STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

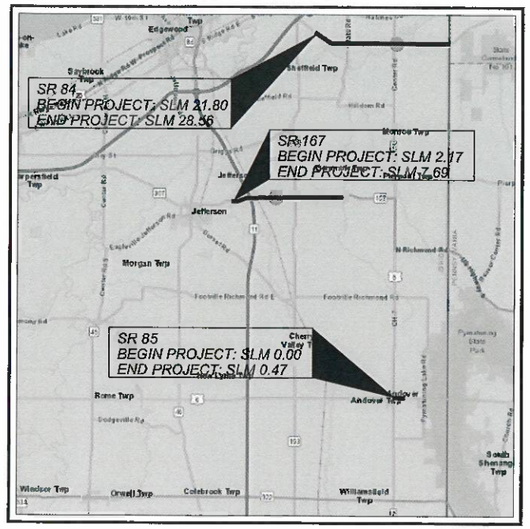
ATB-84/VAR-21.80/VAR

VILLAGE OF ANDOVER

DENMARK, JEFFERSON, KINGSVILLE,

MONROE, AND SHEFFIELD TOWNSHIPS

ASHTABULA COUNTY



LOCATION MAP

LATITUDE: 41°45'05" LONGITUDE: 80°41'18"

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

DESIGN DESIGNATION

	SR 7	SR 84	SR 167
CURRENT ADT (2022)	2,637	1,599	3,027
DIRECTIONAL DISTRIBUTION	54%	67%	54%
TRUCKS (24 HOUR B&C)	3%	3%	5%
DESIGN SPEED	60	60	60
LEGAL SPEED	55	55	55

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL MAJOR COLLECTOR (SR 84, SR 167)
RURAL MINOR ARTERIAL (US 322, SR 85)
NHS PROJECT ---------- NO

DESIGN EXCEPTIONS

SHOULDER WIDTH (ATB-167-0440)

ADA DESIGN WAIVERS

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 - PLANNING AND ENGINEERING
2088 S. ARLINGTON RD
AKRON, OH 44306

ENGINEER'S SEAL:

STATE OF OHIO · MATTHEW A CHANEY · E-78423 · REGISTERED PROFESSIONAL ENGINEER

SIGNED: [signature]
DATE: 1/10/21

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E150(677)

RAILROAD INVOLVEMENT

NORFOLK SOUTHERN

PROJECT DESCRIPTION

RESURFACING OF SR 84 FROM SLM 21.80 - 28.56, SR 85 FROM SLM 0.00 - 0.47, AND SR 167 FROM SLM 2.17 - 7.69 IN ASHTABULA COUNTY. INCLUDES INTERSECTION IMPROVEMENTS AT SR 7 / SR 84 AND STRUCTURE WORK TO 2 STRUCTURES.

EARTH DISTURBED AREAS

PROJECT EDA:	0.32 ACRES
ESTIMATED CONTRACTOR EDA:	0.25 ACRES
NOTICE OF INTENT EDA:	N/A (NOT REQUIRED)

2019 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 SHEET P.8.

APPROVED [signature]
DATE 1/10/22 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	7/17/15	HW-1.1	7/20/18	TC-65.11	7/21/17				
BP-2.2	7/18/08			TC-71.10	7/16/21				
BP-3.1	1/17/20	MT-95.31	7/19/19	TC-74.10	7/16/21				
BP-3.2	1/18/19	MT-95.32	4/19/19						
		MT-97.10	4/19/19						
CB-2-2B	7/16/21	MT-97.12	1/20/17						
		MT-101.60	1/17/20						
MH-3	7/16/21	MT-101.90	7/17/20						
		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-52.10	10/18/13						
BP-4.1	7/19/13	TC-52.20	1/15/21						
BP-7.1	7/17/20	TC-61.30	7/19/19						
BP-9.1	1/18/19	TC-64.10	7/16/21						
		TC-65.10	1/17/14						

SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
800-2020	1/21/22	WPC 2/11/22
821	4/20/12	
832	10/19/18	
872	4/17/20	
874	4/17/20	
875	1/18/19	
921	4/20/12	
940	4/17/15	

TITLE SHEET

DESIGN AGENCY

DESIGNER MJP
REVIEWER MAC 09-24-21
PROJECT ID 96551
SHEET P.1 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 12/16/2021 TIME: 9:08:31 AM USER: mpallagan
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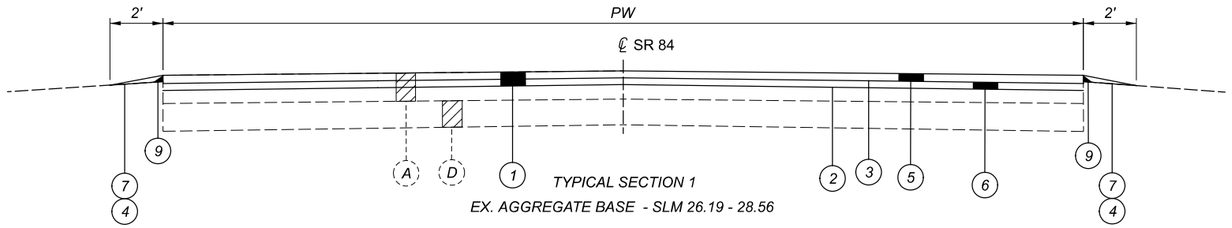
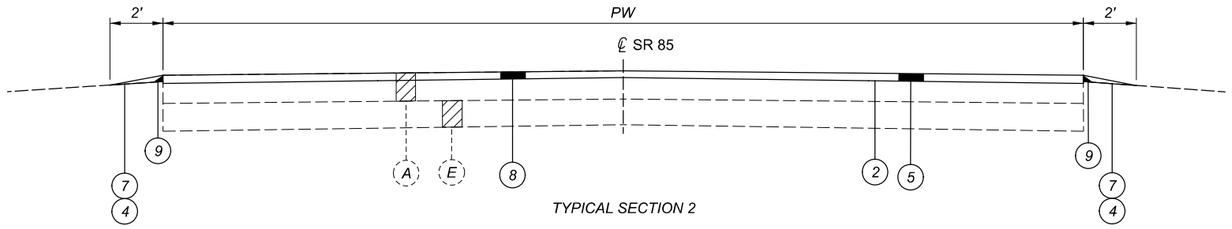


TYPICAL SECTION 1

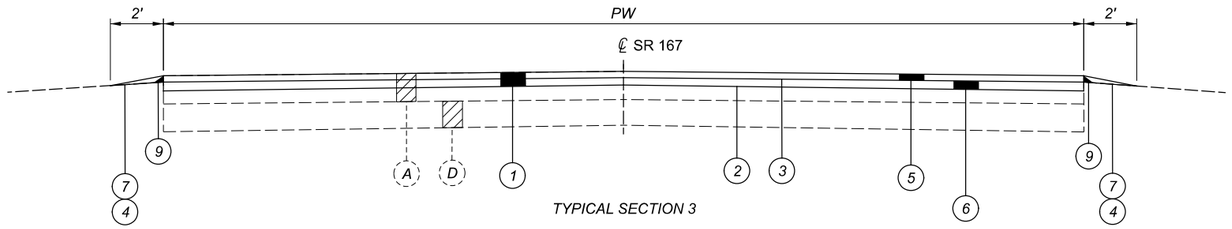
EX. AGGREGATE BASE - SLM 26.19 - 28.56

TYPICAL SECTION 1				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
SR 84	21.80	25.81	4.01	25
SR 84	25.82	28.56	2.74	25



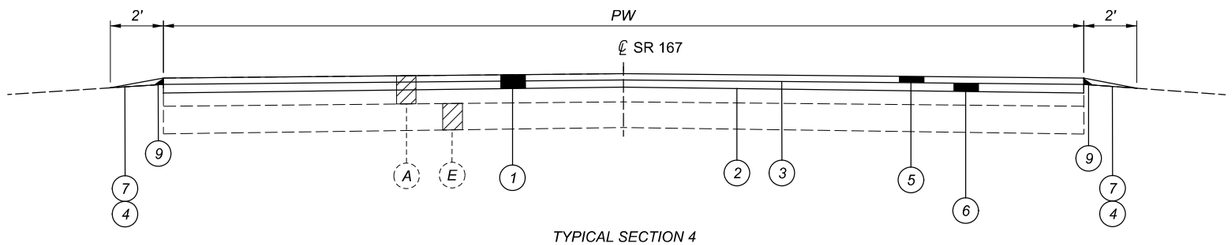
TYPICAL SECTION 2

TYPICAL SECTION 2				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
SR 85	0.00	0.47	0.47	26



TYPICAL SECTION 3

TYPICAL SECTION 3				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
SR 167	2.17	2.31	0.14	26
SR 167	2.31	2.34	0.03	31 (AVG.)
SR 167	2.37	2.40	0.03	31 (AVG.)
SR 167	2.40	2.77	0.37	27
SR 167	2.77	2.99	0.22	36 (AVG.)
SR 167	2.99	3.05	0.06	43
SR 167	3.09	3.16	0.07	43
SR 167	3.16	3.29	0.13	35 (AVG.)



TYPICAL SECTION 4

TYPICAL SECTION 4				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
SR 167	3.29	5.35	2.06	24
SR 167	5.36	7.69	2.33	24

LEGEND

1. *ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T = 3")*
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 @ 0.4 GAL/SY*
5. *ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M (446), AS PER PLAN (T = 1 ¼")*
6. *ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (446) (T = 1 ¾")*
7. *ITEM 617, CRUSHED AGGREGATE, AS PER PLAN (T = 2")*
8. *ITEM 897, PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1 ¼")*
9. *SAFETY EDGE, PER SCD BP-3.2*

- A *EXISTING ASPHALT SURFACE*
- B *EXISTING BRICK/ASPHALT BASE*
- C *EXISTING CURB*
- D *EXISTING ASPHALT BASE*
- E *EXISTING CONCRETE BASE*
- F *EXISTING ASPHALT/AGGREGATE BASE*

TYPICAL SECTIONS

ATB-84/VAR-21.80/VAR

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DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

SHEET P.2 TOTAL 48

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.

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

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

CHARTER
ATTN: JASON SPRAGUE
2904 STATE ROAD, ASHTABULA, OH 44004
PHONE: 216-575-8016 CELL: 440-361-0024
jason.sprague@charter.com

C & D OIL AND GAS
ATTN: BRENT
PHONE: 440-858-2114 CELL: 440-994-9022
triplebgas@gmail.com

DOMINION ENERGY
ATTN: MICAH RISACHER
320 SPRINGSIDE DRIVE, SUITE 320, AKRON, OH 44333
330-664-2638
micah.j.risacher@dominionenergy.com; relocation@dominionenergy.com

EVERSTREAM
ATTN: GIO REILLO
1228 EUCLID AVE, SUITE 250, CLEVELAND, OH 44115
CELL: 216-905-0780
greillo@everstream.net

GREATWAVE COMMUNICATIONS (OLD CONNEAUT TELEPHONE CO.)
ATTN: DON ZAPPITELLI
224 STATE ST, CONNEAUT, OH 44030
440-593-7100
donzapp@greatwavecom.com

G 4 S
ATTN: MARK BRADFORD
4 WALKER WAY, SUITE 1, ALBANY, NY 12005
OFFICE: 518-527-5064 x107 CELL: 518-362-6060
Mark.bradford@adestagroup.com

THE ILLUMINATING COMPANY
ATTN: JOHN ZASSICK
6896 MILLER ROAD, BRECKSVILLE, OH 44141
440-546-8706
jmzassick@firstenergycorp.com

TUSSEL, JR. COMPANY
ATTN: CARL TUSSEL
141 E. JEFFERSON ST, JEFFERSON, OH 44047
OFFICE: 440-576-3415 CELL: 440-645-4550
mimpa11@yahoo.com

WINDSTREAM
ATTN: RAMON FRENCH
205 S. HAMBDEN ST, CHARDON, OH 44024
440-285-5537
Ramon.French@windstream.com

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. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

PAVING AT RAILROAD CROSSING

WORK THE CROWN OUT OF THE PROPOSED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE NEW PAVEMENT TO MEET THE PLATFORM ELEVATION.

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 CONTRACTOR'S 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.

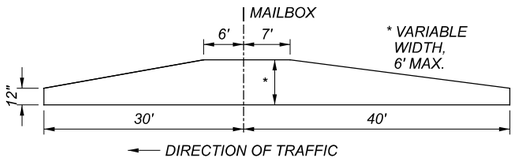
ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

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 STANDARD CONSTRUCTION DRAWING 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.

PAVED MAILBOX APPROACHES

ALL EXISTING MAIL BOX APPROACHES WILL BE PAVED WITH ASPHALT CONCRETE AS PER TYPICAL SHOWN OR AS NEAR AS PRACTICAL. AGGREGATE APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS; IMPROVED APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS. THE CONTRACTOR SHALL HAVE THE OPTION OF PAVING THE MAILBOX APPROACHES WITH THE MAINLINE AND SHOULDERS. ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL, AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448).



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 ITEM OF 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.

UTILITY POLE REMOVAL (SR 84 @ SR 7)

THE EXISTING UTILITY POLE AT THE NE CORNER OF THE INTERSECTION OF SR 84 AND SR 7 WILL BE REMOVED AS PART OF THIS PROJECT (SR 7: STA. 264+10, 39' RT). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202, REMOVAL MISC.: UTILITY POLE REMOVED 1 EA

THIS ITEM SHALL INCLUDE REMOVAL OF THE POLE AND ALL FIXTURES CONNECTED TO IT.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, PG70-22M (448), AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

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

SURVEYING PARAMETERS (SR 84 @ SR 7)

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

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2018

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 1.000000000
ORIGIN OF COORDINATE SYSTEM: EASTING (X): 0, NORTHING (Y): 0

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

UNITS ARE IN U.S. SURVEY FEET.

GENERAL NOTES

DESIGN AGENCY

DESIGNER MJP
REVIEWER MAC 09-24-21
PROJECT ID 96551
SHEET P.3 TOTAL 47

ATB-84/VAR-21.80/VAR

MODEL: Sheet 1 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:24:10 AM USER: mpallagan
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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.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

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, 807 STA.
659, SEEDING AND MULCHING, 22,419 SQ YD
659, COMMERCIAL FERTILIZER, 3.03 TON
659, LIME, 4.62 ACRES
659, WATER, 121.1 M. GAL.

ITEM 611 CATCH BASIN ADJUSTED TO GRADE

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 611, CATCH BASIN ADJUSTED TO GRADE, 20 EA

ITEM 611 CATCH BASIN RECONSTRUCTED TO GRADE (SR 85)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 611, CATCH BASIN RECONSTRUCTED TO GRADE, 10 EA

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:
SR 167: SLM 2.77 - 3.05
SR 167: SLM 3.09 - 3.29

CENTER LINE:
SR 167: SR 2.17 - 2.34
SR 167: SR 2.34 - 3.05
SR 167: SR 3.09 - 3.29

ITEM 618, RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE) 0.48 MILES
ITEM 618, RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE) 1.08 MILES
ITEM 874, LONGITUDINAL JOINT PREPARATION 5703 FT

ITEM 611 – MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 623 – MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN
ITEM 638 – VALVE BOX ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, 623.05 FOR MONUMENT BOXES, OR 638.18 FOR VALVE 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 ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 611, MANHOLE ADJUSTED TO GRADE, AS PER PLAN, 10 EA
ITEM 623, MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN, 17 EA

EXCAVATION AND EMBANKMENT (SR 167)

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED FROM SHEETS P.32 - P.34 AND CARRIED TO THE GENERAL SUMMARY:

ITEM 203, EXCAVATION	246 CY
ITEM 203, EMBANKMENT	291 CY

SEEDING AND MULCHING (SR 84)

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

659, TOPSOIL 149 CU. YD.
659, SEEDING AND MULCHING 1337 SQ. YD.
659, REPAIR SEEDING AND MULCHING 67 SQ. YD.
659, COMMERCIAL FERTILIZER 0.18 TON
659, LIME 0.28 ACRES
659, WATER 3.61 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.

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATEDQUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 310 CU YD

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).

   IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

   PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204, EXCAVATION OF SUBGRADE.

ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

203, EXCAVATION (FOR PAVEMENT REPAIR) 310 CU YD

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. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. 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), 7,920 SQ. YD. (SR 84)
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 85 SQ. YD. (SR 85)
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 6,520 SQ. YD. (SR 167)

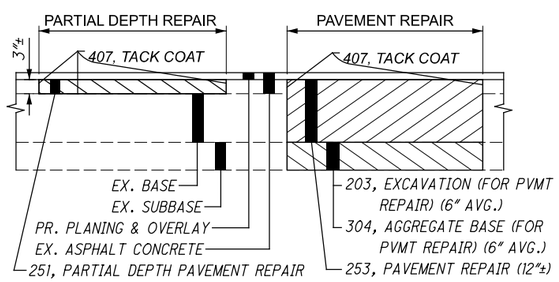
ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"` 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SR 84:
252, FULL DEPTH PAVEMENT SAWING, 5,940 FT
253, PAVEMENT REPAIR, 990 SQ YD

SR 85:
252, FULL DEPTH PAVEMENT SAWING, 240 FT
253, PAVEMENT REPAIR, 40 SQ YD

SR 167:
252, FULL DEPTH PAVEMENT SAWING, 4,890 FT
253, PAVEMENT REPAIR, 815 SQ YD



GENERAL NOTES

DESIGN AGENCY

DESIGNER MJP
REVIEWER MAC 09-24-21
PROJECT ID 96551
SHEET P.4 TOTAL 47

ATB-84/VAR-21.80/VAR

MODEL: Sheet 2 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:24:14 AM USER: mpallagan
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ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449) (DRIVEWAYS), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PAVING ALL EXISTING DRIVEWAYS THAT DO NOT HAVE A CURB CUT OR ARE NOT PAVED AS AN INTERSECTION AS SHOWN ON THE ASPHALT CONCRETE PLAN SHEET. DRIVEWAYS ARE TO BE PAVED A DISTANCE OF 4 FT. FROM THE EDGE OF PAVED SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRIVEWAYS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. ASPHALT CONCRETE AVERAGE THICKNESSES SHALL BE 2 IN. FOR AGGREGATE DRIVEWAYS (UNIMPROVED) AND 1 IN. FOR IMPROVED DRIVEWAYS. AGGREGATE DRIVEWAYS SHALL BE GRADED PRIOR TO PAVING SUCH THAT SURFACE DRAINAGE DOES NOT ENCROACH UPON THE PAVED SHOULDER AND SHALL BE GRADED TO ACHIEVE THE THICKNESS OF THE SURFACE COURSE. THE MAXIMUM PAVED WIDTH SHALL NOT EXCEED THAT ALLOWED FOR THROAT AND RADIUS FOR UNCURBED DRIVEWAYS AS PER STANDARD DRIVE DESIGN MANUAL. ALL GRADING, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE DRIVEWAYS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (449) (DRIVEWAYS), AS PER PLAN.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS ARE 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
SR 84	21.80	28.56	10'
SR 85	0.00	0.47	11'
SR 167	2.17	7.69	11'

STREAM IMPACT AVOIDANCE AT ATB-84-2598:

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED BELOW THE ORDINARY HIGH WATER MARK OF THE ASHTABULA CREEK AT ATB-84-2598. USE OF MOTORIZED EQUIPMENT BELOW ORDINARY HIGH WATER MARK OF ANY STREAM IS PROHIBITED. USE OF LADDERS AND SCAFFOLDING IS PERMITTED AT THE ATB-84-2598 BRIDGE LOCATION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN STREAMS OR OTHER JURISDICTIONAL WATERS OF THE UNITED STATES. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS AND/OR WETLANDS.

ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

ALL PROVISIONS OF ITEM 254 IN THE CMS WILL APPLY WITH THE FOLLOWING EXCEPTIONS:

1750 CUBIC YARDS WILL BE DELIVERED BY THE CONTRACTOR TO:
Ashtabula County Highway Garage
186 East Satin Street
Jefferson, Ohio 44047

1750 CUBIC YARDS WILL BE DELIVERED BY THE CONTRACTOR TO:
Ashtabula County Highway Garage-Kingsville Outpost
2625 South Ridge Road East
Kingsville, Ohio 44048

THE CONTRACTOR WILL NOTIFY ASHTABULA COUNTY HIGHWAY SUPERINTENDENT, AMIR GARAKOUEI, 440-576-4039 OFFICE OR 440-813-8229 MOBILE, TEN DAYS PRIOR TO DELIVERING THE GRINDINGS. THE CONTRACTOR WILL SUPPLY ALL LABOR AND EQUIPMENT TO STOCKPILE THE MATERIAL IN A MANNER ACCEPTABLE TO THE ENGINEER, CONTINOUS END DUMPING WILL NOT BE PERMITTED.

GENERAL NOTES

ATB-84/VAR-21.80/VAR

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DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

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 BIDIRECTIONAL 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.

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

7. 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.

8. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

9. 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.

10. A QUANTITY OF 20 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.

A QUANTITY OF 10 CU. YDS. OF ITEM 411 STABILIZED CRUSHED AGGREGATE SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

11. 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.

12. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; W8-11 [UNEVEN LANES] PER OMUCTD 6F.45; AND W6-3 [TWO-WAY TRAFFIC] PER OMUTCD 6F.32. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614-MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04.

13. 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.

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

SR 84, SR 167
PHASE 1: MILLED SURFACE
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 12.28 MILE
614, WORK ZONE STOP LINE, CLASS I, 642 PAINT, 108 FT
614, WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT, 165 FT
614, WORK ZONE MARKING SIGN,(ALL PHASES) 40 EACH

PHASE 2: INTERMEDIATE COURSE
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 12.28 MILE
614, WORK ZONE STOP LINE, CLASS I, 642 PAINT, 108 FT
614, WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT, 165 FT

PHASE 3: SURFACE COURSE
614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 24.56 MILE
614, WORK ZONE STOP LINE, CLASS III, 642 PAINT, 108 FT
614, WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT, 165 FT

TO BE USED AS DIRECTED BY THE ENGINEER
614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT, 25.50 MILE

SR 85
PHASE 1: MILLED SURFACE
614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT, 0.47 MILE
614, WORK ZONE STOP LINE, CLASS I, 642 PAINT, 11 FT

PHASE 2: SURFACE COURSE
614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 0.94 MILE
614, WORK ZONE STOP LINE, CLASS III, 642 PAINT, 11 FT

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.

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.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSSESSED A DISINCENTIVE IN THE AMOUNT OF $3,000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMT.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT THE FOLLOWING PROJECTS MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE LIMITS OF THIS PROJECT:

D04-SIGN-FY2022 (PID 103278)

THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

DROPOFFS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND 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 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.

DETOUR NOTIFICATION [ASHTABULA COUNTY]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) AND THE ASHTABULA COUNTY ENGINEER (440-576-3707) 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.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

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 CLOSURE	>= 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.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (ATB-167-0440)

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 CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 7. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $4,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

INTERIM START DATE & WEEKEND WORK LIMITATIONS (SR 85)

NO WORK ON SR 85 SHALL BEGIN PRIOR TO SEPTEMBER 6, 2022. WORK ON SR 85 MAY ONLY OCCUR BETWEEN MON-THURS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $7,000 PER DAY THAT THE WORK IS PERFORMED BEYOND THESE LIMITS BEYOND THE SPECIFIED LIMIT.

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.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER MJP
REVIEWER MAC 11-22-21
PROJECT ID 96551
SHEET P.6 TOTAL 48

ATB-84/VAR-21.80/VAR

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ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

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

IN ADDITION TO THE REQUIREMENTS OF CMS 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 THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).
- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

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.

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 IN WORK ZONE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. 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.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. 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 WHICH 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 100 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.

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 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.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE 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 DISTANCE 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. PCMS TRAILERS SHOULD BE DELINEATED.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. 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 THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF. ADDITIONALLY WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE 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 CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. 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 OF 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, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.07. THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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, 8 SIGN MONTH
ASSUMING 4 SIGNS FOR 2 MONTHS

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

SHEET P.7 TOTAL 48

ATB-84/VAR-21.80/VAR

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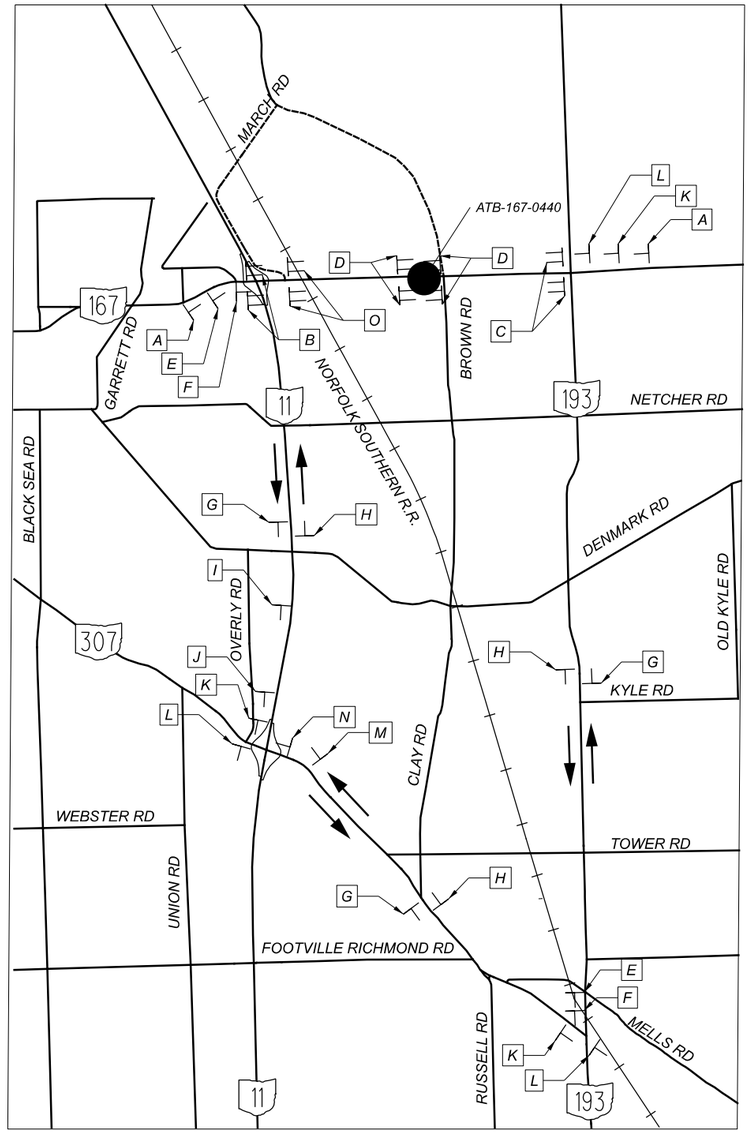


DETOUR ROUTE FOR: ATB-167-0440

DETOUR ROUTE: SR 11 / SR 307 / SR 193

CLOSED AS PER SCD MT-101.60

LOCAL DETOUR ROUTE: MARCH RD / BROWN RD

NOT TO SCALE

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

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

A

W20-2-36

B #

R11-3a-60
M4-10R-48

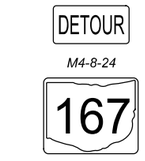
C #

R11-3a-60
M4-10L-48

D #

R11-2-48

E



M4-8-24
M1-5-30-3
M5-1-21

F

M4-8-24
M1-5-30-3
M6-1-21

G

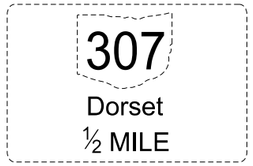
M4-8-24
M3-2-30
M1-5-30-3
M6-3-21

H

M4-8-24
M3-4-30
M1-5-30-3
M6-3-21

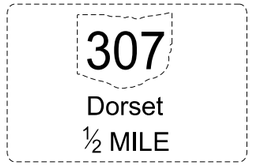
I

M4-8-24
M1-5-30-3

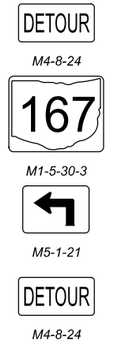


J

M4-8-24
M1-5-30-3
M6-2-21



K

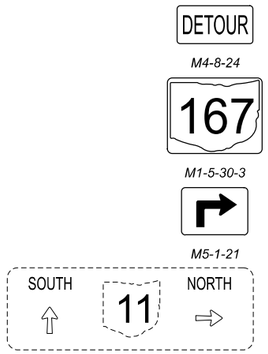


M4-8-24
M1-5-30-3
M5-1-21

L

M4-8-24
M1-5-30-3
M6-1-21

M



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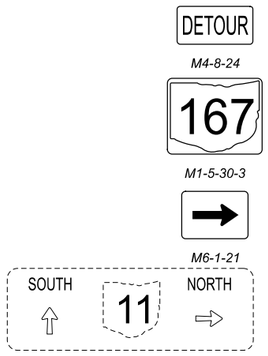
M1-5-30-3
M5-1-21

N



M4-8-24
M1-5-30-3
M6-1-21

O #

R11-3a-60

DETOUR PLAN

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

SHEET P.8 TOTAL 48

ATB-84/VAR-21.80/VAR

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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	3	4	11	15	17	20	29	31	35		01/STR/PV	03/STR/BR	04/STR/OT/ANDO						
																		ROADWAY	
						1					1			202	20010	1	EACH	HEADWALL REMOVED	
						309	30		230		339	230		202	23000	569	SY	PAVEMENT REMOVED	
			1,122										1,122	202	30000	1,122	SF	WALK REMOVED	
								212.5				212.5		202	38000	212.5	FT	GUARDRAIL REMOVED	
								3				3		202	42010	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
								1				1		202	42040	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
						2					2			202	98100	2	EACH	REMOVAL MISC.: BOLLARD REMOVED	20
						1					1			202	98100	1	EACH	REMOVAL MISC.: TELEPHONE BOX REMOVED	20
	1										1			202	98100	1	EACH	REMOVAL MISC.: UTILITY POLE REMOVED	3
		246									246			203	10000	246	CY	EXCAVATION	
		310									310			203	10000	310	CY	EXCAVATION (FOR PAVEMENT REPAIR)	
		291							55		291	55		203	20000	346	CY	EMBANKMENT	
									55			55		203	35120	55	CY	GRANULAR MATERIAL, TYPE C	
						615	30		218		645	218		204	10000	863	SY	SUBGRADE COMPACTION	
						1	1				2			204	45000	2	HOUR	PROOF ROLLING	
									105			105		204	50000	105	SY	GEOTEXTILE FABRIC, TYPE D	
		807									807			209	60200	807	STA	LINEAR GRADING	
						521					521			209	72000	521	STA	PREPARING SUBGRADE FOR SHOULDER PAVING	
								162.5				162.5		606	15100	162.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
								37.5				37.5		606	17350	37.5	FT	GUARDRAIL, TYPE MGS, 25' LONG-SPAN	
								1				1		606	26050	1	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
								1				1		606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
			98										98	608	10000	98	SF	4" CONCRETE WALK	
			1,024										1,024	608	52000	1,024	SF	CURB RAMP	
		17									17			623	39501	17	EACH	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN	4
	LUMP								LUMP		LUMP			SPECIAL	69098400	LS		SURVEY CONTROL VERIFICATION	3
																		EROSION CONTROL	
		149							88		149	88		659	00300	237	CY	TOPSOIL	
		23,756							790		23,756	790		659	10000	24,546	SY	SEEDING AND MULCHING	
		67							40		67	40		659	14000	107	SY	REPAIR SEEDING AND MULCHING	
		3.21							0.11		3.21	0.11		659	20000	3.32	TON	COMMERCIAL FERTILIZER	
		4.9							0.16		4.9	0.16		659	31000	5.06	ACRE	LIME	
		124.71							2.13		124.71	2.13		659	35000	126.84	MGAL	WATER	
											5,000			832	30000	5,000	EACH	EROSION CONTROL	
																		DRAINAGE	
						5					5			611	04400	5	FT	12" CONDUIT, TYPE B	
						55					55			611	04600	55	FT	12" CONDUIT, TYPE C	
						11					11			611	04600	11	FT	12" CONDUIT, TYPE C, 706.02	
						3					3			611	98470	3	EACH	CATCH BASIN, NO. 2-2B	
		20									20			611	98630	20	EACH	CATCH BASIN ADJUSTED TO GRADE	
		10											10	611	98634	10	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
		10									10			611	99655	10	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	4
																		PAVEMENT	
		14,525									14,525			251	01000	14,525	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
		22,140				521					22,661			252	01500	22,661	FT	FULL DEPTH PAVEMENT SAWING	
		3,690									3,690			253	01000	3,690	SY	PAVEMENT REPAIR	
				85,421	62,986	2,280					150,686			254	01000	150,687	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 3")	
				21,000	21,000						42,000			254	01001	42,000	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = 3")	5
									218			218		255	20000	218	FT	FULL DEPTH PAVEMENT SAWING	
						270	3		91		273	91		301	56000	364	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						114					114			304	20000	114	CY	AGGREGATE BASE	
		310									310			304	20000	310	CY	AGGREGATE BASE (FOR PAVEMENT REPAIR)	
									36			36		304	20001	36	CY	AGGREGATE BASE, AS PER PLAN	34

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

SHEET P.9 TOTAL 48

ATB-84/VAR-21.80/VAR

SHEET NUM.														PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	5	6	7	11	15	16	17	18	19	20	29	31	35	01/STR/PV	03/STR/BR	04/STR/OT/ANDO						
																					PAVEMENT	
													4		4		407	13900	4	GAL	TACK COAT, 702.13	
					13,836	826	10,919			667	2		46	26,249	47		407	20000	26,296	GAL	NON-TRACKING TACK COAT	
					6,280	442	5,107			82				11,911			408	10001	11,911	GAL	PRIME COAT, AS PER PLAN	4
					3,696	359	2,917			80				7,052			441	10101	7,052	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN	4
					5,174		4,083			111				9,368			441	10200	9,368	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	
											2			2			441	70501	2	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS),	5
				8												8	609	26000	8	FT	CURB, TYPE 6	
					873	62	710			12				1,657			617	10101	1,657	CY	COMPACTED AGGREGATE, AS PER PLAN	4
0.48														0.48			618	41000	0.48	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
1.08														1.08			618	43000	1.08	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
5,703														5,703			874	20000	5,703	FT	LONGITUDINAL JOINT PREPARATION	
						8,905								8,905			897	01010	8,905	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1 1/4")	
																					WATER WORK	
				1												1	638	10800	1	EACH	VALVE BOX ADJUSTED TO GRADE	
																					TRAFFIC CONTROL	
								892						892			621	00100	892	EACH	RPM	
								714						714			621	54000	714	EACH	RAISED PAVEMENT MARKER REMOVED	
												4			4		626	00102	4	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)	
										4				4			630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
										4				4			630	86010	4	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
													0.04		0.04		642	00114	0.04	MILE	EDGE LINE, 6", TYPE 1A	
													0.02		0.02		642	00310	0.02	MILE	CENTER LINE, TYPE 1A	
									25.5					25.5			646	10010	25.5	MILE	EDGE LINE, 6"	
									12.75					12.75			646	10200	12.75	MILE	CENTER LINE	
									165					165			646	10300	165	FT	CHANNELIZING LINE, 8"	
									119					119			646	10400	119	FT	STOP LINE	
									118					118			646	10520	118	FT	CROSSWALK LINE, 24"	
									113					113			646	10600	113	SF	ISLAND MARKING	
									2					2			646	20000	2	EACH	RAILROAD SYMBOL MARKING	
									1					1			646	20110	1	EACH	SCHOOL SYMBOL MARKING, 96"	
									4					4			646	20300	4	EACH	LANE ARROW	
																					STRUCTURE REPAIRS	
																					FOR ATB-84-2598 ESTIMATED QUANTITIES	37
																					STRUCTURES 20 FOOT SPAN AND UNDER	
																					FOR ATB-167-0440 ESTIMATED QUANTITIES	37
																					MAINTENANCE OF TRAFFIC	
			100											100			614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		LUMP												LUMP			614	12420	LS		DETOUR SIGNING	
		40												40			614	12460	40	EACH	WORK ZONE MARKING SIGN	
		20												20			614	13000	20	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
			8											8			614	18601	8	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	6
	0.94	24.56												25.5			614	21100	25.5	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
	0.47	24.56												25.03			614	21550	25.03	MILE	WORK ZONE CENTER LINE, CLASS II, 642 PAINT	
		25.5												25.5			614	22360	25.5	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
		330												330			614	23200	330	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
		165												165			614	23680	165	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	
	216	227												443			614	26200	443	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
	22	119												141			614	26610	141	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
																					INCIDENTALS	
														LUMP			614	11000	LS		MAINTAINING TRAFFIC	
														9			619	16010	9	MNTH	FIELD OFFICE, TYPE B	
														LUMP			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
														LUMP			624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

SHEET P.10 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Sheet 2 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:24:56 AM USER: mpalagan
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MAIN ROUTE	INTERSECTING ROUTE	SLM	DESIGN SHEET	QUADRANT RL=REAR LT, RR=REAR RT FL=FWD LT, FR=FWD RT (LOOKING UPSTATION)	CURB RAMP TYPE (SCD BP-7.1, SHEET 2/3)	202 WALK REMOVED SF	202 CURB REMOVED FT	203 EXCAVATION (FOR WALK OR CURB RAMP INSTALLATION) CY	608 4" CONCRETE WALK SF	608 CURB RAMP SF	608 DETECTABLE WARNING SF	609 CURB, TYPE 6 FT	611 MANHOLE ADJUSTED TO GRADE EACH	625 PULL BOX, MISC.; ADJUSTED TO GRADE EACH	638 VALVE BOX ADJUSTED TO GRADE EACH			COMMENTS
SR 85	US 6 / SR 7	0.00	-	FL	D	121.00				121.00		2.00			1.00			VALVE BOX (POSS. WAIVER)
			-	FR	D	182.00				182.00		2.00						
SR 85	DEPOT ST	0.06	-	FL	A2-3	32.00			32.00									
			-	RL	A2-3	51.00			16.00	35.00								
SR 85	MILL ST	0.06	-	FR	OK													
			-	RR	A2-3	100.00			50.00	50.00								
SR 85	DAIRY OASIS	0.17	-	FL	A2-C2	160.00				160.00								POSS. WAIVER
			-	FR	A2-C3	144.00				144.00								
SR 85	CLEVELAND AVE	0.18	-	FL	OK	0.00												
			-	RL	OK	0.00												
SR 85	CENTER ST	0.20	-	FR	A2-3	80.00				80.00		2.00						
			-	RR	A2-3	60.00				60.00		2.00						
SR 85	HOWE ST	0.31	-	FR	A2-3	80.00				80.00								
			-	RR	A2-3	64.00				64.00								
SR 85	PARKER DR	0.43	-	FR	A2-3	48.00				48.00								
					SUBTOTALS	1122.00	0.00	0.00	98.00	1024.00	0.00	8.00	0.00	0.00	1.00	0.00	0.00	
					TOTALS CARRIED TO GENERAL SUMMARY	1122	0	0	98	1024	0	8	0	0	1	0	0	

CURB RAMP SUBSUMMARY

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

SHEET P.11 TOTAL 48

ATB-84/VAR-21.80/VAR

MAIN ROUTE	INTERSECTION ROUTE	DESIGN SHEET	QUADRANT	CURB RAMP TYPE	DIMENSIONS (FEET)							MAIN ROUTE	INTERSECTION ROUTE	DESIGN SHEET	QUADRANT	CURB RAMP TYPE	DIMENSIONS (FEET)						
					A	B	C	D	E	F	G						A	B	C	D	E	F	G
SR 85	DEPOT ST		FL	A2-3				8	4														
			RL	A2-3	7	4	4		5														
SR 85	MILL ST		RR	A2-3	5	5			5														
SR 85	DAIRY OASIS		FL	C2	12	5		12	4	13													
			FR	C2	12	4		12	4	12													
SR 85	CENTER ST		FR	A2-3	16				5														
			RR	A2-3	12				5														
SR 85	HOWE ST		FR	A2-3	20				4														
			RR	A2-3	16				4														
SR 85	PARKER DR		FR	A2-3	12				4														

CURB RAMP SUBSUMMARY

DESIGN AGENCY

DESIGNER
MJP

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SHEET P.12 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Sheet 2 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:25:33 AM USER: mpalagan
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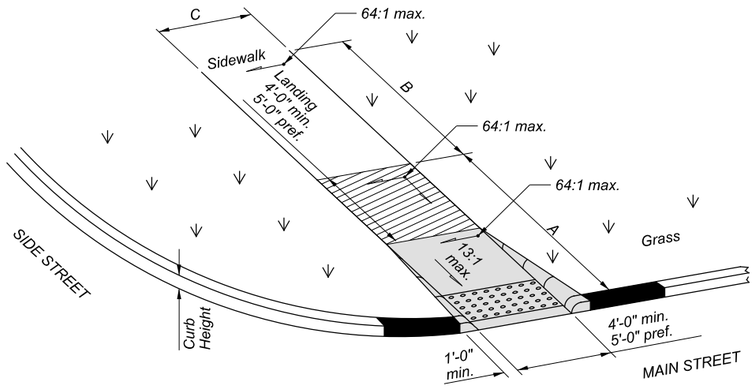
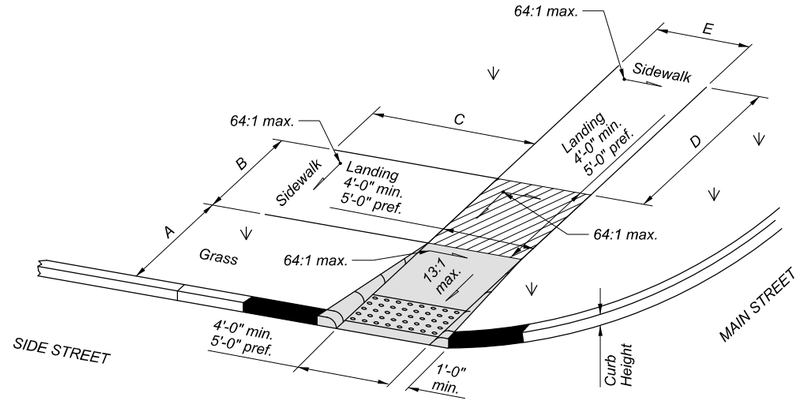
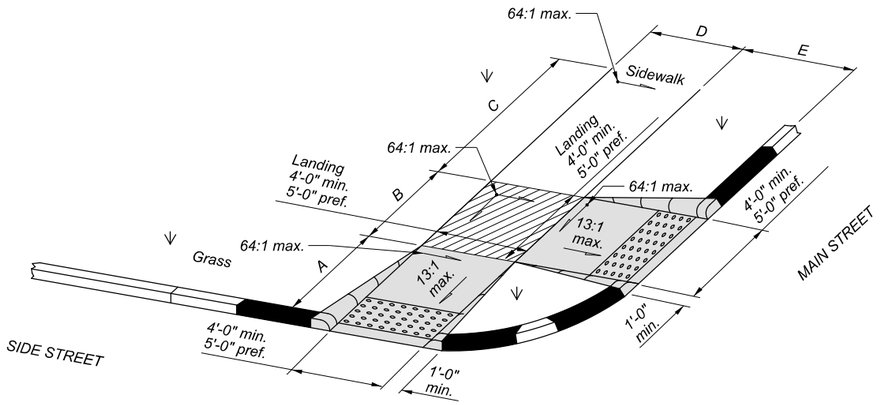
* ALIGN TRUNCATED DOMES WITH THE PRIMARY DIRECTION OF THE RAMP FOR SKEWED CONDITIONS



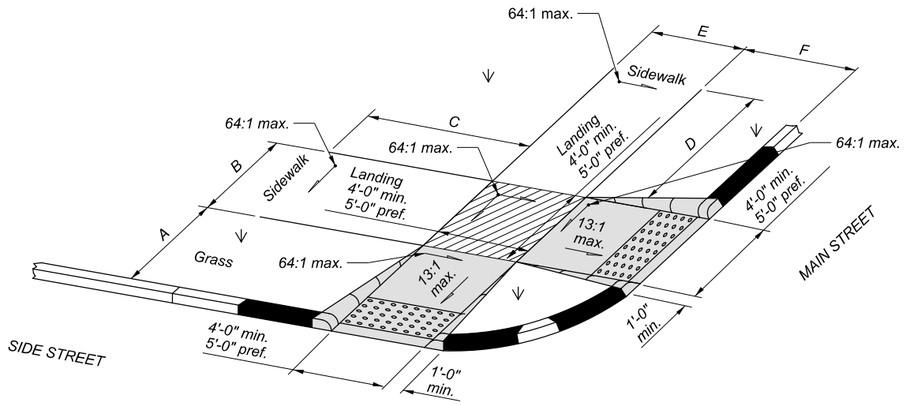
Type A2 - 2



Type A2 - 3



Type A2 - 4



Type A2 - 5

CONCRETE WALK
LANDING PAD
CURB RAMP
CURB

* SEE SHEET 17 FOR DIMENSIONS
* SEE SCD BP-7.1 FOR ALL OTHER DETAILS

CURB RAMP SUBSUMMARY

DESIGN AGENCY

DESIGNER
MJP

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SHEET P.13 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Sheet 3 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:26:48 AM USER: mpallagan
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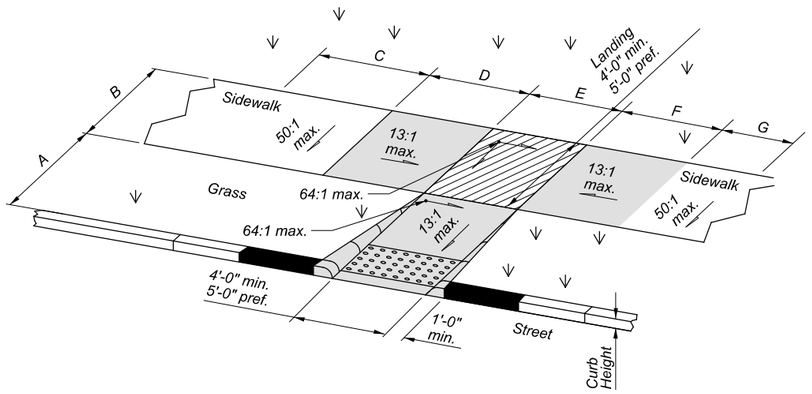
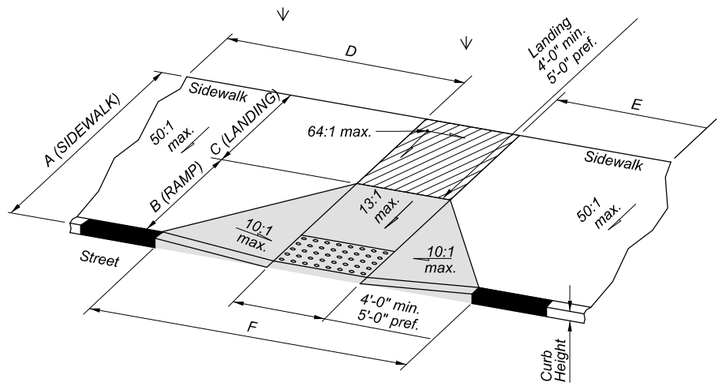
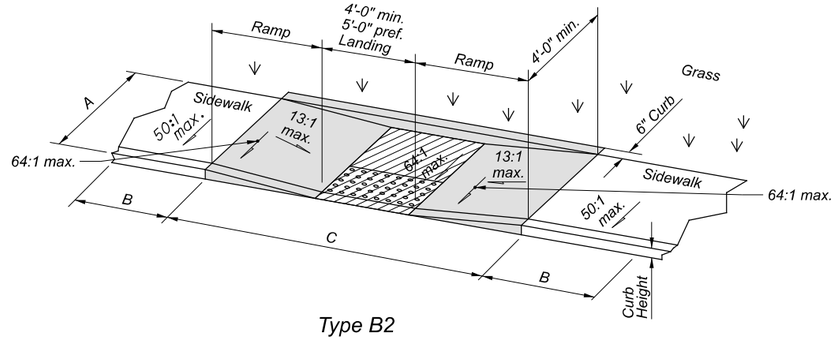
* ALIGN TRUNCATED DOMES WITH THE PRIMARY DIRECTION OF THE RAMP FOR SKEWED CONDITIONS



Type A2/C2



Type D (A1)



Type B2

CONCRETE WALK
LANDING PAD
CURB RAMP
CURB

* SEE SHEET 17 FOR DIMENSIONS
* SEE SCD BP-7.1 FOR ALL OTHER DETAILS

CURB RAMP SUBSUMMARY

DESIGN AGENCY

DESIGNER
MJP

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SHEET P.14 | TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Sheet 4 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:25:49 AM USER: mpallagan
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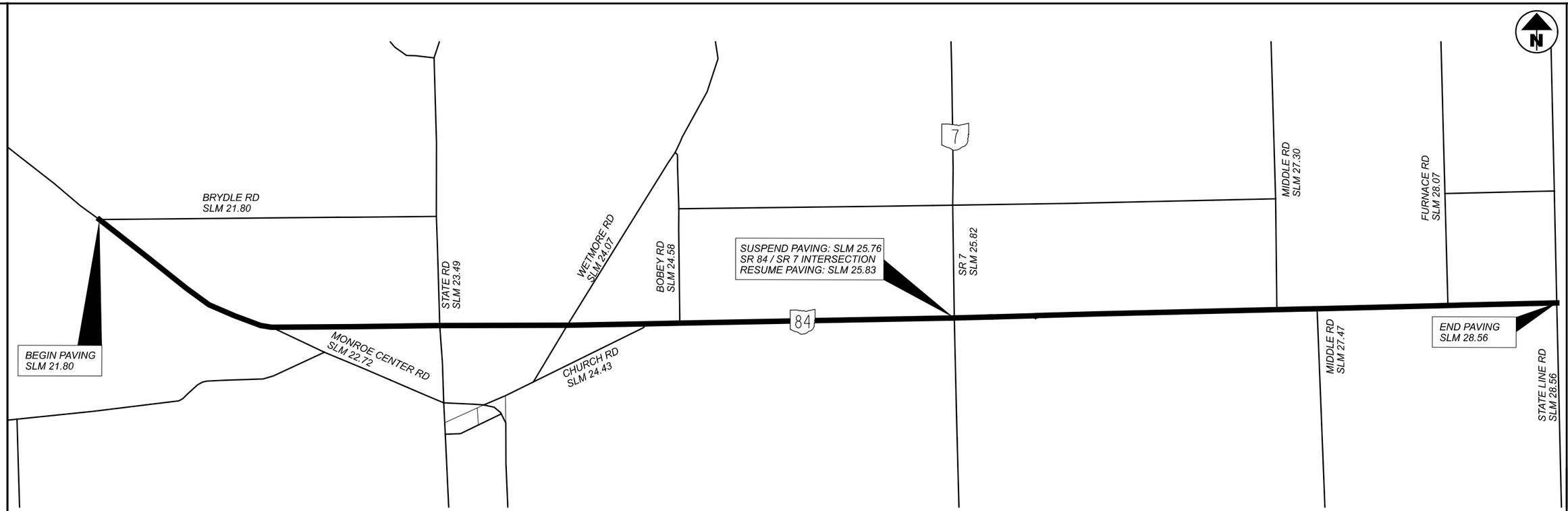


BUTT JOINTS PER SCD BP-3.1

SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = 3")	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), AS PER PLAN (PG70-22M) (T = 1 1/4")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) (T = 1 3/4")	617 COMPACTED AGGREGATE, AS PER PLAN (T = 2")	897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1 1/4")									
					FT	FT	SY	SY	SY	SY	GAL	GAL	GAL	CY	CY	CY	SY										
SR 84																										
21.80	TO	25.76	3	L/R	20908.80	25.00	58080.00		21000.00	37080.00	4646.40	2904.00	3717.12	2016.67	2823.33	516.27										
25.83	TO	28.56	3	L/R	14414.40	25.00	40040.00			40040.00	3203.20	2002.00	2562.56	1390.28	1946.39	355.91										
INTERSECTIONS																										
21.80	TO	28.56			VARIES	10.00		4125.00		4125.00	330.00	206.25		143.23	200.52											
DRIVEWAYS																										
21.80	TO	28.56						13.50		13.50	1.08	0.68		0.47	0.66											
MAILBOX APPROACHES																										
21.80	TO	28.56						4162.05		4162.05	332.96	208.10		144.52	202.32											
SUBTOTALS									21000.00	85420.55	8513.64	5321.03	6279.68	3695.16	5173.22	872.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS CARRIED TO GENERAL SUMMARY									21000	85421	8514	5322	6280	3696	5174	873	0	0	0	0	0	0	0	0	0	0

PAVEMENT CALCULATIONS (SR 84)

ATB-84/VAR-21.80/VAR

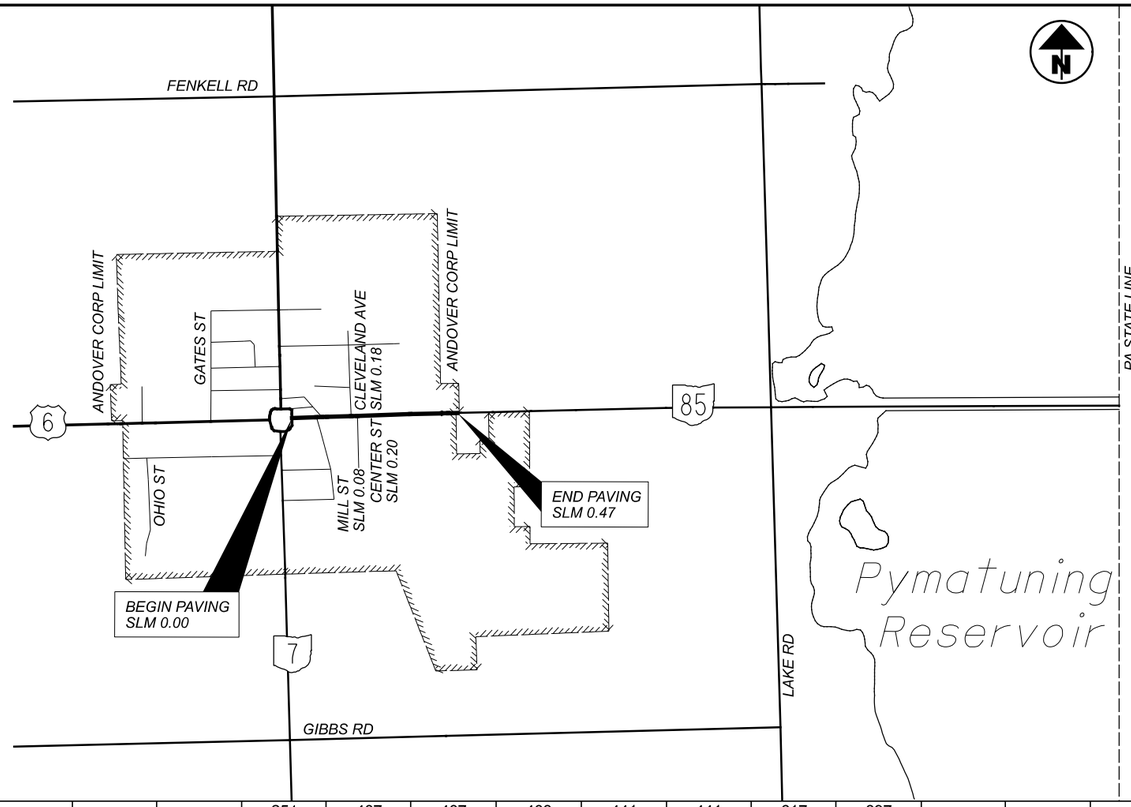
DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

SHEET P.15 TOTAL 48



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 = 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), AS PER PLAN (PG70-22M) (T = 1 1/4")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) (T = 1 3/4")	617 COMPACTED AGGREGATE, AS PER PLAN (T = 2")	897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1 1/4")									
					FT	FT	SY	SY		SY	GAL	GAL	GAL	CY	CY	CY	SY										
SR 85																										
0.00	TO	0.47	4	L/R	2481.60	31.00	8547.73				683.82		441.17	296.80		61.27	8547.73									
INTERSECTIONS																										
0.00	TO	0.47			VARIES	10.00		1775.00			142.00			61.63			1775.00									
DRIVEWAYS																										
0.00	TO	0.47						2.20			0.18			0.08			2.20									
								SUBTOTALS	0.00	0.0	826.0	0.00	441.17	358.50	0.00	61.27	10324.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
								TOTALS CARRIED TO GENERAL SUMMARY	0	0	826	0	442	359	0	62	10325	0	0	0	0	0	0	0	0	0

PAVEMENT QUANTITY CALCULATIONS (SR 85)

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

SHEET P.16 TOTAL 48

ATB-84/VAR-21.80/VAR

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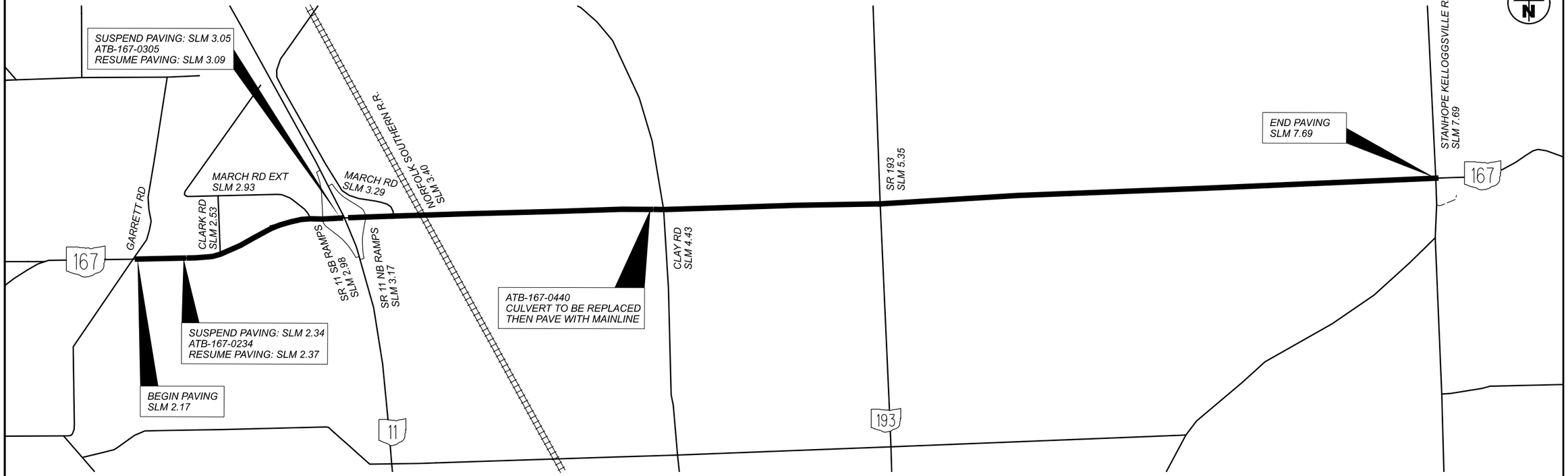

BUTT JOINTS PER SCD BP-3.1

SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = 3")	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), AS PER PLAN (PG70-22M) (T = 1 1/4")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) (T = 1 3/4")	617 COMPACTED AGGREGATE, AS PER PLAN (T = 2")	897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1 1/4")									
					FT	FT	SY	SY	SY	SY	GAL	GAL	GAL	CY	CY	CY	SY										
SR 167																										
2.17	TO	2.31	5	L/R	739.20	26.00	2135.47			2135.47	170.84	106.77	131.41	74.15	103.81	18.25										
2.31	TO	2.34	5	L/R	158.40	31.00	545.60			545.60	43.65	27.28	28.16	18.94	26.52	3.91										
2.37	TO	2.40	5	L/R	158.40	31.00	545.60			545.60	43.65	27.28	28.16	18.94	26.52	3.91										
2.40	TO	2.77	5	L/R	1953.60	27.00	5860.80			5860.80	468.86	293.04	347.31	203.50	284.90	48.24										
2.77	TO	2.99	5	L/R	1161.60	36.00	4646.40			4646.40	371.71	232.32	206.51	161.33	225.87	28.68										
2.99	TO	3.05	5	L/R	316.80	43.00	1513.60			1513.60	121.09	75.68	56.32	52.56	73.58	7.82										
3.09	TO	3.16	5	L/R	369.60	43.00	1765.87			1765.87	141.27	88.29	65.71	61.31	85.84	9.13										
3.16	TO	3.29	5	L/R	686.40	35.00	2669.33			2669.33	213.55	133.47	122.03	92.69	129.76	16.95										
3.29	TO	5.35	6	L/R	10876.80	24.00	29004.80			29004.80	2320.38	1450.24	1933.65	1007.11	1409.96	268.56										
5.36	TO	7.69	6	L/R	12302.40	24.00	32806.40		21000.00	11806.40	2624.51	1640.32	2187.09	1139.11	1594.76	303.76										
INTERSECTIONS																										
2.17	TO	7.69			VARIES	10.00		2475.00		2475.00	198.00	123.75		85.94	120.31											
DRIVEWAYS																										
2.17	TO	7.69						8.20		8.20	0.66	0.41		0.28	0.40											
MAILBOX APPROACHES																										
2.17	TO	7.69						8.20		8.20	0.66	0.41		0.28	0.40											
								SUBTOTALS	21000.00	62985.27	6718.82	4199.26	5106.35	2916.16	4082.62	709.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
								TOTALS CARRIED TO GENERAL SUMMARY	21000	62986	6719	4200	5107	2917	4083	710	0	0	0	0	0	0	0	0	0	0

PAVEMENT CALCULATIONS (SR 167)

ATB-84/VAR-21.80/VAR

MODEL: Sheet 3 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:26:13 AM USER: mpallagan
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DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

LOCATION									621	621	621		621	REMARKS
COUNTY	ROUTE	SECTION (S.L.M.)							RPM (WHITE)	RPM(YELLOW/YELLOW)	RPM (WHITE/RED)		RAISED PAVEMENT MARKER REMOVED	
		FROM	TO						EACH	EACH	EACH		EACH	
ATB	84	21.80	28.56						32	447			383	
ATB	167	2.17	7.69						32	375	6		330	
SUBTOTALS									64	822	6			
TOTALS CARRIED TO GENERAL SUMMARY										892			714	

RAISED PAVEMENT MARKER SUBSUMMARY

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

SHEET P.18 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:26:29 AM USER: mpallagan
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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	84	21.80	BRYDLE RD	28.56	PENNA STATE LINE	13.52						
ATB	85	0.00	US 6 / SR 7	0.47	ANDOVER CORP LIMIT	0.94						
ATB	167	2.17	GARRETT RD	7.69	STANHOPE-KELLOGGSVILLE RD	11.04						
TOTAL						25.50			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	84	21.80	BRYDLE RD	28.56	PENNA STATE LINE	6.76	6.97	
ATB	85	0.00	US 6 / SR 7	0.47	ANDOVER CORP LIMIT	0.47	0.80	
ATB	167	2.17	GARRETT RD	7.69	STANHOPE-KELLOGGSVILLE RD	5.52	4.79	
TOTAL						12.75	12.56	

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.	LANE ARROWS REDUCT.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	PARKING LOT STALL MARKING	COMMENTS
			FT	FT	FT	FT	FT	FT	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	
ATB	SR 84 @ SR 7	25.82			54																
ATB	SR 85 @ US 6 / SR 7	0.00			11	68															
ATB	SR 85 @ DAIRY OASIS	0.17				50															
ATB	SR 167 @ GARRETT RD	2.17										1									
ATB	SR 167 @ SR 11	3.07	165						113				4								
ATB	SR 167 @ NORFOLK SOUTHERN	3.40			20					2											
ATB	SR 167 @ SR 193	5.35			34																
TOTAL			165		119	118			113	2		1	4								

PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

SHEET P.19 TOTAL 48

ATB-84/VAR-21.80/VAR

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STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA		202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	204 PROOF ROLLING	209 PREPARING SUBGRADE FOR SHOULDER PAVING	252 FULL DEPTH PAVEMENT SAWING	254 PAVEMENT PLANING, ASPHALT CONCRETE (T = 3")	301 ASPHALT CONCRETE BASE, PG64-22, (449) (T = 15")	304 AGGREGATE BASE (T = 6")	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), AS PER PLAN (PG70-22M) (T = 1 1/4")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) (T = 1 3/4")	617 COMPACTED AGGREGATE, AS PER PLAN (T = 2")		202 REMOVAL MISC.: TELEPHONE BOX REMOVED	
					FT	FT	SY	SY		SY	SY	HOUR	STA	FT	SY	CY	CY	GAL	GAL	GAL	CY	CY	CY		EACH	
INTERSECTION WIDENING																										
286+53	TO	288+91		L		VARIES		302.65		175.44	302.65	0.10	292.00	292.00		133.05	56.70	24.21	45.40							
289+17	TO	290+02		R		VARIES		312.18		129.84	312.18	0.10	229.00	229.00		136.57	57.15	24.97	46.83							
SR 84 INTERSECTION RESURFACING																										
286+50	TO	288+91		L		VARIES		927.92							927.92			74.23	139.19	47.11	32.22	45.11	6.54			
289+13	TO	290+05		R		VARIES		515.52							515.52			41.24	77.33	34.67	17.90	25.06	4.81			
SR 7 INTERSECTION RESURFACING																										
263+36	TO	265+55		L/R	219	VARIES		835.85							835.85			66.87	125.38		29.02	40.63				
ROADWAY ITEMS																										
264+57		40' RT		R																					1.00	
SUBTOTALS										305.28	614.83	0.20	521.00	521.00	2279.29	269.62	113.86	231.53	434.12	81.78	79.14	110.80	11.36		1.00	
TOTALS CARRIED TO GENERAL SUMMARY										306	615	1	521	521	2280	270	114	232	435	82	80	111	12		1	

REF NO.	SHEET NO.	STATION TO STATION					202 HEADWALL REMOVED	202 PAVEMENT REMOVED	202 REMOVAL MISC.::BOLLARD REMOVED	611 12" CONDUIT, TYPE B	611 12" CONDUIT, TYPE C	611 12" CONDUIT, TYPE C, 706.02	611 CATCH BASIN, NO. 2-2B		630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION
							EACH	SY	EACH	FT	FT	FT	EACH		EACH	EACH
D-1	20	289+33.90	-87.41'	TO	289+34.25	-76.83'						11				
D-2	20	289+34.25	-76.83'	TO	289+42.59	-77.00'					29		1			
D-3	20	289+42.59	-77.00'	TO	289+57.56	-28.78'					26		1			
D-4	20	289+57.56	-28.78'	TO	289+62.77	-28.19'	1	3	2	5.00			1			
S-1	20	288+48.98	-26.23	TO											1	1
S-2	20	288+61.43	-31.34	TO											1	1
S-3	20	289+32.68	-32.67	TO											1	1
S-4	20	289+45.97	-22.31	TO											1	1
TOTALS CARRIED TO GENERAL SUMMARY							1	3	2	5	55	11	3		4	4

PAVEMENT AND DRAINAGE SUBSUMMARIES

ATB-84/VAR-21.80/VAR

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:27:14 AM USER: mpallagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Roadway\Sheets\96551_GA001.dgn

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 11-22-21

PROJECT ID 96551

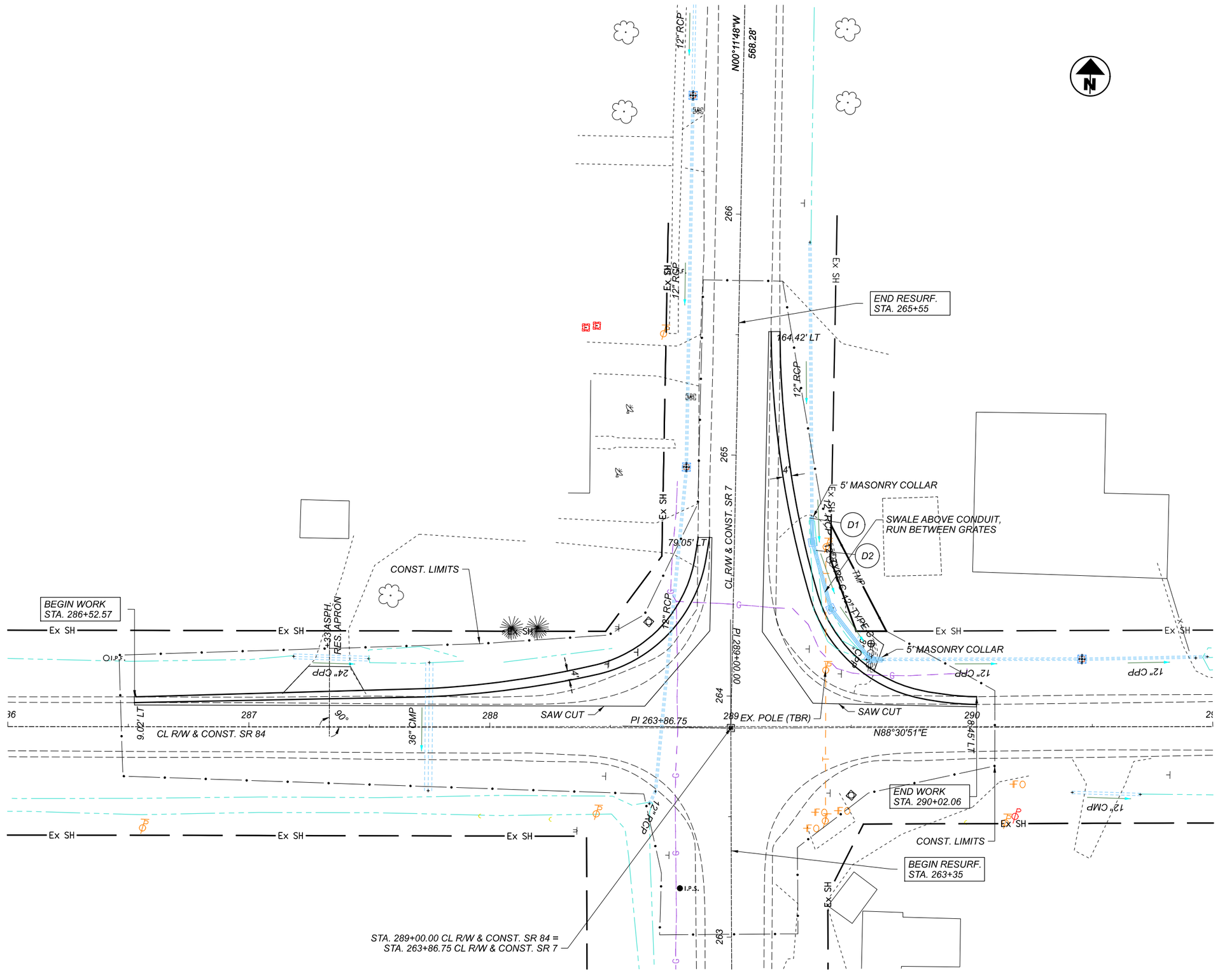
SHEET P.20 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Plan [Sheet] PAPERSIZE: 17x11in.) DATE: 4/20/2022 TIME: 10:27:41 AM USER: mpalagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Roadway\Sheets\96551_GP001.dgn

PLAN VIEW
SR 84 @ SR 7

HORIZONTAL SCALE IN FEET
0 10 20 40



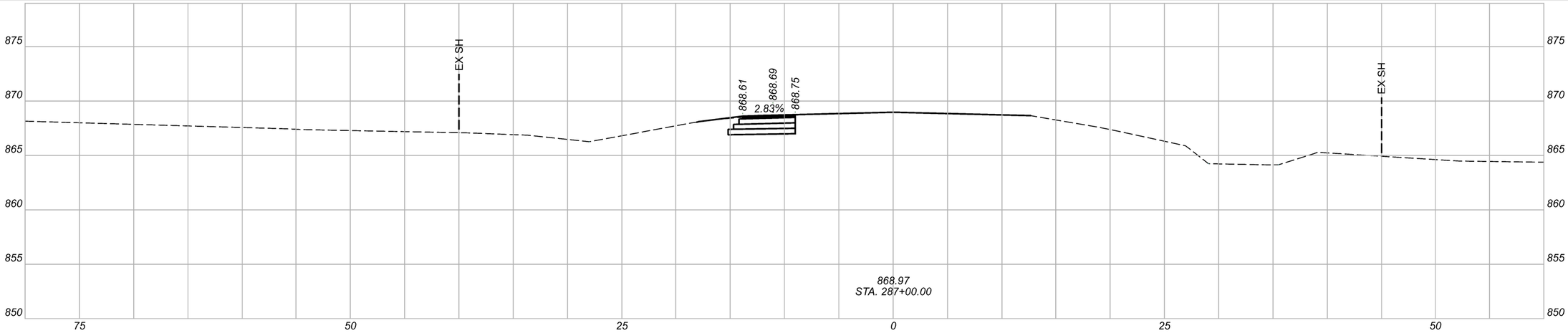
DESIGN AGENCY

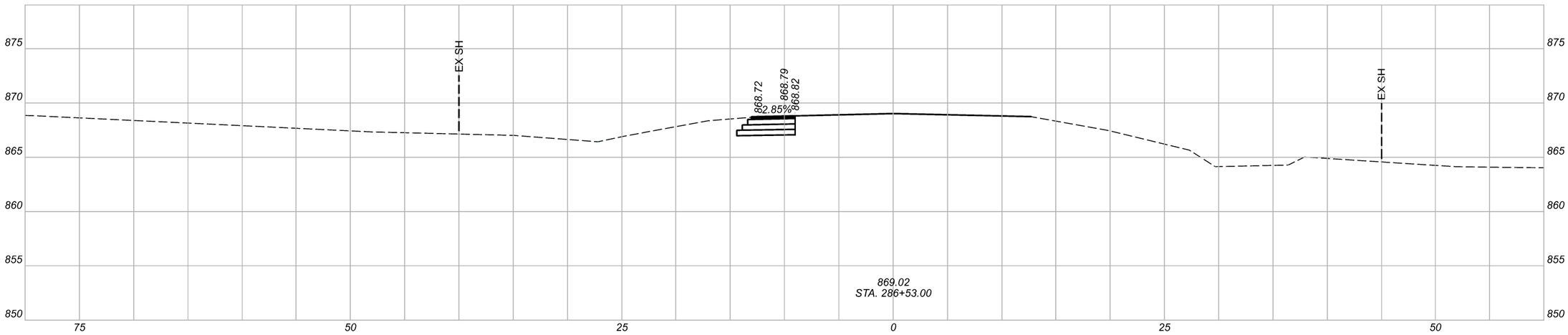
DESIGNER
MJP

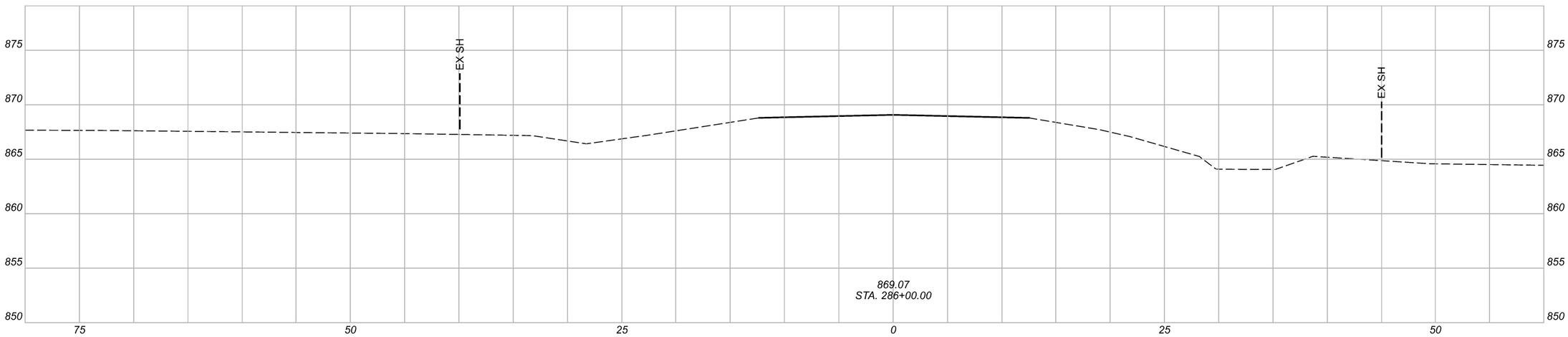
REVIEWER
MAC 11-22-21

PROJECT ID
96551

SHEET P.21 TOTAL 48







CROSS SECTIONS - SR 84
STA. 286+00 - STA. 287+00

ATB-84/VAR-21.80/VAR

MODEL: 286+00.00 [Sheet1] PAPERSIZE: 17x11(in.) DATE: 4/20/2022 TIME: 10:27:51 AM USER: mpalagan
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DESIGN AGENCY

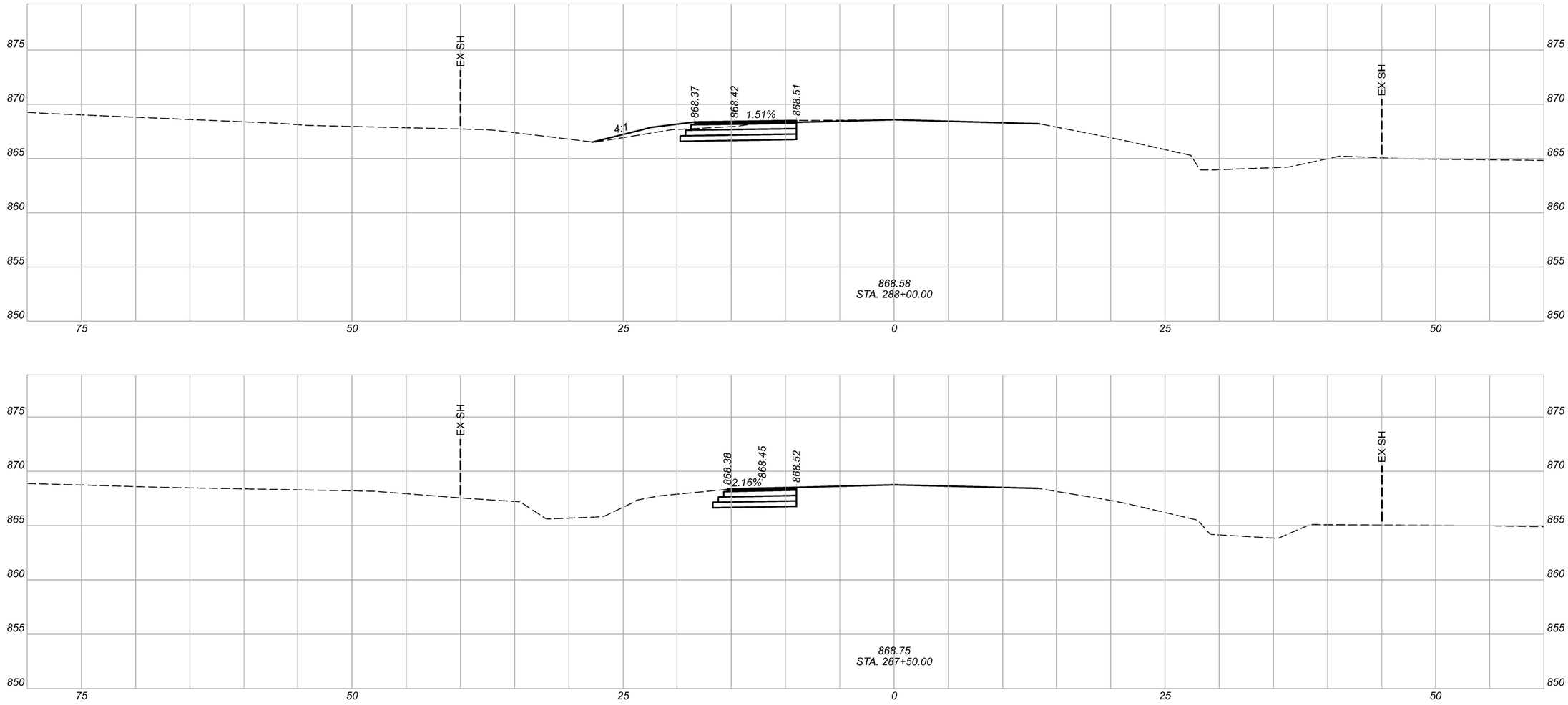
DESIGNER: MJP

REVIEWER: MAC 09-24-21

PROJECT ID: 96551

Sheet Totals		
Seeding	Cut	Fill
-	32	1

SHEET: P.22 TOTAL: 48



CROSS SECTIONS - SR 84
STA. 287+50 - STA. 288+00

ATB-84/VAR-21.80/VAR

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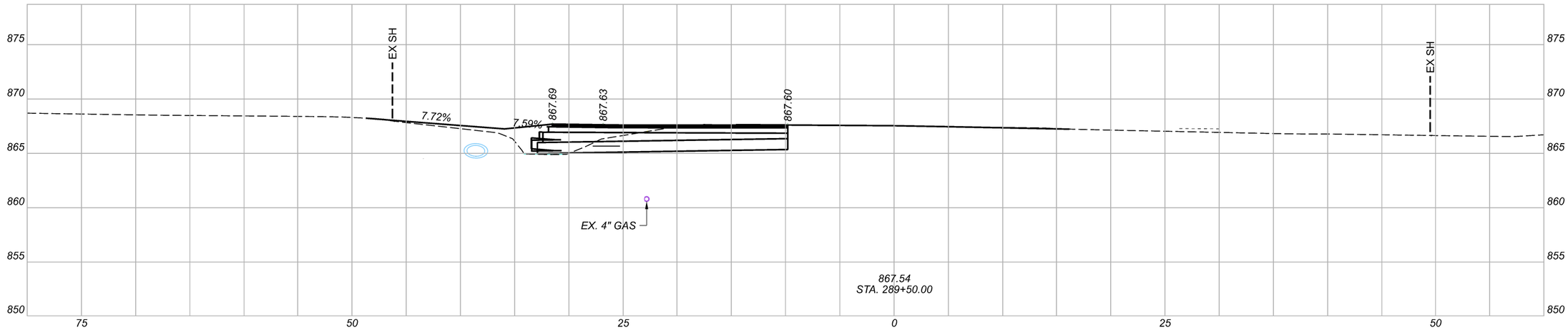
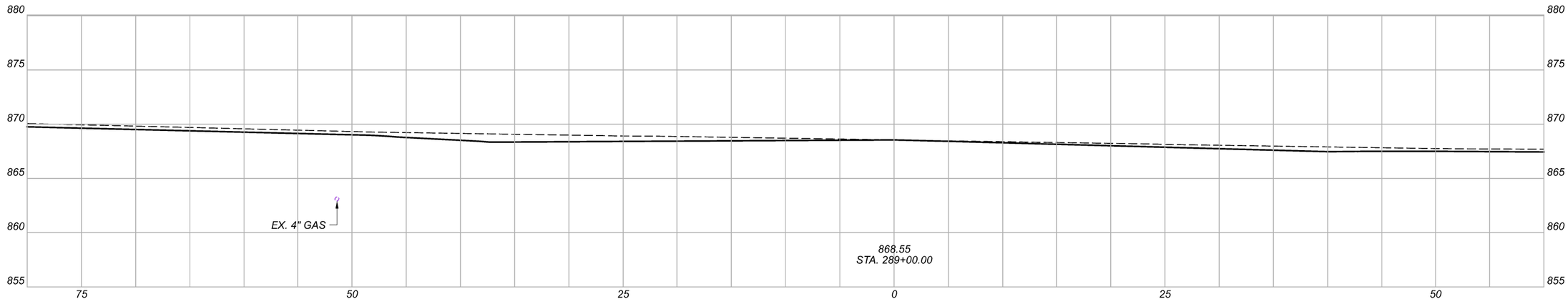
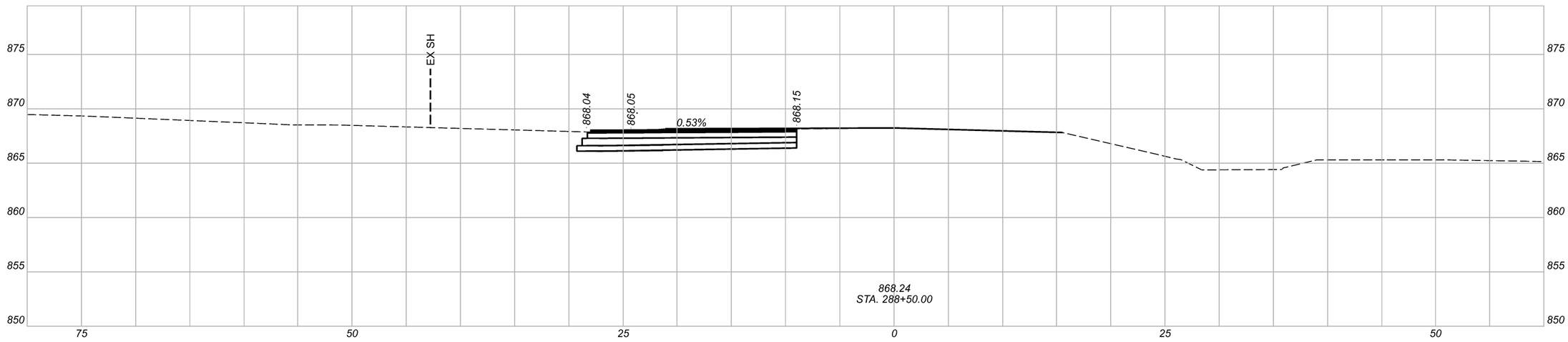
DESIGN AGENCY

Sheet Totals		
Seeding	Cut	Fill
-	63	3

DESIGNER: MJP
REVIEWER: MAC 09-24-21
PROJECT ID: 96551
SHEET: P.23 TOTAL: 48







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STA. 288+50 - STA. 289+50

ATB-84/VAR-21.80/VAR

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pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Roadway\Sheets\96551_XS001.dgn

DESIGN AGENCY

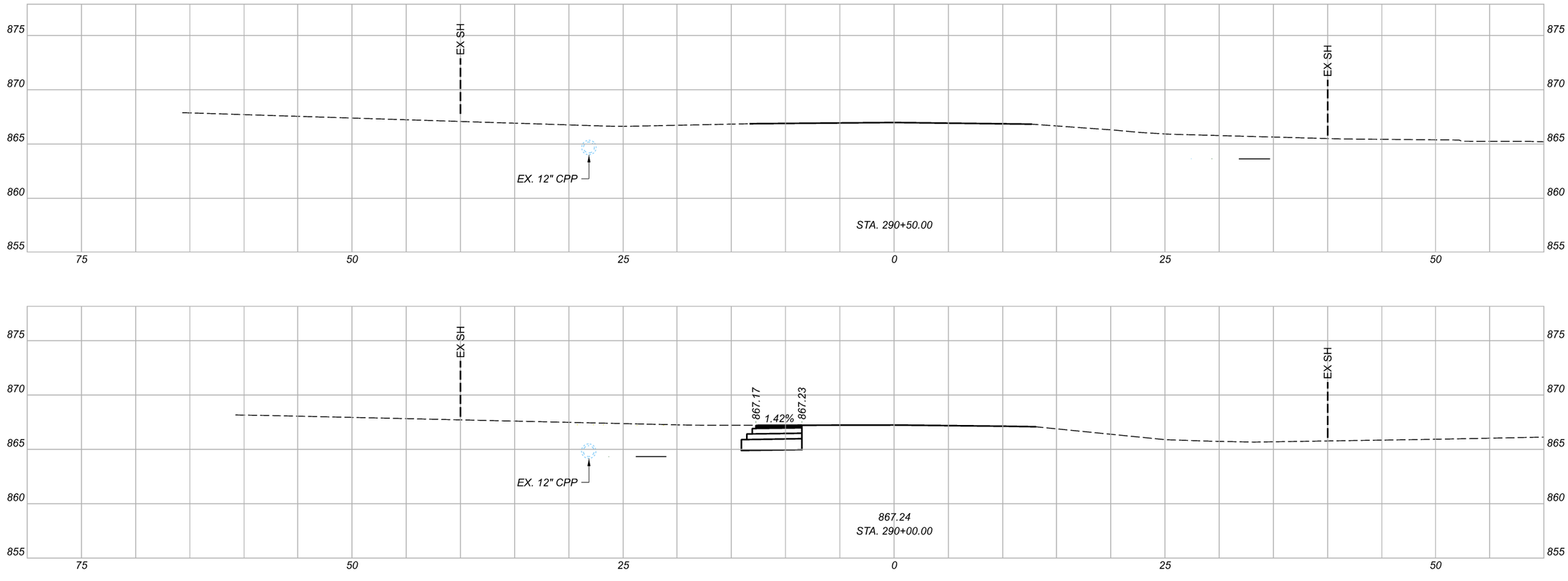
DESIGNER: MJP

REVIEWER: MAC 09-24-21

PROJECT ID: 96551

Sheet Totals		
Seeding	Cut	Fill
-	143	9

SHEET: P.24 TOTAL: 48



ATB-84/VAR-21.80/VAR

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CROSS SECTIONS - SR 84
STA. 290+00 - STA. 290+50

DESIGN AGENCY

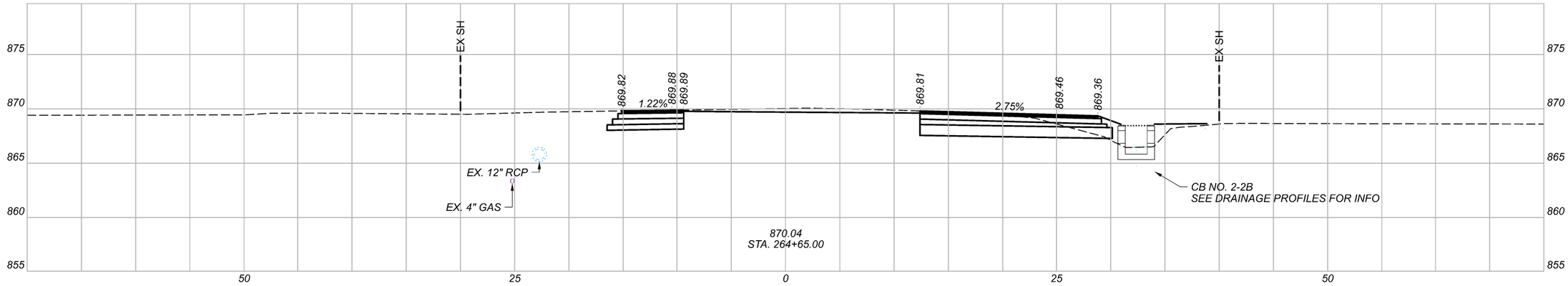
DESIGNER
MJP

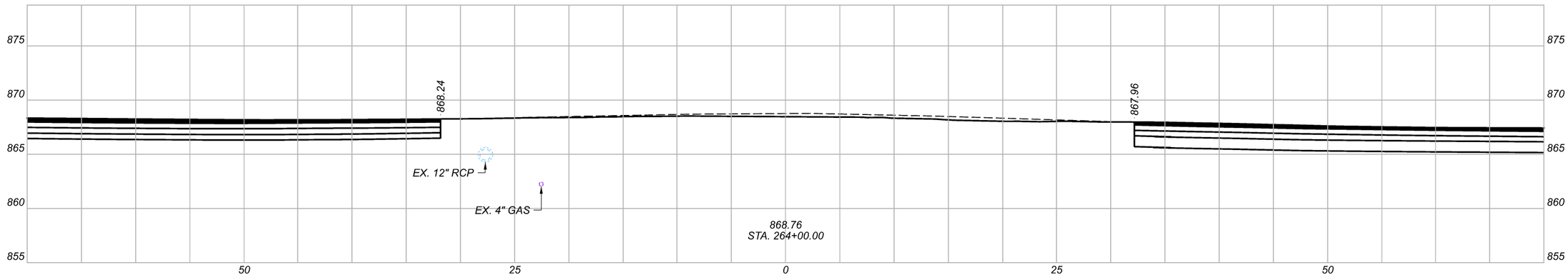
REVIEWER
MAC 09-24-21

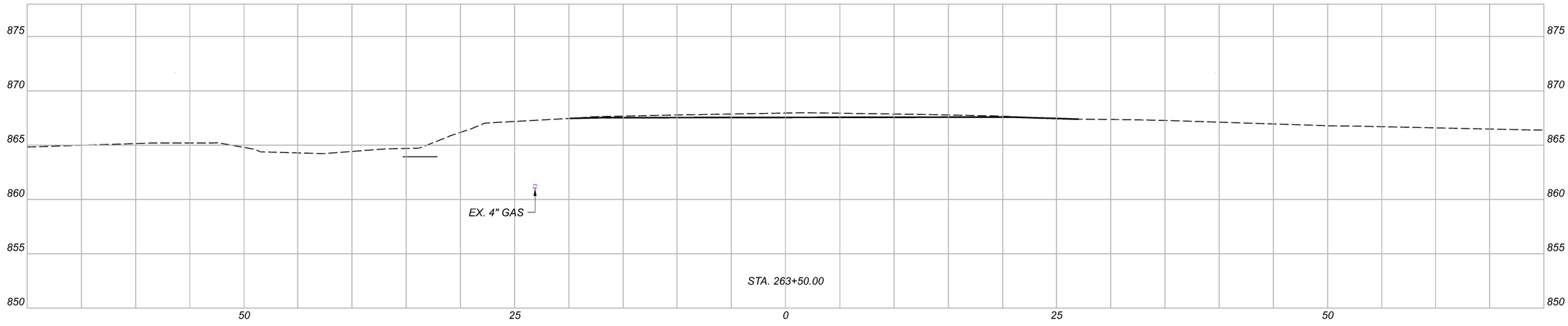
PROJECT ID
96551

Sheet Totals		
Seeding	Cut	Fill
-	59	7

SHEET P.25 TOTAL 48







CROSS SECTIONS - SR 7
STA. 263+50 - STA. 264+50

DESIGN AGENCY

DESIGNER
MJP

REVIEWER
MAC 09-24-21

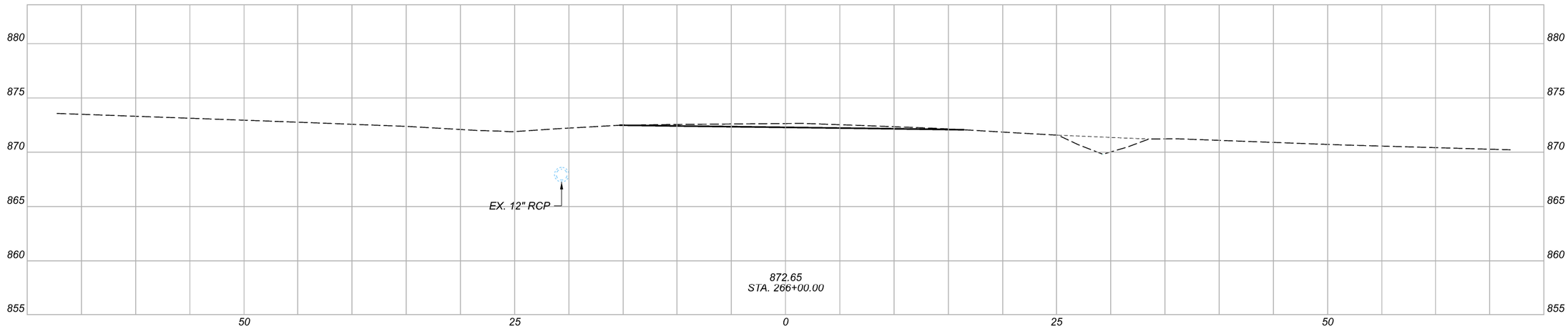
PROJECT ID
96551

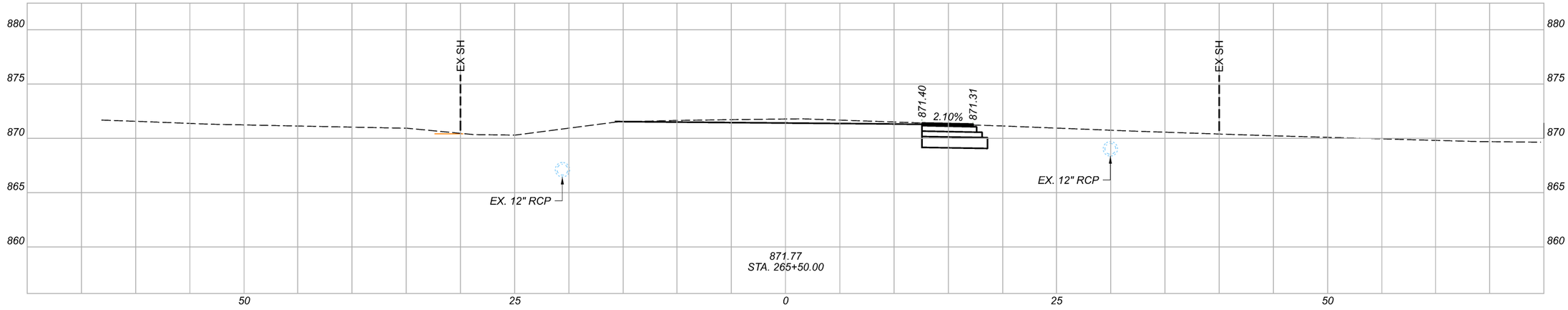
Sheet Totals		
Seeding	Cut	Fill
-	202	4

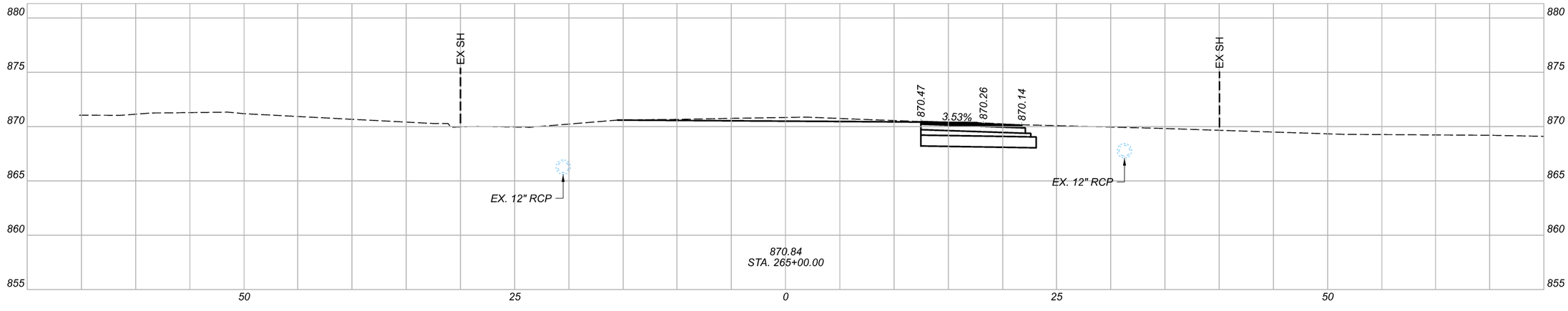
SHEET P.26 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: 263+50.00 [Sheet] PAPERSIZE: 17x11(ln) DATE: 4/20/2022 TIME: 10:28:29 AM USER: mpalagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01Active Projects\District 04\Ashtabula\96551\400-Engineering\Roadway\Sheets\96551_XS001.dgn







ATB-84/VAR-21.80/VAR

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CROSS SECTIONS - SR 7
STA. 265+00 - STA. 266+00

DESIGN AGENCY

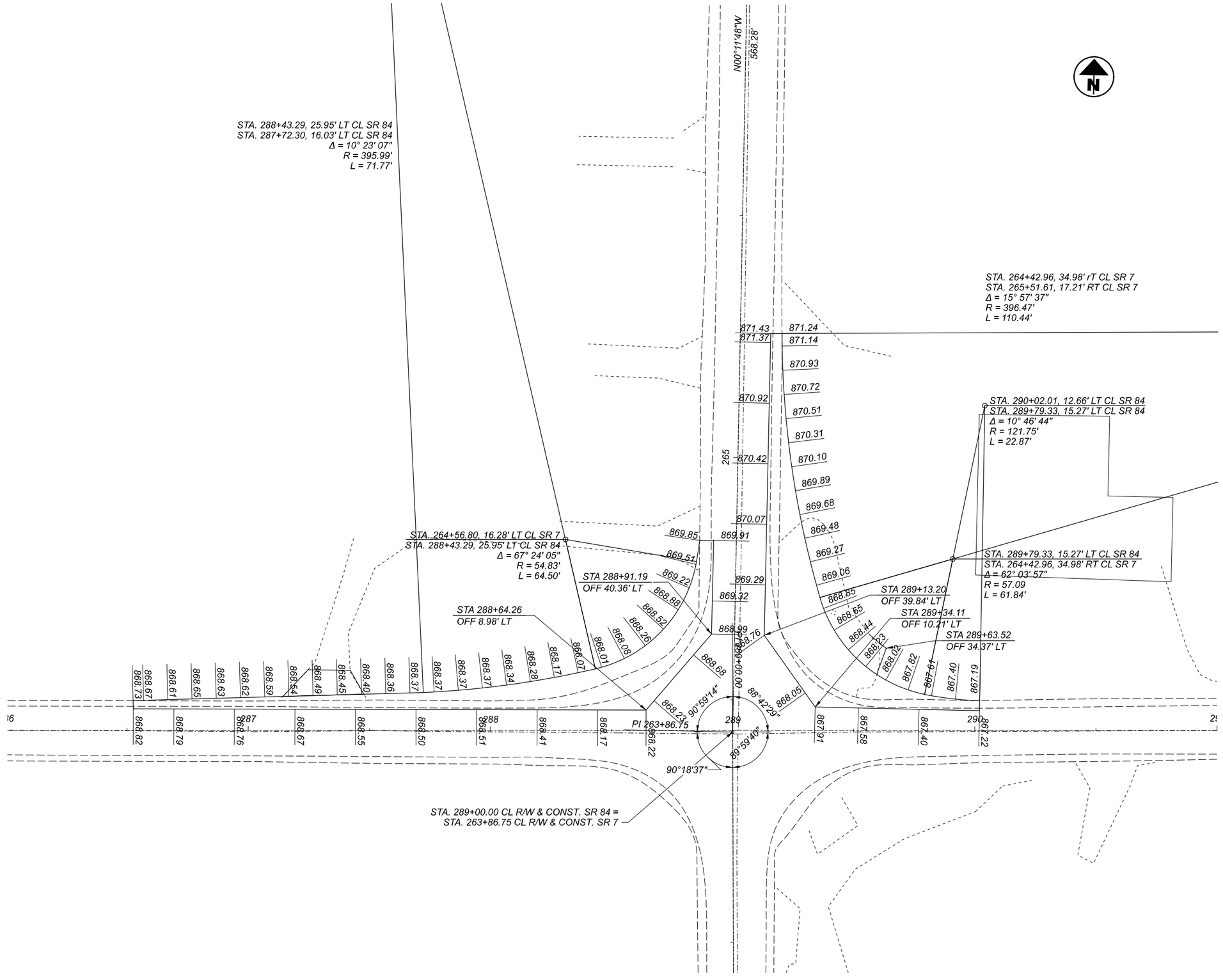
DESIGNER
MJP

REVIEWER
MAC 09-24-21

PROJECT ID
96551

Sheet Totals		
Seeding	Cut	Fill
-	108	4

SHEET P.27 TOTAL 48



HORIZONTAL SCALE IN FEET
0 10 20 40

INTERSECTION DETAILS
SR 84 @ SR 7

DESIGN AGENCY

DESIGNER MJP
REVIEWER MAC 09-24-21
PROJECT ID 96551
SHEET P.28 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Plan (Sheet) PAPERSIZE: 17x11(in.) DATE: 4/20/2022 TIME: 10:28:57 AM USER: mpalagan
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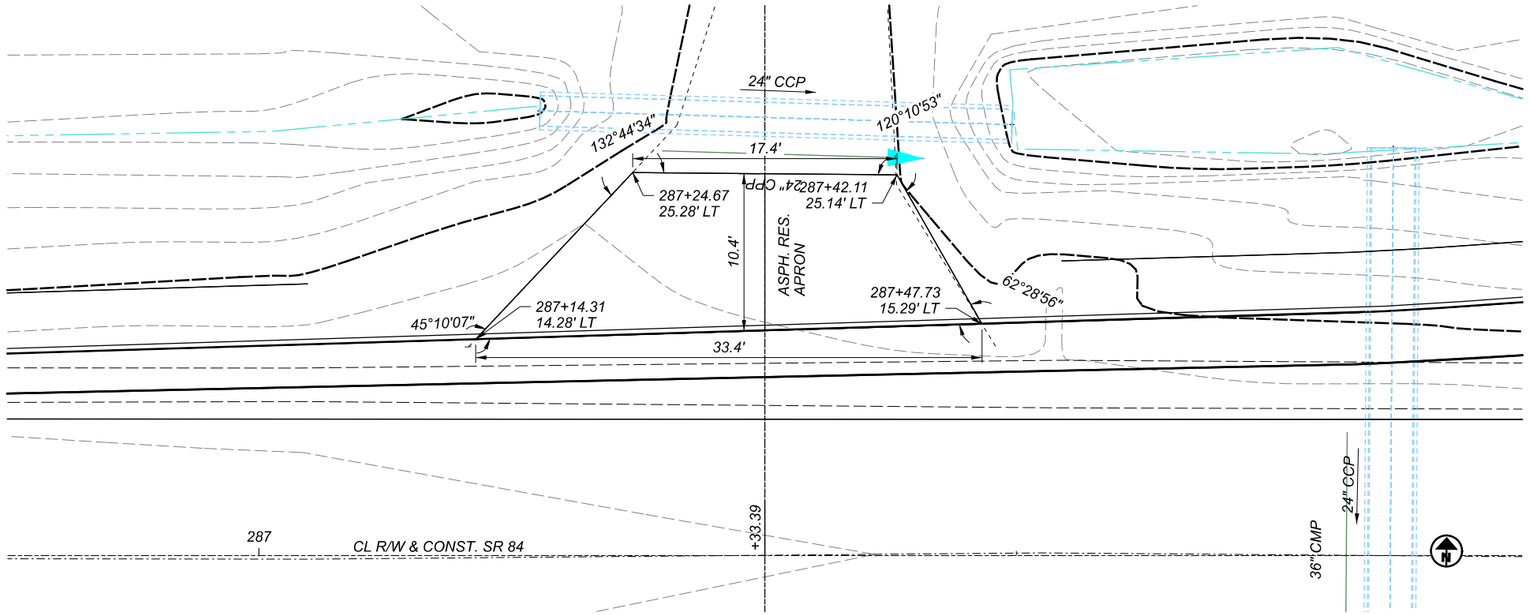

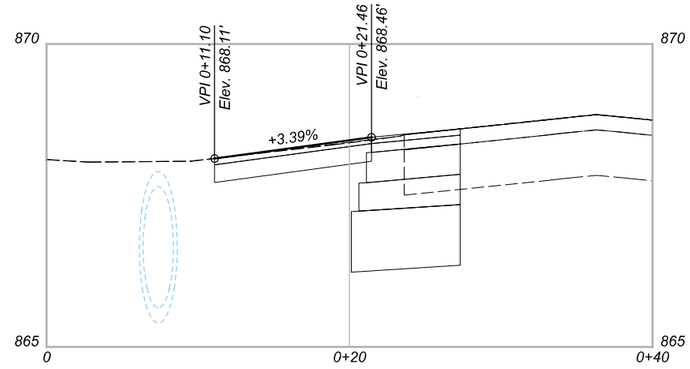

HORIZONTAL SCALE IN FEET
0 5 10 20

DRIVE PLAN AND PROFILE
SR 84 @ SR 7

STATION RANGE	SIDE	DISTANCE (D)	APRON WIDTH AT SHOULDER (W1)	TOP OF APRON WIDTH (W2)	CADD GENERATED AREA		202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	204 PROOF ROLLING	301 ASPHALT CONCRETE BASE, PG64-22, (449) (T = 3 1/2")	407 NON-TRACKING TACK COAT @ 0.06 GAL/SY	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), AS PER PLAN (PG64-22) (T = 1 1/4")										
		FT	FT	FT	SY		SY	SY	HOUR	CY	GAL	CY										
287+33.39	L	10.50	33.50	17.50	29.75		29.75	29.75	1.00	2.89	1.79	1.03										
SUBTOTALS							29.75	29.75	1.00	2.89	1.79	1.03										
TOTALS CARRIED TO GENERAL SUMMARY							30	30	1	3	2	2										

DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

SHEET P.29 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Plan [Sheet] PAPERSIZE: 17x11(in) DATE: 4/20/2022 TIME: 10:29:06 AM USER: mpalagan
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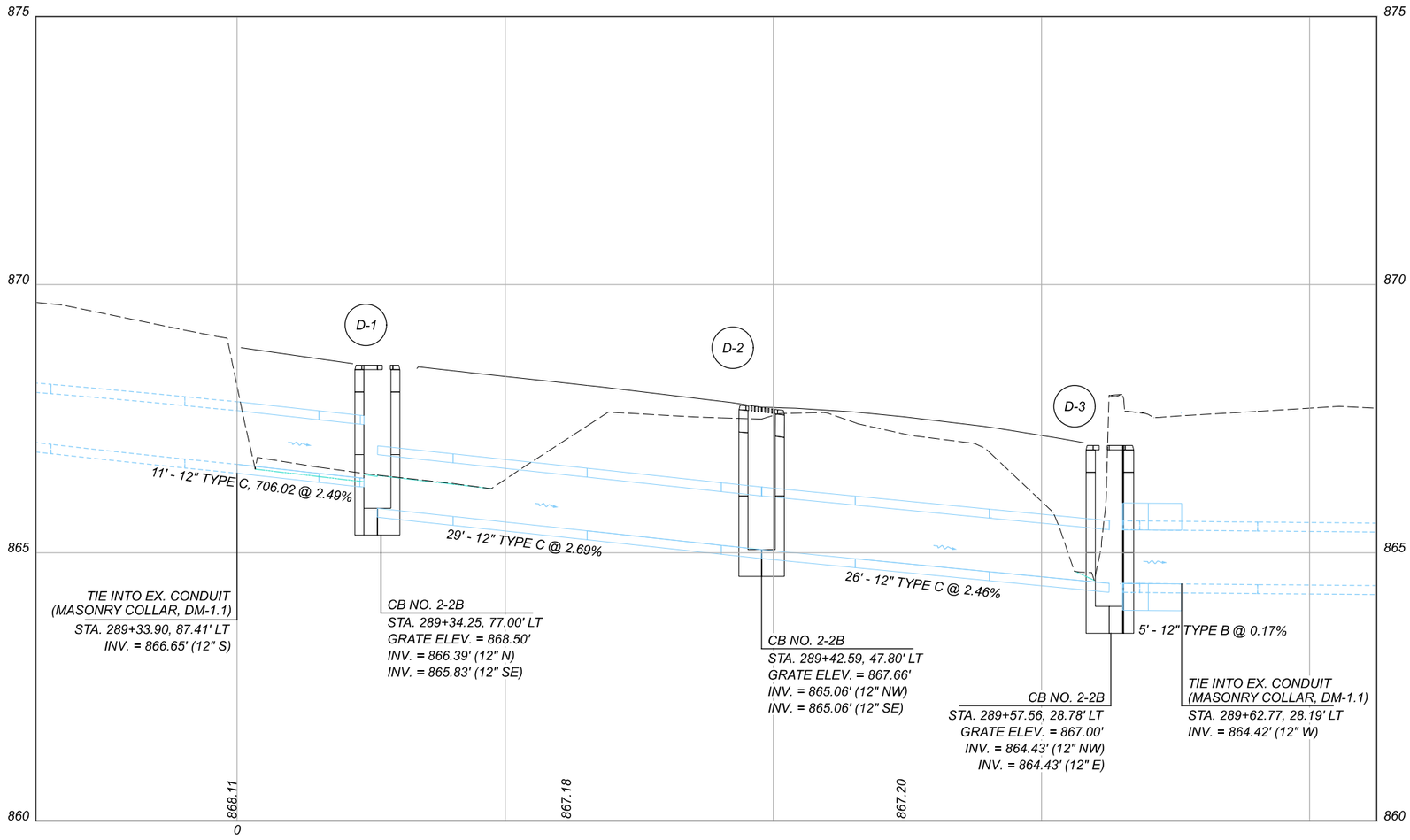

DRAINAGE PROFILES
SR 84 @ SR 7

ATB-84/VAR-21.80/VAR

MODEL: Drainage (Sheet) PAPERSIZE: 17x11(in.) DATE: 4/20/2022 TIME: 10:29:18 AM USER: mpalagan
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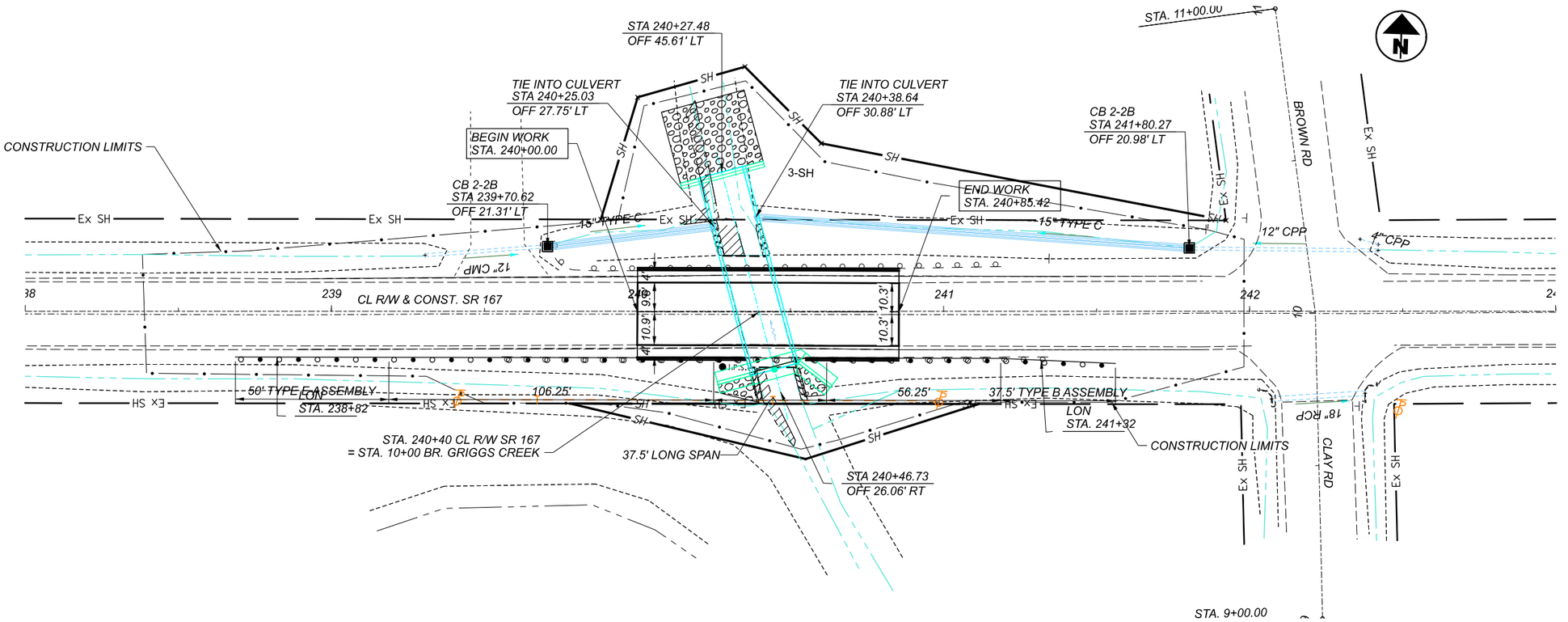
DESIGN AGENCY

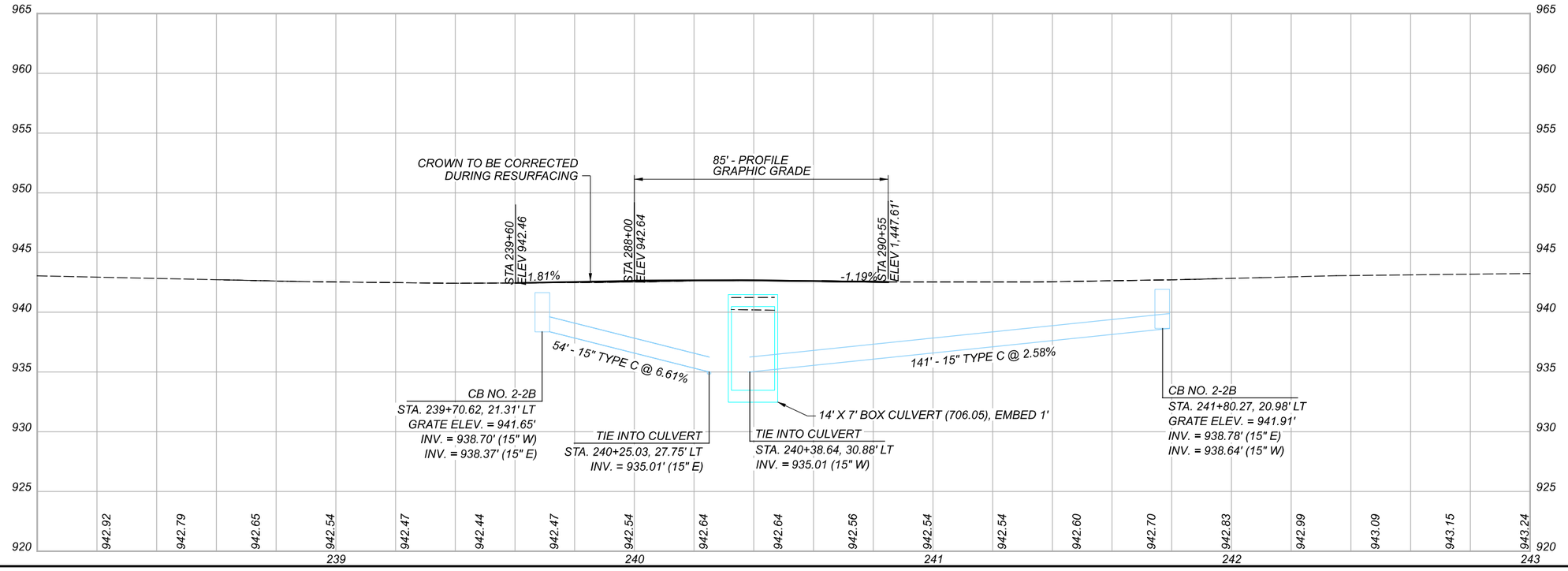
DESIGNER
MJP

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SHEET P.29 TOTAL 47





HORIZONTAL SCALE IN FEET
0 10 20 40

STRUCTURE PLAN AND PROFILE - ATB-167-0440
STA. 238+00 - STA. 243+00

DESIGN AGENCY

DESIGNER MJP
REVIEWER MAC 11-22-21
PROJECT ID 96551
SHEET P.31 TOTAL 48

ATB-84/VAR-21.80/VAR

MODEL: Plan [Sheet] PAPERSIZE: 17x11(in.) DATE: 4/20/2022 TIME: 10:29:28 AM USER: mpalagan
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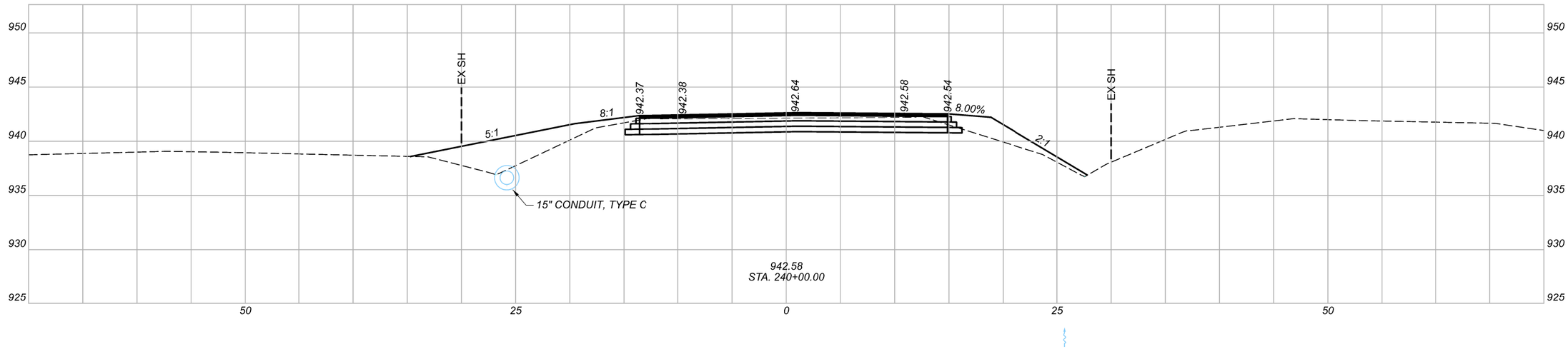

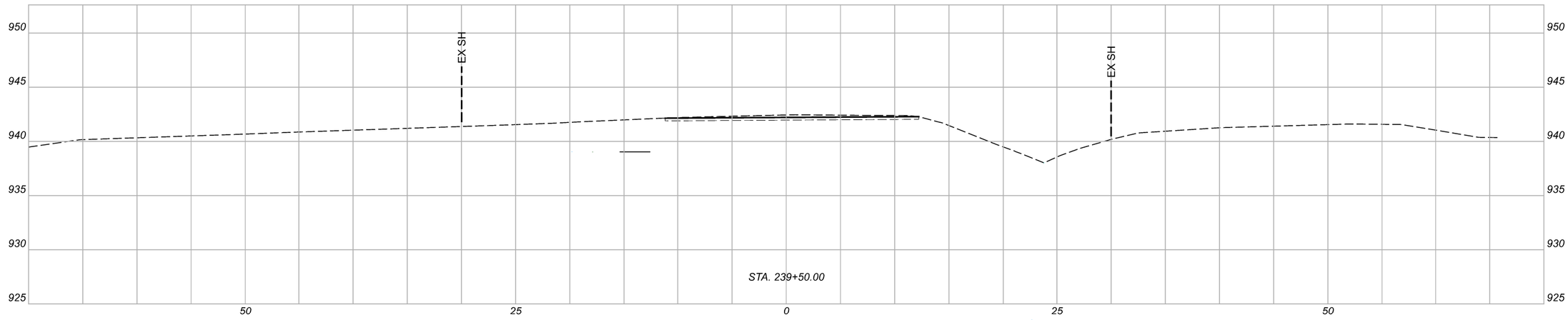

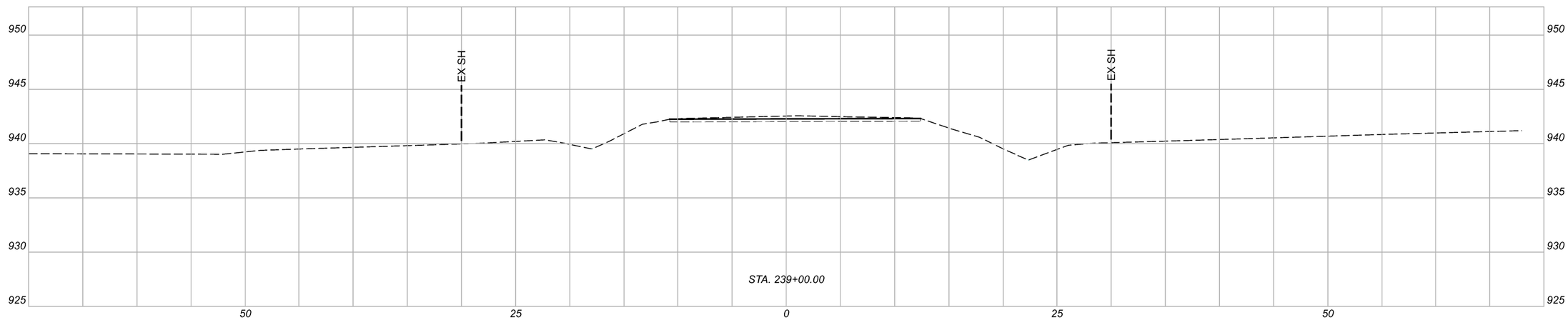

CROSS SECTIONS - SR 167
STA. 239+00 - STA 240+09

ATB-84/VAR-21.80/VAR

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DESIGN AGENCY

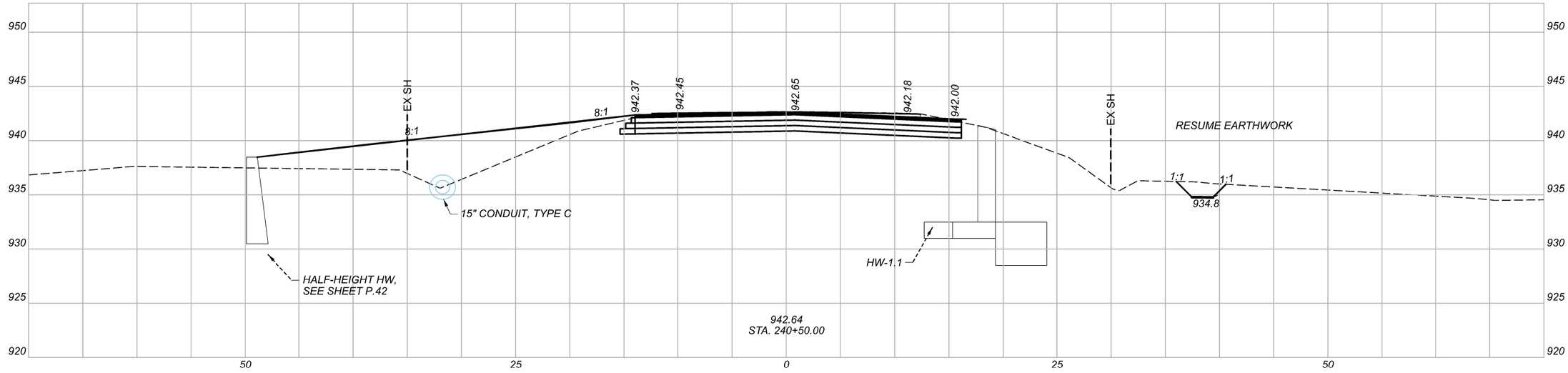
DESIGNER
MJP

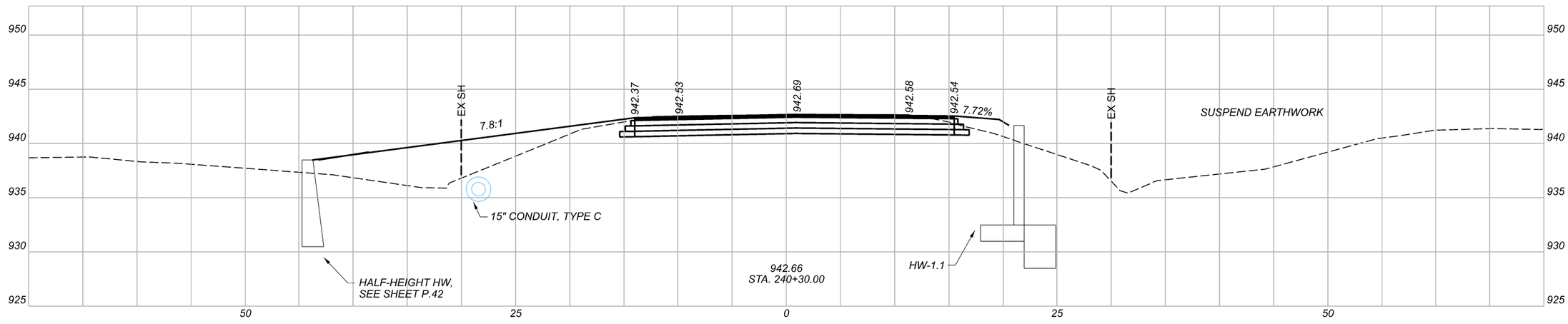
REVIEWER
MAC 09-24-21

PROJECT ID
96551

Sheet Totals		
Seeding	Cut	Fill
-	62	51

SHEET	TOTAL
P.32	48





CROSS SECTIONS - SR 167
STA. 240+30 - STA. 240+50

ATB-84/VAR-21.80/VAR

MODEL: 239+3 (Sheet) PAPERSIZE: 17x11(in) DATE: 4/20/2022 TIME: 10:29:46 AM USER: mpalagan
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DESIGN AGENCY

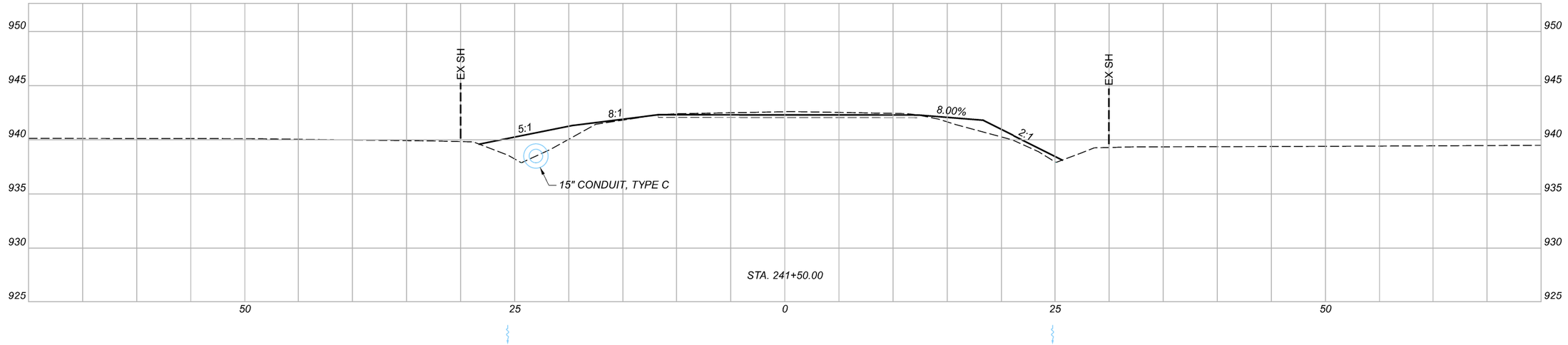
DESIGNER
MJP

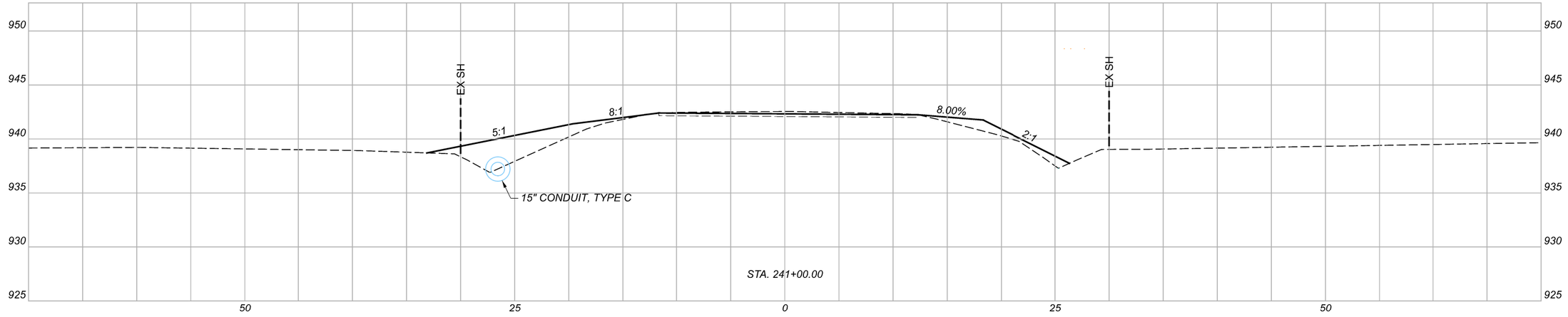
REVIEWER
MAC 09-24-21

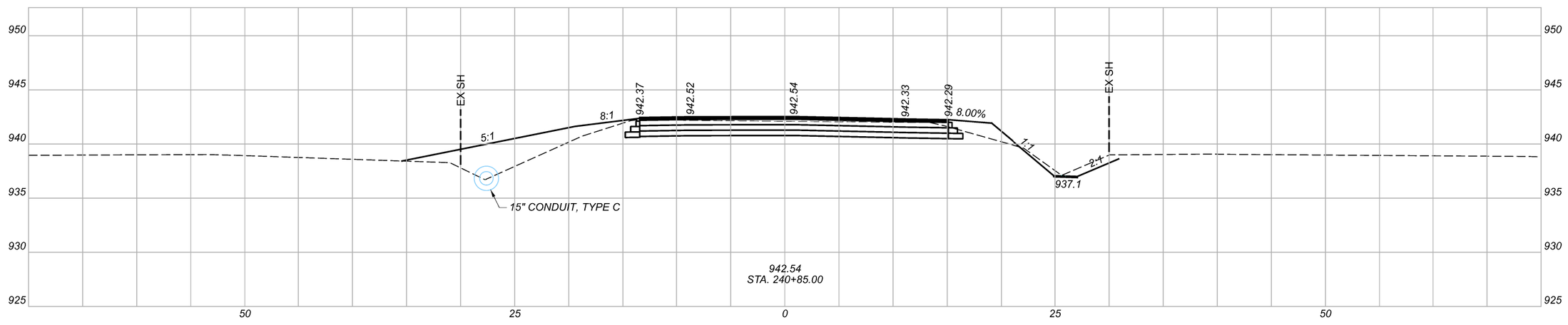
PROJECT ID
96551

Sheet Totals		
Seeding	Cut	Fill
-	79	56

SHEET P.33 TOTAL 48







CROSS SECTIONS - SR 167
STA. 240+85 - STA. 241+50

ATB-84/VAR-21.80/VAR

MODEL: 239+5 [Sheet] PAPERSIZE: 17x11(in.) DATE: 4/20/2022 TIME: 10:29:54 AM USER: mpalagan
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DESIGN AGENCY

DESIGNER MJP

REVIEWER MAC 09-24-21

PROJECT ID 96551

Sheet Totals		
Seeding	Cut	Fill
-	105	184

SHEET P.34 TOTAL 48

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 2020 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

HW-1.1 DATED 7/20/18

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

940 DATED 4/17/15

PROPOSED WORK

ATB-84-2598
-REMOVE AND REPLACE THE EXISTING ASPHALT SURFACE. THIS WILL BE ACCOMPLISHED DURING THE MAINLINE PAVING
-REMOVE ALL SPALLS/UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, INCLUDING THE FLOOR
-PATCH CONCRETE SUBSTRUCTURE WITH ITEM 519, FIBER WRAP
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE

ATB-167-0440
-REMOVE AND REPLACE THE STRUCTURE

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 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 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.

STRUCTURE/CULVERT 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-84-2598
ATB-167-0440

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

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURE(S) ATB-84-2598 WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

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

SPEC, STRUCTURES: CONCRETE SPALL REMOVAL, 20 SQ YD
512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), 20 SQ YD

EXCAVATION AND EMBANKMENT (SR 167)

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED FROM SHEETS P.32 - P.34 AND CARRIED TO THE GENERAL SUMMARY:

ITEM 203, EXCAVATION	246 CY
ITEM 203, EMBANKMENT	291 CY

SEEDING AND MULCHING (SR 167)

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

659, TOPSOIL	88 CU. YD.
659, SEEDING AND MULCHING	790 SQ. YD.
659, REPAIR SEEDING AND MULCHING	40 SQ. YD.
659, COMMERCIAL FERTILIZER	0.11 TON
659, LIME	0.16 ACRES
659, WATER	2.13 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

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

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2018

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.999970500870
ORIGIN OF COORDINATE SYSTEM: EASTING (X): 0, NORTHING (Y): 0

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

UNITS ARE IN U.S. SURVEY FEET.

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 CONTRACTORâ€™S 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.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

ALL AREAS:

ITEM 202 - PAVEMENT REMOVED	230 SY
ITEM 255 - FULL DEPTH PAVEMENT SAWING	218 FT

AREA OF PAVEMENT DIRECTLY OVER PROPOSED BOX CULVERT:

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (449) (AVG T = 13")	21 CY
ITEM 407 -TACK COAT, 702.13 @ 0.06 GAL/SY	4 GAL
ITEM 407 - NON-TRACKING TACK COAT @ 0.06 GAL/SY	7 GAL

AREA OF PAVEMENT NOT DIRECTLY OVER PROPOSED BOX CULVERT:

ITEM 204 - SUBGRADE COMPACTION	218 SY
ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (449) (T = 15")	91 CY
ITEM 304 - AGGREGATE BASE, AS PER PLAN (T = 6")	36 CY
ITEM 407 - NON-TRACKING TACK COAT @ 0.06 GAL/SY	39 GAL

THE ABOVE QUANTITIES ARE BASED ON THE PAVEMENT WIDTHS GIVEN IN THE PLANS.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

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 CULVERT.
ITEM 203 - EXCAVATION, 55 CY
ITEM 203 - GRANULAR MATERIAL, TYPE C, 703.16, 55 CY
ITEM 204 - GEOTEXTILE FABRIC, TYPE D, 105 SY

RESURFACING AFTER PIPE INSTALLATION

AFTER PLACING THE ITEMS LISTED UNDER PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS, THE ROADWAY WILL BE RESURFACED AS PART OF MAINLINE PAVING OF SR 167. THIS WORK DOES NOT HAVE TO BE COMPLETE DURING THE DETOUR PERIOD. THE CONTRACTOR SHALL NOT RESURFACE SR 167 UNTIL CULVERT REPLACEMENT IS COMPLETE.

PAVEMENT MARKINGS

ALL PAVEMENT MARKINGS THAT ARE REMOVED DURING THE CULVERT REPLACEMENT WILL BE REPLACED WITH ITEM 642 - TRAFFIC PAINT. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 642 - EDGE LINE, TYPE 1A	0.04 MI
ITEM 642 - CENTER LINE, TYPE 1A	0.02 MI

ITEM 611 - 14' X 7' CONDUIT, TYPE A, 706.05, AS PER PLAN, DESIGN COVER <2 FT

CONSTRUCT OPENINGS IN BOX SECTIONS WHERE TYPE C CONDUIT IS TO OUTLET INSIDE THE STRUCTURE. ALL OPENINGS SHALL BE FORMED AND REINFORCED AS PART OF THE PRECAST SECTION AT THE MANUFACTURER. FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, AND ORIENTATION OF ALL PROPOSED OPENINGS.

STRUCTURE GENERAL NOTES
ATB-84-2598, ATB-167-0440
OVER ASHTABULA CREEK, BRANCH GRIGGS CREEK

SFN
VARIOUS

DESIGN AGENCY

DESIGNER	CHECKER
MJP	MAC

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SUBSET	TOTAL
1	9

SHEET	TOTAL
P.35	48

ATB-84/VAR-21.80/VAR

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DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 6TH EDITION, INCLUDING THE 2004 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL

DESIGN LOADING

DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

DESIGN DATA

THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION = 30 DEGREES
COEFFICIENT OF FRICTION = 0.30
UNIT WEIGHT OF SOIL = 120 PCF
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)
MAXIMUM FOUNDATION BEARING PRESSURE = 2000 P.S.F.

CONCRETE CLASS C - 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)

FORESLOPE WALL ANCHOR DOWELS

ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20 AND TO A DEPTH SPECIFIED ON SHEET P.42. PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OF MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 611.

POROUS BACKFILL

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.

ITEM 511 WINGWALLS OR HEADWALLS FOR 611 ITEMS

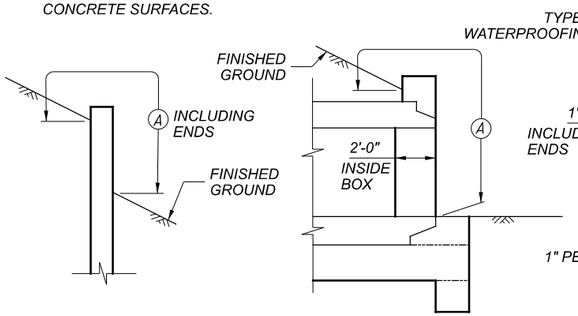
FULL COMPENSATION FOR THE PRECAST WINGWALL OR HEAD-WALL IS THE NUMBER OF CUBIC YARDS OF ITEM 511 OR SUPPLEMENTAL SPECIFICATION 898, AND POUNDS OF ITEM 509 FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

PREFORMED EXPANSION JOINT FILLER

PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1" 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)

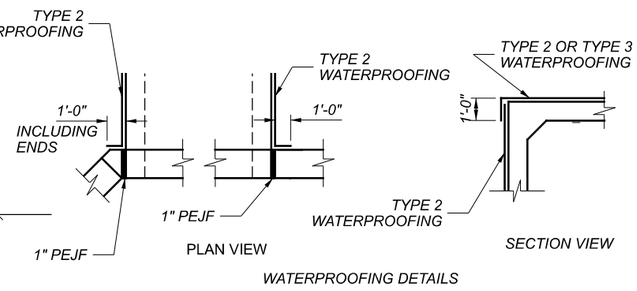
LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

(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 BID PRICE 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.



WATERPROOFING DETAILS

TREE CUTTING RESTRICTIONS AT ATB-167-0440:

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT AT ATB-167-0440 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.

STRUCTURE GENERAL NOTES
ATB-167-0440
OVER BRANCH GRIGGS CREEK

SFN 0404985

DESIGN AGENCY

DESIGNER	CHECKER
MJP	MAC

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SUBSET	TOTAL
2	9

SHEET	TOTAL
P.36	48

ATB-84/VAR-21.80/VAR
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CALC:	MJP	DATE:	8/12/2020
CHECKED:	MAC	DATE:	8/23/2021

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.											ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
	ATB-84-2598 0403482 02/STR/BR	ATB-167-0440 0404985 03/STR/BR													
	LUMP	LUMP									201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS	
		LUMP									202	11000	LS	STRUCTURE REMOVED	
		LUMP									503	11100	LS	COFFERDAMS AND EXCAVATION BRACING	
		LUMP									503	21100	LS	UNCLASSIFIED EXCAVATION	
		3600									509	10000	LB	EPOXY COATED REINFORCING STEEL	
		30.54									511	46212	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL INCLUDING FOOTING	2 / 6
	20	45									512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
		138									512	33000	SY	TYPE 2 WATERPROOFING	2 / 6
		134									512	33010	SY	TYPE 3 WATERPROOFING	2 / 6
		28									516	13600	SF	1" PREFORMED EXPANSION JOINT FILLER	2 / 6
		LUMP									518	21230	LS	POROUS BACKFILL WITH GEOTEXTILE FABRIC	2 / 6
	100										519	11100	SF	PATCHING CONCRETE STRUCTURE	
		82									601	32100	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
		8.56									602	20000	CY	CONCRETE MASONRY	
		195									611	06100	FT	15" CONDUIT, TYPE C	
		67									611	96321	FT	14' X 7' CONDUIT, TYPE A, 706.05, AS PER PLAN, DESIGN COVER <2 FT	1 / 6
		2									611	98470	EACH	CATCH BASIN, NO. 2-2B	
	30	30									630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
	4	4									630	80100	SF	SIGN, FLAT SHEET, 730.20	
	4	4									630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
	4	4									630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

STRUCTURE ESTIMATED QUANTITIES
ATB-84-2598, ATB-167-0440
OVER ASHTABULA CREEK, BRANCH GRIGGS CREEK

SFN
VARIOUS

DESIGN AGENCY

DESIGNER	CHECKER
MJP	MAC

REVIEWER
MAC 09-24-21

PROJECT ID
96551

SUBSET	TOTAL
3	9

SHEET	TOTAL
P.37	48

ATB-84/VAR-21.80/VAR

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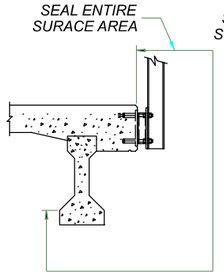
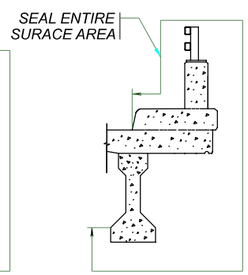
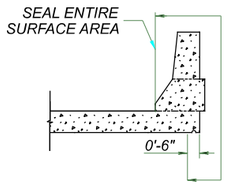


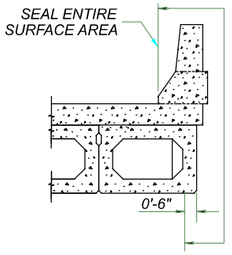
DETAIL A
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



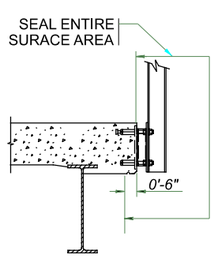
DETAIL B
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



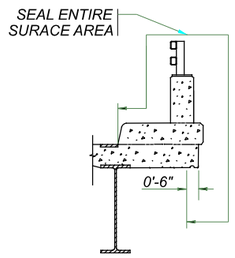
DETAIL C
CONCRETE DECK WITH
DEFLECTOR PARAPET



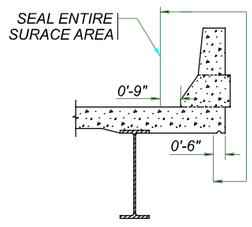
DETAIL D
PRESTRESSED BOX BEAM DECK
WITH DEFLECTOR PARAPET



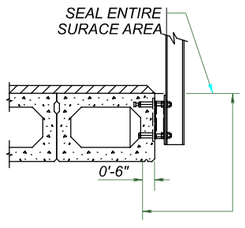
DETAIL E
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



DETAIL F
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



DETAIL G
CONCRETE DECK WITH
DEFLECTOR PARAPET



DETAIL H
PRESTRESSED BOX BEAM DECK
WITH OVER THE SIDE DRAINAGE

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES				
				ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
ATB-84-2598	CONTINUOUS CONCRETE SLAB	SEAL ALL PATCHED AREAS	PER CMS				20	20
ATB-167-0440	BOX CULVERT	SEAL NEW HEADWALLS AND WINGWALLS PER NOTE ON SHEET 2/12	PER CMS				45	45

NOTES:
- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE

SEALING DETAILS
ATB-84-2598
OVER ASHTABULA CREEK

SFN 0403482

DESIGN AGENCY

DESIGNER	CHECKER
MJP	MAC

REVIEWER: MAC 09-24-21

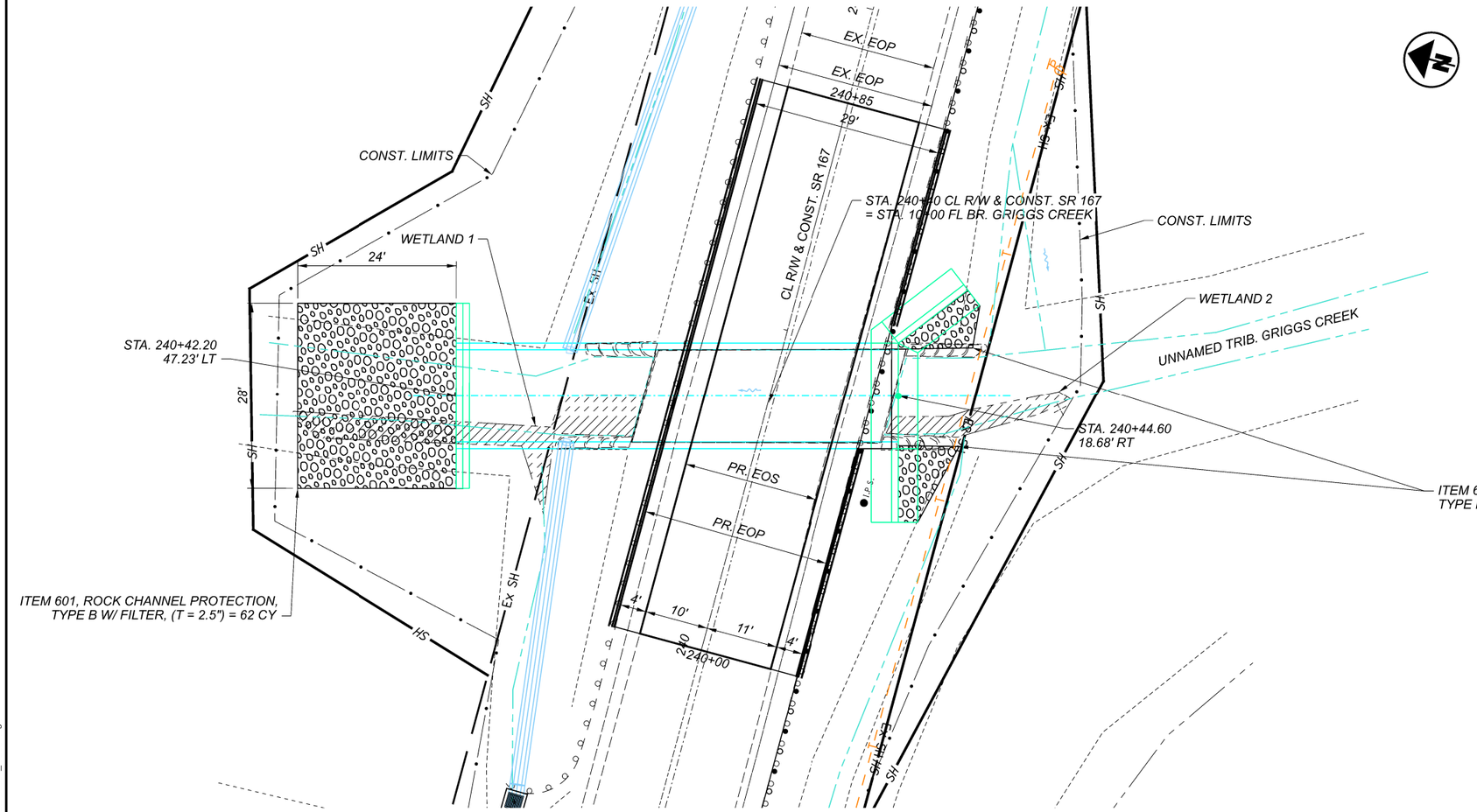
PROJECT ID: 96551

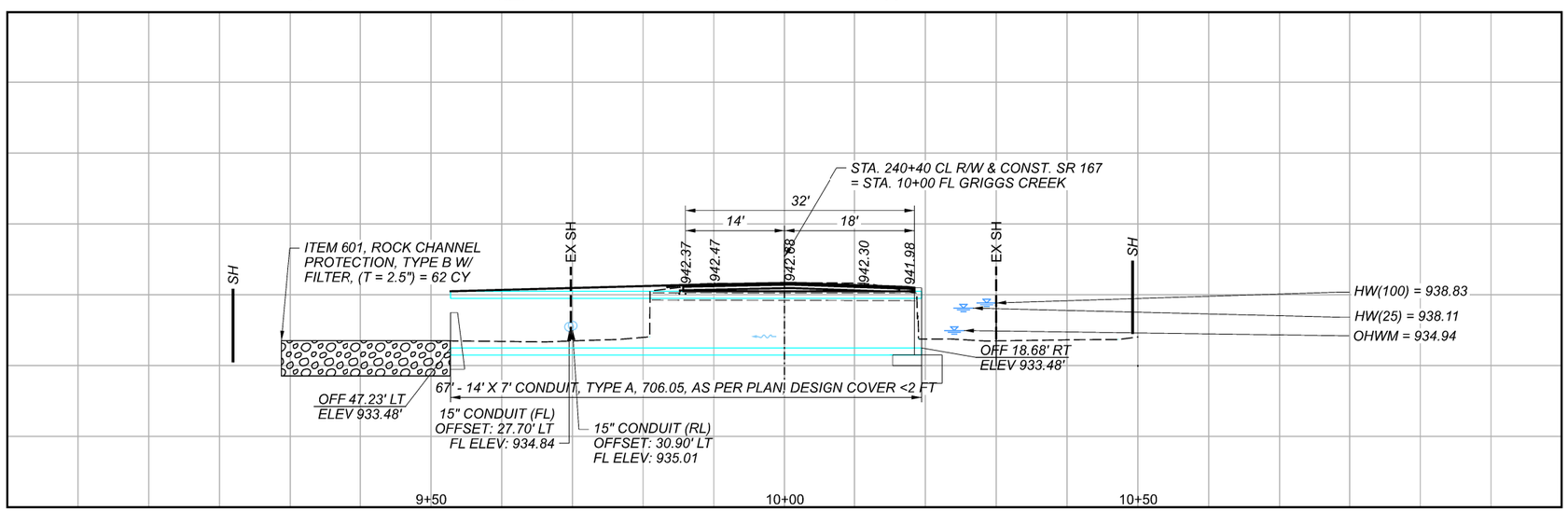
SUBSET	TOTAL
4	9

SHEET	TOTAL
P.38	48

ATB-84/VAR-21.80/VAR

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:30:39 AM USER: mpatlagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Structures\SFN_0404985\Sheets\96551_SS001.dgn





BENCHMARK DATA

BM #1 STA.	231+20.75,	ELEV.	945.82,	OFFSET	17.03,	CP100
BM #2 STA.	240+27.82,	ELEV.	941.53,	OFFSET	17.98,	CP150
BM #3 STA.	249+60.20,	ELEV.	944.63,	OFFSET	-15.33,	CP200
BM #4 STA.	264+58.94,	ELEV.	,	OFFSET	-25.15,	CP250
BM #5 STA.	240+38.41,	ELEV.	940.19,	OFFSET	23.78,	SV100

HORIZONTAL SCALE IN FEET
0 5 10 20

NOTES

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

DESIGN TRAFFIC:

2022 ADT = 3,027 2022 ADTT = 144
2042 ADT = 3,100 2042 ADTT = 150
DIRECTIONAL DISTRIBUTION = 54%

HYDRAULIC DATA

DRAINAGE AREA = 979 AC
Q (25) = 222 CFS V (25) = 5.46 FT/S
Q (100) = 300 CFS V (100) = 6.32 FT/S
STRUCTURE CLEARS THE 25 YEAR
DESIGN HW BY 3.37 FEET.

EXISTING STRUCTURE

TYPE: SIMPLE CONCRETE SLAB
SPANS: 15' ±
ROADWAY: 36' O/O
LOADING: H15
SKEW: 15° FR
WEARING SURFACE: CONCRETE DECK
APPROACH SLABS: CONCRETE
ALIGNMENT: TANGENT
STRUCTURE FILE NUMBER: 0404985
DATE BUILT: 1947
DISPOSITION: TO BE REMOVED AND REPLACED

PROPOSED STRUCTURE

TYPE: 14' X 7' CONDUIT, TYPE A, 706.05, EMBEDDED, <2' OF COVER
SPANS: 14.5' ±
ROADWAY: 32' EOS/EOS
LOADING: HL93 PLUS FUTURE WEARING SURFACE OF 0.06 KIP/SF
SKEW: 15° FR
WEARING SURFACE: ASPHALT CONCRETE
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
HEADWALLS: FULL HEIGHT PER SHEETS P.40 - P.42
HALF HEIGHT PER SHEET P.43
COORDINATES: LATITUDE 41°45'05" N
LONGITUDE 80°41'10" W

CULVERT DETAIL
ATB-167-0440
OVER BRANCH GRIGGS CREEK

SFN 0404985
DESIGN AGENCY
DESIGNER MJP | CHECKER MAC
REVIEWER MAC 11-22-21
PROJECT ID 96551
SUBSET 5 | TOTAL 9
SHEET P.39 | TOTAL 48

ATB-322/VAR-6.66/VAR

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:30:53 AM USER: mpalagan
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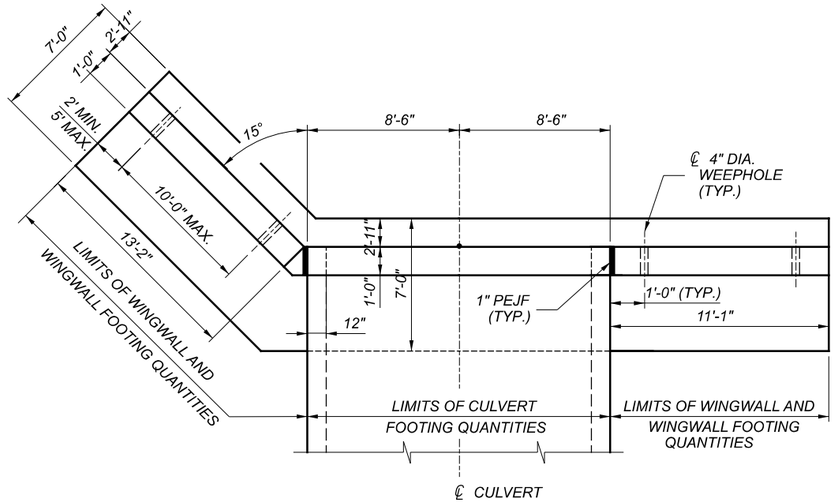
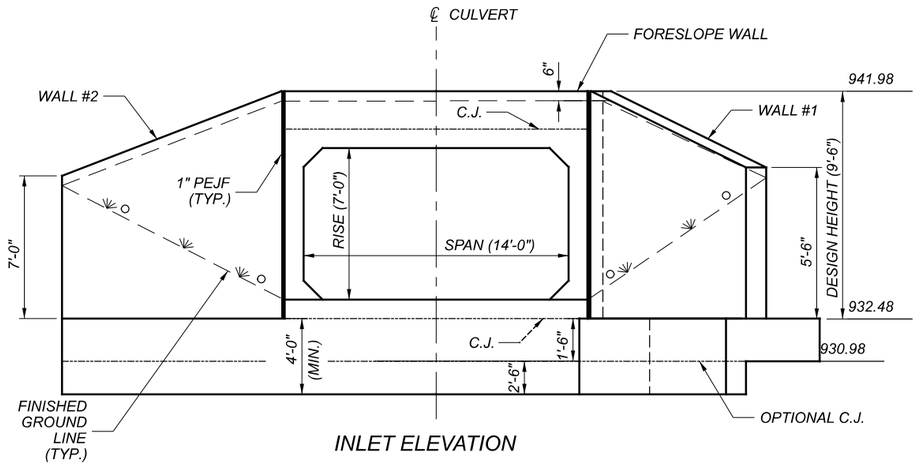


INLET PLAN

TYPE B HEADWALL



INLET ELEVATION

TYPE B HEADWALL

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

HEADWALL DETAILS (INLET)
ATB-167-0440
OVER BRANCH GRIGGS CREEK

SFN 0404985

DESIGN AGENCY

DESIGNER	CHECKER
MJP	MAC

REVIEWER: MAC 09-24-21

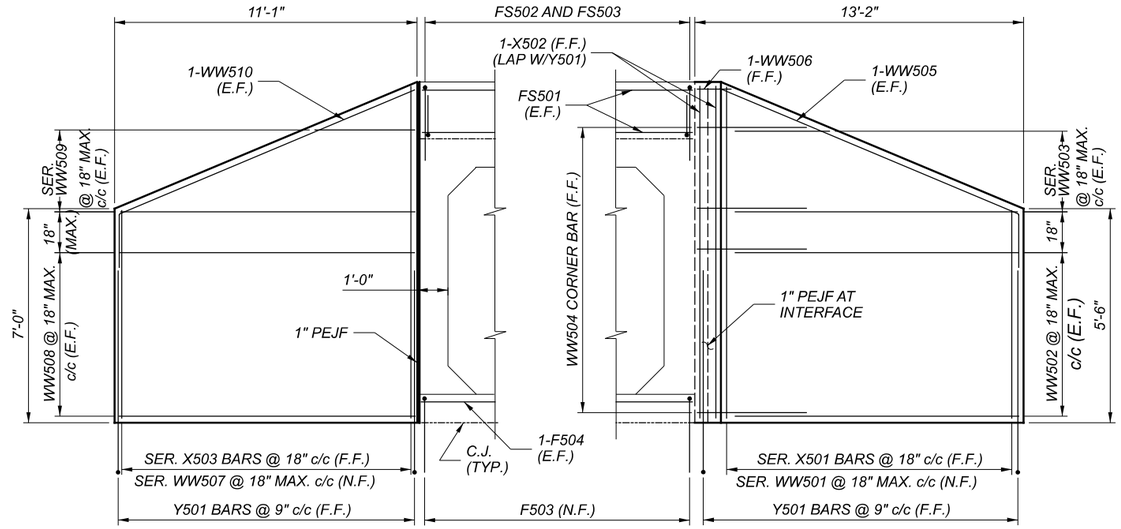
PROJECT ID: 96551

SUBSET	TOTAL
6	9

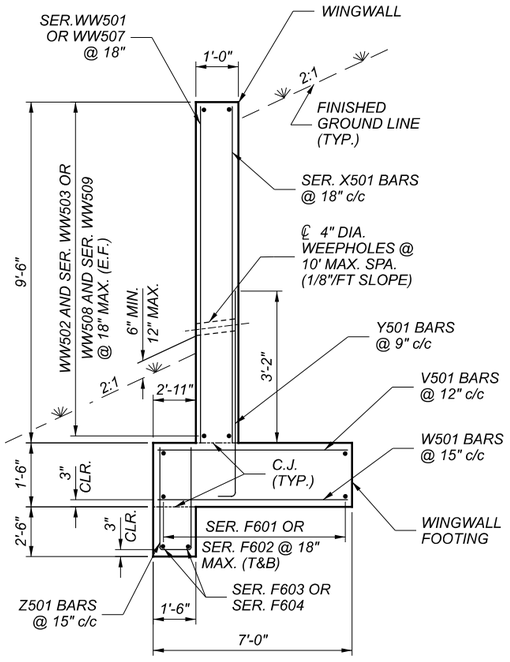
SHEET	TOTAL
P.40	48

ATB-84/VAR-21.80/VAR

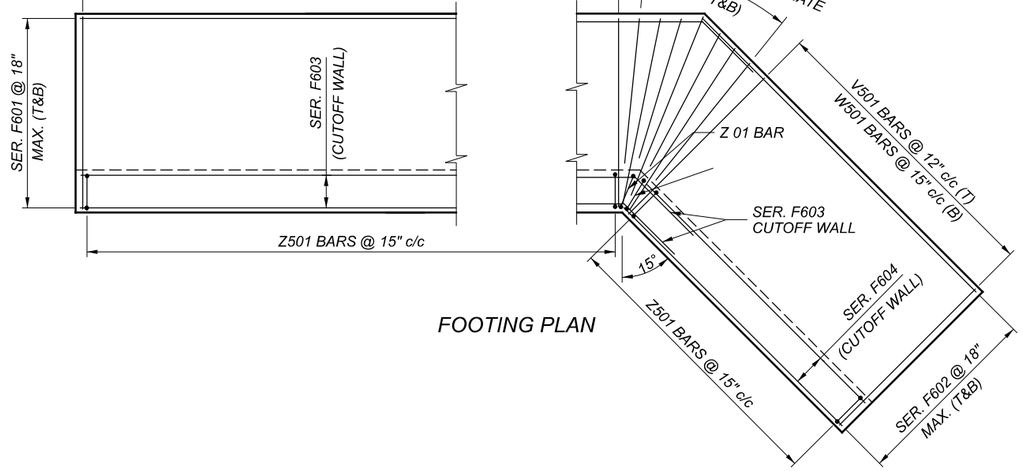
MODEL: Sheet 1 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:31:14 AM USER: mpallagan
pw:\\ohdot-pw.bentley.com:ohdot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Structures\SFN_0404985\Sheets\96551_SM001.dgn



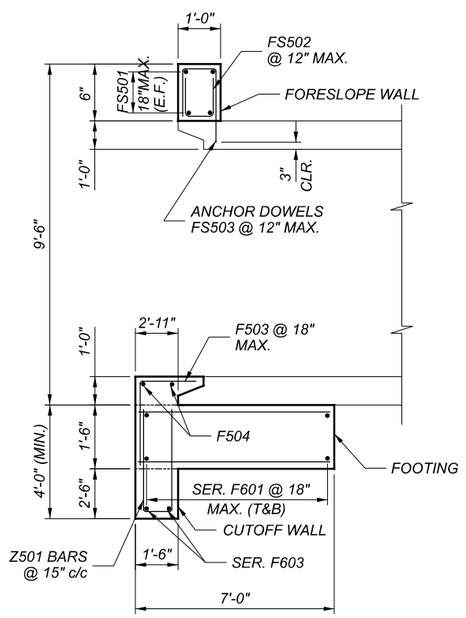
WINGWALL ELEVATION
(FOOTING NOT SHOWN)



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



FOOTING PLAN



SECTION B-B
(CULVERT INLET BEVEL SHOWN)

NOTES

1. FOR CULVERT LOCATION PLAN, SEE SHEET xx/xx.
2. FOR PRECAST BOX CULVERT DETAILS, SEE SHEET xx/xx.
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

ATB-322/VAR-6.66/VAR

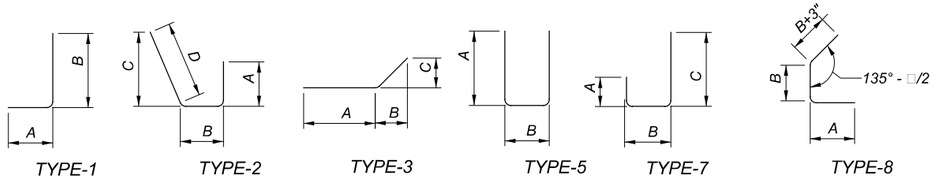
MODEL: Sheet 2 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:31:15 AM USER: mpalagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Structures\SFN_0404985\Sheets\96551_SM001.dgn

HEADWALL DETAILS (INLET)
ATB-167-0440
OVER BRANCH GRIGGS CREEK

SFN	0404985
DESIGN AGENCY	
DESIGNER	MJP
CHECKER	MAC
REVIEWER	MAC 09-24-21
PROJECT ID	96551
SUBSET	7
TOTAL	9
SHEET	P.41
TOTAL	48

TYPE B HEADWALL REINFORCING SCHEDULE

BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS A	B	C	D	INC.
WINGWALLS									
	1	5'- 4"							
X501	SERIES	TO	77	STR.					0'- 5 3/8"
	of 10	9'- 4"							
X502	2	9'- 4"	20	STR.					
	1	6'- 10"							
X503	SERIES	TO	76	STR.					0'- 3 3/4"
	of 9	9'- 4"							
Y501	37	4'- 10"	185	1	0'- 6"	4'- 5"			
	1	5'- 4"							
WW501	SERIES	TO	77	STR.					0'- 5 3/8"
	of 10	9'- 4"							
WW502	8	12'- 10"	108	STR.					
	2	4'- 4"							
WW503	SERIES	TO	54	STR.					4'- 3 1/8"
	of 3	12'- 10"							
WW504	7	3'- 8"	27	2	0'- 7"	0'- 3 "	2'- 4 "	2'- 11 "	
WW505	2	15'- 10"	34	3	2'- 5"	3'- 10"	12'- 10"		
WW506	1	1'- 3"	2	8	0'- 7"	0'- 3 "			
	1	6'- 10"							
WW507	SERIES	TO	76	STR.					0'- 3 3/4"
	of 9	9'- 4"							
WW508	10	10'- 9"	113	STR.					
	2	5'- 5"							
WW509	SERIES	TO	34	STR.					5'- 4 "
	of 2	10'- 9"							
WW510	2	13'- 5"	28	3	2'- 5"	2'- 4"	10'- 9"		
SUBTOTAL (WINGWALLS)			911						
FOOTING & CUTOFF WALL									
V501	40	6'- 8"	279	STR.					
W501	33	6'- 8"	230	STR.					
Z501	35	8'- 2"	299	5	3'- 7"	1'- 2"			
F501	6	6'- 0"	38	STR.					
F502	8	4'- 8"	39	STR.					
F503	12	5'- 1"	64	1	3'- 0"	2'- 2"			
F504	2	15'- 8"	33	STR.					
	2	28'- 0"			25'- 6 3/4"				
F601	SERIES	TO	535	3	TO	1'- 5 3/4"	1'- 11 1/4"		0'- 8 "
	of 6	31'- 4"			28'- 10 1/4"				
	2	11'- 7"							
F602	SERIES	TO	239	STR.					0'- 8 "
	of 6	14'- 11"							
	1	28'- 0"			25'- 6 3/4"				
F603	SERIES	TO	85	3	TO	1'- 5 3/4"	1'- 11 1/4"		0'- 7 "
	2	28'- 7"			26'- 1 3/4"				
	1	11'- 7"							
F604	SERIES	TO	36	STR.					0'- 7 "
	2	12'- 2"							
SUBTOTAL (FOOTING/CUTOFF)			1,877						
FORESLOPE WALL									
FS501	4	15'- 8"	66	STR.					
FS502	17	0'- 9"	14	5	0'- 2"	0'- 8"			
FS503	17	1'- 8"	30	7	0'- 2"	0'- 8"	1'- 1"		
SUBTOTAL (FORESLOPE WALL)			110						
TOTAL (ONE HEADWALL)			2,898						



THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES RADIUS, UNLESS OTHERWISE NOTED.

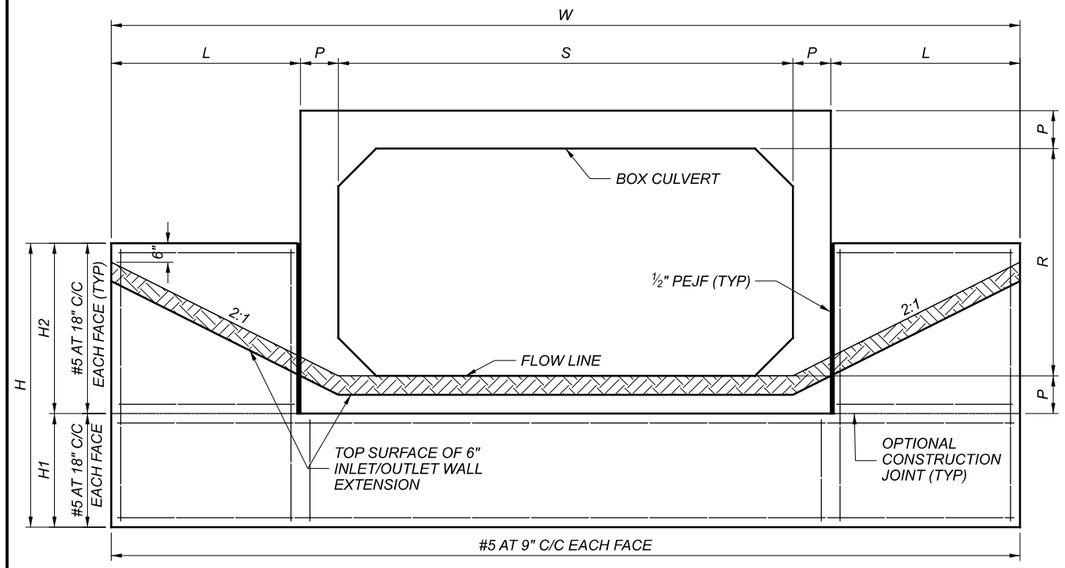
ALL REINFORCING STEEL TO BE EPOXY COATED.

HEADWALL DETAILS (INLET)
ATB-167-0440
OVER BRANCH GRIGGS CREEK

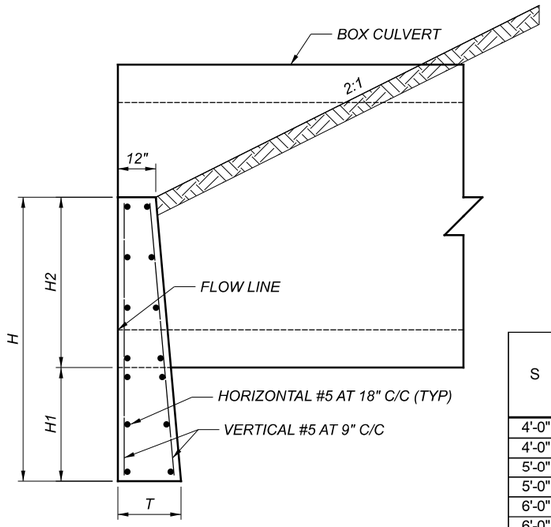
SFN 0404985
DESIGN AGENCY
DESIGNER MJP | CHECKER MAC
REVIEWER MAC 09-24-21
PROJECT ID 96551
SUBSET 8 | TOTAL 9
SHEET P.42 | TOTAL 48

ATB-322/VAR-6.66/VAR

MODEL: Sheet 3 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:31:15 AM USER: mpallagan
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Ashtabula\96551\400-Engineering\Structures\SFN_0404985\Sheets\96551_SM001.dgn



PROFILE

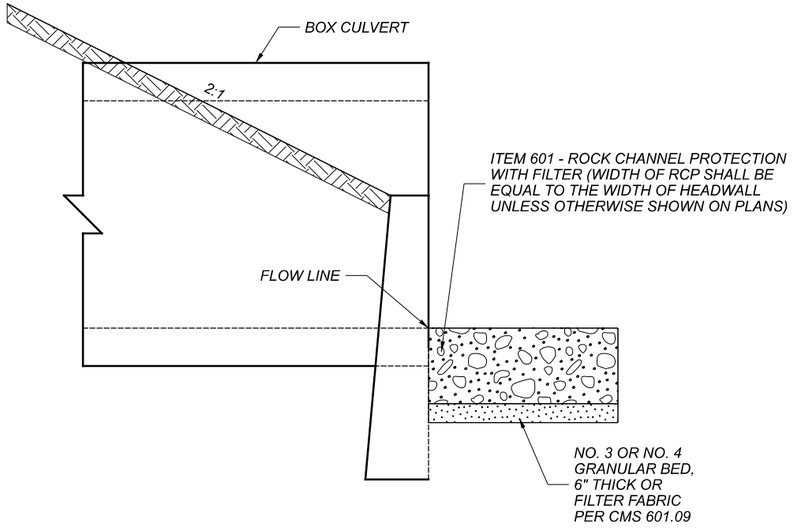


ELEVATION

REVISED 08/12/2009 - CONSTRUCTION JOINT & REBAR ADDED
REVISED 06/17/2010 - PAYMENT FOR PEJF ADDED
REVISED 12/26/2012 - ADDED QTY FOR RIPRAP LEDGE TO TABLE
REVISED 02/08/2013 - 2013 CMS CHANGES

CAST IN PLACE HEADWALL FOR BOX CULVERT

S	R	P	H	H1	H2	L	W	T	STEEL (LBS)	CONC W/O RIPRAP (CU YD)	CONC W/ RIPRAP (CU YD)
4'-0"	2'-0"	8"	5'-2"	3'-0"	2'-2"	1'-4"	8'-0"	1'-0"	166	1.11	1.60
4'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	12'-0"	1'-4"	277	2.52	3.35
5'-0"	3'-0"	8"	5'-8"	3'-0"	2'-8"	2'-4"	11'-0"	1'-0"	231	1.69	2.40
5'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	13'-0"	1'-4"	289	2.66	3.55
6'-0"	2'-0"	8"	5'-2"	3'-0"	2'-2"	1'-4"	10'-0"	1'-0"	195	1.33	1.94
6'-0"	3'-0"	8"	5'-8"	3'-0"	2'-8"	2'-4"	12'-0"	1'-0"	249	1.80	2.57
6'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	14'-0"	1'-4"	306	2.80	3.75
6'-0"	5'-0"	8"	6'-8"	3'-0"	3'-8"	4'-4"	16'-0"	1'-4"	411	3.53	4.67
6'-0"	6'-0"	8"	7'-2"	3'-0"	4'-2"	5'-4"	18'-0"	1'-8"	484	5.02	6.38
7'-0"	5'-0"	8"	6'-8"	3'-0"	3'-8"	4'-4"	17'-0"	1'-4"	423	3.67	4.86
7'-0"	6'-0"	8"	7'-2"	3'-0"	4'-2"	5'-4"	19'-0"	1'-8"	496	5.19	6.60
8'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	16'-0"	1'-4"	330	3.08	4.14
8'-0"	5'-0"	8"	6'-8"	3'-0"	3'-8"	4'-4"	18'-0"	1'-4"	435	3.81	5.06
8'-0"	6'-0"	8"	7'-2"	3'-0"	4'-2"	5'-4"	20'-0"	1'-8"	507	5.36	6.83
8'-0"	7'-0"	8"	7'-8"	3'-0"	4'-8"	6'-4"	22'-0"	1'-8"	584	6.39	8.09
10'-0"	4'-0"	10"	6'-4"	3'-0"	3'-4"	3'-2"	18'-0"	1'-4"	366	3.36	4.59
10'-0"	5'-0"	10"	6'-10"	3'-0"	3'-10"	4'-2"	20'-0"	1'-4"	472	4.10	5.53
10'-0"	6'-0"	10"	7'-4"	3'-0"	4'-4"	5'-2"	22'-0"	1'-8"	545	5.73	7.38
10'-0"	7'-0"	10"	7'-10"	3'-0"	4'-10"	6'-2"	24'-0"	1'-8"	622	6.77	8.65
10'-0"	8'-0"	10"	8'-4"	3'-0"	5'-4"	7'-2"	26'-0"	2'-0"	765	9.00	11.14
10'-0"	9'-0"	10"	8'-10"	3'-0"	5'-10"	8'-2"	28'-0"	2'-0"	857	10.39	12.80
10'-0"	10'-0"	10"	9'-4"	3'-0"	6'-4"	9'-2"	30'-0"	2'-4"	953	13.31	16.01
12'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	20'-0"	1'-4"	408	3.64	5.05
12'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	22'-0"	1'-8"	475	5.14	6.75
12'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	24'-0"	1'-8"	577	6.09	7.93
12'-0"	7'-0"	1'-0"	8'-0"	3'-0"	5'-0"	6'-0"	26'-0"	2'-0"	678	8.16	10.23
12'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	28'-0"	2'-0"	765	9.45	11.79
12'-0"	9'-0"	1'-0"	9'-0"	3'-0"	6'-0"	8'-0"	30'-0"	2'-4"	891	12.18	14.79
12'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	32'-0"	2'-4"	1024	13.86	16.77
14'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	22'-0"	1'-4"	432	3.92	5.46
14'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	24'-0"	1'-8"	499	5.48	7.22
14'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	26'-0"	1'-8"	601	6.43	8.40
14'-0"	7'-0"	1'-0"	8'-0"	3'-0"	5'-0"	6'-0"	28'-0"	2'-0"	702	8.56	10.76
14'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	30'-0"	2'-0"	788	9.86	12.32
14'-0"	9'-0"	1'-0"	9'-0"	3'-0"	6'-0"	8'-0"	32'-0"	2'-4"	915	12.65	15.39
14'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	34'-0"	2'-4"	1048	14.33	17.37
14'-0"	12'-0"	1'-0"	10'-6"	3'-0"	7'-6"	11'-0"	38'-0"	2'-8"	1304	20.01	23.69
16'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	24'-0"	1'-4"	461	4.20	5.87
16'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	26'-0"	1'-8"	528	5.82	7.69
16'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	28'-0"	1'-8"	630	6.78	8.87
16'-0"	7'-0"	1'-0"	8'-0"	3'-0"	5'-0"	6'-0"	30'-0"	2'-0"	731	8.96	11.30
16'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	32'-0"	2'-0"	818	10.26	12.86
16'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	36'-0"	2'-4"	1077	14.81	17.97
16'-0"	12'-0"	1'-0"	10'-6"	3'-0"	7'-6"	11'-0"	40'-0"	2'-8"	1333	20.55	24.36
18'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	26'-0"	1'-4"	490	4.48	6.28
18'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	28'-0"	1'-8"	557	6.16	8.16
18'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	30'-0"	1'-8"	659	7.12	9.34
18'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	34'-0"	2'-0"	847	10.67	13.39
18'-0"	9'-0"	1'-0"	9'-0"	3'-0"	6'-0"	8'-0"	36'-0"	2'-4"	973	13.59	16.59
18'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	38'-0"	2'-4"	1106	15.28	18.57
20'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	28'-0"	1'-4"	514	4.76	6.69
20'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	30'-0"	1'-8"	581	6.50	8.62
20'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	32'-0"	1'-8"	683	7.46	9.81
20'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	36'-0"	2'-0"	870	11.07	13.93
20'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	40'-0"	2'-4"	1130	15.75	19.18



OUTLET CHANNEL PROTECTION DETAIL

NOTES:

GENERAL: PROVIDE A RIPRAP REINFORCED CONCRETE SLAB ACCORDING TO SCD DM-1.1 IF THE PIPE IS DEPRESSED OR IS SPECIFIED IN THE PLAN. PAYMENT WILL BE MADE PER SQUARE YARD OF ITEM 601 - RIPRAP USING 6" REINFORCED CONCRETE SLAB AND SHALL INCLUDE THE COST OF THE CUTOFF WALL.

THIS DRAWING IS FOR CAST IN PLACE HALF-HEIGHT CONCRETE HEADWALLS. PRECAST HEADWALLS WILL NOT BE PERMITTED.

CONCRETE: CONCRETE FOR HEADWALLS SHALL BE CLASS QC 1

REINFORCING STEEL: BARS SHALL BE #5 AND EPOXY COATED

CONCRETE QUANTITIES ARE SHOWN FOR HEADWALLS WITH AND WITHOUT THE 6" EXTENSION UNDER THE CHANNEL PROTECTION.

PAYMENT: ITEM 602 CONCRETE MASONRY INCLUDES REINFORCING AND PREFORMED EXPANSION JOINT FILLER

HEADWALL DETAILS (OUTLET)
ATB-167-0440
OVER BRANCH GRIGGS CREEK

SFN 0404985

DESIGN AGENCY

DESIGNER	CHECKER
TJP	LMP

REVIEWER: MAC 09-24-21

PROJECT ID: 96551

SUBSET	TOTAL
9	9

SHEET P.42 TOTAL 48

ATB-322/VAR-6.66/VAR

MODEL: Sheet 4 PAPERSIZE: 17x11 (in.) DATE: 4/20/2022 TIME: 10:31:23 AM USER: mpallagan
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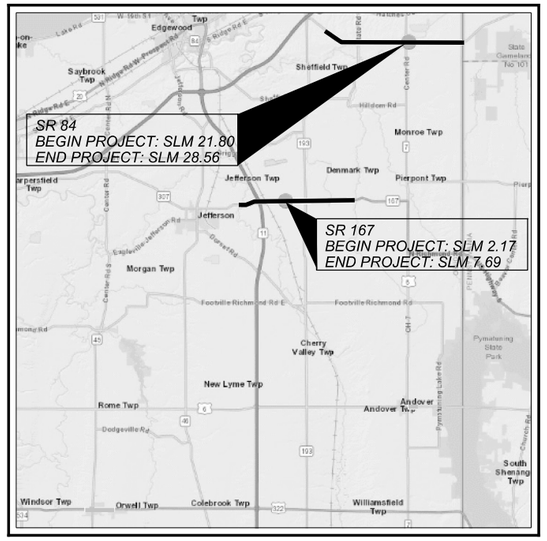
RIGHT OF WAY
LEGEND SHEET



LOCATION MAP

LATITUDE: 41°45'05" LONGITUDE: 80°41'18"

MONROE TOWNSHIP, SEC. 6, T-12N, R-1W
DENMARK TOWNSHIP, SEC. 8, LOTS 1 & 3

PROJECT DESCRIPTION

PROJECT INCLUDES THE INTERSECTION IMPROVEMENT OF SR 7 AND SR 84. PROJECT ALSO INCLUDES THE REMOVAL AND REPLACMENT OF CULVERT ATB-167-4.40.

PROJECT CONTROL

STATE PLANE GRID (2011)(EPOCH:2010.00)
PROJECT ADJUSTMENT FACTOR ATB-7/84 1.00000000000
ATB-167-4.40 0.999970500870

INDEX OF SHEETS:

PLANS PREPARED BY:

FIRM NAME : _____
R/W DESIGNER: _____
R/W REVIEWER: _____
FIELD REVIEWER: _____
PRELIMINARY FIELD REVIEW DATE: _____
TRACINGS FIELD REVIEW DATE: _____
OWNERSHIP UPDATED BY: _____
DATE COMPLETED: _____
PLAN COMPLETION DATE: _____

TYPES OF TITLE LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
A = AERIAL EASEMENT
SL = SLOPE EASEMENT
PRE = PROPERTY RIGHT EASEMENT

Charter
ATTN: Jason Sprague
2904 State Road
Ashtabula, OH 44004
216-575-8016 Ext 216-555-5740
440-361-0024 Cell
jason.sprague@charter.com

C & D OIL AND GAS
ATTN: Brent
440-858-2114
440-994-9022 cell
triplebgas@gmail.com

Dominion Energy
ATTN: Micah Risacher
320 Springside Drive
Suite 320
Akron, OH 44333
330-664-2638
440-371-1533 Cell
Micah.J.Risacher@dominionenergy.com
relocation@dominionenergy.com

Everstream
ATTN: Gio Reillo
1228 Euclid Ave.
Suite 250
Cleveland, OH 44115
216-905-0780 Office
216-905-0780 Cell
greillo@everstream.net

GreatWave Communications
(OLD Conneaut Telephone Company)
ATTN Don Zappitelli
224 State St.
Conneaut, OH 44030
(440) 593-7100
donzapp@greatwavecom.com

G 4 S
ATTN: Mark Bradford
4 Walker Way, Suite 1
Albany, NY 12205
Phone (518) 527-5064 ext. 107
518-362-6060 Cell
Mark.bradford@adestagroup.com

The Illuminating Company
ATTN: John Zassick
6896 Miller Road
Brecksville, Ohio 44141
440-546-8706
jmzassick@firstenergycorp.com

Tussel, Jr. Company
ATTN: Carl Tussel
141 E. Jefferson St.
Jefferson, OH 44047
440-576-3415
440-645-4550 Cell
mimpa11@yahoo.com

Windstream
ATTN: Ramon French
205 S. Hambden Street
Chardon, OH 44024
440-285-5537
440-958-7866 Cell
ramon.french@windstream.com

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Standard Highway Ease.(Pr) SH
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)

Edge of Shoulder (Ex)
Edge of Shoulder (Pr)
Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr), Tree (Ex), Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) MB , Mailbox (Pr) MB
Light (Ex) , Telephone Marker (Ex) TEL
Fire Hydrant (Ex) , Water Meter (Ex) W
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

STRUCTURE KEY

RESIDENTIAL
COMMERCIAL
OUT-BUILDING

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

I, TIM WARD , P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation on JUNE, 2020 . The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, NORTH Zone on NAD 83 (2011) datum. The Project Coordinates (US Survey feet) are relative to State Plane Grid Coordinates (meters or US Survey feet) by a Project Adjustment Factor multiplier of 1.00000000000 ATB-84/7 & 0.999970500870 ATB-167 . As a part of this project I have reestablished locations of the existing property lines and centerline of existing Right of Way for property takes contained herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

_____
TIM WARD , Professional Land Surveyor No. 8045 , Date: 4-16-2021

SURVEYORS SEAL

ATB-322/VAR-6.66/VAR

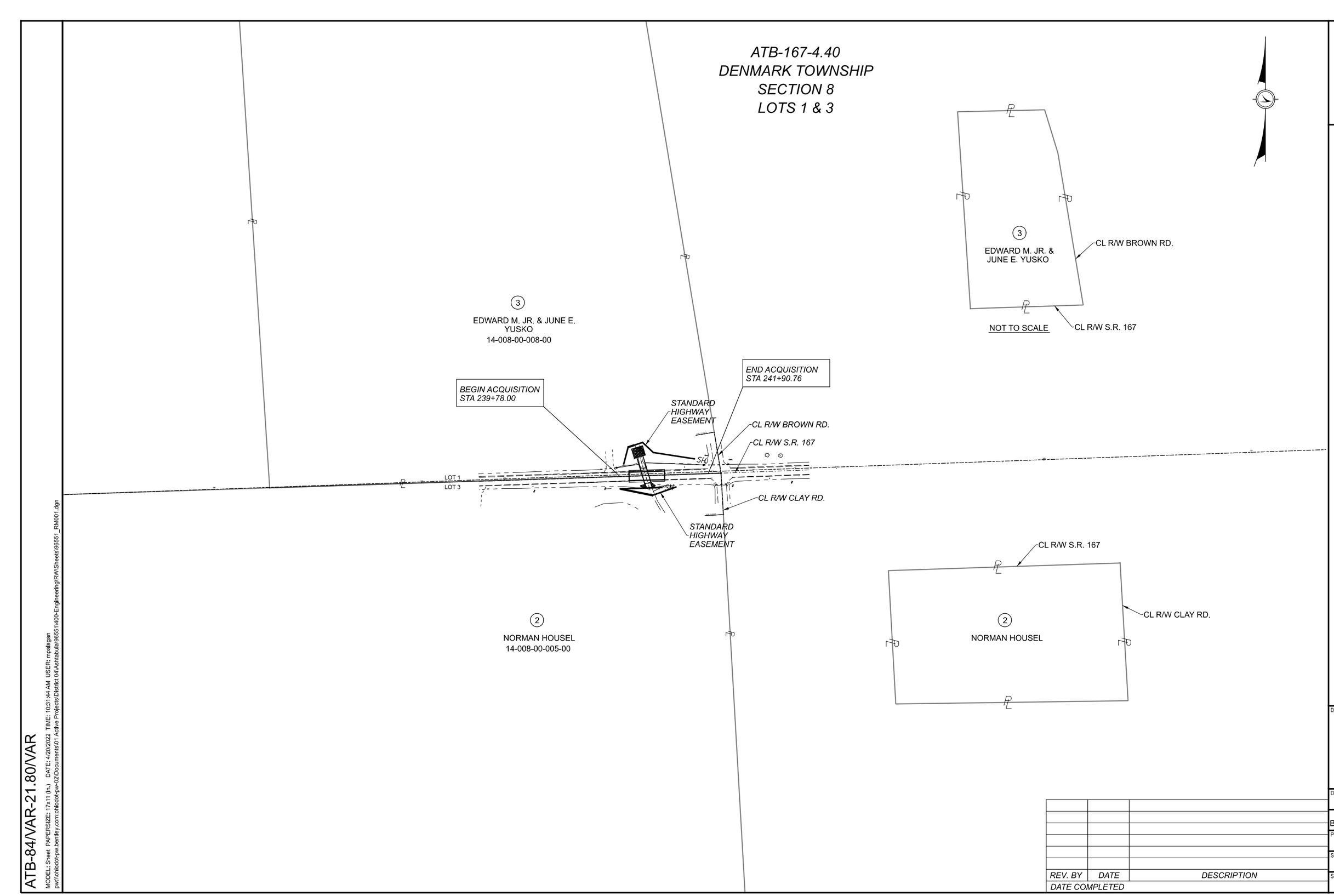
DESIGN AGENCY

DESIGNER TWW
REVIEWER BWH 04-13-21
PROJECT ID 96551
SUBSET 1 TOTAL 5
SHEET P.44 TOTAL 48

ATB-84/VAR-21.80/VAR

ATB-167-4.40
DENMARK TOWNSHIP
SECTION 8
LOTS 1 & 3

HORIZONTAL SCALE IN FEET
0 25 50 100



REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

DESIGN AGENCY

DESIGNER TWW
REVIEWER BWH 04-13-21
PROJECT ID 96551
SUBSET 2 TOTAL 5
SHEET P.45 TOTAL 48

ATB-322/VAR-6.66/VAR

ATB-84/VAR-21.80/VAR

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TOTAL NUMBER OF :

OWNERSHIPS — TOTAL TAKES

PARCELS — OWNERSHIPS W/ STRUCTURES INVOLVED

NET TAKE = GROSS TAKE - PRO IN TAKE

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1-T	NGD, LLC	4	VOL. 431	PG. 817	31-008-00-039-00	0.610	0.210	0.008	0	0.008					TO GRADE AND SEED		
2-SH	NORMAN HOUSEL	5	VOL. 32	PG. 7192	14-008-00-005-00	70	2.51	0.027	0	0.027			67.463				
			VOL. 86	PG. 4677													
3-SH	EDWARD M. YUSKO JR. AND	5	VOL. 31	PG. 1015	14-008-00-008-00	42.920	2.100	0.101	0.000	0.101		40.719					
	JUNE E. YUSKO																

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

* *DENOTES RIGHT OF WAY ENCROACHMENT*

(c) = CALCULATED AREA

NOTE: ALL TEMPORARY PARCELS TO BE OF MONTH DURATION.

TYPES OF TITLE LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
A = AERIAL EASEMENT
SL = SLOPE EASEMENT
PRE = PROPERTY RIGHT EASEMENT

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY — DATE:

OWNERSHIP VERIFIED BY — DATE:

DATE COMPLETED

SUMMARY OF ADDITIONAL RIGHT OF WAY

DESIGN AGENCY

DESIGNER TWW

REVIEWER BWH 04-07-21

PROJECT ID 96551

SUBSET 3 TOTAL 5

SHEET P.46 TOTAL 48

ATB-84/VAR-21.80/VAR

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ATB-322/VAR-6.66/VAR
ATB-167-4.40
SECTION 8, LOTS 1 & 3
DENMARK TOWNSHIP, ASHTABULA COUNTY

HORIZONTAL SCALE IN FEET
0 10 20 40

3

EDWARD M. JR. &
JUNE E. YUSKO
14-008-00-008-00

#2681 S.R. 167

CL R/W BROWN RD.

STA. 11+00.00

STA 240+35.00
OFF 80' LT

STA 240+00.00
OFF 70' LT

36.40' SH
N72°11'09"E

S46°52'07"E
35.36' SH

STA 240+60.00
OFF 55' LT

N14°52'32"E
41.65' SH

3-SH

SH S81°09'48"E 134.58'

STA 241+92.24
OFF 30' LT

STA 239+88.00
OFF 30' LT

PR. 14' x 7' BOX CULVERT

S88°07'53"W 204.24'

Ex SH

12" CPP

4" CPP

15" TYPE C

12" TYPE C

12" CMP

30.00'

N8°50'42"E

242 29.21'

CL R/W S.R. 167
STA. 242+21.45

238 239 240 241 243

CL R/W S.R. 167

STA. 241+11.57

S88°07'53"W

109.88'

STA. 241+92.24

30.00' S8°50'42"W

HS Ex

N88°07'53"E 133.57'

S70°28'52"W

SH 79.08'
S78°42'40"E

SH 59.37'

STA 239+78.00
OFF 30' RT

STA 241+11.57
OFF 30' RT

2-SH

STA 240+55.00
OFF 48' RT

18" RCP

2

NORMAN HOUSEL
14-008-00-005-00

#2750 S.R. 167

STA. 9+00.00

CL R/W CLAY RD.

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

* DENOTES RIGHT OF WAY ENCROACHMENT

REV. BY	DATE	DESCRIPTION

DATE COMPLETED

ATB-322/VAR-6.66/VAR
ATB-167-4.40

DESIGN AGENCY

DESIGNER TWW
REVIEWER BWH 04-13-21
PROJECT ID 96551
SUBSET 4 TOTAL 5
SHEET P.47 TOTAL 48

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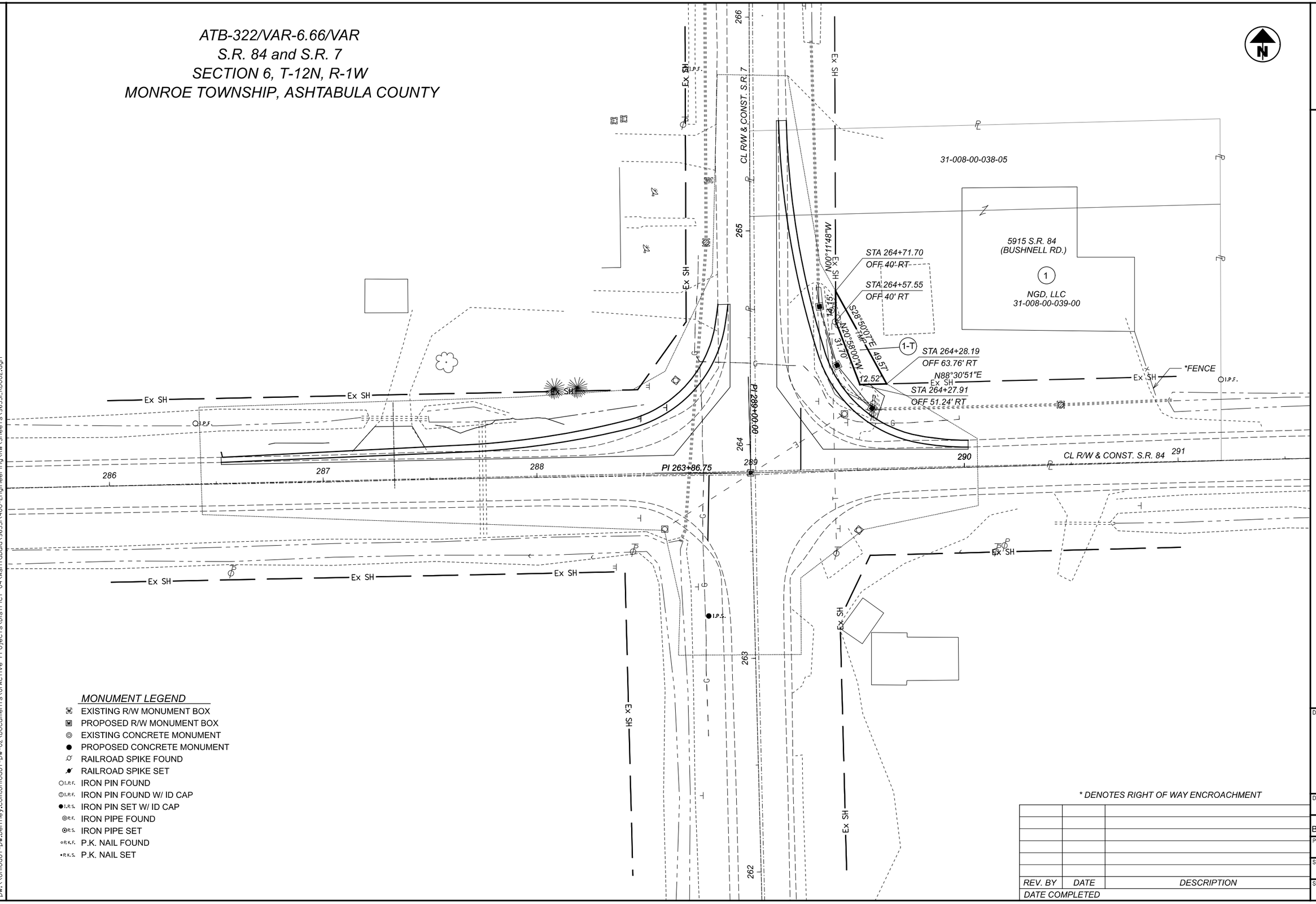
ATB-322/VAR-6.66/VAR
S.R. 84 and S.R. 7
SECTION 6, T-12N, R-1W
MONROE TOWNSHIP, ASHTABULA COUNTY



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

** DENOTES RIGHT OF WAY ENCROACHMENT*

REV. BY	DATE	DESCRIPTION

DATE COMPLETED

HORIZONTAL SCALE IN FEET
0 10 20 40

ATB-322/VAR-6.66/VAR
S.R. and S.R. 7

DESIGN AGENCY

DESIGNER TWW
REVIEWER BWH 04-13-21
PROJECT ID 96551
SUBSET 5 TOTAL 5
SHEET P.48 TOTAL 48

ATB-322/VAR-6.66/VAR

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