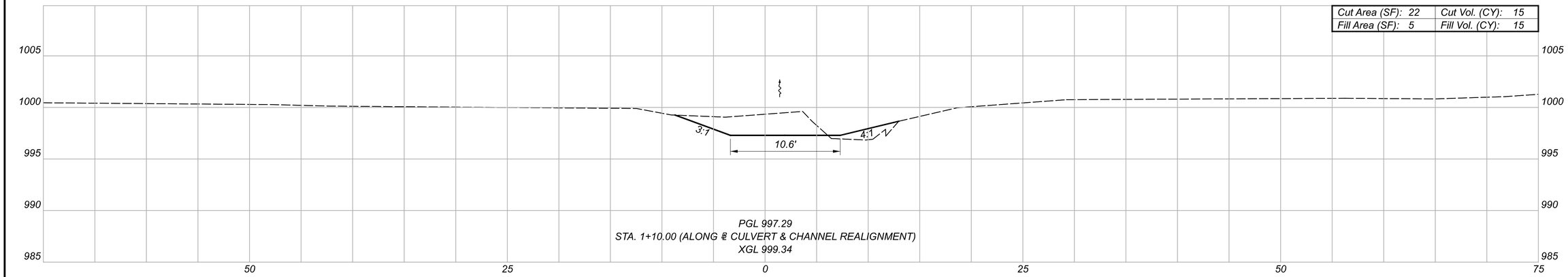
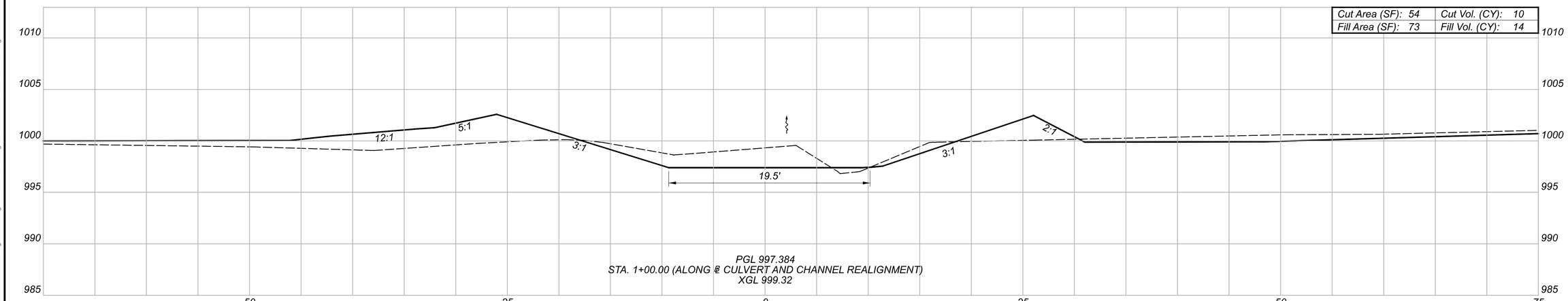
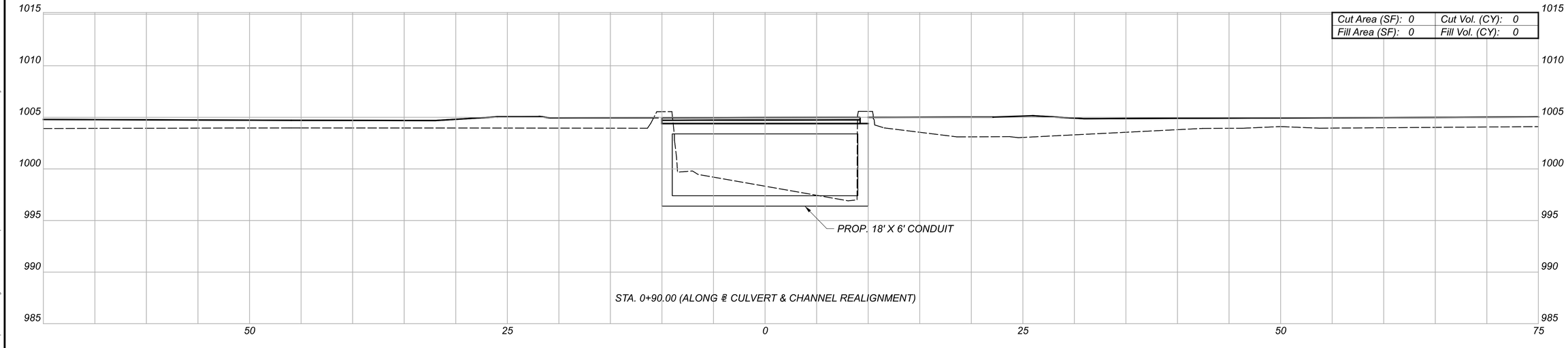


PGL 997.29
STA. 1+10.00 (ALONG ℄ CULVERT & CHANNEL REALIGNMENT)
XGL 999.34



PGL 997.384
STA. 1+00.00 (ALONG ℄ CULVERT AND CHANNEL REALIGNMENT)
XGL 999.32



STA. 0+90.00 (ALONG ℄ CULVERT & CHANNEL REALIGNMENT)

CROSS SECTIONS - CHANNEL REALIGNMENT - ATB-322-13.99
STA. 0+90.00 TO STA. 1+10.00

DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

Sheet Totals		
Seeding	Cut	Fill
-	25	29

SHEET P.33 TOTAL 52

ATB-322-8.11

MODEL: 113810_XD200 PAPERSIZE: 34x22 (In.) DATE: 3/31/2025 TIME: 9:36:34 AM USER: Jessica.Grubb
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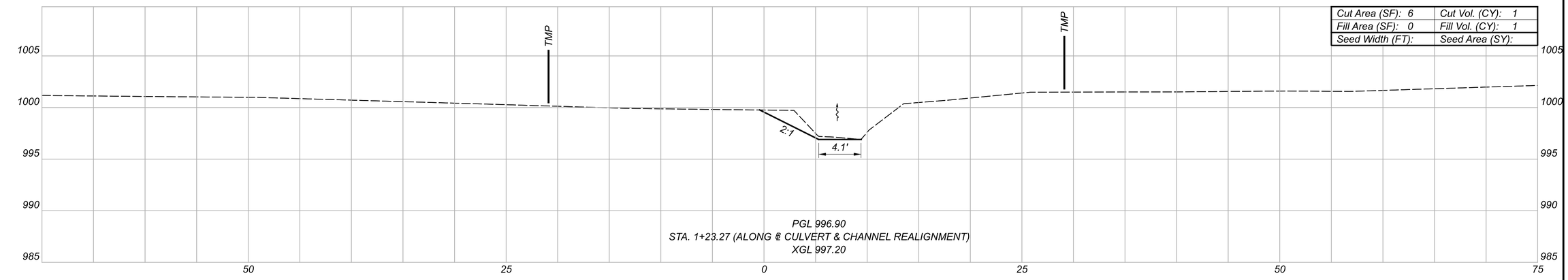
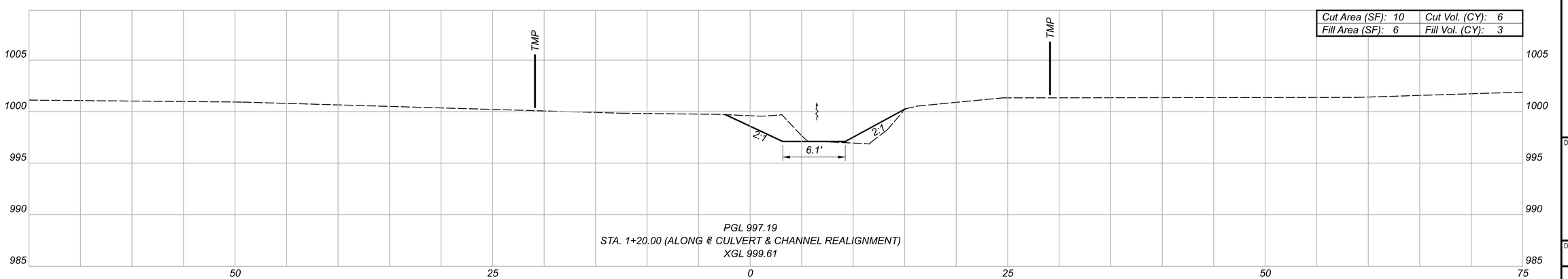
SHEET	EXCAVATION	EMBANKMENT
P.33	25 CU YDS	29 CU YDS
P.34	7 CU YDS	4 CU YDS
TOTALS	**32 CU YDS**	**33 CU YDS**



PGL 996.90
STA. 1+23.27 (ALONG ℄ CULVERT & CHANNEL REALIGNMENT)
XGL 997.20



PGL 997.19
STA. 1+20.00 (ALONG ℄ CULVERT & CHANNEL REALIGNMENT)
XGL 999.61

CROSS SECTIONS - CHANNEL REALIGNMENT - ATB-322-13.99
STA. 1+20.00 TO STA. 1+40.00

Sheet Totals		
Seeding	Cut	Fill
-	7	4

DESIGN AGENCY: 2LMN
DESIGNER: MAK
REVIEWER: LAW 07/15/24
PROJECT ID: 113810
SHEET: P.34 TOTAL: 52

ATB-322-8.11

MODEL: 113810_XD202 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:36:36 AM USER: Jessica_Grubb
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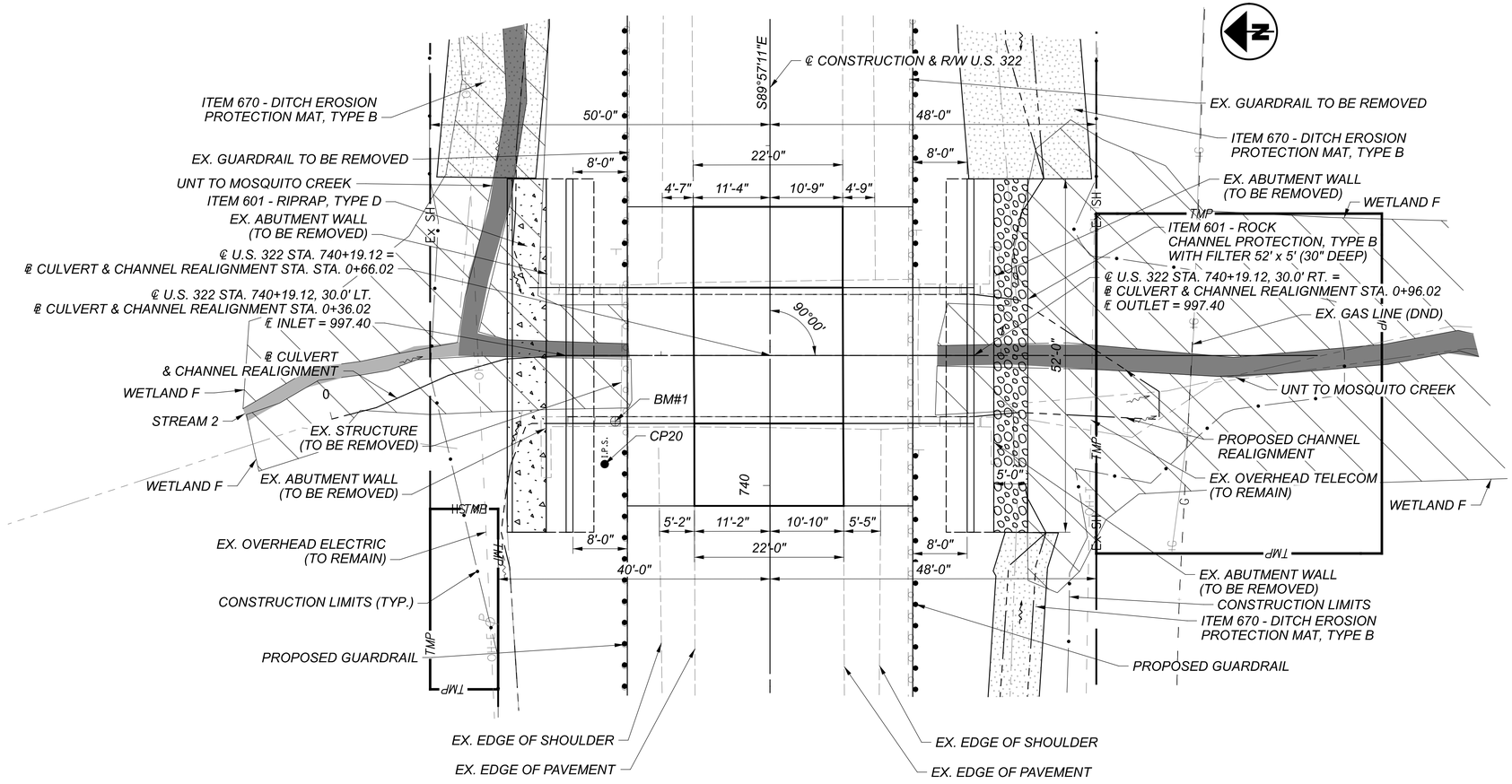


NOTES

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET P.25

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:

2025 ADT = 2900 2025 ADTT = 203
2045 ADT = 3200 2045 ADTT = 224
DIRECTIONAL DISTRIBUTION = 52.8%

LEGEND

WETLAND F (DO NOT DISTURB BEYOND CONSTRUCTION LIMITS)

UNT TO MOSQUITO CREEK

STREAM 2 (DO NOT DISTURB BEYOND CONSTRUCTION LIMITS)

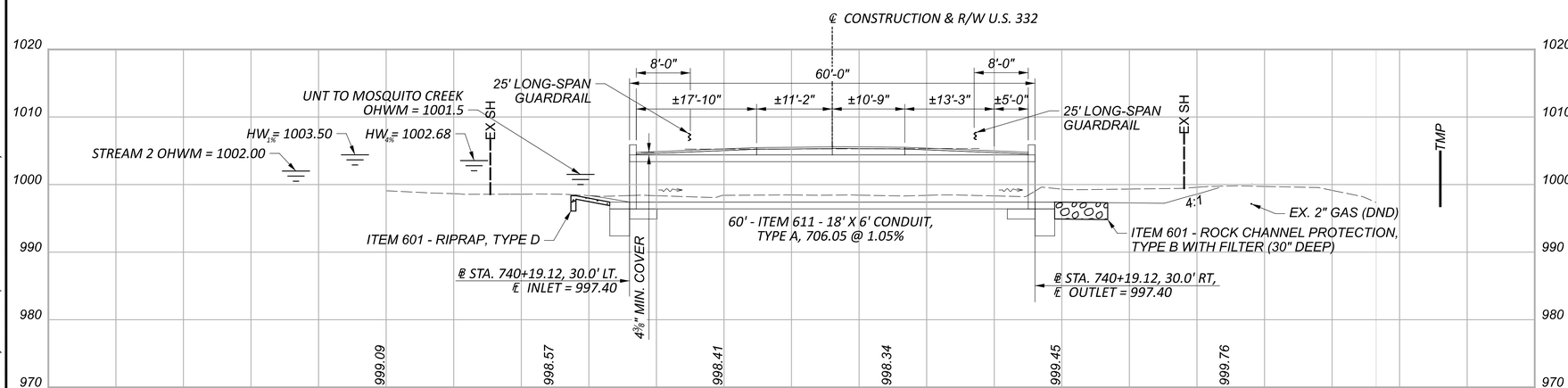
HYDRAULIC DATA

DRAINAGE AREA = 1.39 SQ. MILES
Q (4%) = 276 CFS V (4%) = 3.05 FT/S
Q (1%) = 382 CFS V (1%) = 3.70 FT/S
ORDINARY HIGH WATER MARK = 1002.0
STRUCTURE HAS 0.72-FT FREE BOARD FOR 4% DESIGN HW.

EXISTING STRUCTURE

TYPE: CONCRETE SLAB BRIDGE

SPANS: 18'-0"
ROADWAY: 42'-0" F/F GUARDRAIL
LOADING: HS-15
SKEW: N/A
WEARING SURFACE: ASPHALT CONCRETE
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
CROWN: N/A
STRUCTURE FILE NUMBER: 0406392
DATE BUILT: 1964
DISPOSITION: EXISTING BRIDGE TO BE REPLACED - FAIR CONDITION



PROPOSED STRUCTURE

TYPE: 60' - ITEM 611 - 18' X 6' CONDUIT, TYPE A, 706.05
SPANS: 18'-0"
ROADWAY: 42'-0" F/F GUARDRAIL
LOADING: CONDUIT: AS PER CMS 706.05.
ALL REMAINING COMPONENTS: HL93 AND 60 PSF FUTURE WEARING SURFACE
SKEW: NONE
WEARING SURFACE: 1 1/4" ASPHALT CONCRETE SURFACE COURSE
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
DECK AREA: N/A SFN - ATB-00322-1399 _ (0406393) PROPOSED
COORDINATES: LATITUDE 41°32'08.63"
LONGITUDE 80°44'00.86"

HORIZONTAL SCALE IN FEET
0 5 10 20

SITE PLAN
BRIDGE NO. ATB-00322-13.990
US 322 OVER UNT TO MOSQUITO CREEK

SFN 0406393
DESIGN AGENCY 2LMN
DESIGNER MAK | CHECKER LAW
REVIEWER JAB 07/15/24
PROJECT ID 113810
SUBSET 1 | TOTAL 6
SHEET P.35 | TOTAL 52

ATB-322-8.11

GENERAL NOTES

DESIGN SPECIFICATIONS: THIS STANDARD DRAWING CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND THE BRIDGE DESIGN MANUAL.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION OF BACKFILL SOIL, φ_{bf} = 30°
TOTAL UNIT WEIGHT OF BACKFILL SOIL = 120 PCF
INTERNAL ANGLE OF FRICTION (DRAINED), FOUNDATION SOIL, φ_f = 30°
UNDRAINED SHEAR STRENGTH (COHESIVE), FOUNDATION SOIL, S_{uf} = 1500 PSF
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE OF BACKFILL = 2:1 (TYPE A & B HEADWALLS)
HEIGHT OF LIVE LOAD SURCHARGE = 2 FT (TYPE C HEADWALLS)

CONCRETE - COMPRESSIVE STRENGTH 4000 PSI
(FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

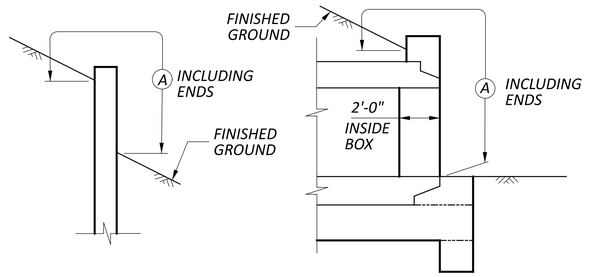
BASED ON THE ASSUMED DESIGN DATA, THE WINGWALLS ACHIEVE FACTORED BEARING RESISTANCES THAT ARE GREATER THAN THEIR RESPECTIVE BEARING PRESSURES. IF A BACKFILL MATERIAL WITH A HIGHER INTERNAL ANGLE OF FRICTION OR A LIGHTER TOTAL UNIT WEIGHT IS USED; OR IF A FOUNDATION SOIL WITH A HIGHER DRAINED INTERNAL ANGLE OF FRICTION OR A HIGHER UNDRAINED SHEAR STRENGTH IS ENCOUNTERED; THEN THE STABILITY OF THE WINGWALLS IS SATISFACTORY.

POROUS BACKFILL WITH FILTER FABRIC 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

PREFORMED EXPANSION JOINT FILLER: PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

SEALING OF FORESLOPE WALL AND WINGWALLS: ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES.



WINGWALL

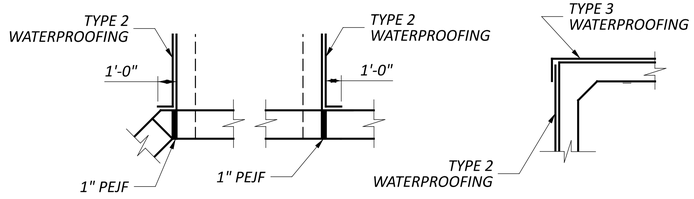
FORESLOPE WALL AND PRECAST BOX (CULVERT OUTLET BEVEL SHOWN)

LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA

WATERPROOFING: TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

TYPE 3 WATERPROOFING, PER CMS 512.10 AND 711.29 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.



PLAN VIEW

SECTION VIEW

WATERPROOFING DETAILS

BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS QC1 CONCRETE, RETAINING WALL OR WINGWALL, NOT INCLUDING FOOTING, ITEM 511 - CLASS QC1 CONCRETE, FOOTING, AND ITEM 511 - CLASS QC1 CONCRETE, HEADWALLS. PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

UNSUITABLE SOILS

THE FOLLOWING ITEMS AND QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS UNSUITABLE SOILS ENCOUNTERED IN THE AREA UNDER THE PROPOSED BOX CULVERT.

ITEM 203 - EXCAVATION 170 CU.YD.
ITEM 203 - GRANULAR MATERIAL, TYPE C (703.16) 170 CU.YD.
ITEM 204 - GEOTEXTILE FABRIC, 365 SQ.YD.

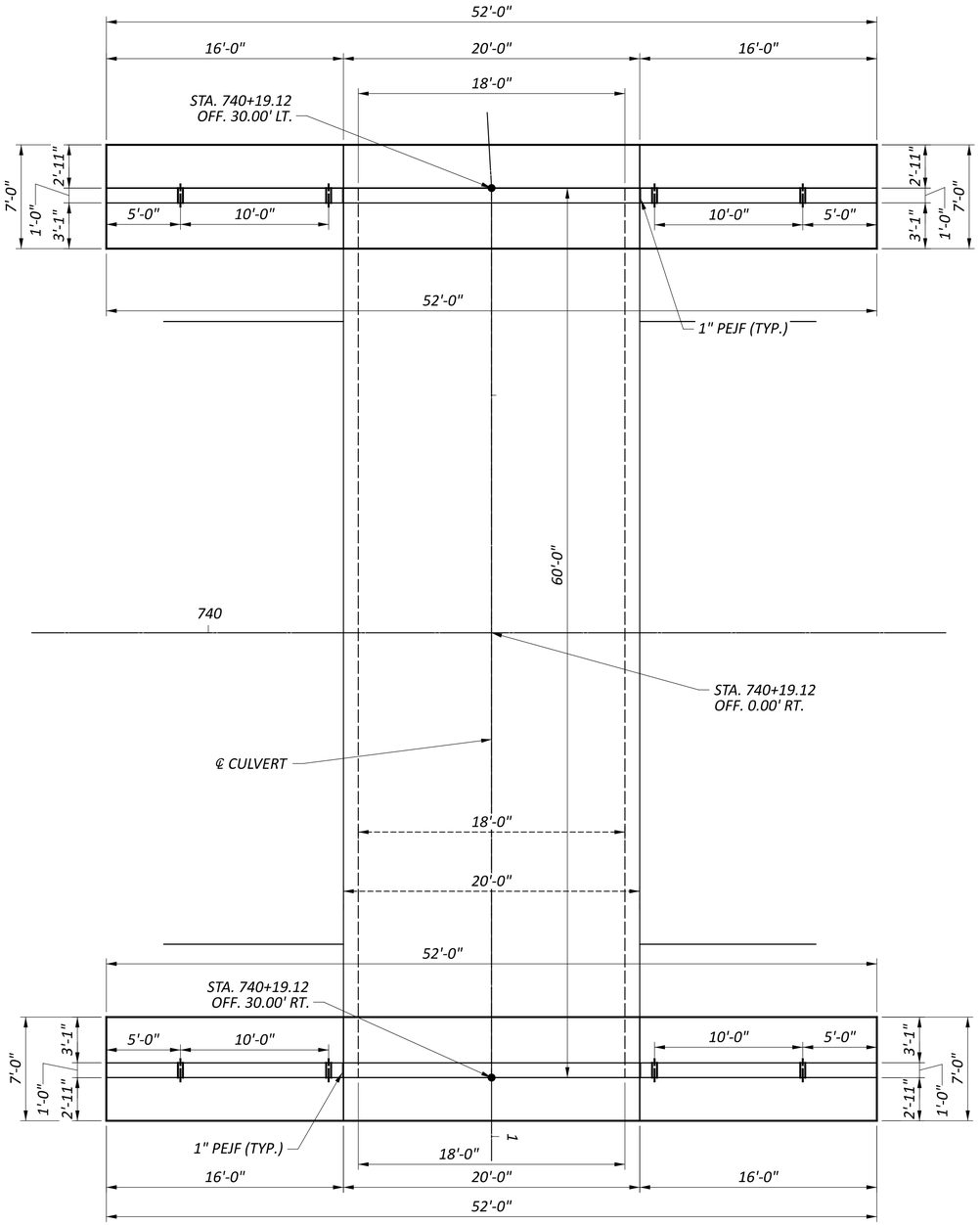
ESTIMATED QUANTITIES

ITEM	EXT.	QUANTITY	UNIT	DESCRIPTION	SHT. REF.
202	11000	LS		STRUCTURE REMOVED (ATB-322-13.99)	
203	10000	170	CY	EXCAVATION	
203	35120	170	CY	GRANULAR MATERIAL, TYPE C, 703.16	
204	50000	365	SY	GEOTEXTILE FABRIC	
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
503	21100	124	CY	UNCLASSIFIED EXCAVATION	
509	10000	7564	LB	EPOXY COATED STEEL REINFORCMENT	
511	46010	23	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
511	46510	64	CY	CLASS QC1 CONCRETE, FOOTING	
511	46610	3	CY	CLASS QC1 CONCRETE, HEADWALL	
512	10100	89	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33000	111	SY	TYPE 2 WATERPROOFING	
512	33010	147	SY	TYPE 3 WATERPROOFING	
516	13600	38	SF	1" PREFORMED EXPANSION JOINT FILLER	
518	21200	15	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
601	11000	34	SY	RIPRAP, TYPE D	
601	32200	25	CY	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER	
611	96479	60	FT	CONDUIT, MISC.: 18' X 6' CONDUIT, TYPE A, 706.05	

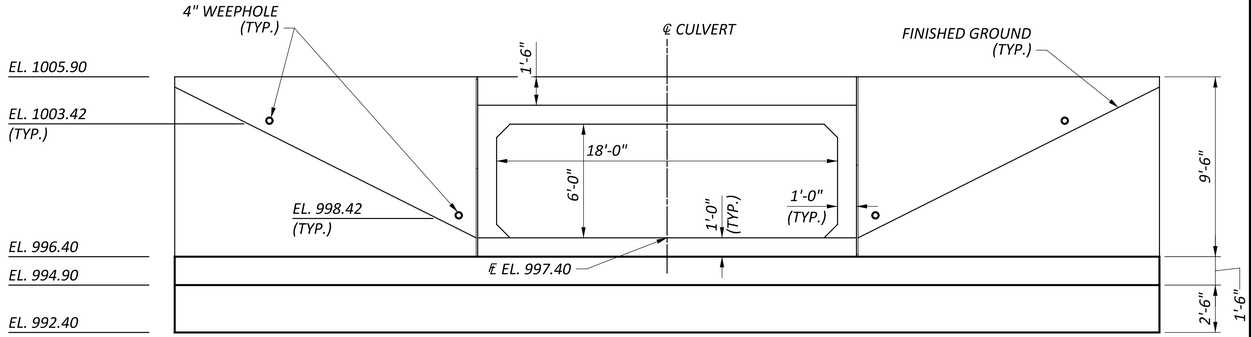
GENERAL NOTES
BRIDGE NO. ATB-00322-13.990
US 322 OVER UNT TO MOSQUITO CREEK

SFN 0406393
DESIGN AGENCY 2LMN
DESIGNER BIM | CHECKER RTF
REVIEWER JAB 07/15/24
PROJECT ID 113810
SUBSET 2 | TOTAL 6
SHEET P.36 | TOTAL 52

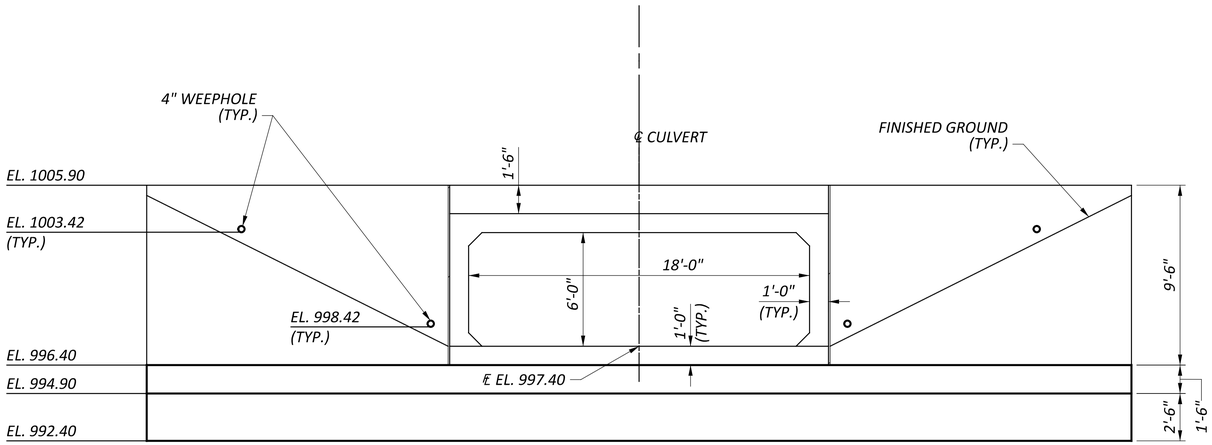
ATB-322-8.11



CULVERT LAYOUT



INLET

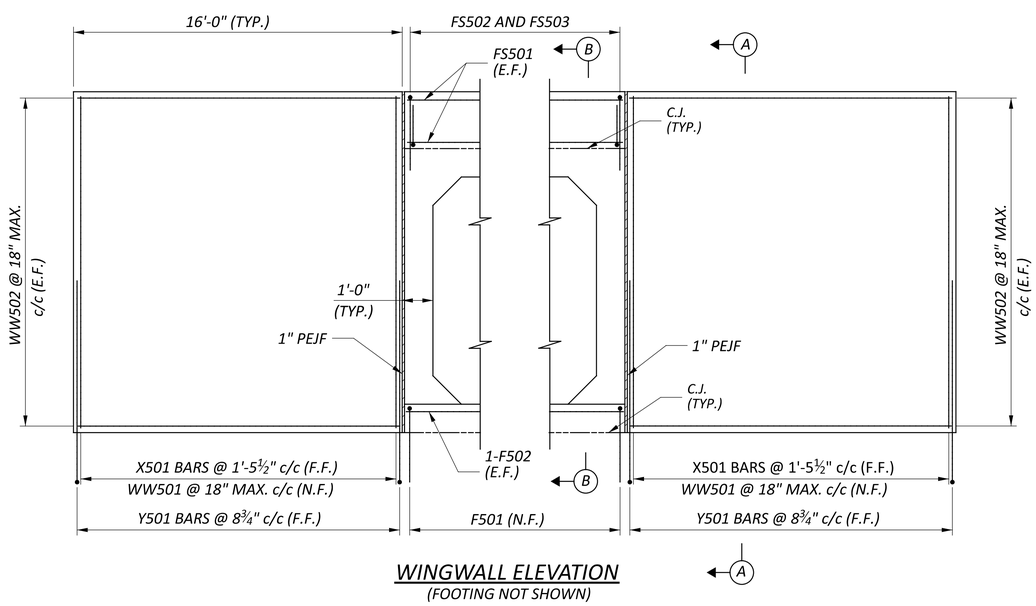


OUTLET

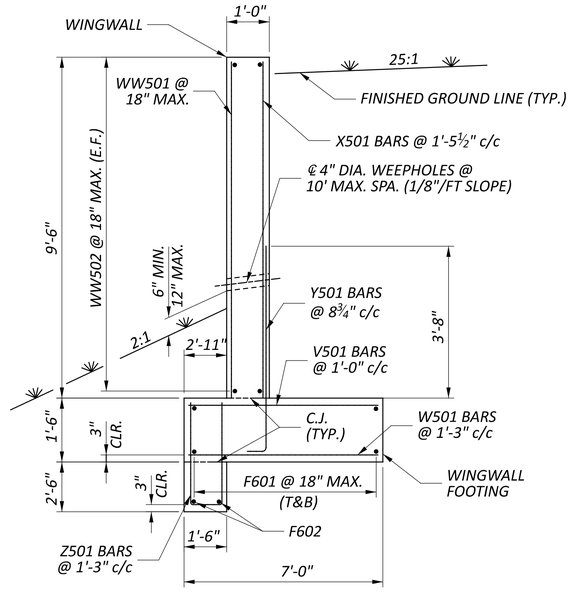
CULVERT LAYOUT DETAILS
BRIDGE NO. ATB-00322-13.990
US 322 OVER UNT TO MOSQUITO CREEK

SFN 0406393
DESIGN AGENCY 2LMN
DESIGNER BIM | CHECKER RTF
REVIEWER JAB 07/15/24
PROJECT ID 113810
SUBSET 3 | TOTAL 6
SHEET P.37 | TOTAL 52

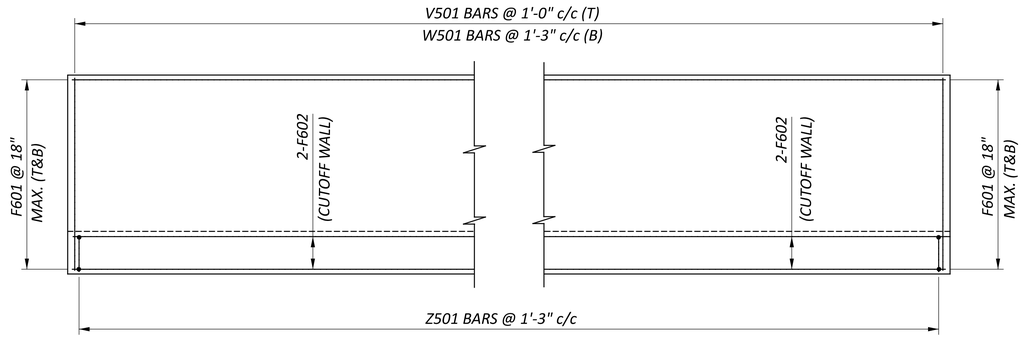
ATB-322-8.11



WINGWALL ELEVATION
(FOOTING NOT SHOWN)



SECTION A-A
(POROUS BACKFILL NOT SHOWN FOR CLARITY)



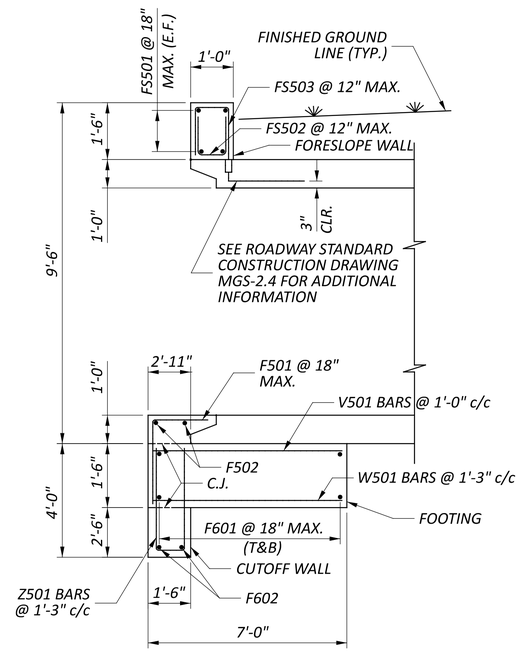
FOOTING PLAN

NOTES

1. FOR CULVERT LOCATION PLAN, SEE SHEET 1/6.
2. FOR PRECAST BOX CULVERT DETAILS, SEE SHEET 3/6.
3. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO.5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
4. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.

LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT



SECTION B-B

INLET FOOTING AND HEADWALL DETAILS
BRIDGE NO. ATB-00322-13.990
US 322 OVER UNT TO MOSQUITO CREEK

SFN 0406393
DESIGN AGENCY 2LMN
DESIGNER RTF | CHECKER JAH
REVIEWER JAB 07/15/24
PROJECT ID 113810
SUBSET 4 | TOTAL 6
SHEET P.38 | TOTAL 52

ATB-322-8.11

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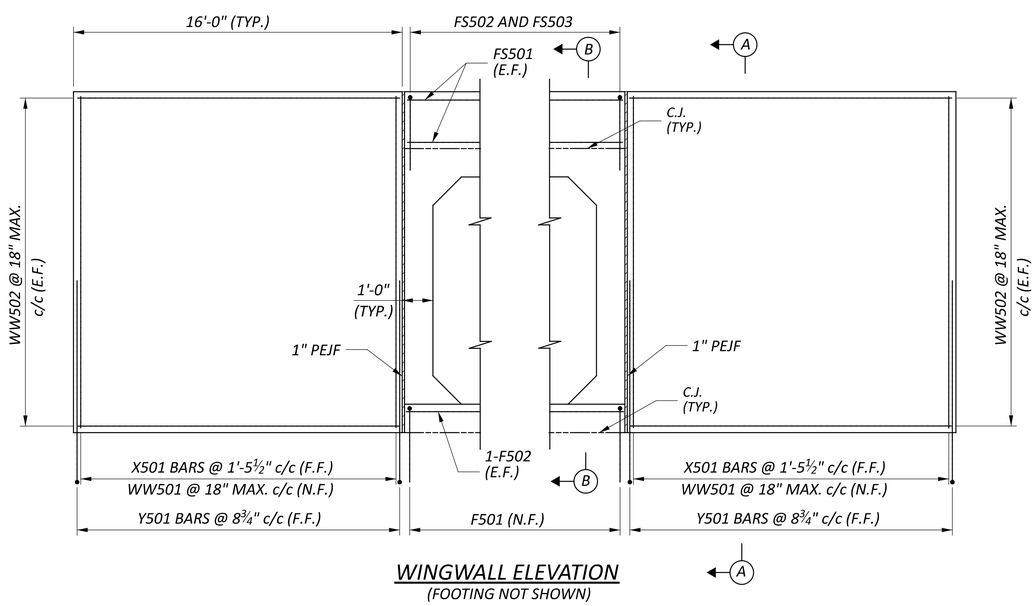
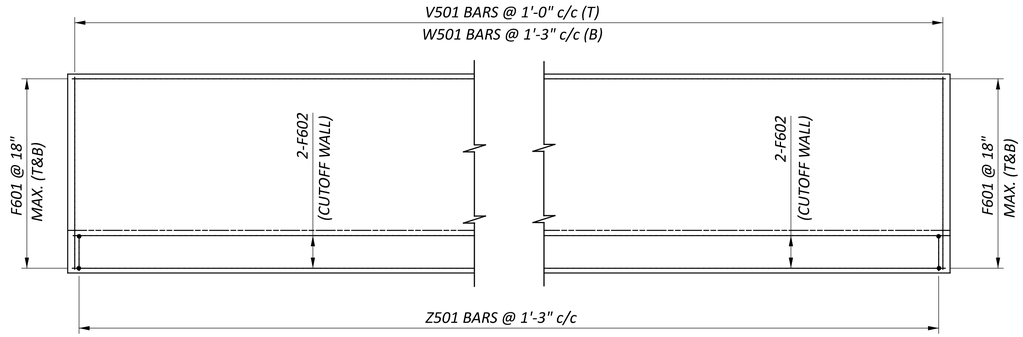
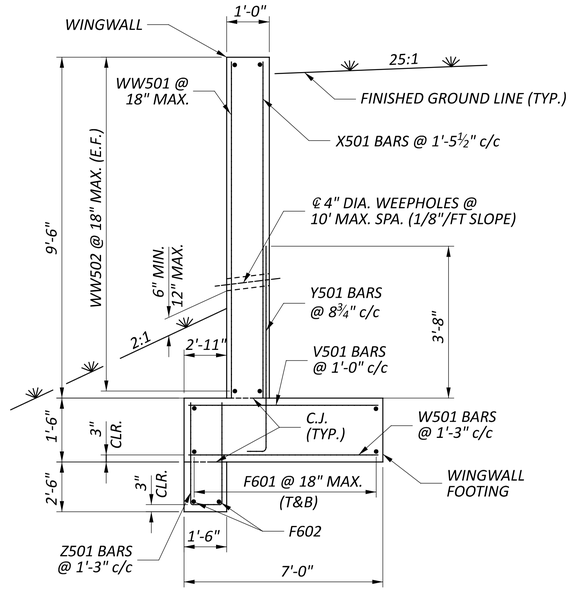


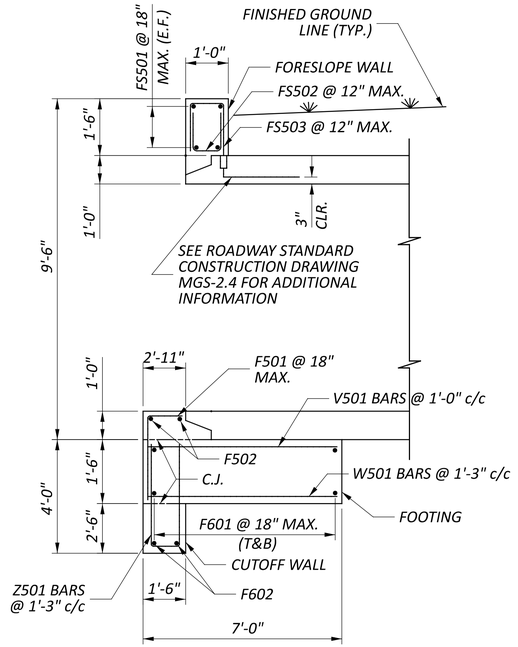
WINGWALL ELEVATION
(FOOTING NOT SHOWN)



FOOTING PLAN



SECTION A-A
(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION B-B

NOTES

1. FOR CULVERT LOCATION PLAN, SEE SHEET 1/6.
2. FOR PRECAST BOX CULVERT DETAILS, SEE SHEET 3/6.
3. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO.5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
4. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.

LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT

OUTLET FOOTING AND HEADWALL DETAILS
BRIDGE NO. ATB-00322-13.990
US 322 OVER UNT TO MOSQUITO CREEK

SFN 0406393
DESIGN AGENCY 2LMN
DESIGNER RTF | CHECKER JAH
REVIEWER JAB 07/15/24
PROJECT ID 113810
SUBSET 5 | TOTAL 6
SHEET P.39 | TOTAL 52

ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:38:36 AM USER: Jessica_Grubb
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INLET - TYPE C HEADWALL REINFORCING SCHEDULE							
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS		
					A	B	C
WINGWALLS							
X501	24	9'- 4"	234	STR.			
Y501	46	5'- 7"	270	1	0'- 10"	4'- 11"	
WW501	24	9'- 4"	234	STR.			
WW502	32	15'- 8"	523	STR.			
FOOTING & CUTOFF WALL							
V501	53	6'- 8"	369	STR.			
W501	43	6'- 8"	299	STR.			
Z501	43	8'- 2"	367	5	3'- 7"	1'- 2"	
F501	15	5'- 0"	79	1	2'- 11"	2'- 2"	
F502	2	19'- 9"	42	STR.			
F601	24	27'- 1"	977	STR.			
F602	4	27'- 1"	163	STR.			
FORESLOPE WALL							
FS501	4	19'- 9"	83	STR.			
FS502	21	2'- 9"	61	5	1'- 2"	0'- 8"	
FS503	21	3'- 8"	81	7	1'- 2"	0'- 8"	2'- 1"
		TOTAL	3,782				

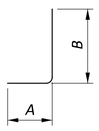
*

(QUANTITY FOR INLET HEADWALL)

OUTLET - TYPE C HEADWALL REINFORCING SCHEDULE							
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS		
					A	B	C
WINGWALLS							
X501	24	9'- 4"	234	STR.			
Y501	46	5'- 7"	270	1	0'- 10"	4'- 11"	
WW501	24	9'- 4"	234	STR.			
WW502	32	15'- 8"	523	STR.			
FOOTING & CUTOFF WALL							
V501	53	6'- 8"	369	STR.			
W501	43	6'- 8"	299	STR.			
Z501	43	8'- 2"	367	5	3'- 7"	1'- 2"	
F501	15	5'- 0"	79	1	2'- 11"	2'- 2"	
F502	2	19'- 9"	42	STR.			
F601	24	27'- 1"	977	STR.			
F602	4	27'- 1"	163	STR.			
FORESLOPE WALL							
FS501	4	19'- 9"	83	STR.			
FS502	21	2'- 9"	61	5	1'- 2"	0'- 8"	
FS503	21	3'- 8"	81	7	1'- 2"	0'- 8"	2'- 1"
		TOTAL	3,782				

*

(QUANTITY FOR OUTLET HEADWALL)



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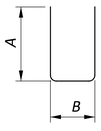

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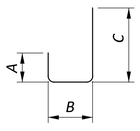


TYPE-7

LEGEND

* THIS TABLE IS FOR THE HEADWALL AND WINGWALLS AT ONE END OF THE CULVERT

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE 3 DIGITS ARE USED, AND THE FIRST 2 DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER FOR EXAMPLE, W501 IS A NO. 5 BAR AND 01 INDICATES BAR SEQUENCE NUMBER.
2. ALL REINFORCING SHALL BE EPOXY COATED STEEL.
3. FOR BEND DIAGRAMS, SEE THIS SHEET. REFER TO CMS SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
4. ALL DIMENSIONS ARE OUT TO OUT.
5. REINFORCING BAR SPLICE LENGTHS SHALL CONFORM TO THE MINIMUM LENGTHS SPECIFIED BY CMS SECTION 509.07 UNLESS OTHERWISE NOTED ON THE PLANS.

REINFORCING STEEL LIST
BRIDGE NO. ATB-00322-13.990
US 322 OVER UNT TO MOSQUITO CREEK

SFN 0406393

DESIGN AGENCY 2LMN

DESIGNER	CHECKER
RTF	JAH

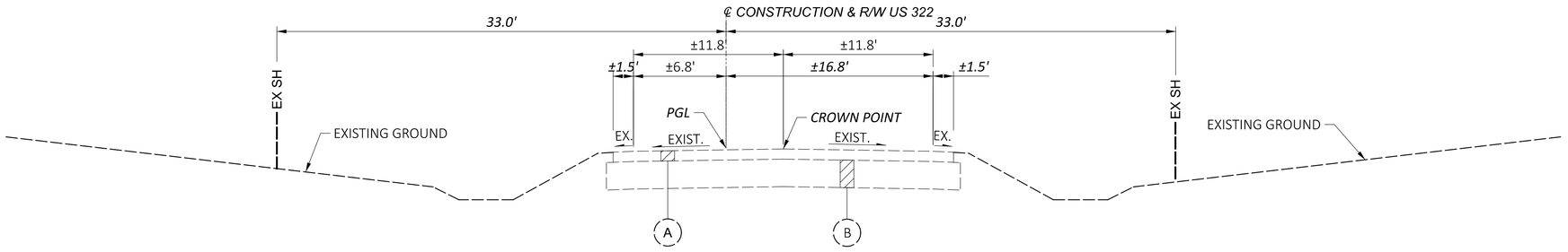
REVIEWER: JAB 07/15/24

PROJECT ID: 113810

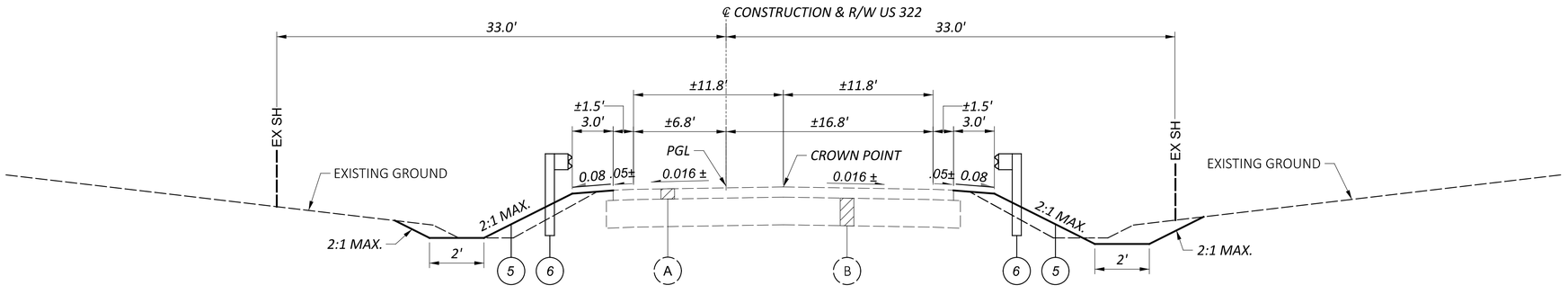
SUBSET	TOTAL
6	6

SHEET	TOTAL
P.40	52

ATB-322-8.11

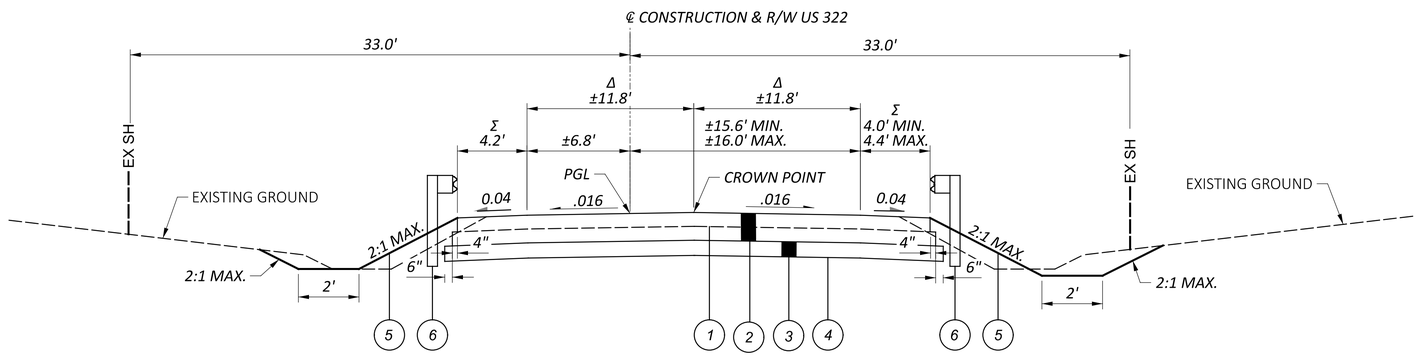


EXISTING SECTION - US 322



PROPOSED SECTION - US 322

LEFT:
STA. 215+26.00 TO STA. 217+35.97 = 209.97 FT.
RIGHT:
STA. 212+64.67 TO STA. 214+75.00 = 210.33 FT.



PROPOSED SECTION - US 322

STA. 214+75.00 TO STA. 215+26.00 = 51.00 FT.

LEGEND

1. *ITEM 407 - NON-TRACKING TACK COAT (RATE AT 0.055 GAL./SY)*
2. *ITEM 301 - 11" ASPHALT CONCRETE BASE, PG64-22, (449) (PLACED IN TWO EQUAL 5 1/2" LIFTS)*
3. *ITEM 304 - 6" AGGREGATE BASE*
4. *ITEM 204 - SUBGRADE COMPACTION*
5. *ITEM 659 - SEEDING AND MULCHING*
6. *ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS*

- (A) EX. 3" ASPHALT CONCRETE PAVEMENT
- (B) EX. 9" PORTLAND CEMENT CONCRETE BASE

Σ - NDC = 13' (DESIGN EXCEPTION NEEDED)
Δ - NDC = 12' (DESIGN EXCEPTION NEEDED)

TYPICAL SECTIONS - ATB-322-12.18

DESIGN AGENCY
2LMN

DESIGNER
JJR

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.41 | TOTAL 52

ATB-322-8.11

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.

ROUNDING

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

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.

SEEDING AND MULCHING

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

659, TOPSOIL	187	CU. YD.
659, SEEDING AND MULCHING	1689	SQ. YD.
659, REPAIR SEEDING AND MULCHING	84	SQ. YD.
659, COMMERCIAL FERTILIZER	0.23	TON
659, LIME	0.35	ACRES
659, WATER	9	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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION, SEE TABLE BELOW.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
COUNTY : ATB ROUTE: 322 SECTION 12.19
PID#: 113810
SURVEY DATE: JUNE 2022

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: 2018

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99993020360
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

UNITS:
FURNISH UNITS IN U.S. SURVEY FEET.
USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 3.28083333333 U.S. SURVEY FEET.

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.

CONTROL POINTS

POINT	STATION	OFFSET	N	E	Z
CP25	204+13.17	22.47' RT.	685684.936	2441603.484	955.992
CP50	214+76.11	19.69' LT.	685747.606	2442665.409	970.401
CP100	(NO INFORMATION PROVIDED IN SURVEY BASEMAP)				
VM154	154+57.00	0	685617.064	2436647.714	
VM660	231+08.10	0	685759.440	2444297.478	
BM1	215+04.59	21.23' RT.	685707.253	244694.676	970.944

FARM DRAINS

PROVIDE UNOBSTRUCTED OUTLETS TO ALL FARM DRAINS ENCOUNTERED DURING CONSTRUCTION. REPLACE EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY WITHIN THE (RIGHT OF WAY)(CONSTRUCTION) LIMITS WITH ITEM 611, CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

OUTLET EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES INTO THE ROADWAY.

DITCH USING ITEM 611, TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION IS ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. INTERCEPT LATERAL FIELD TILES WHICH CROSS THE ROADWAY WITH ITEM 611, TYPE E CONDUIT, AND CARRY IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS IS DETERMINED BY THE ENGINEER AND PAYMENT MADE ON FINAL MEASUREMENTS.

PROVIDE EROSION CONTROL PADS AT THE OUTLET END OF ALL FARM DRAINS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE.

PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES IS INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

611 6" CONDUIT, TYPE B	50 FT.
611 6" CONDUIT, TYPE E	50 FT.
611 6" CONDUIT, TYPE F	50 FT.

ITEM SPECIAL - SURVEY CONTROL VERIFICATION

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTORS CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

1. IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
   a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   b. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.
   c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSESD SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.
2. IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
   a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   b. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDE IN THE PLAN
   c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

GENERAL NOTES - ATB-322-12.18

DESIGN AGENCY
2LMN
DESIGNER
JJR
REVIEWER
LAW 07/15/24
PROJECT ID
113810
SHEET P.42 TOTAL 52

ATB-322-8.11

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:39:38 AM USER: Jessica_Grubb
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\113810\401-Engineering_2LMN\Roadway\Sheets\113810_GN101.dgn

REF NO.	SHEET NO.	STATION TO STATION			202 PAVEMENT REMOVED SY	202 PIPE REMOVED, 24" AND UNDER FT		611 18" CONDUIT, TYPE D FT		606 GUARDRAIL, TYPE MGS WITH LONG POSTS FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 ANCHOR ASSEMBLY, MGS TYPE T EACH	626 BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL) EACH		204 SUBGRADE COMPACTION SY	301 ASPHALT CONCRETE BASE, PG64-22, (449) 11" CY	304 AGGREGATE BASE (6" OR 8", AS SHOWN BELOW) CY		407 NON-TRACKING TACK COAT (TWO APPLICATIONS) (RATE AT 0.055 GAL/SY) GAL		630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 SIGN, FLAT SHEET, 730.20 SF	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH		836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1 SY	
R-1	P.44	215+32.0 RT.	TO	215+76.0 RT.		44																						
DP-1	P.44	215+38.52 RT.	TO	215+74.52 RT.				36																				
G-1	P.44	212+64.67 RT.	TO	215+44.18 RT.						225	1	1	8															
G-2	P.44	214+77.22 LT.	TO	217+35.97 LT.						200	1	1	8															
S-1	P.44	214+50.00 RT. (SIGN CODE I-H2d-48)																			26	8						
		214+50.00 RT (SIGN CODE I-H25b-12)																				1						
S-2	P.44	214+76.5 RT. (SIGN CODE I-H2d-48)																					1	2				
S-3	P.44	215+50.0 RT. (SIGN CODE I-H25b-48)																			12	1						
DR-1	P.44	215+56.52 RT. (FIELD DRIVE)															(8") 10											
EC-1	P.44	212+64.79 RT.	TO	214+61.74 RT.																								241
EC-2	P.44	214+78.29 RT.	TO	215+38.52 RT.																								45
EC-3	P.44	215+30.87 LT.	TO	217+35.93 LT.																								251
EC-4	P.44	215+74.52 RT.	TO	215+99.95 RT.																								19
PAVEMENT CALCULATIONS																												
STA. 214+75.00 TO STA. 215+26.00					151										187	57	(6") 29		22									
TOTALS CARRIED TO GENERAL SUMMARY					151	44		36		425	2	2	16		187	57	39		22		38	10	1	2		556		

ATB-322-8.11

ROADWAY, DRAINAGE & PAVEMENT SUBSUMMARY - ATB-322-12.18

DESIGN AGENCY
2LMN

DESIGNER
JJR

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.43 TOTAL 52

FOR PROPOSED CULVERT DETAILS AND QUANTITIES, SEE SHEET P.52

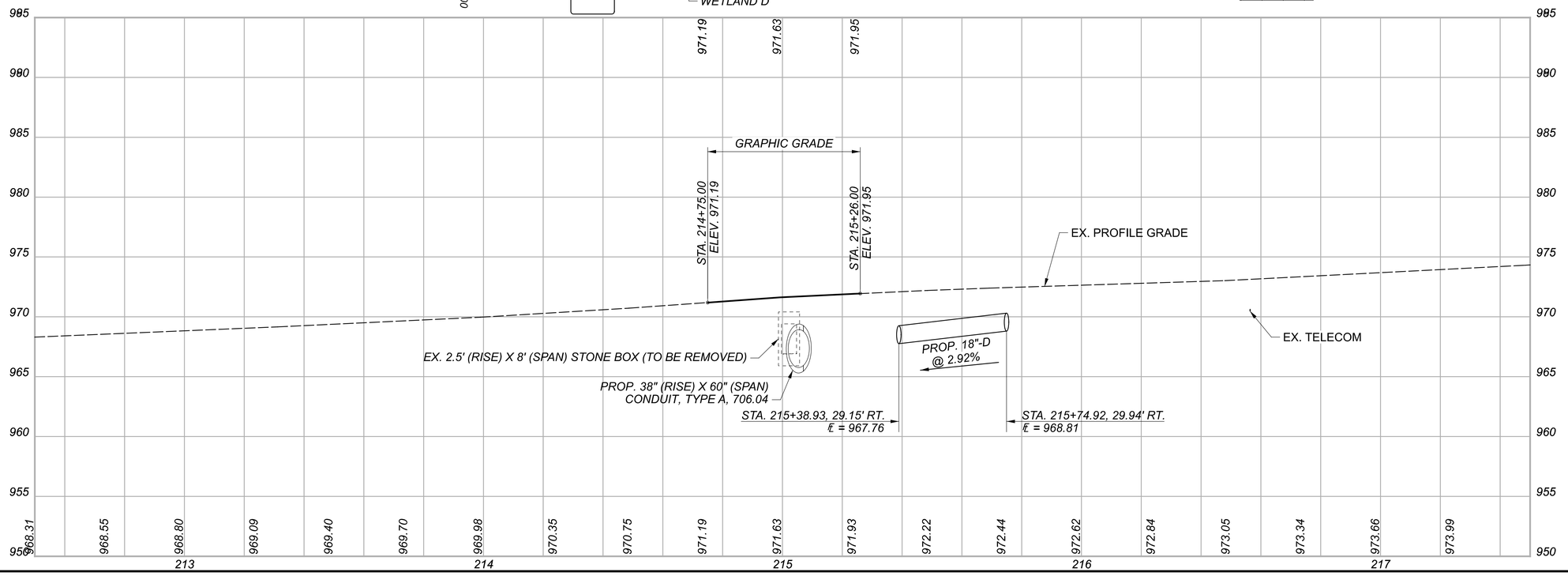
WOLF GREGORY & SUSAN
0 US ROUTE 322
PN: 10-013-00-040-01
AGRICULTRUAL VACANT

LEGEND

- ITEM 836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1

HORIZONTAL SCALE IN FEET
0 10 20 40

12.5' ITEM 606 ANCHOR ASSEMBLY, MGS TYPE T
EX. 2.5' (RISE) x 8' (SPAN) STONE BOX (TO BE REMOVED)
ITEM 601 - RIPRAP, TYPE D
HW-2.2
ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E
EX. CABLE TV
CP50
GUARDRAIL LON STA. 214+29.84
GUARDRAIL LON STA. 216+83.12
EDGE OF PAVEMENT
EDGE OF SHOULDER
EX. TELECOM
I-H25b-12 STA. 215+50.0
ITEM 606 GUARDRAIL,TYPE MGS WITH LONG POSTS
CONSTRUCTION LIMITS
PROP. 38" (RISE) x 60" (SPAN) CONDUIT, TYPE A, 706.04
10' RAD.
+87.05
+99.55
+77.22
+30.92
+35.97
N90°00'00"E
ROADWAY CROWN LOCATION
ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E
℄ CONSTRUCTION & R/W US 322
EX. OVERHEAD COMBINED
GUARDRAIL LON STA. 213+16.10
+64.79
+65.05
CONSTRUCTION LIMITS
DITCH 4 (DO NOT DISTURB BEYOND CONST. LIMITS)
ITEM 606 GUARDRAIL,TYPE MGS WITH LONG POSTS
YUHASZ BROS LLC
0 US ROUTE 322
PN: 10-013-00-043-00
AGRICULTRUAL VACANT
ITEM 601, ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
+61.68
+77.49
BEGIN FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT STA. 214+75.00
END FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT STA. 215+26.00
+32.19
+77.49
+74.52
+99.95
EX. GAS
COLEBROOK
BM#1
EX. TELECOM POLE (TBR)
18" CONDUIT, TYPE D
ITEM 202 PIPE REMOVED 24" AND UNDER
EDGE OF PAVEMENT
EDGE OF SHOULDER
EX. TELECOM
Ψ - SAW CUT
S-1
S-2
S-3
I-H25b-12 STA. 214+50.00
I-H2d-48
Colebrook
EX. SIGN TO BE REMOVED AND REPLACED STA. 214+76.50
FIELD DRIVE STA. 215+56.52 RT. (GRAVEL)
ITEM 606 ANCHOR ASSEMBLY, MGS TYPE T
WETLAND D
WETLAND D (DO NOT DISTURB BEYOND CONSTRUCTION LIMITS)



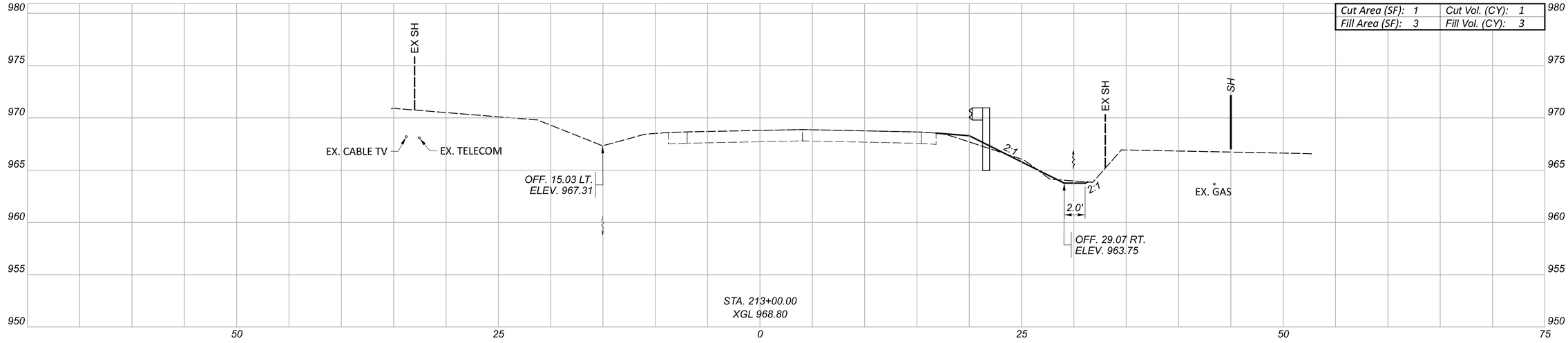
PLAN AND PROFILE - ATB-322-12.18
STA. 212+50.00 TO STA. 217+50.00 (SLM 12.18)

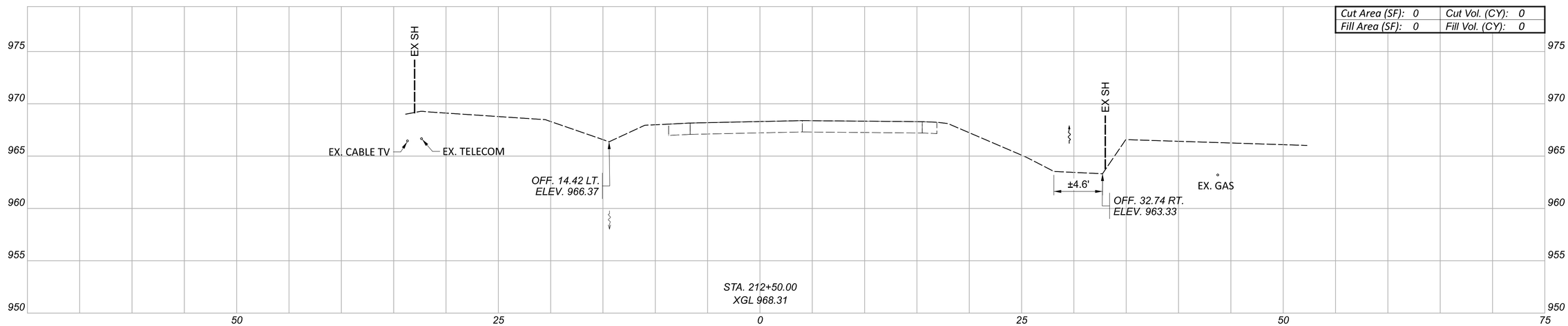
DESIGN AGENCY
2LMN

DESIGNER JJR
REVIEWER LAW 07/15/24
PROJECT ID 113810
SHEET P.44 TOTAL 52

ATB-322-8.11

MODEL: 113810_GP101 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:40:26 AM USER: Jessica_Grubb
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 04\Ashtabula\113810\401-Engineering_2LMN\Roadway\Sheets\113810_GP101.dgn





CROSS SECTIONS - ATB-322-12.18
STA. 212+50.00 TO STA. 213+00.00

Sheet Totals	
Cut	Fill
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DESIGN AGENCY
2LMN

DESIGNER
MAK

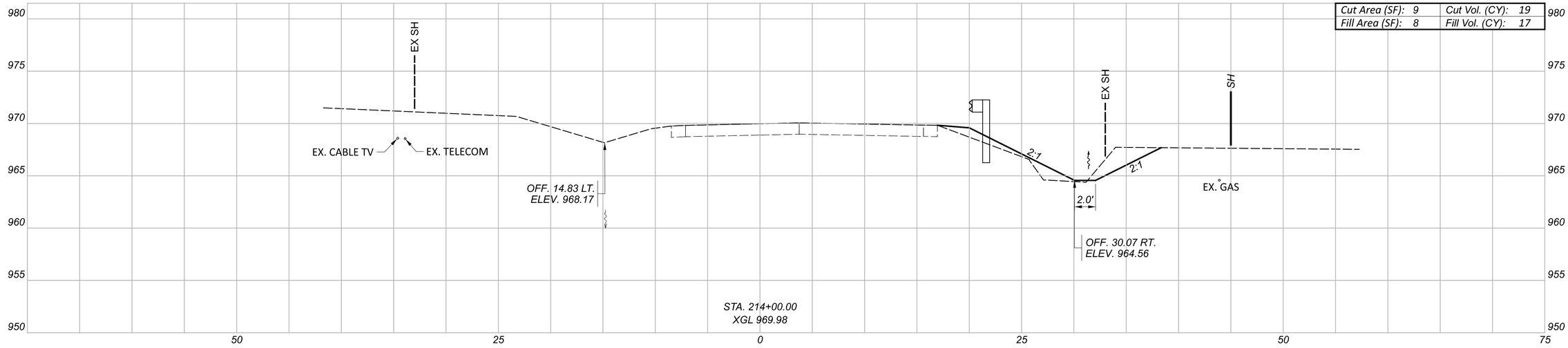
REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.45 TOTAL 52

ATB-322-8.11

MODEL: 113810_XSII PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:41:02 AM USER: Jessica.Grubb
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\113810\401-Engineering_2LMN\Roadway\Sheets\113810_XS100.dgn



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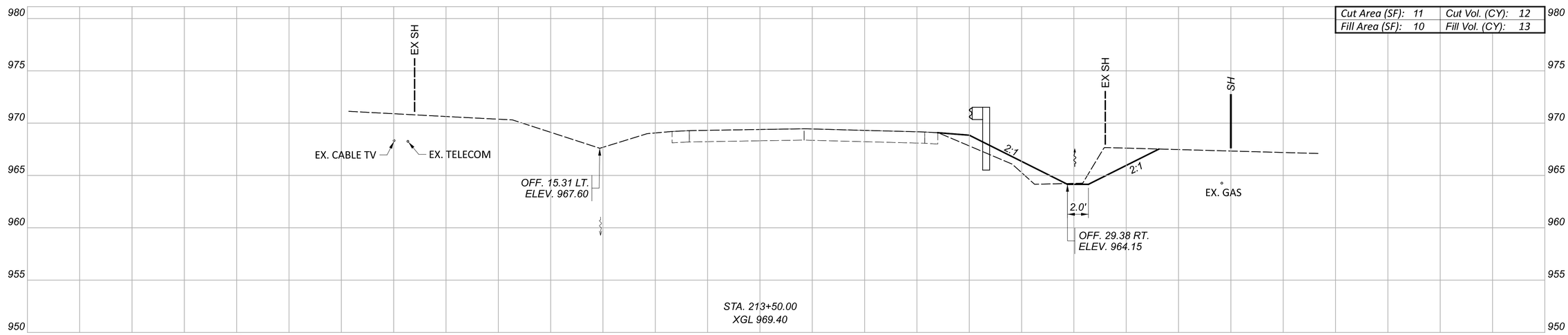

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CROSS SECTIONS - ATB-322-12.18
STA. 213+50.00 TO STA. 214+00.00

DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.46 | TOTAL 52

Sheet Totals	
Cut	Fill
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ATB-322-8.11

MODEL: 113810_XSI2 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:41:03 AM USER: Jessica.Grubb
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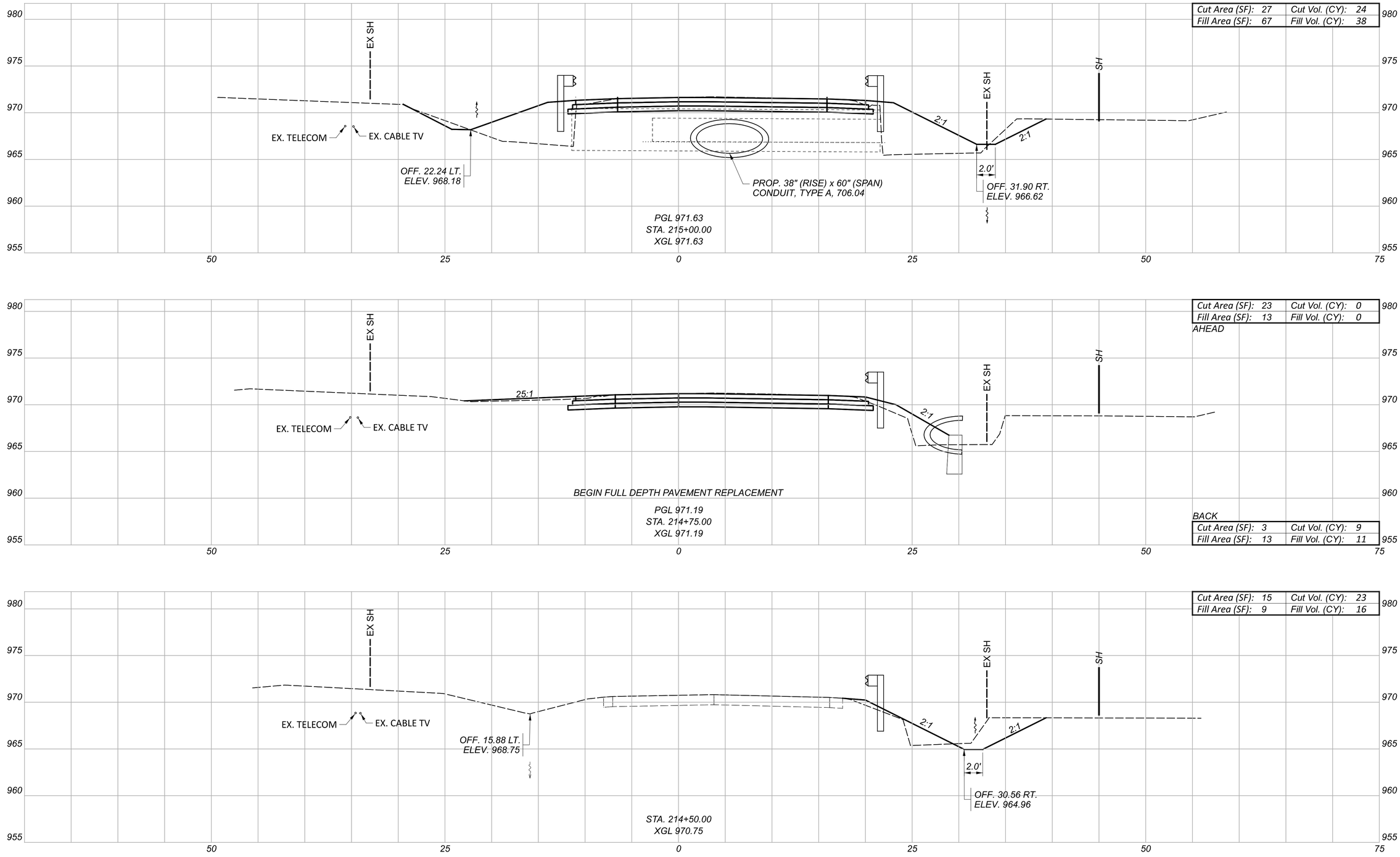

CROSS SECTIONS - ATB-322-12.18
STA. 214+50.00 TO STA. 215+00.00

ATB-322-8.11

MODEL: 113810_XSI3 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:41:04 AM USER: Jessica.Grubb
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 04\Ashtabula\113810\401-Engineering\Engineering_2LMN\Roadway\Sheets\113810_XS100.dgn

Sheet Totals	
Cut	Fill
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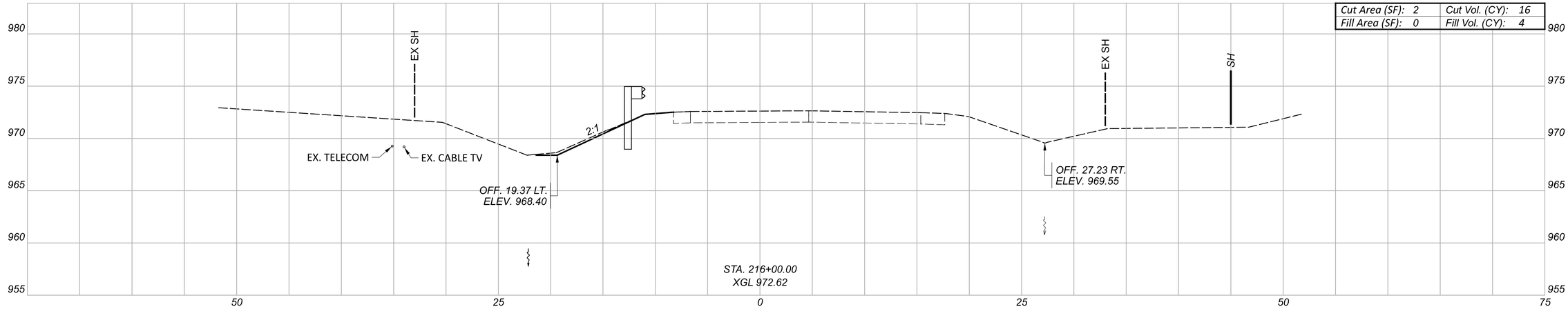
DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

SHEET P.47 TOTAL 52



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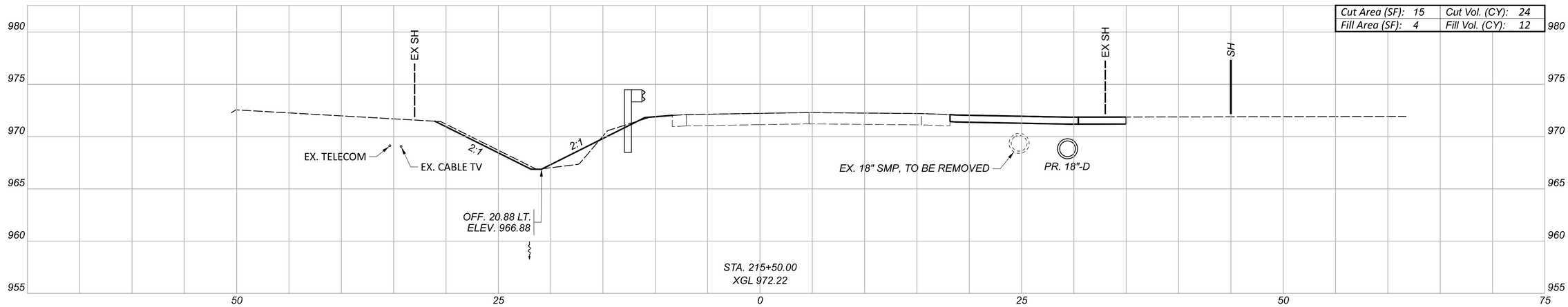

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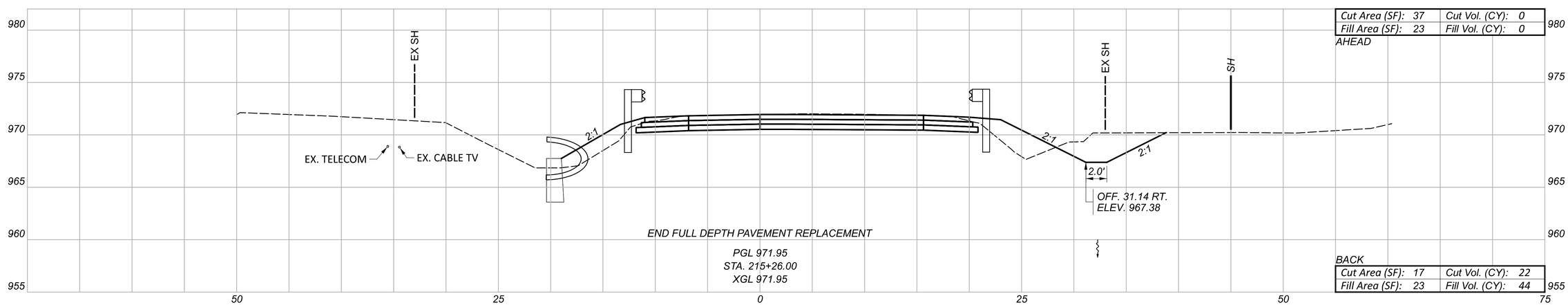

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AHEAD

BACK

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Fill Area (SF):	23	Fill Vol. (CY):	44

Sheet Totals	
Cut	Fill
71	60

CROSS SECTIONS - ATB-322-12.18
STA. 215+26.00 TO STA. 216+00.00

DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

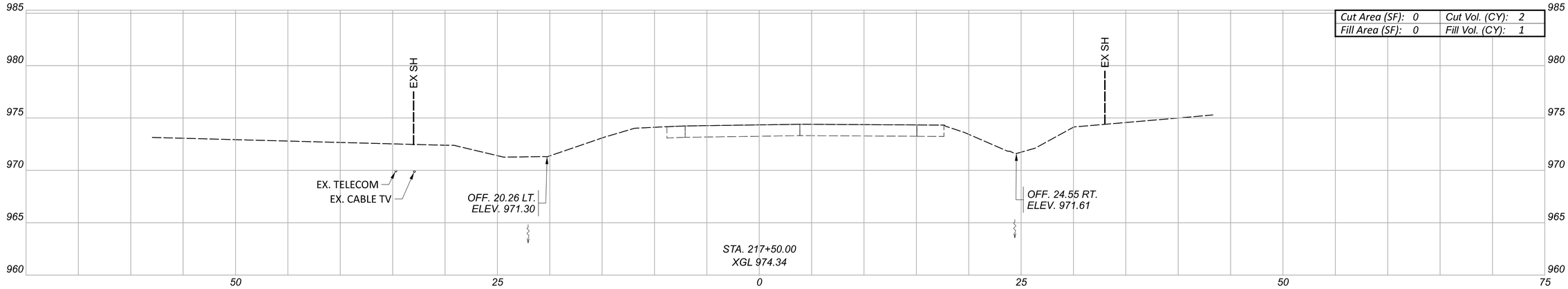
PROJECT ID
113810

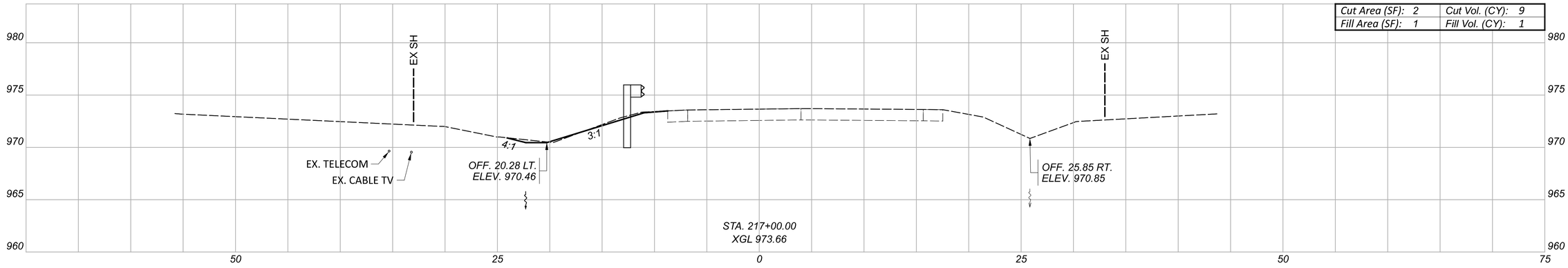
SHEET P.48 TOTAL 52

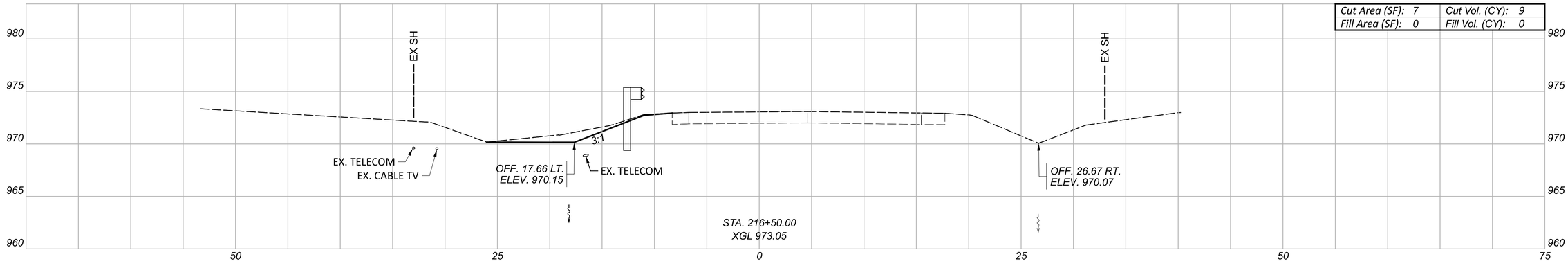
ATB-322-8.11

MODEL: 113810_XS14 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:41:05 AM USER: Jessica.Grubb
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 04\Ashtabula\113810\401-Engineering_2LMN\Roadway\Sheets\113810_XS100.dgn

SHEET	EXCAVATION	EMBANKMENT
P.45	1 CU YDS	3 CU YDS
P.46	31 CU YDS	30 CU YDS
P.47	56 CU YDS	65 CU YDS
P.48	71 CU YDS	60 CU YDS
P.49	11 CU YDS	2 CU YDS
TOTALS	**170 CU YDS**	**160 CU YDS**







CROSS SECTIONS - ATB-322-12.18
STA. 216+50.00 TO STA. 217+50.00

DESIGN AGENCY
2LMN

DESIGNER
MAK

REVIEWER
LAW 07/15/24

PROJECT ID
113810

Sheet Totals	
Cut	Fill
11	2

SHEET P.49 TOTAL 52

ATB-322-8.11

MODEL: 113810_XSI5 PAPERSIZE: 34x22 (in.) DATE: 3/31/2025 TIME: 9:41:07 AM USER: Jessica.Grubb
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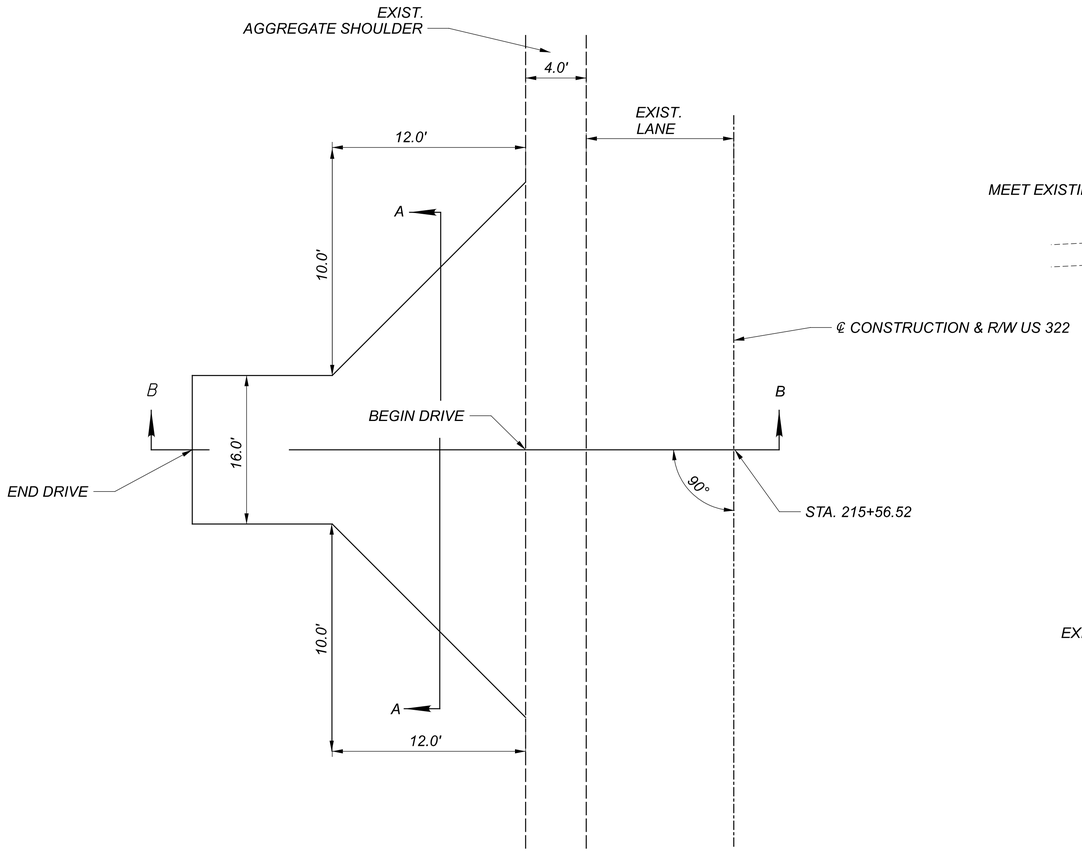
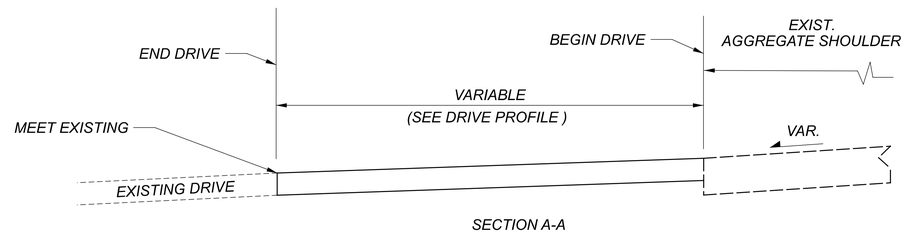
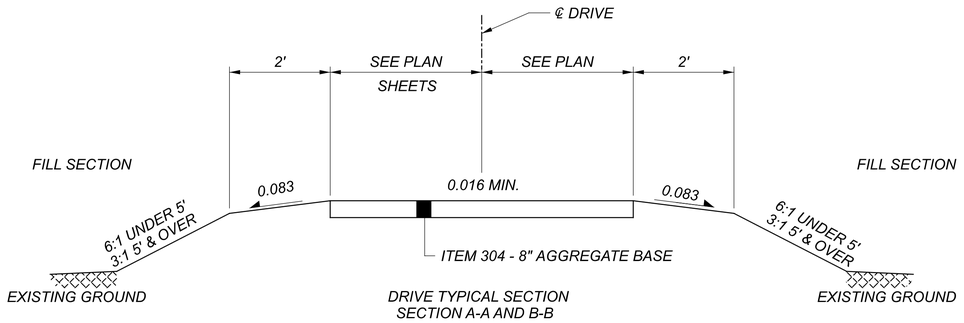




SECTION A-A



DRIVE TYPICAL SECTION
SECTION A-A AND B-B

FIELD DRIVE PAVEMENT BUILDUP

FIELD DRIVE

SECTION A-A
ITEM 304 - 8" AGGREGATE BASE

TYPICAL SECTION - FIELD DRIVE - ATB-322-12.18

DESIGN AGENCY
2LMN

DESIGNER
JJR

REVIEWER
ALL 07/15/24

PROJECT ID
113810

SHEET P.50 TOTAL 52

ATB-322-8.11

MODEL: 113810_GD102 PAPERSIZE: 34x22 (In.) DATE: 3/31/2025 TIME: 9:41:54 AM USER: Jessica_Grubb
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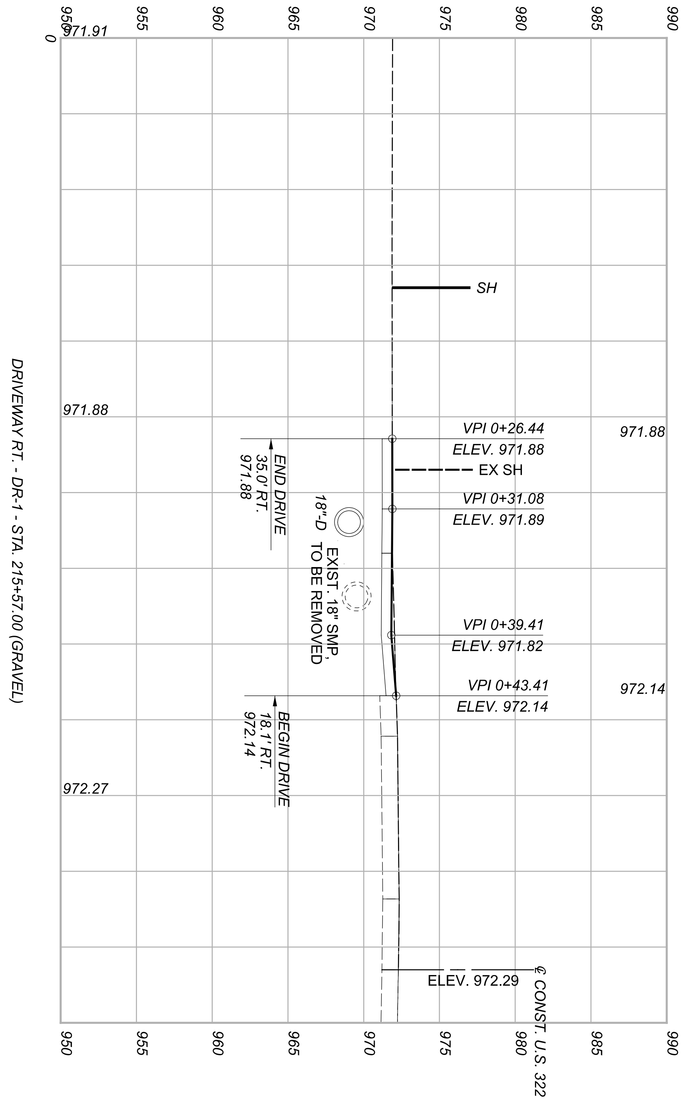


SHEET	TOTAL
P 51	52

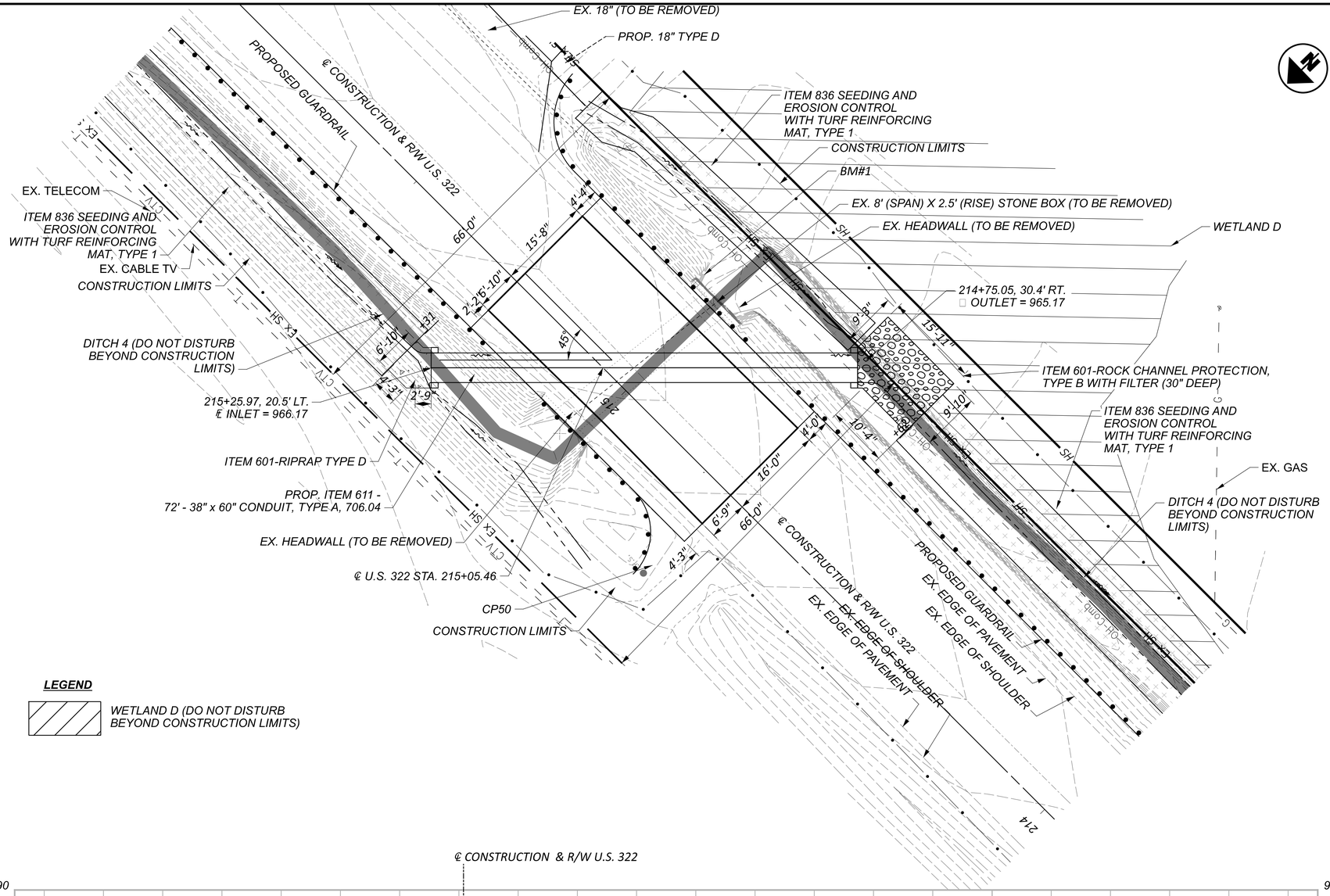
PROJECT ID 113810

REVIEWER LAW 07/15/24

DESIGNER MAK

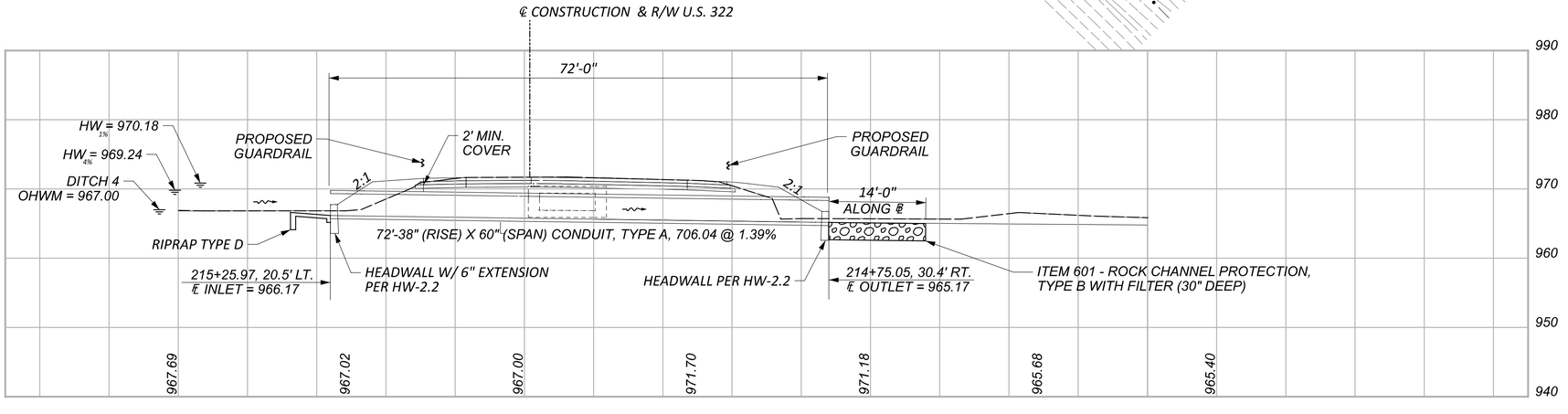
DESIGN AGENCY 2LMN

DRIVEWAY PROFILE - ATB-322-12.18
DRIVE 1



LEGEND

WETLAND D (DO NOT DISTURB BEYOND CONSTRUCTION LIMITS)



NOTE:
FOR BENCHMARK DATA SEE P.25.

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
202	2	EA	HEADWALL REMOVED
202	LS		STRUCTURE REMOVED (ATB-322-12.18)
503	LS		COFFERDAMS AND EXCAVATION BRACING
601	5	SY	RIPRAP TYPE D
601	16	CY	ROCK CHANNEL PROTECTION, TYPE B
			WITH FILTER
602	1.7	CY	CONCRETE MASONRY
611	72	FT	38"(RISE) X 60"(SPAN) CONDUIT, TYPE A, 706.04

TOTALS CARRIED TO THE GENERAL SUMMARY

HYDRAULIC DATA

DRAINAGE AREA = 115 ACRES

Q (4%) = 68.40 CFS V (4%) = 13.11 FT/S HW (4%) = 969.24 FT

Q (1%) = 97.80 CFS V (1%) = 14.57 FT/S HW (1%) = 970.18 FT

ORDINARY HIGH WATER MARK: 967.00 FT

DESIGN SERVICE LIFE: 75 YEARS

ABRASION LEVEL: 1

pH:

EXISTING CULVERT

TYPE: STONE BOX WITH CONCRETE EXTENSIONS

SIZE: 34' - 63" (SPAN) X 30" (RISE)

SKEW: 0°

ALIGNMENT: TANGENT

DATE BUILT: UNKNOWN

CONDITION: FAIR

CFN: 1979062

PROPOSED CULVERT

TYPE: 72' - ITEM 611 - 38" X 60" CONDUIT, TYPE A, 706.04

SKEW: 45° LF

ALIGNMENT: TANGENT

CFN: 1995569

HORIZONTAL SCALE IN FEET
0 5 10 20

CULVERT DETAILS - ATB-332-12.18 STA. 215+05.46

DESIGN AGENCY
2LMN

DESIGNER	MAK
REVIEWER	LAW 07/15/24
PROJECT ID	113810
SUBSET	1
TOTAL	1
SHEET	P.52
TOTAL	52

ATB-322-8.11