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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

December 29, 2025

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, PA 17120-0211

Re: Lancaster County
SR 3028 Section 003
Pitney Road over Amtrak
DOT# 518166 P
PUC No: A-2023-3040337
ECMS No: 84016

Dear Secretary, Homsher,

I accordance with ordering paragraph three (3) and four (4) of the PUC Secretarial Letter at Docket No.: A-2021-3040337 dated October 27, 2023, please find attached for your approval an electronic copy of the final Drawings for the Construction of State Road 3028, Section 003 in the City of Lancaster, Lancaster County, which includes Construction Plans consisting of sheets 1 through 11 for a total of 11 sheets; Cross Sections Plans consisting of sheets 1 through 17 for a total of 17 sheets; Structure Plans consisting of sheets 1 through 23 for a total of 23 sheets and final ET Drawings consisting of sheets 1 through 31 for a total of 31 sheets.

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Lancaster, PA 17602
cthomas@eastlampetertownship.org

The Department of Transportation hereby avers that a complete set of the aforesaid final Drawings for Construction plans is being sent to the following parties of record for examination in accordance with the attached Certificate of Service.

Sincerely

A handwritten signature in black ink, appearing to read "Ahmed Lasludji", is written over a faint, illegible background.

Ahmed Lasludji
Grade Crossing Administrator
Engineering District 8-0
Department of Transportation

cc: Parties of Record
Mark Chappell, P.E., Chief, Right-of-Way and Utilities Section, 7th Floor, CKB
Karen L. Cummings, Counsel for Applicant, Office Chief of Counsel, 9th Floor, CKB
William M. Sinick, P.E., Supervisor, Rail Safety Engineering, Section PUC, 3rd Floor, CKB

DISTRICT	COUNTY	TOWNSHIP	CITY	ROUTE	SECTION	TOTAL SHEETS
8-0	LANCASTER	EAST LAMPETER	LANCASTER	3028	003	11

ECMS NO. 84016

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF TRANSPORTATION

DRAWINGS FOR CONSTRUCTION OF

STATE ROUTE 3028 SECTION 003

IN LANCASTER COUNTY

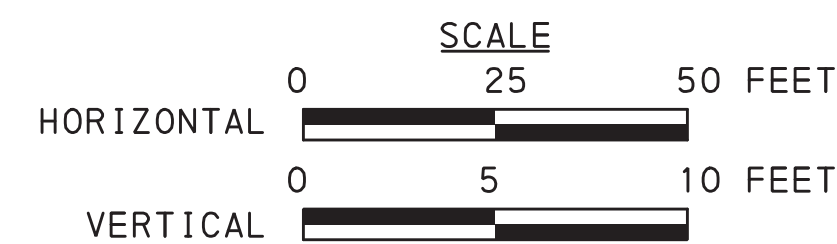
FROM STA 33+20.00 TO STA 41+56.00 LENGTH 736.00 FT 0.139 MI

FROM SEGMENT 0190 OFFSET 1542 TO SEGMENT 0200 OFFSET 0317

PUC APPLICATION DOCKET NUMBER A-2023-3040337

ALSO INCLUDED:

TRAFFIC CONTROL PLAN	3 - SHEETS
SIGNING AND PAVEMENT MARKING	4 - SHEETS
EROSION AND SEDIMENT POLLUTION CONTROL PLAN	1 - SHEET
AMTRAK ELECTRIC TRACTION PLAN	31 - SHEETS
STRUCTURE PLANS	
S-31649	23 - SHEETS
CROSS SECTIONS	17 - SHEETS
EXISTING STRUCTURE PLANS	10 - SHEETS
S-3096	



DESIGN DESIGNATION

FUNCTIONAL CLASSIFICATION - RURAL COMMUNITY ARTERIAL
DESIGN SPEED - 35 MPH
PAVEMENT WIDTH - 11' LANES
SHOULDER WIDTH - 4' LT, 8' RT

TRAFFIC DATA

CURRENT ADT - 9,295 (2026)
DESIGN YEAR ADT - 10,270 (2046)
DHV - 1,027
D - 65%
T - 2%

DATE: \$DATE\$
FILENAME: \$FILEL\$
TIME: \$TIME\$

<p>PREPARED BY:</p> <p>ERDMAN ANTHONY</p> <p>ONE STERLING PLACE 100 STERLING PARKWAY, SUITE 212 MECHANICSBURG, PA 17050</p> <p>STERLING R. FEESER JR. ENGINEER PE-062957-E</p> <p><i>St. R. Feeser Jr.</i> REG PROF ENGINEER</p> <p>DATE: December 12, 2025</p>	<p>RECOMMENDED DATE: _____</p> <p><i>Dan Rocuskie</i> Digitally signed by Dan Rocuskie Date: 2025.12.23.14:36:16 -05'00' PROJECT MANAGER</p>
	<p>RECOMMENDED DATE: December 23, 2025</p> <p><i>Kevin M. Keefe</i> Kevin M. Keefe, P.E. 2025.12.23 15:03:45 -05'00' DISTRICT EXECUTIVE</p>
	<p>RECOMMENDED DATE: 12/23/2025</p> <p><i>Christine Norma</i> DEPUTY SECRETARY</p>
	<p>APPROVED DATE: 12/23/2025</p> <p><i>Hal Cole</i> SECRETARY OF TRANSPORTATION (ON BEHALF OF THE GOVERNOR AS WELL AS THE SECRETARY)</p>

SHEET INDEX BLOCK

DESCRIPTION	SHEET
TITLE SHEET	1
INDEX MAP	2
LOCATION MAP AND GENERAL NOTES	3
TYPICAL SECTIONS	4
SUMMARY SHEET	5
TABULATION SHEETS	6 TO 7
PLAN AND PROFILE SHEETS	8 TO 11

RECORD OF EXISTING TYPES OF ROADWAY PAVEMENT

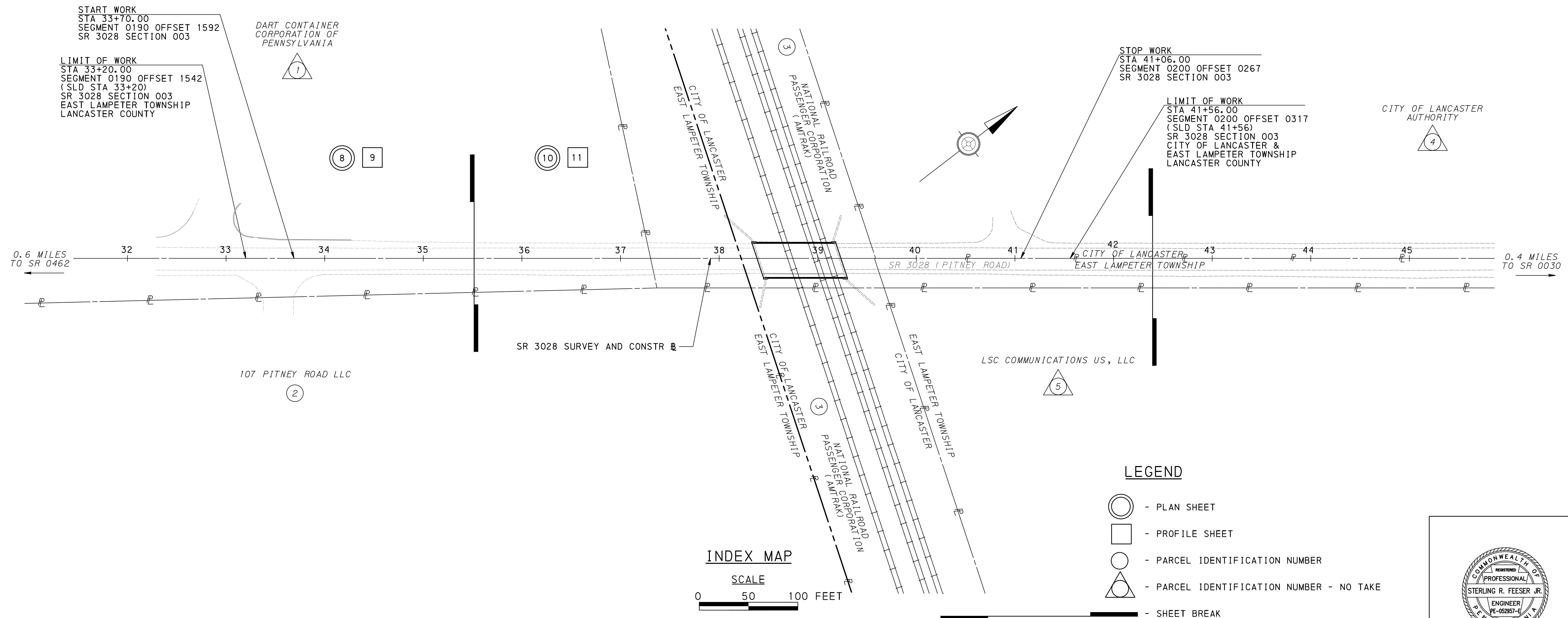
LIMIT OF WORK ADJACENT TO SEG 0190 OFF 1542 AND TO SEG 0190 OFF 1709	22' OF 1 1/2" BIT WEAR CRSE ID-2 ON 1/2" LEVEL BIT WEAR CRSE ID-2 ON 1" BIT WEAR CRSE ID-2 ON 2 1/2" BIT WEAR CRSE ID-2 ON 10" CR AGG BASE CRSE
SEG 0190 OFF 1709 TO 0190 OFF 2061	9' OF 1 1/2" BIT WEAR CRSE ON 2" BIT BNDR CRSE ON 5" BIT BASE CRSE ON 6" 2A SUBBASE
SEG 0190 OFF 1709 TO 0190 OFF 2061	22' OF 1 1/2" BIT WEAR CRSE ID-2 ON 1/2" LEVEL BIT WEAR CRSE ID-2 ON 1" BIT WEAR CRSE ID-2 ON 2 1/2" BIT WEAR CRSE ID-2 ON 10" CR AGG BASE CRSE
SEG 0190 OFF 1709 TO 0190 OFF 2061	22' OF 1 1/2" BIT WEAR CRSE ID-2 ON 1/2" LEVEL BIT WEAR CRSE ID-2 ON 1" BIT WEAR CRSE ID-2 ON 2 1/2" BIT WEAR CRSE ID-2 ON 10" CR AGG BASE CRSE
SEG 0200 OFF 0085 TO LIMIT OF WORK	22' OF 1 1/2" BIT WEAR CRSE ID-2 ON 1/2" LEVEL BIT WEAR CRSE ID-2 ON 1" BIT WEAR CRSE ID-2 ON 2 1/2" BIT WEAR CRSE ID-2 ON 10" CR AGG BASE CRSE

NOTE: THE DEPTHS OF MATERIAL SHOWN ARE FOR DESIGN PURPOSES ONLY.
ANY RISK OF UNANTICIPATED COSTS ASSOCIATED WITH DIFFERENCES BETWEEN
THE LISTED DEPTHS AND ACTUAL DEPTHS SHALL BE ACCEPTED BY THE CONTRACTOR.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	2 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

TABULATION OF SEGMENT EQUALITIES

SR 3028	SEGMENT 0190 OFFSET 0000 = STA 17+78
	SEGMENT 0200 OFFSET 0000 = STA 38+39
	SEGMENT 0210 OFFSET 0000 = STA 57+78



DATE: 12/12/2025 TIME: 2:01:50 AM FILENAME: N:\57855-07-PitneyRoad\Drawings\Cover\Index\3028-CP-Index.dgn



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	3 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

LIST OF PUBLIC UTILITIES

- | | | | |
|--------|--|---------|---|
| — E — | PPL ELECTRIC UTILITIES CORPORATION
CHARLOTTE KRUPA
TWO NORTH NINTH STREET, GENN3
ALLENTOWN, PA 18101-1179
TELEPHONE: (610) 774-6287
EMAIL: CAKRUPA@PPLWEB.COM | — T — | WINDSTREAM COMMUNICATIONS, INC.
JODI MOHLER
4139 OREGON PIKE
EPHRATA, PA 17522
TELEPHONE: (717) 663-8035
EMAIL: JODI.MOHLER@WINDSTREAM.COM |
| — G — | UGI UTILITIES INCORPORATED
GEOFF FERGUSON
1301 AIP DRIVE
MIDDLETOWN, PA 17057
TELEPHONE: (610) 807-3118
EMAIL: GFERGUSON@UGI.COM | — FO — | SHENTEL COMMUNICATIONS
LARRY HUBBARD
500 SHENTEL WAY
EDINBURG, VA 22824
TELEPHONE: (540) 984-5228
EMAIL: LARRY.HUBBARD@EMP.SHENTEL.COM |
| — S2 — | EAST LAMPETER TOWNSHIP SEWER AUTHORITY
CHARLES H. THOMAS
2250 OLD PHILADELPHIA PIKE
LANCASTER, PA 17602
TELEPHONE: (717) 291-4676
EMAIL: CTHOMAS@ELTWP.ORG | — T — | VERIZON PENNSYLVANIA, LLC
SEAN E. BRANNEN
509 CHERRY DRIVE
HERSHEY, PA 17033
PHONE: (717) 675-4780
EMAIL: SEAN.E.BRANNEN@ONE.VERIZON.COM |
| — W — | LANCASTER CITY
CINDY MCCORMICK
120 NORTH DUKE STREET
LANCASTER, PA 17608
TELEPHONE: (717) 291-4729
EMAIL: CMCCORMICK@CITYOFLANCASTERPA.GOV | — CTV — | COMCAST CABLE COMMUNICATIONS MANAGEMENT, LLC
BILL PEPPER
1701 JOHN F KENNEDY BLVD
PHILADELPHIA, PA 19103
TELEPHONE: (717) 821-7689
EMAIL: WILLIAM.PEPPER@COMCAST.COM |
| — S1 — | | — FO — | |

GENERAL NOTES CONT'D

SLOPE EASEMENT. AN EASEMENT FOR THE SUPPORT AND PROTECTION OF THE HIGHWAY, INCLUDING THE RIGHT TO CONSTRUCT, INSPECT, MAINTAIN, REPAIR, RECONSTRUCT AND ALTER DRAINAGE FACILITIES AND THE CONTOUR OF THE LAND. THE EASEMENT SHALL NOT PREVENT THE PROPERTY OWNER FROM MAKING ANY LEGAL USE OF THE AREA WHICH IS NOT DETRIMENTAL TO THE NECESSARY SUPPORT AND PROTECTION OF THE HIGHWAY RIGHT-OF-WAY AND THE SAFETY OF THE TRAVELING PUBLIC.

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON SR 3028, FORMERLY LR 36185, FROM STA 32+00.00 TO STA 42+00.00 IS 60 FEET BASED ON THE PLAN OF CONSTRUCTION AND CONDEMNATION OF RIGHT OF WAY ROUTE NO. 36185 SECTION NO.1, SIGNED ON SEPTEMBER 11, 1959, AND RECORDED ON OCTOBER 23, 1962, IN THE LANCASTER COUNTY RECORDER'S OFFICE IN BOOK 3, PAGE 30.

DETAILS OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

STANDARD DRAWING	DATE APPROVED	STANDARD DRAWING	DATE APPROVED
RC-10M	06-01-10	RC-50M	02-27-23
RC-11M	06-01-10	RC-51M	09-01-23
RC-12M	11-01-22	RC-54M	09-01-23
RC-13M	06-01-10	RC-70M	02-08-19
RC-25M	02-27-23	RC-73M	02-08-19
RC-28M	09-01-23	RC-75M	06-01-10
RC-30M	02-27-23		
TC-8600	06-13-13	TC-8702B	06-13-13
TC-8604	08-17-21	TC-8716	02-21-24
TC-8700C	06-13-13	TC-8717	06-13-13
TC-8701D	06-13-13		
BC-701M	02-14-23	BC-751M	01-31-19
BC-711M	11-23-22	BC-752M	11-23-22
BC-734M	02-19-21	BC-755M	01-31-19
BC-735M	09-30-16	BC-775M	11-23-22
BC-736M	11-23-22	BC-783M	01-31-19
		BC-788M	11-23-22
ET-1446-D	05-07-99		
ET-1447-D	01-13-00		

TABULATION OF OVERALL LENGTH

SR 3028 STA 33+20.00 TO STA 41+56.00 = 836.00 FT = 0.1583 MI

TABULATION OF CONSTRUCTION LENGTH

SR 3028 STA 33+70.00 TO STA 41+06.00 = 736.00 FT = 0.1394 MI

LIST OF EQUALITIES

NONE

SUMMARY OF TRAVERSE CONTROL POINT COORDINATES

(BASED ON STATE PLANE COORDINATE SYSTEM NAD 83 (1992) PA SOUTH ZONE
AVERAGE COMBINED GRID FACTOR = 0.99997952 BASED ON APPROX PROJECT
MIDPOINT N=263,500.0000, E=2,383,466.0000

ROUTE	STATION	OFFSET/ SIDE	COORDINATES		POINT	POINT DESCRIPTION
			NORTH	EAST		
SR 3028 CONSTR	34+25.87	20.7'LT	263152.8350	2383170.3660	10	IRON PIN
	38+14.87	20.9'RT	263435.6900	2383440.6239	11	IRON PIN
	40+68.76	19.9'LT	263661.7436	2383563.2012	12	IRON PIN
	42+08.04	16.2'RT	263750.0870	2383676.7600	13	IRON PIN

NOTE:
FOUR PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY
AND DO NOT IMPLY A PRECISION BEYOND TWO DECIMAL PLACES.

SUMMARY OF PROJECT COORDINATES

(BASED ON STATE PLANE COORDINATE SYSTEM NAD 83 (1992) PA SOUTH ZONE
AVERAGE COMBINED GRID FACTOR = 0.99997952 BASED ON APPROX PROJECT
MIDPOINT N=263,500.0000, E=2,383,466.0000

ROUTE	STATION	COORDINATES		BEARING
		NORTH	EAST	
SR 3028 SURVEY & CONSTR	POT 33+00.00	263040.4801	2383109.9665	N 37°35'36" E
	POT 42+00.00	263753.6046	2383659.0146	

NOTE:
FOUR PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY
AND DO NOT IMPLY A PRECISION BEYOND TWO DECIMAL PLACES.

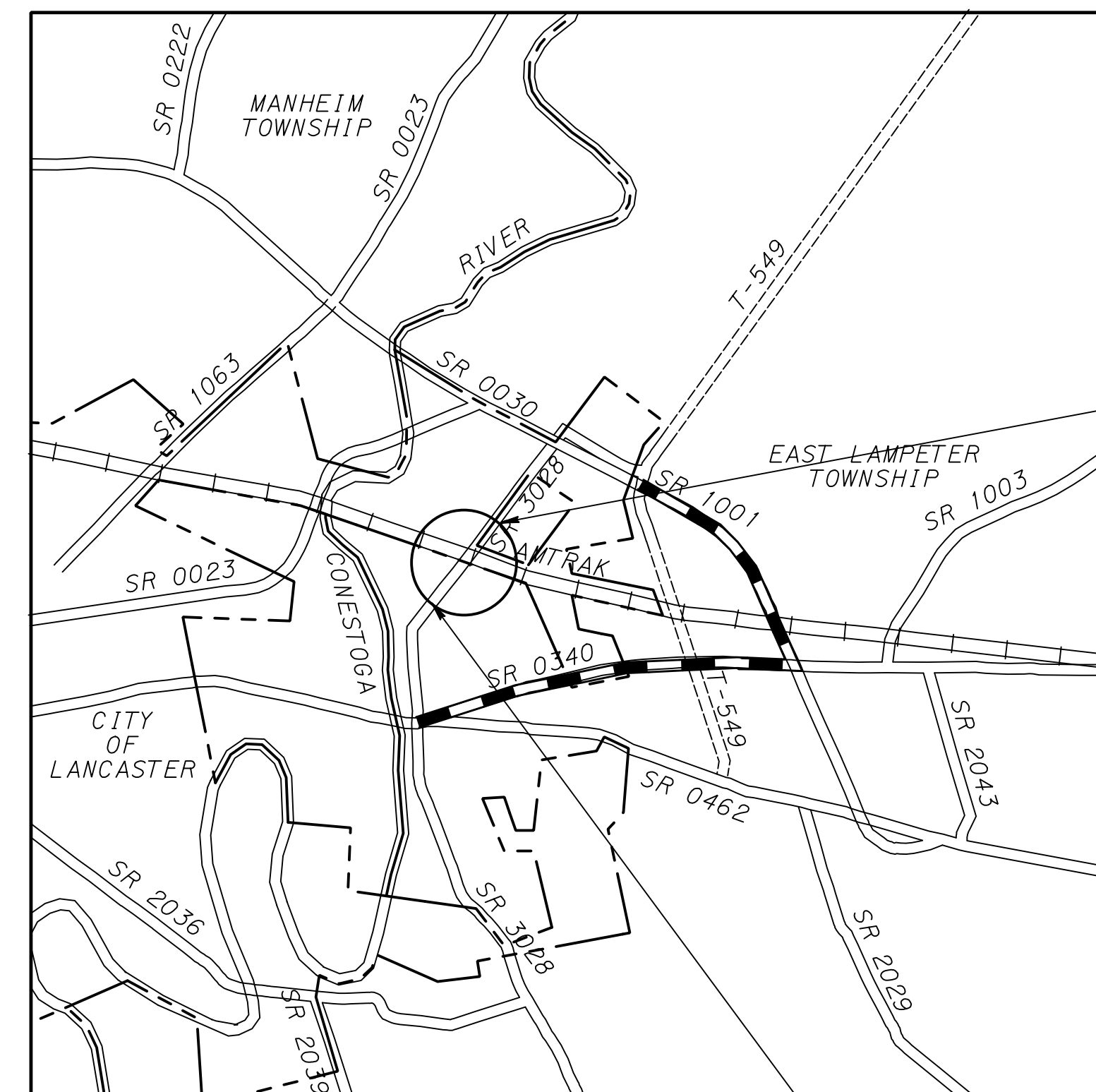
EARTHWORK SUMMARY ENTIRE PROJECT

THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE.
DO NOT USE AS A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS.

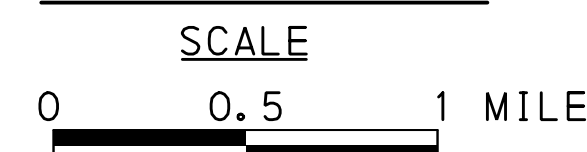
CUBIC YARDS OF EXCAVATION				CUBIC YARDS OF COMPLETED EMBANKMENT	CUBIC YARDS OF SELECTED BORROW EXCAVATION ROCK, CLASS R-4	CUBIC YARDS OF STRUCTURE BACKFILL	CUBIC YARDS OF WASTE
CLASS 1	CLASS 2	CLASS 3	CLASS 4				
133	-	*19	-	-	70	15	152

* QUANTITY INCLUDED IN LUMP SUM STRUCTURE ITEM 8020-0001

THE PA ONE CALL NOTIFICATIONS PERFORMED DURING PROJECT DEVELOPMENT ARE AS FOLLOWS:
PRELIMINARY DESIGN SERIAL NO. 20112562216 ON 10/06/2011 FOR CITY OF LANCASTER
NO. 20112562217 ON 10/06/2011 FOR EAST LAMPETER TWP
FINAL DESIGN SERIAL NO. 20242671116 ON 09/23/2024 FOR CITY OF LANCASTER
NO. 20242671111 ON 09/23/2024 FOR EAST LAMPETER TWP



LOCATION MAP



LEGEND

- PROJECT
- STATE HIGHWAY
- TOWNSHIP ROAD
- DETOUR

LIMIT OF WORK
STA 33+20.00
SEGMENT 0190 OFFSET 1542
(SLD STA 33+20)
SR 3028 SECTION 003
(LR 36185)
CITY OF LANCASTER &
EAST LAMPETER TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK
STA 41+56.00
SEGMENT 0200 OFFSET 0317
(SLD STA 41+56)
SR 3028 SECTION 003
(LR 36185)
CITY OF LANCASTER &
EAST LAMPETER TOWNSHIP
LANCASTER COUNTY



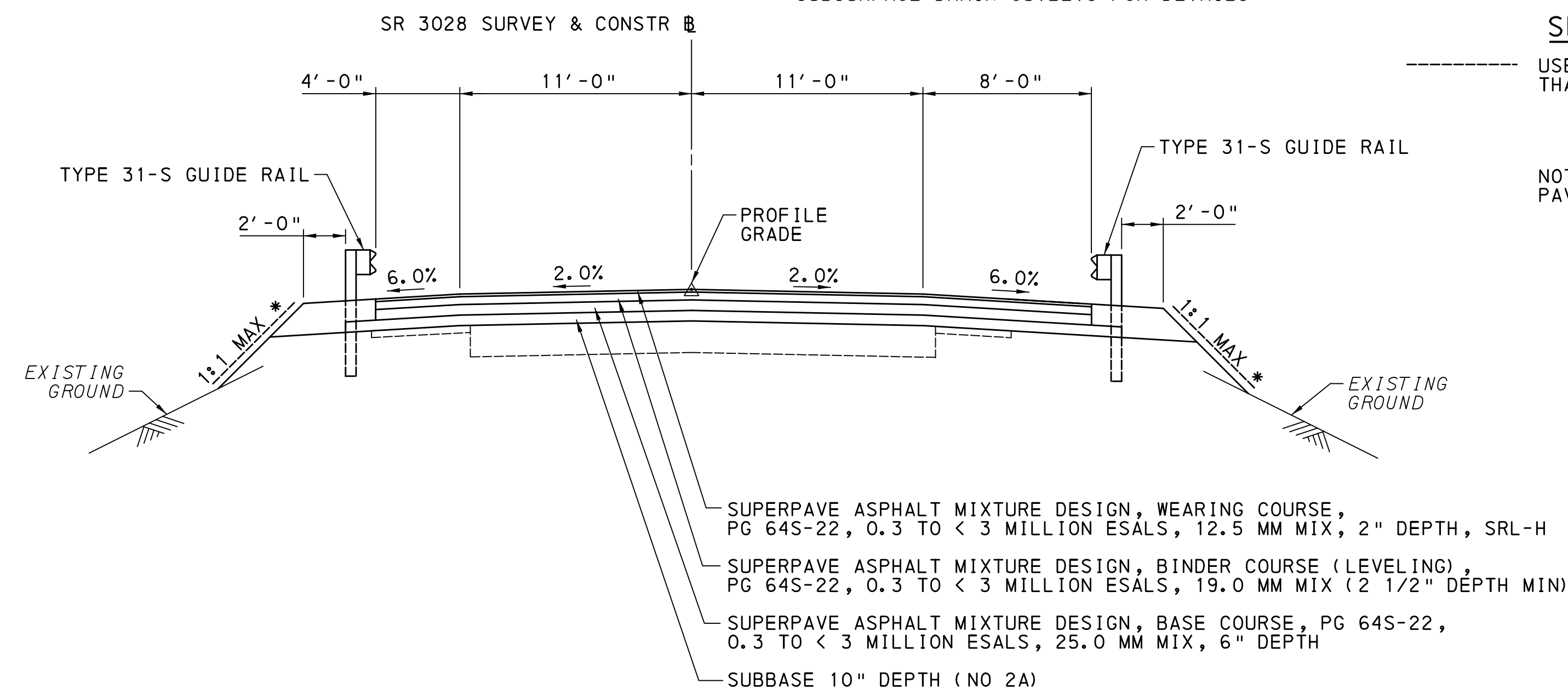
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	4 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

* REFER TO SR 3028 - ROCK, CLASS R-4 AND SUBSURFACE DRAIN OUTLETS FOR DETAILS

SEEDING AND SOIL SUPPLEMENT

USE FORMULA L ON ALL SLOPES 3:1 OR STEEPER THAT DO NOT REQUIRE ROCK SLOPE PROTECTION

NOTE: APPLY ASPHALT TACK COAT BETWEEN ALL PAVEMENT LAYERS.



SR 3028 - RECONSTRUCTION

NOT TO SCALE
STA 38+29.00 TO STA 38+37.69
STA 39+24.26 TO STA 39+33.00

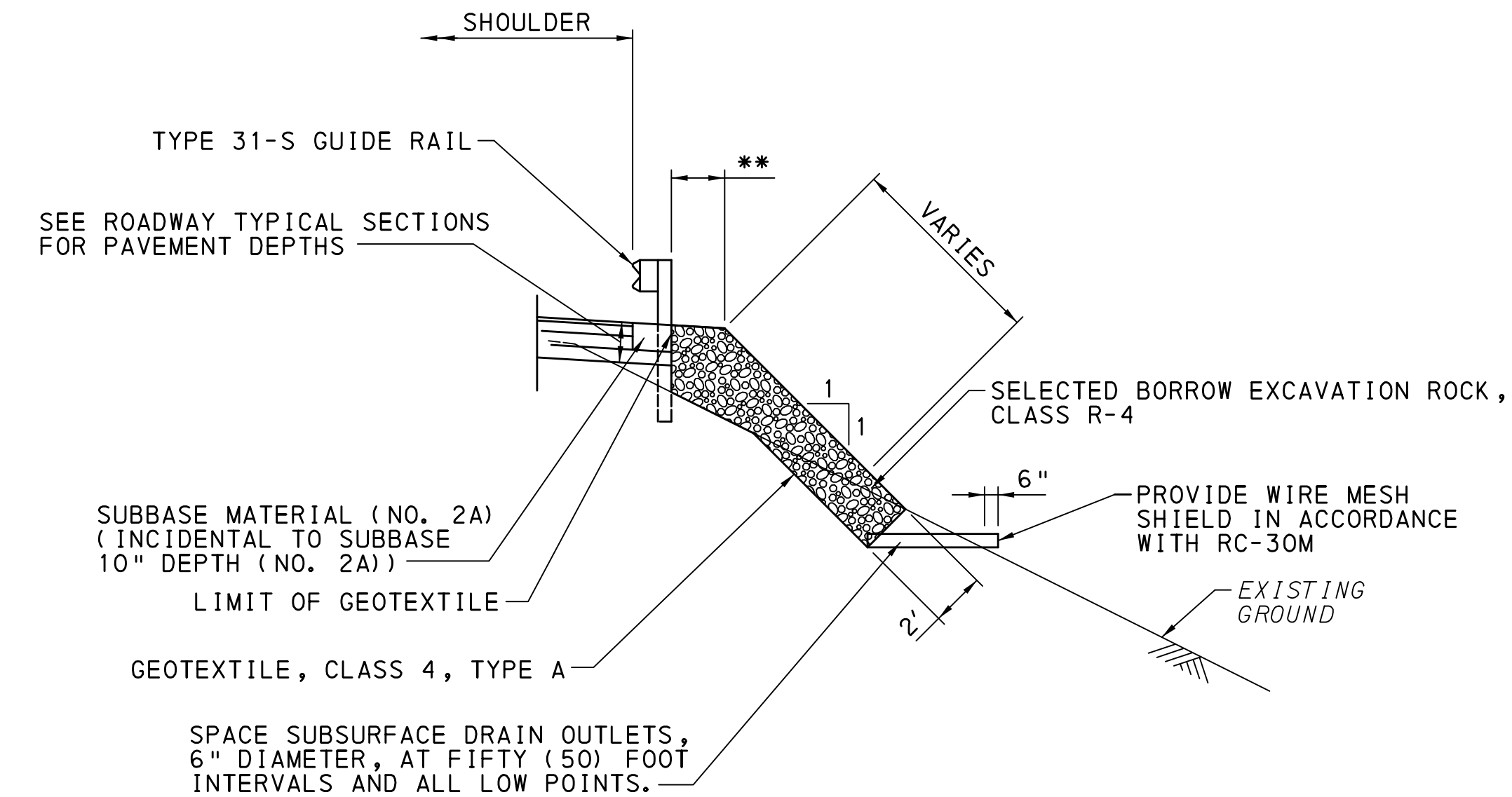
SR 3028 SUPERELEVATION

LEFT SIDE

STA 33+70.00 TO STA 33+95.00: SE VARIES FROM -2.5% (EXISTING) TO -2.0%
STA 33+95.00 TO STA 40+30.00: SE IS -2.0%
STA 40+30.00 TO STA 40+55.00: SE VARIES FROM -2.0% TO -1.9% (EXISTING)

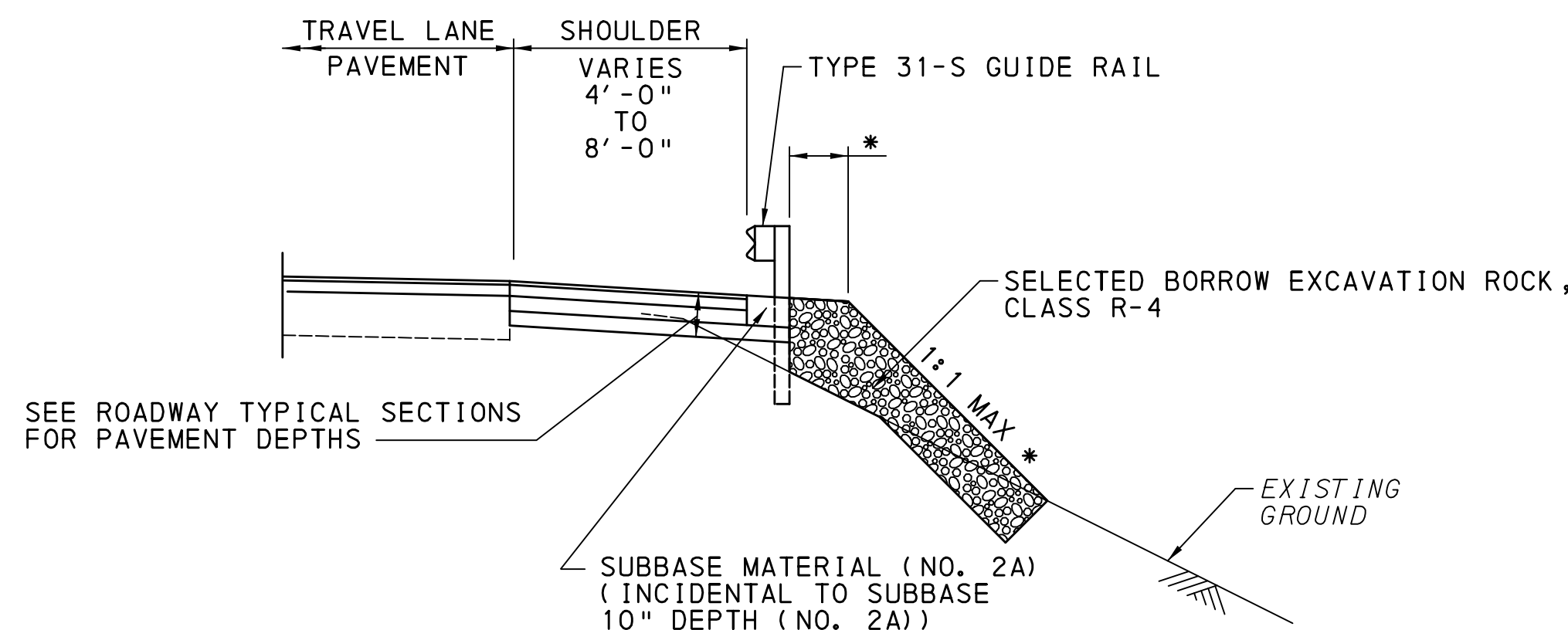
RIGHT SIDE

STA 33+70.00 TO STA 33+95.00: SE VARIES FROM -2.6% (EXISTING) TO -2.0%
STA 33+95.00 TO STA 40+30.00: SE IS -2.0%
STA 40+30.00 TO STA 40+55.00: SE VARIES FROM -2.0% TO -2.8% (EXISTING)



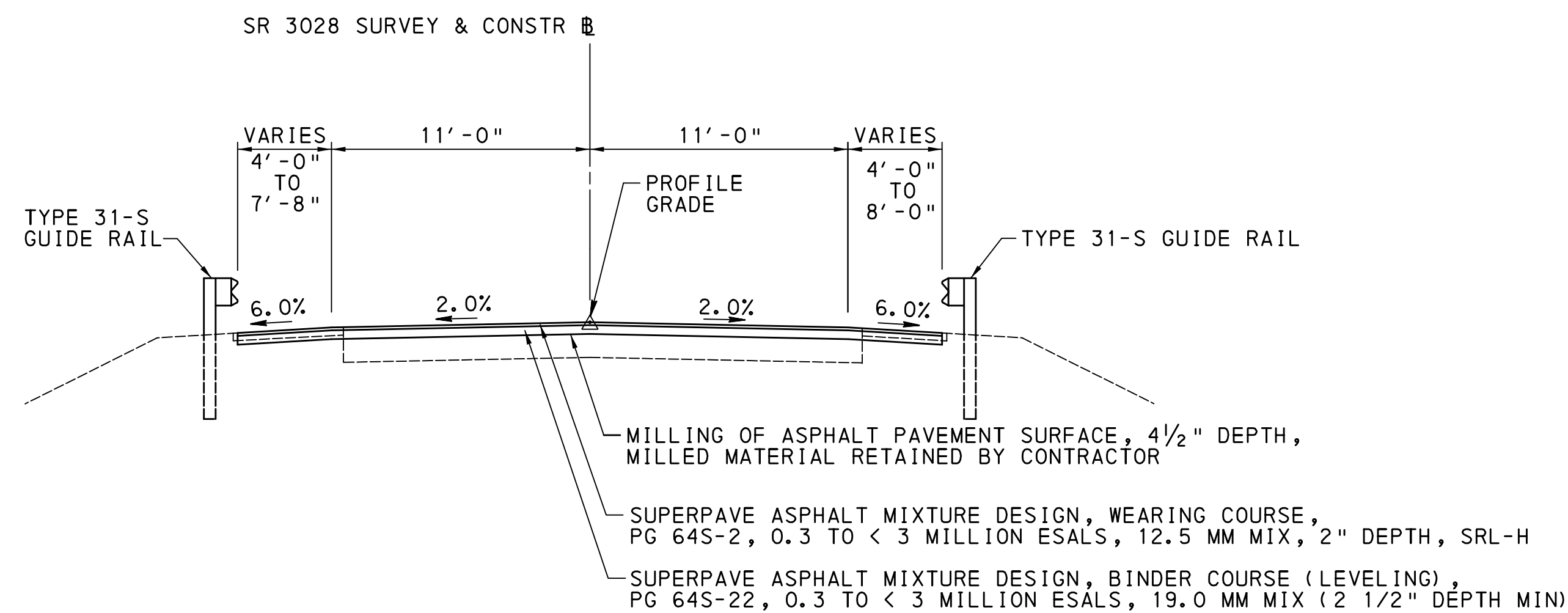
SR 3028 - ROCK, CLASS R-4 AND SUBSURFACE DRAIN OUTLETS

NOT TO SCALE
STA 37+66.00 TO STA 38+45.30 RT ** 2'-0" MIN
STA 39+29.26 TO STA 40+55.00 RT ** 1'-0" MIN AND INCLUDES TYPE 31-S GUIDE RAIL WITH 7' EXTRA LENGTH POSTS BEYOND THRIE BEAM TRANSITION



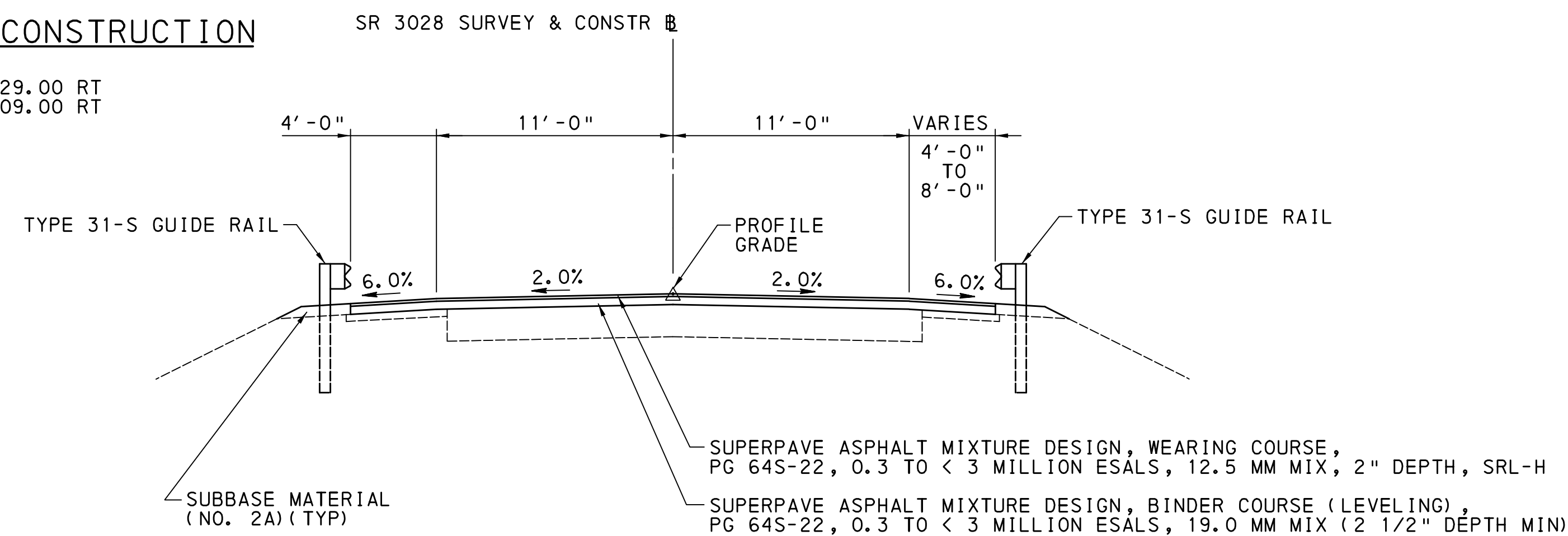
SR 3028 - SHOULDER RECONSTRUCTION

NOT TO SCALE
STA 37+66.00 TO STA 38+29.00 RT
STA 39+33.00 TO STA 40+09.00 RT



SR 3028 - MILL AND OVERLAY

NOT TO SCALE
STA 33+70.00 TO STA 37+45.30
STA 40+01.90 TO STA 40+55.00



SR 3028 - OVERLAY

NOT TO SCALE
STA 37+45.30 TO STA 38+29.00
STA 39+33.00 TO STA 40+01.90



SUMMARY

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				08	LANCASTER	3028	003	5 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP								

◆ - SEE SPECIAL PROVISIONS

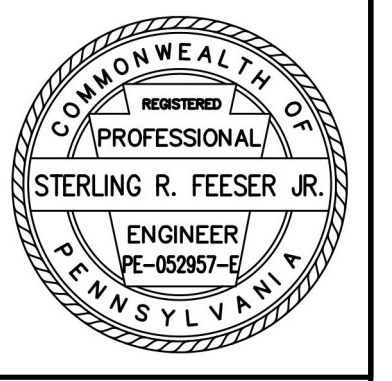
QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
	UNIT					UNIT					UNIT					UNIT			
	0201 0001 LS	CLEARING AND GRUBBING		NO TAB	63	0620 1601 LF	TYPE 31-S GUIDE RAIL WITH 7' EXTRA LENGTH POSTS		6			5018 0050 LS	REMOVAL OF PORTION OF EXISTING BRIDGE						
133	0203 0001 CY	CLASS 1 EXCAVATION		6	1	0620 1670 EACH	TYPE 31-STRONG POST IN-LINE ANCHOR		6	150		1091 0331 LF	EPOXY INJECTION CRACK SEAL						
70	0205 0264 CY	SELECTED BORROW EXCAVATION ROCK, CLASS R-4		6	4	0620 2010 EACH	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB		6										
178	0212 0014 SY	GEOTEXTILE, CLASS 4, TYPE A		6		0686 0060 LS	CONSTRUCTION SURVEYING, TYPE D, MODIFIED		NO TAB			8020 0001 LS	BRIDGE STRUCTURE, AS DESIGNED, S-31649		1		STR		
						0689 0003 LS	CPM SCHEDULE		NO TAB			1002 0052 LB	REINFORCEMENT BARS, EPOXY COATED		1		STR		
177	0313 0426 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 25.0 MM MIX, 6" DEPTH		6								1002 0220 LB	STAINLESS STEEL REINFORCEMENT BARS		1		STR		
207	0350 0110 SY	SUBBASE 10" DEPTH (NO. 2A)		6	1000	0690 0002 DOLLA	SEMI-FORMAL FACILITATION		NO TAB			8000 0001 LS	PRESTRESSED CONCRETE BRIDGE STRUCTURE		1		STR		
23	0350 0120 CY	SUBBASE (NO. 2A)		6	23	0804 0027 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH		7			8100 0001 LS	STEEL BRIDGE STRUCTURE		1		STR		
					7	0810 0052 EACH	SELECTIVE TREE REMOVAL		7										
2024	0413 0230 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 12.5 MM MIX, 2" DEPTH, SRL-H		6	2	0855 0003 EACH	PUMPED WATER FILTER BAG		7	63		9000 0001 TON	REPAIR FLEXSTEEL INDUSTRIES DRIVEWAY				7		
283	0413 7009 TON	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE (LEVELING), PG 64S-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX		6	289	0867 0012 LF	COMPOST FILTER SOCK, 12" DIAMETER		7			9000 0002 LS	RAILROAD COORDINATION AND PROTECTIVE SERVICES				NO TAB		
3896	0460 0001 SY	ASPHALT TACK COAT		6								9000 0003 LS	CATENARY DESIGN AND CONSTRUCTION				NO TAB		
1400	0491 0018 SY	MILLING OF ASPHALT PAVEMENT SURFACE, 4 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR		6		0901 0001 LS	MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION		NO TAB	2		9000 0004 EACH	TYPE 31-S GUIDE RAIL HEIGHT TRANSITION TO EXISTING GUIDE RAIL				6		
					100	0901 0231 DAY	ADDITIONAL WARNING LIGHTS, TYPE B		TCP	6		9000 0005 EACH	TEST HOLES FOR UTILITY VERIFICATION				NO TAB		
1	0607 0200 VF	REBUILT MANHOLE		6	200	0901 0240 SF	ADDITIONAL TRAFFIC CONTROL SIGNS		TCP			9000 0020 LS	AMTRAK TRACK MONITORING				NO TAB		
	0608 0001 LS	MOBILIZATION		NO TAB	1370	0901 0320 LF	4" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, YELLOW		SPMP	26000		9000 0021 DOLLA	AMTRAK PERMIT TO ENTER				NO TAB		
	0609 0007 LS	INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE B		NO TAB	1370	0901 0330 LF	4" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, WHITE		SPMP	25000		9000 0022 DOLLA	ASBESTOS TESTING AND ABATEMENT				NO TAB		
	0609 0009 LS	EQUIPMENT PACKAGE		NO TAB	21	0931 0001 SF	POST MOUNTED SIGNS, TYPE B		SPMP	10000		9000 0050 DOLLA	CLASS A CEMENT CONCRETE, UNFORESEEN CONDITIONS				STR		
25	0615 0022 LF	6" SUBSURFACE DRAIN OUTLETS		7	4	0937 0208 EACH	BARRIER MOUNTED DELINEATOR, TOP AND SIDE-MOUNT TYPE R, (W/B)		SPMP	406		9000 0051 SF	REPAIR DETERIORATED CONCRETE SUBSTRUCTURES				STR		
5	0615 0066 EACH	66" RED SUBSURFACE DRAIN OUTLET MARKER		7	1	0941 0001 EACH	RESET POST MOUNTED SIGNS, TYPE B		SPMP			9000 0061 LS	GROUNDING AND BONDING FOR OCS				NO TAB		
1	0619 0459 EACH	PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3, TANGENT (MASH)		6	12	0958 0281 EACH	TEMPORARY TIMING ADJUSTMENTS TO EXISTING PERMANENT TRAFFIC SIGNAL CONTROLLER		TCP			9000 5101 LS	ELECTRONIC TICKETING (E-TICKETING) FOR CONSTRUCTION AGGREGATE				NO TAB		
1	0620 0400 EACH	TERMINAL SECTION, SINGLE		6	1570	0962 1000 LF	4" WHITE WATERBORNE PAVEMENT MARKINGS		SPMP			9000 5103 LS	ELECTRONIC TICKETING (E-TICKETING) FOR CONSTRUCTION CONCRETE				NO TAB		
1213	0620 0503 LF	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)		6	1570	0962 1005 LF	4" YELLOW WATERBORNE PAVEMENT MARKINGS		SPMP			9000 5501 LS	ENVIRONMENTAL PRODUCT DECLARATION (EPDS) FOR CONSTRUCTION ASPHALT MIXTURES				NO TAB		
775	0620 1600 LF	TYPE 31-S GUIDE RAIL		6															



TABULATION OF QUANTITIES

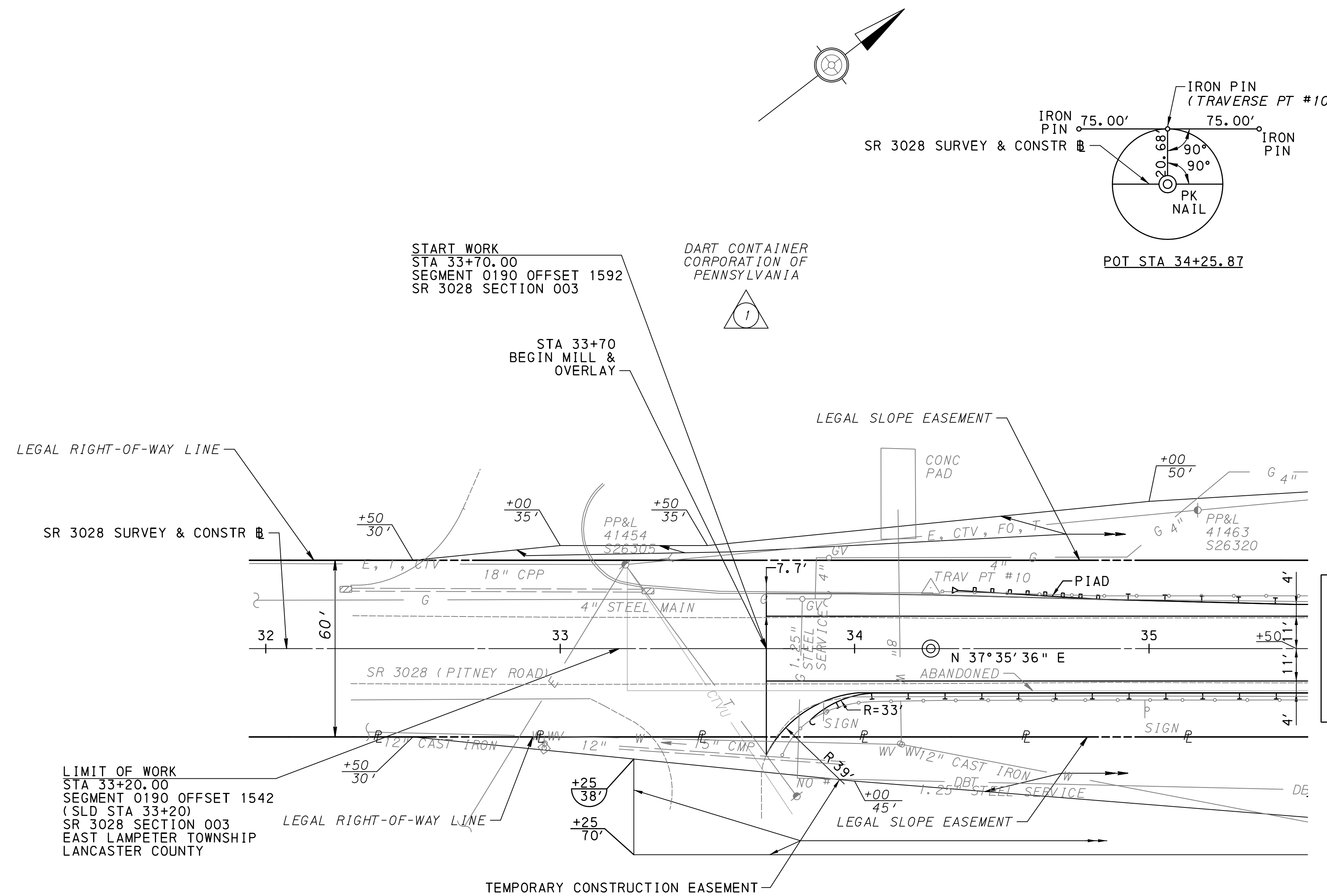
ROADWAY

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				08	LANCASTER	3028	003	6 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP								

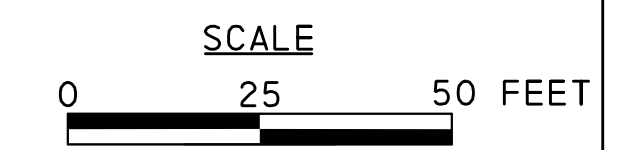


CLASS 1 EXCAVATION	SELECTED BORROW EXCAVATION ROCK, CLASS R-4	GEOTEXTILE, CLASS 4, TYPE A	SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 25.0 MM MIX, 6" DEPTH	SUBBASE 10" DEPTH (NO. 2A)	SUBBASE (NO. 2A)	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 12.5 MM MIX, 2" DEPTH, SRL-H	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE (LEVELING), PG 64S-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX	ASPHALT TACK COAT	MILLING OF ASPHALT PAVEMENT SURFACE, 4 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR	REBUILT MANHOLE	PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3, TANGENT (MASH)	TERMINAL SECTION, SINGLE	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)	TYPE 31-S GUIDE RAIL	TYPE 31-S GUIDE RAIL WITH 7' EXTRA LENGTH POSTS	TYPE 31-S STRONG POST IN-LINE ANCHOR	THREE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB	TYPE 31-S GUIDE RAIL HEIGHT TRANSITION TO EXISTING GUIDE RAIL	REMARKS	SIDE	STATIONS
0203 0001 CY	0205 0264 CY	0212 0014 SY	0313 0426 SY	0350 0110 SY	0350 0120 CY	0413 0230 SY	0413 7009 TON	0460 0001 SY	0491 0018 SY	0607 0200 VF	0619 0459 EACH	0620 0400 EACH	0620 0503 LF	0620 1600 LF	0620 1601 LF	0620 1670 EACH	0620 2010 EACH	9000 0004 EACH			
																			SR 3028		
			1311				182	2622	1311										MILLING AND OVERLAY	LT / RT	33+70.00 to 37+45.30
												475							INCLUDES DRIVEWAY RADIUS	RT	33+75.00 to 38+42.00
														1	387.5	1	1		TYPE 31-S GUIDE RAIL INCLUDES 25 LF ON 33' RADIUS	RT	33+85.00 to 38+47.00
												400								LT	34+29.00 to 38+30.00
														1	312.5		1			LT	34+33.00 to 38+35.00
					12														SHOULDER BACKUP	LT / RT	36+50.00 to 38+29.00
			298	42	596														OVERLAY, INCLUDING SHOULDERS	LT / RT	37+45.30 to 38+29.00
20			49	61															SHOULDER RECONSTRUCTION	RT	37+66.00 to 38+29.00
18	25	65																	ROCK SLOPE LINING	RT	37+66.00 to 38+45.30
										1										RT	37+85.00
14			38	41		38	6												PAVEMENT RECONSTRUCTION	LT / RT	38+29.00 to 38+37.69
													75			1	1		CONNECT TO EXISTING GUIDE RAIL; GUIDE RAIL HEIGHT TRANSITION INCLUDES 6' POSTS	LT	39+16.00 to 40+56.00
												150							INCLUDES DRIVEWAY RADIUS	LT	39+21.00 to 40+70.00
14			38	41		38	6												PAVEMENT RECONSTRUCTION	LT / RT	39+24.26 to 39+33.00
														62.5		1	1		CONNECT TO EXISTING GUIDE RAIL; GUIDE RAIL HEIGHT TRANSITION INCLUDES 7' EXTRA LENGTH POSTS	RT	39+28.00 to 40+55.00
30	45	113																	ROCK SLOPE LINING	RT	39+29.26 to 40+55.00
						250	35	500											OVERLAY, INCLUDING SHOULDERS	LT / RT	39+33.00 to 40+01.90
34			52	64															SHOULDER RECONSTRUCTION	RT	39+33.00 to 40+09.00
					11														SHOULDER BACKUP	LT / RT	39+33.00 to 40+55.00
												187.5								LT	39+33.00 to 41+15.00
						89	12	178	89										MILLING AND OVERLAY	LT / RT	40+01.90 to 40+55.00
3																				RT	40+09.00 to 40+55.00
133	70	178	177	207	23	2024	283	3896	1400	1	1	1	1212.5	775	62.5	1	4	2	TOTALS		

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	8 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



SEE SHEET 10

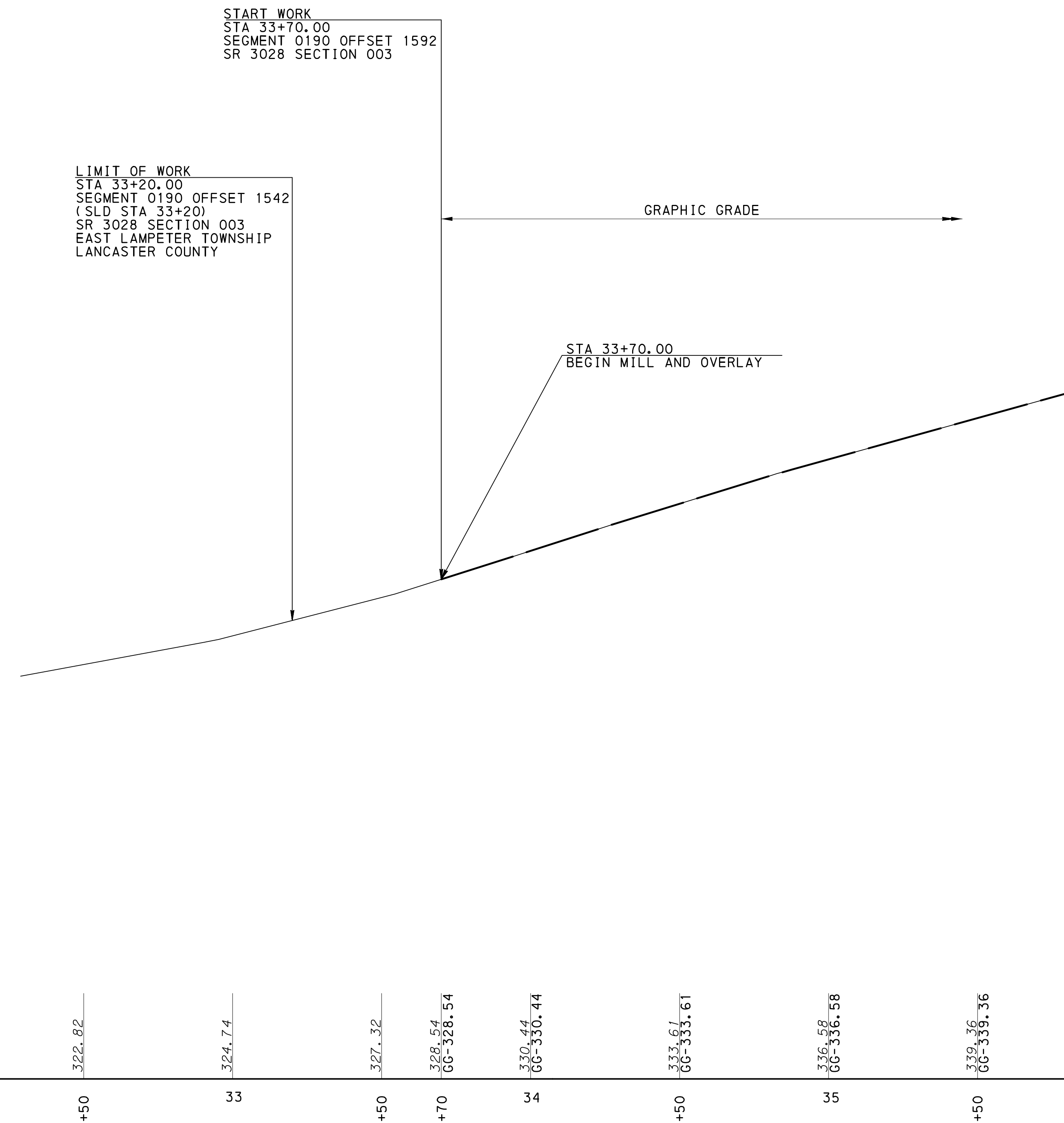


SURVEY BOOK NO. 6682

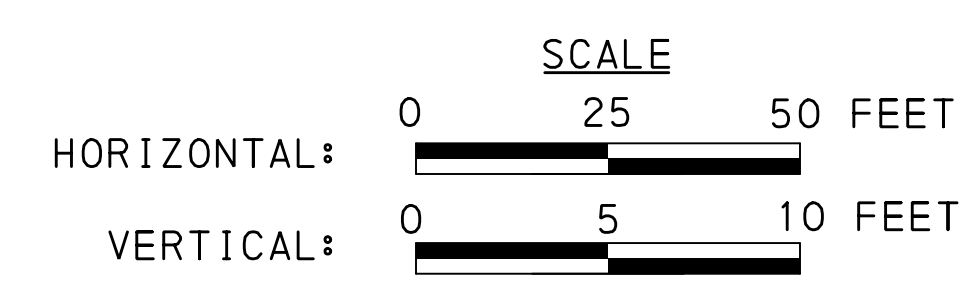
FOR PROFILE, SEE SHEET 9

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	9 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



SEE SHEET 11



FOR PLAN, SEE SHEET 8

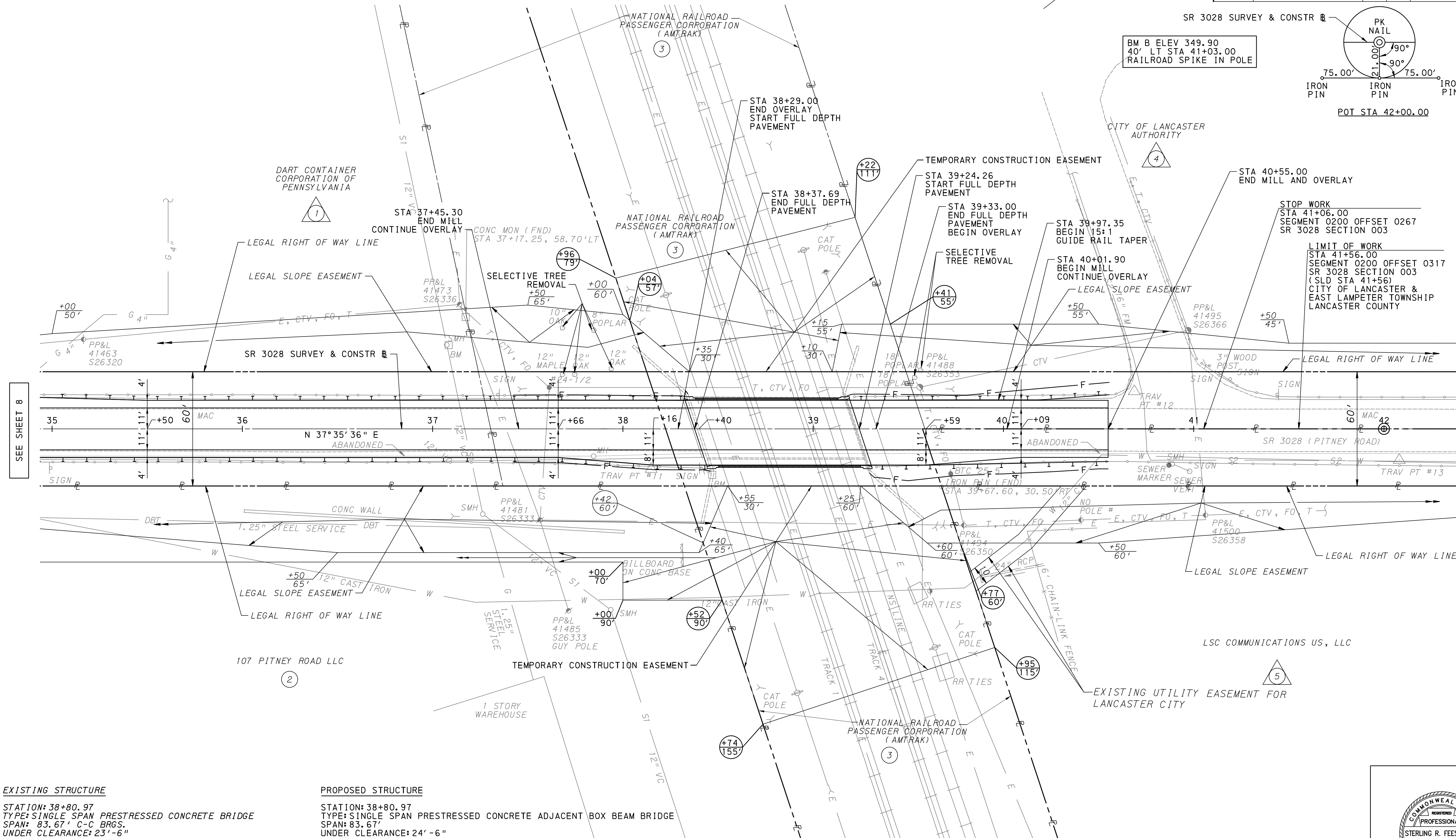
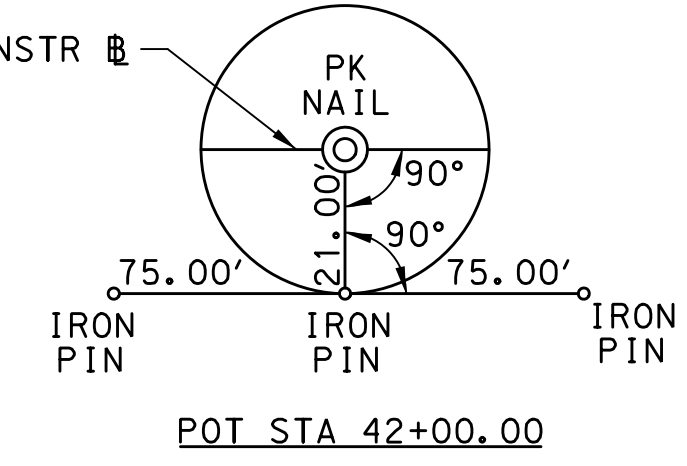
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	10 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

BM A ELEV 333.40
44' RT STA 37+09.00
SQUARE CUT ON NORTH
EDGE OF SEWER MH RIM

BM ELEV 350.42
24' RT STA 38+47.00
PDH DISK AT TOP OF SE
CONCRETE WINGWALL

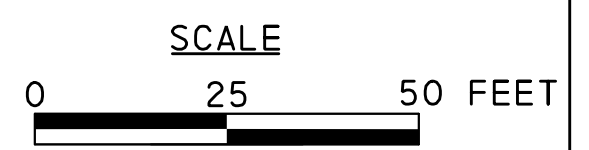
BM B ELEV 349.90
40' LT STA 41+03.00
RAILROAD SPIKE IN POLE



SEE SHEET 8

EXISTING STRUCTURE
STATION: 38+80.97
TYPE: SINGLE SPAN PRESTRESSED CONCRETE BRIDGE
SPAN: 83.67' C-C BRGS.
UNDER CLEARANCE: 23'-6"
CLEAR ROADWAY WIDTH: 30' -0" CURB-CURB

PROPOSED STRUCTURE
STATION: 38+80.97
TYPE: SINGLE SPAN PRESTRESSED CONCRETE ADJACENT BOX BEAM BRIDGE
SPAN: 83.67'
UNDER CLEARANCE: 24' -6"
SKEW: 71° 37' 00"
CLEAR ROADWAY WIDTH: 34' -6" CURB-CURB
STRUCTURE: S-31649



DATE: 12/12/2025 TIME: 8:20:52 AM FILENAME: N:\7855-07-PitneyRoad\Drawings\Cons\tr\Plan\Drawings\3028003-CNP\an02.dgn

SURVEY BOOK NO. 6682

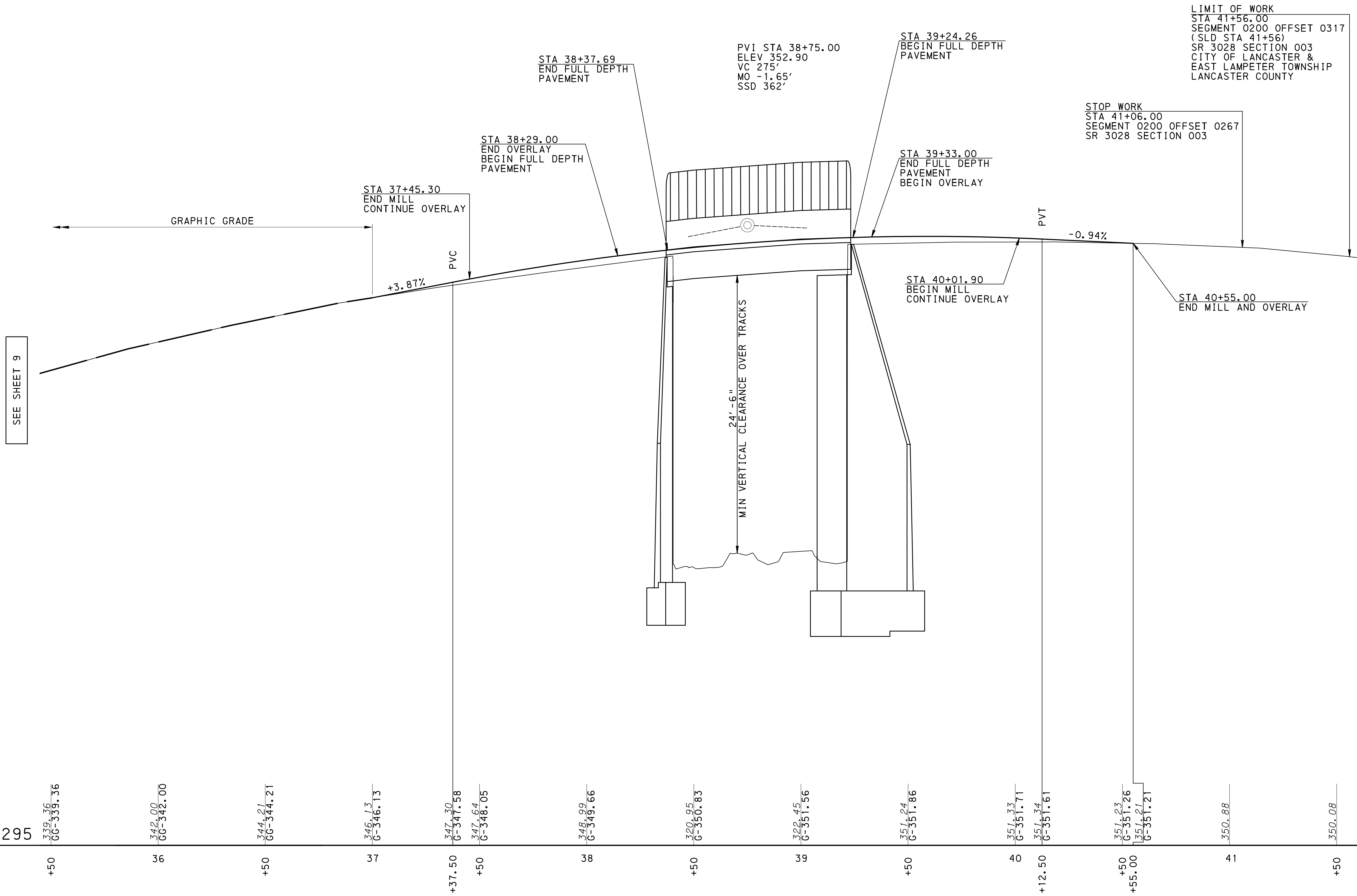
FOR PROFILE, SEE SHEET 11

SR 3028

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	3028	003	11 OF 11
CITY OF LANCASTER & EAST LAMPETER TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED

LIMIT OF WORK
 STA 41+56.00
 SEGMENT 0200 OFFSET 0317
 (SLD STA 41+56)
 SR 3028 SECTION 003
 CITY OF LANCASTER &
 EAST LAMPETER TOWNSHIP
 LANCASTER COUNTY

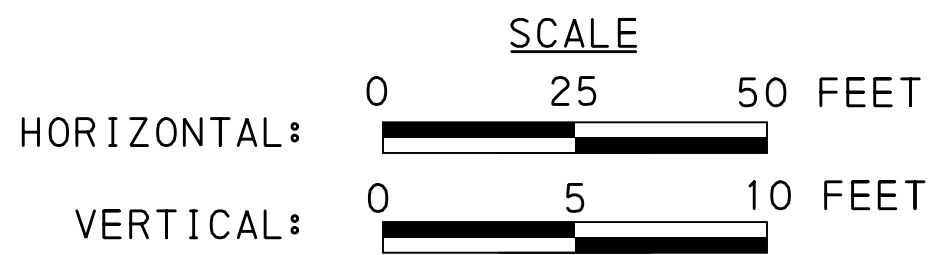
STOP WORK
 STA 41+06.00
 SEGMENT 0200 OFFSET 0267
 SR 3028 SECTION 003



SEE SHEET 9

DATUM: 295

+50	339.36 66-339.36	36	342.00 66-342.00	+50	344.21 66-344.21	37	346.13 6-346.13	+37.50	347.30 6-347.30	+50	347.64 6-348.05	38	348.99 6-349.66	+50	350.83 6-350.83	39	351.56 6-351.56	+50	351.86 6-351.86	40	351.33 6-351.71	+12.50	351.34 6-351.61	+50	351.23 6-351.26	41	351.21 6-351.21	350.88	350.88	+50	350.08
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FOR PLAN, SEE SHEET 10

DATE: 12/12/2025 TIME: 8:20:52 AM
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Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			1 OF 17

12/12/2025
PLOTTED:
D-9012 CADD (02-90) REVISION (10-04)

OPERATOR: N:\57855-07-PitneyRoad\Drawings\Cons\RP\lan\Xsect\3028-xsections-cover.dgn
FILE NAME: N:\57855-07-PitneyRoad\Drawings\Cons\RP\lan\Xsect\3028-xsections-cover.dgn

Application No.	Original Checked By	Finals Plotted By
Route No.	Temp Date By	Finals Checked By
Original Plotted By	Area By	Area Checked By


LANCASTER COUNTY
SR 3028 SECTION 003

STATION 33+20.00 TO STATION 41+56.00 (LIMITS OF WORK)


CROSS SECTIONS

SHEETS 2 TO 17
SR 3028
STA 33+00 TO STA 41+75

PREPARED BY:

ERDMAN ANTHONY 

ONE STERLING PLACE
100 STERLING PARKWAY, SUITE 212
MECHANICSBURG, PA 17050



Sterling R. Feeser Jr.
REG PROF ENGINEER

DATE: December 12, 2025

CROSS SECTIONS

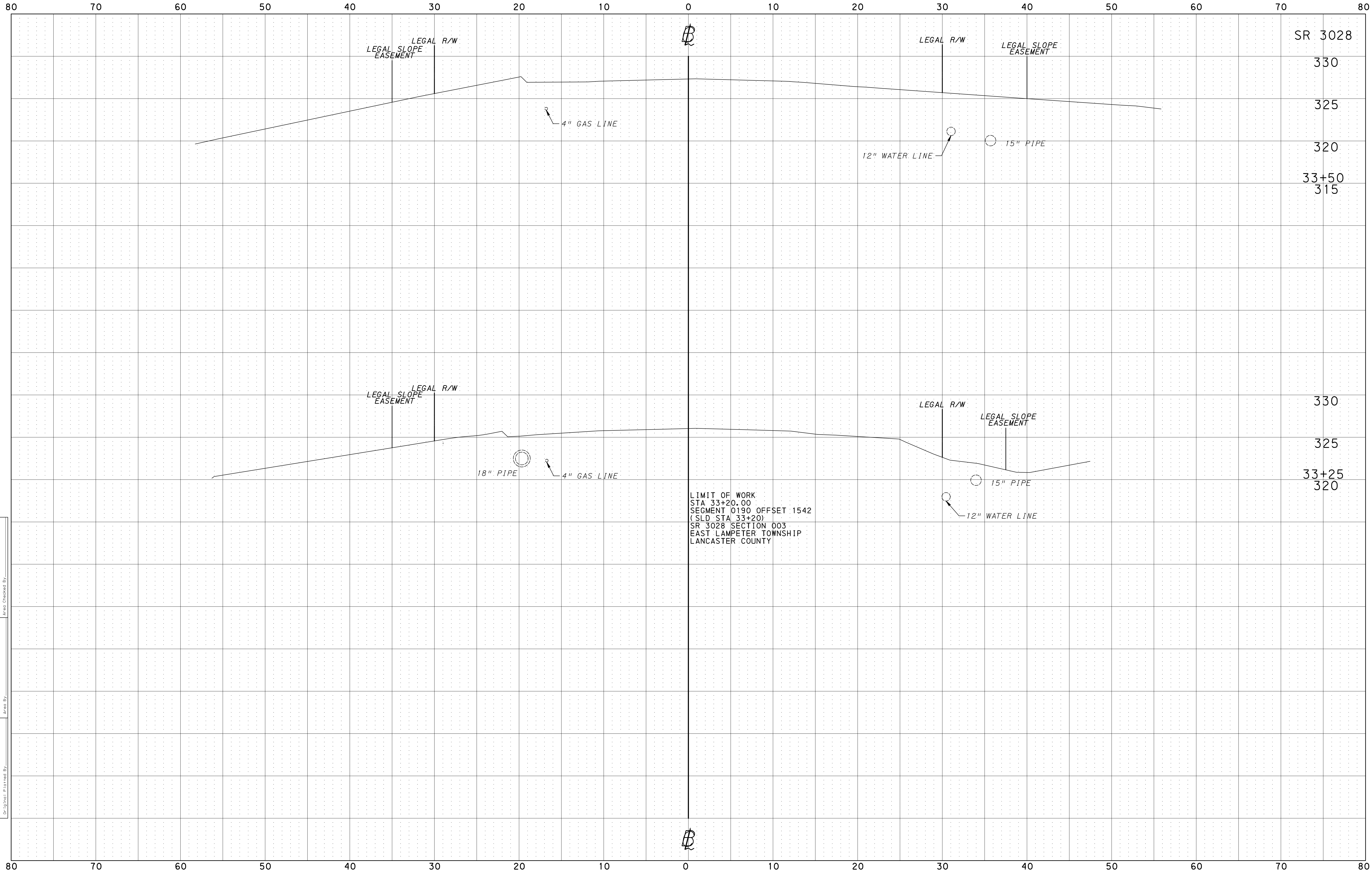
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			2 OF 17

12/12/2025

OPERATOR: PLOTTED: FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trP lan\Xsect\3028-Xsections.dgn

Application No.	Original Checked By
Route No.	Template By
Original Plotted By	Area Checked By



LIMIT OF WORK
 STA 33+20.00
 SEGMENT 0190 OFFSET 1542
 (SLD STA 33+20)
 SR 3028 SECTION 003
 EAST LAMPETER TOWNSHIP
 LANCASTER COUNTY

SR 3028

330

325

320

33+50

315

330

325

33+25

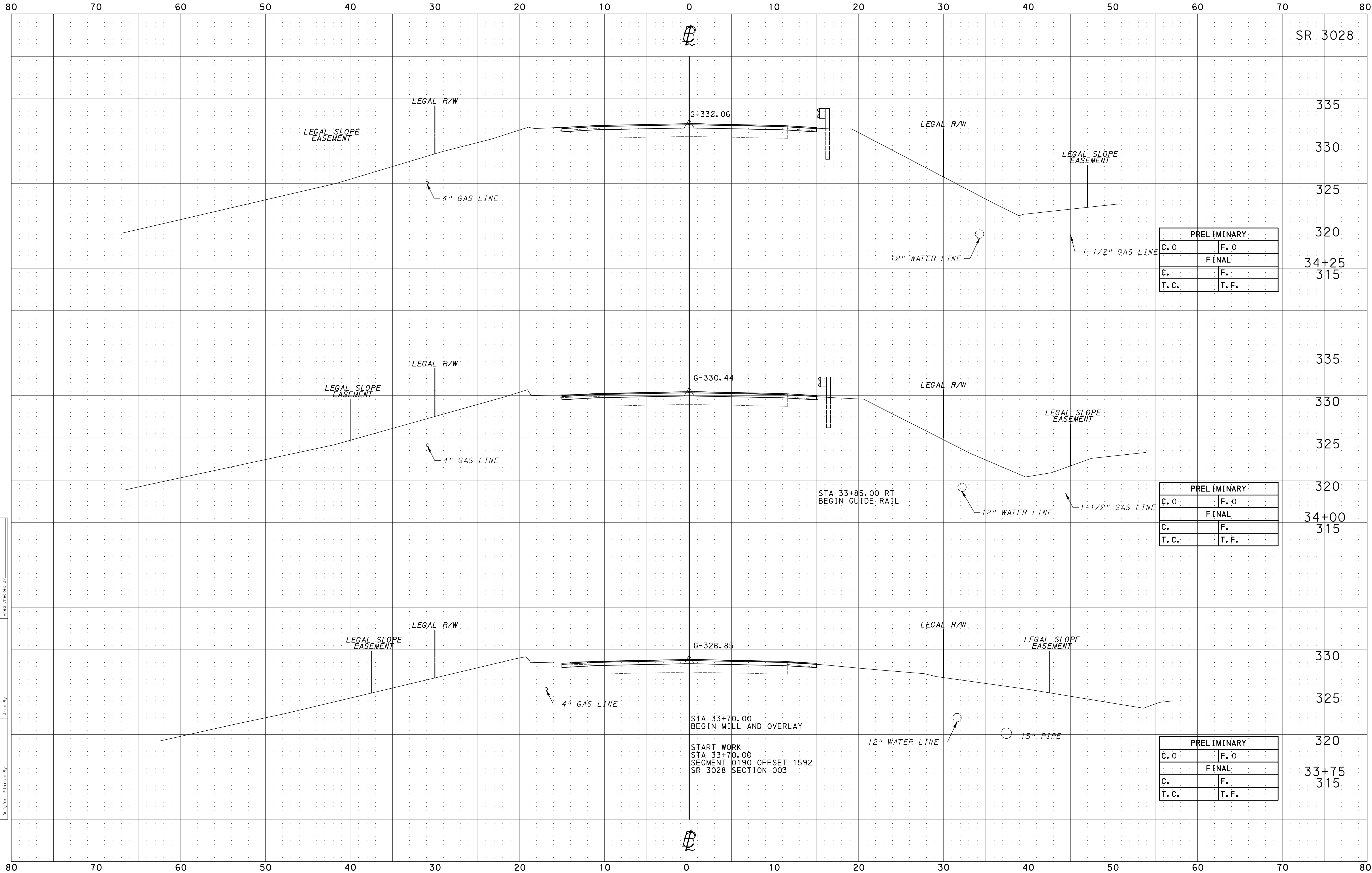
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80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

12/12/2025

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Original Checked By: _____
 Template By: _____
 Area By: _____
 Original Plotted By: _____
 Final Checked By: _____
 Final Plotted By: _____



SR 3028

335

330

325

320

34+25
315

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

335

330

325

320

34+00
315

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

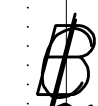
330

325

320

33+75
315

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.



G-332.06

G-330.44

G-328.85

STA 33+70.00
 BEGIN MILL AND OVERLAY
 START WORK
 STA 33+70.00
 SEGMENT 0190 OFFSET 1592
 SR 3028 SECTION 003

STA 33+85.00 RT
BEGIN GUIDE RAIL

LEGAL SLOPE EASEMENT

LEGAL R/W

4" GAS LINE

LEGAL R/W

LEGAL SLOPE EASEMENT

1-1/2" GAS LINE

12" WATER LINE

LEGAL SLOPE EASEMENT

LEGAL R/W

4" GAS LINE

LEGAL R/W

LEGAL SLOPE EASEMENT

1-1/2" GAS LINE

12" WATER LINE

LEGAL SLOPE EASEMENT

LEGAL R/W

4" GAS LINE

LEGAL R/W

LEGAL SLOPE EASEMENT

12" WATER LINE

15" PIPE

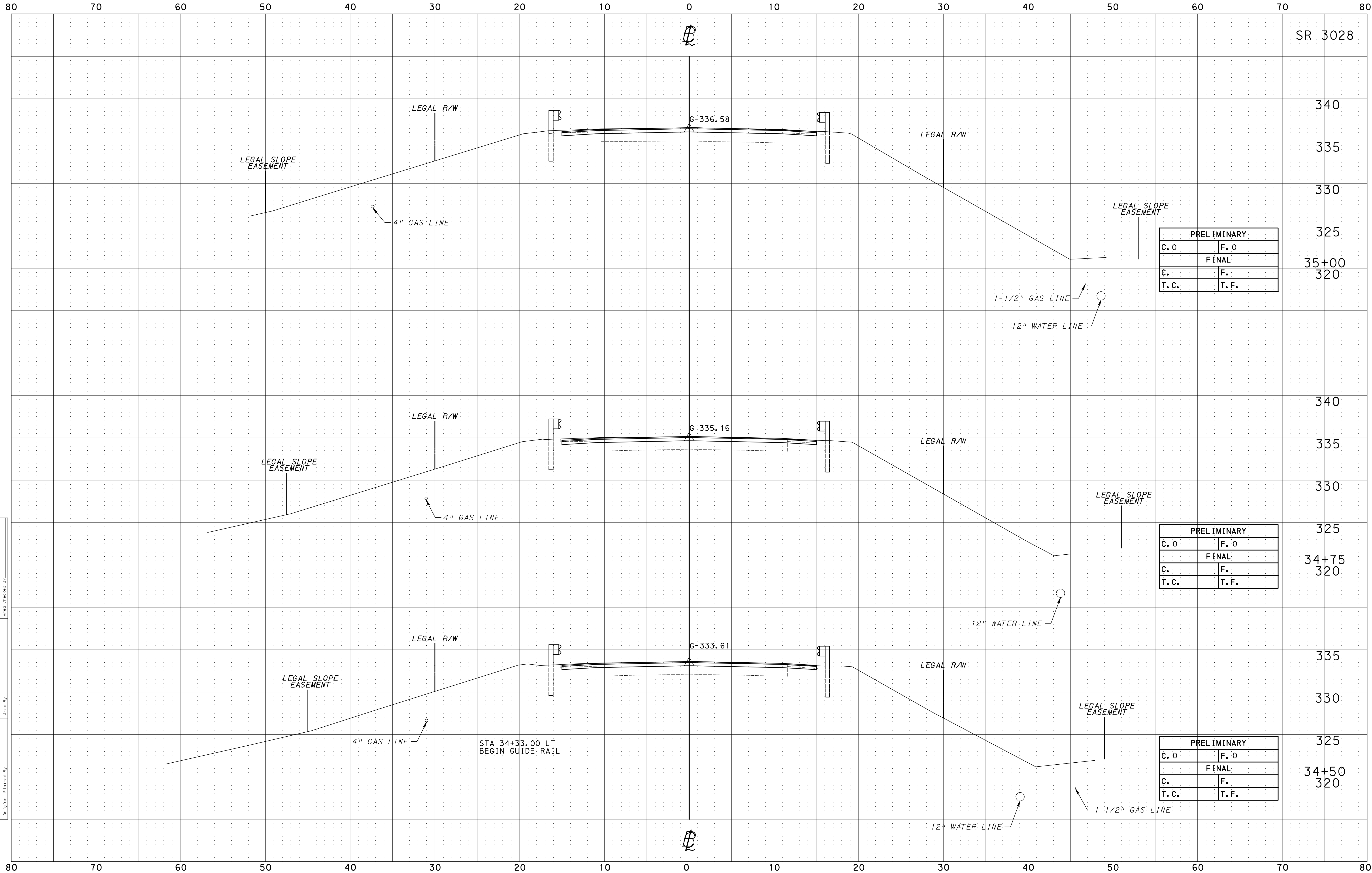
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SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			4 OF 17

12/12/2025

OPERATOR: FILE NAME: N:\57855-07-P1\trneyRoad\Drawings\Cons tr P lan\Xsect\3028-Xsect ions.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Original Checked By _____
 Template By _____
 Area By _____
 Area Checked By _____



SR 3028

340

335

330

325

35+00

320

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

340

335

330

325

34+75

320

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

335

330

325

34+50

320

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

STA 34+33.00 LT
BEGIN GUIDE RAIL

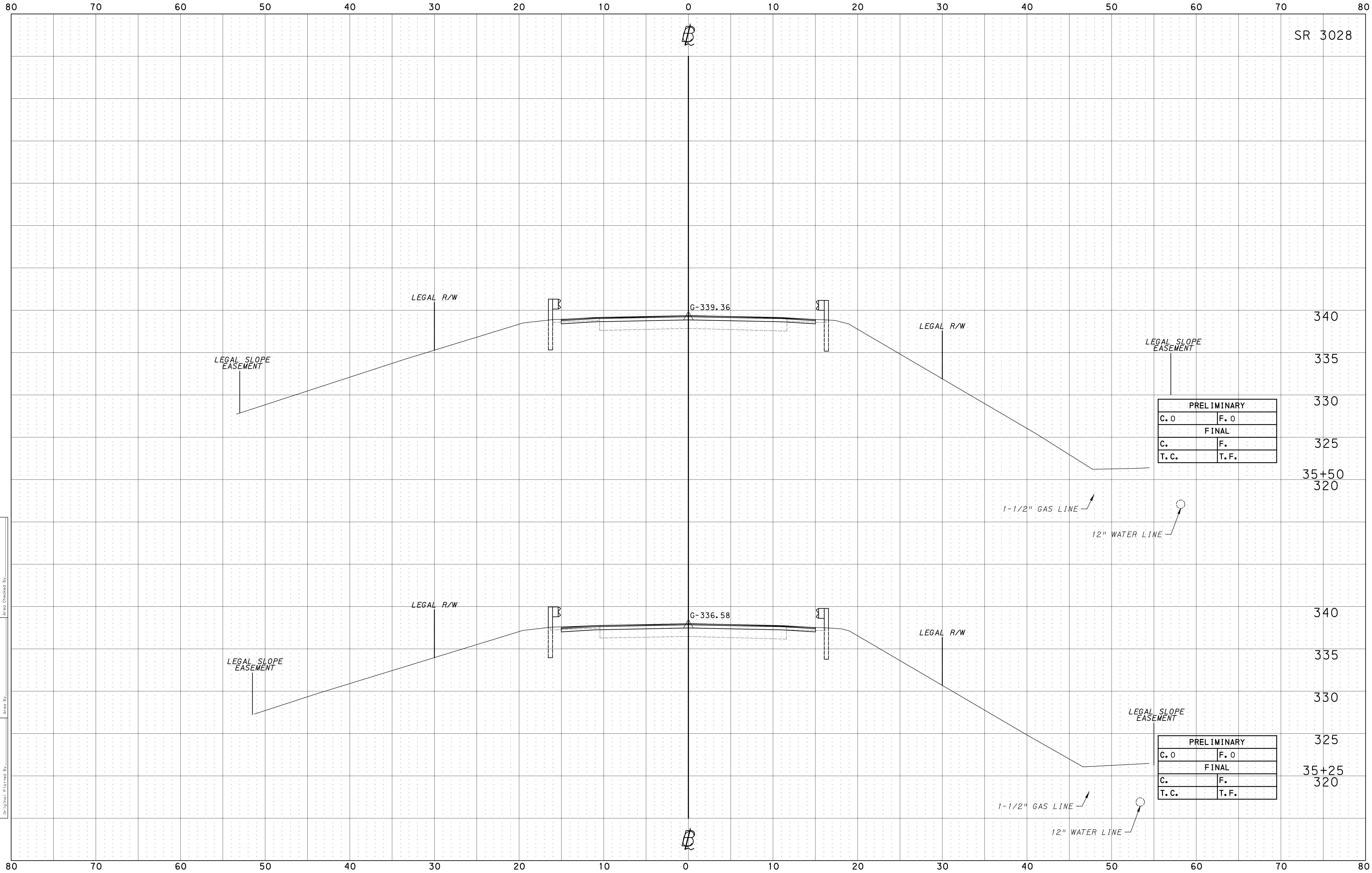
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			5 OF 17

12/12/2025
PLOTTED:

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FILE NAME:

Original Checked By: _____
 Template By: _____
 Area By: _____
 Original Plotted By: _____
 Application No. _____
 Route No. _____
 Original Plotted By: _____



SR 3028

340

335

330

325

35+50

320

340

335

330

325

35+25

320

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T. C.	T. F.

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T. C.	T. F.

G-339.36

G-336.58

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

1-1/2" GAS LINE

12" WATER LINE

1-1/2" GAS LINE

12" WATER LINE

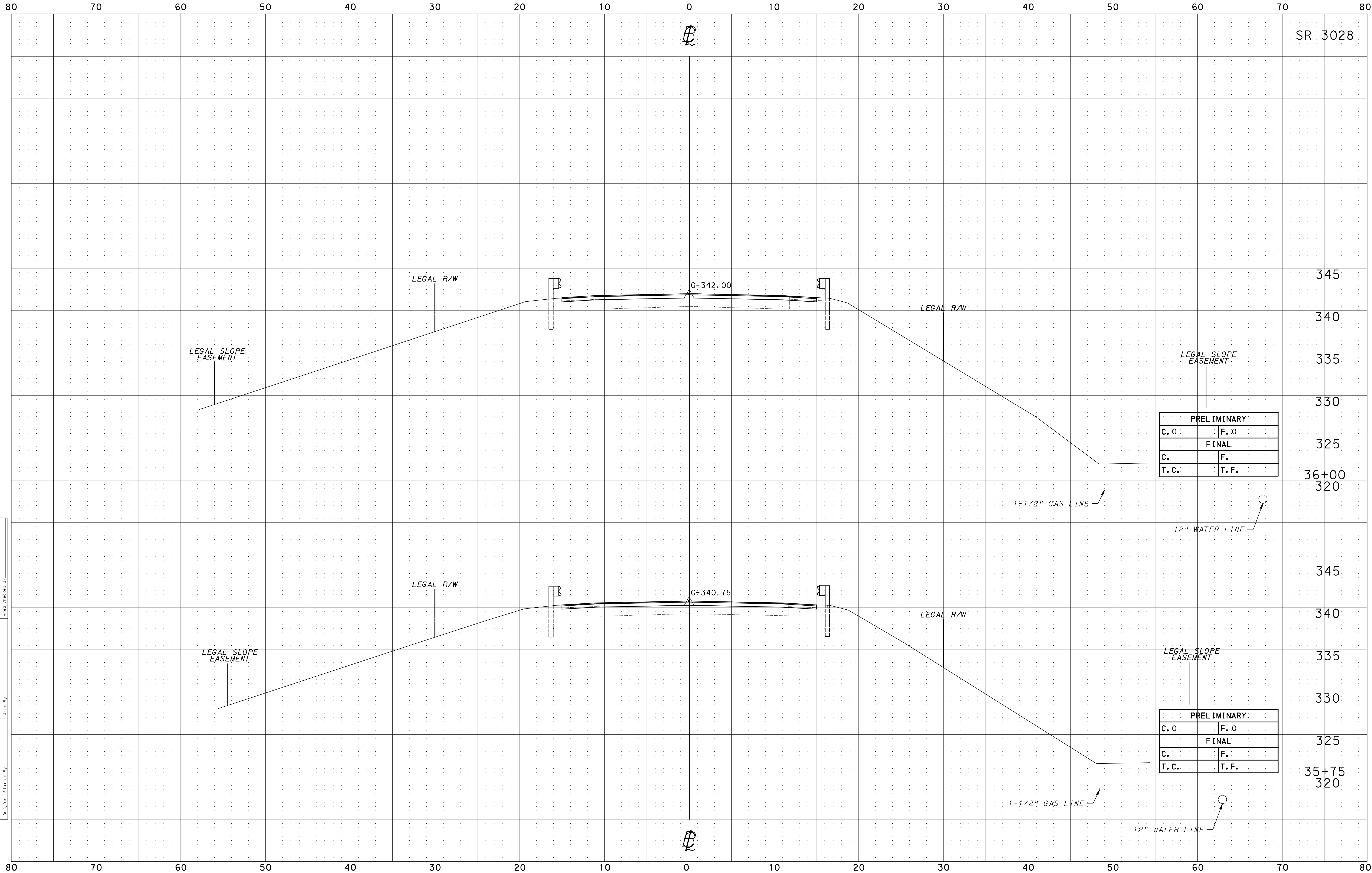
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Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			6 OF 17

12/12/2025

OPERATOR: PLOTTED: FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trrP lan\Xsect\3028-Xsect ions.dgn

Original Checked By: _____
 Template By: _____
 Area By: _____
 Original Plotted By: _____
 Final Checked By: _____
 Final Plotted By: _____
 Area Checked By: _____



SR 3028

345

340

335

330

325

36+00

320

345

340

335

330

325

35+75

320

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T. C.	T. F.

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T. C.	T. F.

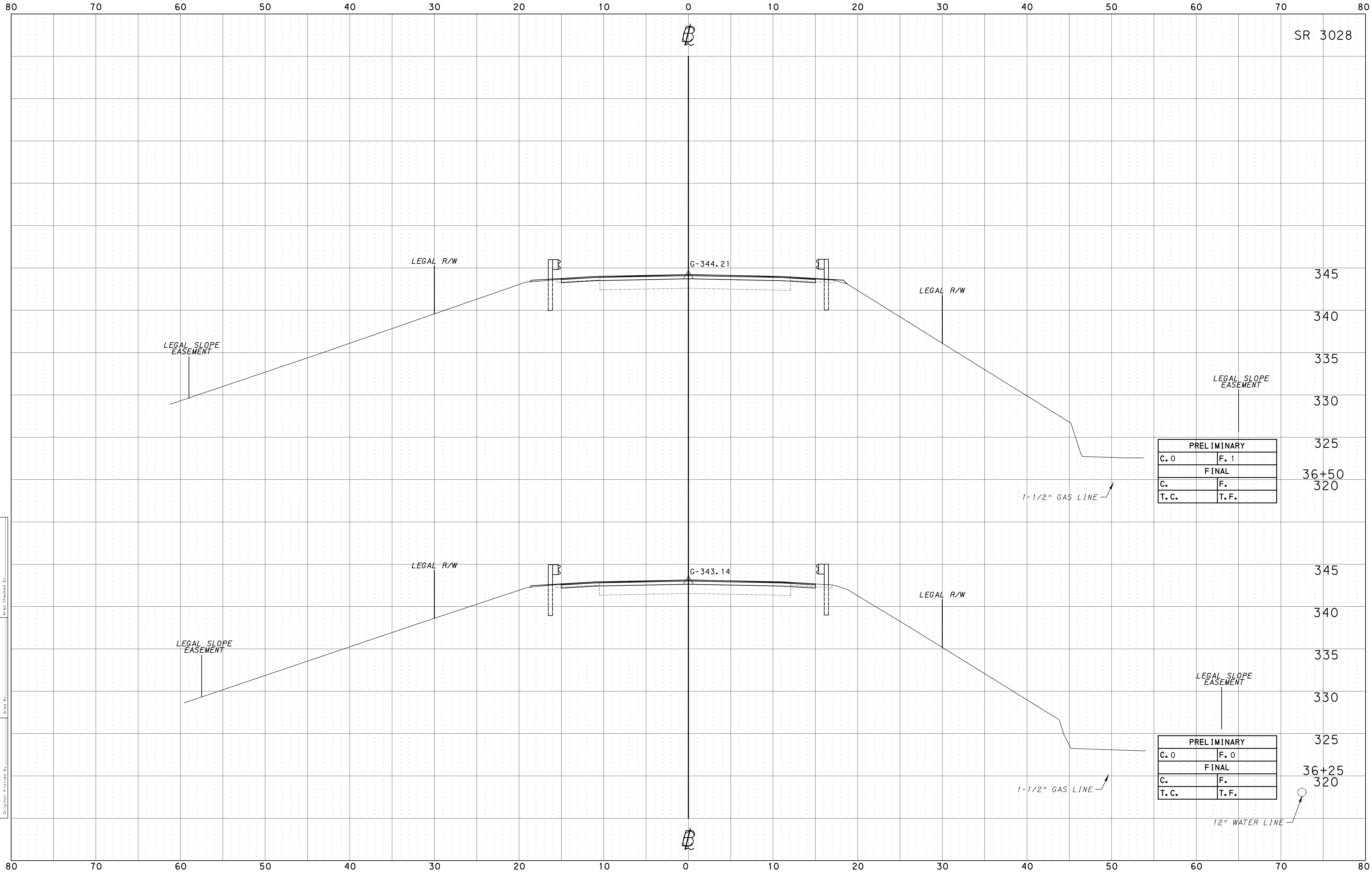
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			7 OF 17

12/12/2025
PLOTTED:

OPERATOR: \57855-07-P\TreyRoad\Drawings\Cons trrP lan\Xsect\3028-Xsections.dgn
FILE NAME:

Application No. _____
 Route No. _____
 Original Plotted By _____
 Original Checked By _____
 Template By _____
 Area By _____
 Final Plotted By _____
 Final Checked By _____
 Area Checked By _____



SR 3028

345
340
335
330
325
36+50
320

PRELIMINARY	
C. 0	F. 1
FINAL	
C.	F.
T.C.	T.F.

345
340
335
330
325
36+25
320

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

12" WATER LINE

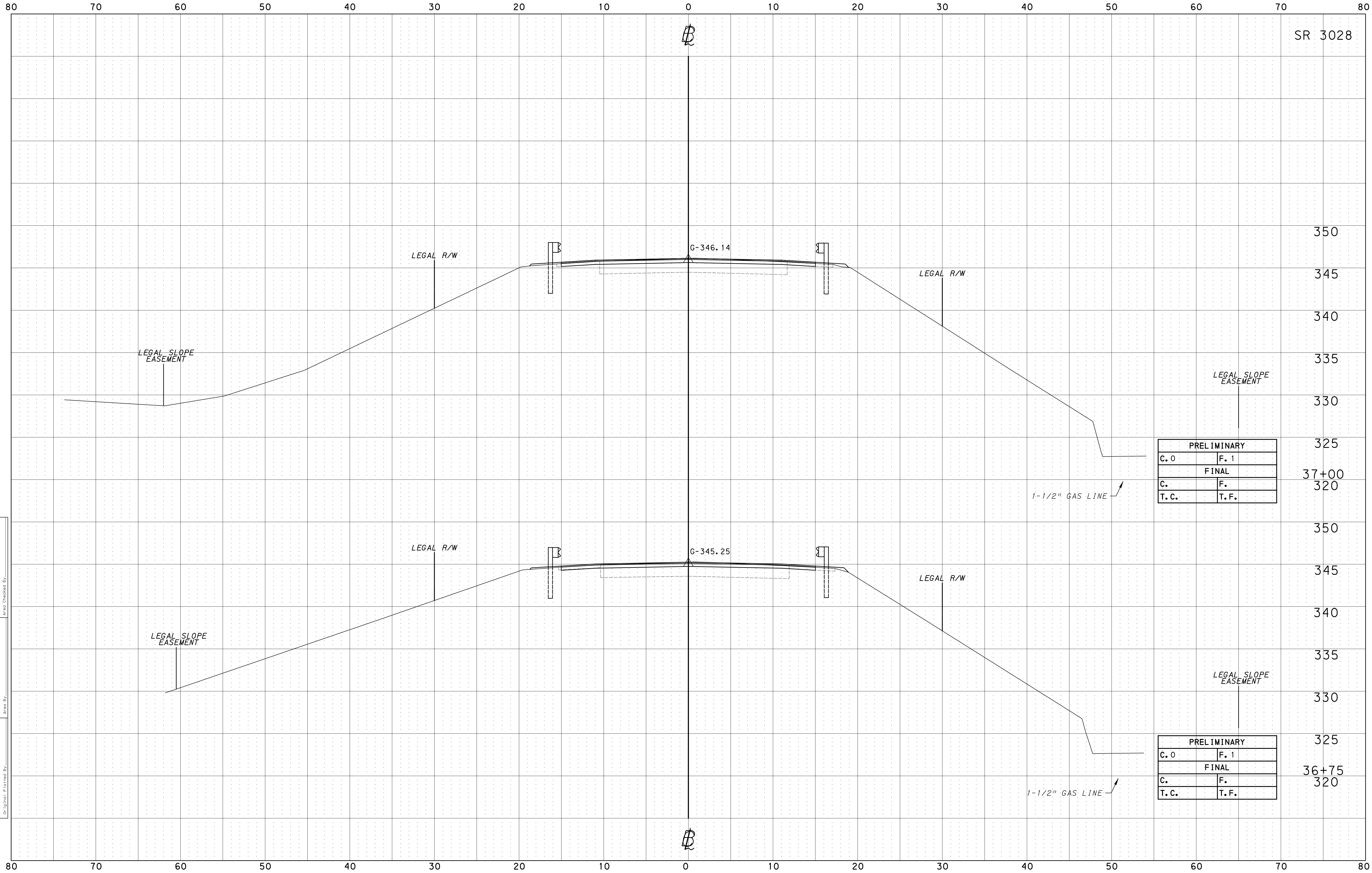
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			8 OF 17

12/12/2025
PLOTTED:

OPERATOR: \57855-07-P1\IneyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsections.dgn
FILE NAME:

Original Checked By: _____
 Template By: _____
 Area By: _____
 Original Plotted By: _____
 Application No. _____
 Route No. _____
 Original Plotted By: _____



SR 3028

350

345

340

335

330

325

37+00

320

350

345

340

335

330

325

36+75

320

B

B

G-346.14

G-345.25

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

PRELIMINARY	
C. 0	F. 1
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 0	F. 1
FINAL	
C.	F.
T.C.	T.F.

1-1/2" GAS LINE

1-1/2" GAS LINE

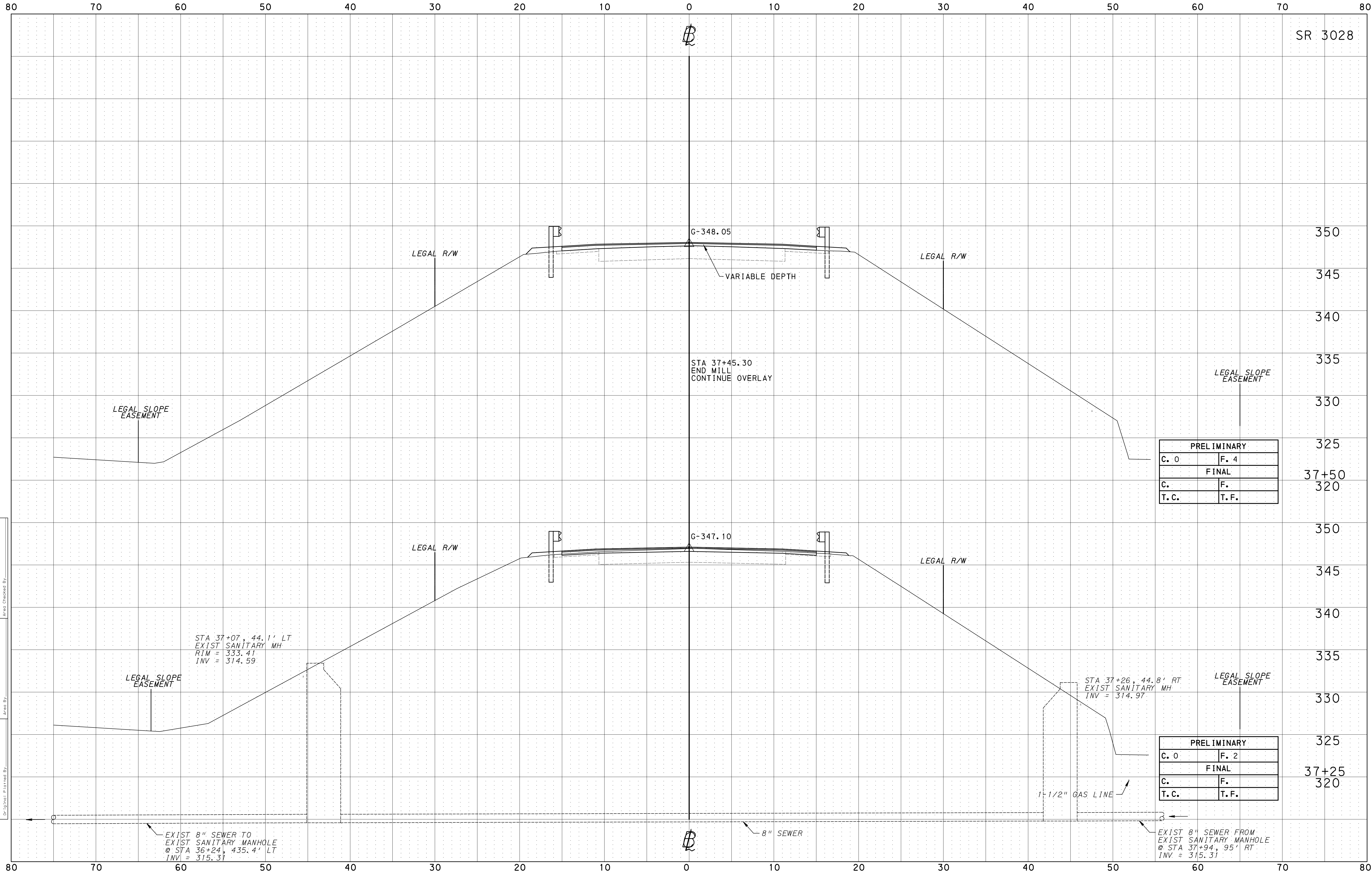
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			9 OF 17

12/12/2025

OPERATOR: FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsect ions.dgn

Original Checked By: _____
 Template By: _____
 Area Checked By: _____
 Original Plotted By: _____
 Route No.: _____
 Application No.: _____



SR 3028

350

345

340

335

330

325

37+50

320

350

345

340

335

330

325

37+25

320

PRELIMINARY	
C. 0	F. 4
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 0	F. 2
FINAL	
C.	F.
T.C.	T.F.

STA 37+07, 44.1' LT
EXIST SANITARY MH
RIM = 333.41
INV = 314.59

STA 37+26, 44.8' RT
EXIST SANITARY MH
INV = 314.97

EXIST 8" SEWER TO
EXIST SANITARY MANHOLE
@ STA 36+24, 435.4' LT
INV = 315.31

EXIST 8" SEWER FROM
EXIST SANITARY MANHOLE
@ STA 37+94, 95' RT
INV = 315.31

1-1/2" GAS LINE



CROSS SECTIONS

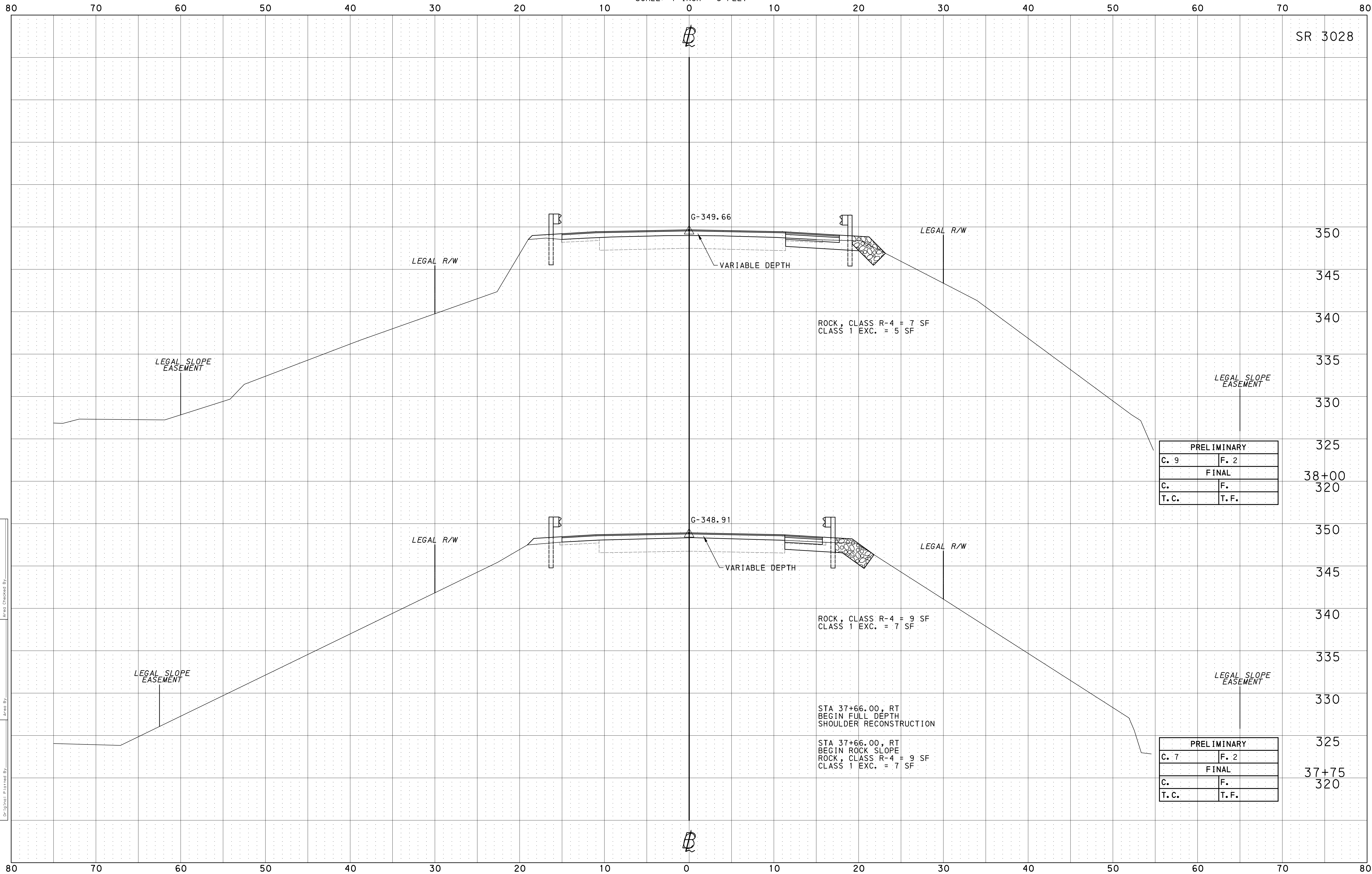
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			10 OF 17

12/12/2025

OPERATOR: FILE NAME: N:\57855-07-P\TrneyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsections.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Plotted By _____
 Original Checked By _____
 Template By _____
 Area By _____
 Final Checked By _____
 Final Checked By _____
 Area Checked By _____



SR 3028

350

345

340

335

330

325

38+00

320

350

345

340

335

330

325

37+75

320

PRELIMINARY	
C. 9	F. 2
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 7	F. 2
FINAL	
C.	F.
T.C.	T.F.

ROCK, CLASS R-4 = 7 SF
 CLASS 1 EXC. = 5 SF

ROCK, CLASS R-4 = 9 SF
 CLASS 1 EXC. = 7 SF

STA 37+66.00, RT
 BEGIN FULL DEPTH
 SHOULDER RECONSTRUCTION

STA 37+66.00, RT
 BEGIN ROCK SLOPE
 ROCK, CLASS R-4 = 9 SF
 CLASS 1 EXC. = 7 SF

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

G-349.66

G-348.91

VARIABLE DEPTH

VARIABLE DEPTH

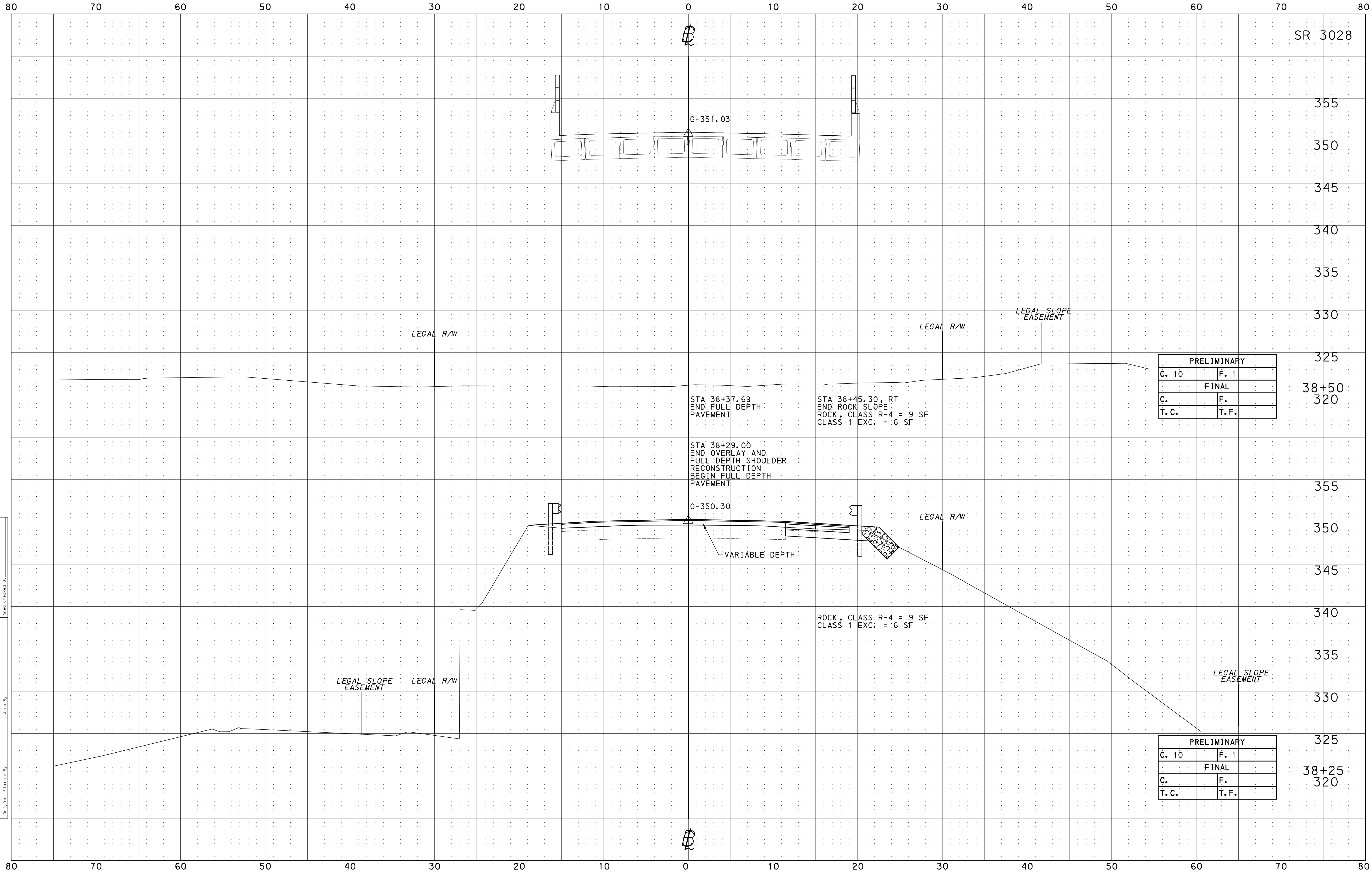
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			11 OF 17

12/12/2025
PLOTTED:

OPERATOR:
FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsections.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Original Checked By _____
 Template By _____
 Area Checked By _____
 Final Plotted By _____
 Final Checked By _____
 Area By _____
 Area Checked By _____



SR 3028

355

350

345

340

335

330

325

38+50

320

355

350

345

340

335

330

325

38+25

320

PRELIMINARY	
C. 10	F. 1
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 10	F. 1
FINAL	
C.	F.
T.C.	T.F.

G-351.03

G-350.30

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

LEGAL SLOPE EASEMENT

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

STA 38+37.69
END FULL DEPTH
PAVEMENT

STA 38+45.30, RT
END ROCK SLOPE
ROCK, CLASS R-4 = 9 SF
CLASS 1 EXC. = 6 SF

STA 38+29.00
END OVERLAY AND
FULL DEPTH SHOULDER
RECONSTRUCTION
BEGIN FULL DEPTH
PAVEMENT

VARIABLE DEPTH

ROCK, CLASS R-4 = 9 SF
CLASS 1 EXC. = 6 SF

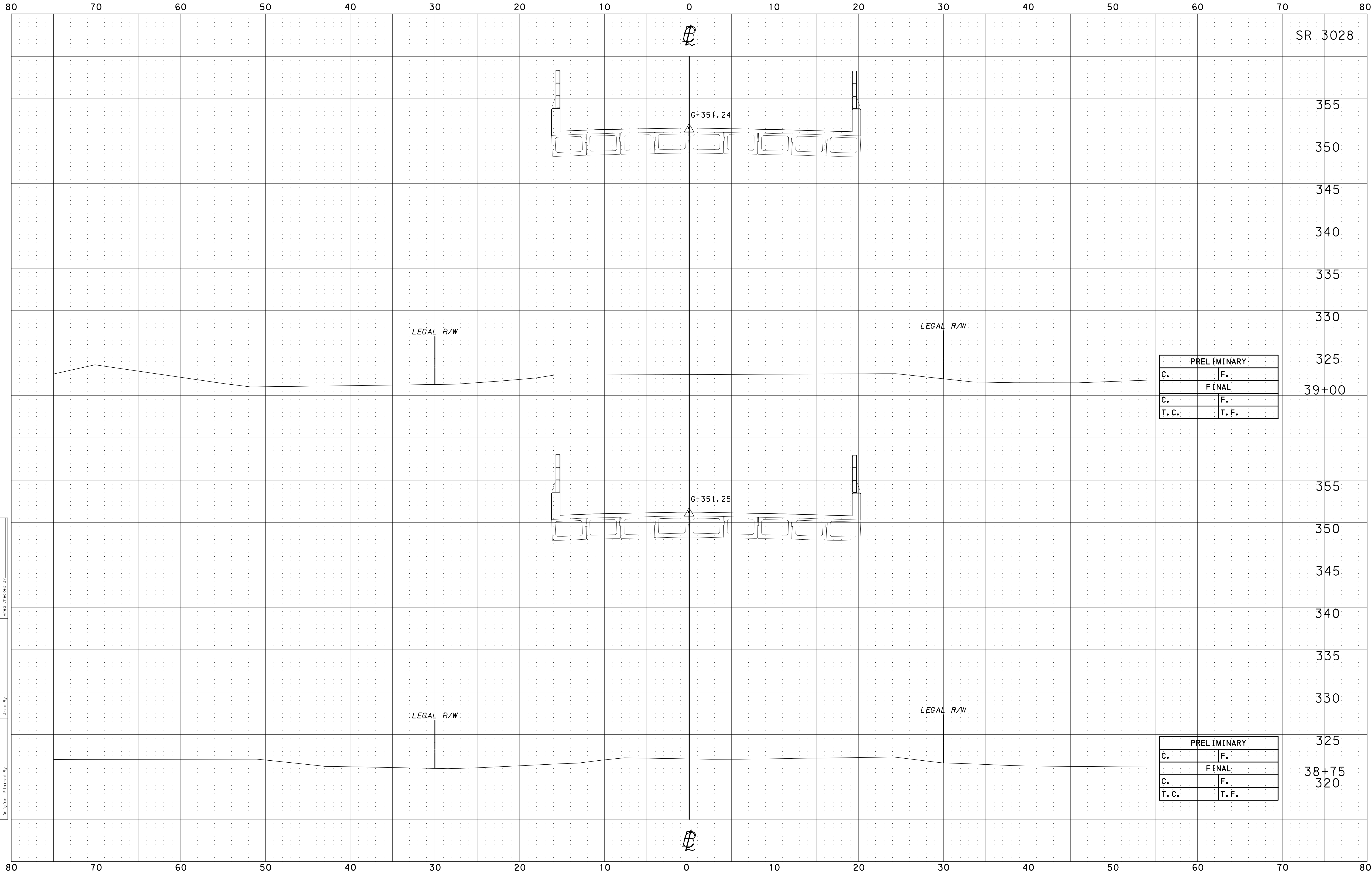
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			12 OF 17

12/12/2025

OPERATOR: PLOTTED: FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trP lan\Xsect\3028-Xsect ions.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Original Checked By _____
 Template By _____
 Area By _____
 Area Checked By _____
 Final Plotted By _____
 Final Checked By _____
 Area By _____
 Area Checked By _____



SR 3028

355

350

345

340

335

330

325

39+00

355

350

345

340

335

330

325

38+75

320

PRELIMINARY	
C.	F.
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C.	F.
FINAL	
C.	F.
T.C.	T.F.

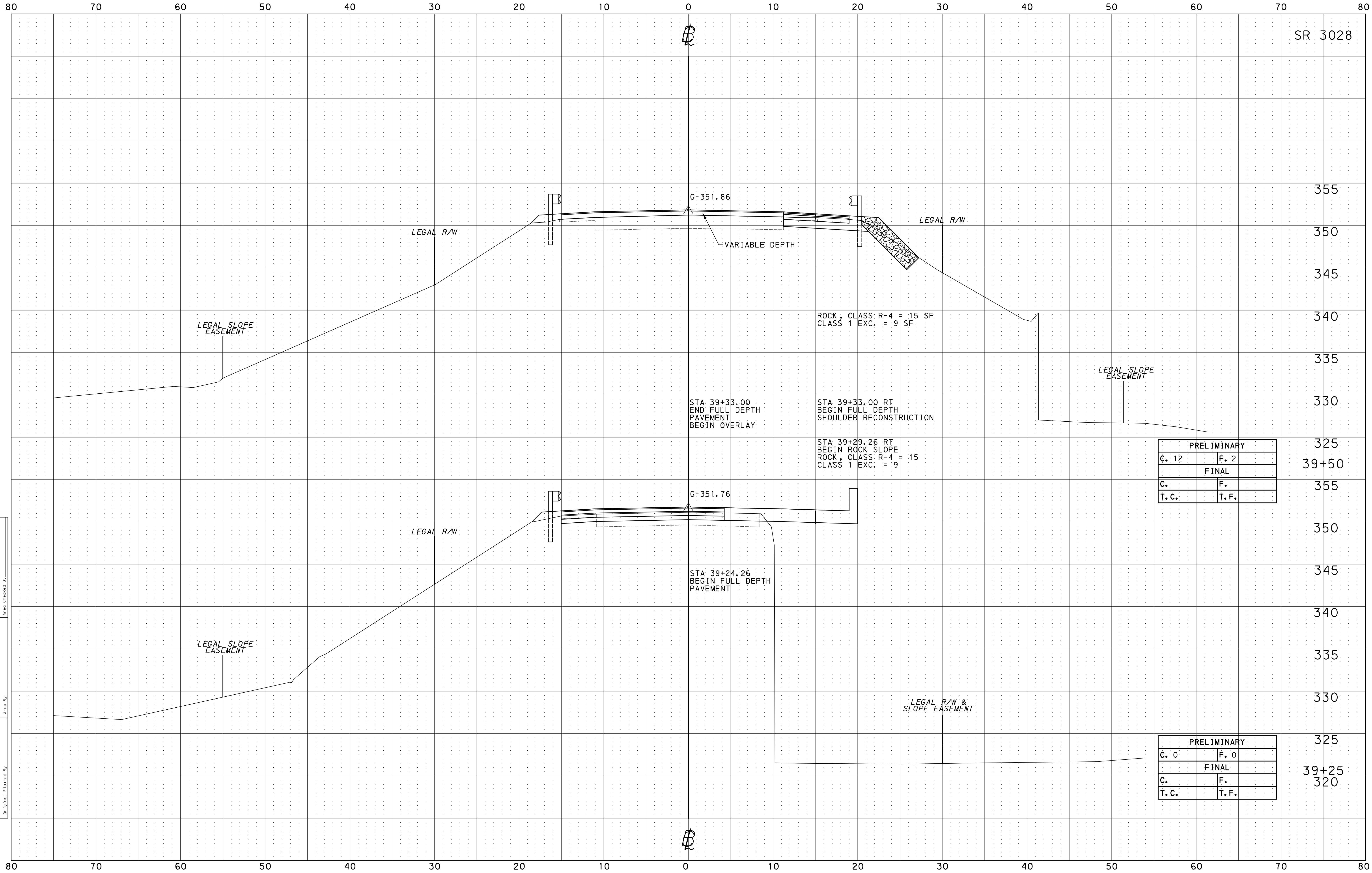
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			13 OF 17

12/12/2025
PLOTTED:

OPERATOR:
FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsections.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Original Checked By _____
 Template By _____
 Area Checked By _____
 Final Plotted By _____
 Final Checked By _____
 Area By _____



SR 3028

355

350

345

340

335

330

325

39+50

355

350

345

340

335

330

325

39+25

320

PRELIMINARY	
C. 12	F. 2
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

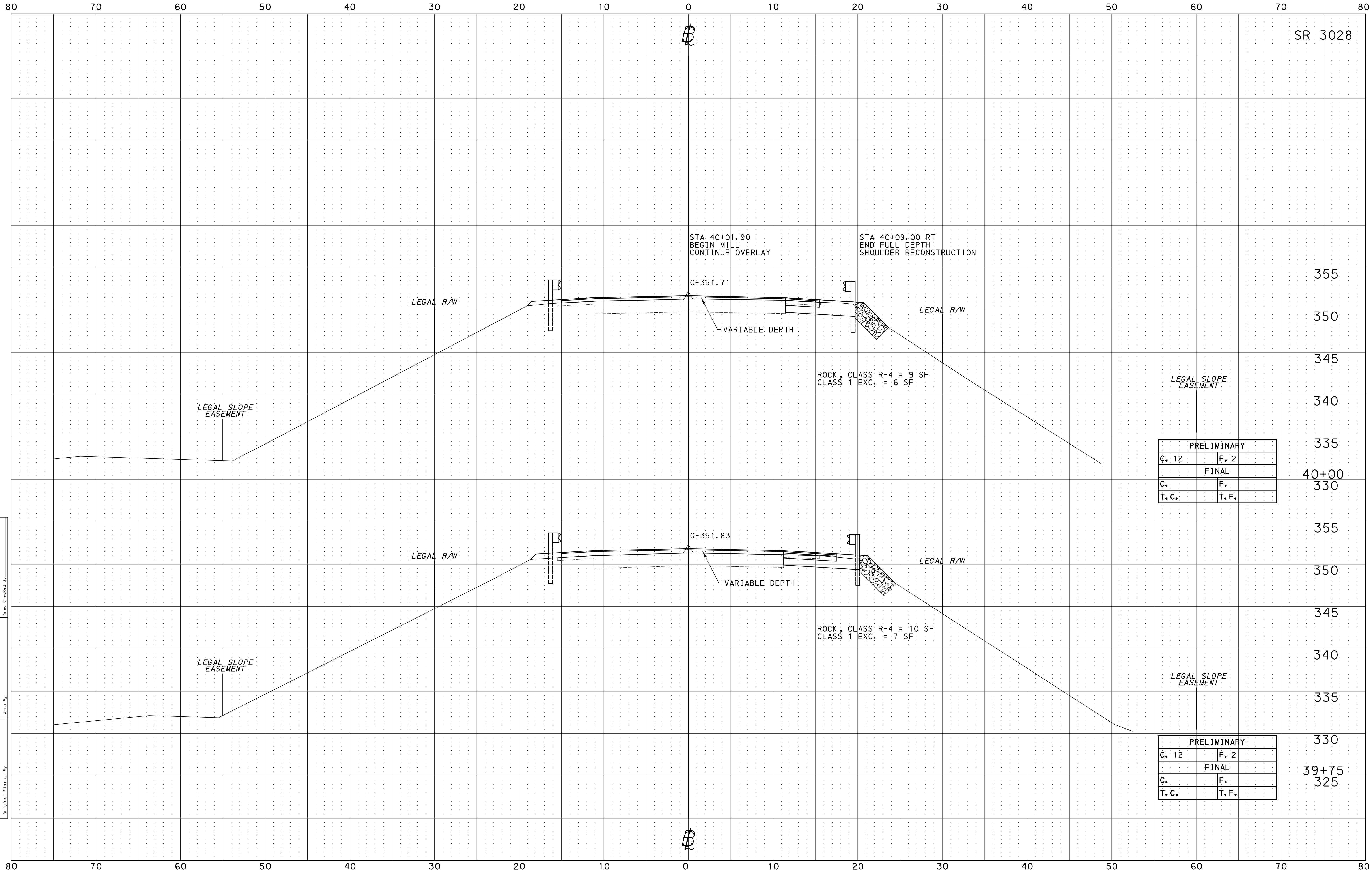
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			14 OF 17

12/12/2025

OPERATOR: FILE NAME: N:\57855-07-P\TrneyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsections.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Final Checked By _____
 Final Plotted By _____
 Area Checked By _____
 Area Plotted By _____



SR 3028

PRELIMINARY	
C. 12	F. 2
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 12	F. 2
FINAL	
C.	F.
T.C.	T.F.

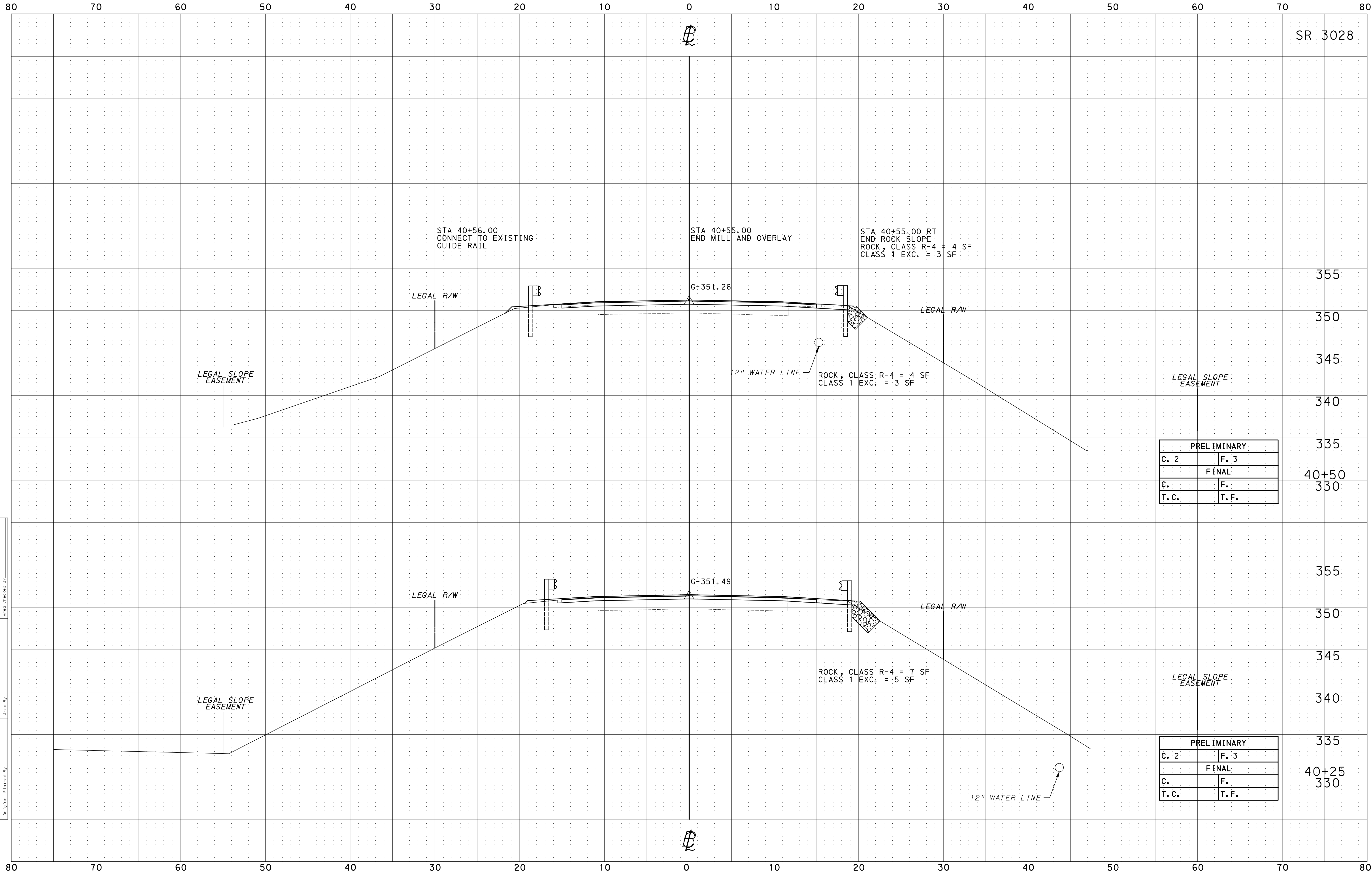
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prel. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			15 OF 17

12/12/2025
PLOTTED:

OPERATOR:
FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trrPlan\Xsect\3028-Xsections.dgn

Plotted By: _____
 Plotted By: _____
 Area Checked By: _____
 Original Checked By: _____
 Template By: _____
 Area By: _____
 Application No. _____
 Route No. _____
 Original Plotted By: _____



SR 3028

PRELIMINARY	
C. 2	F. 3
FINAL	
C.	F.
T.C.	T.F.

PRELIMINARY	
C. 2	F. 3
FINAL	
C.	F.
T.C.	T.F.

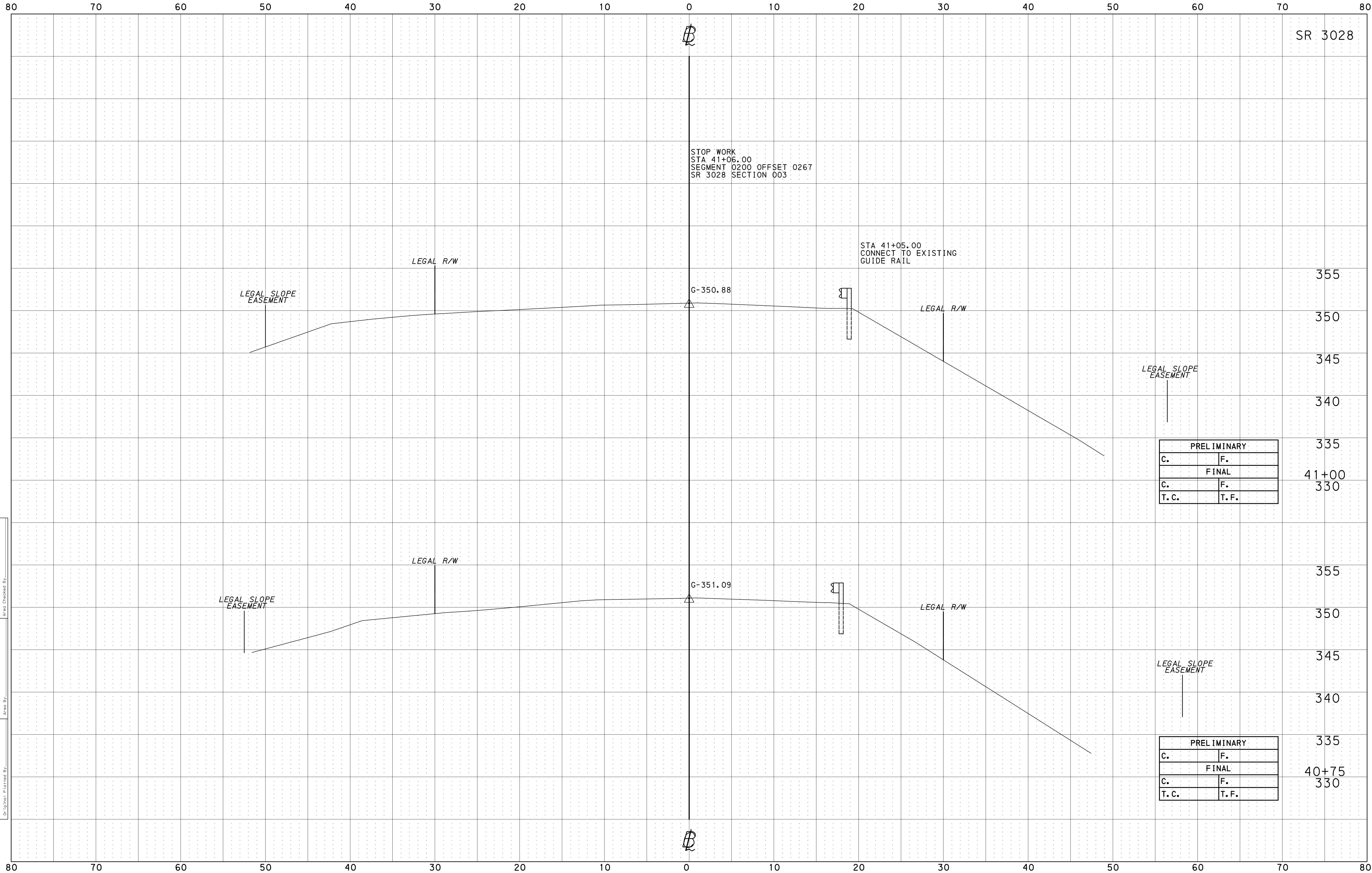
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			16 OF 17

12/12/2025
PLOTTED:

OPERATOR:
FILE NAME: N:\57855-07-P\TreyRoad\Drawings\Cons trrP lan\Xsect\3028-Xsections.dgn

Application No. _____
 Route No. _____
 Original Plotted By _____
 Original Checked By _____
 Template By _____
 Area By _____
 Final Plotted By _____
 Final Checked By _____
 Area Checked By _____



SR 3028

STOP WORK
STA 41+06.00
SEGMENT 0200 OFFSET 0267
SR 3028 SECTION 003

STA 41+05.00
CONNECT TO EXISTING
GUIDE RAIL

LEGAL SLOPE
EASEMENT

LEGAL R/W

G-350.88

LEGAL R/W

LEGAL SLOPE
EASEMENT

PRELIMINARY	
C.	F.
FINAL	
C.	F.
T.C.	T.F.

355

350

345

340

335

41+00

330

LEGAL R/W

G-351.09

LEGAL R/W

LEGAL SLOPE
EASEMENT

PRELIMINARY	
C.	F.
FINAL	
C.	F.
T.C.	T.F.

355

350

345

340

335

40+75

330

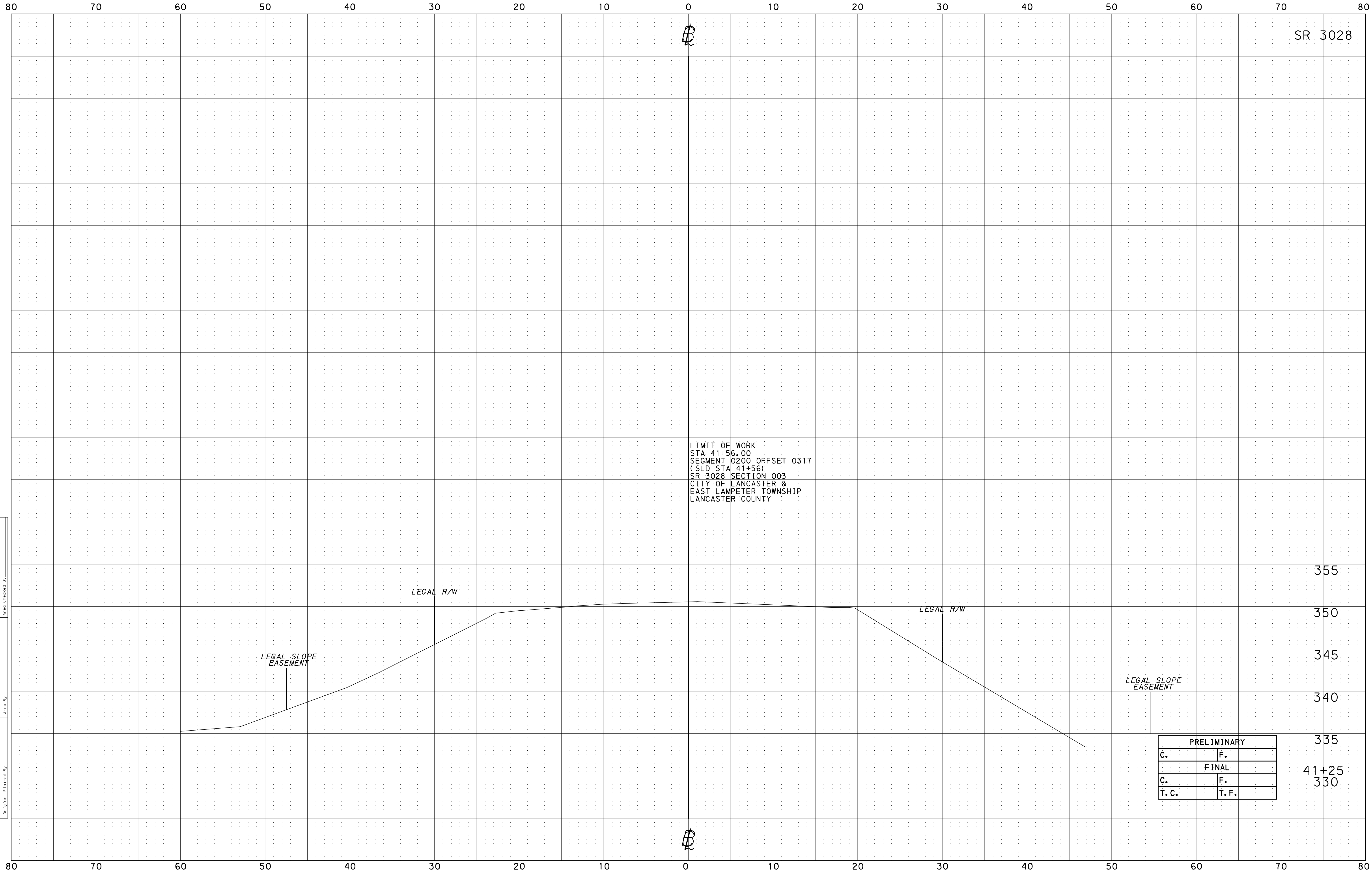
CROSS SECTIONS
SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sec.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	3028	003			17 OF 17

12/12/2025

OPERATOR: FILE NAME: N:\57855-07-P\TrneyRoad\Drawings\Cons trPlan\Xsect\3028-Xsections.dgn

Original Checked By: _____
 Original Plotted By: _____
 Route No.: _____
 Original Plotted By: _____
 Area Checked By: _____
 Area Plotted By: _____



SR 3028

Ⓟ

Ⓟ

LIMIT OF WORK
 STA 41+56.00
 SEGMENT 0200 OFFSET 0317
 (SLD STA 41+56)
 SR 3028 SECTION 003
 CITY OF LANCASTER &
 EAST LAMPETER TOWNSHIP
 LANCASTER COUNTY

LEGAL SLOPE EASEMENT

LEGAL R/W

LEGAL R/W

LEGAL SLOPE EASEMENT

PRELIMINARY	
C.	F.
FINAL	
C.	F.
T.C.	T.F.

355

350

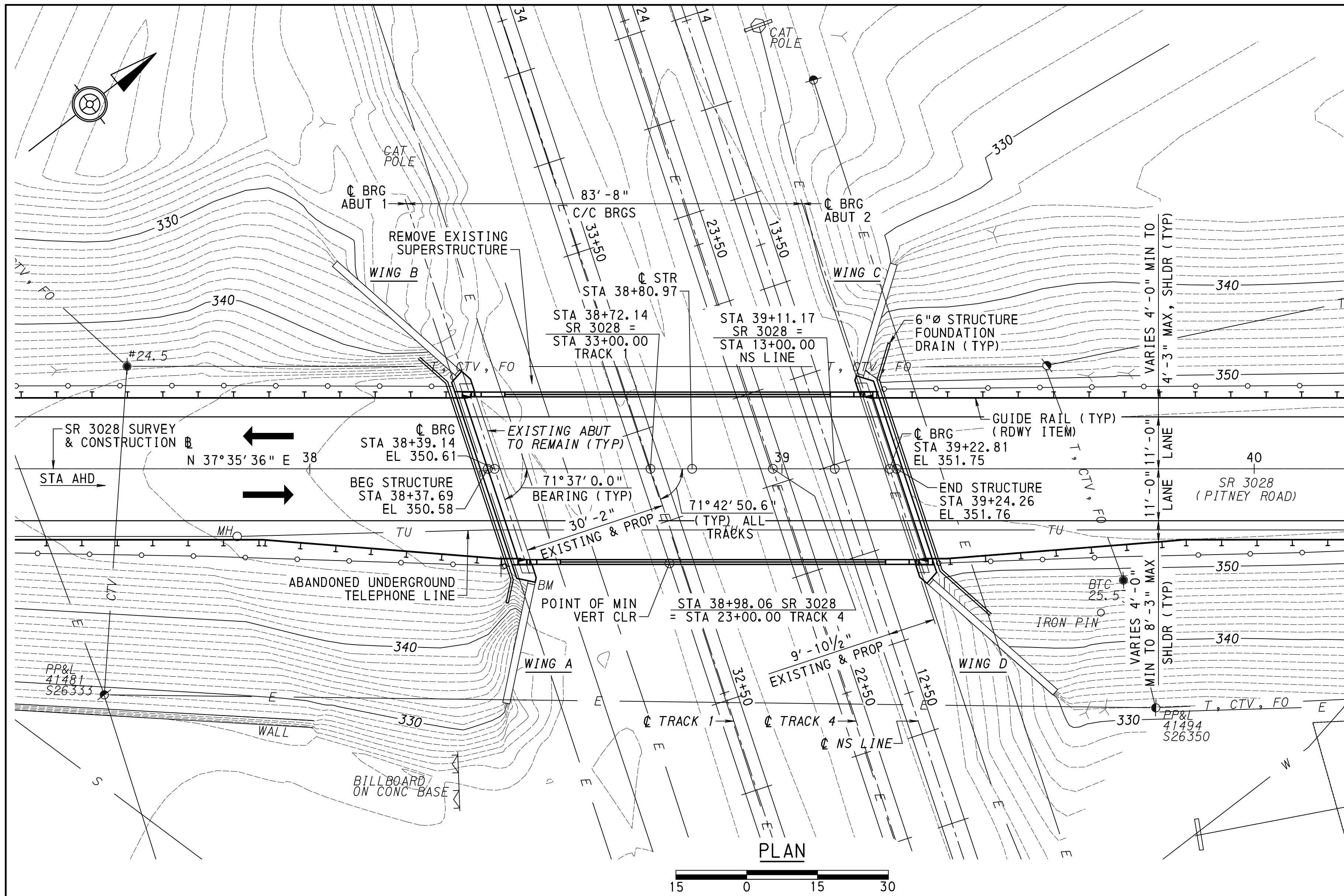
345

340

335

41+25

330



PVI STA 38+75.00
 ELEV 352.90
 VC 275'
 MO -1.65'
 SSD 362'



S.R. 3028
VERTICAL ALIGNMENT DATA

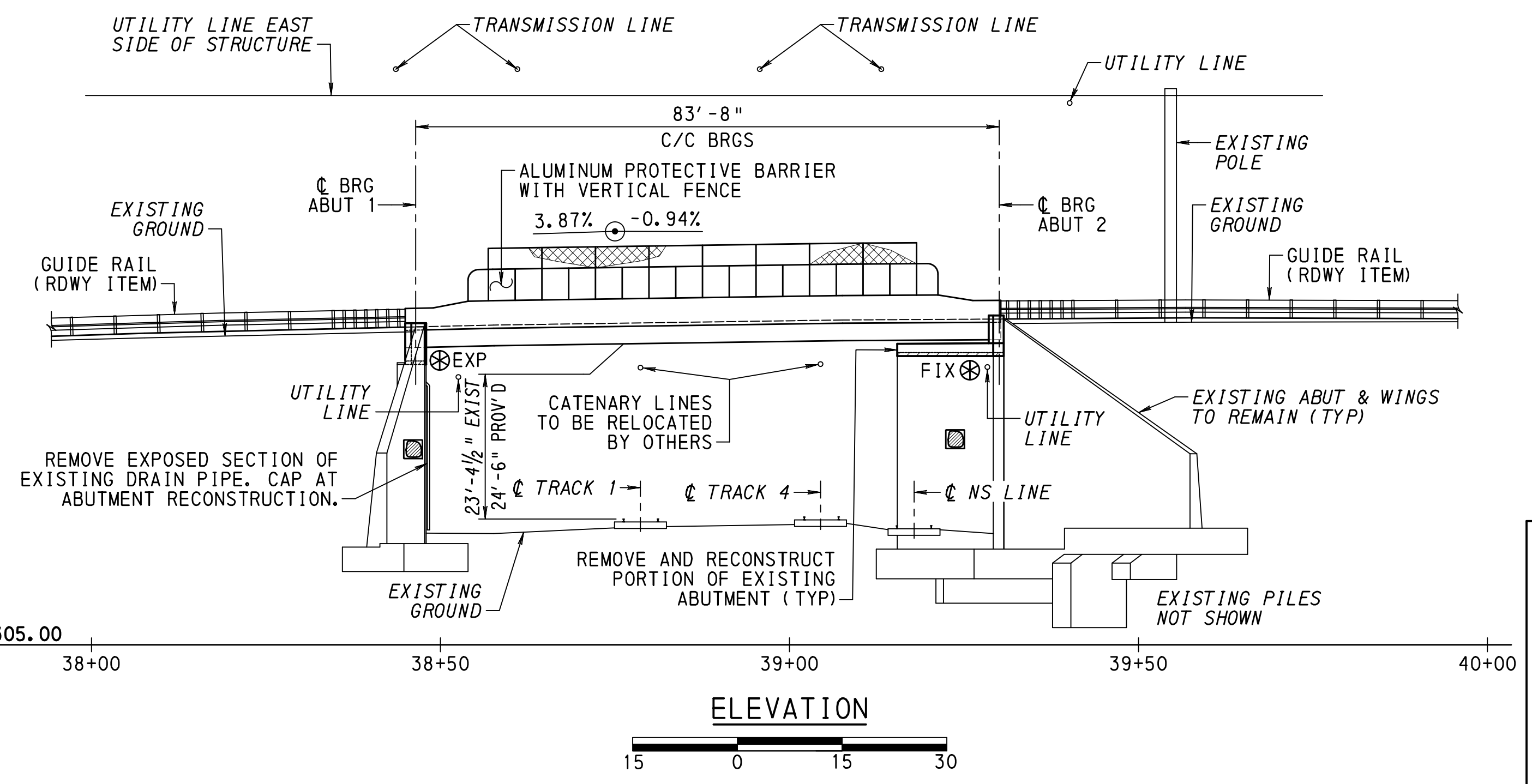
TANGENT BEARING = N 37°35'36" E
 S.R. 3028
HORIZONTAL ALIGNMENT DATA

TANGENT BEARING = S 70°41'33.4" E
TRACK 1, 4 & NS LINE
HORIZONTAL ALIGNMENT DATA

INDEX OF DRAWINGS	
SHEET NO.	TITLE
1	GENERAL PLAN
2	QUANTITIES & RATINGS TABLES
3	GENERAL NOTES
4	TYPICAL SECTION & ELEVATION CHARTS
5	ABUTMENT 1 REMOVAL
6	ABUTMENT 1 DETAILS
7	ABUTMENT 1 BEARING SEAT ELEV.
8	ABUTMENT 1 REINFORCEMENT SCHEDULE
9	ABUTMENT 2 REMOVAL
10	ABUTMENT 2 DETAILS
11	ABUTMENT 2 BEARING SEAT ELEV.
12	ABUTMENT 2 REINFORCEMENT SCHEDULE
13	ABUTMENT ELEVATIONS
14	FRAMING PLAN & DAP DETAILS
15	ELASTOMERIC BEARING DETAILS
16	BEAM FABRICATION DETAILS - 1
17	BEAM FABRICATION DETAILS - 2
18	BEAM REINFORCEMENT DETAILS
19	SLAB PLAN
20	SLAB SECTION
21	VERTICAL BARRIER END TRANSITION DETAILS
22	SUPERSTRUCTURE REBAR SCHEDULE
23	MOMENTS, SHEARS & BEAM PROPERTIES

- NOTES**
- FOR SUPPLEMENTAL DRAWINGS LIST, SEE SHEET 2.
 - FOR GENERAL NOTES, SEE SHEET 3.
 - FOR TYPICAL SECTION, SEE SHEET 4.
 - EXISTING UTILITIES SHOWN ARE TO REMAIN IN PLACE UNLESS OTHERWISE INDICATED.

- LEGEND**
- ⊗ LAMINATED NEOPRENE BEARING PADS
 - ⊠ PERFORM CONCRETE REPAIRS ON ABUTMENTS AND WINGWALLS AS REQUIRED. LOCATIONS AND LIMITS TO BE DETERMINED IN THE FIELD.



REPAIR DETERIORATED CONCRETE ON ABUTMENTS AND WINGWALLS. LOCATIONS AND LIMITS TO BE DETERMINED IN THE FIELD.

CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.

PUC DOCKET NO. A-2023-3040337

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
 BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
 S.R. 3028 SEC 003 STA 38+80.97
 SEGMENT 0200 OFFSET 0000
 S.R. 3028-003 STA 38+80.97
 OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
GENERAL PLAN

PREPARED BY
 ERDMAN ANTHONY
 ONE STERLING PLACE
 100 STERLING PARKWAY, SUITE 212
 MECHANICSBURG, PA 17050-2903

ERDMAN ANTHONY

12/11/2025

RECOMMENDED _____
 DISTRICT BRIDGE ENGINEER

SHEET 1 OF 23
 + SUPPLEMENTAL DWGS.
 S-31649

FILENAME: N:\517855-07-PitneyRoad\Drawings\Structures\3028003-GP-01.dgn
 DATE: 12/11/2025 TIME: 9:05:45 AM

ALTERNATE STRUCTURE ITEMS			
ITEM NO.	ITEM	UNIT	TOTAL
8020-0001	BRIDGE STRUCTURE, AS DESIGNED, S-31649 (*)	LS	LUMP SUM
8000-0001	PRESTRESSED CONCRETE BRIDGE STRUCTURE (*)	LS	LUMP SUM
8100-0001	STEEL BRIDGE STRUCTURE (*)	LS	LUMP SUM

APPROXIMATE QUANTITIES - BRIDGE STRUCTURE AS DESIGNED						
ITEM NO.	ITEM	UNIT	ABUT. 1	ABUT. 2	SUPER.	TOTAL
8020-0001	BRIDGE STRUCTURE, AS DESIGNED, S-31649 (*)	LS				LS
(1)	CLASS 3 EXCAVATION	CY	10	9		19
(1)	STRUCTURE BACKFILL	CY	8	7		15
(1)	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES (6)	SY	52	48		100
(1)	NO. 57 COARSE AGGREGATE (7)	CY	9	9		18
(1)	6" STRUCTURE FOUNDATION DRAIN	LF	55	60		115
(1)	CLASS AAAP CEMENT CONCRETE	CY			66	66
(1)	CLASS AA CEMENT CONCRETE (2) (3)	CY	4	3	22	29
(1)	CLASS A CEMENT CONCRETE	CY	14	14		28
(1)	DOWEL HOLES, 6" DEPTH	EA		4		4
(1)	DOWEL HOLES, 24" DEPTH	EA	105	101		206
(1)	PROTECTIVE BARRIER WITH VERTICAL PROTECTIVE FENCE, VINYL COATED STEEL (*)	LF			137	137
(1)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)	SY			419	419
(1)	PRESTRESSED CONCRETE ADJACENT BOX BEAMS, 48" X 30" (8)	LF			780	780
AND						
1002-0052	REINFORCEMENT BARS, EPOXY COATED (4) (5)	LB	1120	970	11250	13340
AND						
1002-0220	STAINLESS STEEL REINFORCEMENT BARS (4)	LB		158		158
1091-0331	EPOXY INJECTION CRACK SEAL	LF			150	150
5018-0050	REMOVAL OF PORTION OF EXISTING BRIDGE (9) (*)	LS				1
9000-0050	CLASS A CEMENT CONCRETE, UNFORESEEN CONDITIONS (*)	DOLLAR	5000	5000		10000
9000-0051	REPAIR DETERIORATED CONCRETE SUBSTRUCTURES (*)	SF	253	153		406

- (1) ITEMS IN BRIDGE STRUCTURE LUMP SUM ITEM 8020-0001 GIVEN FOR INFORMATION ONLY.
- (2) INCLUDES CLASS AA CONCRETE IN CORNER BLOCKS ABOVE THE BRIDGE SEAT.
- (3) INCLUDES CLASS AA CONCRETE IN BARRIERS.
- (4) FOR AS DESIGNED STRUCTURE, INCLUDED IN BRIDGE BID ITEMS. FOR ALTERNATE DESIGNS, INCLUDED IN BRIDGE STRUCTURE LUMP SUM BID ITEM.
- (5) INCLUDES 1453 LBS. OF EPOXY-COATED DOWELS.
- (6) INCLUDES PREFORMED CELLULAR POLYSTYRENE, SELF TAPPING STAINLESS STEEL CONCRETE SCREWS, GALVANIZED STEEL BATTEN AND WATERPROOFING MEMBRANE.
- (7) INCLUDES GEOTEXTILE, CLASS 1 FOR STRUCTURE FOUNDATION DRAIN.
- (8) INCLUDES EMBEDDED GALVANIZED FLASH PLATES AND CHANNELS FOR GROUNDING AND BONDING.
- (9) INCLUDES CUTTING, REMOVAL, CAPPING AND GROUTING REMAINING 4"Ø O.D. C. I. DRAIN PIPE.
- (*) SEE SPECIAL PROVISIONS

48x30 P/S ADJACENT BOX BEAMS (WITH FUTURE WEARING SURFACE)									
			CURRENT ADTT = 250 (2024)		DESIGN YEAR ADTT = 306 (2044)				
			H20	HS20	ML80	TK527	PHL-93	P-82	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR		0.318	0.318	0.318	0.318	0.318	--	--
	LOCATION (FT)		41.83	41.83	41.83	41.83	41.83	--	--
	LIMIT STATE		SERV-III	SERV-III	SERV-III	SERV-III	SERV-III	--	--
	RATING FACTOR		1.94 (M)	1.48 (M)	1.30 (M)	1.30 (M)	1.09 (M)	--	--
	RESISTANCE		0.268 KSI	0.268 KSI	0.268 KSI	0.268 KSI	0.268 KSI	--	--
SPAN # / BEAM #			1 / 9	1 / 9	1 / 9	1 / 9	1 / 9	--	--
OPERATING RATING (OR)	DISTRIBUTION FACTOR		0.635	0.635	0.635	0.635	0.635	0.635	0.635
	LOCATION (FT)		80.68	21.00	21.00	21.00	80.68	80.68	80.68
	LIMIT STATE		STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR		2.95 (S)	2.35 (S)	2.13 (S)	2.08 (S)	1.84 (S)	1.16 (S)	1.08 (S)
	RESISTANCE		243.2 KIP	161.1 KIP	161.1 KIP	161.1 KIP	243.2 KIP	243.2 KIP	243.2 KIP
SPAN # / BEAM #			1 / 9	1 / 9	1 / 9	1 / 9	1 / 9	1 / 9	1 / 9

48x30 P/S ADJACENT BOX BEAMS (WITHOUT FUTURE WEARING SURFACE)									
			CURRENT ADTT = 250 (2024)		DESIGN YEAR ADTT = 306 (2044)				
			H20	HS20	ML80	TK527	PHL-93	P-82	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR		0.318	0.318	0.318	0.318	0.318	--	--
	LOCATION (FT)		41.83	41.83	41.83	41.38	41.83	--	--
	LIMIT STATE		SERV-III	SERV-III	SERV-III	SERV-III	SERV-III	--	--
	RATING FACTOR		2.21 (M)	1.69 (M)	1.48 (M)	1.48 (M)	1.24 (M)	--	--
	RESISTANCE		0.268 KSI	0.268 KSI	0.268 KSI	0.268 KSI	0.268 KSI	--	--
SPAN # / BEAM #			1 / 9	1 / 9	1 / 9	1 / 9	1 / 9	--	--
OPERATING RATING (OR)	DISTRIBUTION FACTOR		0.635	0.635	0.635	0.635	0.635	0.635	0.635
	LOCATION (FT)		80.63	21.00	21.00	21.00	80.63	80.63	80.63
	LIMIT STATE		STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR		3.07 (S)	2.44 (S)	2.21 (S)	2.16 (S)	1.91 (S)	1.21 (S)	1.13 (S)
	RESISTANCE		247.3 KIP	168.6 KIP	168.6 KIP	168.6 KIP	247.3 KIP	247.3 KIP	247.3 KIP
SPAN # / BEAM #			1 / 9	1 / 9	1 / 9	1 / 9	1 / 9	1 / 9	1 / 9

MAXIMUM FACTORED FLEXURAL RESISTANCE (KIP-FT)	3433.35	SPAN LENGTH (FT)	83.67
LOCATION (FT)	25.1		
MAXIMUM FACTORED SHEAR RESISTANCE (KIPS)	265.68		
LOCATION (FT)	8.37		

NOTES:
(1) "M", "S", AND "SM" DENOTE THAT MOMENT, SHEAR, AND SHEAR/MOMENT INTERACTION CONTROL THE RATING FACTOR RESPECTIVELY.

(2) GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

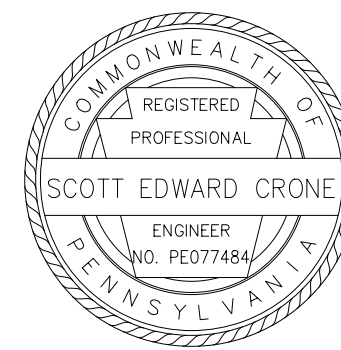
Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S. R. 3028-003 STA 38+80.97
OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
QUANTITIES & RATINGS TABLES

RECOMMENDED _____ SHEET 2 OF 23
S-31649

SUPPLEMENTAL DRAWINGS		
DESCRIPTION	DWG. NO.	REC'M D DATE
PROTECTIVE FENCE	BC-701M	11-23-22
ALUMINUM PROTECTIVE BARRIER	BC-711M	11-23-22
ANCHOR SYSTEMS	BC-734M	02-19-21
WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	09-30-16
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	11-23-22
BRIDGE DRAINAGE	BC-751M	01-31-19
CONCRETE DECK SLAB DETAILS	BC-752M	11-23-22
BEARINGS	BC-755M	01-31-19
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	11-23-22
REINFORCED CONCRETE REPAIR	BC-783M	01-31-19
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	11-23-22
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-10
BACKFILL AT STRUCTURES	RC-12M	11-01-22
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-27-23
AMTRAK ET STANDARD TYPICAL PROTECTION BARRIER	ET-1446-D	05-07-99
AMTRAK ET STANDARD TEMPORARY PROTECTION SHIELD & BARRIERS	ET-1447-D	01-13-00



GENERAL NOTES

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, PUBLICATION 408/2020, THE AASHTO/AWS D1.5M/D1.5:2015 (USE AASHTO/AWS D1.1/D1.1M:2015 FOR WELDING NOT COVERED IN AASHTO/AWS D1.5M/D1.5:2015) BRIDGE WELDING CODE AND THE CONTRACT SPECIAL PROVISIONS.
2. DESIGN SPECIFICATIONS
 - A. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2017, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, DECEMBER 2019.
 - B. LIVE LOAD DISTRIBUTION TO BEAMS IS BASED UPON DM-4 DISTRIBUTION FACTOR METHOD.
 - C. DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.
3. DESIGN LIVE LOADS.
 - A. PHL-93, P-82 AND P2016-13.
 - B. FATIGUE DESIGN IS BASED ON THE FOLLOWING: PRESTRESSED CONCRETE: ADIT 306 (YEAR 2044) ONE DIRECTIONAL
 - C. MAXIMUM ALLOWABLE TENSILE STRESS IN PRECOMPRESSED TENSILE ZONE: $0.0948 \times \text{SQARE ROOT}(f'c)$
4. DEAD LOADS
 - A. INCLUDES A SURFACE AREA DENSITY OF 30 LB/FT² FOR FUTURE WEARING SURFACE ON THE DECK SLAB.
 - B. INCLUDES 35 K/FT FOR PROTECTIVE BARRIER AND 20 K/FT FOR PROTECTIVE FENCE.
5. USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB.
6. USE CLASS AA CEMENT CONCRETE IN BARRIERS AND CHEEKWALLS.
7. USE CLASS A CEMENT CONCRETE IN ABUTMENTS BELOW BRIDGE SEAT.
8. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT.
9. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A615/A615M, A996/A996M AND A706/A706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A996/A996M REINFORCEMENT BARS IN BRIDGE BARRIERS, ABUTMENTS, BEAMS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
10. ALL REINFORCEMENT BARS ARE EPOXY COATED.
11. WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.
12. GALVANIZED REINFORCEMENT BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCEMENT BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.
13. USE STAINLESS STEEL REINFORCEMENT DOWEL BARS IN ACCORDANCE WITH PUBLICATION 408 SECTION 709.1(f)
14. PROVIDE 2 IN. CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.
15. RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
16. USE RETARDER ADMIXTURE CONFORMING TO PUBLICATION 408/2020 IN THE CONCRETE DECK SLAB.
17. CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.
18. CHAMFER EXPOSED CONCRETE EDGES $\frac{3}{4}$ " BY $\frac{3}{4}$ ", EXCEPT AS NOTED.
19. PROVIDE AN EPOXY BONDING COMPOUND BETWEEN THE EXISTING ABUTMENTS AND NEW CONCRETE.
20. DECK SLAB THICKNESS INCLUDES A 0.5" INTEGRAL WEARING SURFACE.

21. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
22. SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68 DEG F.
23. SEISMIC FORCES WERE CONSIDERED FOR AN ACCELERATION COEFFICIENT OF 0.15, AND A SITE COEFFICIENT OF 1.20.
24. PLACE CHEEKWALL CONCRETE AFTER BEAMS ARE SET IN POSITION.
25. VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
26. ANY PORTION OF THE EXISTING STRUCTURE THAT IS DAMAGED BY THE CONTRACTOR WILL BE REPLACED AT THEIR EXPENSE, AND TO THE SATISFACTION OF THE DEPARTMENT'S REPRESENTATIVE.
27. DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD.
28. THE INFORMATION SHOWN ON THE PLANS FOR THE EXISTING BRIDGE IS NOT PART OF THE PLANS, PROPOSAL, OR CONTRACT AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT PRICES USED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT INFORMATION IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS TO ASSUME THE POSSIBILITY THAT CONDITIONS AFFECTING THE COST AND/OR QUANTITIES OF WORK TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED (S-3096 AND S-3096 SHOP).
29. REMOVE THE EXISTING STRUCTURE ONLY AS CALLED FOR BY PLAN, OR AS PERMITTED BY THE DEPARTMENT'S REPRESENTATIVE. REPLACE IN KIND, ANY PORTIONS REMOVED TO PERMIT ACCESS FOR REPAIRS. CONSIDER THIS REPLACEMENT INCIDENTAL TO THE ASSOCIATED WORK ITEMS, UNLESS SPECIFIED OTHERWISE.
30. THE DEPARTMENT DOES NOT GUARANTEE THE QUANTITY OF ANY SPALLED AREAS OF CONCRETE FOR REPAIRS OF THE ABUTMENTS AND WINGWALLS. THE APPROXIMATE QUANTITIES SHOWN ARE FOR THE CONTRACTOR'S GUIDANCE ONLY. ACTUAL QUANTITIES WILL BE DETERMINED IN THE FIELD.
31. THE ENGINEER RESERVES THE RIGHT TO CHANGE THE NATURE AND LIMITS OF THE WORK TO ASSURE A SATISFACTORY REPAIR.
32. EXERCISE CARE DURING REMOVAL OF EXISTING CONCRETE AND PROVIDE ADEQUATE SHIELDING TO PREVENT DEBRIS FROM FALLING ONTO THE RAILROAD BELOW. THE CONTRACTOR MUST PROTECT THE TRACK STRUCTURE FROM DEBRIS AND MATERIAL THAT MAY FOUL THE BALLAST. ALL MATERIAL THAT FALLS MUST BE REMOVED BY RAILROAD FORCES AT CONTRACTOR'S EXPENSE.
33. DETERMINE THE QUANTITIES FOR CONCRETE REPAIRS FROM MEASUREMENTS OF THE VOLUMES OF THE RESPECTIVE PATCHES TAKEN BY THE DEPARTMENT'S REPRESENTATIVE AND CHECKED BY THE CONTRACTOR BEFORE THE PATCHES ARE FILLED WITH NEW CONCRETE.
34. CHIP CLEAN AND STRAIGHTEN ALL EXISTING REINFORCEMENT THAT IS TO REMAIN.
35. THE EXISTING BRIDGE STRUCTURAL MEMBERS DO NOT CONTAIN LEAD PAINT OR OTHER TOXIC MATERIALS BASED ON LABORATORY TESTING.
36. COMPLY WITH ALL AMTRAK GUIDELINES AND RESTRICTIONS, INCLUDING, BUT NOT LIMITED TO, WORK TIME RESTRICTIONS, PROTECTION OF RAILROADS OPERATIONS, SHIELDING, GROUNDING, ETC.
37. THE 42" VERTICAL WALL CONCRETE BARRIER IS DESIGNATED AS MASH TL-4 WHEN AN OVERLAY IS PLACED ON THE STRUCTURE AND REDUCES THE BARRIER HEIGHT BELOW 42".
38. PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE NOTED.
39. PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(k)9.

UTILITY NOTES

1. COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12

RAILROAD NOTES

1. ALL UNDERGROUND UTILITIES, CABLE, AND FACILITIES MUST BE LOCATED AND PROTECTED BEFORE ANY EXCAVATING, DRILLING, BORING/DIRECTIONAL DRILLING, GROUND PENETRATING ACTIVITIES, OR CONSTRUCTION TAKES PLACE. THIS INCLUDES RAILROAD AND COMMERCIAL UTILITIES, CABLES, DUCT LINES, AND FACILITIES. THESE ACTIVITIES WILL NOT BE PERFORMED IN CLOSE PROXIMITY TO THE AMTRAK DUCT LINES UNLESS MONITORED BY ON-SITE AMTRAK COMMUNICATIONS AND SIGNAL (C&S) DEPARTMENT PERSONNEL. HAND DIGGING MAY BE REQUIRED, AS DIRECTED BY AMTRAK THROUGH THE ON-SITE AMTRAK C&S SUPPORT PERSONNEL. AMTRAK MAINTAINS THE RIGHT TO ACCESS ALL EXISTING CABLES AND CONDUITS THROUGHOUT CONSTRUCTION. AMTRAK ALSO RESERVES THE RIGHT TO UPGRADE AND INSTALL NEW CABLES AND CONDUITS IN THE AFFECTED AREA. THE "ONE-CALL" PROCESS MUST BE FOLLOWED. PLEASE NOTE THAT AMTRAK IS NOT A PART OF THE ONE-CALL PROCESS; CONTACT AMTRAK ENGINEERING TO HAVE ALL AMTRAK UNDERGROUND UTILITIES AND ASSETS LOCATED. PRECAUTIONS MUST BE TAKEN TO PREVENT ANY INTERRUPTION TO AMTRAK'S OPERATION.
2. WORK PERFORMED AROUND THE AMTRAK RIGHT OF WAY (ROW) IS TO BE IN ACCORDANCE WITH AMTRAK EP3014 - MAINTENANCE AND PROTECTION OF RAILROAD TRAFFIC DURING CONTRACTOR OPERATIONS.
3. DESIGN AND CONSTRUCTION ACTIVITIES ARE TO BE IN ACCORDANCE WITH AMTRAK EP3006 - DESIGN AND CONSTRUCTION CRITERIA FOR OVERHEAD BRIDGES.
4. ALL TEMPORARY EXCAVATION WITHIN AMTRAK'S RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH AMTRAK EP3014, SECTION 02261A - REQUIREMENTS FOR TEMPORARY SHEETING AND SHORING TO SUPPORT AMTRAK TRACKS.
5. VERTICAL FACE BRIDGE BARRIER AND ALUMINUM PROTECTIVE BARRIER WITH PROTECTIVE FENCE TO BE BONDED AND GROUNDING IN ACCORDANCE WITH AMTRAK STANDARD DRAWINGS ET-1446/1447.
6. CONTRACTOR IS TO PERFORM TRACK MONITORING DURING EXCAVATION, DEWATERING AND PILE DRIVING OPERATIONS THAT ARE NEAR THE TRACKS IN ACCORDANCE WITH AMTRAK EP2031 - TRACK MONITORING FOR WORK DISTURBING ROADBED. CONTRACTOR IS TO PROVIDE THE MONITORING DETAILS TO AMTRAK FOR APPROVAL BY AMTRAK PRIOR TO COMMENCEMENT OF ANY WORK ACTIVITIES.
7. DEMOLITION OF EXISTING AND ERECTION OF PROPOSED BRIDGES ARE TO BE IN ACCORDANCE WITH AMTRAK EP3014, SECTION 01142A - SUBMISSION DOCUMENTATION REQUIRED FOR AMTRAK REVIEW AND APPROVAL OF PLANS FOR BRIDGE ERECTION, DEMOLITION AND OTHER CRANE/HOISTING OPERATIONS OVER RAILROAD RIGHT-OF-WAY AND SECTION 01520A - REQUIREMENTS FOR TEMPORARY PROTECTION SHIELDS FOR DEMOLITION AND CONSTRUCTION OF OVERHEAD BRIDGES AND OTHER STRUCTURES.
8. REFER TO THE PITNEY ROAD BRIDGE REPLACEMENT ELECTRIC TRACTION PLANS AND SPECIFICATIONS FOR BRIDGE BONDING AND GROUNDING REQUIREMENTS. MAINTAIN CONTINUOUS BONDING OF BARRIERS THROUGHOUT THE PROJECT.
9. PRIOR TO ENTERING AMTRAK'S PROPERTY FOR ANY WORK, THE CONTRACTOR MUST EXECUTE AMTRAK'S STANDARD TEMPORARY PERMIT TO ENTER UPON PROPERTY (PTE). ALSO, ALL CONTRACTOR EMPLOYEES MUST COMPLETE AMTRAK SAFETY TRAINING PRIOR TO ANY WORK ON AMTRAK PROPERTY. THE FULLY EXECUTED PTE, AND PROOF OF SAFETY TRAINING MUST, AT ALL TIMES, BE FURNISHED BY THE CONTRACTOR AT THE PROJECT SITE.
10. THIS PROJECT MUST COMPLY WITH AMTRAK ENGINEERING PRACTICE EP 3016-STORM WATER DRAINAGE AND DISCHARGE FROM ADJACENT PROPERTY ONTO AMTRAK RIGHT-OF-WAY, AND AMTRAK SPECIFICATION 150-STORMWATER MANAGEMENT POLICY. NO STORMWATER RUNOFF SHALL FLOW ONTO AMTRAK PROPERTY DURING OR AFTER CONSTRUCTION. CATCH BASINS, BRIDGE SCUPPERS, DOWNSPOUTS AND SITE STORMWATER MANAGEMENT SYSTEMS MUST BE DESIGNED TO CONNECT TO THE CITY/MUNICIPAL STORMWATER SEWER AND CONVEY STORMWATER AWAY FROM THE BRIDGE AND AMTRAK'S TRACKS. STORMWATER IS NOT TO BE DISCHARGED ONTO AMTRAK'S PROPERTY.

LEGEND

- BEG = BEGIN
- C/C = CENTER TO CENTER
- CCNS = CLOSED CELL NEOPRENE SPONGE
- CLR = CLEAR
- EF = EACH FACE
- EL = ELEVATION
- EMBED = EMBEDMENT
- FF = FRONT FACE
- FIX = FIXED
- FWS = FUTURE WEARING SURFACE
- PROV'D = PROVIDED
- PROP = PROPOSED
- RF = REAR FACE
- SPA = SPACES

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

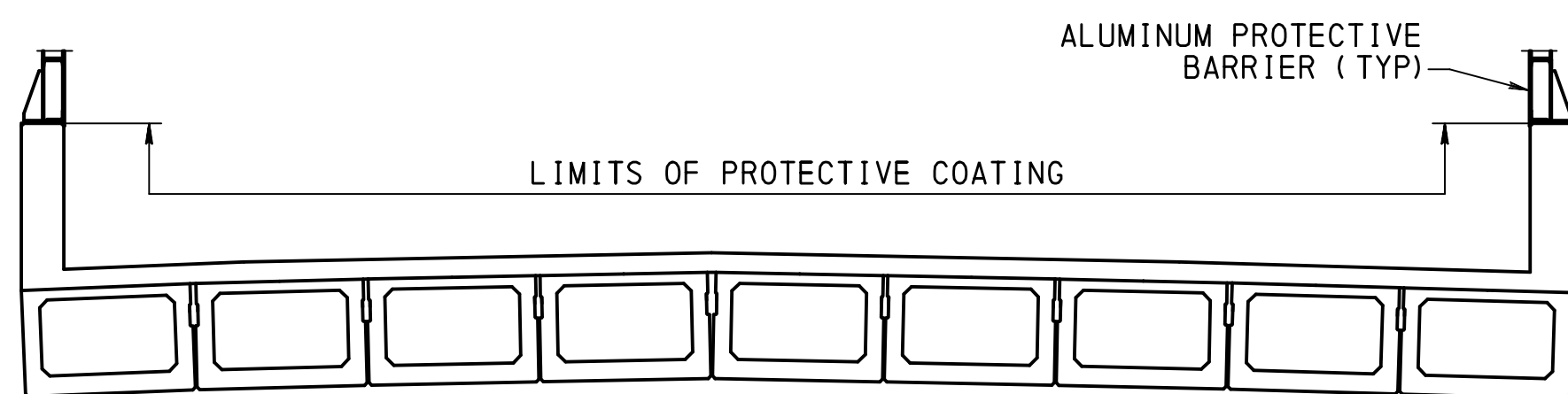
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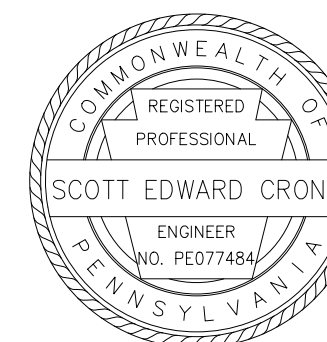
LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
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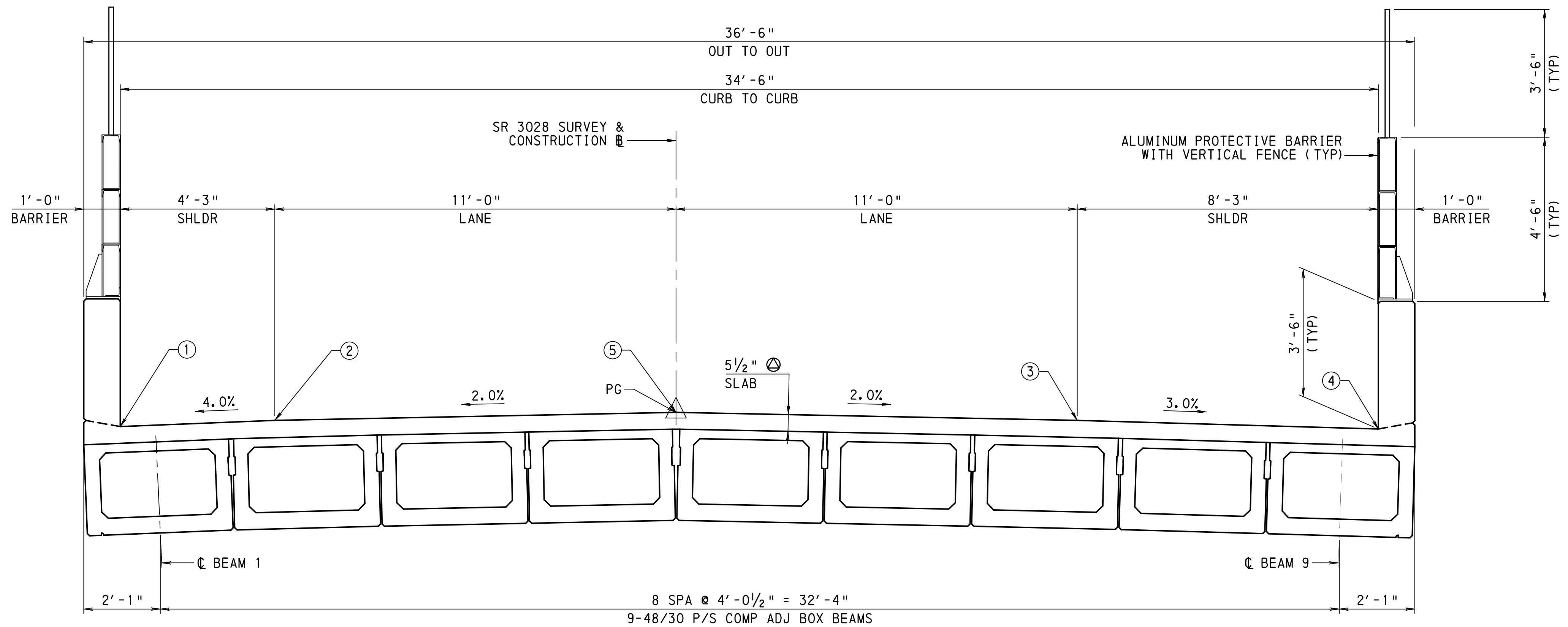
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
GENERAL NOTES

RECOMMENDED _____	SHEET <u>3</u> OF <u>23</u>
S-31649	

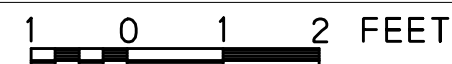


LIMITS OF PROTECTIVE COATING
 NOT TO SCALE





TYPICAL SECTION
LOOKING AHEAD STATIONS



ELEVATION TABLE
TOP OF SLAB ELEVATION

STATION	PT. ①	PT. ②	PT. ⑤	PT. ③	PT. ④
38+34.08	350.11	—	—	—	—
38+35.49	350.14	350.31	—	—	—
38+39.14	350.22	350.39	350.61	—	—
38+40.00	350.24	350.41	350.63	—	—
38+42.80	350.29	350.46	350.68	350.46	—
38+45.54	350.35	350.52	350.74	350.52	350.27
38+50.00	350.44	350.61	350.83	350.61	350.36
38+60.00	350.62	350.79	351.01	350.79	350.54
38+70.00	350.78	350.95	351.17	350.95	350.70
38+80.00	350.93	351.10	351.32	351.10	350.85
38+90.00	351.06	351.23	351.45	351.23	350.98
39+00.00	351.17	351.34	351.56	351.34	351.09
39+10.00	351.26	351.43	351.65	351.43	351.18
39+17.75	351.32	351.49	351.71	351.49	351.25
39+19.16	—	351.50	351.72	351.50	351.26
39+20.00	—	—	351.73	351.51	351.26
39+22.81	—	—	351.75	351.53	351.28
39+26.47	—	—	—	351.55	351.30
39+29.21	—	—	—	—	351.32

ELEVATIONS GIVEN AT THE FIRST AND LAST STATIONS LISTED FOR EACH POINT ARE LOCATED AT THE C OF BEARING.

TABLE OF DECK ELEVATIONS
AT 10TH POINTS ALONG CENTERLINE OF BEAM

LOCATION	BEAM NUMBER								
	1	2	3	4	5	6	7	8	9
CL BRG. ABUT. 1	350.159	350.334	350.443	350.552	350.582	350.529	350.476	350.390	350.296
8.367	350.335	350.507	350.615	350.722	350.750	350.695	350.640	350.552	350.456
16.734	350.499	350.669	350.775	350.880	350.906	350.849	350.791	350.702	350.604
25.101	350.650	350.818	350.922	351.025	351.049	350.990	350.931	350.839	350.739
33.468	350.789	350.955	351.057	351.159	351.180	351.119	351.058	350.965	350.863
41.835	350.916	351.080	351.180	351.279	351.299	351.236	351.173	351.078	350.974
50.202	351.031	351.193	351.291	351.388	351.406	351.341	351.276	351.179	351.072
58.569	351.133	351.293	351.389	351.485	351.500	351.433	351.366	351.267	351.159
66.936	351.223	351.382	351.475	351.569	351.582	351.514	351.445	351.344	351.233
75.303	351.301	351.458	351.549	351.641	351.652	351.582	351.511	351.408	351.296
CL BRG. ABUT. 2	351.367	351.521	351.611	351.701	351.710	351.637	351.565	351.459	351.345

DECK ELEVATIONS ARE GIVEN AT THE C OF EACH BEAM.
LOCATIONS GIVEN ARE THE DISTANCE (FT.) ALONG THE C OF EACH BEAM TO EACH 10TH POINT AS MEASURED FROM THE C OF BEARING AT ABUTMENT 1.

NOTES

- BEAM SPACING GIVEN AT C OF BEAM AT BOTTOM OF BEAM.
- ⊙ INCLUDES 1/2" INTEGRAL WEARING SURFACE

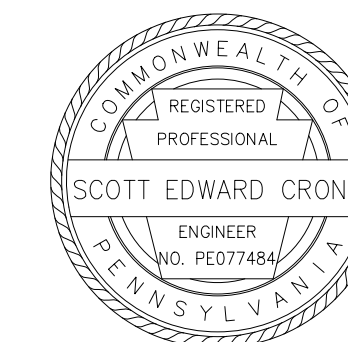
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REVISIONS					

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OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
TYPICAL SECTION & ELEVATION CHARTS



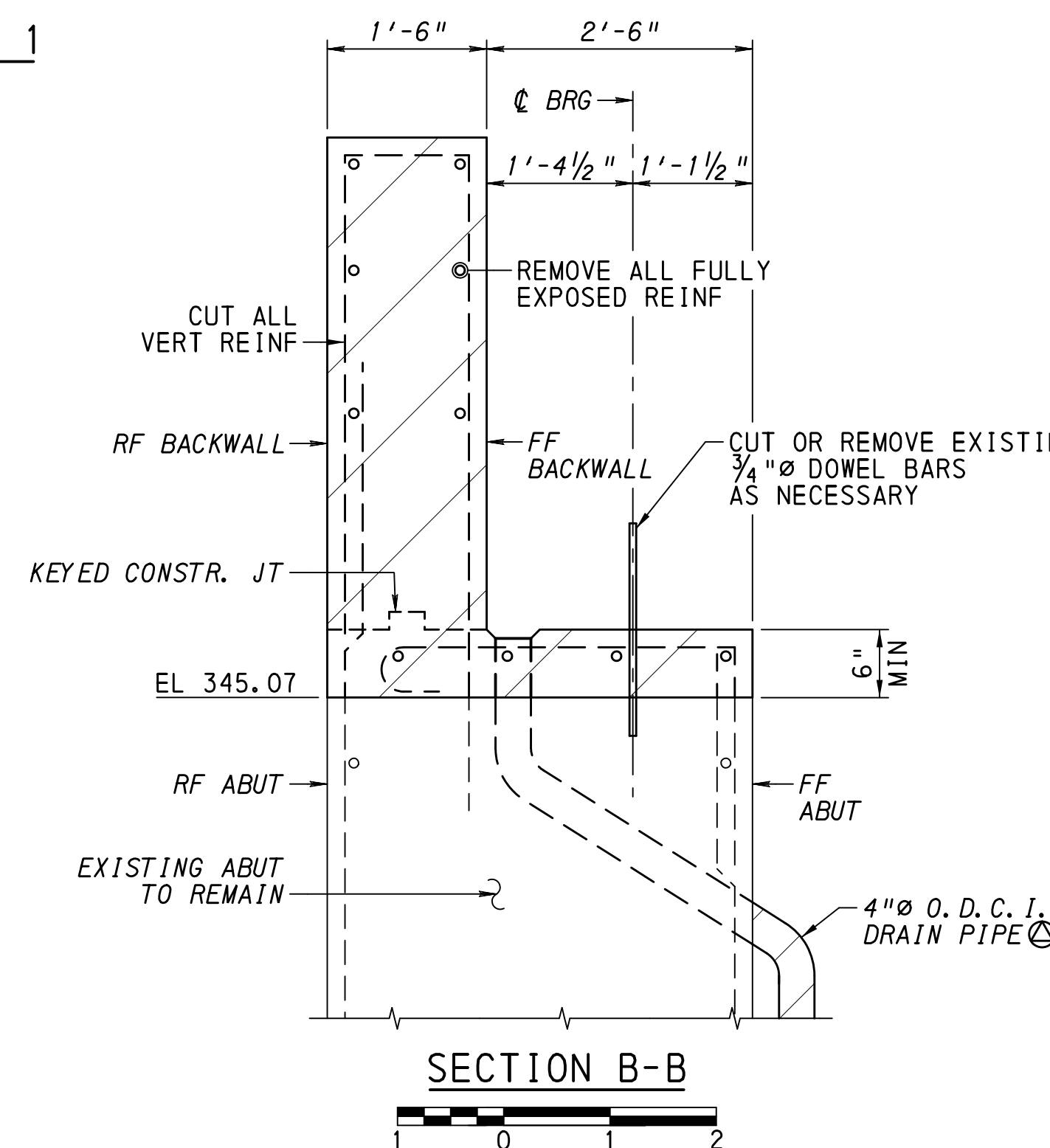
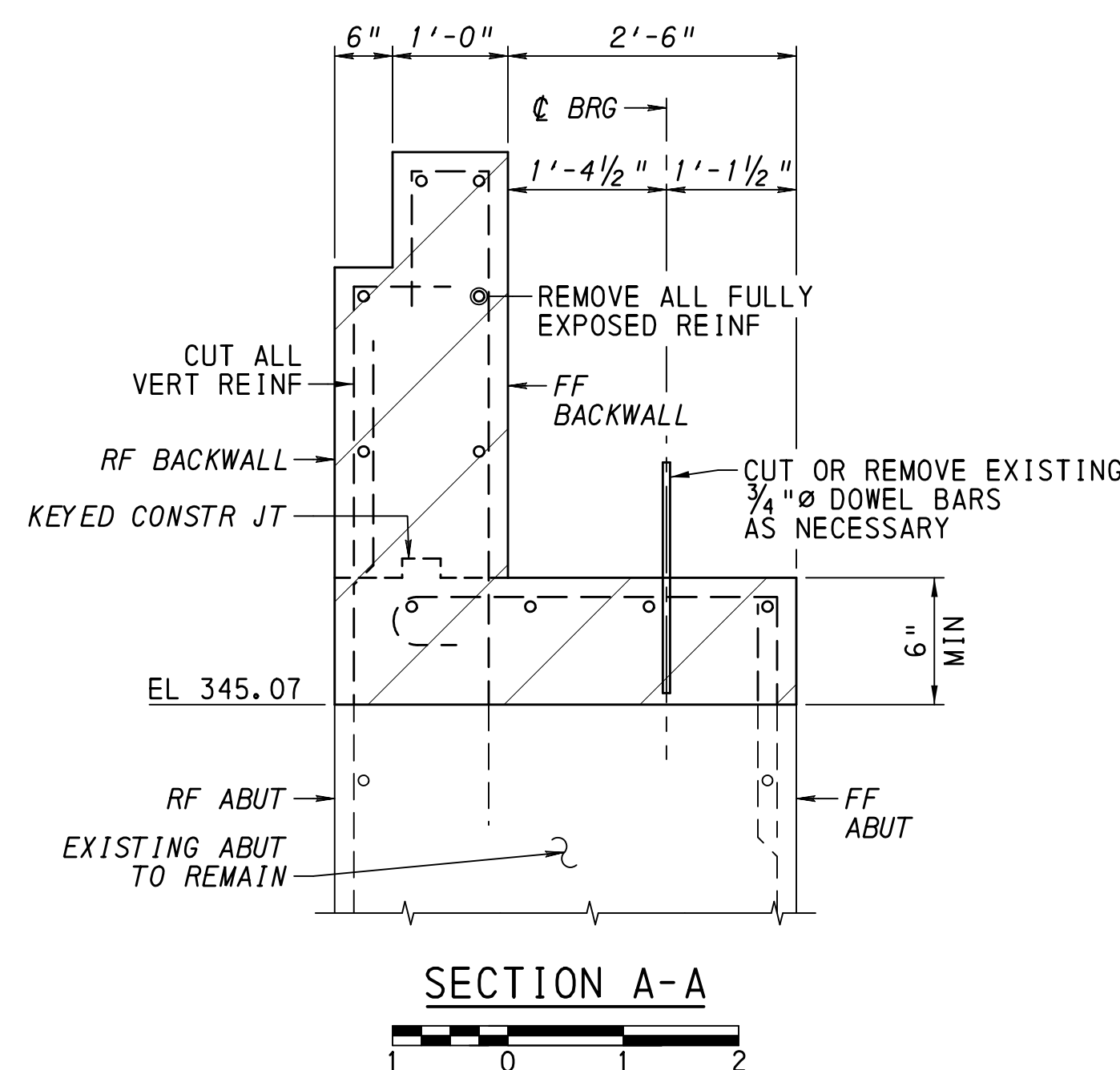
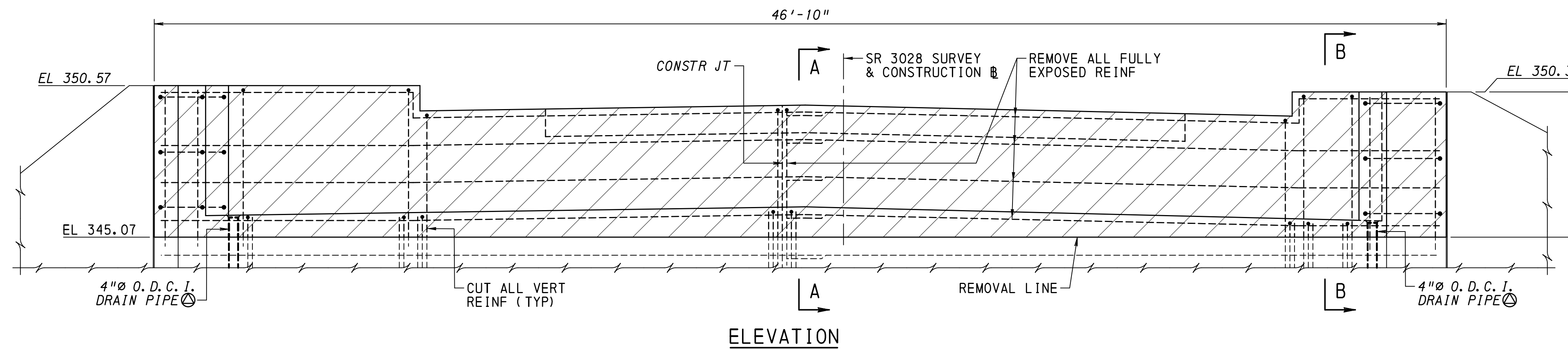
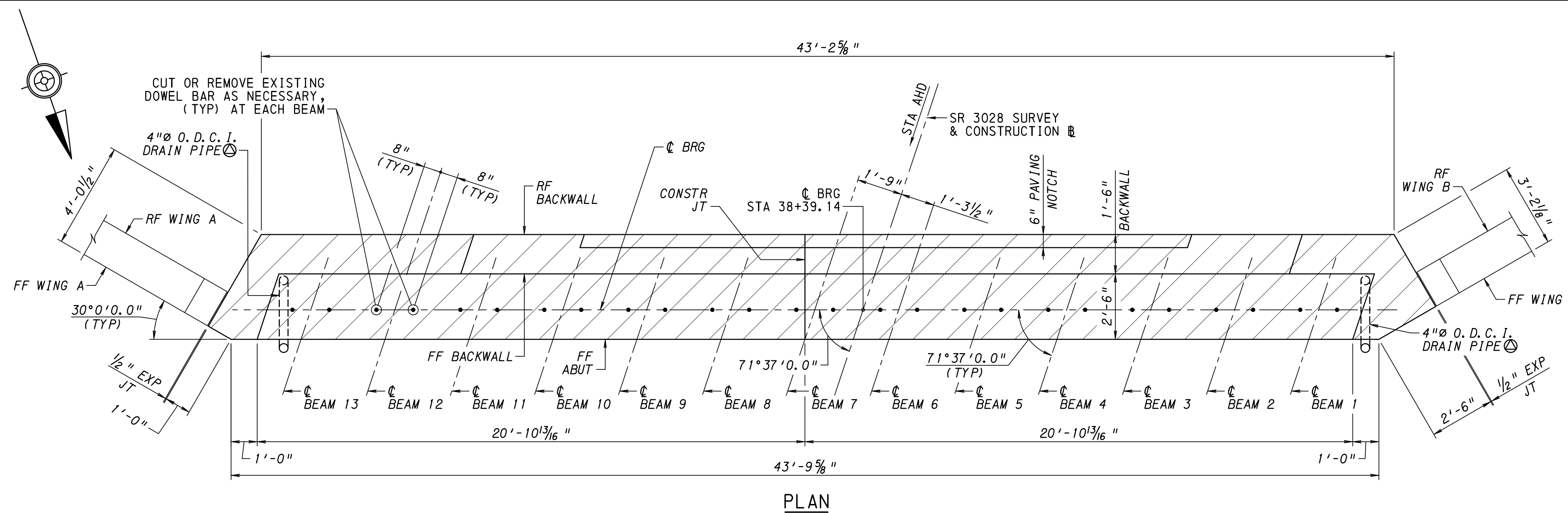
RECOMMENDED _____

SHEET 4 OF 23

S-31649

**EXISTING SUBSTRUCTURE
REMOVAL/RECONSTRUCTION NOTES**

1. SEE DETAILS FOR REMOVAL LIMITS OF EXISTING CONCRETE. LIMITS OF REMOVAL EXTEND FROM EXPANSION JOINT AT THE BEGINNING OF WING A TO EXPANSION JOINT AT THE BEGINNING OF WING B. DO NOT REMOVE ANY CONCRETE OR REINFORCEMENT FROM THE WINGS.
2. SAND BLAST OR WATER BLAST CLEAN SOUND CONCRETE AND EXISTING REINFORCEMENT BARS. PREVENT SAND OR WATER BLAST SPRAY AND DEBRIS FROM DAMAGING AMTRAK TRAINS, RAILS, AND CATENARY LINES DURING CONCRETE REMOVAL AND REINFORCEMENT CLEANING ACTIVITIES. PREVENT DEBRIS FROM FALLING ONTO AMTRAK PROPERTY DURING CONCRETE REMOVAL AND REINFORCEMENT CLEANING ACTIVITIES. STRAIGHTEN REINFORCEMENT TO PROVIDE 3" MINIMUM CLEAR TO SOUND CONCRETE.
3. PLACE NEW REINFORCEMENT BARS AS INDICATED ON THE PLANS. REMOVE ALL FULLY EXPOSED EXISTING REINFORCEMENT. CUT ALL EXISTING VERTICAL REINFORCEMENT TO CONCRETE REMOVAL LINE.
4. CUT OFF EXISTING DOWELS AT CONCRETE REMOVAL LINE.
5. HOLES TO BE DRILLED IN EXISTING CONCRETE FOR PLACEMENT OF NEW REINFORCEMENT MUST HAVE A MINIMUM OF 5" EDGE CLEARANCE.



NOTES

- WORK THIS SHEET WITH SHEETS 6 THRU 8.
- ⊕ CUT DRAINAGE PIPE FLUSH WITH FRONT FACE OF ABUTMENT. CAP AND FILL EMBEDDED PORTION OF DRAINAGE PIPE WITH GROUT.

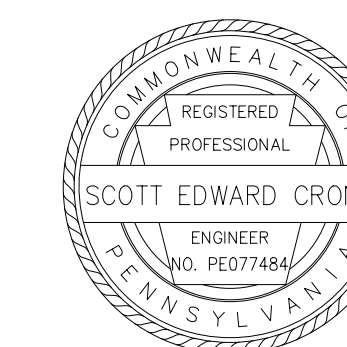
LEGEND

▨ BACKWALL, 4"Ø DRAIN PIPE AND PARTIAL SEAT REMOVAL LIMITS

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

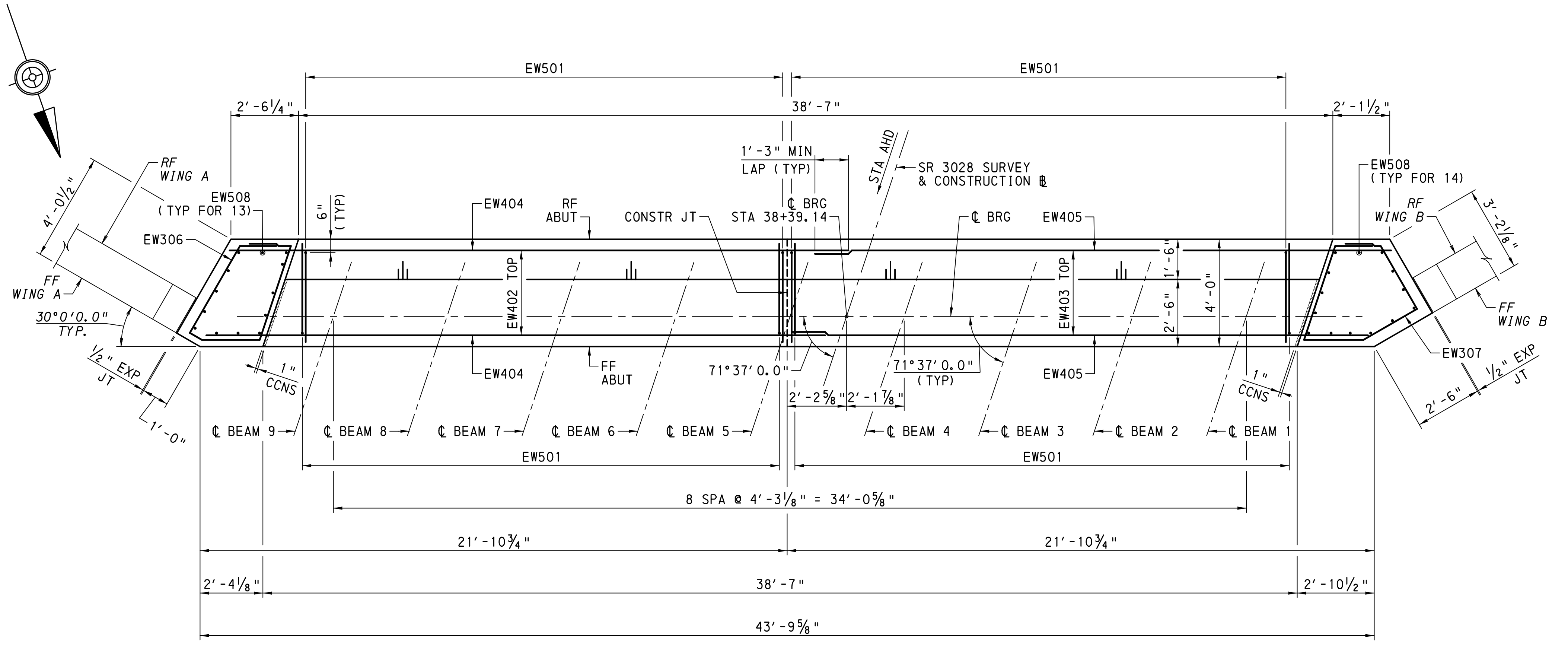
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LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S.R. 3028-003 STA 38+80.97
OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ABUTMENT 1 REMOVAL

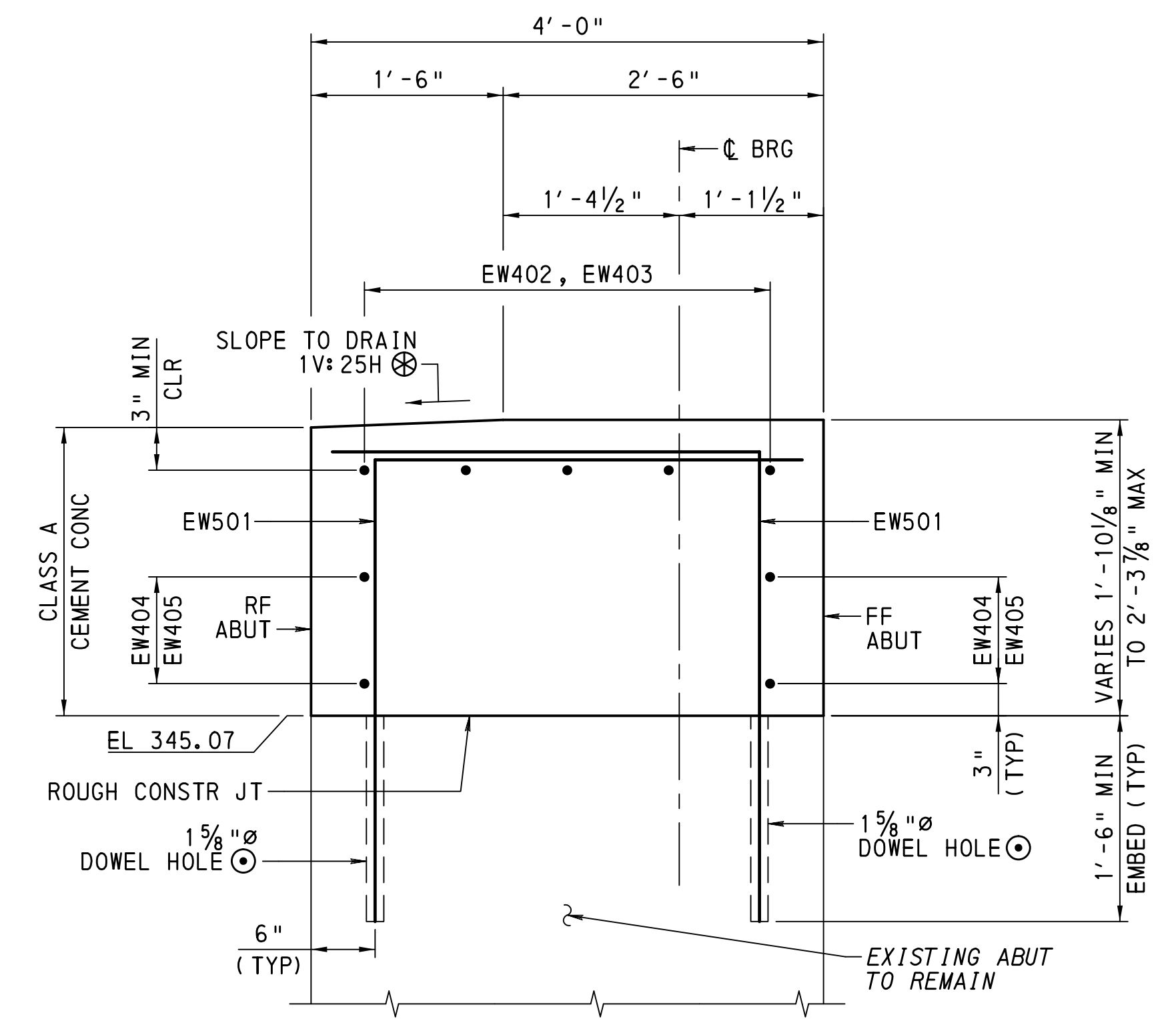


RECOMMENDED _____ SHEET 5 OF 23

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ABUTMENT PLAN



TYPICAL ABUTMENT SECTION

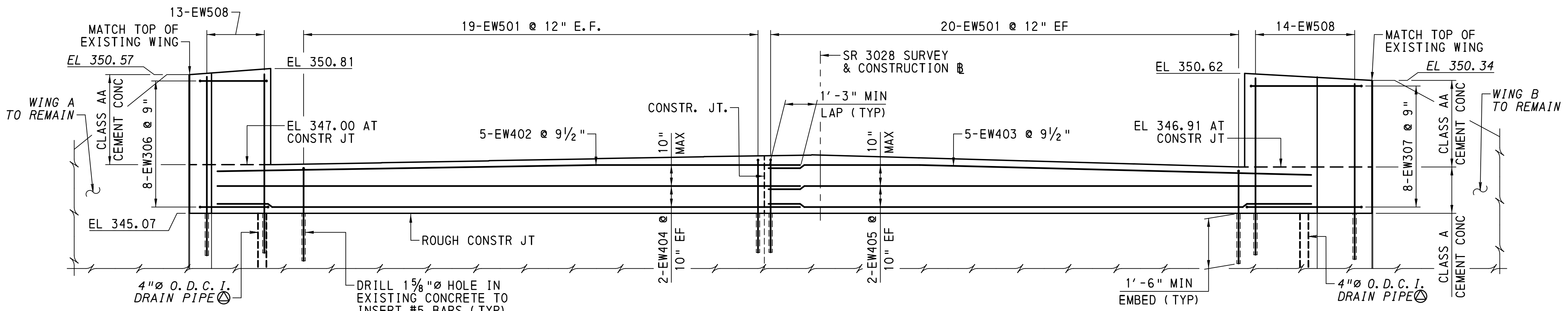


NOTES

- WORK THIS SHEET WITH SHEETS 5, 7 AND 8.
- FOR BEAM SEAT ELEVATIONS SEE SHEET 7.
- ⊙ FILL DOWEL HOLES WITH NON-SHRINK GROUT.
- ⊗ APPLY WATERPROOFING TO THE BACK OF THE BEAMS AND CONTINUE ALONG THE SLOPED PORTION OF THE ABUTMENT BRIDGE SEAT.
- ⊕ CUT DRAINAGE PIPE FLUSH WITH FRONT FACE OF ABUTMENT. CAP AND FILL EMBEDDED PORTION OF DRAINAGE PIPE WITH GROUT.

LEGEND

- ▨ CLOSED CELL NEOPRENE SPONGE



ABUTMENT ELEVATION



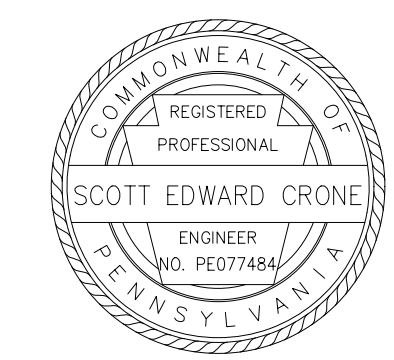
Mark	Description	By	Chk'd	Recm'd	Date
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 SEGMENT 0200 OFFSET 0000
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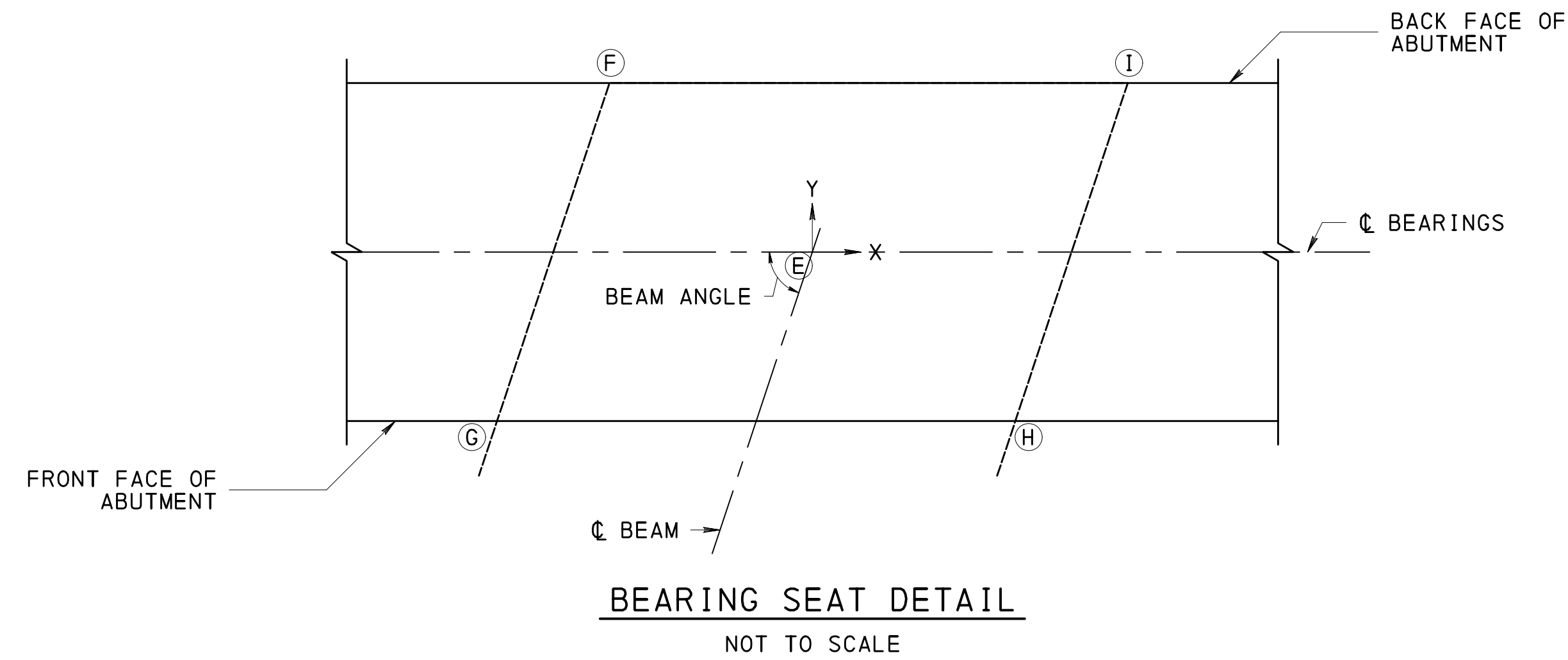
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
 ABUTMENT 1 DETAILS



RECOMMENDED _____ SHEET 6 OF 23

S-31649

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 DATE: 12/11/2025 TIME: 9:05:48 AM



ABUTMENT 1 BEARING SEAT LOCATION AND ELEVATION TABLE

BEAM NO.	☐ BEAM OFFSET	BEAM ANGLE	Ⓔ			Ⓕ			Ⓖ			Ⓗ			Ⓘ		
			X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.
1	14' - 11"	71° - 37' - 00"	0"	0"	346.97	-1' - 7 3/4"	1' - 4 1/2"	347.03	-2' - 5 3/4"	-1' - 1 1/2"	347.03	1' - 8 3/4"	-1' - 1 1/2"	346.91	2' - 6 3/4"	1' - 4 1/2"	346.91
2	10' - 7 5/8"	71° - 37' - 00"	0"	0"	347.09	-1' - 7 3/4"	1' - 4 1/2"	347.15	-2' - 5 3/4"	-1' - 1 1/2"	347.15	1' - 8 3/4"	-1' - 1 1/2"	347.03	2' - 6 3/4"	1' - 4 1/2"	347.03
3	6' - 4 3/8"	71° - 37' - 00"	0"	0"	347.21	-1' - 7 3/4"	1' - 4 1/2"	347.27	-2' - 5 3/4"	-1' - 1 1/2"	347.27	1' - 8 3/4"	-1' - 1 1/2"	347.15	2' - 6 3/4"	1' - 4 1/2"	347.15
4	2' - 1 1/8"	71° - 37' - 00"	0"	0"	347.33	-1' - 7 3/4"	1' - 4 1/2"	347.39	-2' - 5 3/4"	-1' - 1 1/2"	347.39	1' - 8 3/4"	-1' - 1 1/2"	347.27	2' - 6 3/4"	1' - 4 1/2"	347.27
5	-2' - 0 1/2"	71° - 37' - 00"	0"	0"	347.35	-1' - 7 3/4"	1' - 4 1/2"	347.32	-2' - 5 3/4"	-1' - 1 1/2"	347.32	1' - 8 3/4"	-1' - 1 1/2"	347.38	2' - 6 3/4"	1' - 4 1/2"	347.38
6	-6' - 3 3/4"	71° - 37' - 00"	0"	0"	347.27	-1' - 7 3/4"	1' - 4 1/2"	347.24	-2' - 5 3/4"	-1' - 1 1/2"	347.24	1' - 8 3/4"	-1' - 1 1/2"	347.31	2' - 6 3/4"	1' - 4 1/2"	347.31
7	-10' - 7"	71° - 37' - 00"	0"	0"	347.19	-1' - 7 3/4"	1' - 4 1/2"	347.16	-2' - 5 3/4"	-1' - 1 1/2"	347.16	1' - 8 3/4"	-1' - 1 1/2"	347.23	2' - 6 3/4"	1' - 4 1/2"	347.23
8	-14' - 10 1/4"	71° - 37' - 00"	0"	0"	347.11	-1' - 7 3/4"	1' - 4 1/2"	347.08	-2' - 5 3/4"	-1' - 1 1/2"	347.08	1' - 8 3/4"	-1' - 1 1/2"	347.15	2' - 6 3/4"	1' - 4 1/2"	347.15
9	-19' - 1 5/8"	71° - 37' - 00"	0"	0"	347.03	-1' - 7 3/4"	1' - 4 1/2"	347.00	-2' - 5 3/4"	-1' - 1 1/2"	347.00	1' - 8 3/4"	-1' - 1 1/2"	347.07	2' - 6 3/4"	1' - 4 1/2"	347.07

NOTE:

☐ BEAM OFFSET IS MEASURED ALONG THE ☐ BEARING.
☐ BEAM OFFSET IS MEASURED FROM THE ☐ OF ROADWAY TO THE ☐ OF BEAM AT THE BEARING SEAT POINT Ⓔ.
NEGATIVE OFFSETS ARE MEASURED TO THE LEFT OF THE ☐ OF ROADWAY, FACING THE ABUTMENT.

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DATE: 12/11/2025 TIME: 9:05:48 AM

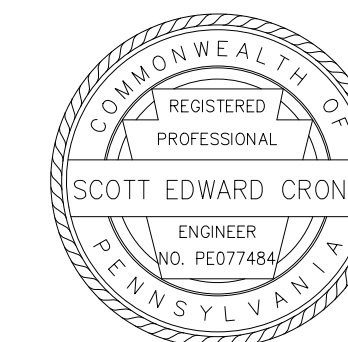
Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S. R. 3028-003 STA 38+80.97
OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ABUTMENT 1 BEARING SEAT ELEV.



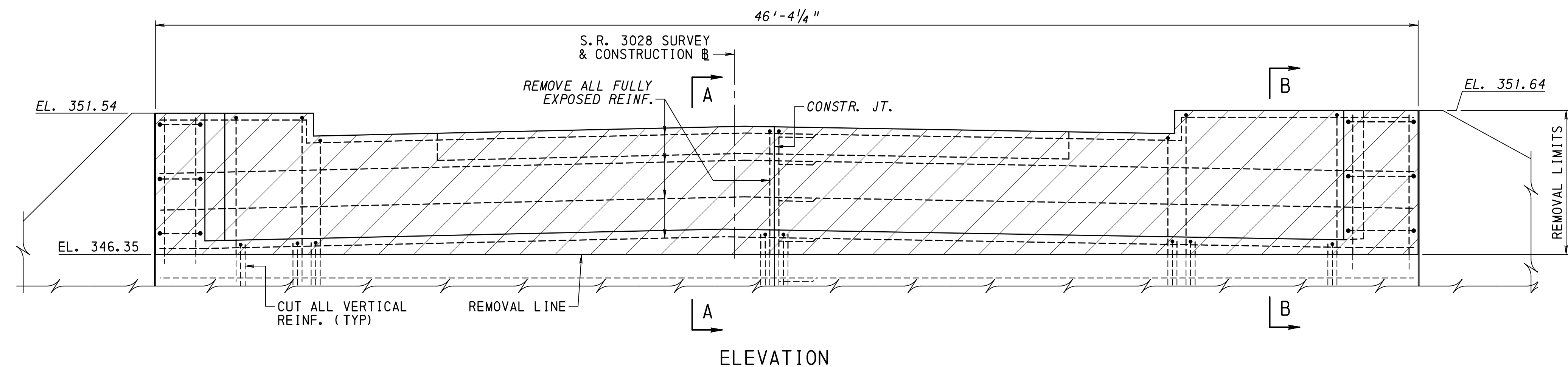
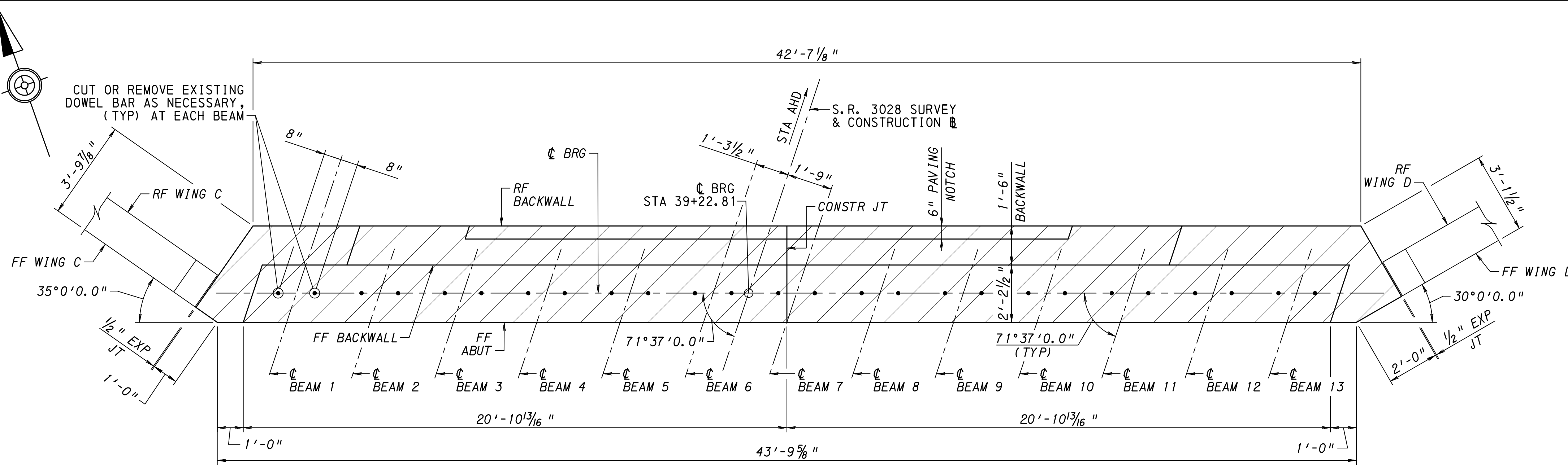
RECOMMENDED _____

SHEET 7 OF 23

S-31649

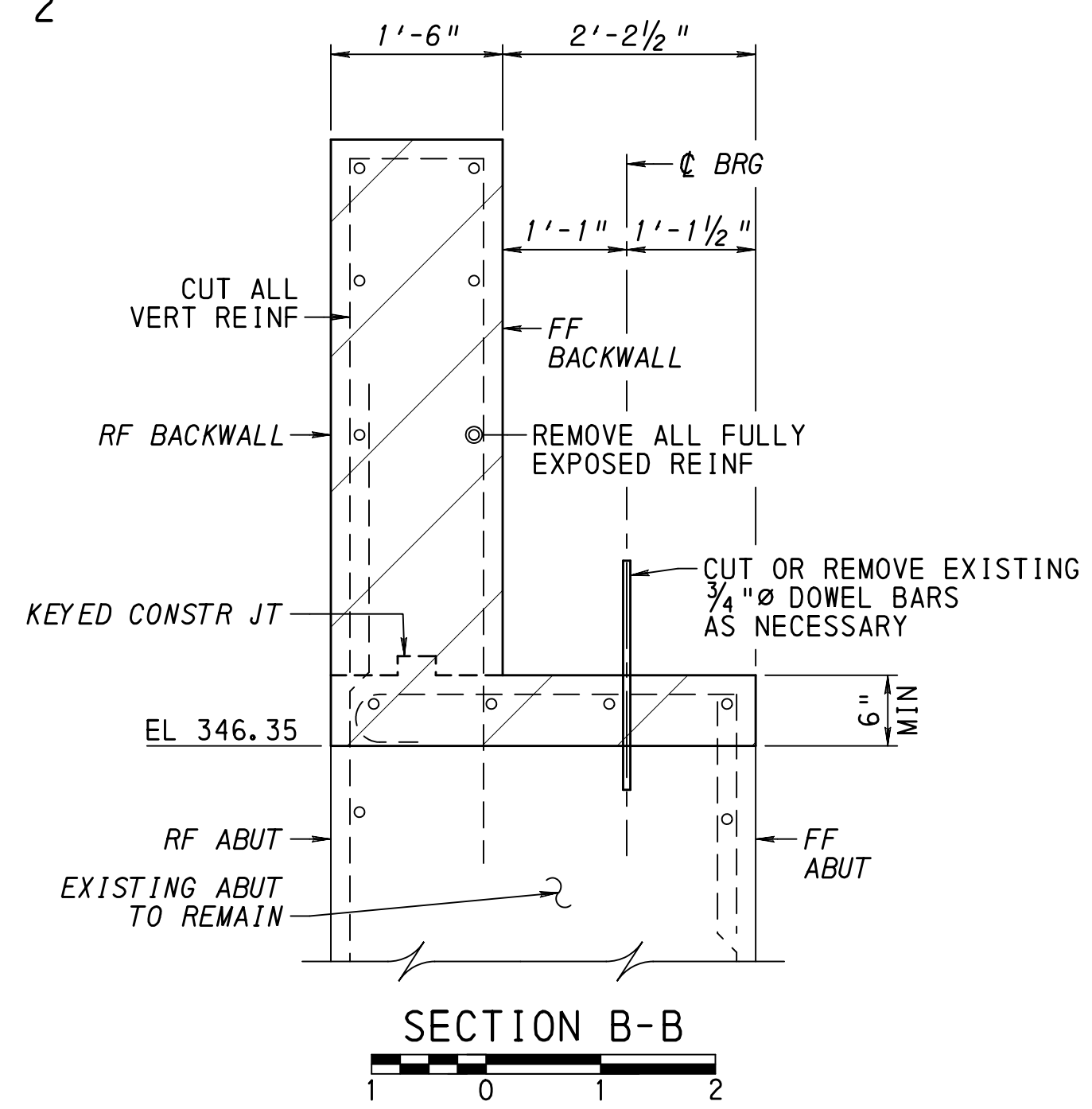
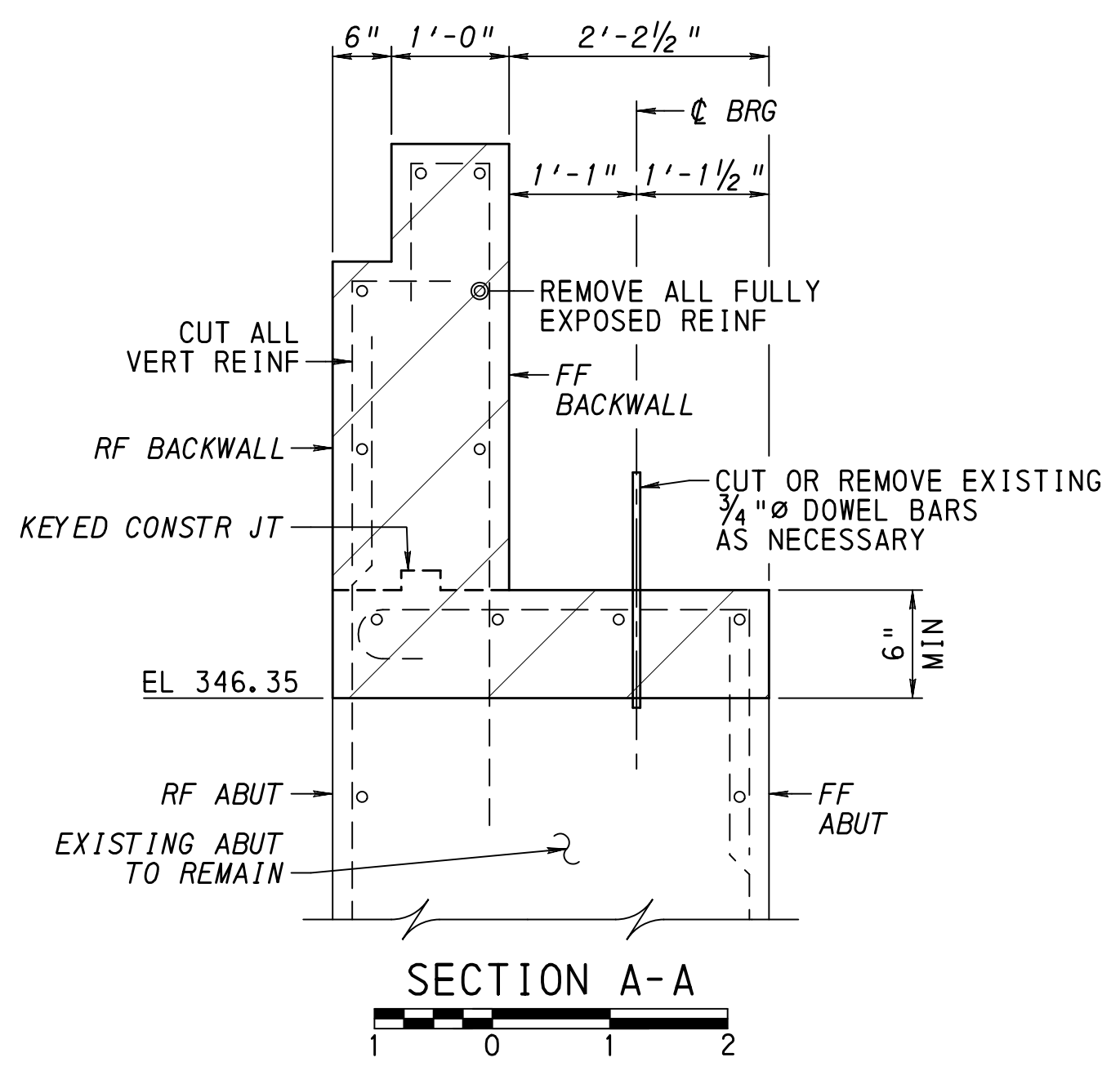
**EXISTING SUBSTRUCTURE
REMOVAL/RECONSTRUCTION NOTES**

1. SEE DETAILS FOR REMOVAL LIMITS OF EXISTING CONCRETE. LIMITS OF REMOVAL EXTEND FROM EXPANSION JOINT AT THE BEGINNING OF WING C TO EXPANSION JOINT AT THE BEGINNING OF WING D. DO NOT REMOVE ANY CONCRETE OR REINFORCEMENT FROM THE WINGS.
2. SAND BLAST OR WATER BLAST CLEAN SOUND CONCRETE AND EXISTING REINFORCEMENT BARS. PREVENT SAND OR WATER BLAST SPRAY AND DEBRIS FROM DAMAGING AMTRAK TRAINS, RAILS, AND CATENARY LINES DURING CONCRETE REMOVAL AND REINFORCEMENT CLEANING ACTIVITIES. PREVENT DEBRIS FROM FALLING ONTO AMTRAK PROPERTY DURING CONCRETE REMOVAL AND REINFORCEMENT CLEANING ACTIVITIES. STRAIGHTEN REINFORCEMENT TO PROVIDE 3" MINIMUM CLEAR TO SOUND CONCRETE.
3. PLACE NEW REINFORCEMENT BARS AS INDICATED ON THE PLANS. REMOVE ALL FULLY EXPOSED EXISTING REINFORCEMENT. CUT ALL EXISTING VERTICAL REINFORCEMENT TO CONCRETE REMOVAL LINE.
4. REMOVE ANY EXISTING DOWELS THAT INTERFERE WITH THE PLACEMENT OF NEW DOWELS. OTHERWISE CUT OFF EXISTING DOWELS AT CONCRETE REMOVAL LINE.
5. HOLES TO BE DRILLED IN EXISTING CONCRETE FOR PLACEMENT OF NEW REINFORCEMENT MUST HAVE A MINIMUM OF 5" EDGE CLEARANCE.



EXISTING ABUTMENT 2

1 0 2 4



NOTES

- WORK THIS SHEET WITH SHEETS 10 THRU 12.

LEGEND

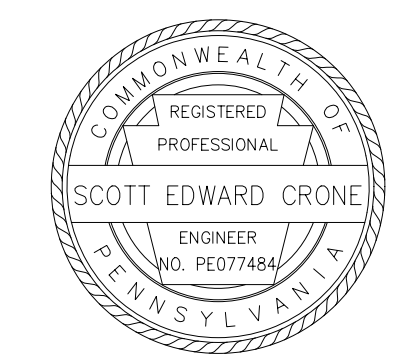
BACKWALL AND PARTIAL SEAT REMOVAL LIMITS

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

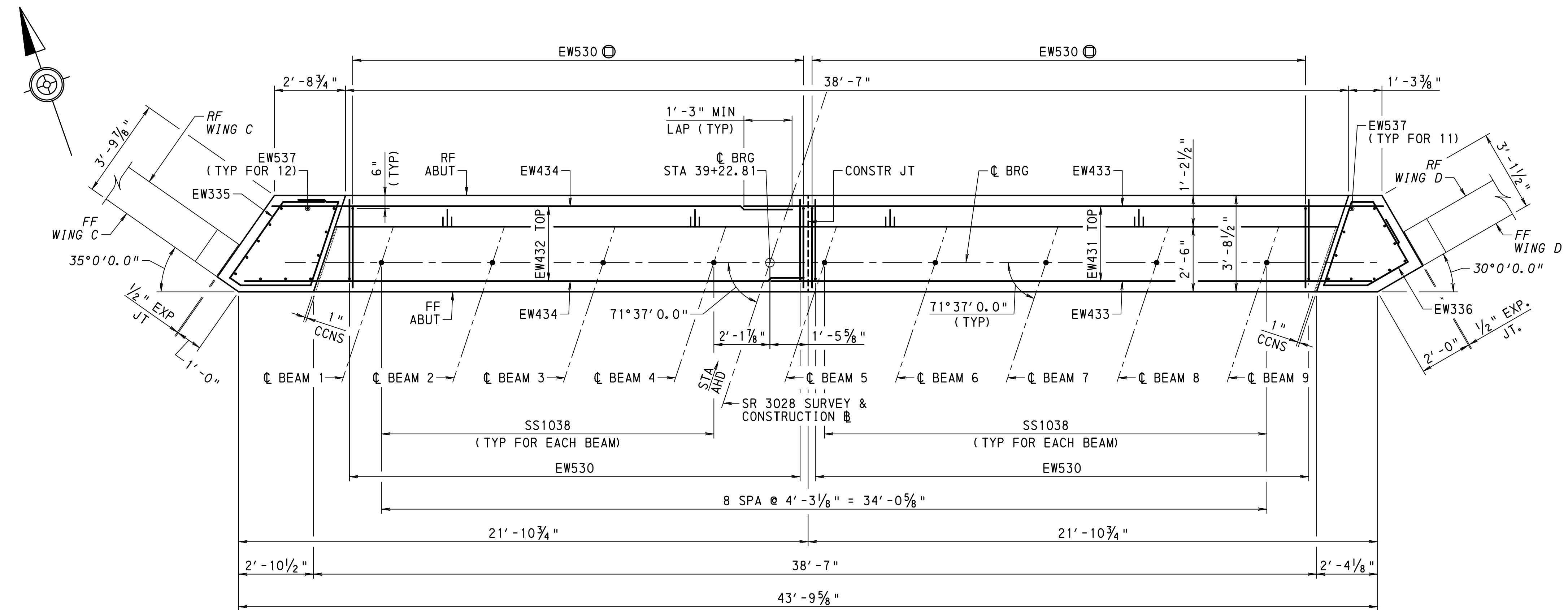
SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

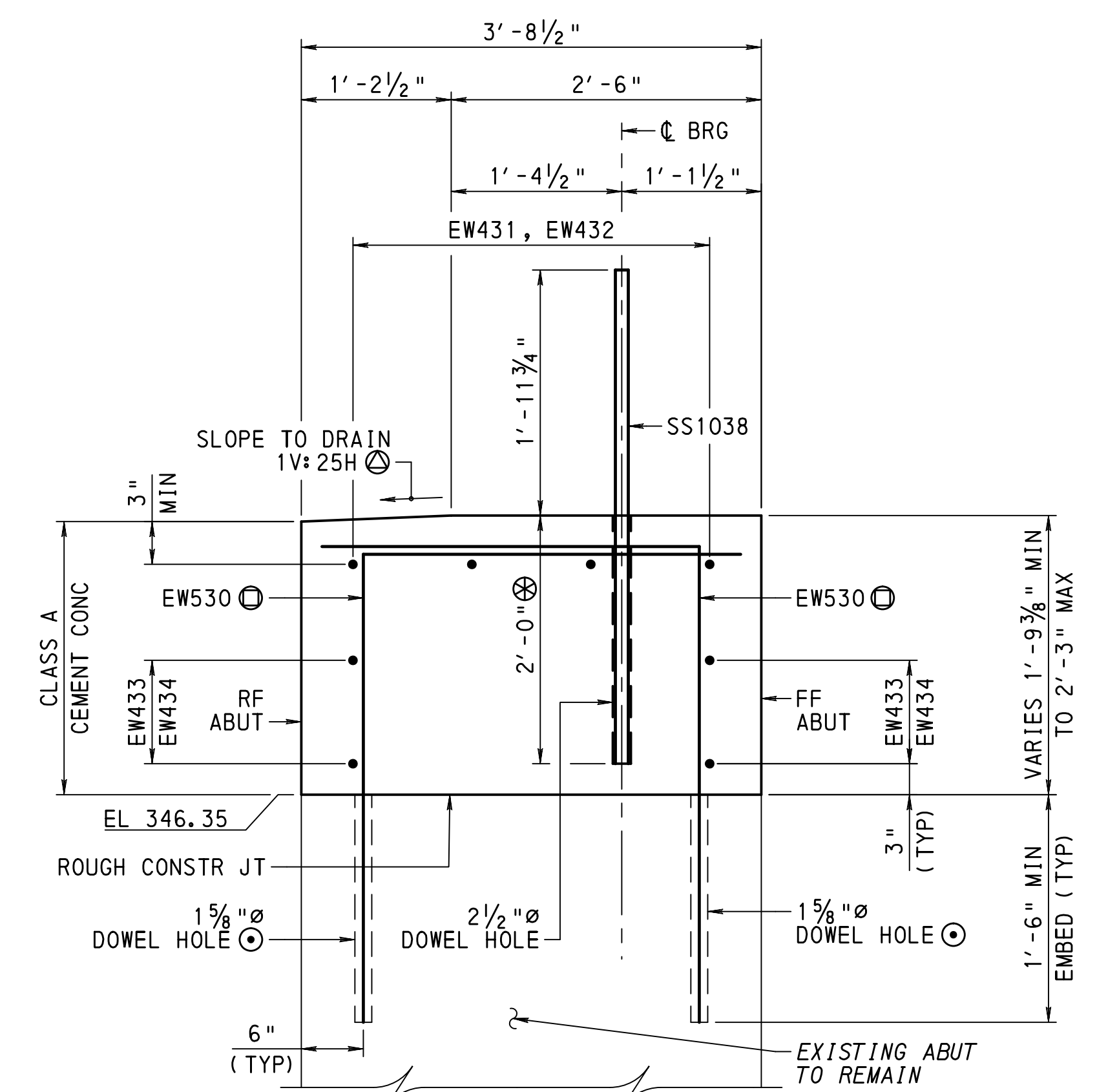
LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S.R. 3028-003 STA 38+80.97
OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ABUTMENT 2 REMOVAL



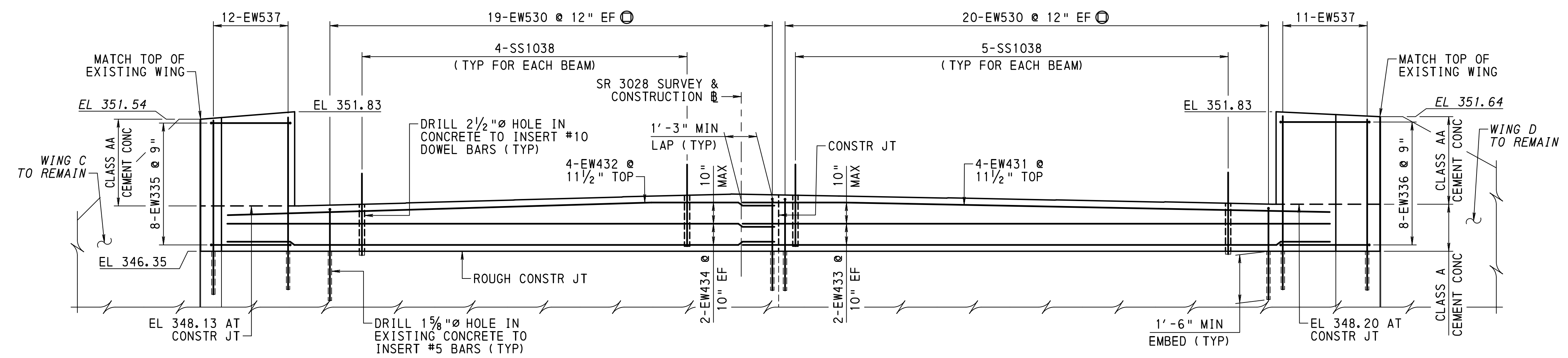
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ABUTMENT PLAN
1 0 2 4



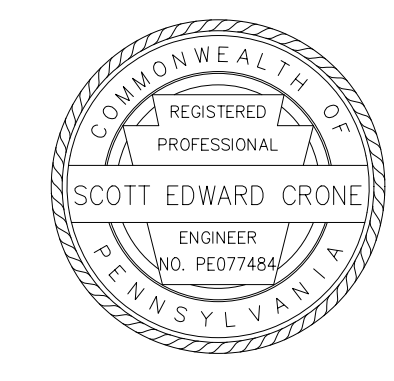
TYPICAL ABUTMENT SECTION
1 6 0 1 2



ABUTMENT ELEVATION
1 0 2 4

- NOTES**
- WORK THIS SHEET WITH SHEETS 9, 11 AND 12.
 - FOR BEAM SEAT ELEVATIONS SEE SHEET 11.
 - ⊗ FILL DOWEL HOLES WITH NON-SHRINK GROUT AS REQUIRED TO MAINTAIN 2'-0" EMBEDMENT.
 - ⊙ SPACE EW530 BARS TO AVOID SS1038 BARS.
 - ⊕ APPLY WATERPROOFING TO THE BACK OF THE BEAMS AND CONTINUE ALONG THE SLOPED PORTION OF THE ABUTMENT BRIDGE SEAT.
 - ⊙ FILL DOWEL HOLES WITH NON-SHRINK GROUT.

LEGEND
 CLOSED CELL NEOPRENE SPONGE



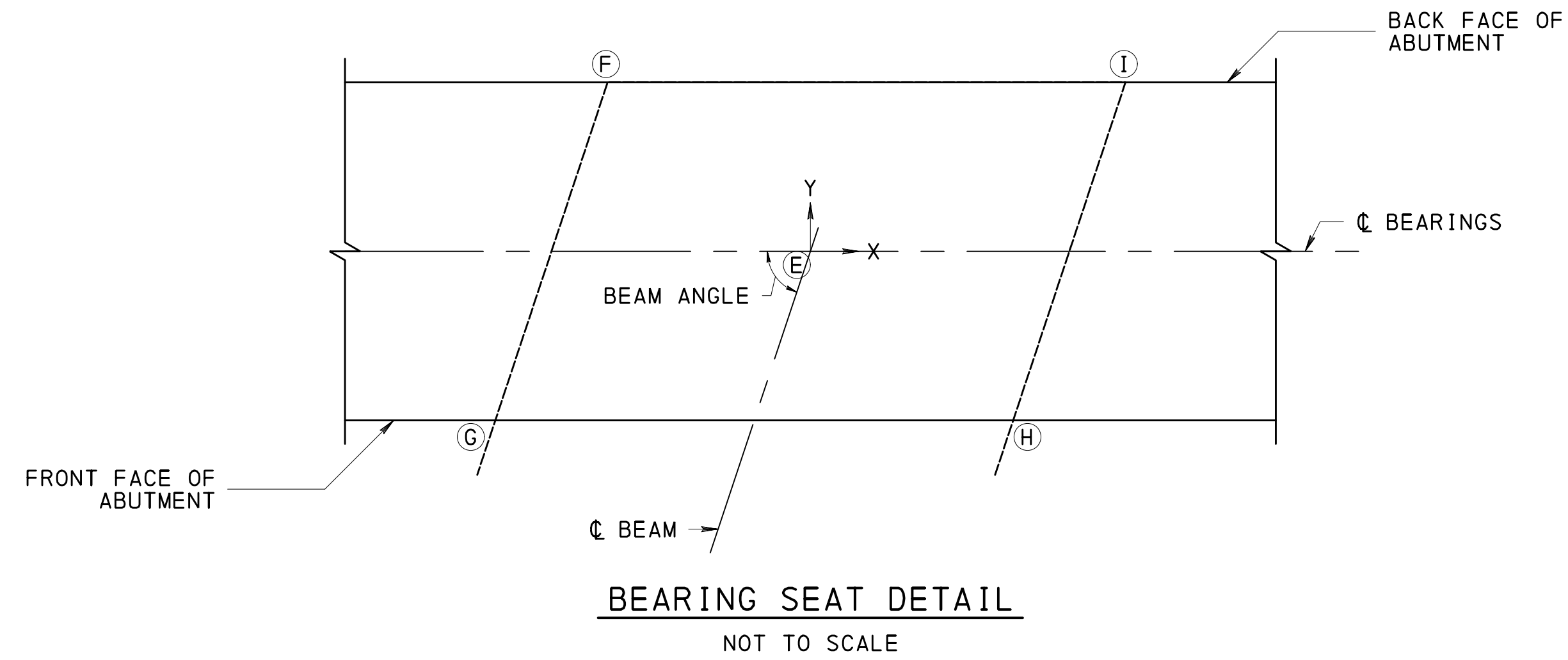
Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
 BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
 SEGMENT 0200 OFFSET 0000
 S.R. 3028-003 STA 38+80.97
 OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ABUTMENT 2 DETAILS

FILENAME: N:\57855-07-P\TrneyRoad\Drawings\Structures\3028003-A2.dgn
 DATE: 12/11/2025 TIME: 9:05:49 AM
 DES: ECH/SEC | DES CKD: REM/NBB | DWG: MJL | DWG CKD: ECH/SEC



ABUTMENT 2 BEARING SEAT LOCATION AND ELEVATION TABLE

BEAM NO.	CL BEAM OFFSET	BEAM ANGLE	E			F			G			H			I		
			X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.	X	Y	ELEV.
1	-14' - 11"	71° - 37' - 00"	0"	0"	348.19	-1' - 7 3/4"	1' - 4 1/2"	348.13	-2' - 5 3/4"	-1' - 1 1/2"	348.13	1' - 8 3/4"	-1' - 1 1/2"	348.24	2' - 6 3/4"	1' - 4 1/2"	348.24
2	-10' - 7 3/4"	71° - 37' - 00"	0"	0"	348.30	-1' - 7 3/4"	1' - 4 1/2"	348.25	-2' - 5 3/4"	-1' - 1 1/2"	348.25	1' - 8 3/4"	-1' - 1 1/2"	348.36	2' - 6 3/4"	1' - 4 1/2"	348.36
3	-6' - 4 3/8"	71° - 37' - 00"	0"	0"	348.42	-1' - 7 3/4"	1' - 4 1/2"	348.37	-2' - 5 3/4"	-1' - 1 1/2"	348.37	1' - 8 3/4"	-1' - 1 1/2"	348.48	2' - 6 3/4"	1' - 4 1/2"	348.48
4	-2' - 1 1/8"	71° - 37' - 00"	0"	0"	348.54	-1' - 7 3/4"	1' - 4 1/2"	348.49	-2' - 5 3/4"	-1' - 1 1/2"	348.49	1' - 8 3/4"	-1' - 1 1/2"	348.59	2' - 6 3/4"	1' - 4 1/2"	348.59
5	2' - 0 1/2"	71° - 37' - 00"	0"	0"	348.56	-1' - 7 3/4"	1' - 4 1/2"	348.60	-2' - 5 3/4"	-1' - 1 1/2"	348.60	1' - 8 3/4"	-1' - 1 1/2"	348.52	2' - 6 3/4"	1' - 4 1/2"	348.52
6	6' - 3 3/4"	71° - 37' - 00"	0"	0"	348.48	-1' - 7 3/4"	1' - 4 1/2"	348.52	-2' - 5 3/4"	-1' - 1 1/2"	348.52	1' - 8 3/4"	-1' - 1 1/2"	348.44	2' - 6 3/4"	1' - 4 1/2"	348.44
7	10' - 7"	71° - 37' - 00"	0"	0"	348.40	-1' - 7 3/4"	1' - 4 1/2"	348.45	-2' - 5 3/4"	-1' - 1 1/2"	348.45	1' - 8 3/4"	-1' - 1 1/2"	348.36	2' - 6 3/4"	1' - 4 1/2"	348.36
8	14' - 10 3/8"	71° - 37' - 00"	0"	0"	348.33	-1' - 7 3/4"	1' - 4 1/2"	348.37	-2' - 5 3/4"	-1' - 1 1/2"	348.37	1' - 8 3/4"	-1' - 1 1/2"	348.28	2' - 6 3/4"	1' - 4 1/2"	348.28
9	19' - 1 5/8"	71° - 37' - 00"	0"	0"	348.25	-1' - 7 3/4"	1' - 4 1/2"	348.29	-2' - 5 3/4"	-1' - 1 1/2"	348.29	1' - 8 3/4"	-1' - 1 1/2"	348.20	2' - 6 3/4"	1' - 4 1/2"	348.20

NOTE:

CL BEAM OFFSET IS MEASURED ALONG THE CL BEARING.
 CL BEAM OFFSET IS MEASURED FROM THE CL OF ROADWAY TO THE CL OF BEAM AT THE BEARING SEAT POINT (E).
 NEGATIVE OFFSETS ARE MEASURED TO THE LEFT OF THE CL OF ROADWAY, FACING THE ABUTMENT.

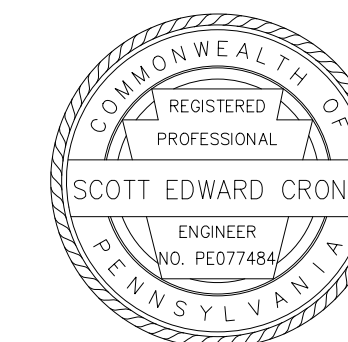
Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
 BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
 SEGMENT 0200 OFFSET 0000
 S. R. 3028-003 STA 38+80.97
 OVER AMTRAK

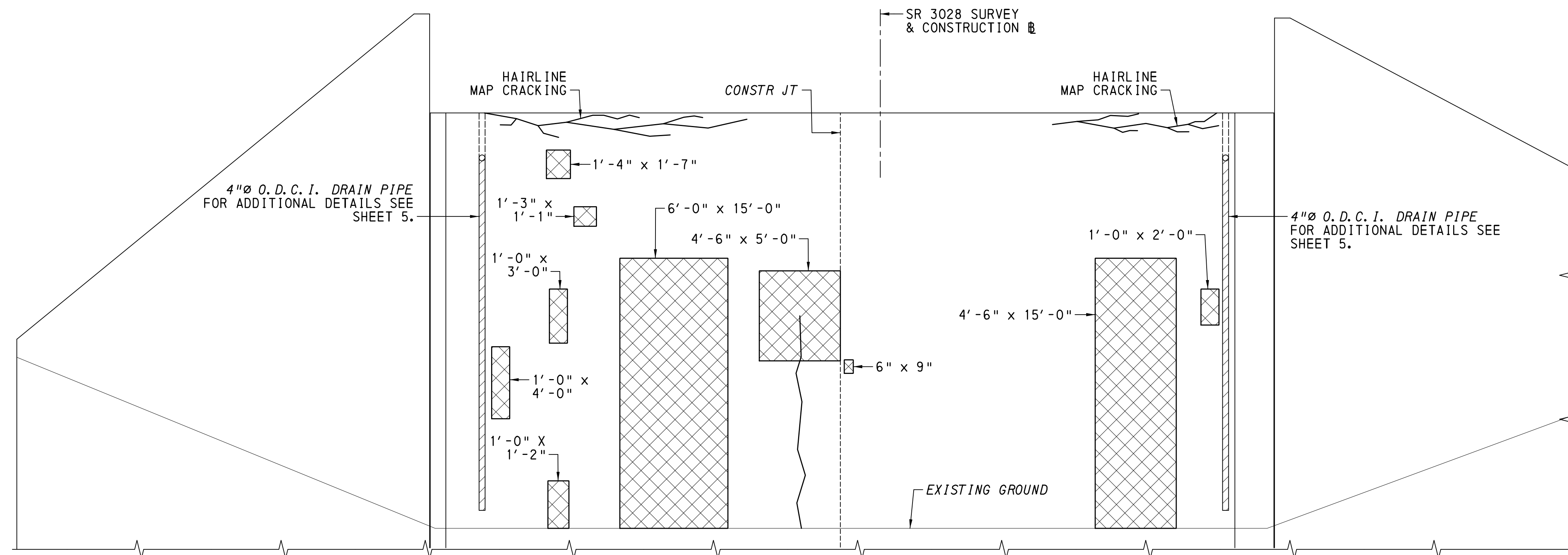
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ABUTMENT 2 BEARING SEAT ELEV.



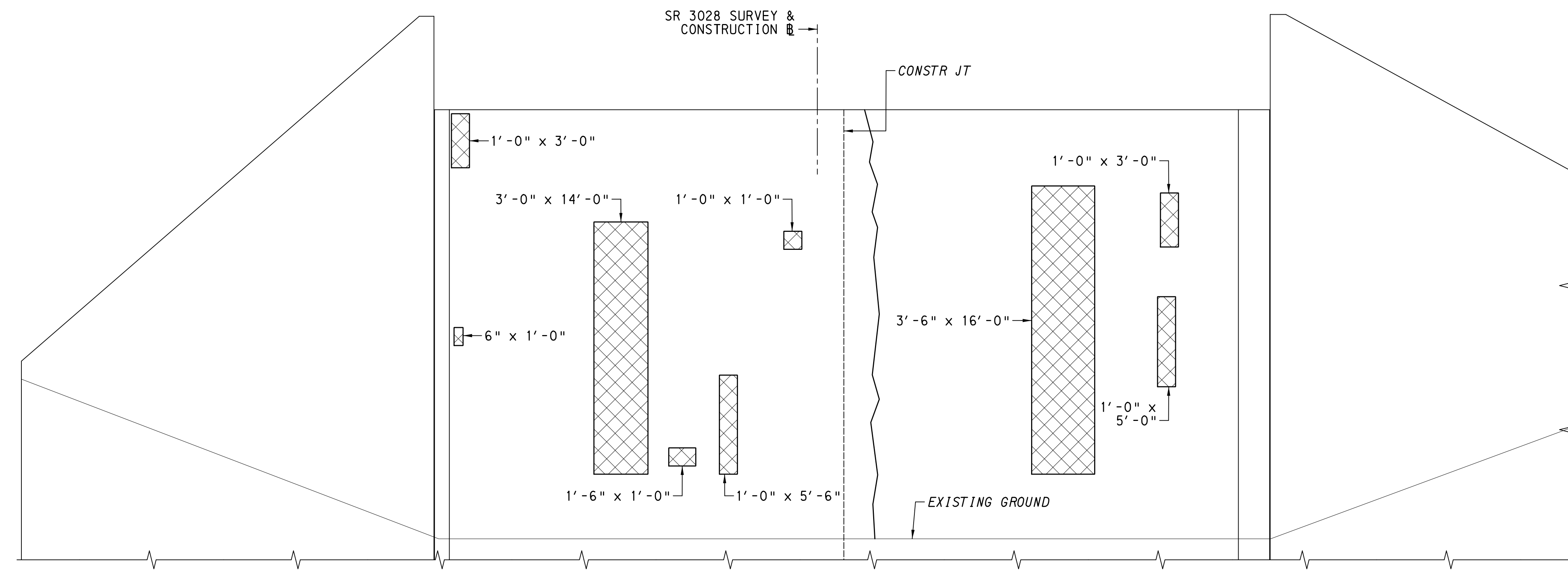
RECOMMENDED _____

SHEET 11 OF 23

S-31649



ABUTMENT 1 ELEVATION
NOT TO SCALE



ABUTMENT 2 ELEVATION
NOT TO SCALE

NOTES

- REPAIR DIMENSIONS DESIGNATED AS WIDTH X HEIGHT ON VERTICAL FACES.
- COMPLETE CONCRETE REPAIRS IN ACCORDANCE WITH BC-783M.

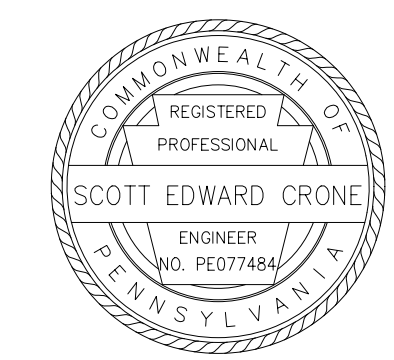
LEGEND

- CONCRETE REPAIR AREA
- EPOXY INJECTION CRACK REPAIR
- 4"Ø DRAIN PIPE REMOVAL LIMITS

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

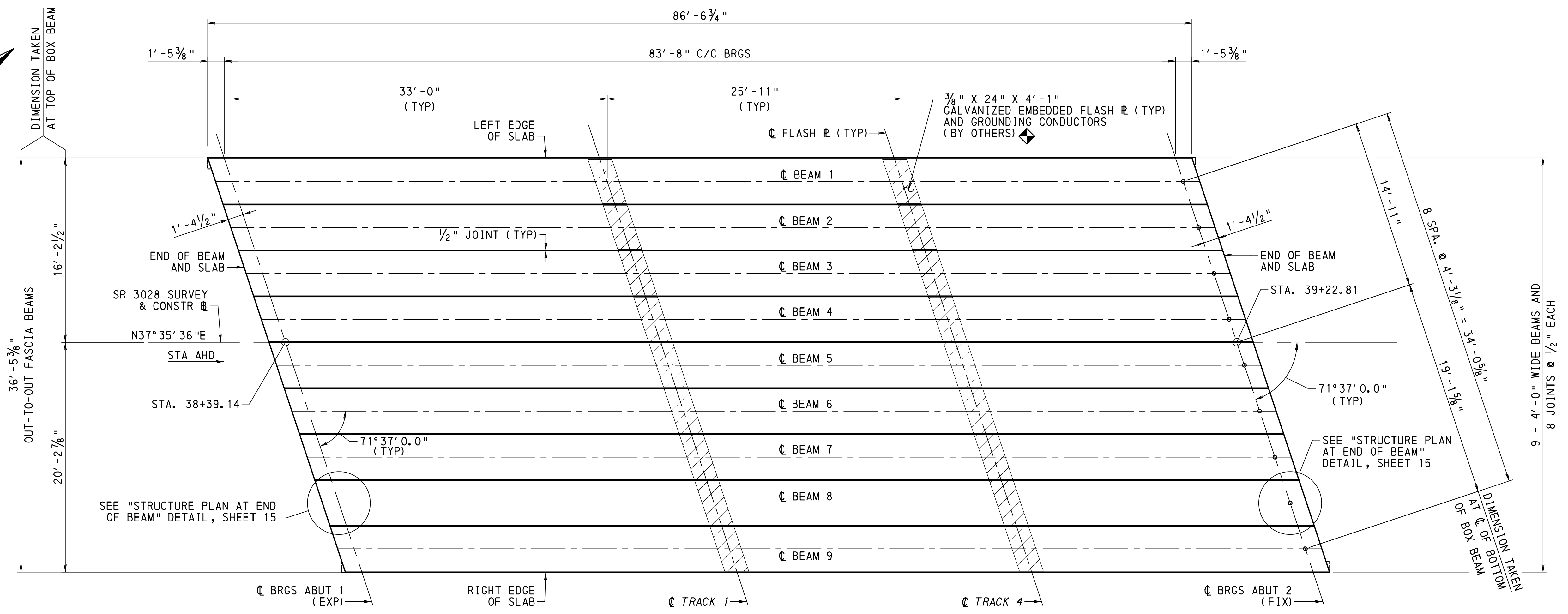
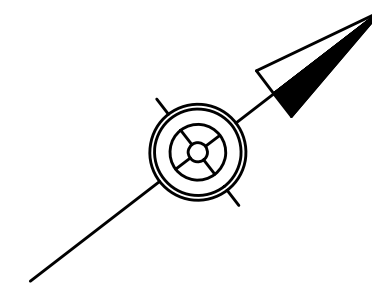
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S. R. 3028-003 STA 38+80.97
OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ABUTMENT ELEVATIONS



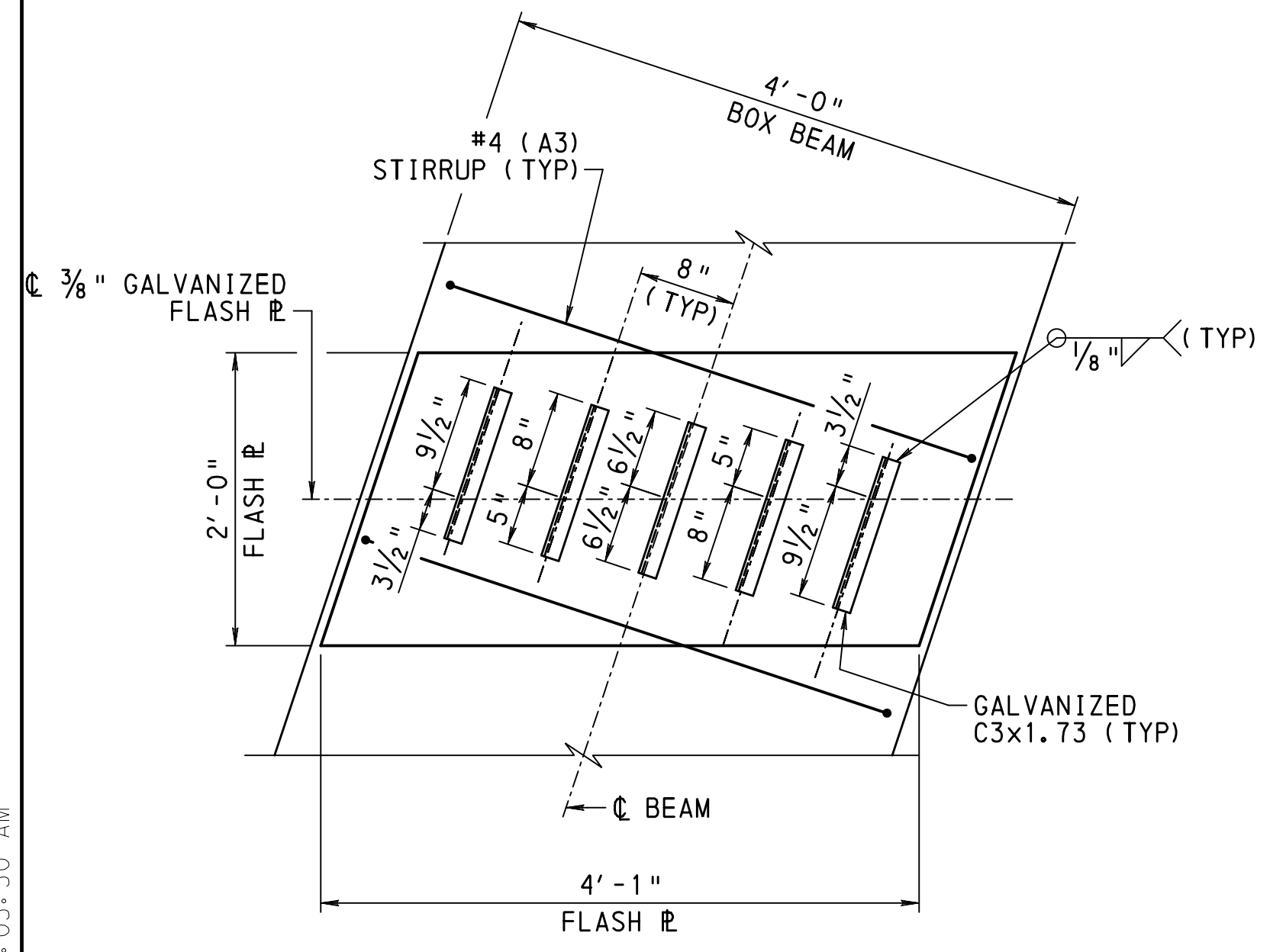
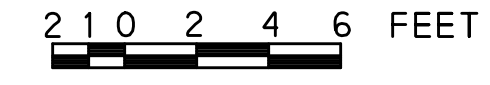
RECOMMENDED _____ SHEET 13 OF 23

S-31649

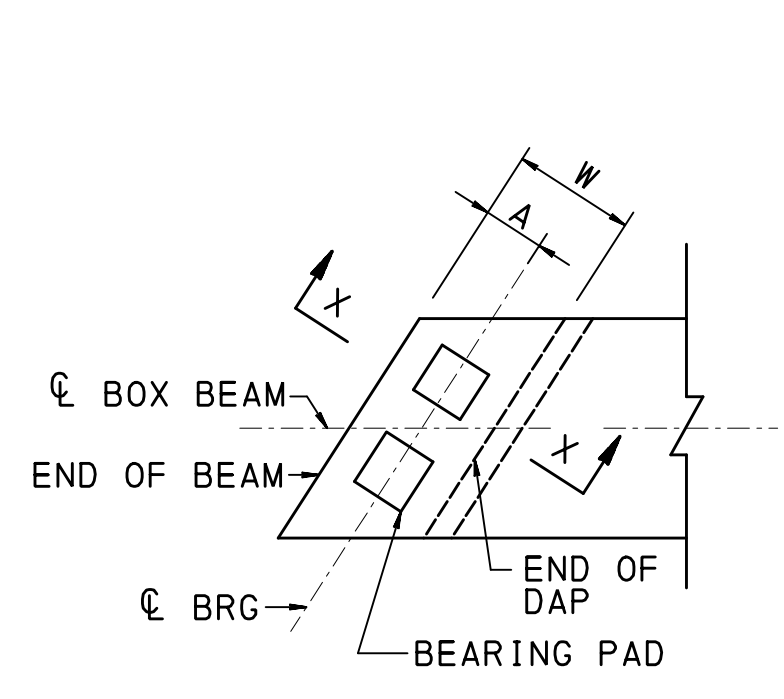
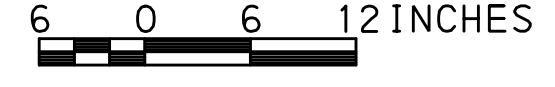
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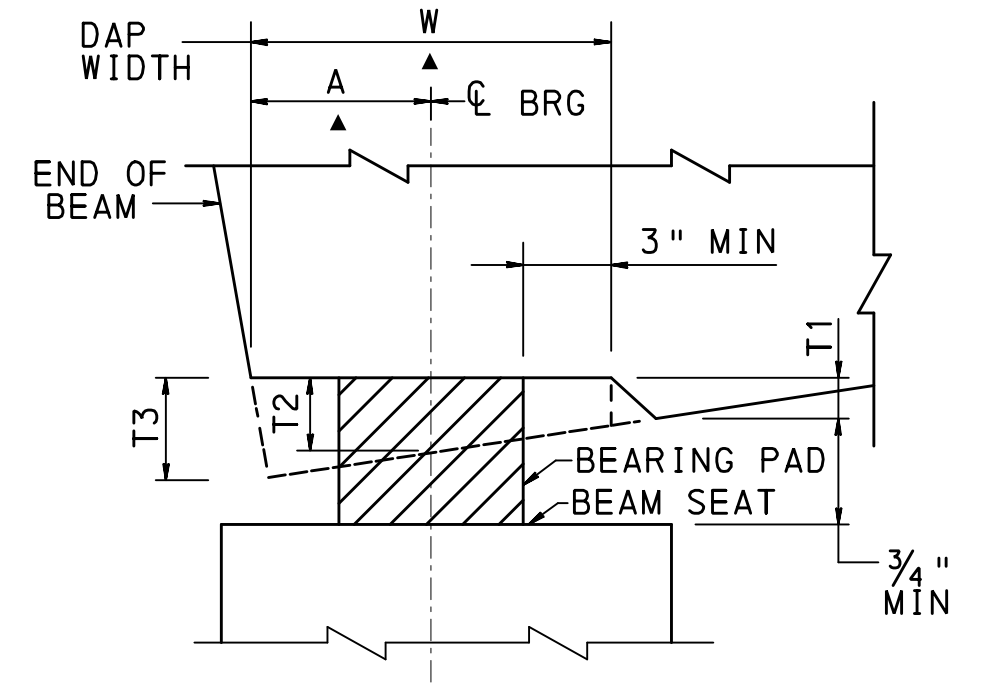
FRAMING PLAN



FLASH PLATE PLAN



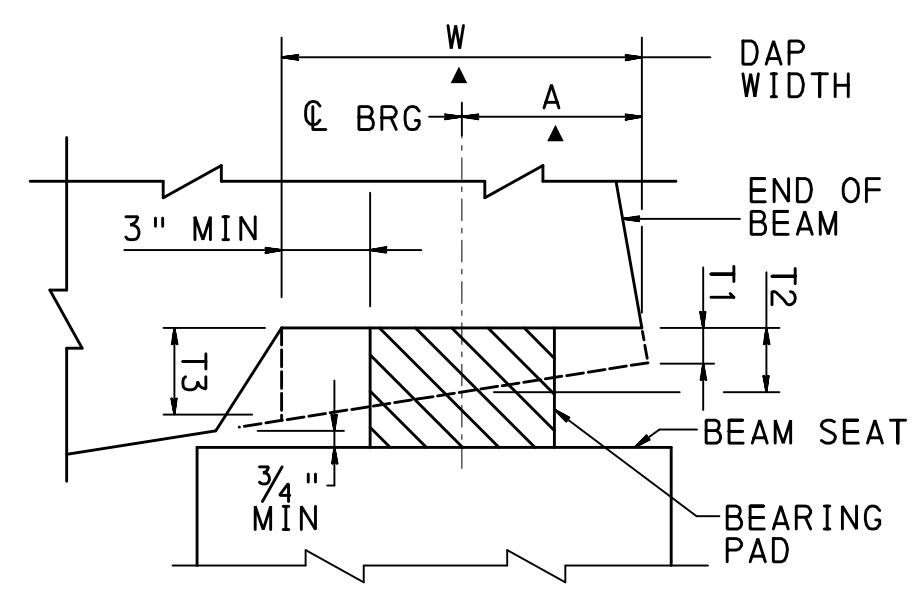
PLAN



SECTION X-X AT LOW END OF BEAM

ABUTMENT 1

▲ DENOTES MEASURED NORMAL TO C BEARING



SECTION X-X AT HIGH END OF BEAM

ABUTMENT 2

BEAM DAP DETAILS

NOT TO SCALE

BEAM NO.	DAP INFORMATION									
	ABUTMENT 1					ABUTMENT 2				
	W	A	T1	T2	T3	W	A	T1	T2	T3
1	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
2	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
3	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
4	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
5	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
6	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
7	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
8	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"
9	24 1/2"	16 1/2"	1/4"	7/16"	3/4"	24 1/2"	16 1/2"	1/4"	3/8"	7/16"

NOTES

- WORK THIS SHEET WITH SHEETS 15 THRU 18.
- ◆ PROVIDE EMBEDDED GALVANIZED FLASH PLATES WITH WELDED GALVANIZED CHANNELS IN BOTTOM OF BEAMS. THE FLASH PLATES AND CHANNELS ARE INCIDENTAL TO THE P/S CONCRETE ADJACENT BOX BEAMS. SEE PITNEY ROAD ELECTRIC TRACTION PLAN, BRIDGE GROUNDING AND BONDING DETAILS FOR ADDITIONAL INFORMATION AND DETAILS.

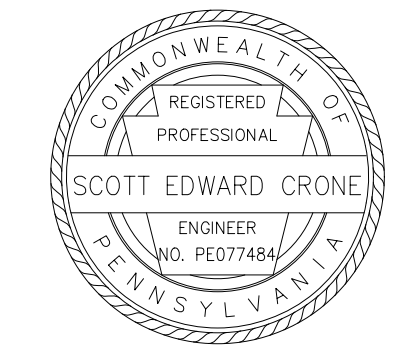
Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S. R. 3028-003 STA 38+80.97
OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
FRAMING PLAN & DAP DETAILS

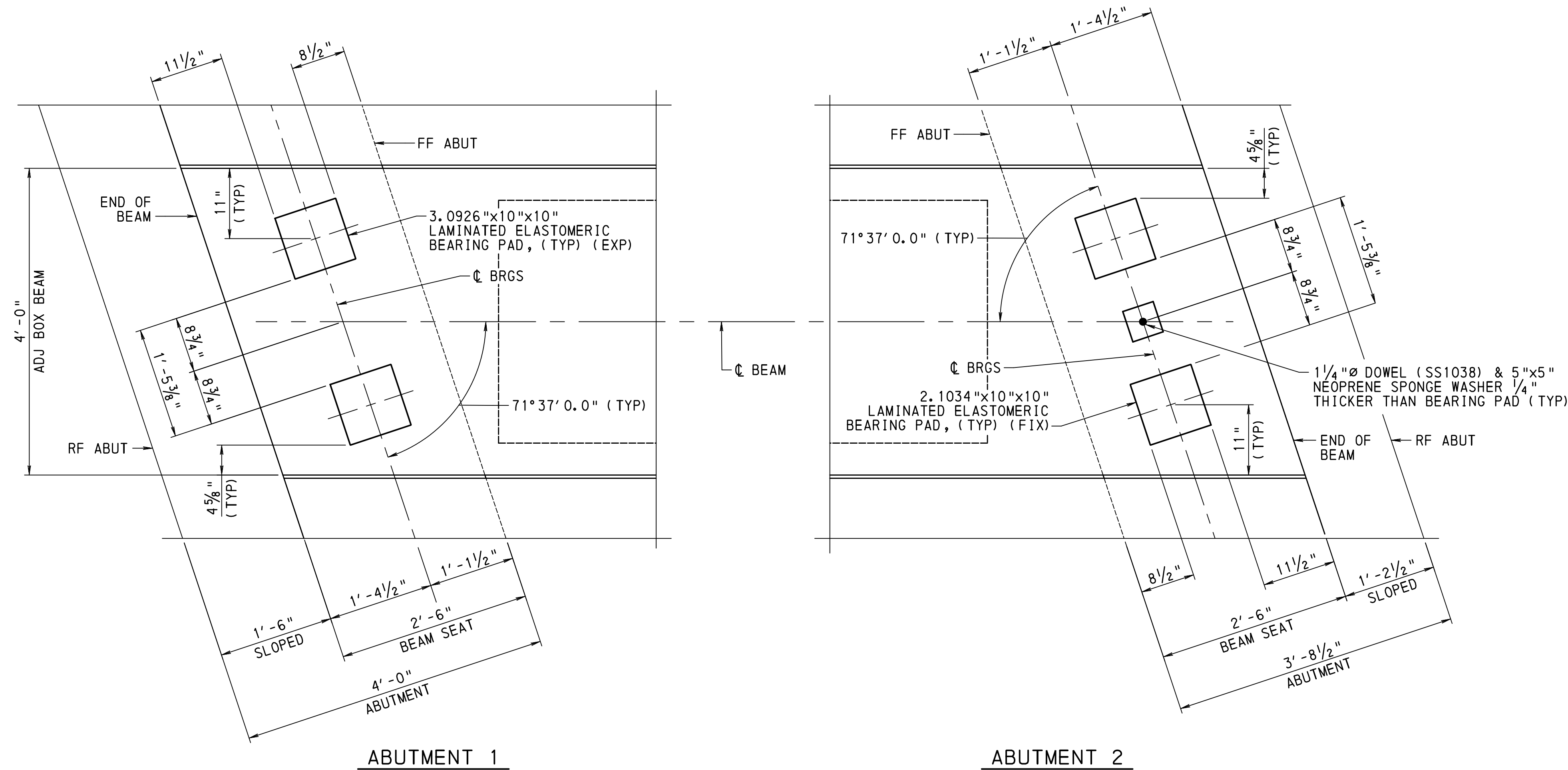


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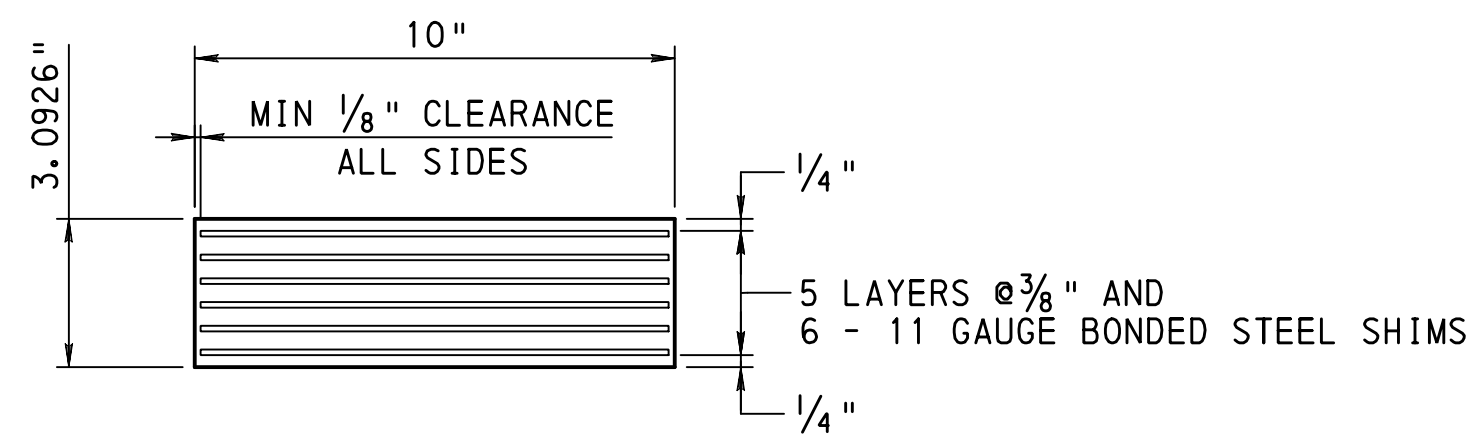
ELASTOMERIC BEARING PADS				
LOCATION	BEARING TYPE	ITEM DESCRIPTION	SIZE (T x L x W)	NUMBER REQUIRED
ABUT. 1	EXPANSION	LAMINATED PADS	3.0926" x 10" x 10"	18
ABUT. 2	FIXED	LAMINATED PADS	2.1034" x 10" x 10"	18

NOTES:

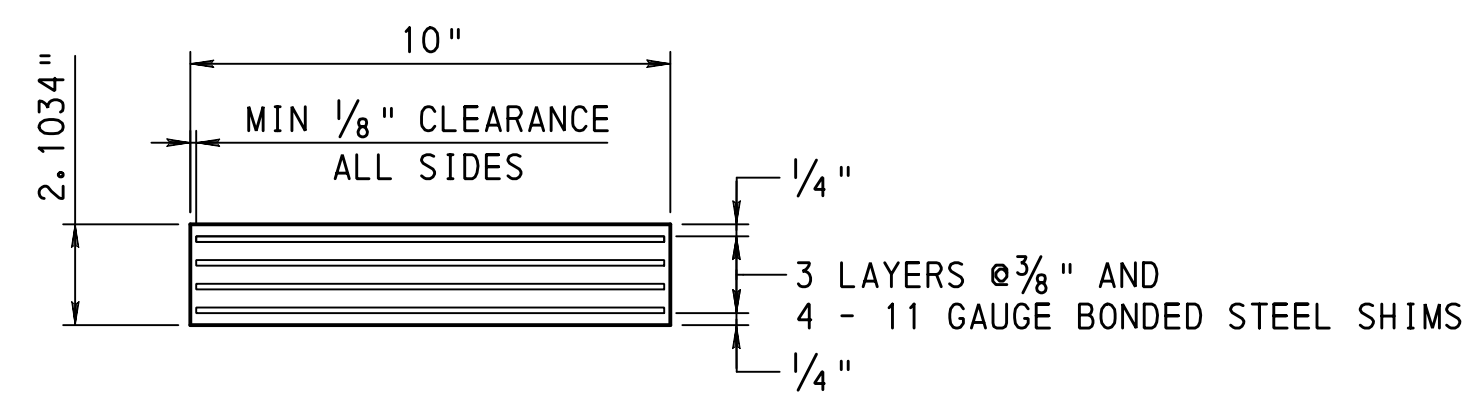
- SMOOTH CUT AND DEBURR METAL SHIMS.
- GRIT BLAST AND DEGREASE METAL SHIMS.
- MANUFACTURE ALL BEARINGS IN ACCORDANCE WITH THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PLANS AND SPECIFICATIONS (PUB. 408) SECTION 1113.
- ALL BEARING PADS ARE TO BE MOLDED TO DESIGN DIMENSIONS. CUTTING TO SIZE AFTER FABRICATION IS PROHIBITED.
- PROVIDE NEOPRENE 50 +/- 5 DUROMETER.
- VULCANIZE PATCH PIN GROOVES.
- BEARING PADS WILL BE SAMPLED FOR TESTING ACCORDING TO PTM #312.
- FABRICATOR MAY USE CONTRACT DRAWINGS TO FABRICATE BEARING PADS.
- FOR BEAM DAP DETAILS SEE FRAMING PLAN AND DAP DETAILS, SHEET 14.
- FOR ADDITIONAL BEARING PAD DETAILS, SEE BC-755M.
- CONSTRUCTION TOLERANCE ABOUT TRANSVERSE AXIS OF PAD = 0.00300 RADIAN.
- CONSTRUCTION TOLERANCE ABOUT LONGITUDINAL AXIS OF PAD = 0.00000 RADIAN.



STRUCTURE PLAN AT END OF BEAM
6 0 6 12 INCHES



ELASTOMERIC BEARING PAD SECTION
ABUTMENT 1
NOT TO SCALE



ELASTOMERIC BEARING PAD SECTION
ABUTMENT 2
NOT TO SCALE

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

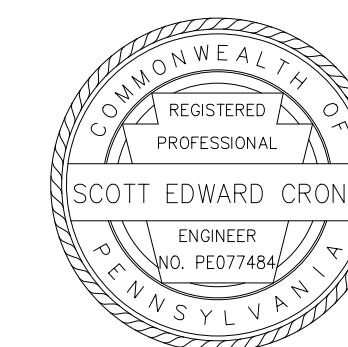
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

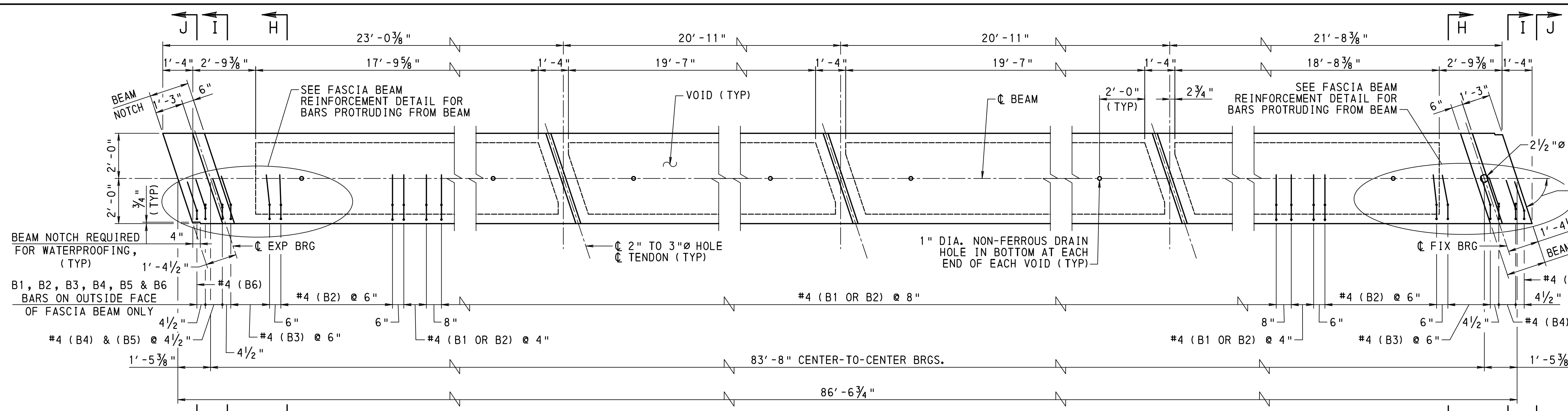
LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S. R. 3028-003 STA 38+80.97
OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
ELASTOMERIC BEARING DETAILS

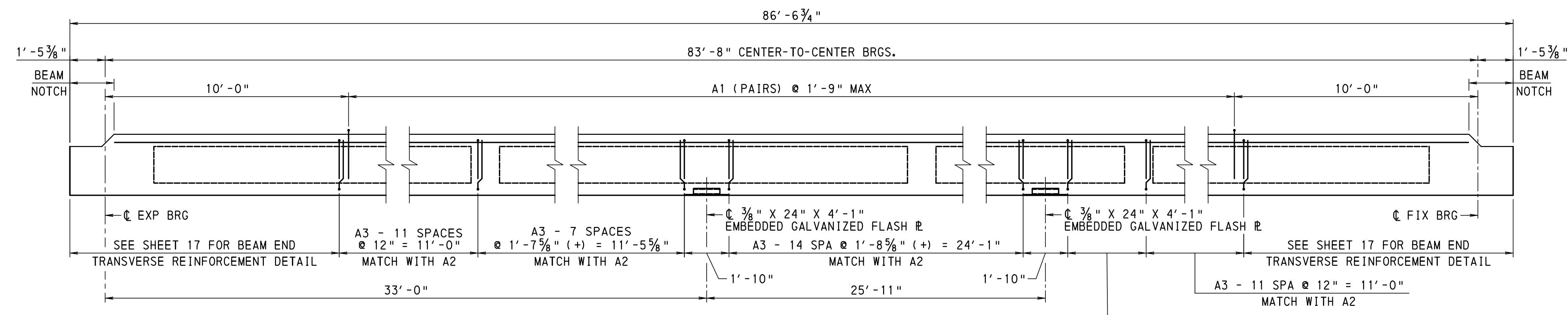
RECOMMENDED _____ SHEET 15 OF 23

S-31649



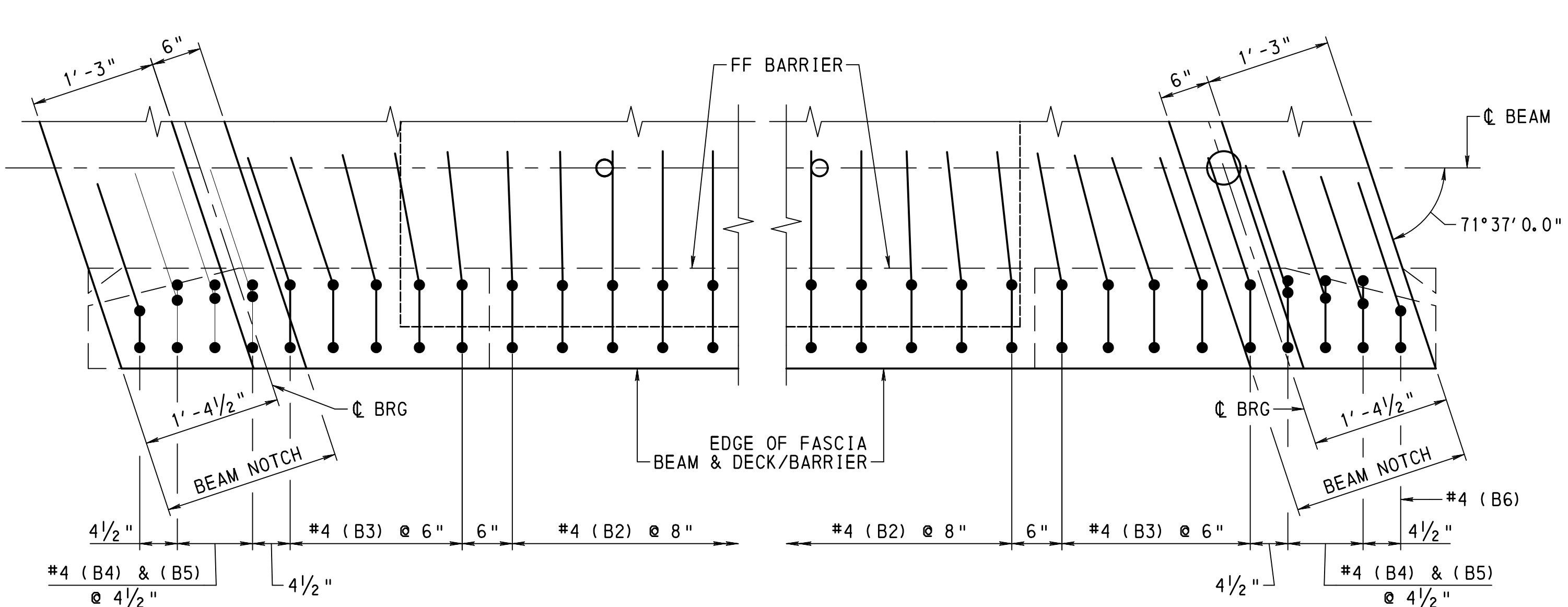


BEAM PLAN
1 0 1 2 3 FEET



BEAM ELEVATION
1 0 1 2 3 FEET

- NOTES**
- FOR MISCELLANEOUS PRESTRESS DETAILS, SEE BC-775M.
 - FOR BEAM REINFORCEMENT DETAILS A1, A2 AND A3, SEE SHEET 17.
 - FOR TYPICAL STRAND CONFINEMENT DETAIL AND CLEARANCES, SEE SHEET 17.
 - FOR TYPICAL SECTIONS H-H, I-I AND J-J, SEE SHEET 21.
 - EPOXY COAT ALL REINFORCEMENT WHICH PROTRUDES INTO BRIDGE DECK FROM TOP OF BEAMS.

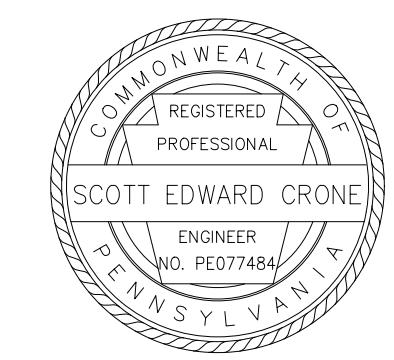


FASCIA BEAM REINFORCEMENT DETAIL
6 0 6 12 INCHES

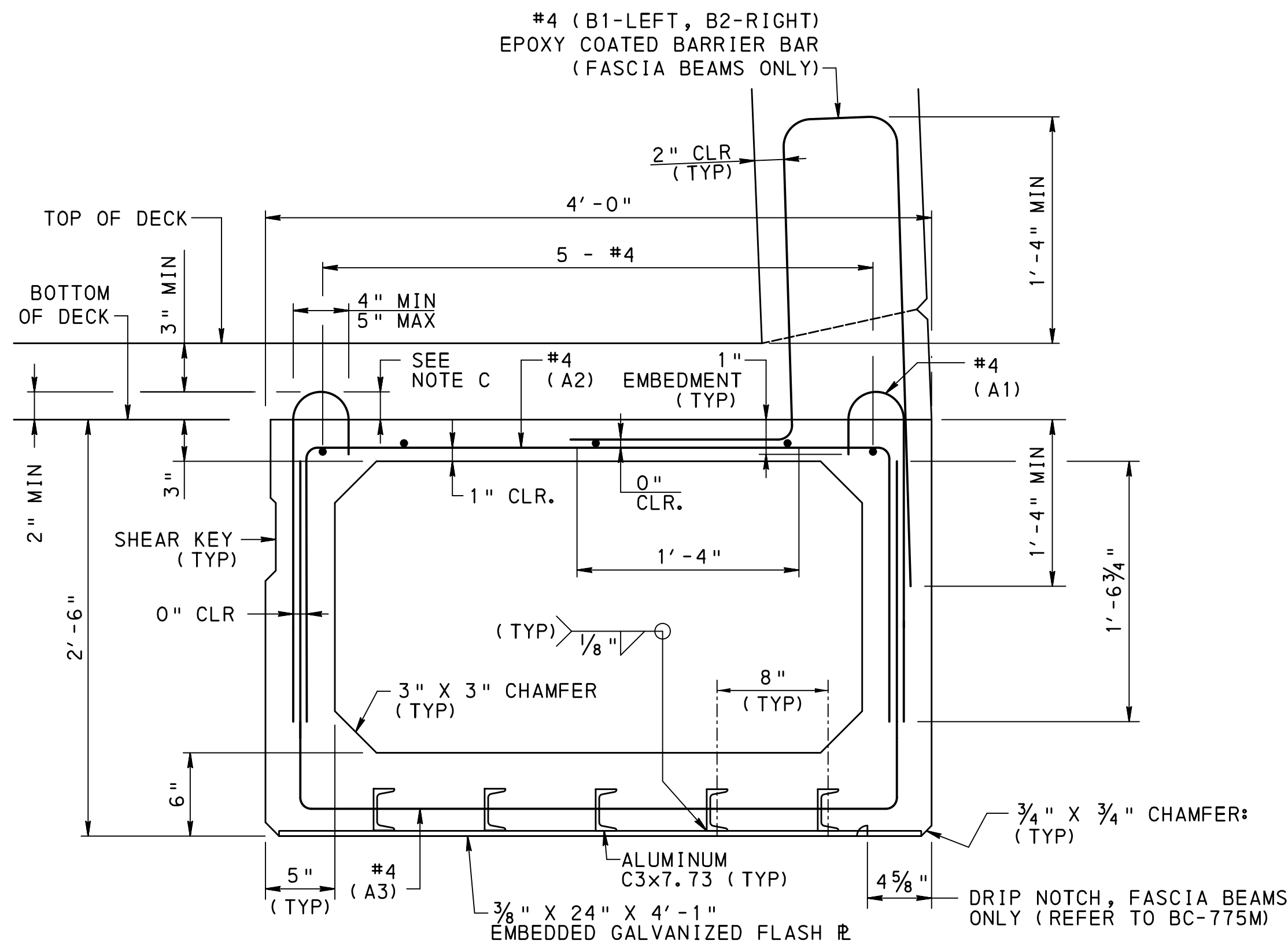
Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
LANCASTER COUNTY
S. R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S. R. 3028-003 STA 38+80.97
OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
BEAM FABRICATION DETAILS - 1

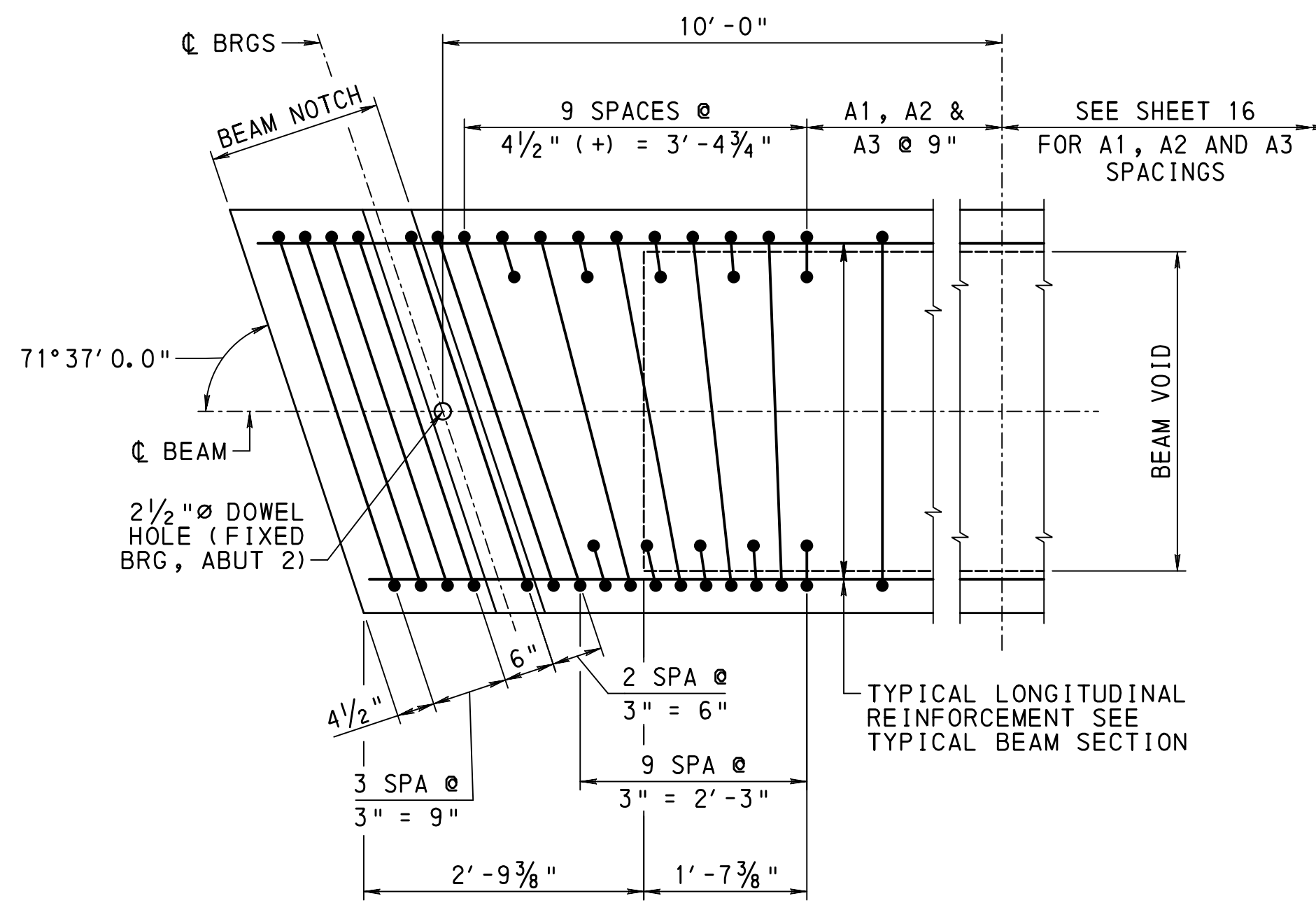


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 DATE: 12/11/2025 TIME: 9:05:51 AM
 DES: ECH/SEC DES CKD: REM/NBB DWG: MJL DWG CKD: ECH/SEC



TYPICAL BEAM SECTION
6 0 6 INCHES

NOTE C: TO BE DETAILED ON THE SHOP DRAWINGS.

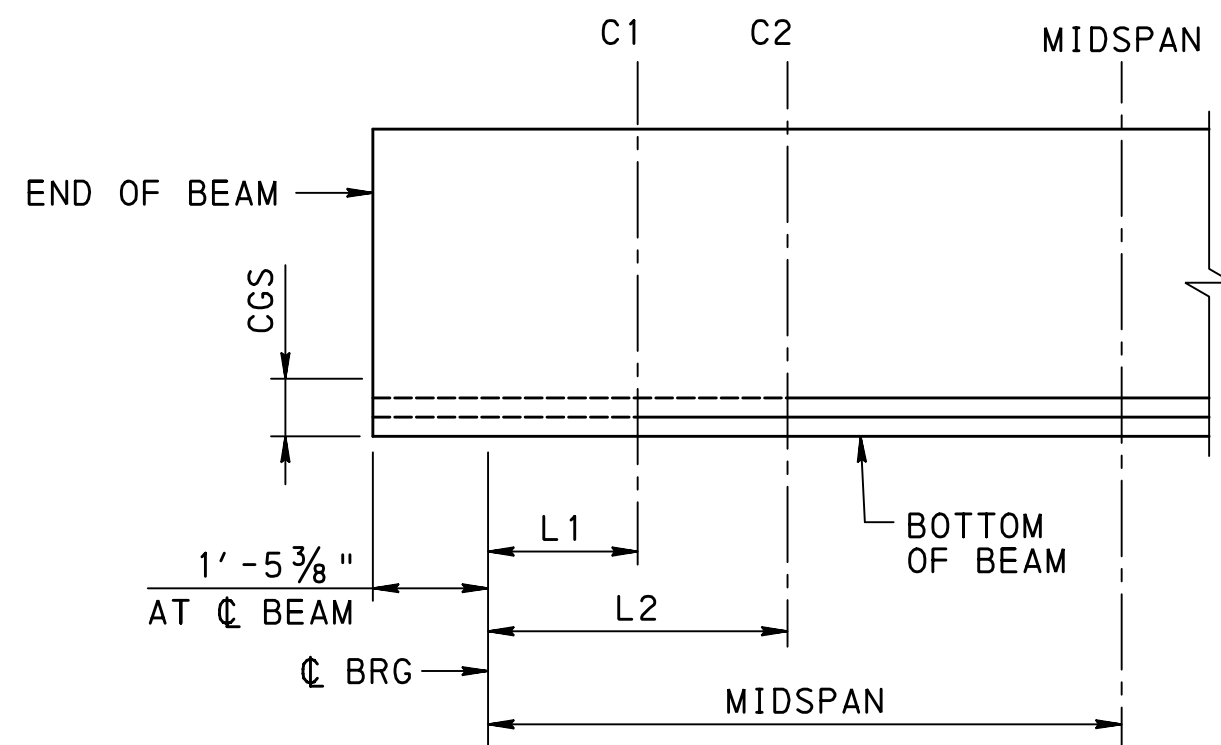


BEAM END TRANSVERSE REINFORCEMENT
NOT TO SCALE

NOTE: SEE TYPICAL BEAM SECTION FOR REINFORCEMENT NOT SHOWN.

PRESTRESS NOTES

- SHOW THE FOLLOWING DATA ON THE SHOP DRAWINGS:
 - DESIGN AND CASTING LENGTHS.
 - PLAN, ELEVATION SECTIONS AND ALL REINFORCEMENT DETAILS.
 - ANY MODIFICATIONS TO REINFORCEMENT SPLICE AND BENDING DETAILS.
 - SIZE AND LOCATION OF TEMPORARY STORAGE SUPPORTS.
 - TYPE AND LOCATION OF BRACING AND TEMPORARY SUPPORTS USED FOR TRANSPORTATION AND ERECTION OF THE BEAMS.
- MINIMUM COVER ON REINFORCEMENT AS FOLLOWS:
 - TOP SLAB - 1"
 - INSIDE VOID - 1"
 - ELSEWHERE - 2". UNLESS OTHERWISE NOTED.
- EPOXY COAT ALL REINFORCEMENT FOR A DISTANCE OF 9'-0" FROM BEAM ENDS ADJACENT TO DECK JOINTS.
- EPOXY COAT ALL REINFORCEMENT WHICH PROTRUDES INTO BRIDGE DECK AND BARRIERS FROM THE TOP OF BEAMS.
- END ZONE REINFORCEMENT MAY BE INCREASED BY FABRICATOR TO REFLECT FABRICATOR'S EXPERIENCE AND/OR TO CONTROL CRACKING. WIRE MESH OF EQUIVALENT AREA IS PERMISSIBLE FOR CRACK CONTROL REINFORCEMENT.
- FABRICATOR TO CHECK STABILITY FOR HANDLING AND TRANSPORTATION OF MEMBERS.
- END REINFORCEMENT SPACING MAY BE REDUCED AS REQUIRED TO SATISFY SHEAR REINFORCEMENT REQUIREMENTS, BUT DO NOT REDUCE THE MINIMUM AREA TO BE REINFORCED.
- USE A HEAVY SCORED FINISH ON THE TOP SURFACE OF THE BEAMS. CLEAN THE TOPS OF THE BEAMS BEFORE PLACING THE DECK SLAB.
- ALL MILD STEEL REINFORCEMENT IS GRADE 60.



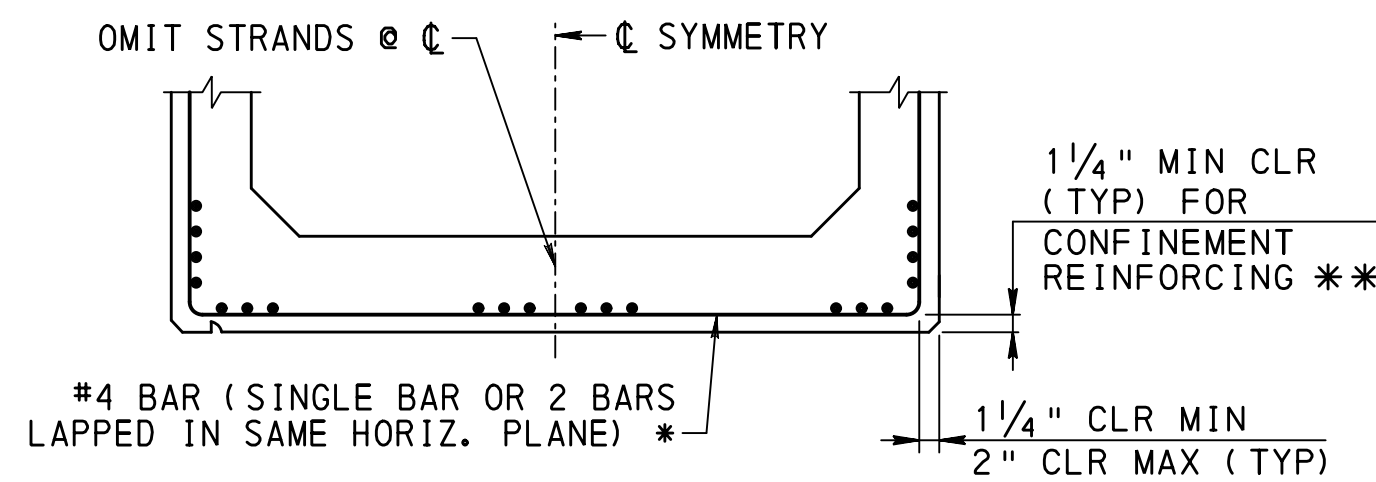
DEBONDING DETAIL
NOT TO SCALE

NOTE: THIS IS A REPRESENTATION OF THE DEBONDED LENGTHS. IT DOES NOT REPRESENT A SPECIFIC NUMBER, SPECIFIC LOCATION, OR SPECIFIC ROW OF DEBONDED STRANDS.

--- DEBONDED SECTION OF STRAND
— FULLY BONDED SECTION OF STRAND

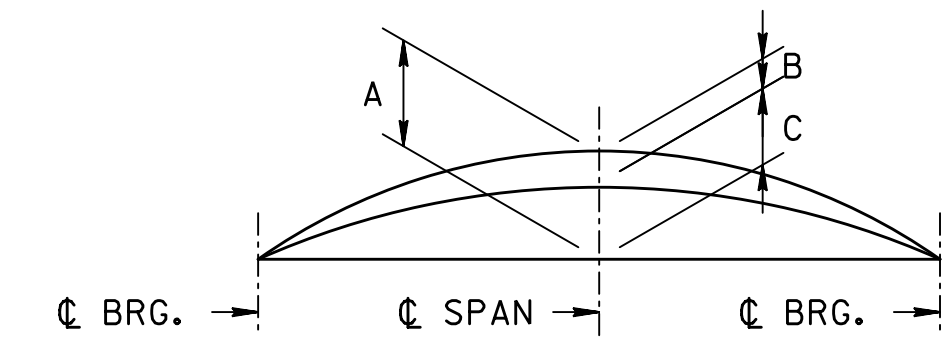
DEBONDED STRAND CUTOFF LOCATION	DISTANCE 'L' TO CUTOFF LOCATION ALONG C OF BEAM	NUMBER OF DEBONDED STRANDS PRIOR TO CUTOFF LOCATION	NUMBER OF BONDED STRANDS PRIOR TO CUTOFF LOCATION	CGS PRIOR TO CUTOFF LOCATION
C1	4'-0"	8	32	4.750"
C2	5'-0"	2	38	4.500"
MIDSPAN	41'-10"	0	40	4.400"

NOTE: NUMBER OF DEBONDED STRANDS DOES NOT INCLUDE CRACK CONTROL DEBONDING



TYPICAL STRAND CONFINEMENT ALL BEAMS

- * FOR LIMITS OF STRAND CONFINEMENT REINFORCEMENT, REFER TO DESIGN MANUAL, PART 4, D5.10.10.2.
- ** IF THE BEAM IS DAPPED, SEE THE BEAM DAP DETAIL AND MAINTAIN 1/4" MINIMUM CLEARANCE IN THE DAP AREA.



BEAM CAMBER DIAGRAM

- A= ESTIMATED PRESTRESS CAMBER LESS DEFLECTION DUE TO DEAD LOAD OF BEAM TIMES CREEP FACTOR (CHECK IN FIELD).
 - B= DEFLECTION DUE TO ALL DEAD LOAD EXCEPT BEAM WEIGHT AND FUTURE WEARING SURFACE.
 - C= A-B = NET FINAL CAMBER
- THE THICKNESS OF THE CONCRETE DECK SHALL BE VARIED TO ACHIEVE THE REQUIRED VERTICAL GEOMETRY AND TO COMPENSATE FOR ANY INACCURACIES IN BEAM CAMBER.

A, B AND C ARE THEORETICAL VALUES AND MAY VARY WITH ACTUAL CONCRETE STRENGTH (AGE), VARIOUS PRESTRESSING CONDITIONS, CREEP FACTOR AND PRESTRESS LOSSES.
USE A CREEP FACTOR EQUAL TO 1.60 AND P/S LOSS EQUAL TO 10%.

PRESTRESSING DATA

CONCRETE STRENGTH AT STRAND RELEASE	6800 psi
CONCRETE STRENGTH AT 28 DAYS (F' C)	8000 psi
JACKING PRESTRESS STRESS	202500 psi
270 ksi LOW RELAXATION STRANDS, 1/2" DIA., 0.167 in**2 STRAND AREA	

CAMBER AND PRESTRESS TABLE

BEAM NO.	TOTAL NO. OF STRANDS	JACKING PRESTRESS FORCE	A	B	C
1	40	1352.70 K	2.50"	1.180"	1.320"
2 - 3	40	1352.70 K	2.50"	1.190"	1.310"
4 - 6	40	1352.70 K	2.50"	0.860"	1.640"
7 - 8	40	1352.70 K	2.50"	1.190"	1.310"
9	40	1352.70 K	2.50"	1.180"	1.320"

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

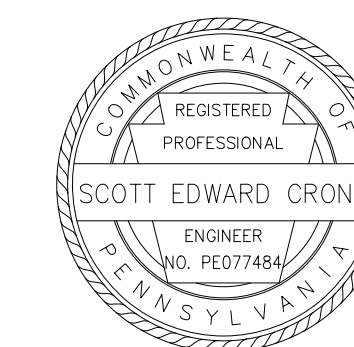
LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S.R. 3028-003 STA 38+80.97
OVER AMTRAK

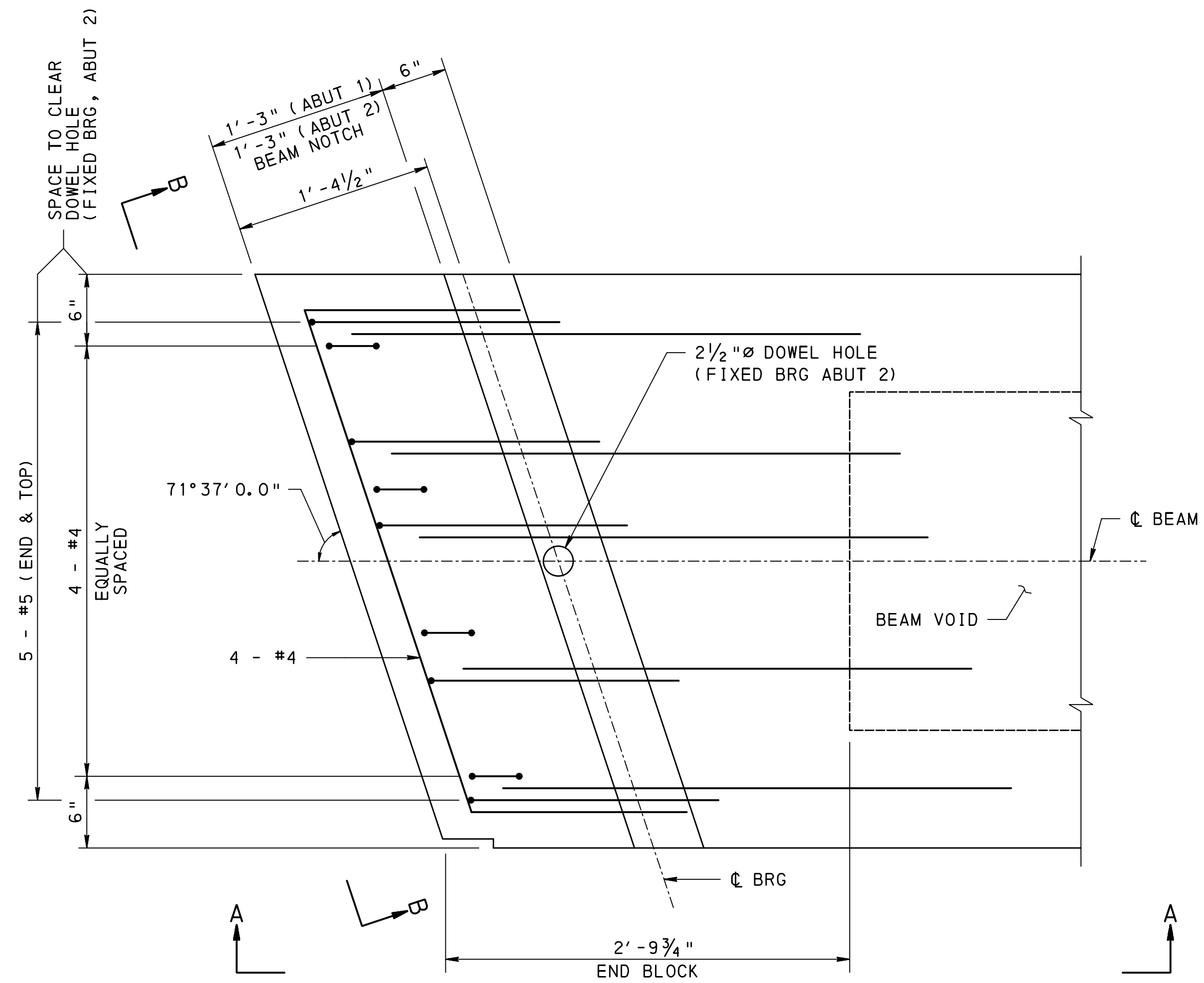
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BEAM FABRICATION DETAILS - 2

RECOMMENDED _____

SHEET 17 OF 23

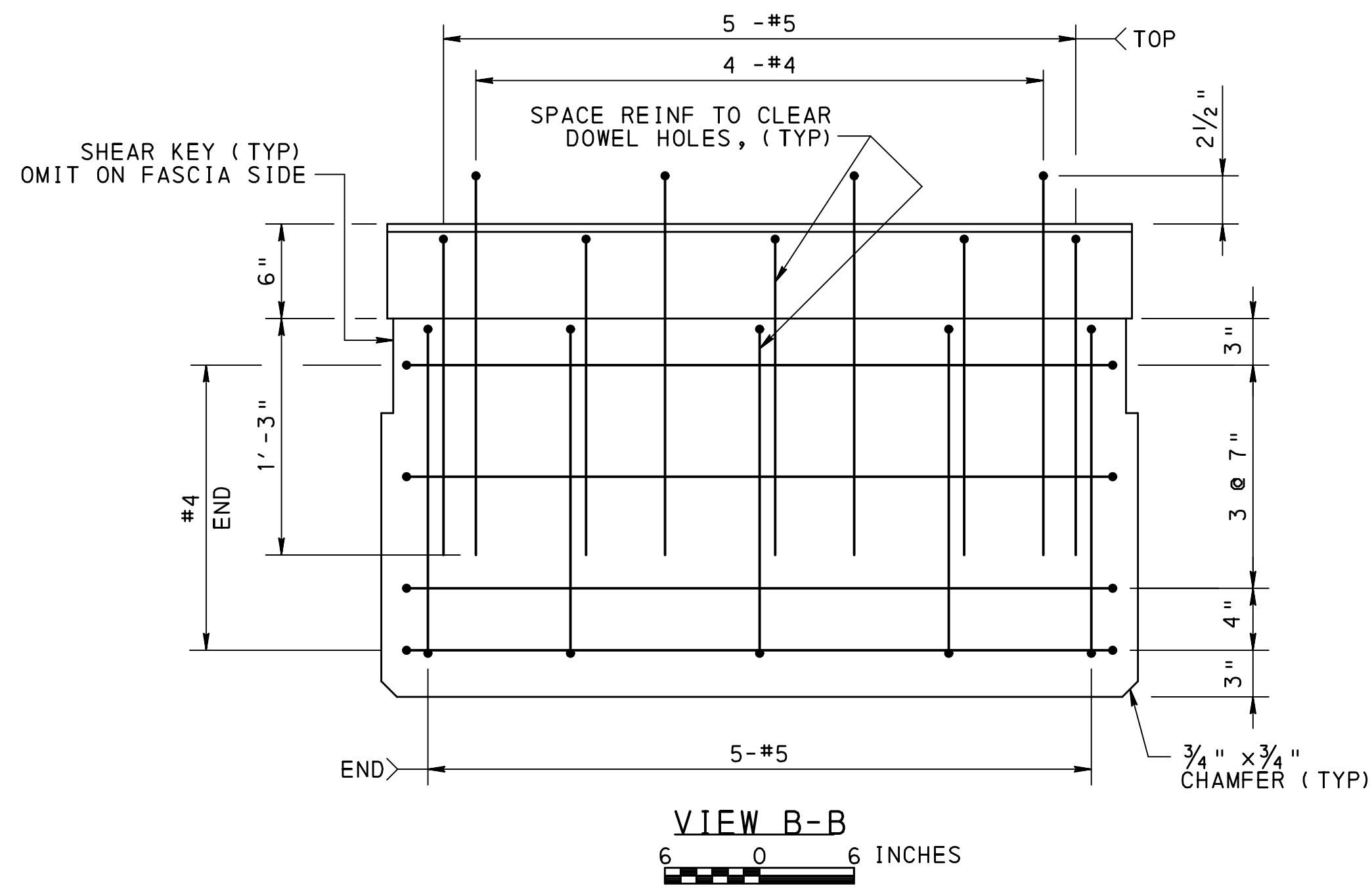
S-31649





PLAN - BEAM END LONGITUDINAL REIN.

6 0 6 INCHES

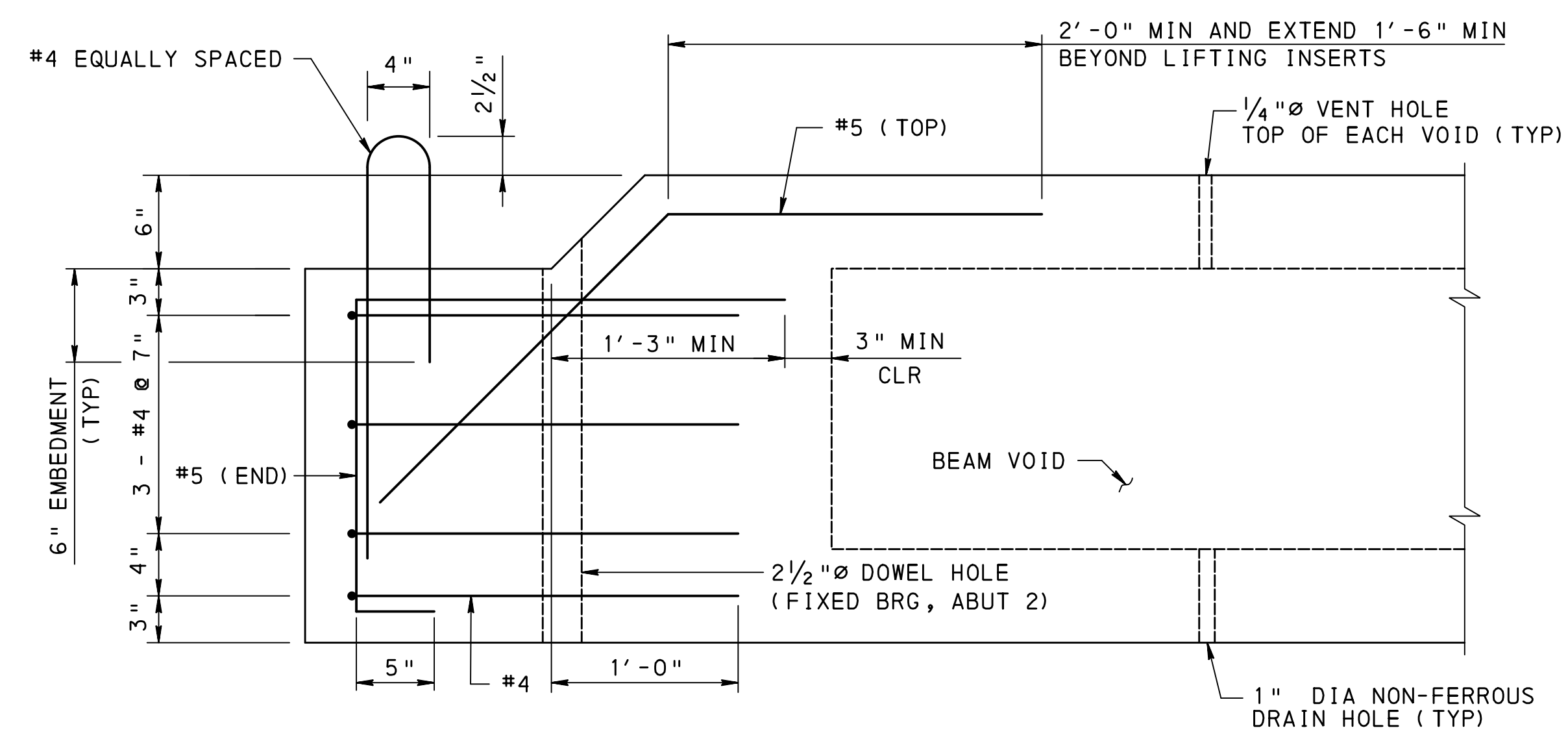


VIEW B-B

6 0 6 INCHES

NOTES

- FOR TYPICAL BEAM SECTION, SEE SHEET 17.
- FOR ADDITIONAL STRAND INFORMATION, SEE SHEET 17.



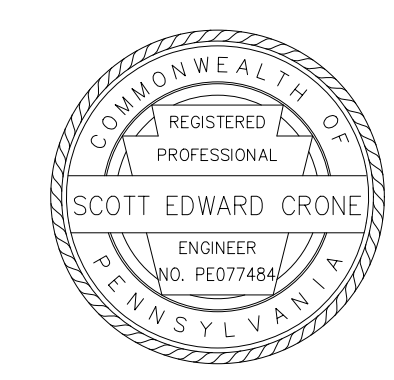
VIEW A-A

6 0 6 INCHES

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

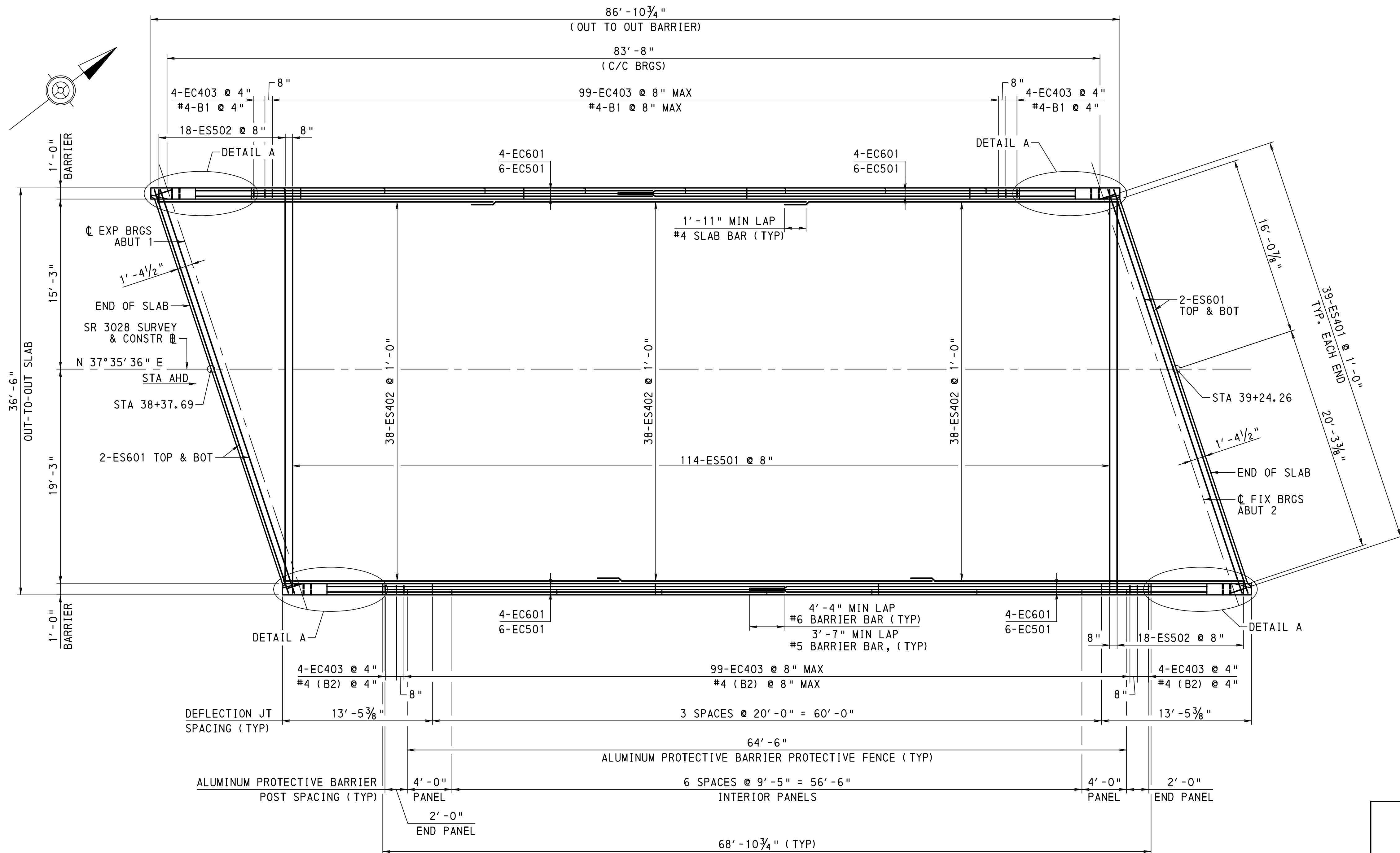
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S.R. 3028-003 STA 38+80.97
OVER AMTRAK
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
BEAM REINFORCEMENT DETAILS



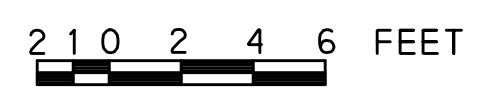
RECOMMENDED _____ SHEET 18 OF 23

S-31649

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SLAB REINFORCING PLAN



NOTES

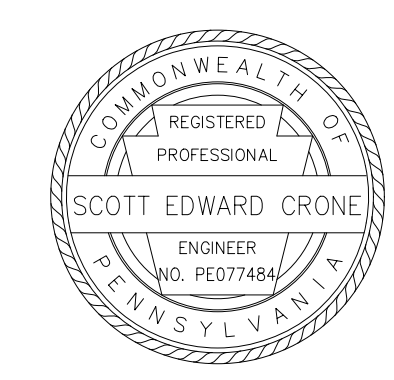
- FOR ADDITIONAL ALUMINUM PROTECTIVE BARRIER DETAILS, SEE BC-711M AND AMTRAK STANDARD DRAWING ET-1446-D.
- FOR ADDITIONAL PROTECTIVE FENCE DETAILS, SEE BC-701M AND AMTRAK STANDARD DRAWING ET-1446-D.
- FOR BARS PROTRUDING FROM BEAM INTO BARRIER (B1 AND B2) DETAILS, SEE SHEET 21.
- FOR DETAIL A, SEE SHEET 21.

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
 BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

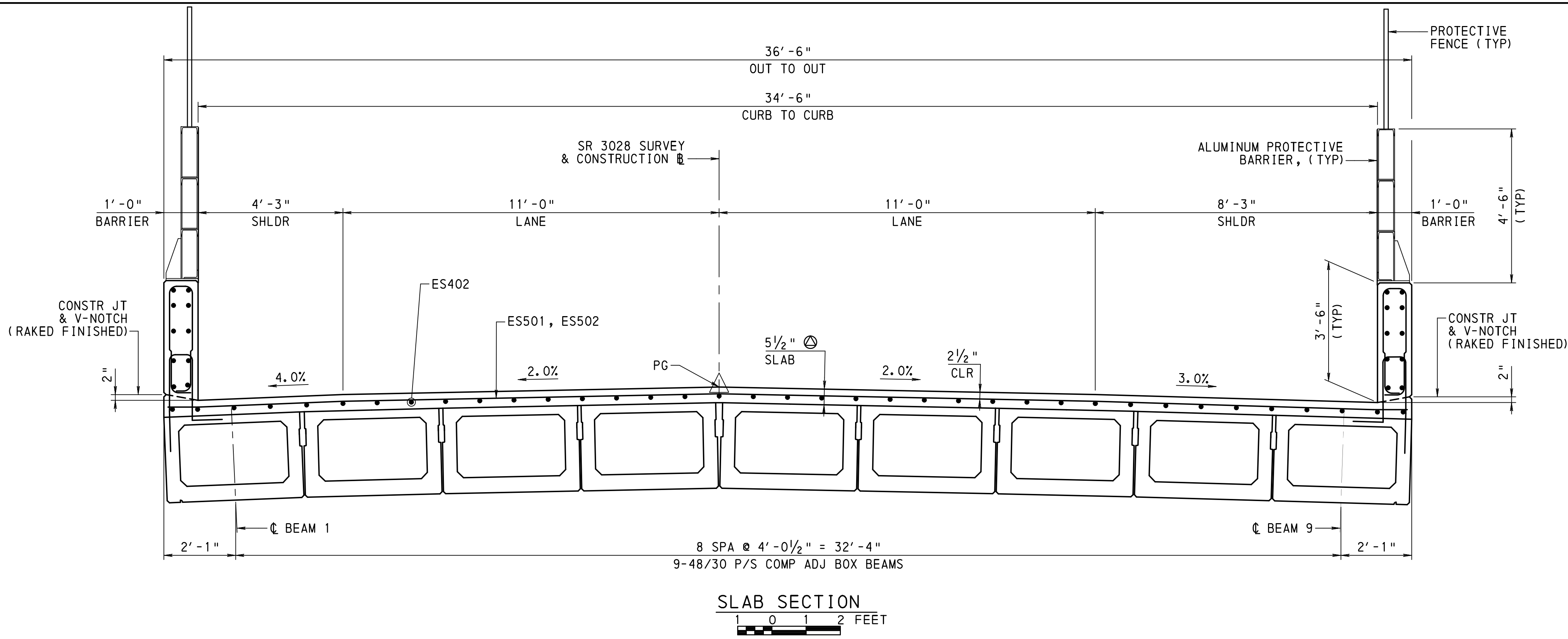
COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
 S.R. 3028 SEC 003 STA 38+80.97
 SEGMENT 0200 OFFSET 0000
 S.R. 3028-003 STA 38+80.97
 OVER AMTRAK
 1-SP COMP P/S CONC ADJ BOX BM BRIDGE
 SLAB PLAN

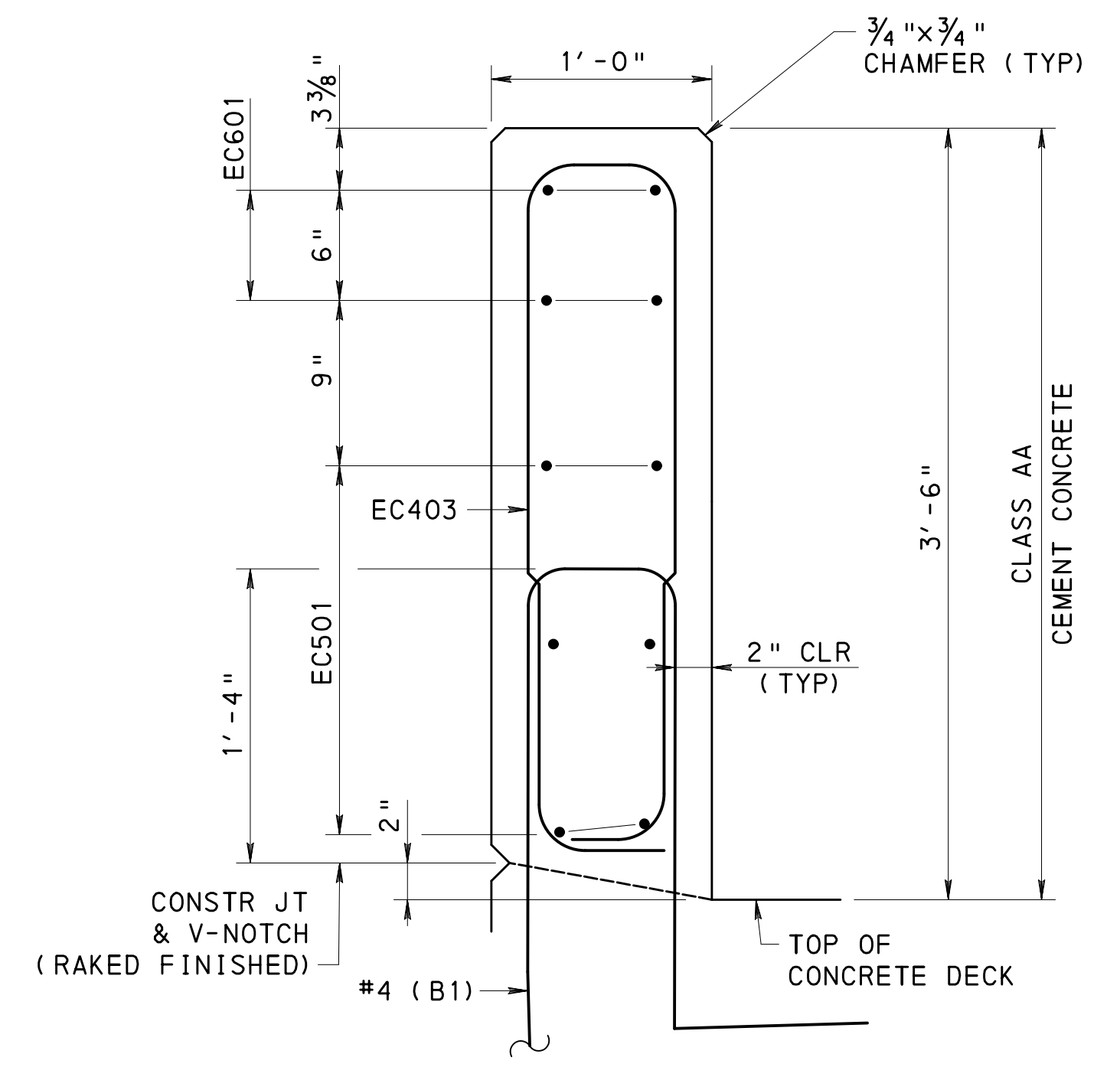


RECOMMENDED _____	SHEET 19 OF 23
	S-31649

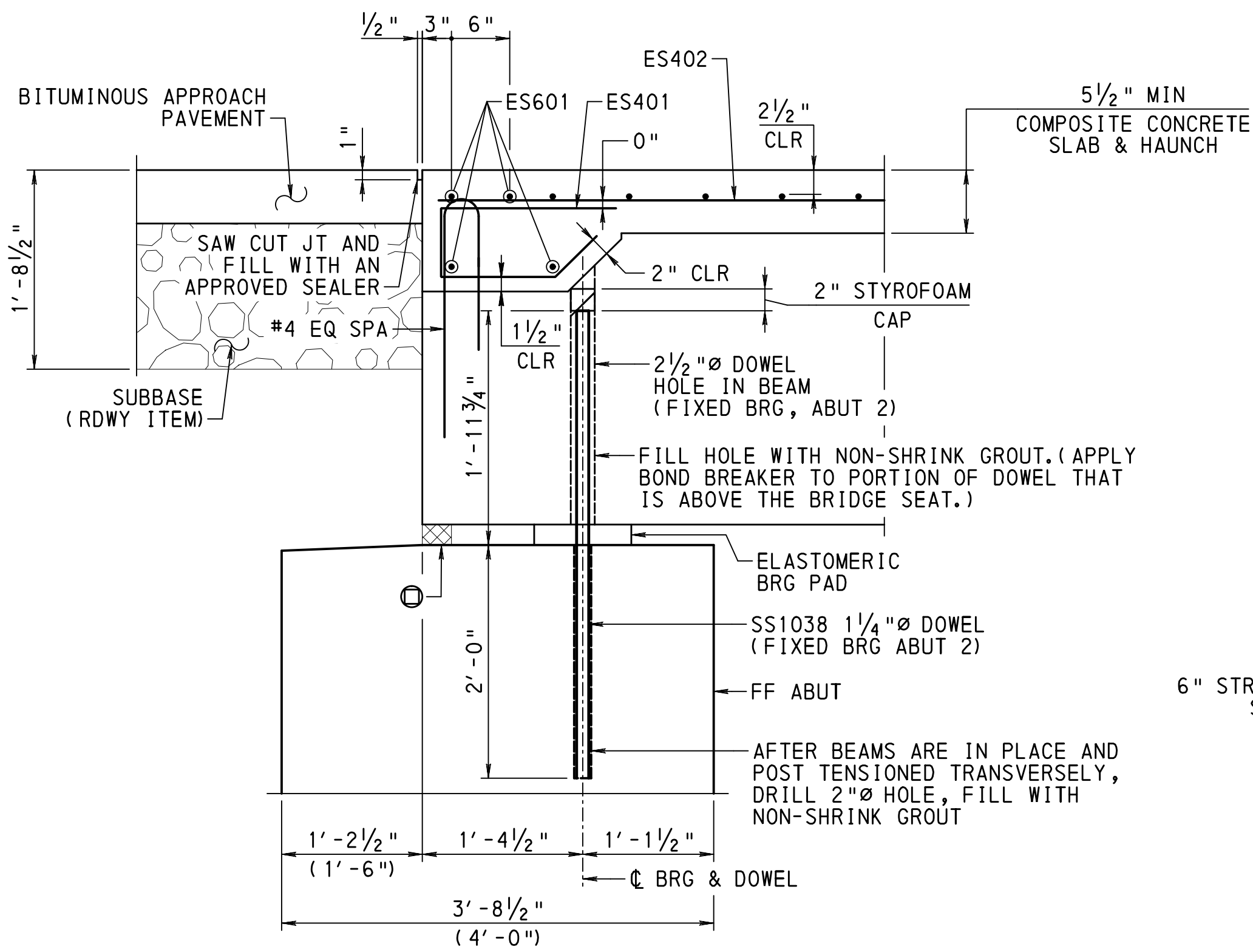
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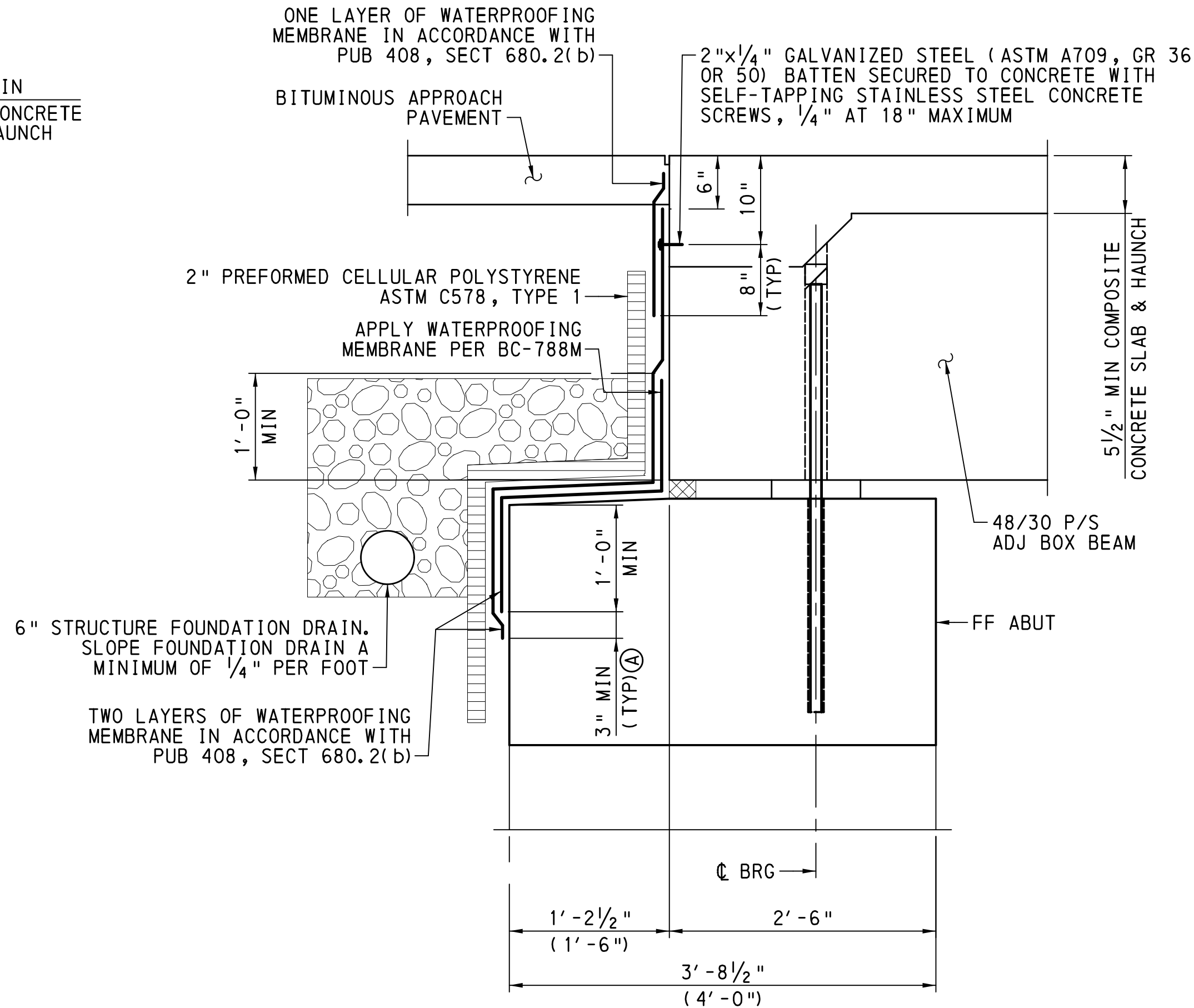
SLAB SECTION
1 0 1 2 FEET



TYPICAL DECK BARRIER REINFORCING
6 0 6 INCHES



TYPICAL SECTION AT END OF DECK
6 0 6 12 INCHES



TYPICAL WATERPROOFING SECTION
NOT TO SCALE

NOTES

- FOR ADDITIONAL WATERPROOFING DETAILS, SEE BC-788M.
- ABUTMENT 2 SHOWN ABUTMENT 1 SIMILAR EXCEPT AS NOTED IN ().
- Ⓐ INCLUDES 1/2" INTEGRAL WEARING SURFACE.
- Ⓑ 3" WIDE CONTINUOUS STRIP OF CLOSED CELL NEOPRENE SPONGE. (1/4" THICKER THAN BEARING PAD.)
- Ⓐ 3" MIN BEYOND WATERPROOFING MEMBRANE, FOR BOTH HORIZONTAL AND VERTICAL MEMBRANE LIMITS.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

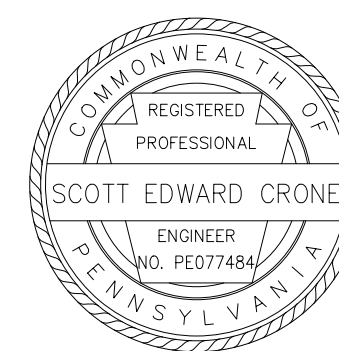
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

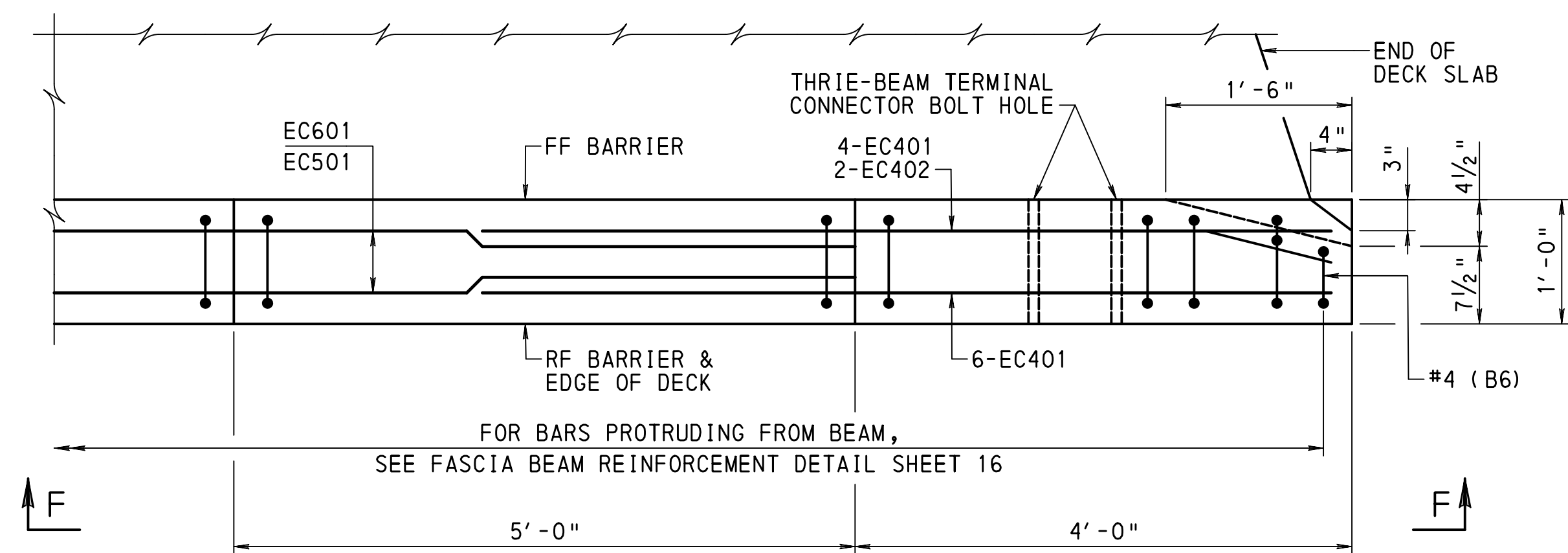
LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S.R. 3028-003 STA 38+80.97
OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
SLAB SECTION

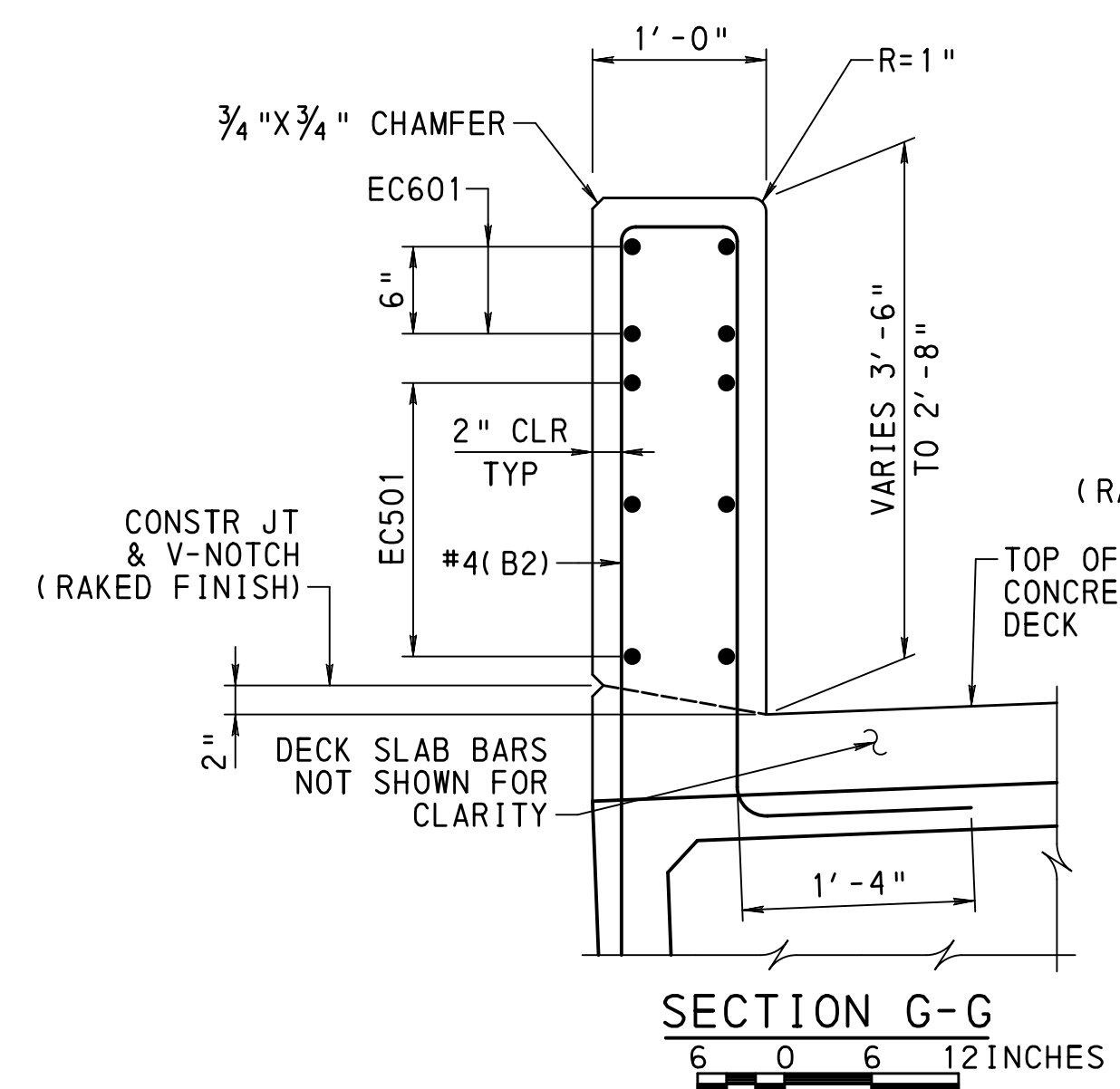
RECOMMENDED _____ SHEET 20 OF 23

S-31649

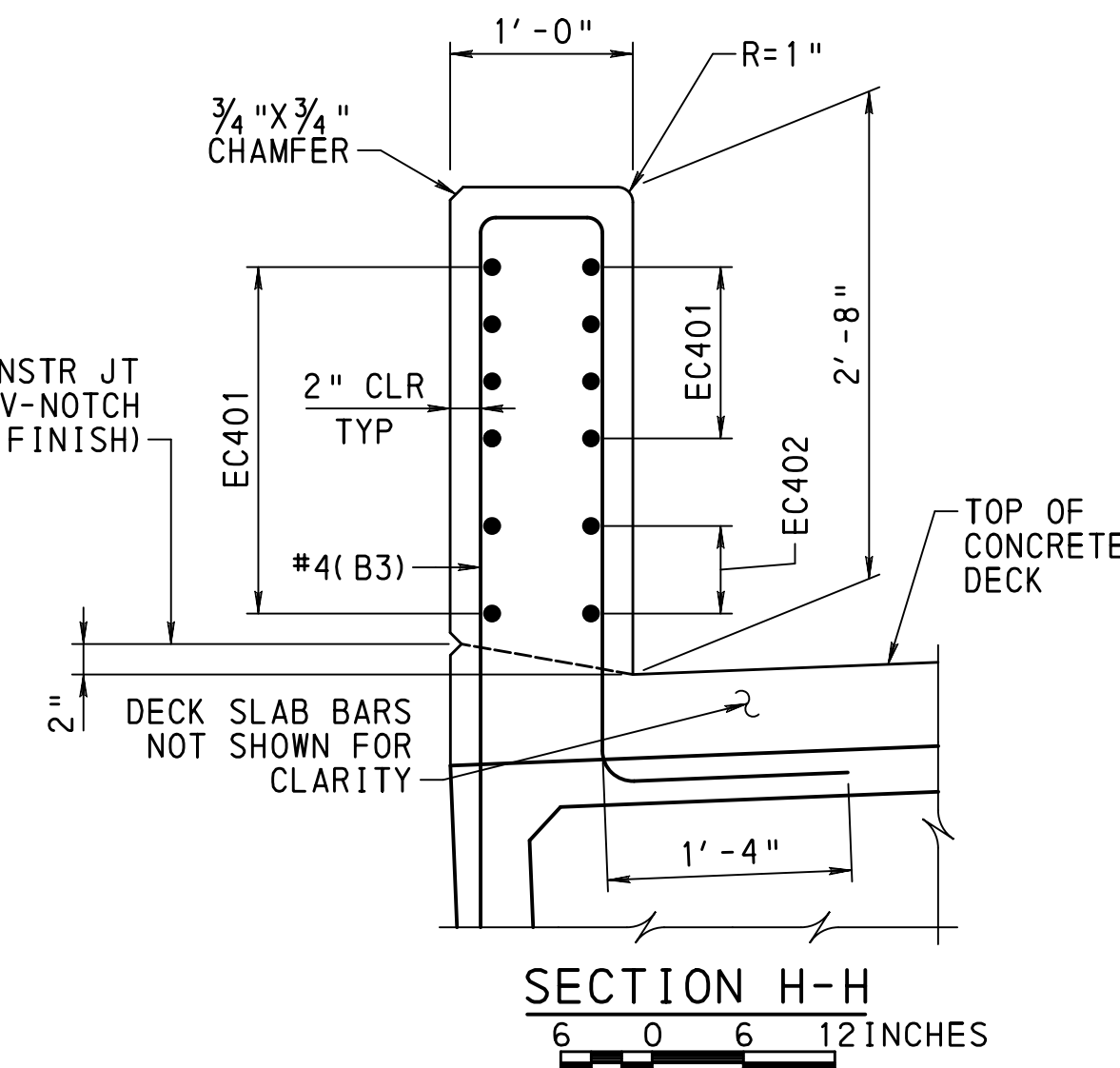




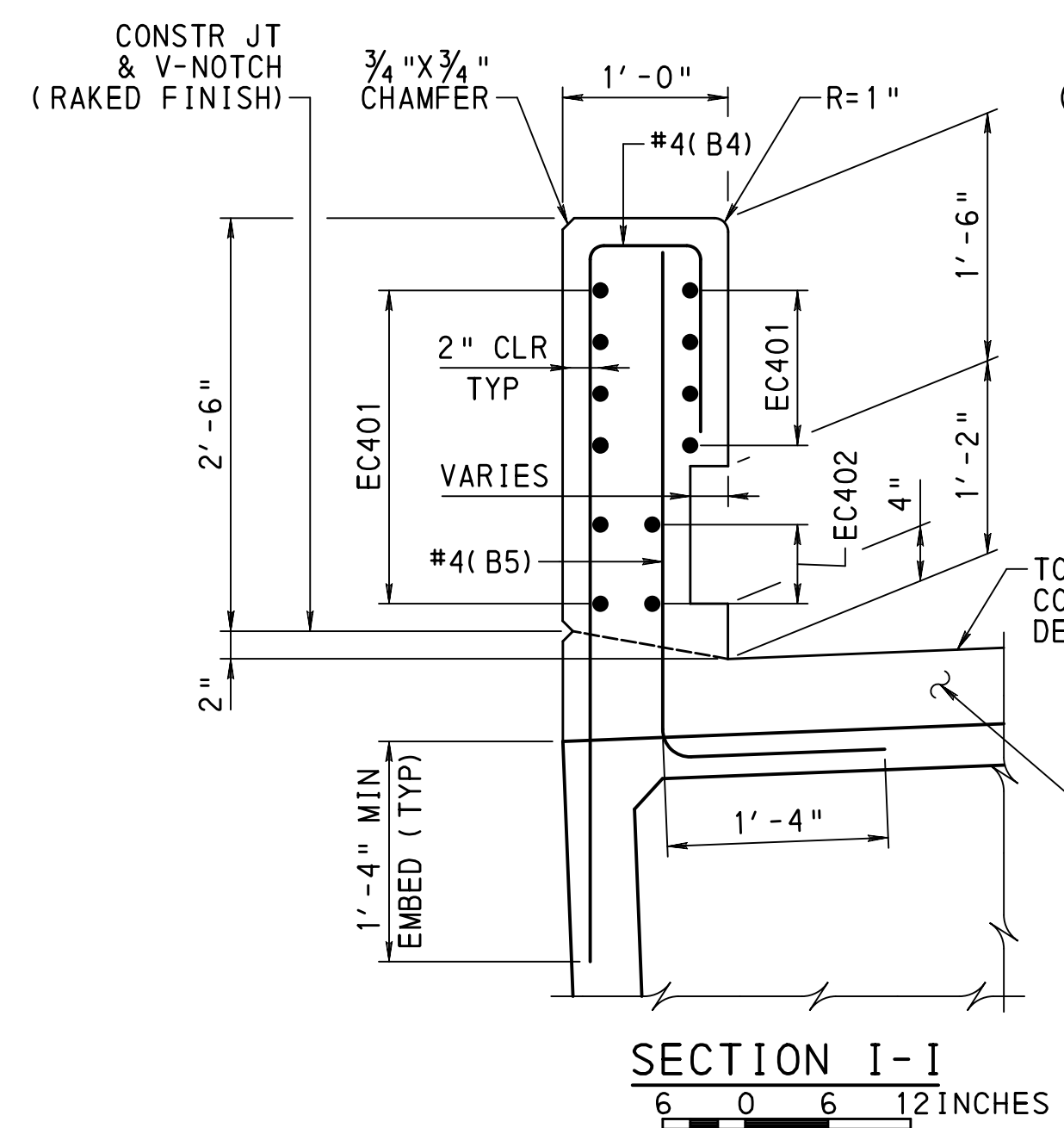
DETAIL A (SHEET 19)
6 0 6 12 INCHES



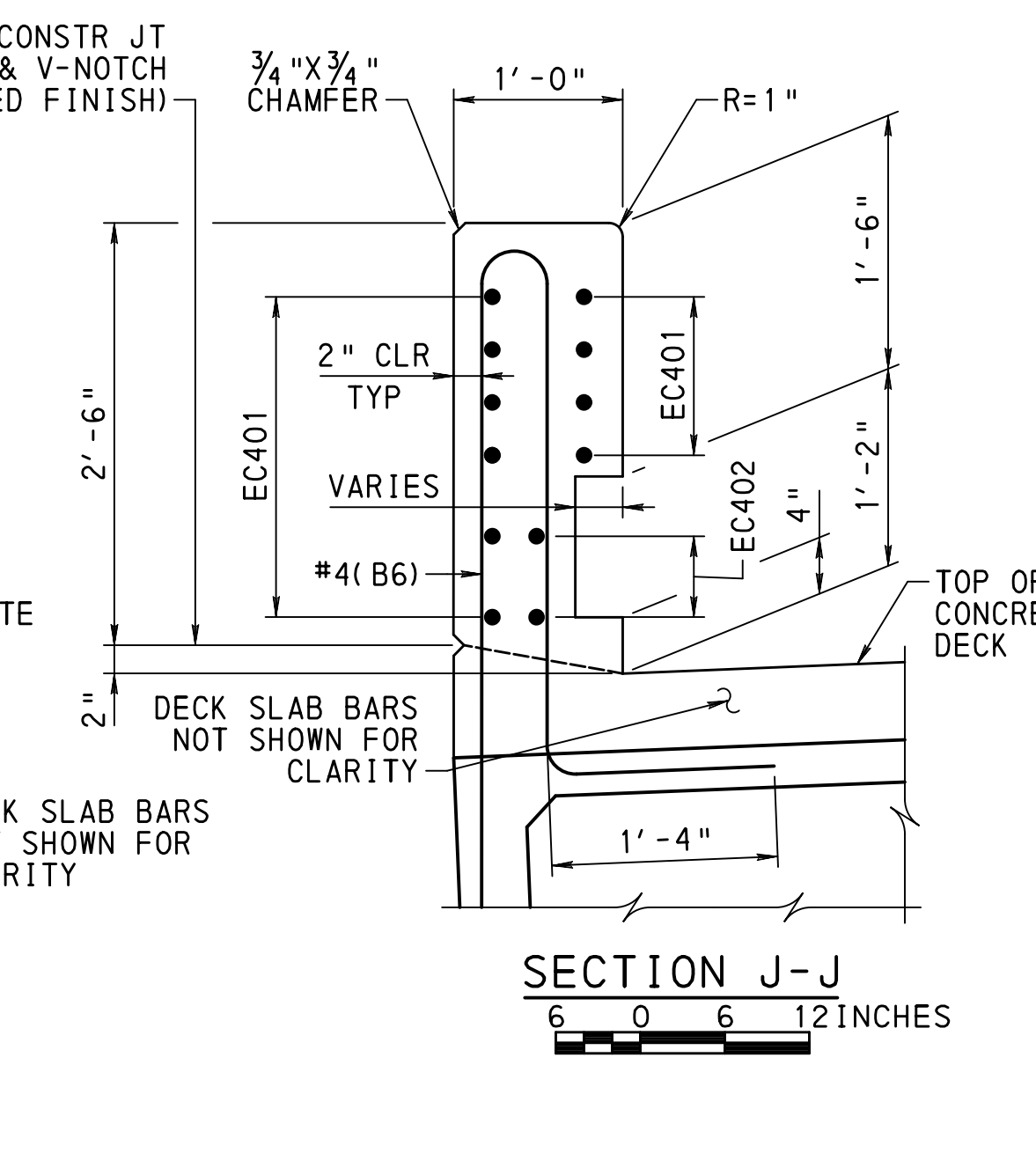
SECTION G-G
6 0 6 12 INCHES



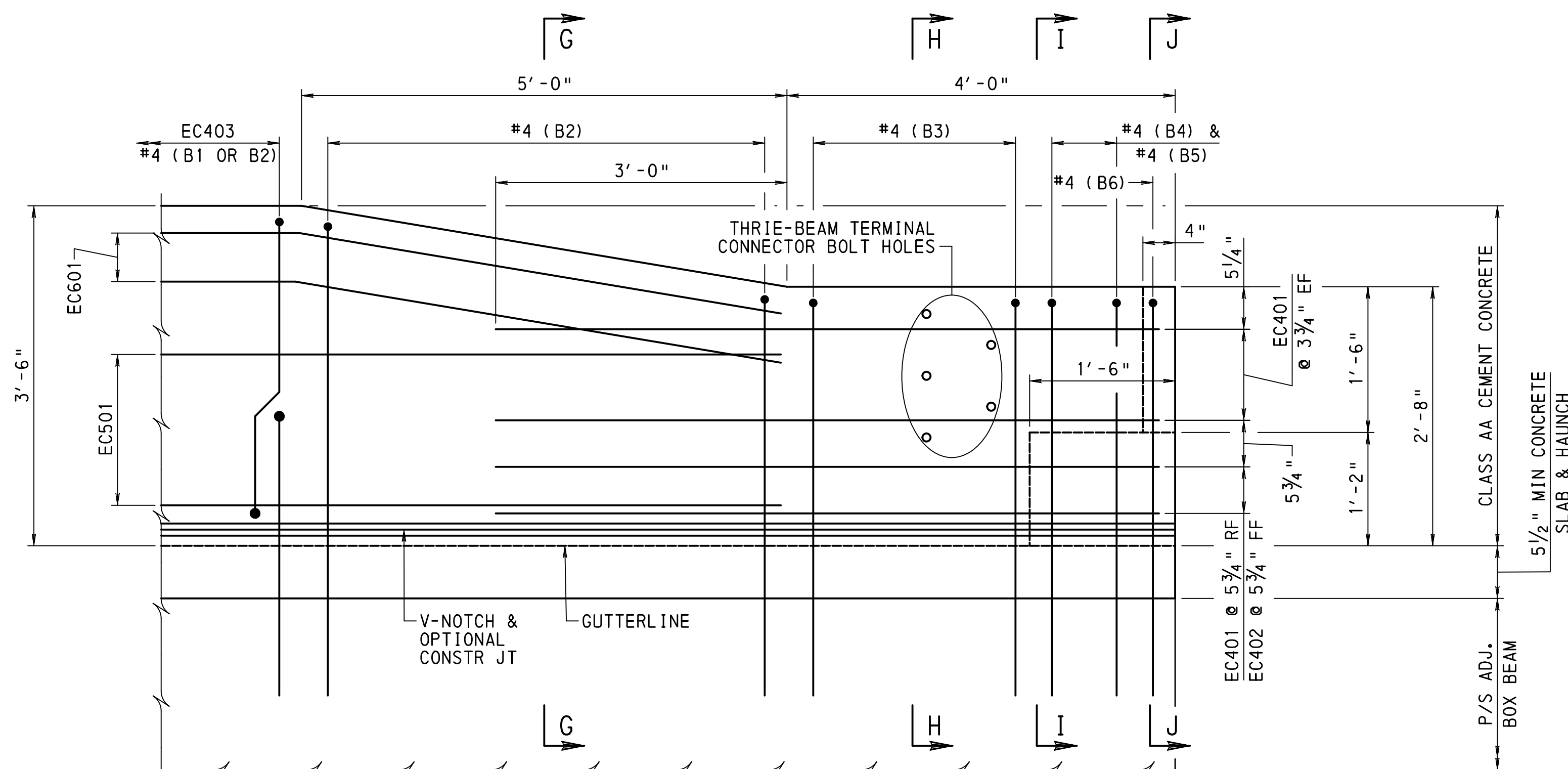
SECTION H-H
6 0 6 12 INCHES



SECTION I-I
6 0 6 12 INCHES



SECTION J-J
6 0 6 12 INCHES



VIEW F-F
6 0 6 12 INCHES

- NOTES**
- FOR THRIE-BEAM TERMINAL CONNECTOR DETAILS AND NOTES, SEE RC-50M.
 - FOR SECTIONS H-H, I-I AND J-J, ALSO SEE SHEET 16.

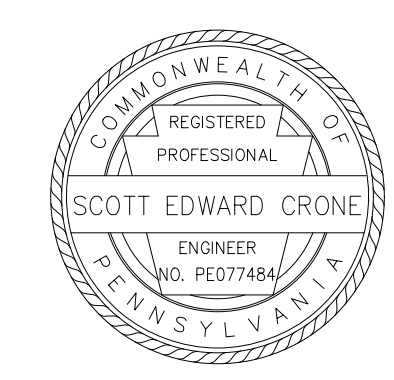
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
SEGMENT 0200 OFFSET 0000
S.R. 3028-003 STA 38+80.97
OVER AMTRAK

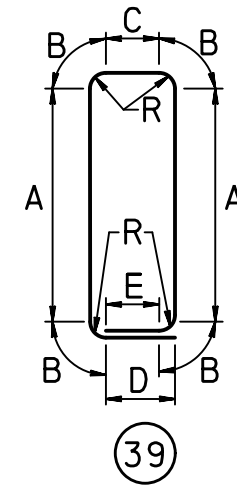
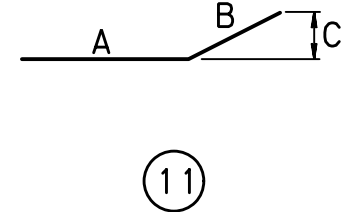
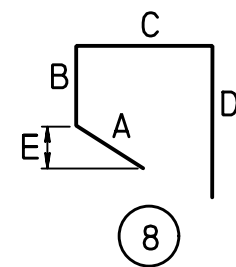
1-SP COMP P/S CONC ADJ BOX BM BRIDGE
VERTICAL BARRIER END TRANSITION DETAILS



RECOMMENDED _____	SHEET 21 OF 23
	S-31649

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DATE: 12/11/2025 TIME: 9:05:53 AM

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	R	REMARKS
SLAB											
ES401	4	78	3' - 7 1/4"	8	6"	11 3/4"	7 1/2"	1' - 6"	4 1/8"		
ES402	4	114	30' - 2"	STR							
ES501	5	114	36' - 2"	STR							
ES502	5	36	1' - 2" TO 35' - 2"	STR							VARIES 2 EA. BY 2' - 0"
ES601	6	8	38' - 1"	STR							
BARRIER											
EC401	4	40	6' - 10"	STR							
EC402	4	8	6' - 10 5/8"	11	1' - 5"	5' - 5 5/8"	4 1/8"				
EC403	4	214	7' - 5 1/2"	39	2' - 7"	4"	3"	5 1/2"	3"	2"	
EC501	5	24	41' - 3"	STR							
EC601	6	16	41' - 9"	11	5' - 1"	36' - 8"	10"				



- "*" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "E" - INDICATES EPOXY COATED REBARS.
- FOR ALL BAR TYPES SHOWN, DIMENSIONS A-H AND LENGTH ARE MEASURED ALONG OUTSIDE OF BAR. R IS MEASURED ALONG INSIDE OF BAR.
- BAR TYPES ARE NUMBERED ACCORDING TO THE FOLLOWING:

SUPERSTRUCTURE:	01 THROUGH 99
ABUTMENT 1:	101 THROUGH 199
ABUTMENT 2:	201 THROUGH 299

FILENAME: N:\57855-07-P\TimeyRoad\Drawings\Structures\3028003-DS-15.dgn
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DES: ECH/SEC | DES CKD: REM/NBB | DWG: MJL | DWG CKD: ECH/SEC

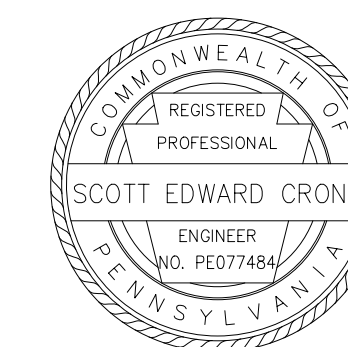
Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3028 PREVIOUSLY KNOWN AS LR 36185
 BMS STR ID: 36-3028-0200-0000 MPMS/ECMS PROJ: 84016 BRKEY: 21654

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF TRANSPORTATION

LANCASTER COUNTY
S.R. 3028 SEC 003 STA 38+80.97
 SEGMENT 0200 OFFSET 0000
 S.R. 3028-003 STA 38+80.97
 OVER AMTRAK

1-SP COMP P/S CONC ADJ BOX BM BRIDGE
SUPERSTRUCTURE REBAR SCHEDULE



RECOMMENDED _____	SHEET 22 OF 23
S-31649	

UNFACTORED MAXIMUM MOMENTS AND SHEARS - FASCIA BEAMS					
SPAN LENGTH (ft) = 83.67					
LOADING	MOMENT		SHEAR		REACTION @ C. BRG. (Kips)
	MAXIMUM MOMENT (Kip-ft)	LOCATION (ft)	MAXIMUM SHEAR (Kips)	LOCATION (ft)	
NON-COMPOSITE DEAD LOAD	932.20	41.84	44.60	0.00	44.60
COMPOSITE DEAD LOAD (INCLUDING FUTURE WEARING SURFACE)	271.30	41.84	12.97	0.00	12.97
PHL-93 LIVE LOAD PLUS IMPACT	705.20	41.84	71.07	0.00	71.07
P-82 LIVE LOAD PLUS IMPACT	976.80	37.65	112.60	0.00	112.60
P2016-13 LIVE LOAD PLUS IMPACT	1060.50	37.65	122.07	0.00	122.07

UNFACTORED MAXIMUM MOMENTS AND SHEARS - FIRST INTERIOR BEAMS					
SPAN LENGTH (ft) = 83.67					
LOADING	MOMENT		SHEAR		REACTION @ C. BRG. (Kips)
	MAXIMUM MOMENT (Kip-ft)	LOCATION (ft)	MAXIMUM SHEAR (Kips)	LOCATION (ft)	
NON-COMPOSITE DEAD LOAD	933.00	41.84	44.64	0.00	44.64
COMPOSITE DEAD LOAD (INCLUDING FUTURE WEARING SURFACE)	271.30	41.84	12.97	0.00	12.97
PHL-93 LIVE LOAD PLUS IMPACT	699.20	41.84	60.52	0.00	60.52
P-82 LIVE LOAD PLUS IMPACT	968.40	37.65	95.88	0.00	95.88
P2016-13 LIVE LOAD PLUS IMPACT	1051.40	37.65	103.94	0.00	103.94

UNFACTORED MAXIMUM MOMENTS AND SHEARS - INTERIOR BEAMS					
SPAN LENGTH (ft) = 83.67					
LOADING	MOMENT		SHEAR		REACTION @ C. BRG. (Kips)
	MAXIMUM MOMENT (Kip-ft)	LOCATION (ft)	MAXIMUM SHEAR (Kips)	LOCATION (ft)	
NON-COMPOSITE DEAD LOAD	933.00	41.84	44.64	0.00	44.64
COMPOSITE DEAD LOAD (INCLUDING FUTURE WEARING SURFACE)	100.60	41.84	4.81	0.00	4.81
PHL-93 LIVE LOAD PLUS IMPACT	699.20	41.84	60.52	0.00	60.52
P-82 LIVE LOAD PLUS IMPACT	968.40	37.65	95.88	0.00	95.88
P2016-13 LIVE LOAD PLUS IMPACT	1051.40	37.65	103.94	0.00	103.94

NOTES:
UNFACTORED MAXIMUM MOMENTS, SHEARS, AND REACTIONS INCLUDE THE APPROPRIATE APPLIED DISTRIBUTION FACTOR TO MAXIMIZE THE GIVEN VALUES.
REACTIONS DO NOT INCLUDE ALLOWANCES FOR END DIAPHRAGMS, END BLOCKS OR THE PROJECTION OF THE BEAM PAST THE CENTERLINE OF BEARING

PRESTRESSED CONCRETE BEAM SECTION PROPERTIES ADJACENT BOX BEAM @ CENTERLINE SPAN		
NON-COMPOSITE	GROSS SECTION	TRANSFORMED SECTION
AREA OF BASIC BEAM, in**2	647.20	0
MOMENT OF INERTIA, in**4	75045.07	0.00
NEUTRAL AXIS TO TOP OF BEAM, in	16.97	0.00
NEUTRAL AXIS TO BOTTOM OF BEAM, in	13.03	0.00
SECTION MODULUS AT TOP OF BEAM, in**3	4422.25	0.00
SECTION MODULUS AT BOTTOM OF BEAM, in**3	5759.36	0.00

PRESTRESSED CONCRETE BEAM SECTION PROPERTIES ADJACENT BOX BEAM @ CENTERLINE SPAN -- FASCIA BEAMS		
COMPOSITE	GROSS SECTION	TRANSFORMED SECTION
MOMENT OF INERTIA, in**4	126251	130402
NEUTRAL AXIS TO TOP OF SLAB, in	17.93	18.34
NEUTRAL AXIS TO TOP OF BEAM, in	12.93	13.34
NEUTRAL AXIS TO BOTTOM OF BEAM, in	17.07	16.66
SECTION MODULUS AT TOP OF SLAB, in**3	7040	7112
SECTION MODULUS AT TOP OF BEAM, in**3	9761	9778
SECTION MODULUS AT BOTTOM OF BEAM, in**3	7398	7825

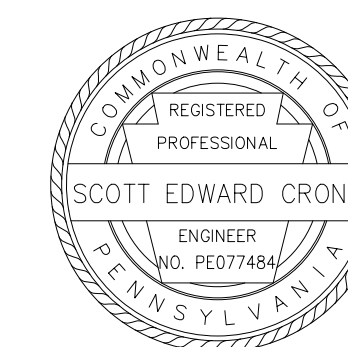
PRESTRESSED CONCRETE BEAM SECTION PROPERTIES ADJACENT BOX BEAM @ CENTERLINE SPAN -- FIRST INTERIOR BEAMS		
COMPOSITE	GROSS SECTION	TRANSFORMED SECTION
MOMENT OF INERTIA, in**4	126377	130534
NEUTRAL AXIS TO TOP OF SLAB, in	17.92	18.33
NEUTRAL AXIS TO TOP OF BEAM, in	12.92	13.33
NEUTRAL AXIS TO BOTTOM OF BEAM, in	17.08	16.67
SECTION MODULUS AT TOP OF SLAB, in**3	7051	7123
SECTION MODULUS AT TOP OF BEAM, in**3	9778	9796
SECTION MODULUS AT BOTTOM OF BEAM, in**3	7401	7828

PRESTRESSED CONCRETE BEAM SECTION PROPERTIES ADJACENT BOX BEAM @ CENTERLINE SPAN -- INTERIOR BEAMS		
COMPOSITE	GROSS SECTION	TRANSFORMED SECTION
MOMENT OF INERTIA, in**4	126377	130534
NEUTRAL AXIS TO TOP OF SLAB, in	17.92	18.33
NEUTRAL AXIS TO TOP OF BEAM, in	12.92	13.33
NEUTRAL AXIS TO BOTTOM OF BEAM, in	17.08	16.67
SECTION MODULUS AT TOP OF SLAB, in**3	7051	7123
SECTION MODULUS AT TOP OF BEAM, in**3	9778	9796
SECTION MODULUS AT BOTTOM OF BEAM, in**3	7401	7828

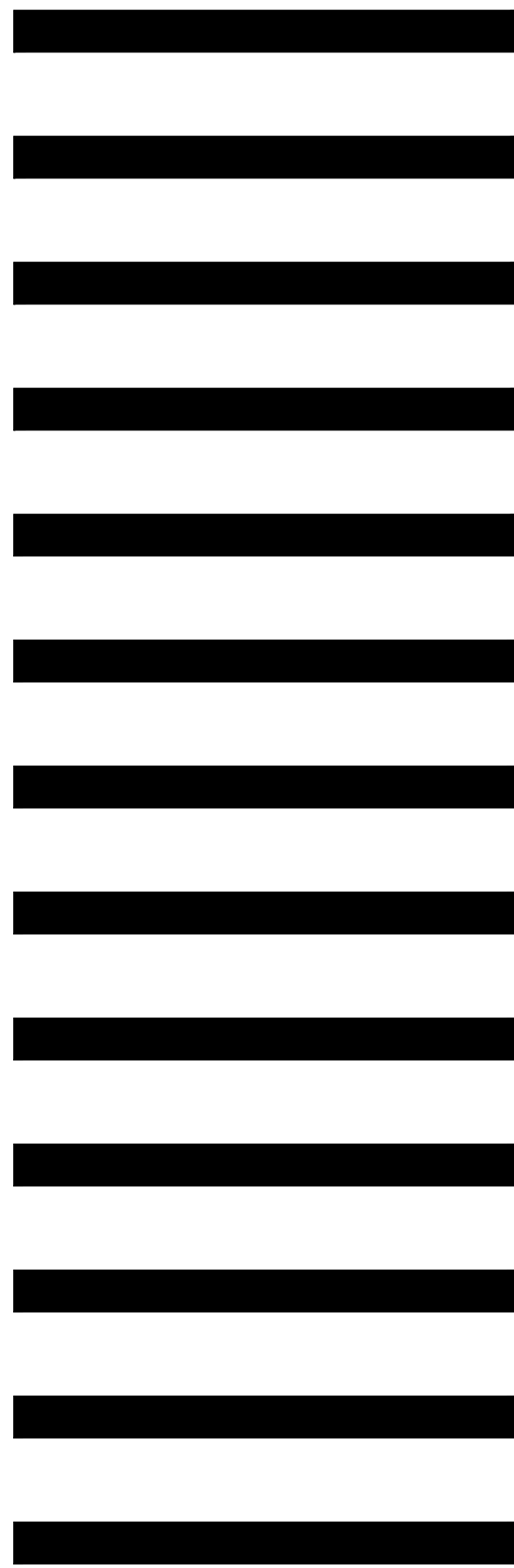
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REVISIONS					

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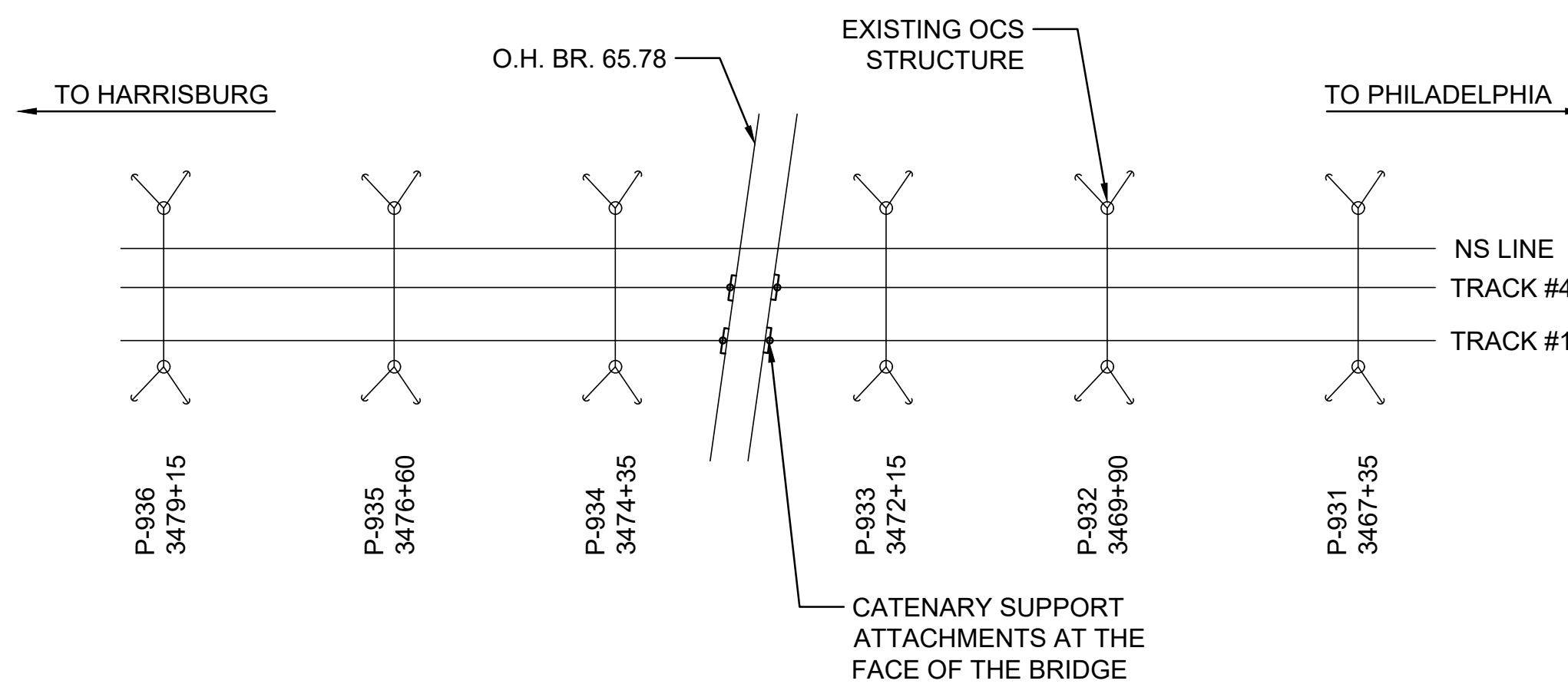
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	
LANCASTER COUNTY S. R. 3028 SEC 003 STA 38+80.97 SEGMENT 0200 OFFSET 0000 S. R. 3028-003 STA 38+80.97 OVER AMTRAK 1-SP COMP P/S CONC ADJ BOX BM BRIDGE MOMENTS, SHEARS & BEAM PROPERTIES	
RECOMMENDED _____	SHEET 23 OF 23
S-31649	



FILENAME: N:\57855-07-P\TrneyRoad\Drawings\Structures\3028003-STVM.dgn
DATE: 12/11/2025 TIME: 9:05:53 AM



PENNDOT BPT KEYSTONE CORRIDOR
 SR 3028 PITNEY ROAD
 ELECTRIC TRACTION
 LANCASTER, PENNSYLVANIA



KEY PLAN



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 Engineering Design
 National Railroad Passenger Corporation
 30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



LANCASTER, PENNSYLVANIA
 PENNDOT BPT KEYSTONE CORRIDOR
 SR 3028 PITNEY ROAD
 COVER SHEET

DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	001 OF 031
SHEET	ET-01

FILE NAME: ET-01_Cover_Sheet.dwg
 PLOT NAME: Dec. 22, 25 - 12:50 PM

INDEX OF DRAWINGS

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1	ET-01	COVER SHEET
2	ET-02	INDEX SHEET
3	ET-03	GENERAL NOTES
4	ET-04	LEGEND AND ABBREVIATIONS
5	ET-05	CONDUCTOR PARTICULARS
6	ET-06	TENSION INSTALLATION TABLES
7	ET-07	EXISTING SECTIONALIZING PLAN
8	ET-08	STAGING PLAN
9	ET-09	EXISTING WIRE PROFILE TRACK 4 ANCILLARY
10	ET-10	EXISTING WIRE PROFILE TRACK 1 ANCILLARY
11	ET-11	EXISTING LAYOUT PLAN
12	ET-12	PROPOSED LAYOUT PLAN
13	ET-13	EXISTING WIRE PROFILE TRACK 4 CATENARY
14	ET-14	TEMPORARY WIRE PROFILE TRACK 4 CATENARY
15	ET-15	PROPOSED WIRE PROFILE TRACK 4 CATENARY
16	ET-16	EXISTING WIRE PROFILE TRACK 1 CATENARY
17	ET-17	TEMPORARY WIRE PROFILE TRACK 1 CATENARY
18	ET-18	PROPOSED WIRE PROFILE TRACK 1 CATENARY
19	ET-19	EXISTING AND PROPOSED WIRE ELEVATION AT BRIDGE
20	ET-20	PROPOSED SED STRUCTURE P-933
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22	ET-22	PROPOSED SED STRUCTURE P-935
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24	ET-31	PROP. GROUNDING AND BONDING
25	ET-32	DEMOLITION SHIELD
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27	ET-50	SUSPENSION ASSEMBLIES
28	ET-51	HANGER ASSEMBLIES
29	ET-52	GROUNDING AND BONDING ASSEMBLIES
30	ET-90	ASSEMBLY BILL OF MATERIALS
31	ET-91	PRODUCT BILL OF MATERIALS

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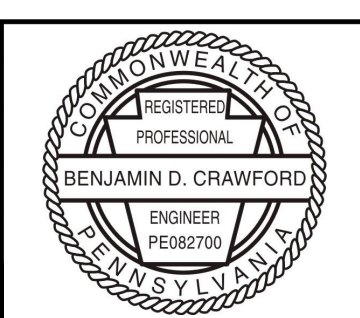
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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD

INDEX SHEET

DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	002 OF 031
SHEET	ET-02

GENERAL NOTES

- PERFORM WORK IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS PERTAINING TO THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. PERFORM WORK IN ACCORDANCE WITH THE NATIONAL RAILROAD PASSENGER CORPORATION'S (AMTRAK) SPECIFICATIONS REGARDING SAFETY AND PROTECTION OF RAILROAD TRAFFIC AND PROPERTY (LATEST VERSION).
- EXAMINE THE SITE AND VERIFY CONTROLLING PHYSICAL CONDITIONS, CONSTRUCTION DATA AND UTILITIES.
- BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES WITHIN THE DRAWINGS, SPECIFICATIONS, CODES OR STANDARDS FOR CORRECTIVE ACTION PRIOR TO PROCEEDING WITH CONSTRUCTION.
- FIELD CHANGES TO THE STRUCTURES REQUIRE PRIOR ENGINEERING REVIEW AND WRITTEN CONFIRMATION.
- ALL CONSTRUCTION WORK SHALL BE PERFORMED BY QUALIFIED, EXPERIENCED PERSONNEL.
- VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION. IF FIELD CONDITIONS PROHIBIT USE OF THE CONTRACT DRAWING DESIGN DETAILS, SUBMIT ALTERNATE DESIGN DETAILS FOR APPROVAL BY THE ENGINEER.
- BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL CONFIRM AND ESTABLISH WITH AMTRAK THE EXACT SEQUENCES AND PROCEDURES TO BE UTILIZED BASED ON MANPOWER, EQUIPMENT, MATERIAL AND TRACK AVAILABILITY.
- CONTRACTOR SHALL PROTECT ALL EXISTING FACILITIES WHETHER EXPLICITLY SHOWN OR NOT.
- TEMPORARY FENCE AND PROTECTIVE SHIELD TO BE GROUNDED IN ACCORDANCE WITH NEC, AREMA & AMTRAK STANDARDS.
- ANY WORK TO BE PERFORMED WITHIN 15 FEET OF THE OVERHEAD WIRES MUST BE DONE UNDER THE PROTECTION OF AN AMTRAK CLASS "A" EMPLOYEE.
- WORK AFFECTING AMTRAK'S FACILITIES MUST BE IN ACCORDANCE WITH ALL THE REQUIREMENTS IN AMTRAK EP3014_01520 - REQUIREMENTS FOR TEMPORARY PROTECTION SHIELDS FOR DEMOLITION.
- ALL WORK MUST CONFORM TO AMTRAK'S EP-3014 MAINTENANCE AND PROTECTION OF RAILROAD TRAFFIC DURING CONTRACTOR OPERATION.
- PROVIDE A TEMPORARY PROTECTIVE BARRIER IN ANY LOCATION WHERE THE AMTRAK CATENARY WILL BE EXPOSED TO DEMOLITION/CONSTRUCTION ABOVE, OR IN ANY LOCATION WHERE DEBRIS, CONSTRUCTION MATERIAL, OR WORKERS WILL HAVE POTENTIAL TO BE WITHIN THE DIRECT VICINITY OF THE ENERGIZED CATENARY ACCORDING TO ET-1447-D DRAWING.
- ALL UNDERGROUND UTILITIES, CABLE AND FACILITIES MUST BE LOCATED AND PROTECTED BEFORE ANY EXCAVATING, DRILL, BORING/DIRECTIONAL DRILLING, GROUND PENETRATING ACTIVITIES OR CONSTRUCTION TAKES PLACE. CONTACT AMTRAK ENGINEERING TO HAVE ALL AMTRAK UNDERGROUND UTILITIES AND ASSETS LOCATED.
- WHENEVER WORK IS PERFORMED IN THE VICINITY OF ELECTRIFIED TRACKS AND/OR HIGH VOLTAGE WIRES, PARTICULAR CARE MUST BE EXERCISED, AND RAILROAD'S REQUIREMENTS REGARDING CLEARANCE TO BE MAINTAINED BETWEEN EQUIPMENT AND TRACKS AND/OR ENERGIZED WIRES. THE CONTRACTORS MUST SUPPLY AN ADEQUATE LENGTH OF GROUNDING CABLE (4/0 COPPER WITH APPROVED CLAMPS) FOR EACH PIECE OF EQUIPMENT WORKING NEAR OR ADJACENT TO ANY OVERHEAD WIRE. PLEASE REFER TO AMTRAK ENGINEERING PRACTICE 3014-01141A FOR EQUIPMENT GROUNDING.
- BRIDGE PROTECTION BARRIERS WILL BE INSTALLED PER E.T. STANDARD DRAWING ET-1446-D.

STRUCTURAL STEEL CONSTRUCTION

- PROVIDE STEEL IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS FOR STRUCTURAL STEEL BUILDING-ALLOWABLE STRESS DESIGN (LATEST VERSION) (INCLUDING FABRICATION AND ERECTION) AND THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION'S MANUAL FOR RAILWAY ENGINEERING (LATEST EDITION).
- ALL STRUCTURAL STEEL PARTS SHALL CONFIRM TO ASTM A992, GRADE 50 FOR ROLLED SHAPES AND ASTM A-36 FOR ALL OTHER SHAPES.
- ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 UNLESS NOTED OTHERWISE. THREADED RODS AND ATTACHED HARDWARE SHALL BE COMPLETELY GALVANIZED IN ACCORDANCE WITH ASTM A153.
- BOLTS SHALL BE ASTM F3125 GRADE A325 UNLESS OTHERWISE NOTED. BOLTS SHALL BE 7/8" Ø IN 15/16" Ø HOLES UNLESS OTHERWISE NOTED. BOLT HOLES SHALL BE STANDARD ROUND HOLES WITH A DIAMETER 1/16" LARGER THAN THE BOLT DIAMETER UNLESS OTHERWISE NOTED.
- NUTS SHALL BE AMERICAN STANDARD SEMI-FINISHED HEAVY HEXAGONAL CONFORMING TO ASTM A563 AND ANSI B 18.2.2.
- NUTS AND WASHERS SHALL CONFORM TO ASTM A563 & F436 AND SHALL BE GALVANIZED PER ASTM A153 UNLESS OTHERWISE NOTED.
- ALL WELDING IS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE AMERICAN WELDING SOCIETY (INCLUDING THE STRUCTURAL STEEL WELDING CODE D1.1, LATEST EDITION). WELD METAL SHALL MATCH BASE METAL USING PROPER SERIES E70XX ELECTRODES PER AWS A5.1 AND IN ACCORDANCE WITH ASTM A233.
- FIELD WELDS SHALL NOT BE PERMITTED UNLESS AUTHORIZED BY THE ENGINEER.
- SUBMIT ELECTRONIC VERSIONS (PDF) OF SHOP DRAWINGS FOR REVIEW TO THE ENGINEER PRIOR TO FABRICATION. REVIEW OF SHOP DRAWINGS IS FOR THE PURPOSE OF REVIEWING THE GENERAL CONFORMANCE TO THE OVERALL STRUCTURAL DESIGN.
- HARD MARKS SHALL BE STAMPED ONTO EACH MEMBER 1/2" HIGH, 1/32" MIN INDENTATION.
- ASSEMBLIES SHALL BE SHIPPED LOOSELY ASSEMBLED, WHERE FEASIBLE.

REFERENCE

- EXISTING AMTRAK DRAWINGS:
 ET-LNC-12KV
 29C-55-5
 29C-409-10
 29C-410-13
 29C-11108-3
 ET-LNC-6.9KV
 ET-LNC-138KV
 P-926 - 29E-1926-5
 P-927 - 29E-1927-6
 P-928 - 29E-1928-6
 P-929 - 29E-1929-6
 P-930 - 29E-1930-5
 P-931 - 29E-1931-6
 P-932 - 29E-1932-6
 P-933 - 29E-1933-6
 P-934 - 29E-1934-6
 P-935 - 29E-1935-6
 P-936 - 29E-1936-6
 P-937 - 29E-1937-6
 P-938 - 29E-1938-5
 P-939 - 29E-1939-6
 P-940 - 29E-1940-6
 P-941 - 29E-1941-6
- TOPO SURVEY:
 110401-DonahueM-WireElevSections 5/20/2020
 SR3028-CatPole-XS-110331 5/20/2020
 5785507-srv 7/22/2020
 211213-Pitney.srv 1/5/2022
- BRIDGE & TRACK:
 3028003-GP-01_ELEV. - General Plan
 3028003-GP-01_PLAN - General Plan
 3028003-GP-01_RDWY - EX Base Map 3D
 3028003-GP-01_RDWY - EX Contours
 3028003-GP-01_Survey Points
 3028003-GP-01_TYP. SECT.

DIVISION OF WORK AND MATERIAL SUPPLY					
ITEM	DESCRIPTION	MATERIAL	FABRICATION	ERECTION	LABOR
1	REMOVAL OF NEUTRALIZING AND GROUND WIRES ON WOOD POLES	C	R	R	R
2	INSTALLATION OF BONDING AND GROUNDING SYSTEM (SEE NOTE 2)	C	C	C	C
3	INSTALLATION OF CATENARY WIRE SUPPORTING ASSEMBLIES	C	R	R	R
4	CATENARY WIRE MODIFICATIONS	C	R	R	R
5	PROTECTION SHIELD AND BARRIERS	C	C	C	C

R = AMTRAK FORCE ACCOUNT
 C = CONTRACTOR
 * = SHOP FABRICATION

NOTES:

- CATENARY INCLUDES THE SUPPORT INSULATOR AND ANY ASSOCIATED HARDWARE.
- CONTRACTOR SHALL INSTALL THE GROUND WIRES FOR BRIDGE PROTECTION SHIELD AND BARRIERS AND THE NEW BRIDGE. AMTRAK WILL MAKE THE FINAL CONNECTION TO THE CATENARY POLES.

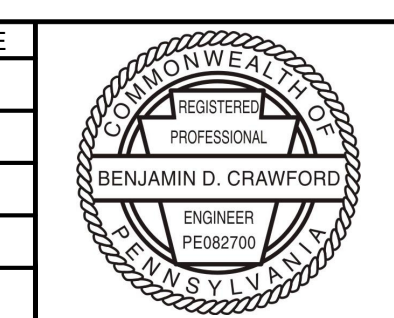
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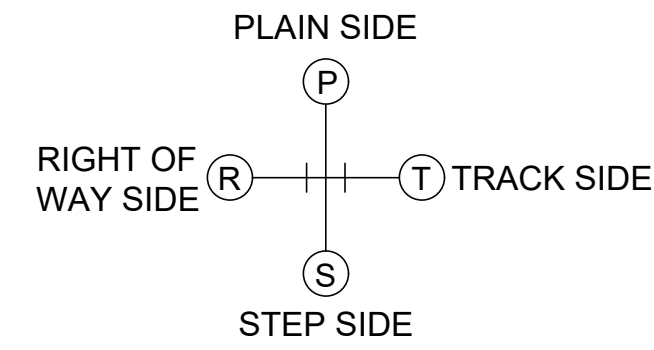
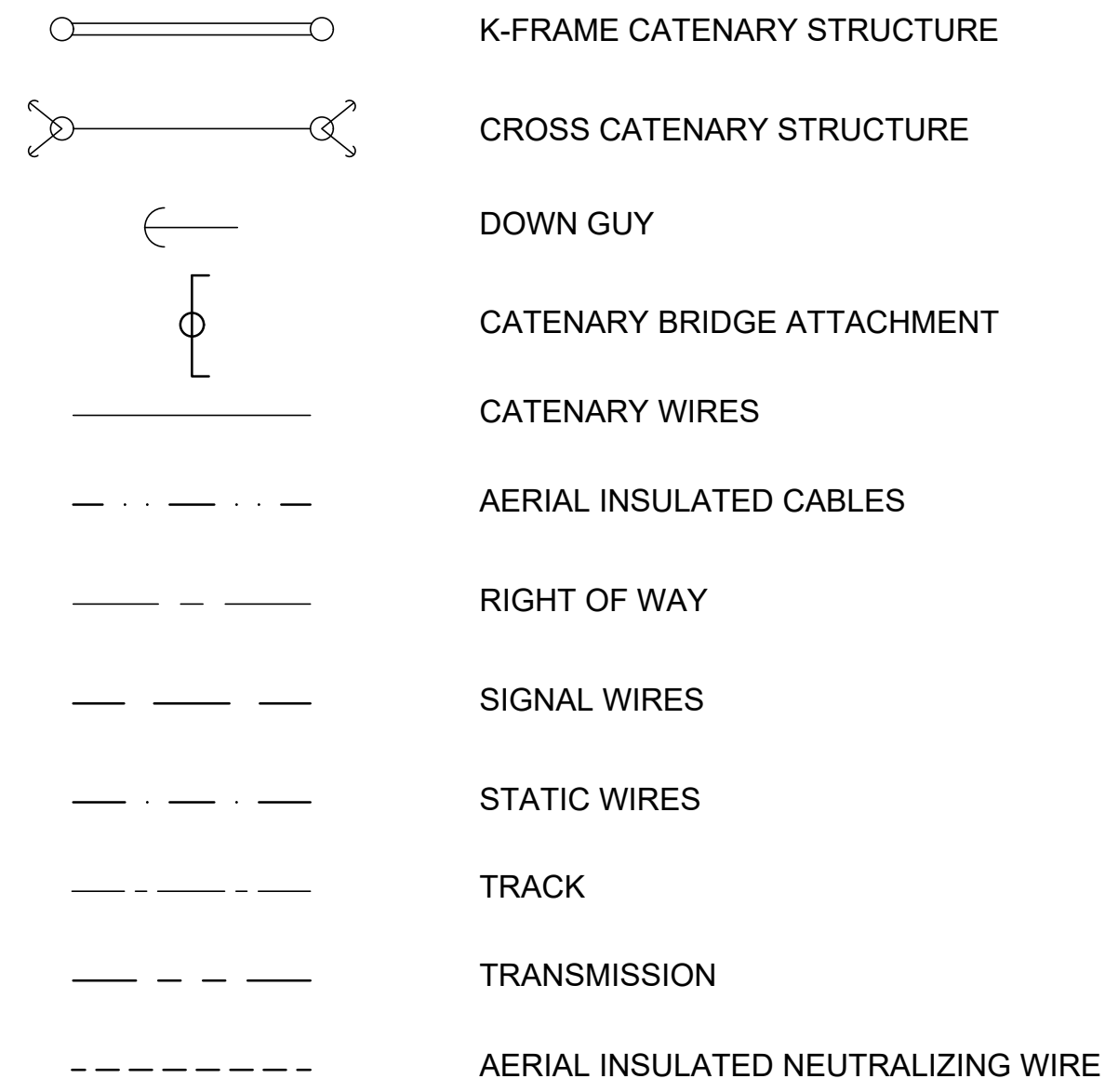


LANCASTER, PENNSYLVANIA
 PENNDOT BPT KEYSTONE CORRIDOR
 SR 3028 PITNEY ROAD
GENERAL NOTES
 DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	003 OF 031
SHEET	
ET-03	

FILE NAME: ET-03_General_Notes.dwg
 PLOT NAME: Dsc_22_25 - 12:26 PM

LEGEND



ABBREVIATIONS

AVE	AVENUE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ACSR	ALUMINUM CONDUCTOR STEEL REINFORCED
AL	ALUMINUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUX	AUXILIARY
B&G	BONDING AND GROUNDING
BRZ	BRONZE
B/F	BOTTOM OF FOUNDATION
℄ OR C.L.	CENTERLINE
CLEAR	CLEARANCE
CU	COPPER
CW	CONTACT WIRE
C&S	COMMUNICATION AND SIGNAL
D-B	DESIGN BUILD
DE	DEAD END
DWG	DRAWING
E	EAST
EA	EACH
EL	ELEVATION
EXIST	EXISTING
FDN	FOUNDATION
FT	FEET
GRA	GRADIENT
HD	HARD DRAWN
HDG	HOT DIP GALVANIZED
H.S.	HIGH STRENGTH
HT	HEIGHT
L	ANGLE
LBS	POUNDS
LG	LONG
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MW	MESSENGER WIRE
N.T.S.	NOT TO SCALE
O/H	OVERHEAD
OOR	OUT OF RUNNING
PL	PLATE
PSI	POUND PER SQUARE INCH
PWR	POWER
QTY	QUANTITY
REF	REFERENCE
REQ'D	REQUIRED
RWAY	RIGHT OF WAY
SED	STRUCTURE ERECTION DIAGRAM
SIG	SIGNAL
ST	STREET
STA	STATION
STD	STANDARD
STR	STRUCTURE
SW	SWITCH
T&S	TELECOMMUNICATION AND SIGNAL
TBD	TO BE DEFINED
TBR	TO BE REMOVED
TEMP	TEMPORARY
T.O.C.	TOP OF CONCRETE
T/F	TOP OF FOUNDATION
T/R	TOP OF RAIL
TRK	TRACK
TYP	TYPICAL
VAR	VARIABLE
W	WEST
W/R	WIRE RUN
∅	DIAMETER
#	POUND

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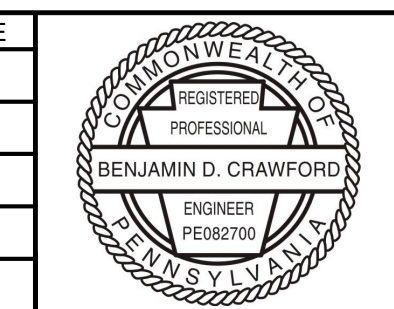
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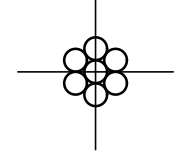
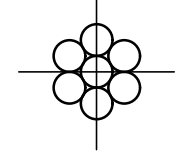
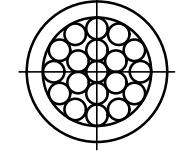
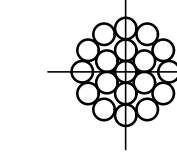
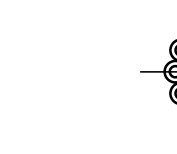
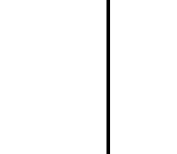
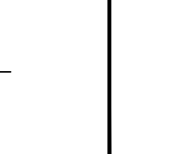
**Office of Engineering
Engineering Design**
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
LEGEND AND ABBREVIATIONS
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	004 OF 031
SHEET	
ET-04	

CONDUCTOR PARTICULARS	EXISTING SIGNAL POWER TRANSMISSION	FEEDER & FEEDER TAP ASSEMBLY	OVERHEAD GROUND (STATIC)	OVERHEAD GROUND (STATIC)	MESSENGER WIRE	AUXILIARY WIRE	CONTACT WIRE
SPECIFICATION SECTION	402 B (1)	402 C (1) a 402 J	402 d (1) a	402 D (2) a	402 G (1)	402 H (1) a	402 I (3) A
SIZE	1/0 AWG	4/0 AWG	4/0 AWG	9/16" DIA.	5/8" DIA.	4/0 AWG	4/0 AWG
MATERIAL	H.D. COPPER	H.D. COPPER	1350 AL 600V	CU-CLAD STEEL (CW)	CU/CU-CLAD STEEL (CWC)	H.D. COPPER	BRONZE-T55
CONSTRUCTION	7-STRAND	7-STRAND	19-STRAND	19-STRAND (#9)	12-H.D. CU-7-CU-CLAD STEEL	SOLID	SOLID
TYPE	-	-	-	GRADE 40 HS	4/0 TYPE "E"	GROOVED SECTION	GROOVED SECTION
OVERALL DIAMETER (IN)	0.368	0.522	0.563	0.572	0.613	0.482	0.482
CROSS SECTIONAL AREA (SQ. IN)	0.0829	0.1662	0.1954	0.1954	0.2239	0.1665	0.1665
ASTM	B 8 CLASS A	B 8 CLASS A	B 230	B 228	B 229	B 47	B 9
INSULATION	-	-	XLP	-	-	-	-
WEIGHT WITHOUT ICE (LB/FT)	0.326	0.653	0.291	0.7	0.848	0.642	0.642
BREAKING LOAD (LB)	4750	9154	8680	23390	20730	7760	11490
MODULUS OF ELASTICITY (LB/SQ. IN)	1.60E+07	1.60E+07	1.00E+07	2.30E+07	1.95E+07	1.75E+07	1.81E+07
THERMAL COEFFICIENT (*F)	9.40E-06	9.40E-06	1.21E-05	7.20E-06	8.40E-06	9.40E-06	9.30E-06
JACKET	-	-	-	-	-	-	-
REMARKS	-	-	SEE NOTE 1	SEE NOTE 1	-	-	-
REFERENCE	-	-	-	-	-	-	-
SUPPLIER	-	-	-	-	-	-	-
SUPPLIER'S REFERENCE	-	-	-	-	-	-	-
TYPICAL SECTION							

NOTES:

- 1) SEE DRAWINGS ET-03 AND ET-04 FOR OCS ABBREVIATIONS AND GENERAL NOTES.

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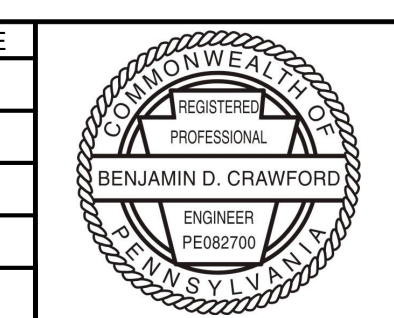
FILE NAME: ET-05_Conductor_Particulars.dwg
PLOT DATE: Dec. 22, 25 - 12:28 PM

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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
CONDUCTOR PARTICULARS
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	005 OF 031
SHEET	ET-05

TENSION INSTALLATION TABLE				
COMPOUND CATENARY, RS = 237 FT				
TEMP °F	CONTACT WIRE TENSION (LBS)	AUXILIARY WIRE TENSION (LBS)	LOADED MW TENSION (LBS)	UNLOADED MW TENSION (LBS)
-10	5331	1924	6190	5450
0	5061	1779	5937	5116
10	4793	1650	5694	4789
20	4528	1536	5461	4470
30	4265	1435	5239	4160
40	4006	1346	5029	3861
50	3750	1269	4829	3576
60	3500	1200	4640	3307
70	3256	1139	4462	3055
80	3020	1086	4295	2823
90	2793	1038	4138	2612
100	2577	994	3990	2421
110	2374	956	3853	2251
120	2186	921	3723	2100

TENSION INSTALLATION TABLE	
STATIC WIRE, RS = 237 FT	
TEMP °F	STATIC WIRE TENSION (LBS)
-10	2637
0	2448
10	2270
20	2104
30	1952
40	1813
50	1687
60	1575
70	1475
80	1386
90	1308
100	1238
110	1176
120	1120

NOTES:

- 1) SEE DRAWINGS ET-03 AND ET-04 FOR OCS ABBREVIATIONS AND GENERAL NOTES.

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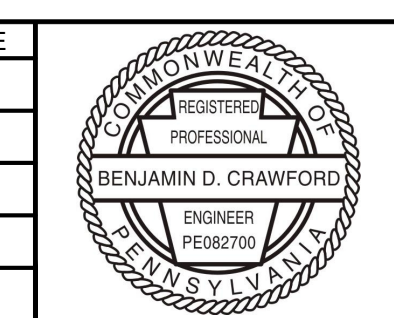
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PLOT DATE: Dec. 22, 2025 - 1:00 PM

NO.	REVISIONS	DATE	BY



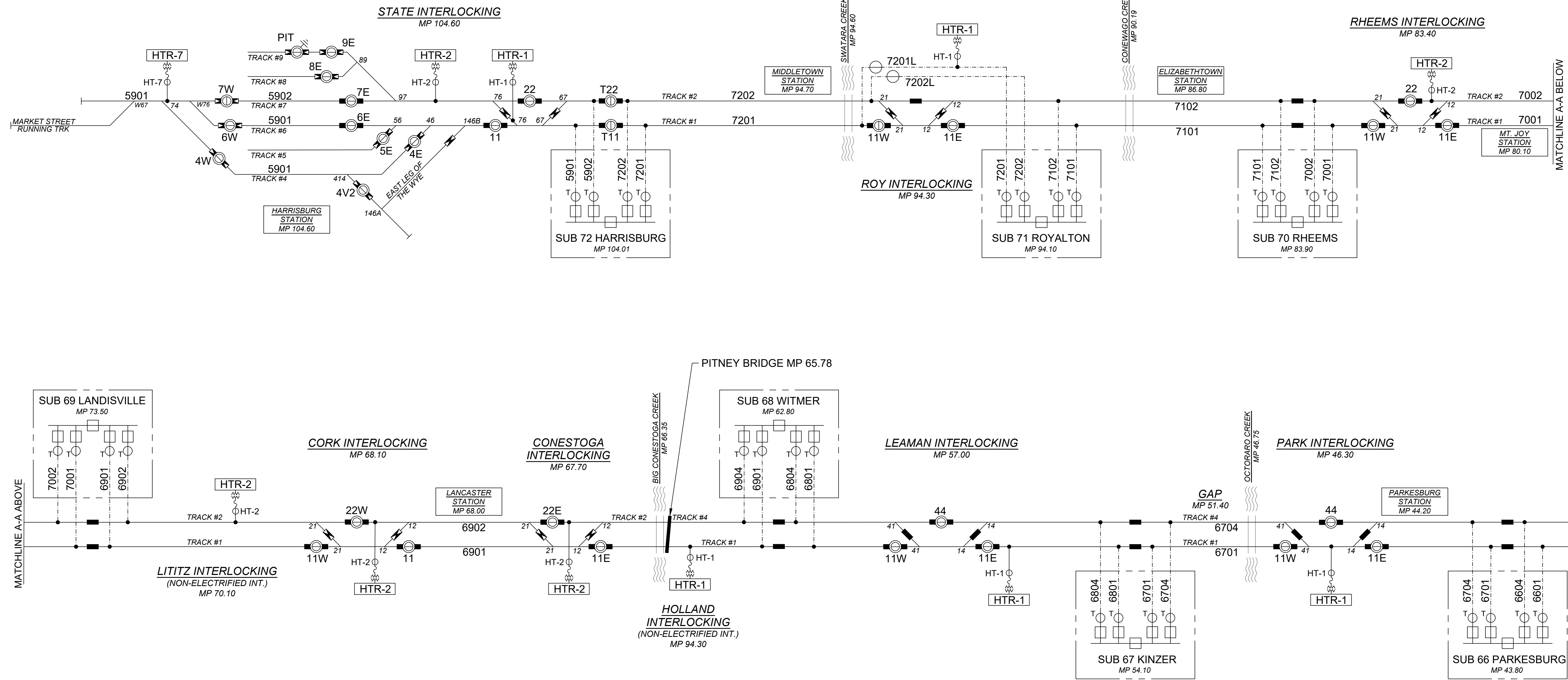
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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
TENSION INSTALLATION TABLES
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	006 OF 031
SHEET	ET-06



LANCASTER TERRITORY 12KV CATENARY DIAGRAM

LEGEND - 12KV CATENARY

- | | | | |
|---------------|---|--|---|
| — | 12KV WIRE | | MOTOR OPERATED SWITCH (NORMALLY OPEN)
W/ FULL TENSION OR SPLIT TENSION AIR BREAK |
| - - - - - | 12KV WIRE (NO TRACK) | | MOTOR OPERATED SWITCH (NORMALLY OPEN)
W/ HIGH-SPEED SECTION INSULATOR (KUPLER/FLURY) |
| - · - · - · - | 12KV FEEDER WIRE | | HAND OPERATED SWITCH (NORMALLY OPEN) |
| — — | 12KV SECTION BREAK | | HAND OPERATED SWITCH (NORMALLY CLOSED) |
| | 12KV HIGH SPEED SECTION INSULATOR
(KUPLER/FLURY) | | PERMANENT GROUND |
| | MOTOR OPERATED SWITCH (NORMALLY OPEN) | | BREAKER (NORMALLY CLOSED) |
| | MOTOR OPERATED SWITCH (NORMALLY CLOSED) | | BREAKER (NORMALLY OPEN) |
| | MOTOR OPERATED SWITCH (NORMALLY CLOSED)
W/ FULL TENSION OR SPLIT TENSION AIR BREAK | | SWITCH HEATER STATION (TAP, FUSE, & TRANSFORMER) |

NOTES:

- THIS DRAWING WAS REPRODUCED FOR REFERENCE ONLY AND IS EXISTING DRAWING ET-LNC-12KV-1_1

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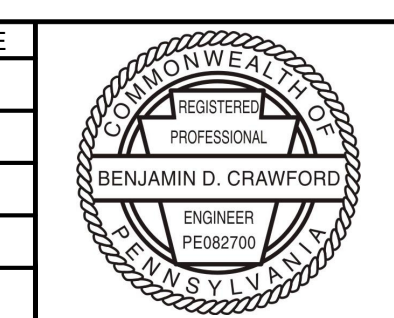
FILE NAME: ET-07_Ext_Sectionizing_Plan.dwg
PLOT NAME: Dec. 22, 25 - 12:50 PM

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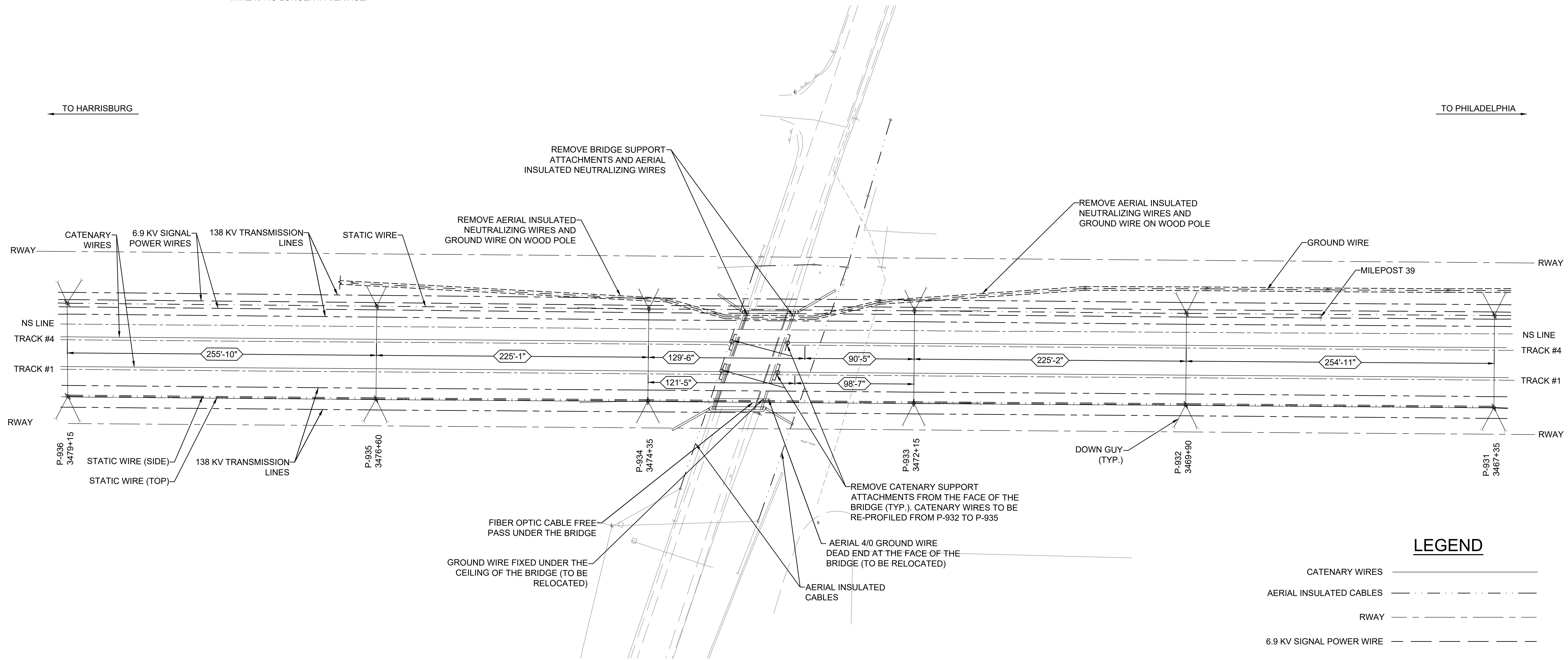
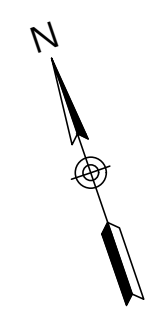
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING SECTIONALIZING PLAN

DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NO SCALE
PLAN NO.	
SHEET NO.	007 OF 031
SHEET	
ET-07	

WORK STATEMENT:

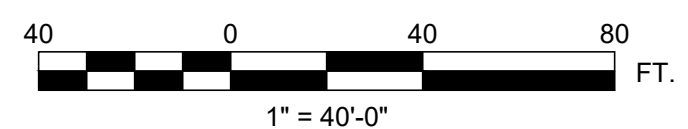
- 1) INSTALL NEW CONTACT WIRE AND MESSENGER WIRE SUPPORT ASSEMBLIES ON STRUCTURES P-933 AND P-934.
- 2) REMOVE EXISTING CATENARY SUPPORT ATTACHMENTS FROM THE FACE OF THE BRIDGE.
- 3) REPROFILE CATENARY WIRES FOR TRACKS 1 AND 4.
- 4) REMOVE NEUTRALIZING WIRE FROM BRIDGE SUPPORT ATTACHMENTS AND FROM THE EXISTING WOODEN POLES AS THE WIRE IS NO LONGER IN SERVICE.



STAGING PLAN

LEGEND

- CATENARY WIRES ————
- AERIAL INSULATED CABLES - - - - -
- RWAY - - - - -
- 6.9 KV SIGNAL POWER WIRE - - - - -
- STATIC WIRE - - - - -
- TRACK - - - - -
- 138 KV TRANSMISSION LINE ————
- AERIAL INSULATED NEUTRALIZING WIRE - - - - -
- FIBER OPTIC CABLE ————



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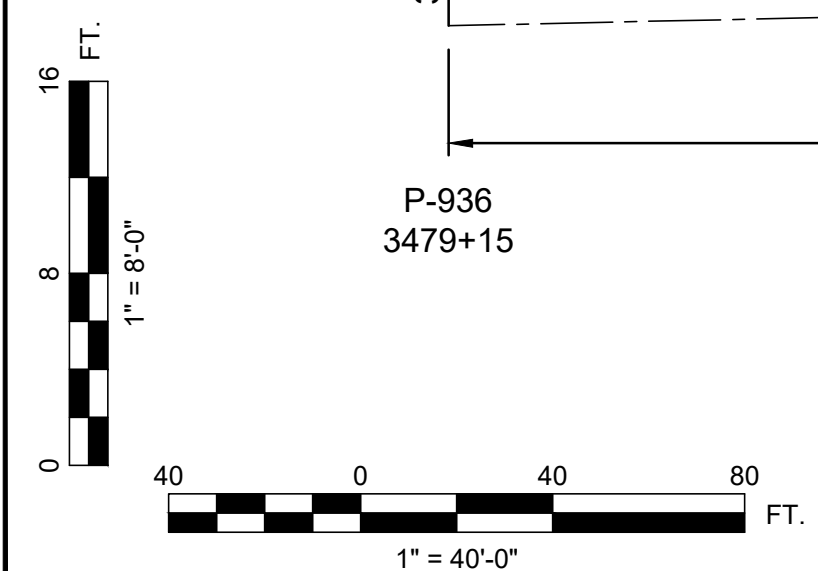
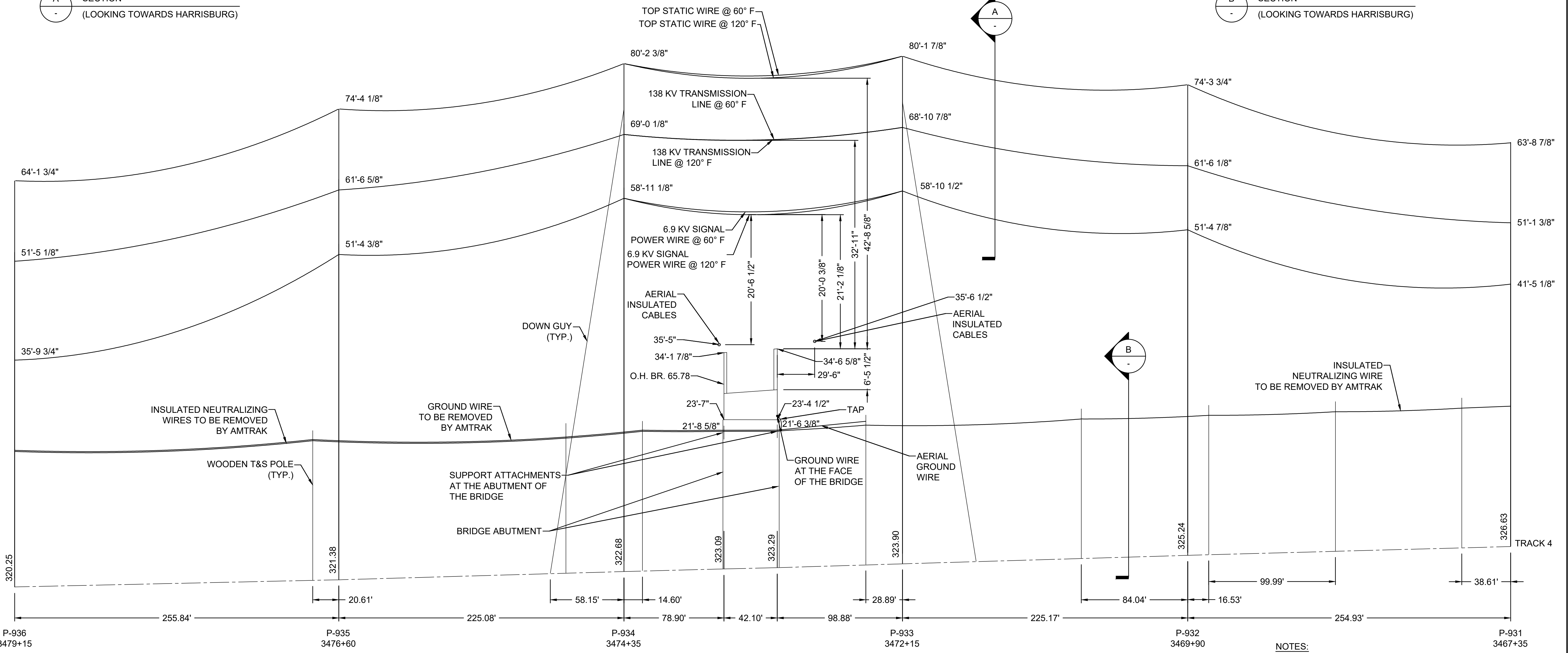
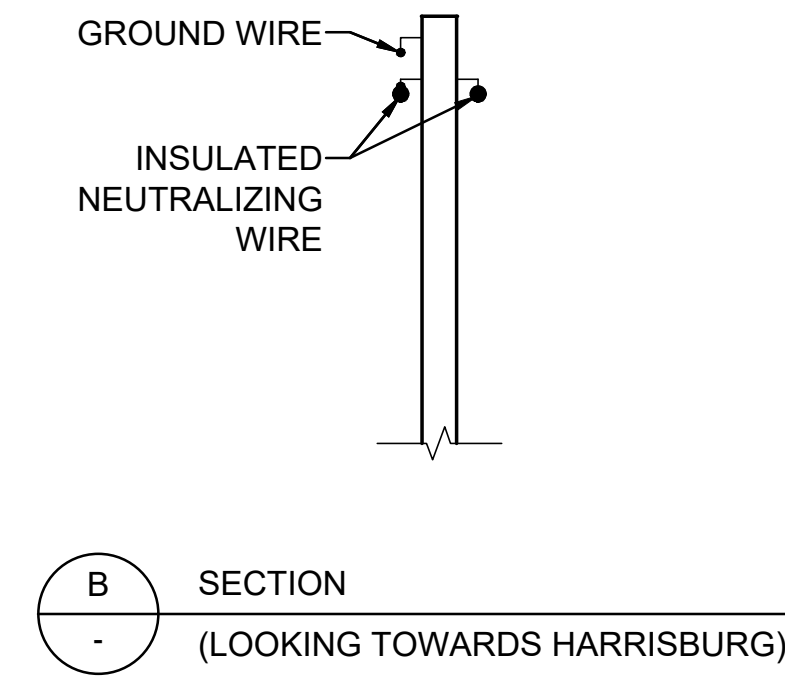
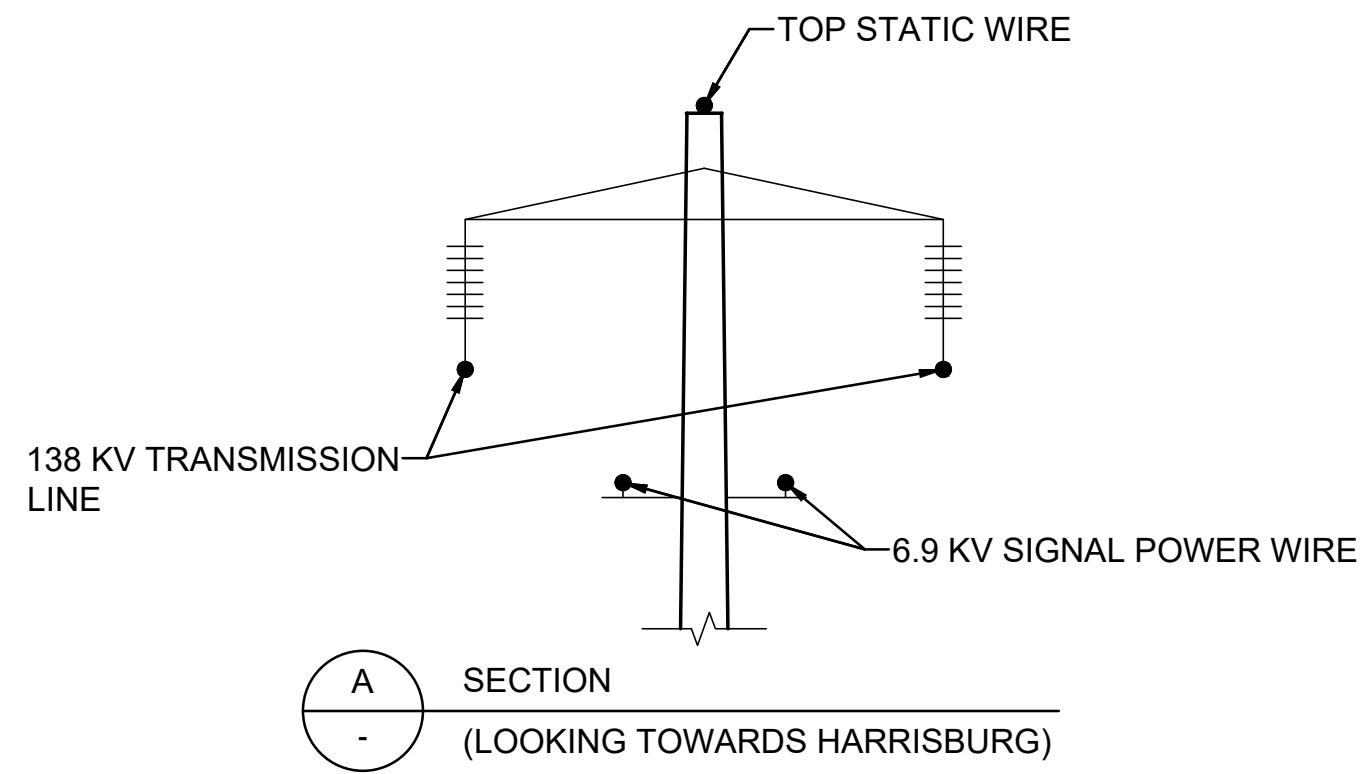


LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
STAGING PLAN
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	008 OF 031
SHEET	
ET-08	

TO HARRISBURG

TO PHILADELPHIA



**EXISTING ANCILLARY WIRE PROFILE
TRACK #4 NORTH SIDE**

- NOTES:
- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
 - 2) FOR EXISTING TRACK 4 CATENARY WIRE PROFILE AND SUPPORTS, SEE DRAWING ET-13.

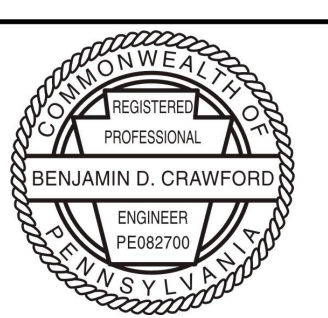
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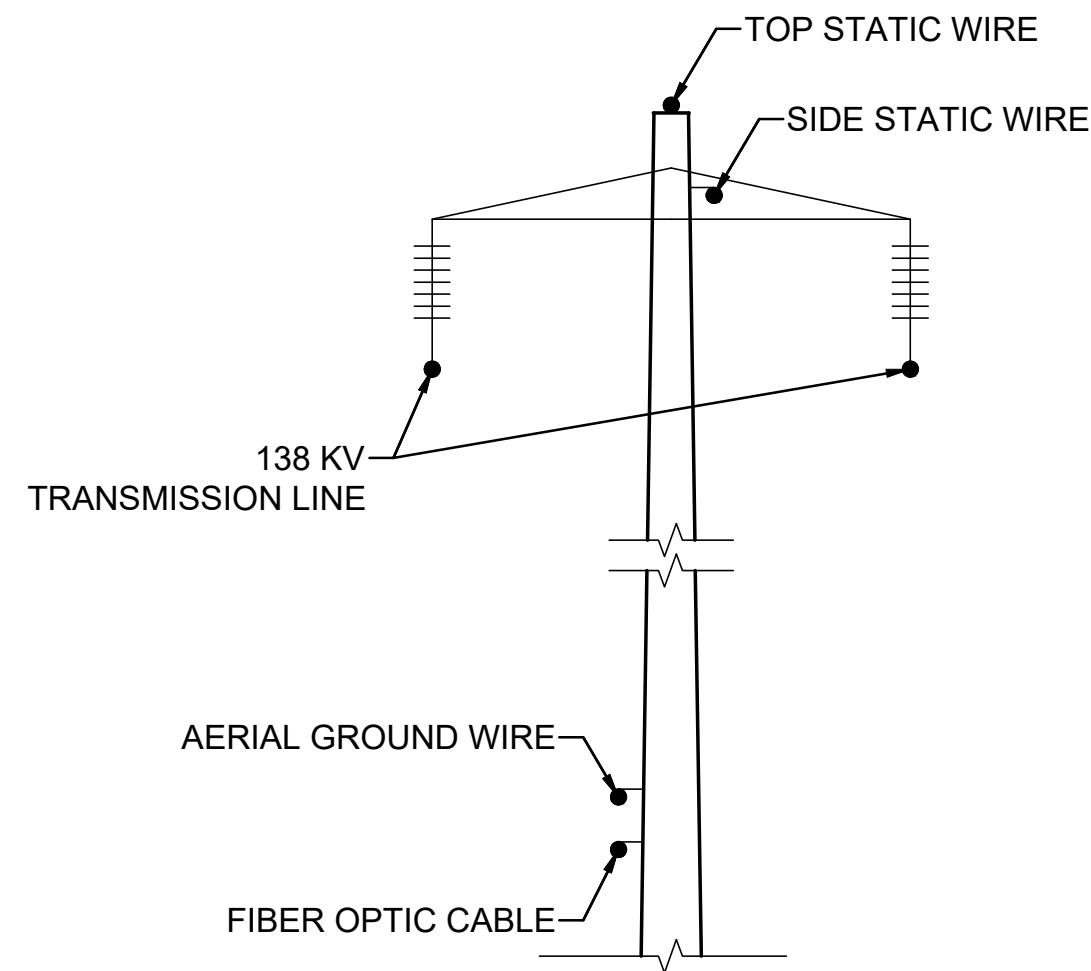


LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING WIRE PROFILE TRACK 4 ANCILLARY
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	009 OF 031
SHEET	
ET-09	

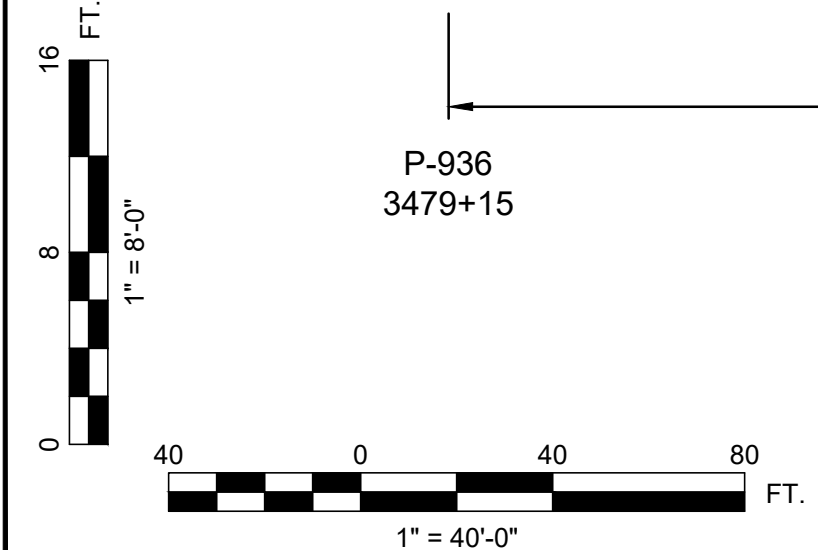
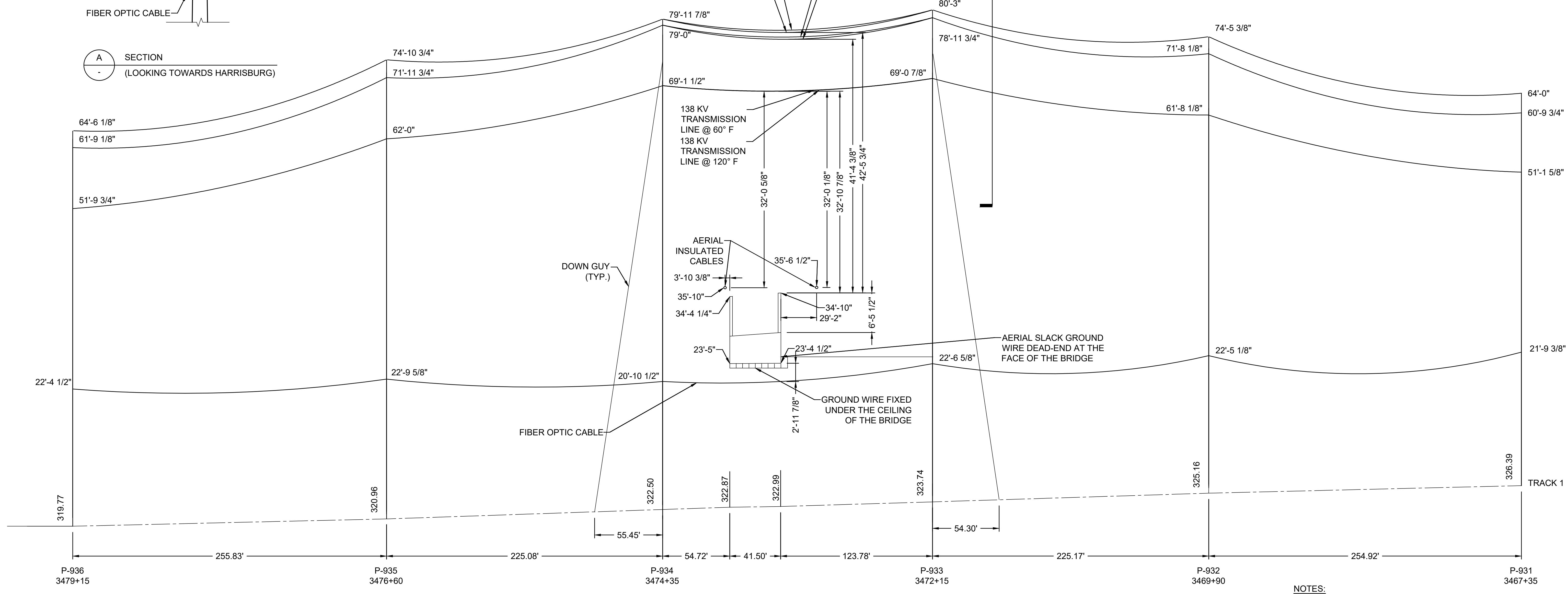
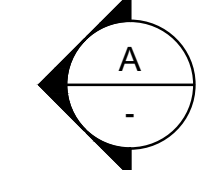
← TO HARRISBURG

→ TO PHILADELPHIA



SECTION A
(LOOKING TOWARDS HARRISBURG)

TOP STATIC WIRE @ 60° F
TOP STATIC WIRE @ 120° F
SIDE STATIC WIRE @ 60° F
SIDE STATIC WIRE @ 120° F



**EXISTING ANCILLARY WIRE PROFILE
TRACK #1 SOUTH SIDE**

- NOTES:
- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
 - 2) FOR EXISTING TRACK 1 CATENARY WIRE PROFILE AND SUPPORTS, SEE DRAWING ET-16.

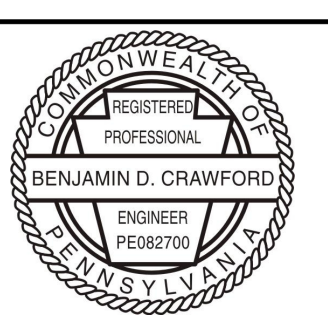
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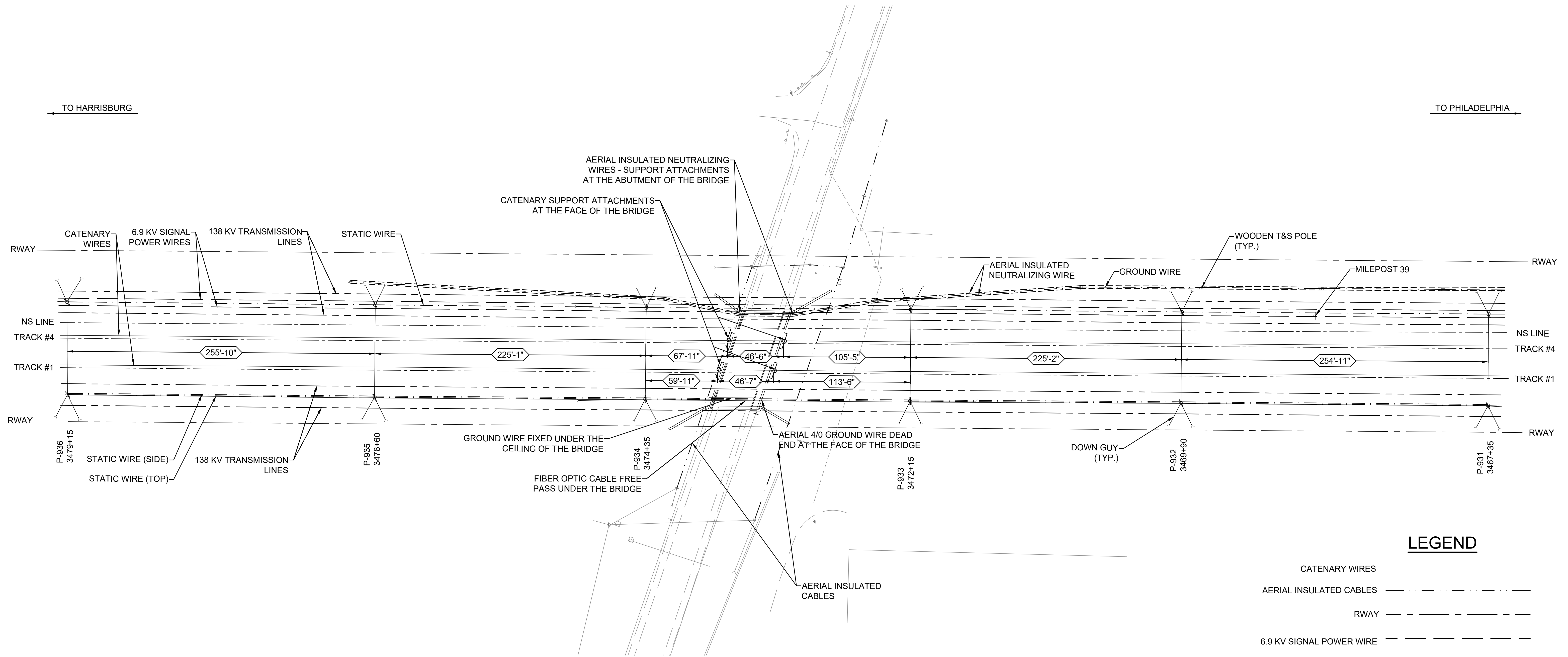
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING WIRE PROFILE TRACK 1 ANCILLARY
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	010 OF 031
SHEET	
ET-10	



← TO HARRISBURG

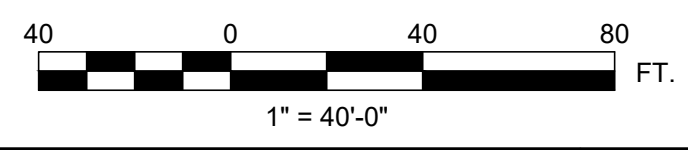
→ TO PHILADELPHIA



EXISTING WIRING PLAN

LEGEND

- CATENARY WIRES ————
- AERIAL INSULATED CABLES - - - - -
- RWAY - - - - -
- 6.9 KV SIGNAL POWER WIRE - - - - -
- STATIC WIRE - - - - -
- TRACK - - - - -
- 138 KV TRANSMISSION LINE ————
- AERIAL INSULATED NEUTRALIZING WIRE - - - - -
- FIBER OPTIC CABLE ————



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FILE NAME: ET-11_Exist_Layout_Plan.dwg
PLOT DATE: Dec. 22, 2025 - 12:25 PM

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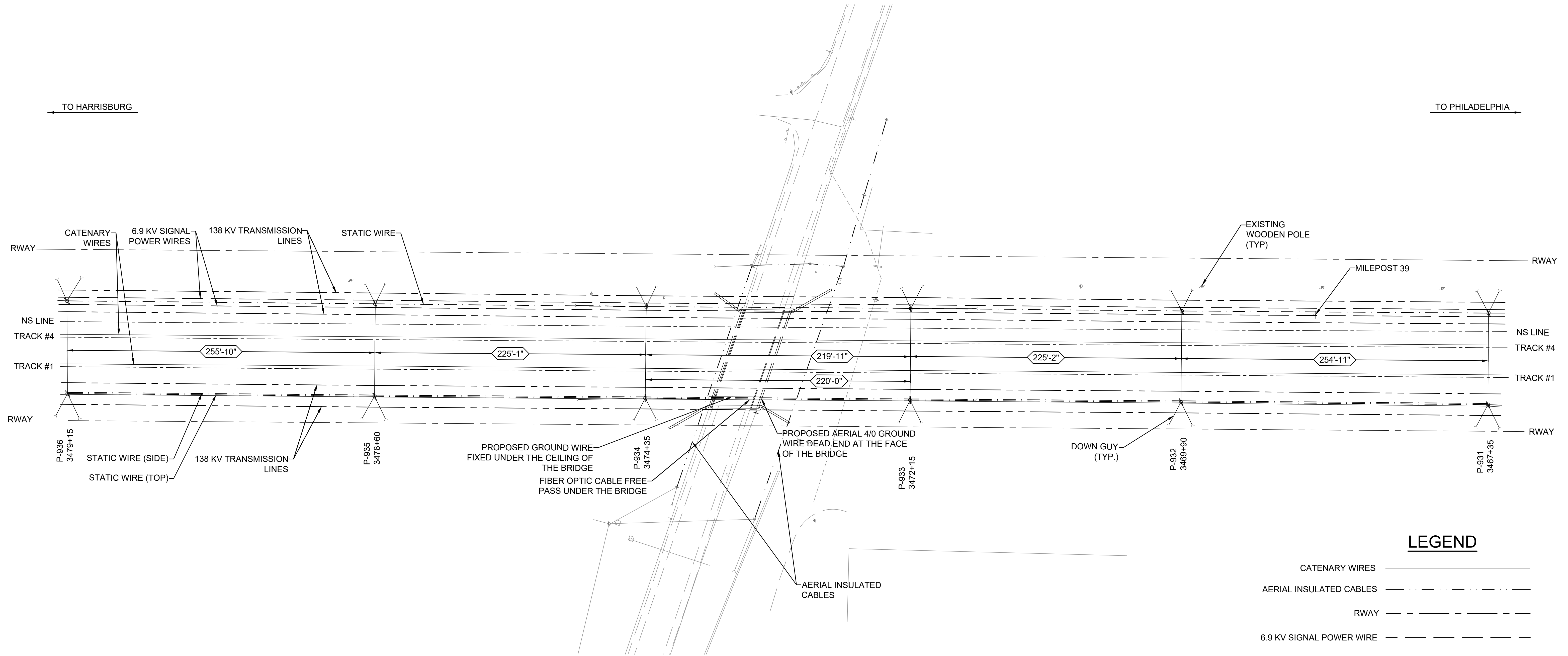
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National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING LAYOUT PLAN
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

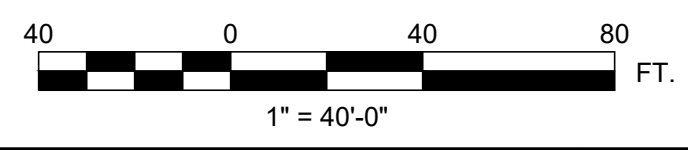
SCALE: AS SHOWN
PLAN NO. SHEET NO. 011 OF 031
SHEET
ET-11



PROPOSED WIRING PLAN

LEGEND

- CATENARY WIRES ————
- AERIAL INSULATED CABLES - - - - -
- RWAY - - - - -
- 6.9 KV SIGNAL POWER WIRE - - - - -
- STATIC WIRE - - - - -
- TRACK - - - - -
- 138 KV TRANSMISSION LINE ————
- AERIAL INSULATED NEUTRALIZING WIRE - - - - -
- FIBER OPTIC CABLE ————



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FILE NAME: ET-12_Proj_Layout_Plan.dwg
PLOT DATE: Dec. 22, 2025 - 12:27 PM

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30TH Street Station, Philadelphia, Pennsylvania 19104

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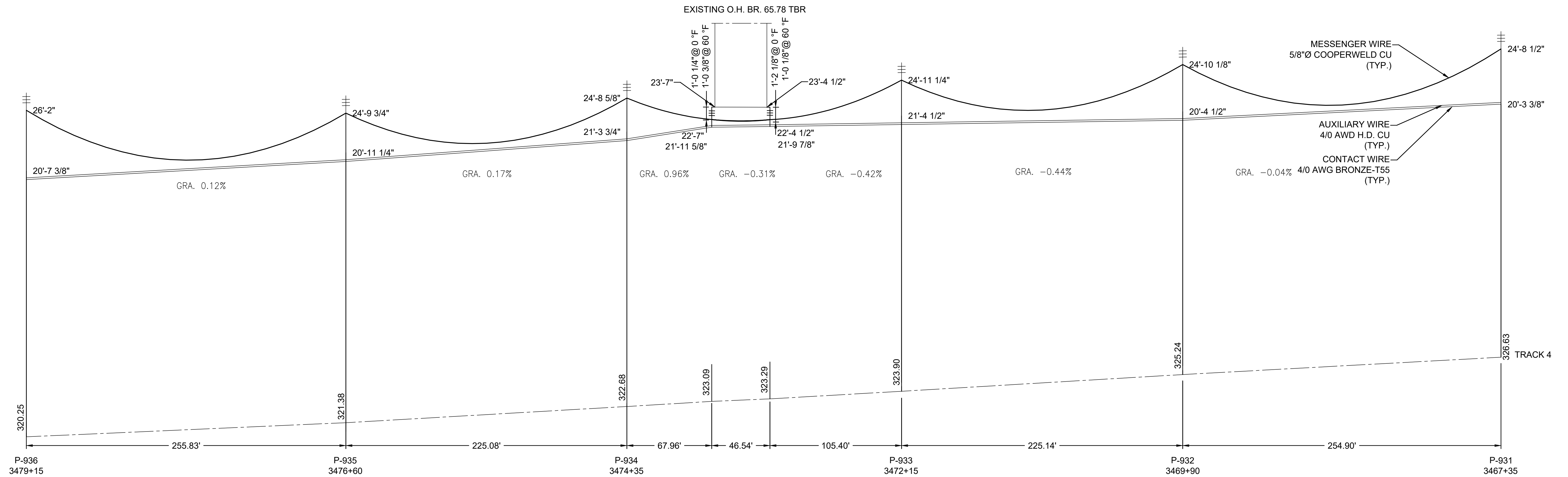


LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
PROPOSED LAYOUT PLAN
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

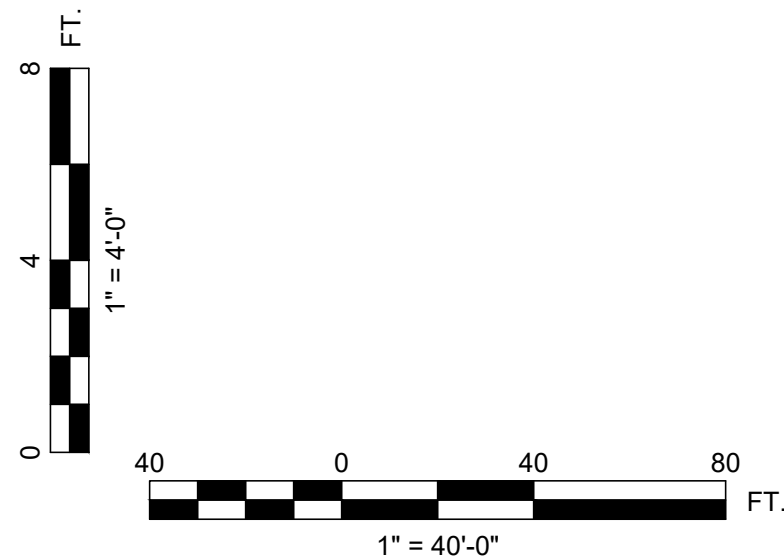
SCALE: AS SHOWN
PLAN NO. SHEET NO. 012 OF 031
SHEET
ET-12

← TO HARRISBURG

→ TO PHILADELPHIA



EXISTING CATENARY WIRING PROFILE TRACK 4



- NOTES:**
- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
 - 2) CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF THE BRIDGE AND THE CATENARY MESSENGER WIRE.

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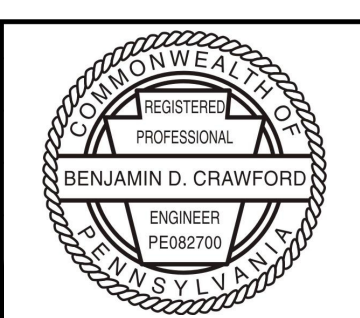
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National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD

EXISTING WIRE PROFILE TRACK 4 CATENARY

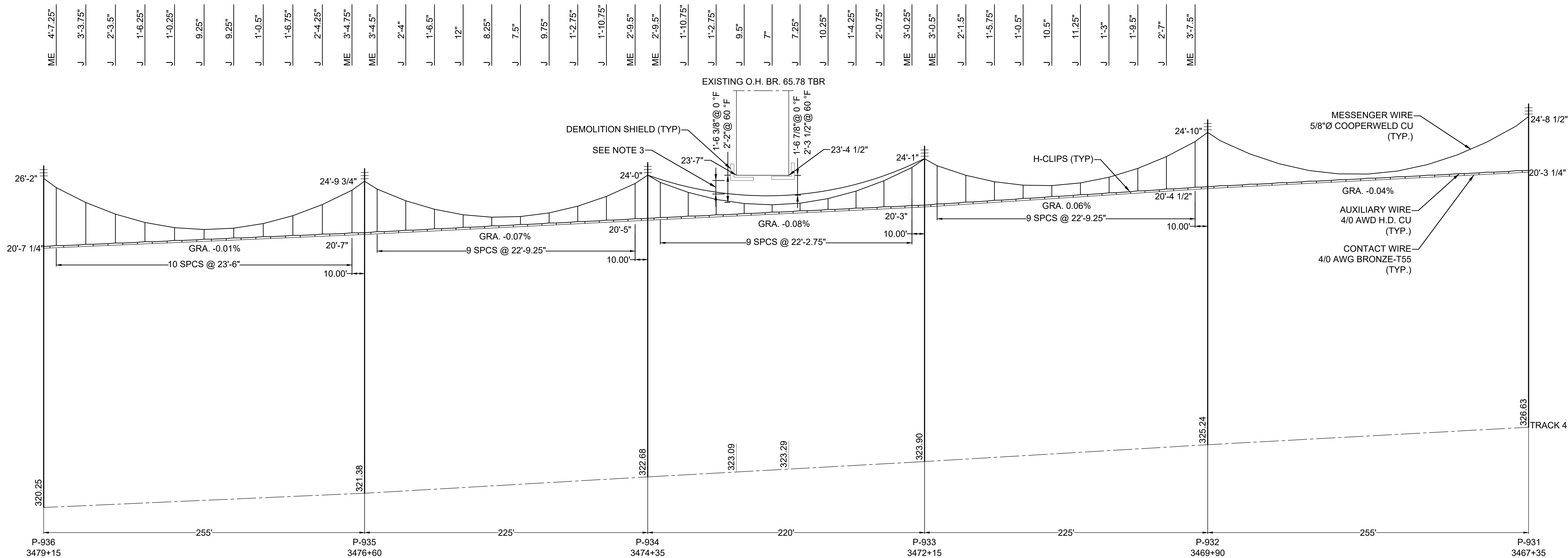
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	013 OF 031
SHEET	
ET-13	

FILE NAME: ET-13_Exist Wire Profile Track 4_Catenary.dwg
PLOT DATE: Dec. 22, 2025 - 12:50 PM

TO HARRISBURG

TO PHILADELPHIA



TEMPORARY CATENARY WIRING PROFILE TRACK 4

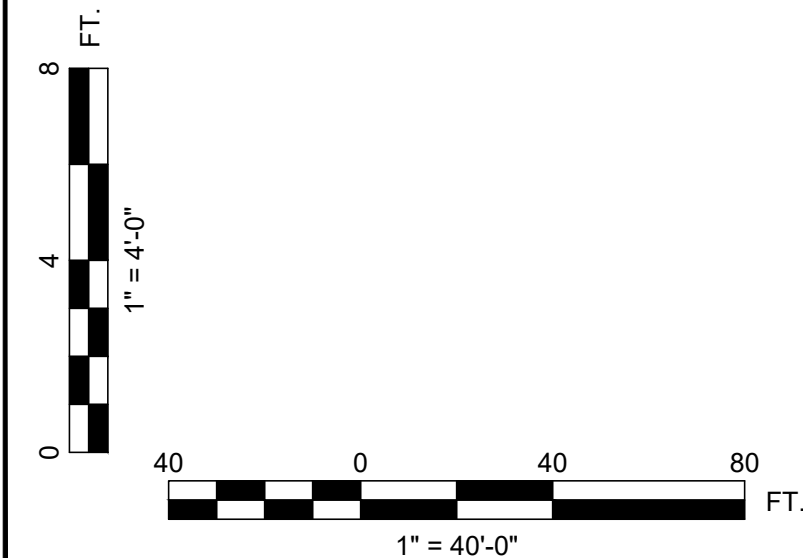
NOTES:

- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
- 2) CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF THE BRIDGE AND THE CATENARY MESSENGER WIRE.
- 3) CONTRACTOR TO INSTALL A DEMOLITION SHIELD IN ACCORDANCE WITH AMTRAK AND AREMA CLEARANCE STANDARDS. 12" OF CLEARANCE FROM LOWEST POINT OF THE TEMPORARY TIMBER SHIELD TO THE TOP OF THE MESSENGER WIRE MUST BE PROVIDED. SEE DRAWING ET-32.


BILL OF MATERIALS

MARK	DESCRIPTION	REF. DWG.	QUANTITY
J	HANGER ASSEMBLY	ET-51	33
ME	HANGER ASSEMBLY	ET-51	8
H	HANGER ASSEMBLY	ET-51	82

THIS MATERIAL IS OWNED BY AND IS THE SOLE EXCLUSIVE PROPERTY OF THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK), OFFICE OF ENGINEERING, AND IS SUPPLIED ON A CONFIDENTIAL BASIS SOLELY FOR USE IN CONNECTION WITH THE DESIGN AND CONSTRUCTION OF AMTRAK FACILITIES AND EQUIPMENT. THE REPRODUCTION, DISPLAY, SALE, OR OTHER DISPOSITION OF THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE NATIONAL RAILROAD PASSENGER CORPORATION, OFFICE OF ENGINEERING, IS PROHIBITED.

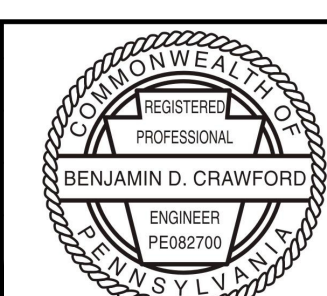



NO.	REVISIONS	DATE	BY



**Office of Engineering
Engineering Design**
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED _____ DATE _____





LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD

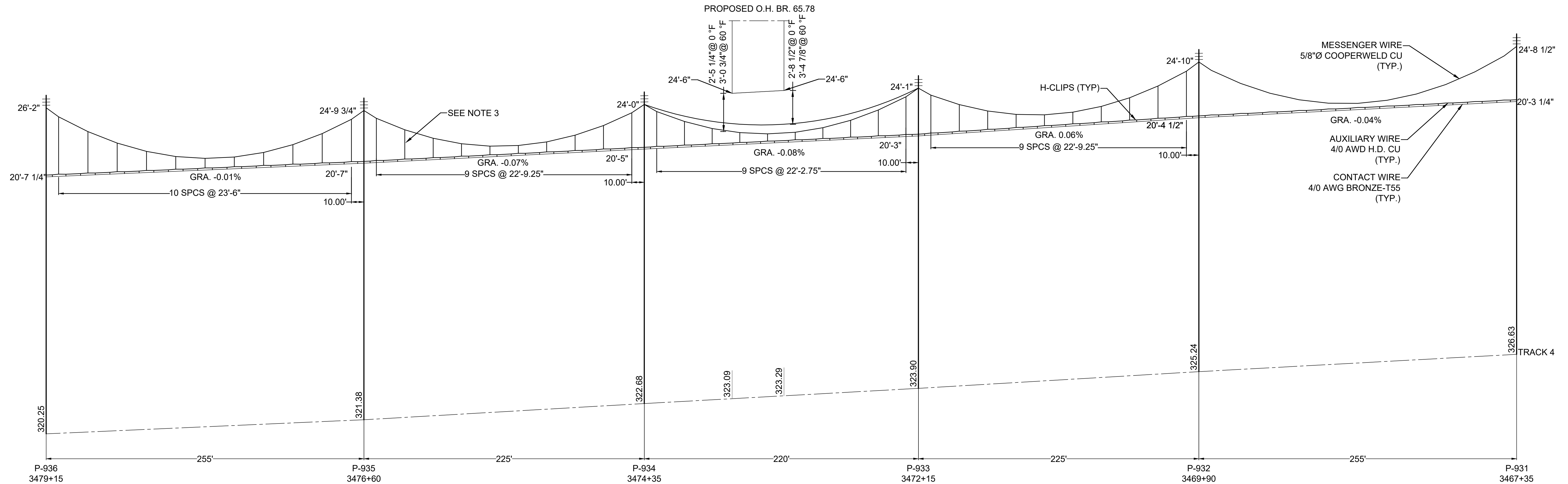
TEMPORARY WIRE PROFILE TRACK 4 CATENARY

DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

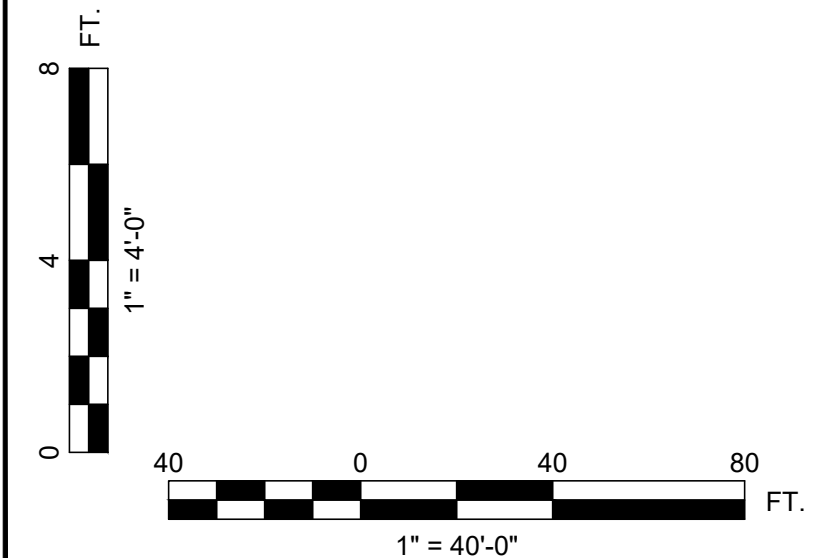
SCALE: AS SHOWN
PLAN NO. _____
SHEET NO. 014 OF 031
SHEET
ET-14

← TO HARRISBURG

→ TO PHILADELPHIA



PROPOSED CATENARY WIRING PROFILE TRACK 4



- NOTES:**
- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
 - 2) CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF THE BRIDGE AND THE CATENARY MESSENGER WIRE.
 - 3) HANGERS TO REMAIN THE SAME AS THE TEMPORARY ARRANGEMENT.

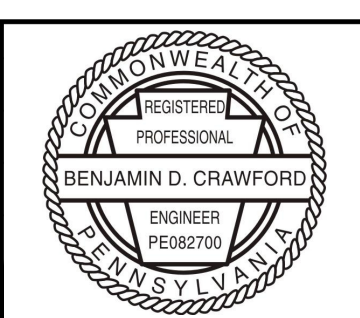
THIS MATERIAL IS OWNED BY AND IS THE SOLE EXCLUSIVE PROPERTY OF THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK), OFFICE OF ENGINEERING, AND IS SUPPLIED ON A CONFIDENTIAL BASIS SOLELY FOR USE IN CONNECTION WITH THE DESIGN AND CONSTRUCTION OF AMTRAK FACILITIES AND EQUIPMENT. THE REPRODUCTION, DISPLAY, SALE, OR OTHER DISPOSITION OF THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE NATIONAL RAILROAD PASSENGER CORPORATION, OFFICE OF ENGINEERING, IS PROHIBITED.

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National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE

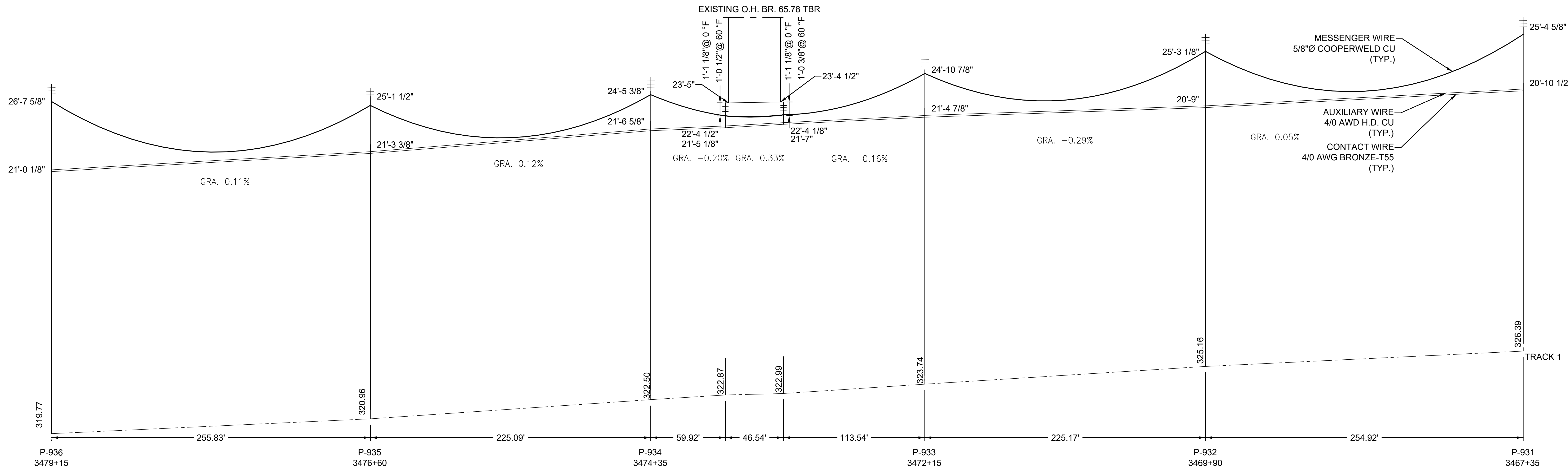


LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD

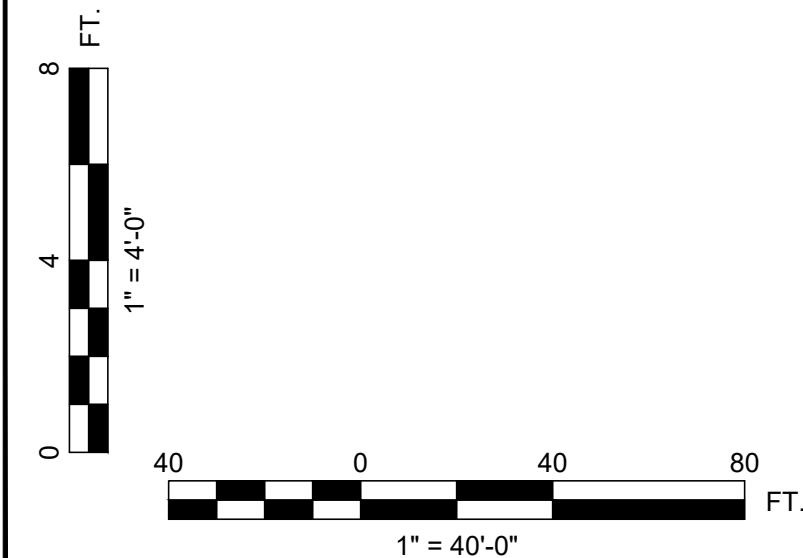
PROPOSED WIRE PROFILE TRACK 4 CATENARY

DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	015 OF 031
SHEET	
ET-15	



EXISTING CATENARY WIRING PROFILE TRACK 1



- NOTES:
- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
 - 2) CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF THE BRIDGE AND THE CATENARY MESSENGER WIRE.

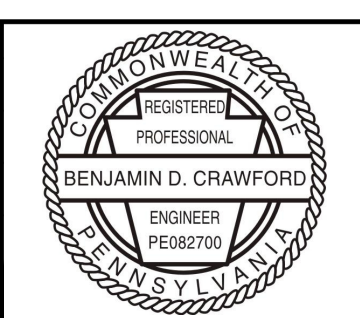
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30TH Street Station, Philadelphia, Pennsylvania 19104

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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING WIRE PROFILE TRACK 1 CATENARY
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

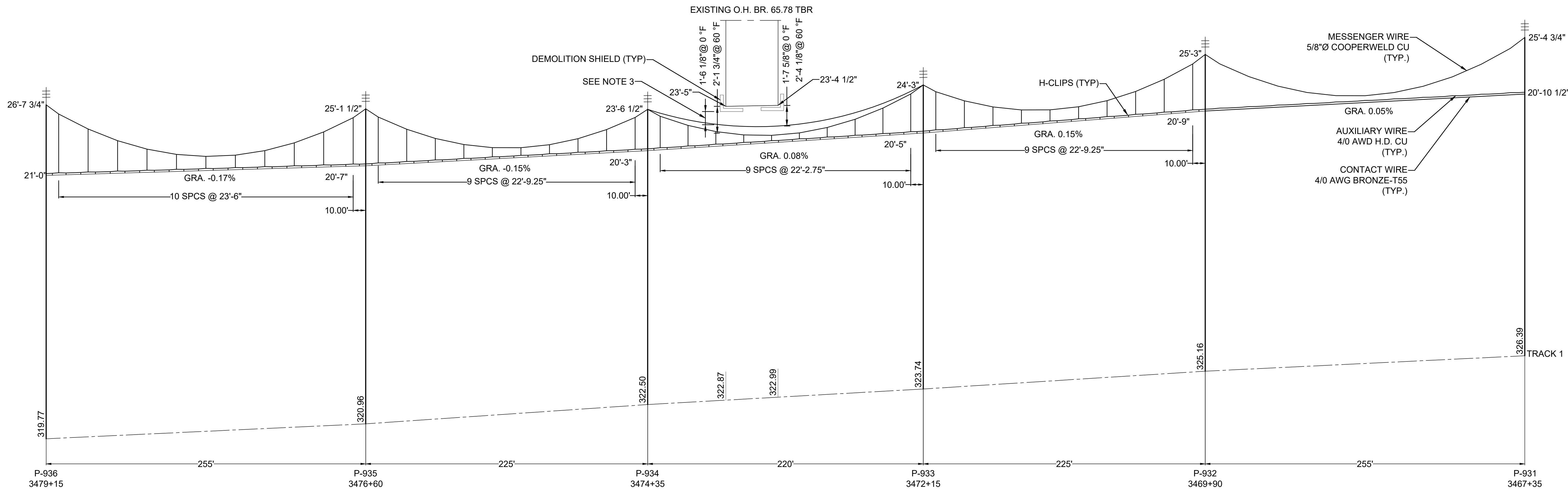
SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	016 OF 031
SHEET	ET-16

FILE NAME: ET-16_Exist Wire Profile Track 1 Catenary.dwg
PLOT DATE: Dec. 22, 2025 - 12:54 PM

TO HARRISBURG

TO PHILADELPHIA

ME 4'-8.25"
 J 3'-5"
 J 2'-5"
 J 1'-8"
 J 1'-2.25"
 J 11.5"
 J 11.75"
 J 1'-3.25"
 J 1'-9.75"
 J 2'-7.5"
 ME 3'-8.25"
 ME 3'-8"
 J 2'-6.75"
 J 1'-8.5"
 J 1'-1.25"
 J 8.75"
 J 7.25"
 J 8.75"
 J 1'-1"
 J 1'-8.25"
 ME 2'-6.5"
 ME 2'-6"
 J 1'-7.75"
 J 1'-0"
 J 7"
 JM 5"
 JM 5.75"
 J 9"
 J 1'-3.25"
 J 2'-0.25"
 ME 3'-0"
 ME 3'-0.5"
 J 2'-1.75"
 J 1'-5.75"
 J 1'-0.75"
 J 10.75"
 J 11.5"
 J 1'-3.25"
 J 1'-9.75"
 J 2'-7.5"
 ME 3'-8"

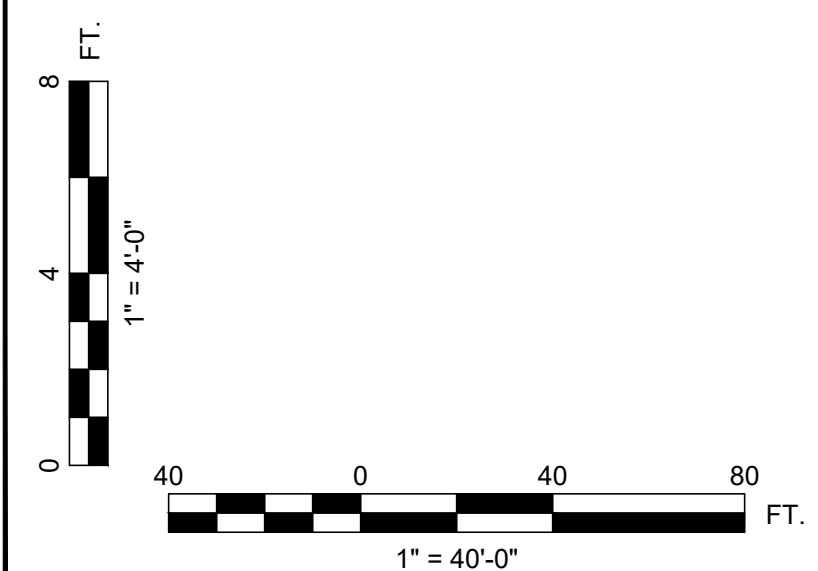


TEMPORARY CATENARY WIRING PROFILE TRACK 1

- NOTES:**
- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
 - 2) CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF THE BRIDGE AND THE CATENARY MESSENGER WIRE.
 - 3) CONTRACTOR TO INSTALL A DEMOLITION SHIELD IN ACCORDANCE WITH AMTRAK AND AREMA CLEARANCE STANDARDS. 12" OF CLEARANCE FROM LOWEST POINT OF THE TEMPORARY TIMBER SHIELD TO THE TOP OF THE MESSENGER WIRE MUST BE PROVIDED. SEE DRAWING ET-32.

BILL OF MATERIALS			
MARK	DESCRIPTION	REF. DWG.	QUANTITY
J	HANGER ASSEMBLY	ET-51	31
JM	HANGER ASSEMBLY	ET-51	2
ME	HANGER ASSEMBLY	ET-51	8
H	HANGER ASSEMBLY	ET-51	82

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 30TH Street Station, Philadelphia, Pennsylvania 19104

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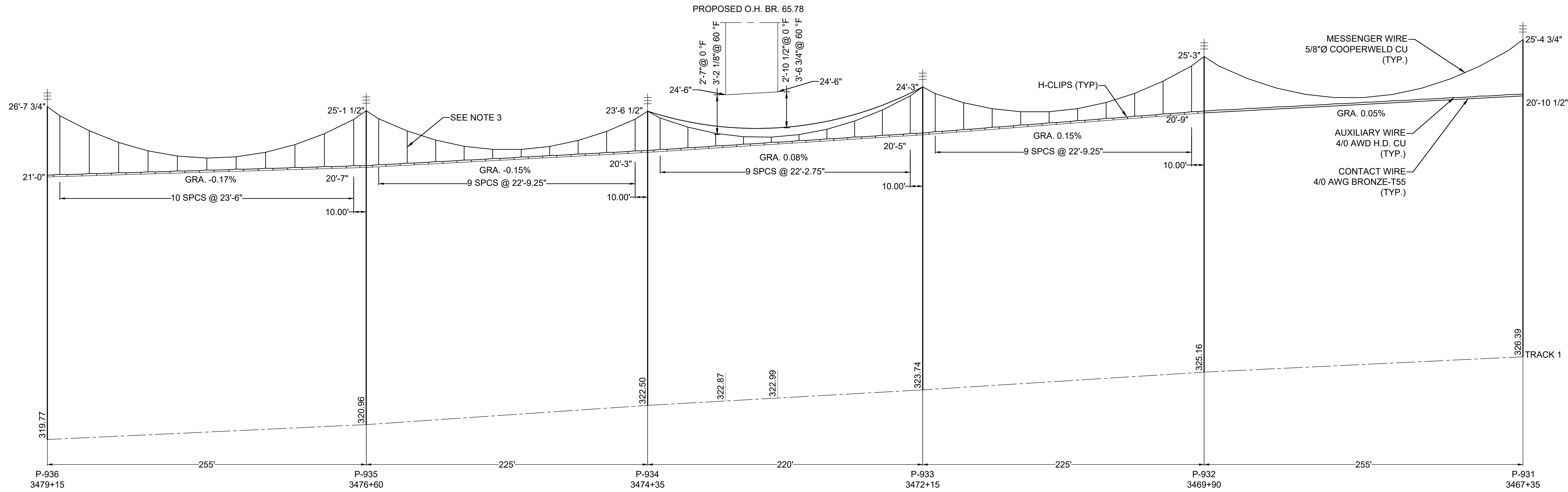


LANCASTER, PENNSYLVANIA
 PENNDOT BPT KEYSTONE CORRIDOR
 SR 3028 PITNEY ROAD
TEMPORARY WIRE PROFILE TRACK 1 CATENARY
 DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	017 OF 031
SHEET	
ET-17	

TO HARRISBURG

TO PHILADELPHIA

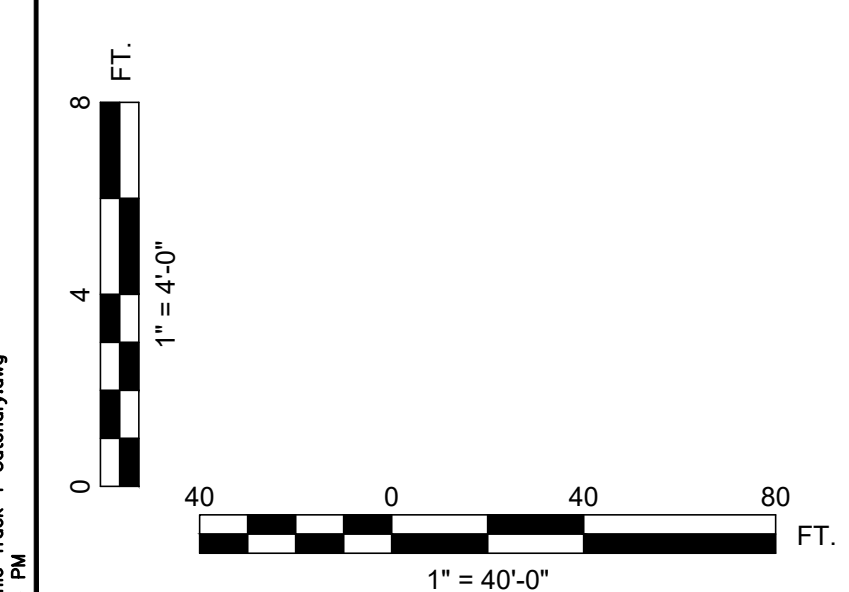


PROPOSED CATENARY WIRING PROFILE TRACK 1

NOTES:

- 1) ALL WIRE ELEVATIONS ARE FROM TOP OF RAIL.
- 2) CLEARANCE SHOWS THE DISTANCE BETWEEN THE BOTTOM OF THE BRIDGE AND THE CATENARY MESSENGER WIRE.
- 3) HANGERS TO REMAIN THE SAME AS THE TEMPORARY ARRANGEMENT.

THIS MATERIAL IS OWNED BY AND IS THE SOLE EXCLUSIVE PROPERTY OF THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK), OFFICE OF ENGINEERING, AND IS SUPPLIED ON A CONFIDENTIAL BASIS SOLELY FOR USE IN CONNECTION WITH THE DESIGN AND CONSTRUCTION OF AMTRAK FACILITIES AND EQUIPMENT. THE REPRODUCTION, DISPLAY, SALE, OR OTHER DISPOSITION OF THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE NATIONAL RAILROAD PASSENGER CORPORATION, OFFICE OF ENGINEERING, IS PROHIBITED.

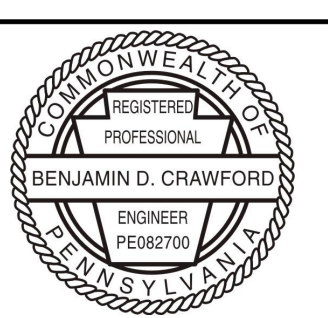


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30TH Street Station, Philadelphia, Pennsylvania 19104

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LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
PROPOSED WIRE PROFILE TRACK 1 CATENARY
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

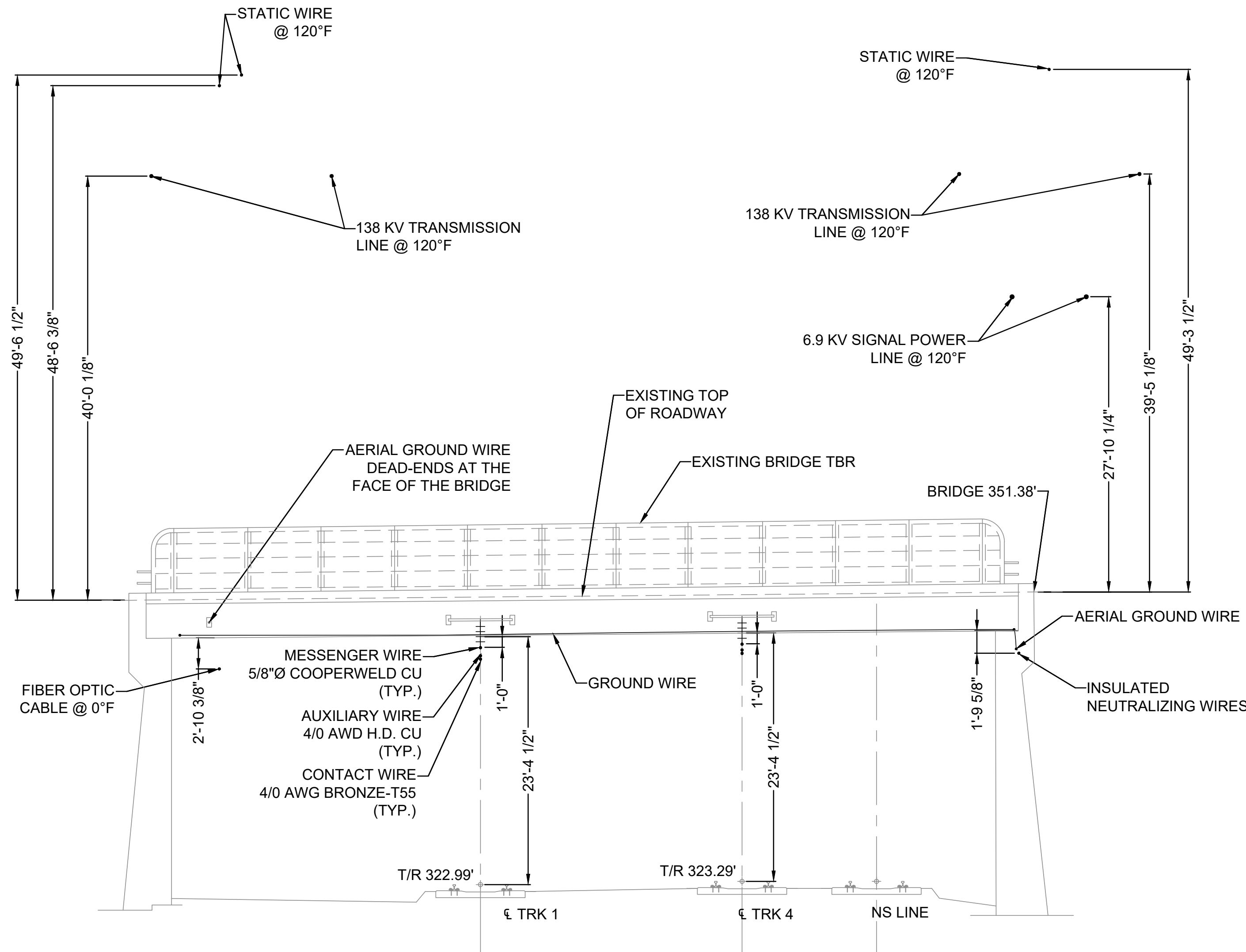
SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	018 OF 031
SHEET	
ET-18	

WIRE HEIGHTS - EXISTING CONDITION (NOTE 2)						
WIRE	TRACK #1 @ 0°F	TRACK #1 @ 60°F	TRACK #1 @ 120°F	TRACK #4 @ 0°F	TRACK #4 @ 60°F	TRACK #4 @ 120°F
STATIC WIRE TOP	77'-10 3/8"	77'-5 3/4"	76'-4 3/8"	78'-0 3/8"	77'-7 3/4"	76'-6 3/8"
STATIC WIRE SIDE	76'-10 1/4"	76'-5 5/8"	75'-4 1/4"	-	-	-
138 KV TRANSMISSION LINE	67'-5 1/2"	67'-8"	66'-9 7/8"	67'-3 1/2"	67'-6"	66'-7 7/8"
6.9 KV SIGNAL POWER WIRE	-	-	-	56'-2 1/4"	56'-2 3/8"	55'-0 7/8"
MESSENGER WIRE	22'-4 1/8"	22'-4 1/8"	22'-4 1/8"	22'-4 1/2"	22'-4 1/2"	22'-4 1/2"
CONTACT WIRE	21'-7"	21'-7"	21'-7"	21'-9 7/8"	21'-9 7/8"	21'-9 7/8"
FIBER OPTIC CABLE	20'-4 1/8"	20'-7 1/2"	20'-0"	-	-	-
INSULATED NEUTRALIZING WIRE	-	-	-	21'-7 5/8"	21'-7 5/8"	21'-5 1/2"

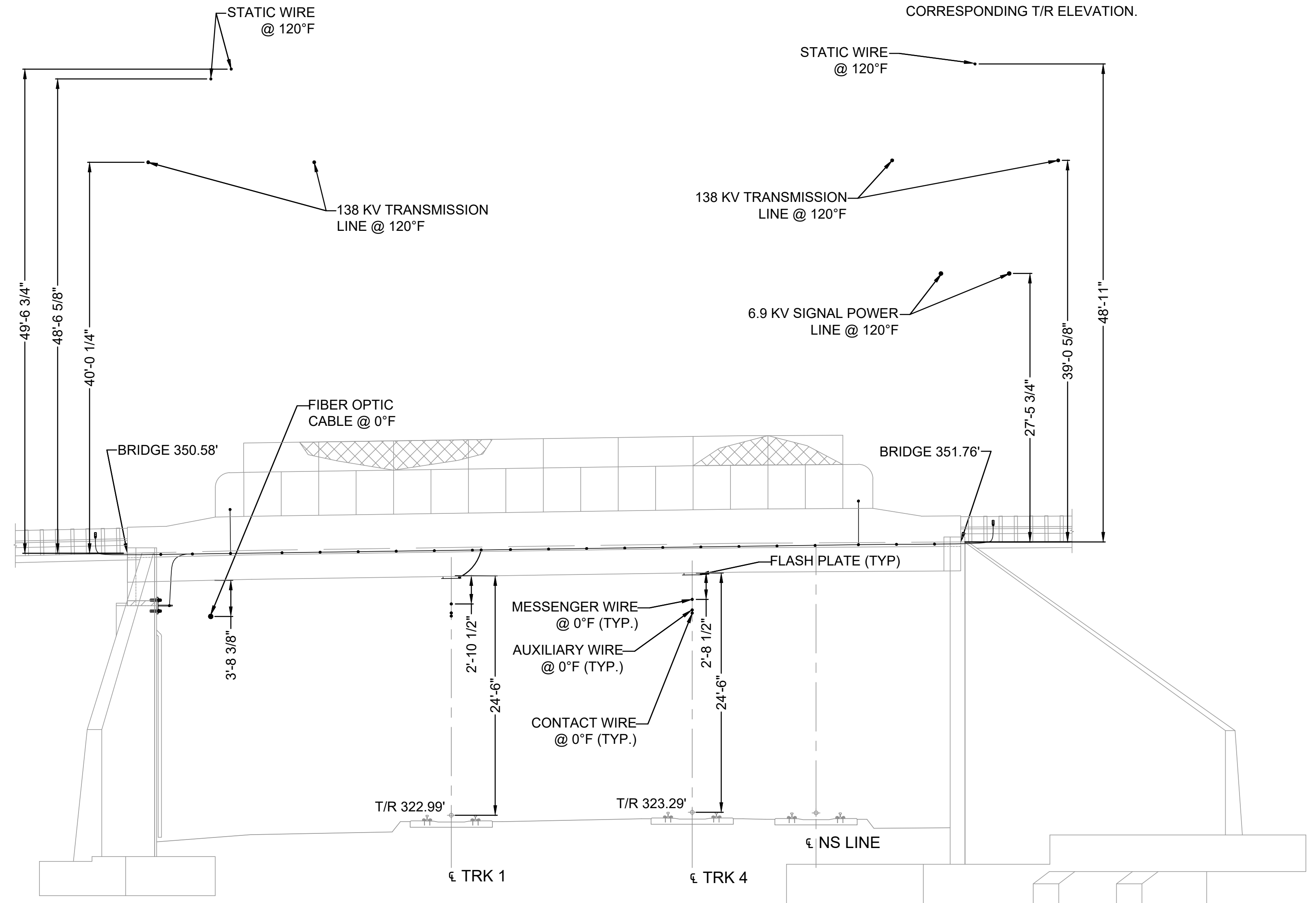
WIRE HEIGHTS - PROPOSED CONDITION (NOTE 2)						
WIRE	TRACK #1 @ 0°F	TRACK #1 @ 60°F	TRACK #1 @ 120°F	TRACK #4 @ 0°F	TRACK #4 @ 60°F	TRACK #4 @ 120°F
STATIC WIRE TOP	77'-10 3/8"	77'-5 3/4"	76'-4 3/8"	78'-0 3/8"	77'-7 3/4"	76'-6 3/8"
STATIC WIRE SIDE	76'-10 1/4"	76'-5 5/8"	75'-4 1/4"	-	-	-
138 KV TRANSMISSION LINE	67'-5 1/2"	67'-8"	66'-9 7/8"	67'-3 1/2"	67'-6"	66'-7 7/8"
6.9 KV SIGNAL POWER WIRE	-	-	-	56'-2 1/4"	56'-2 3/8"	55'-0 7/8"
MESSENGER WIRE	21'-7 1/2"	20'-11 1/4"	20'-8 5/8"	21'-9 1/2"	21'-1 1/8"	20'-10 3/4"
CONTACT WIRE	20'-4 5/8"	20'-4"	20'-3"	20'-4 5/8"	20'-4"	20'-3"
FIBER OPTIC CABLE	20'-4 1/8"	20'-7 1/2"	20'-0"	-	-	-

GENERAL NOTES:

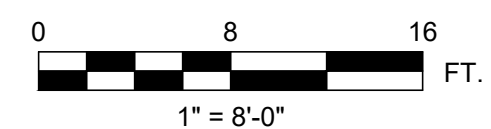
- FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- ALL CATENARY WIRE HEIGHTS ARE MEASURED FROM ITS CORRESPONDING T/R ELEVATION.



**EXISTING WIRE ELEVATION AT BRIDGE EAST SIDE
LOOKING TOWARD PHILADELPHIA**



**PROPOSED WIRE ELEVATION AT BRIDGE EAST SIDE
LOOKING TOWARD HARRISBURG**



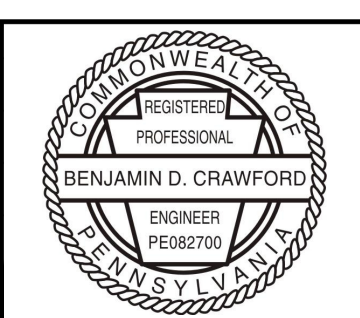
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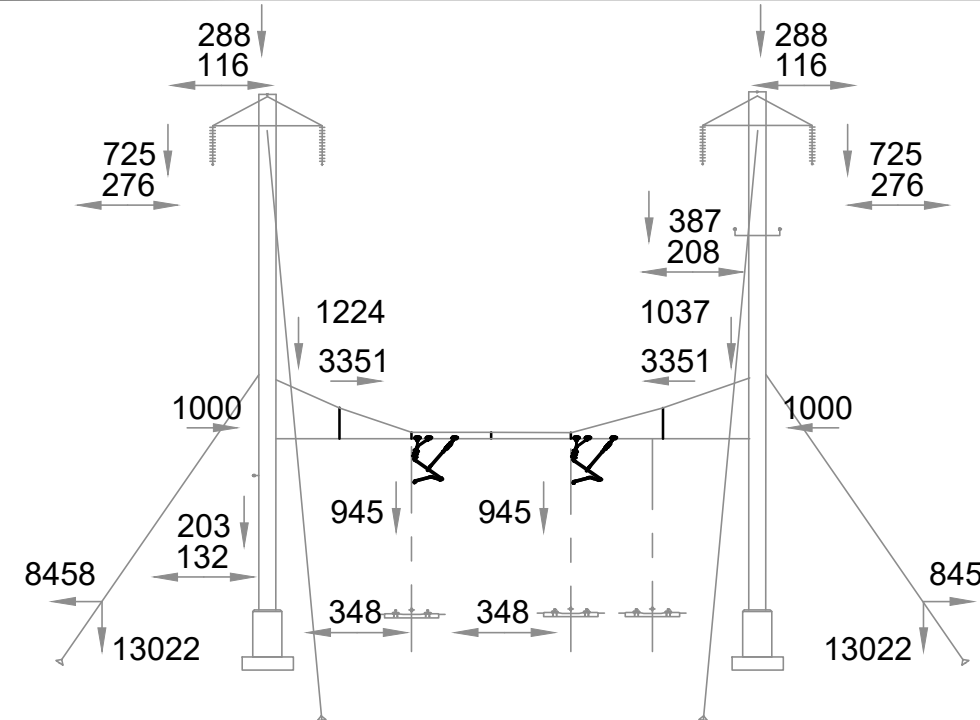
**Office of Engineering
Engineering Design**
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



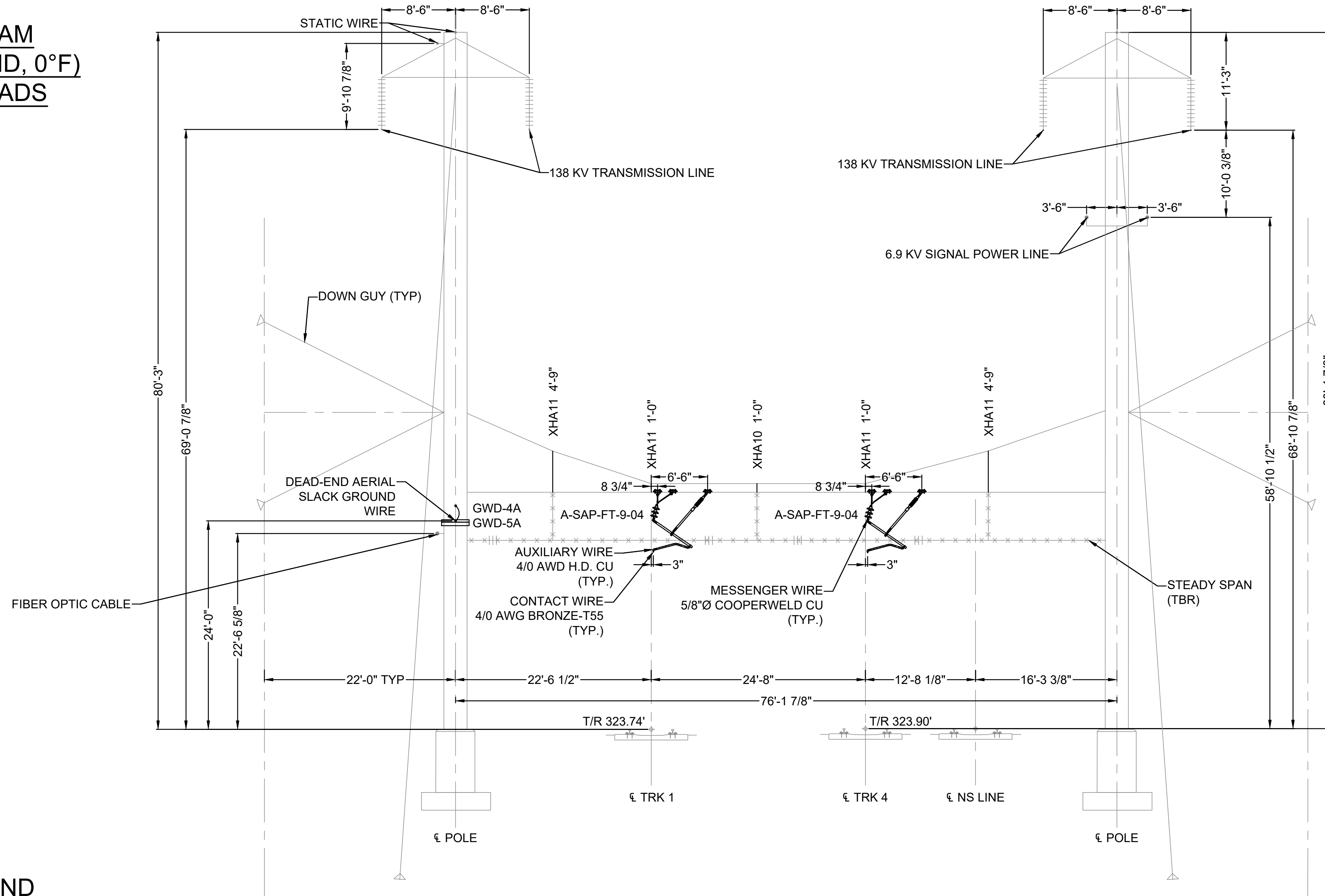
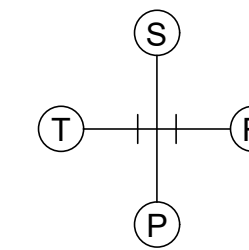
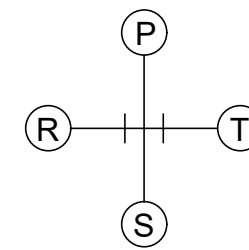
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING AND PROPOSED WIRE ELEVATION AT BRIDGE
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	019 OF 031
SHEET	
ET-19	



LOADING DIAGRAM
 (1/2" ICE, 40MPH WIND, 0°F)
 UNFACTORED LOADS

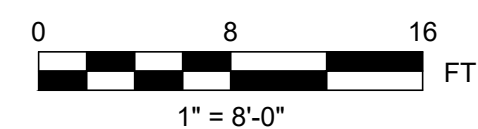
WIRE HEIGHTS - FINAL CONDITION		
WIRE	TRACK #1	TRACK #4
MESSENGER WIRE	24'-3"	24'-1"
CONTACT WIRE	20'-5"	20'-3"



LEGEND

CATENARY EQUIPMENT TO BE REMOVED

PROPOSED SED P-933 STA. 3472+15
LOOKING TOWARD HARRISBURG



BILL OF MATERIALS				
MARK	REF. DWG.	DESCRIPTION	UNITS	QUANTITY
A-SAP-FT-9-04	ET-50	STEADY ARM ASSEMBLY	EA	2
GWD-4A	ET-52	WIRE TERMINATION	EA	1
GWD-5A	ET-52	GROUND WIRE TERMINATION TO POLE	EA	1
XHA-10	ET-50	CROSS HANGER	EA	1
XHA-11	ET-50	CROSS HANGER	EA	4

VARIABLE DIMENSIONS				
ITEM	TRACK	DESCRIPTION	DIMENSION	LENGTH
NA24A	TRK 1	HANGER ROD, 0.72" DIA.	t1	1'-8 1/2"
NA24A	TRK 1	HANGER ROD, 0.72" DIA.	t2	0'-9 1/4"
NA24A	TRK 4	HANGER ROD, 0.72" DIA.	t1	1'-9 1/4"
NA24A	TRK 4	HANGER ROD, 0.72" DIA.	t2	0'-10 1/2"
A-SAP-FT-9-04	TRK 1	PIPE, 2 INCH	P1	3'-4 1/4"
A-SAP-FT-9-04	TRK 1	PIPE, 2 INCH	P2	5'-3 1/4"
A-SAP-FT-9-04	TRK 4	PIPE, 2 INCH	P1	3'-5"
A-SAP-FT-9-04	TRK 4	PIPE, 2 INCH	P2	5'-3"

WORK STATEMENT:

- 1) INSTALL NEW HANGER ASSEMBLIES.
- 2) INSTALL NEW MESSENGER WIRE AND CONTACT WIRE SUPPORT ASSEMBLIES.
- 3) REMOVE STEADY SPAN WIRE AND EXISTING HANGERS.
- 4) REPROFILE CATENARY WIRES FOR TRACKS 1 AND 4.
- 5) INSTALL NEW SLACK STATIC WIRE DEAD-END.

GENERAL NOTES:

- 1) FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- 2) ALL CATENARY WIRE HEIGHTS ARE MEASURED FROM ITS CORRESPONDING T/R ELEVATION.

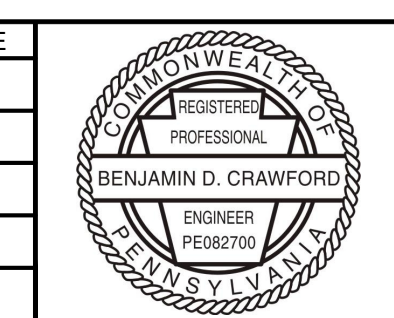
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NO.	REVISIONS	DATE	BY



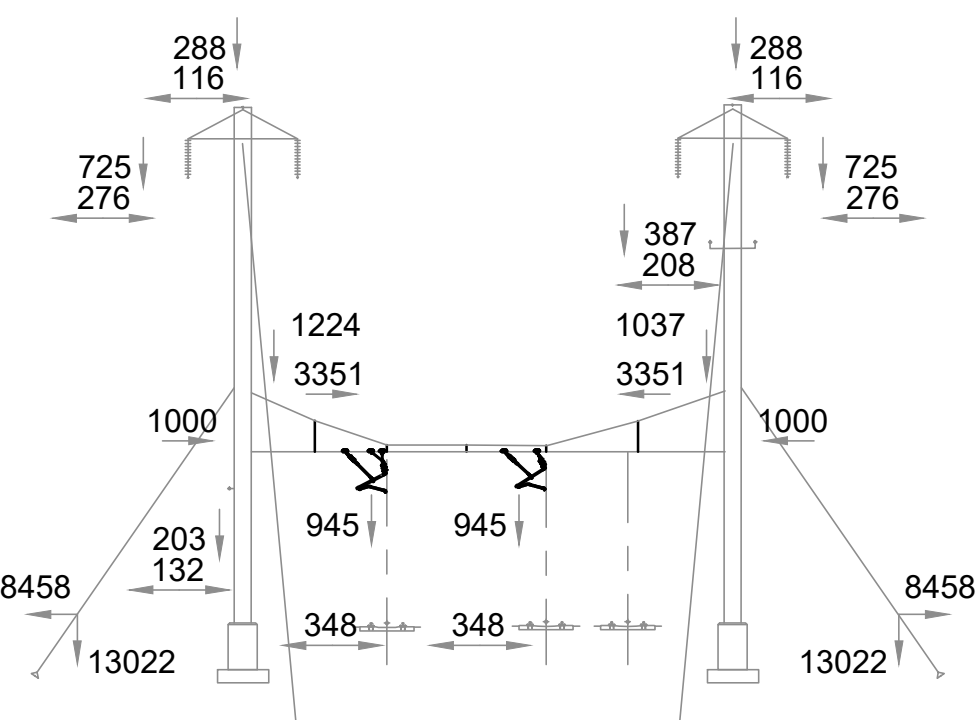
Office of Engineering
Engineering Design
 National Railroad Passenger Corporation
 30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



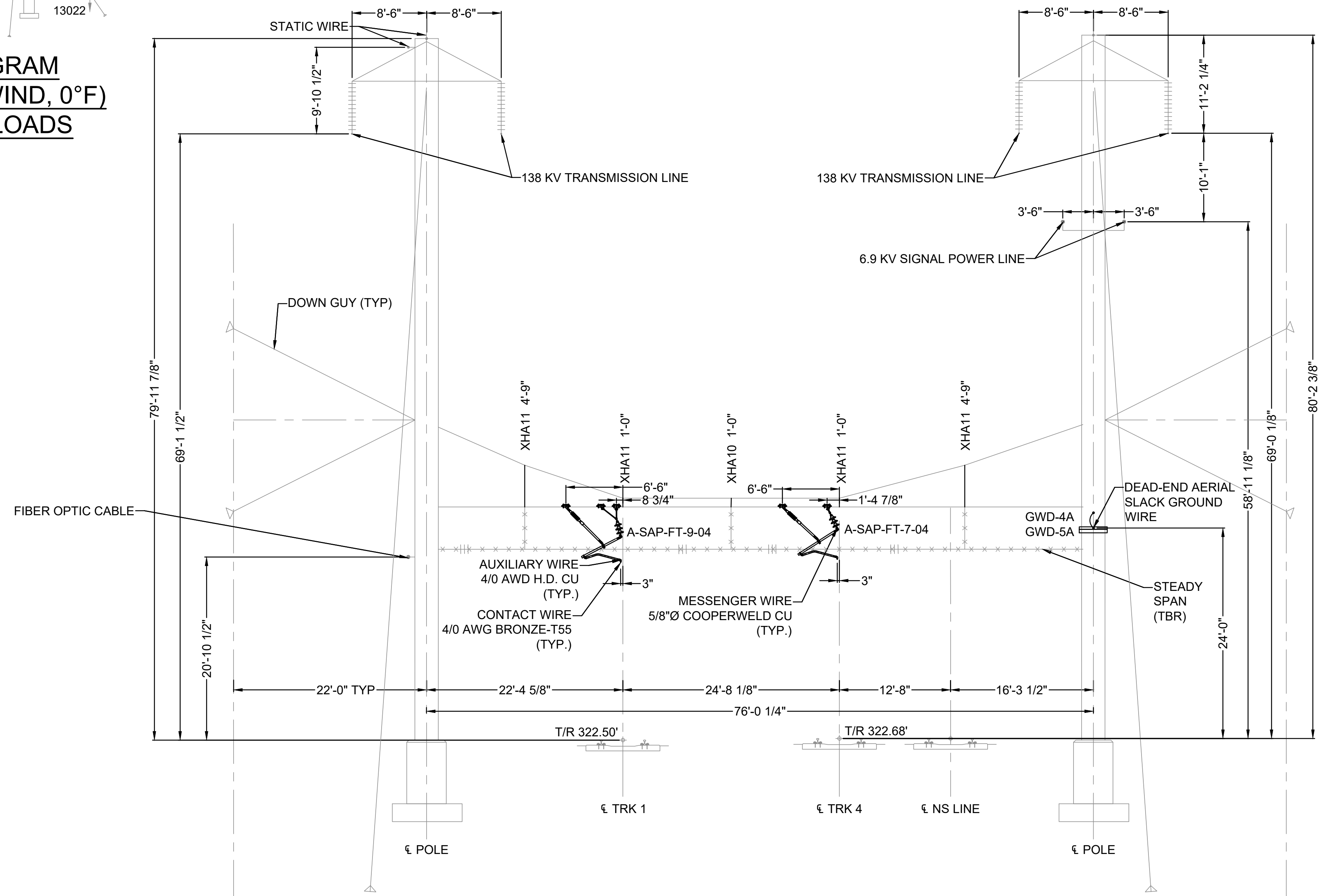
LANCASTER, PENNSYLVANIA
 PENNDOT BPT KEYSTONE CORRIDOR
 SR 3028 PITNEY ROAD
PROPOSED SED STRUCTURE P-933
 DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	020 OF 031
SHEET	
ET-20	



LOADING DIAGRAM
(1/2" ICE, 40MPH WIND, 0°F)
UNFACTORED LOADS

WIRE HEIGHTS - FINAL CONDITION		
WIRE	TRACK #1	TRACK #4
MESSENGER WIRE	23'-6 1/2"	24'-0"
CONTACT WIRE	20'-3"	20'-5"



BILL OF MATERIALS				
MARK	REF. DWG.	DESCRIPTION	UNITS	QUANTITY
A-SAP-FT-7-04	ET-50	STEADY ARM ASSEMBLY	EA	1
A-SAP-FT-9-04	ET-50	STEADY ARM ASSEMBLY	EA	1
GWD-4A	ET-52	WIRE TERMINATION	EA	1
GWD-5A	ET-52	GROUND WIRE TERMINATION TO POLE	EA	1
XHA-10	ET-50	CROSS HANGER	EA	1
XHA-11	ET-50	CROSS HANGER	EA	4

VARIABLE DIMENSIONS				
ITEM	TRACK	DESCRIPTION	DIMENSION	LENGTH
NA82	TRK 4	HANGER ROD, 0.72" DIA.	t	0'-4"
NA24A	TRK 1	HANGER ROD, 0.72" DIA.	t1	1'-10 1/4"
NA24A	TRK 1	HANGER ROD, 0.72" DIA.	t2	0'-11 1/2"
A-SAP-FT-9-04	TRK 1	PIPE, 2 INCH	P1	3'-3 1/4"
A-SAP-FT-9-04	TRK 1	PIPE, 2 INCH	P2	4'-10 1/2"
A-SAP-FT-7-04	TRK 4	PIPE, 2 INCH	P1	2'-9 3/4"
A-SAP-FT-7-04	TRK 4	PIPE, 2 INCH	P2	5'-2"

LEGEND

CATENARY EQUIPMENT TO BE REMOVED ~~XXXXXX~~

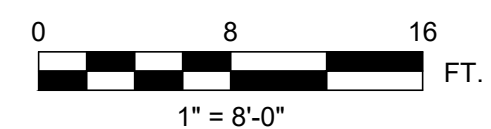
PROPOSED SED P-934 STA. 3474+35
LOOKING TOWARD HARRISBURG

WORK STATEMENT:

- 1) INSTALL NEW HANGER ASSEMBLIES.
- 2) INSTALL NEW MESSENGER WIRE AND CONTACT WIRE SUPPORT ASSEMBLIES.
- 3) REMOVE STEADY SPAN WIRE AND EXISTING HANGERS.
- 4) REPROFILE CATENARY WIRES FOR TRACKS 1 AND 4.
- 5) INSTALL NEW SLACK STATIC WIRE DEAD-END.

GENERAL NOTES:

- 1) FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- 2) ALL CATENARY WIRE HEIGHTS ARE MEASURED FROM ITS CORRESPONDING T/R ELEVATION.



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PLOT NAME: Dsc_22_25 - 12:23 PM

NO.	REVISIONS	DATE	BY



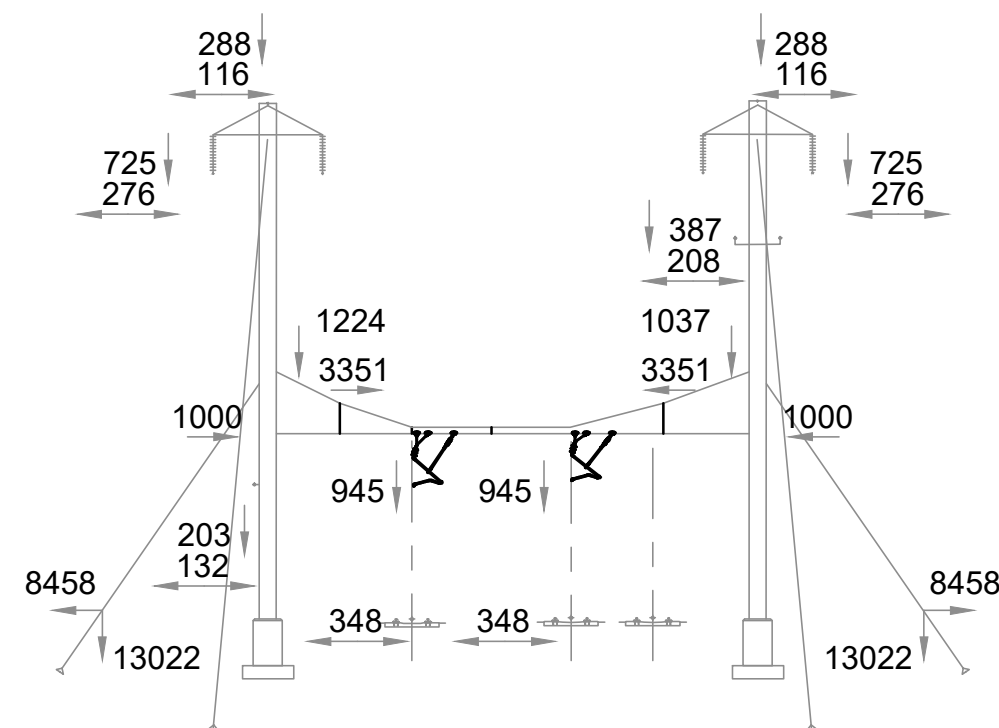
Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

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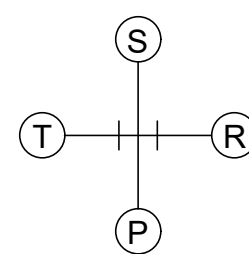
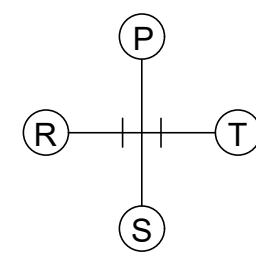
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
PROPOSED SED STRUCTURE P-934
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	021 OF 031
SHEET	
ET-21	



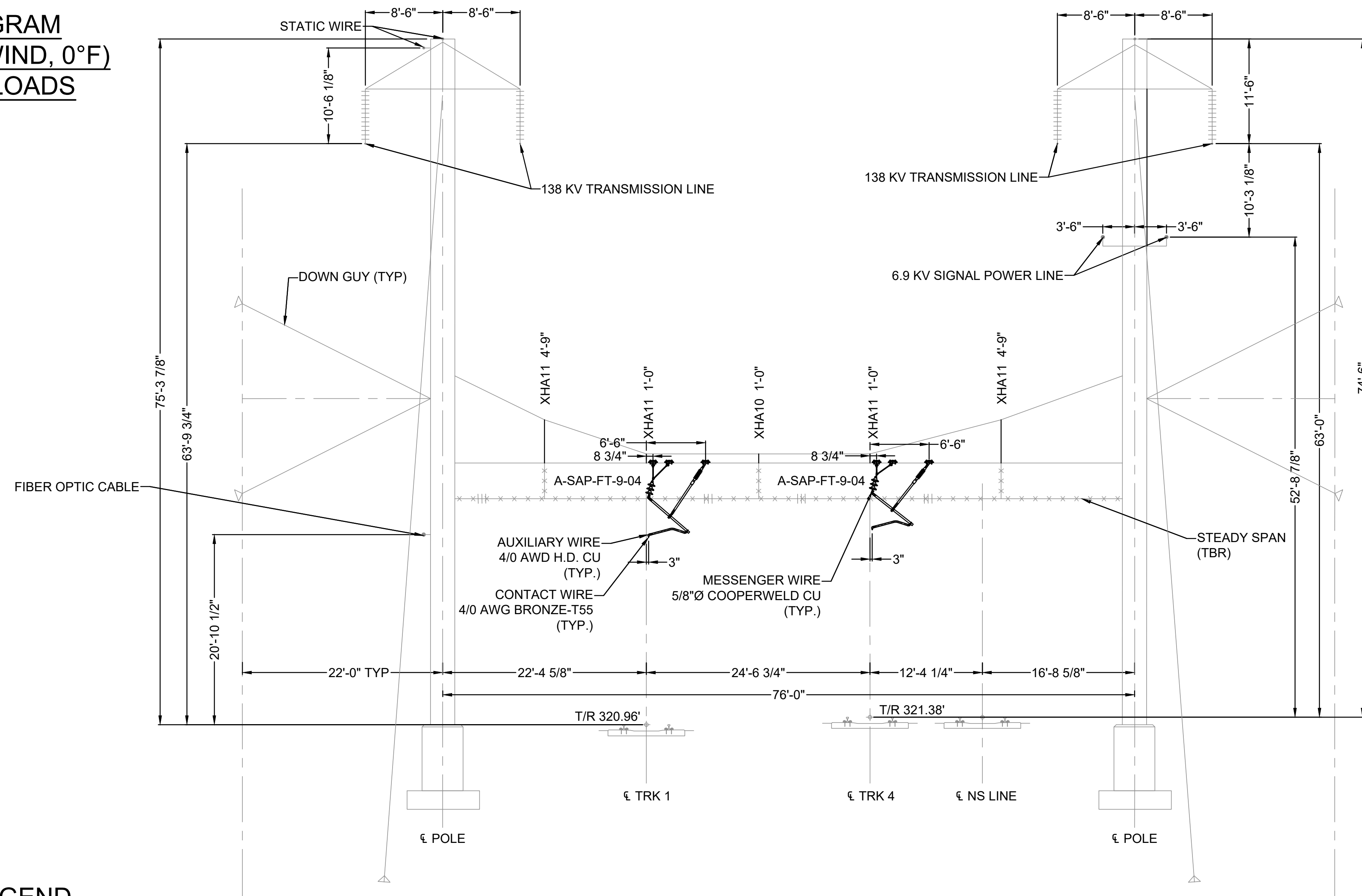
LOADING DIAGRAM
 (1/2" ICE, 40MPH WIND, 0°F)
 UNFACTORED LOADS

WIRE HEIGHTS - FINAL CONDITION		
WIRE	TRACK #1	TRACK #4
MESSENGER WIRE	25'-1 1/2"	24'-9 3/4"
CONTACT WIRE	20'-7"	20'-7"



BILL OF MATERIALS				
MARK	REF. DWG.	DESCRIPTION	UNITS	QUANTITY
A-SAP-FT-9-04	ET-50	STEADY ARM ASSEMBLY	EA	2
XHA-10	ET-50	CROSS HANGER	EA	1
XHA-11	ET-50	CROSS HANGER	EA	4

VARIABLE DIMENSIONS				
ITEM	TRACK	DESCRIPTION	DIMENSION	LENGTH
NA24A	TRK 1	HANGER ROD, 0.72" DIA.	t1	1'-11 1/4"
NA24A	TRK 1	HANGER ROD, 0.72" DIA.	t2	1'-2"
NA24A	TRK 4	HANGER ROD, 0.72" DIA.	t1	1'-7 1/4"
NA24A	TRK 4	HANGER ROD, 0.72" DIA.	t2	0'-8"
A-SAP-FT-9-04	TRK 1	PIPE, 2 INCH	P1	4'-1 1/4"
A-SAP-FT-9-04	TRK 1	PIPE, 2 INCH	P2	5'-8 3/4"
A-SAP-FT-9-04	TRK 4	PIPE, 2 INCH	P1	3'-6 3/4"
A-SAP-FT-9-04	TRK 4	PIPE, 2 INCH	P2	5'-6 1/4"



LEGEND

CATENARY EQUIPMENT TO BE REMOVED ~~XXXXXX~~

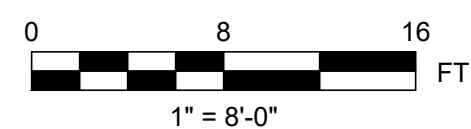
PROPOSED SED P-935 STA. 3476+60
LOOKING TOWARD HARRISBURG

WORK STATEMENT:

- 1) INSTALL NEW HANGER ASSEMBLIES.
- 2) INSTALL NEW MESSENGER WIRE AND CONTACT WIRE SUPPORT ASSEMBLIES.
- 3) REMOVE STEADY SPAN WIRE AND EXISTING HANGERS.
- 4) REPROFILE CATENARY WIRES FOR TRACKS 1 AND 4.

GENERAL NOTES:

- 1) FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- 2) ALL CATENARY WIRE HEIGHTS ARE MEASURED FROM ITS CORRESPONDING T/R ELEVATION.



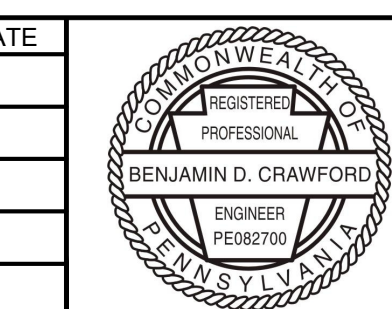
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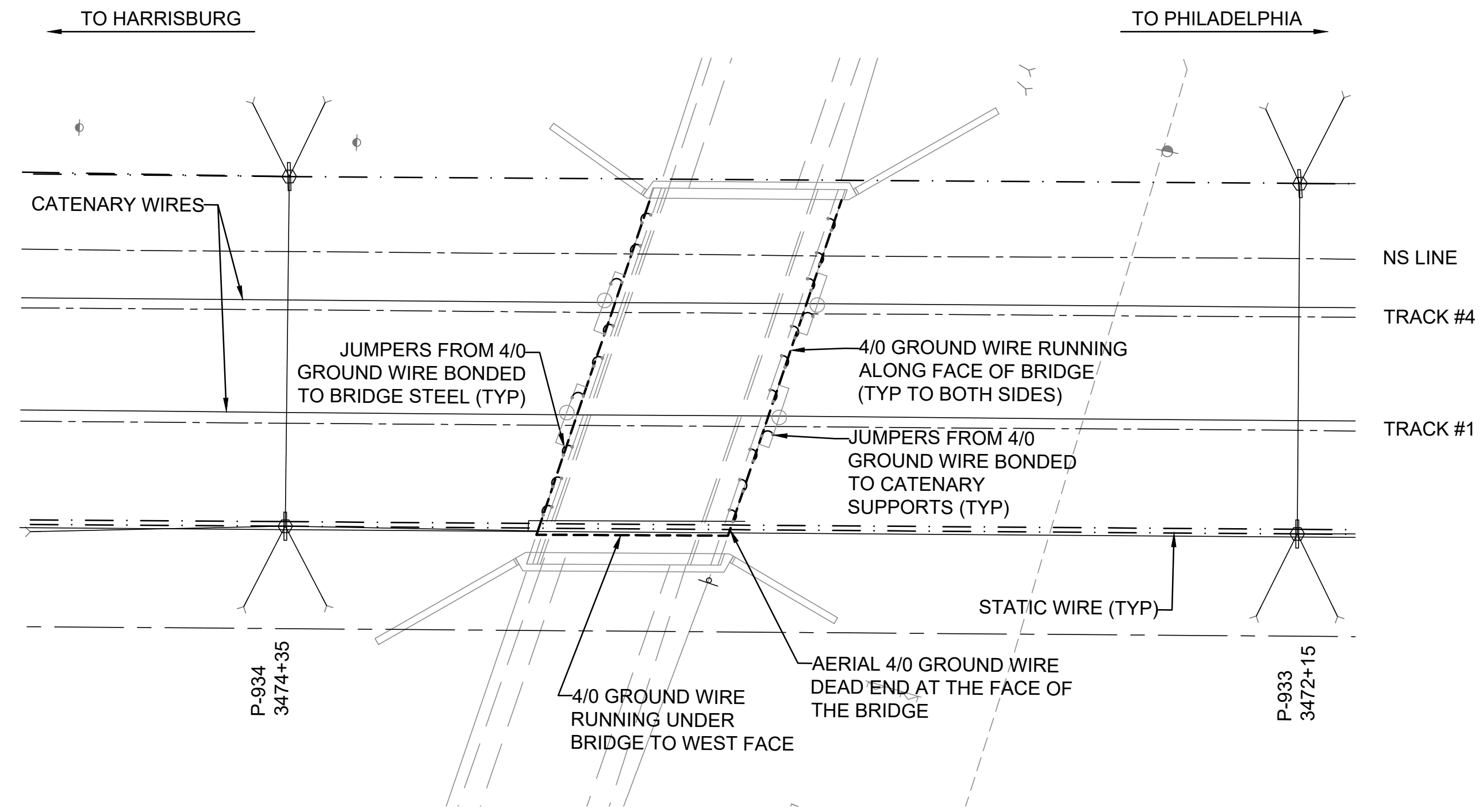
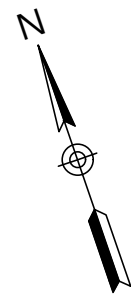
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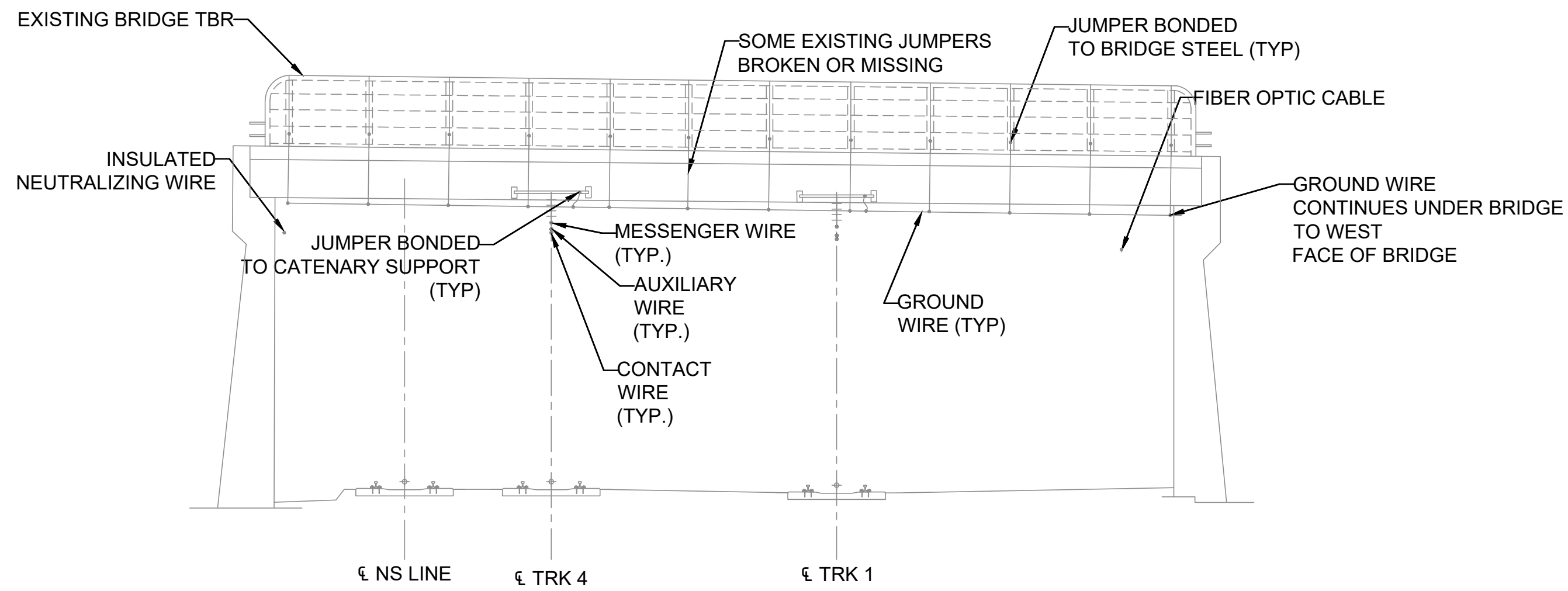


LANCASTER, PENNSYLVANIA
 PENNDOT BPT KEYSTONE CORRIDOR
 SR 3028 PITNEY ROAD
PROPOSED SED STRUCTURE P-935
 DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

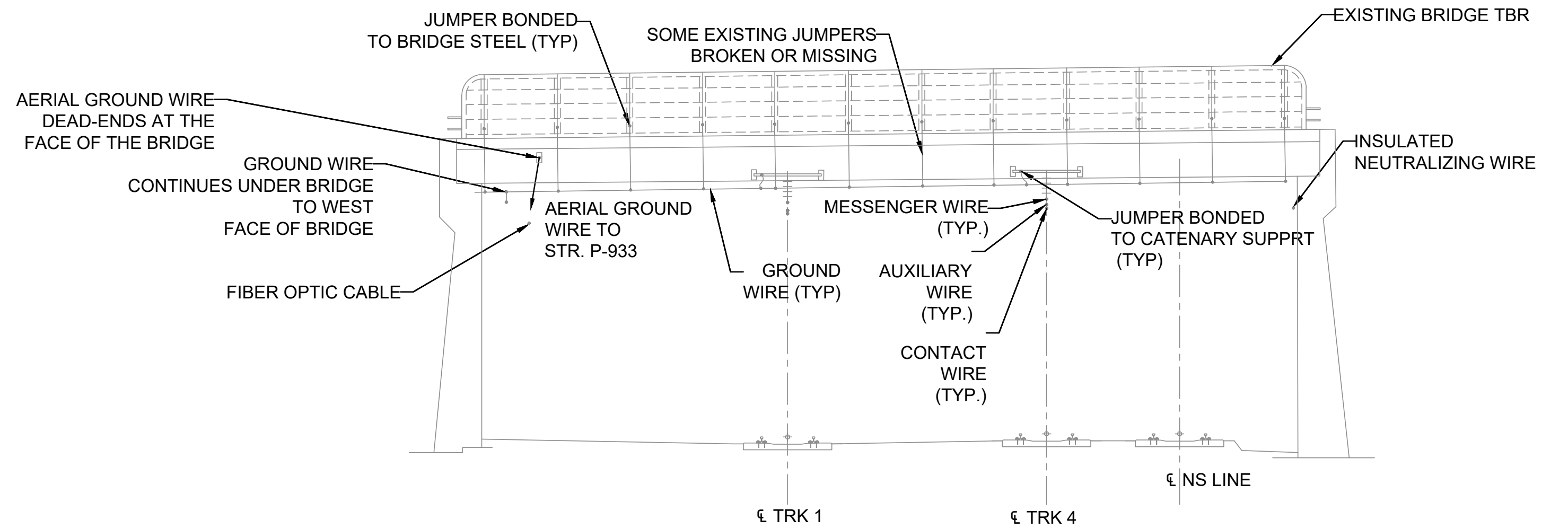
SCALE:	AS SHOWN
PLAN NO.	
SHEET NO.	022 OF 031
SHEET	
ET-22	



PLAN VIEW EXISTING GROUNDING AND BONDING



**BRIDGE WEST SIDE
LOOKING TOWARD PHILADELPHIA**



**BRIDGE EAST SIDE
LOOKING TOWARD HARRISBURG**

EXISTING GROUNDING AND BONDING ELEVATIONS

GENERAL NOTES:

- 1) FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.

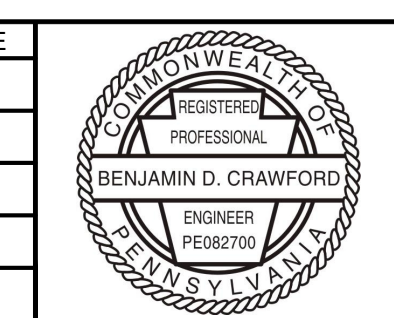
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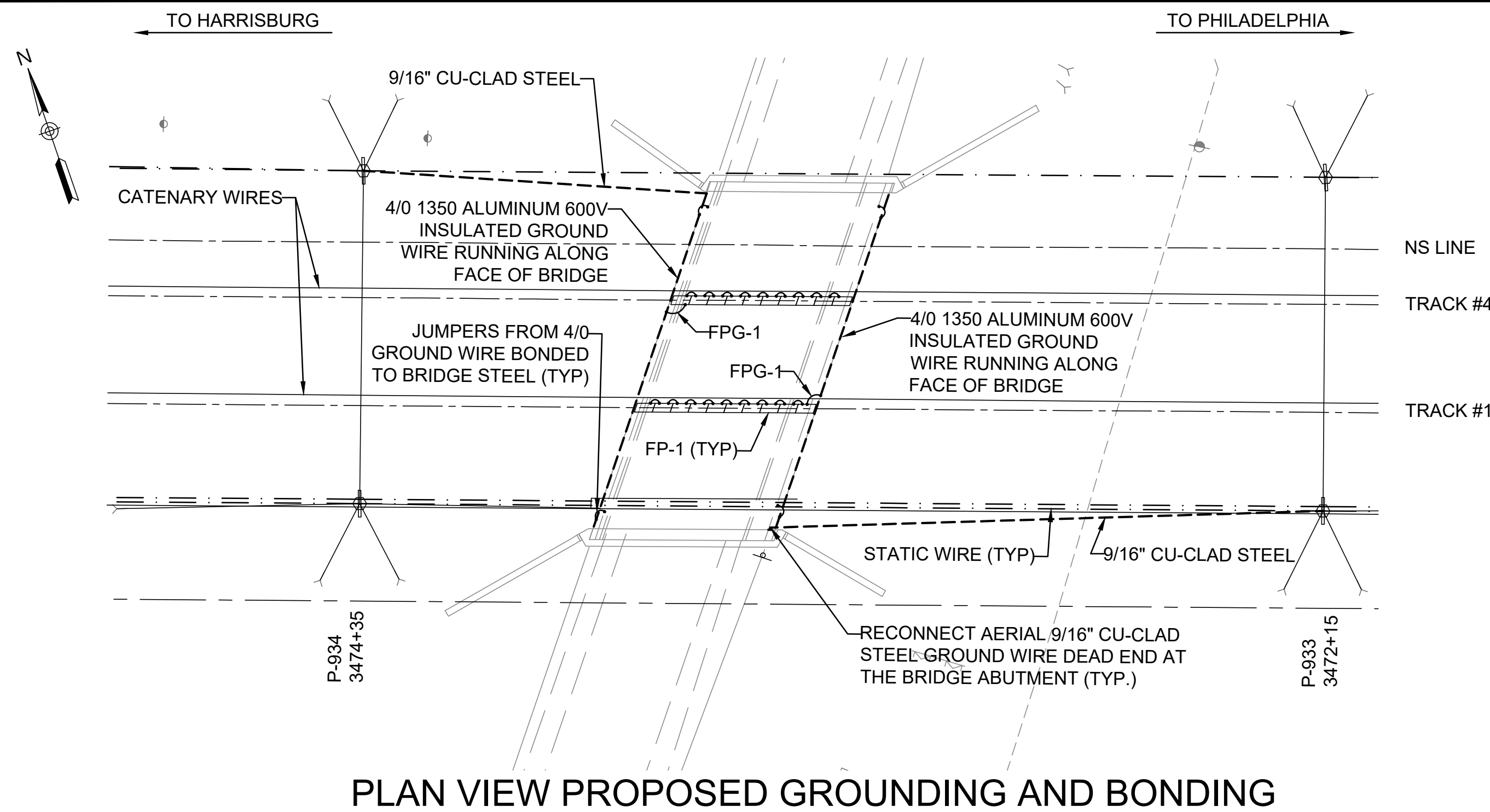
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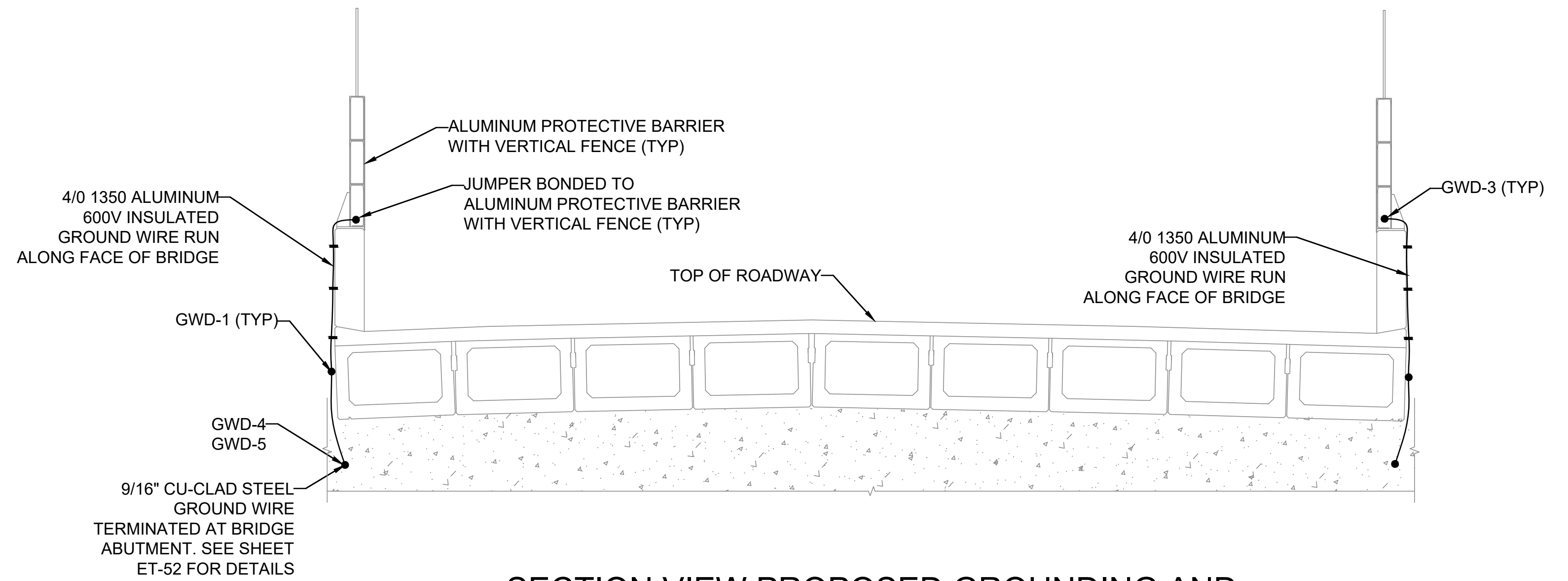
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
EXISTING GROUNDING AND BONDING
DESIGNED: VAR DRAWN: WVD CHECKED: BDC DATE: 12/23/2025

SCALE:	NOT TO SCALE
PLAN NO.	
SHEET NO.	023 OF 031
SHEET	
ET-30	

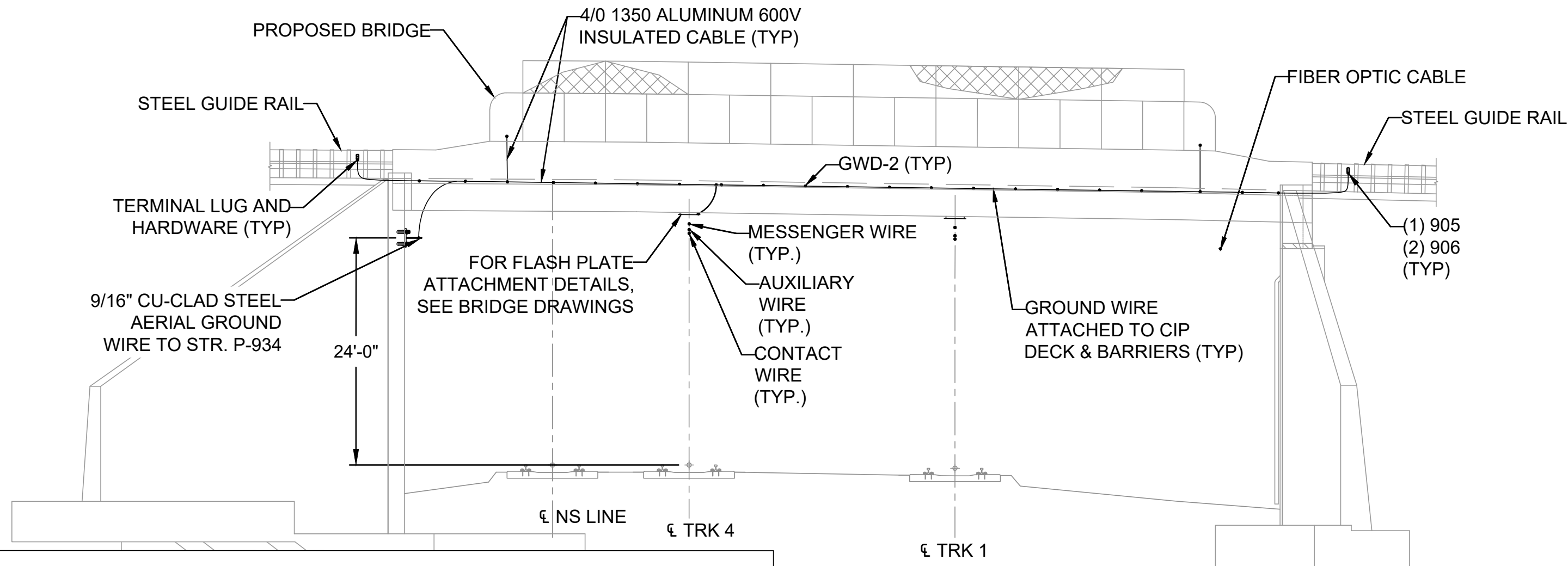
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PLOT NAME: Dec. 22, 2025 - 1:00 PM



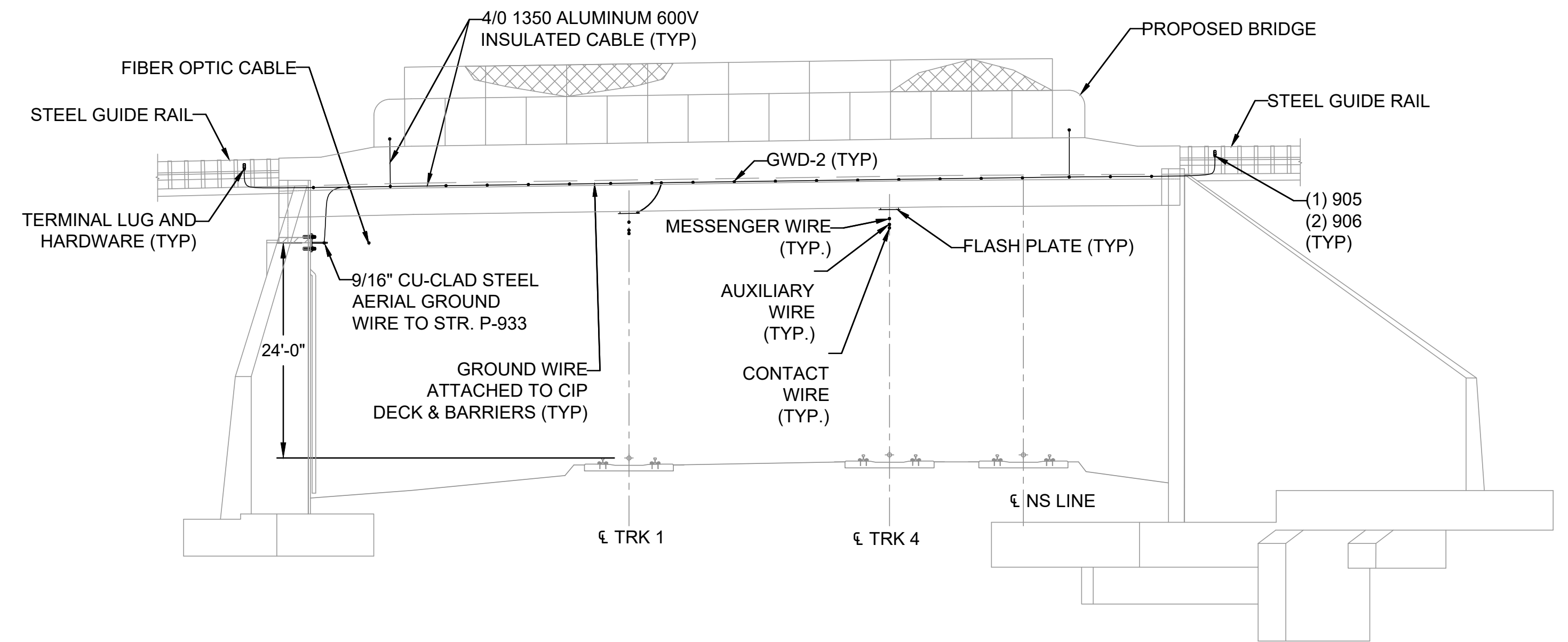
PLAN VIEW PROPOSED GROUNDING AND BONDING



SECTION VIEW PROPOSED GROUNDING AND BONDING



**BRIDGE WEST SIDE
LOOKING TOWARD PHILADELPHIA**



**BRIDGE EAST SIDE
LOOKING TOWARD HARRISBURG**

PROPOSED GROUNDING AND BONDING ELEVATIONS

BILL OF MATERIAL

ITEM	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
FP-1	ET-33	FLASH PLATE ASSEMBLY	EA	10
FPG-1	ET-33	FLASH PLATE GROUND ASSEMBLY	EA	2
GWD-1	ET-52	JUMPER CONNECTION	EA	6
GWD-2	ET-52	WIRE TO CONCRETE CONNECTION	EA	44
GWD-3	ET-52	WIRE TO ALUMINUM BARRIER CONNECTION	EA	4
GWD-4	ET-52	WIRE TERMINATION	EA	2
GWD-5	ET-52	GROUND WIRE TERMINATION TO BRIDGE ABUTMENT	EA	2
905	-	TL-1, TERMINAL LUG	EA	4
906	-	BOLT, 1/2" X 3" LONG STAINLESS STEEL WITH NUT AND LOCK WASHER	EA	8
-	-	4/0 1350 ALUMINUM 600V INSULATED CABLE	FT	610
-	-	9/16" CU-CLAD STEEL CABLE	FT	230

GENERAL NOTES:

- 1) FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- 2) FOR FLASH PLATE DETAILS, SEE ET-33.
- 3) BRIDGE PROTECTION BARRIERS WILL BE INSTALLED PER E.T. STANDARD DRAWING ET-1446-D

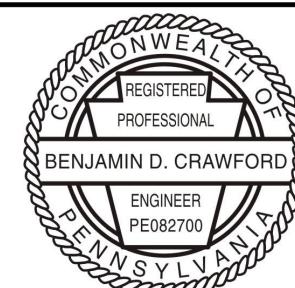
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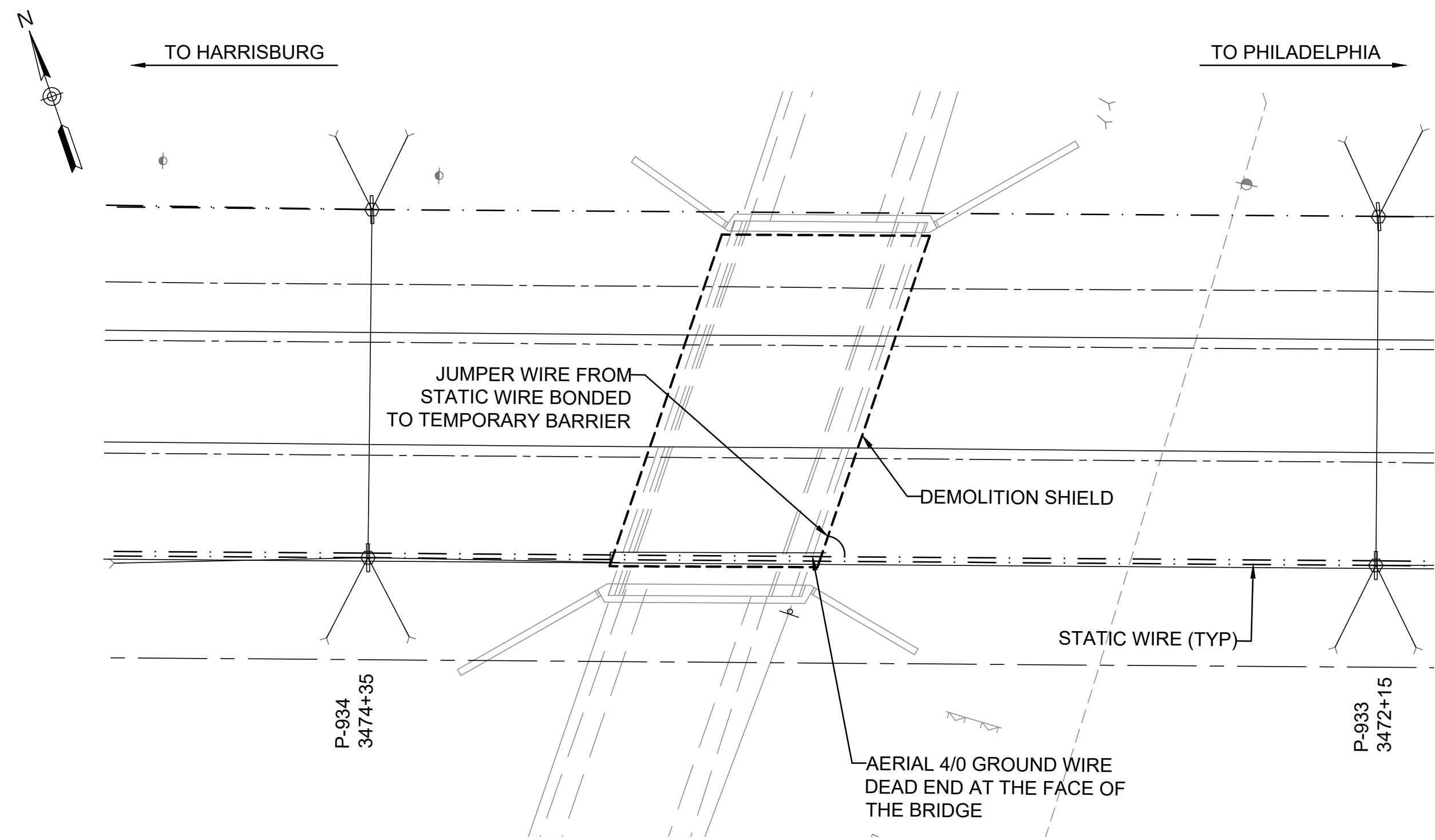
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD

PROP. GROUNDING AND BONDING

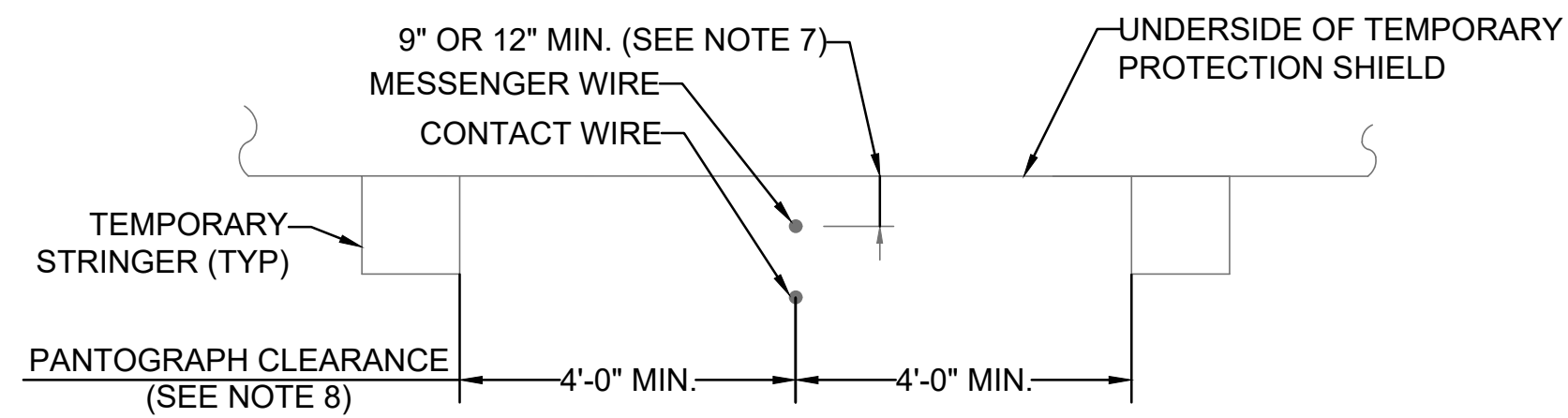
DESIGNED: VAR DRAWN: WVD CHECKED: BDC DATE: 12/23/2025

SCALE:	NOT TO SCALE
PLAN NO.	
SHEET NO.	024 OF 031
SHEET	
ET-31	

FILE NAME: ET-31_Prop_Grounding_and_Bonding.dwg
PLOT NAME: Dec. 22, 2025 - 12:26 PM



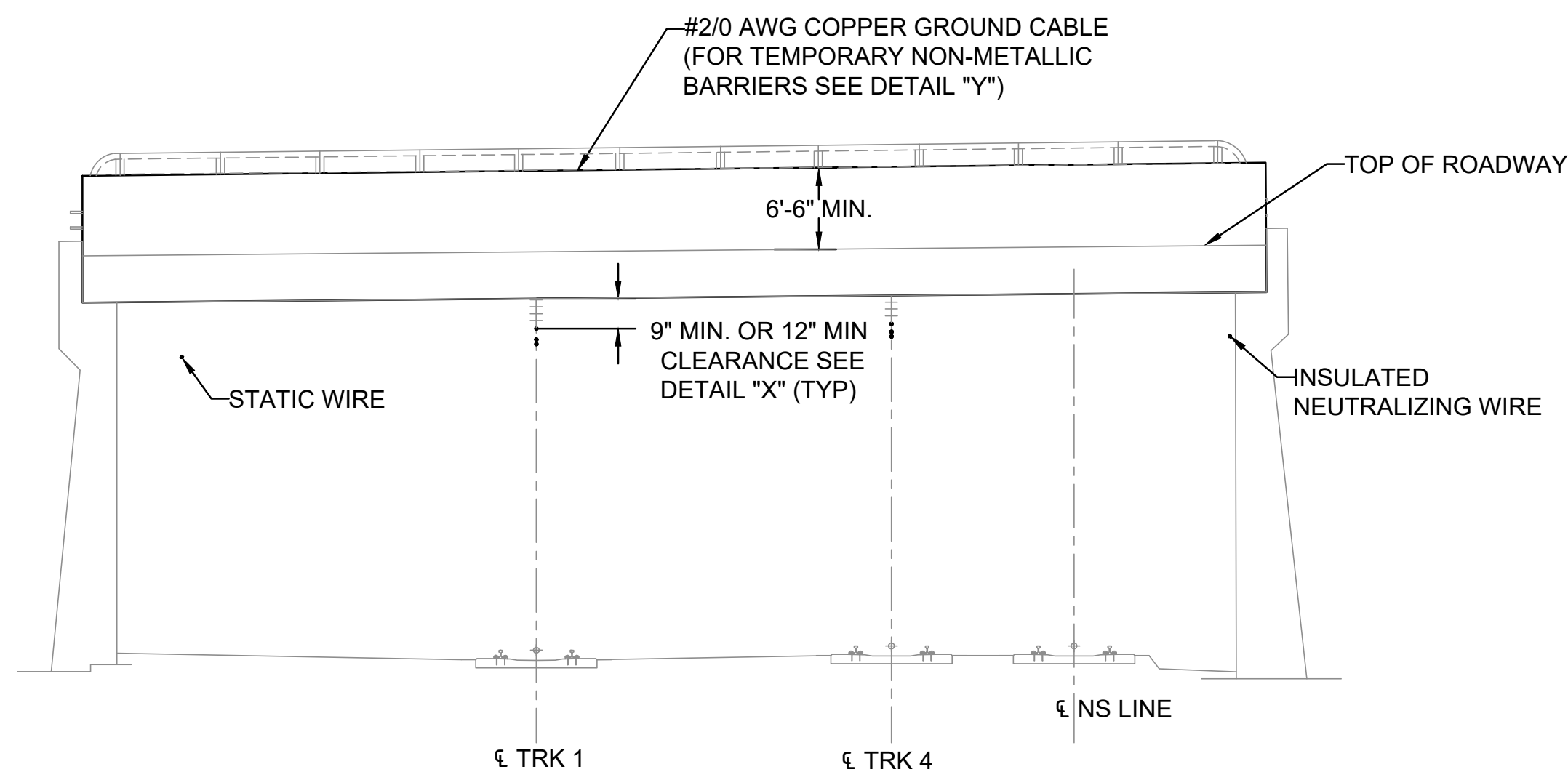
PLAN VIEW DEMOLITION SHIELD AND GROUND WIRE ROUTING



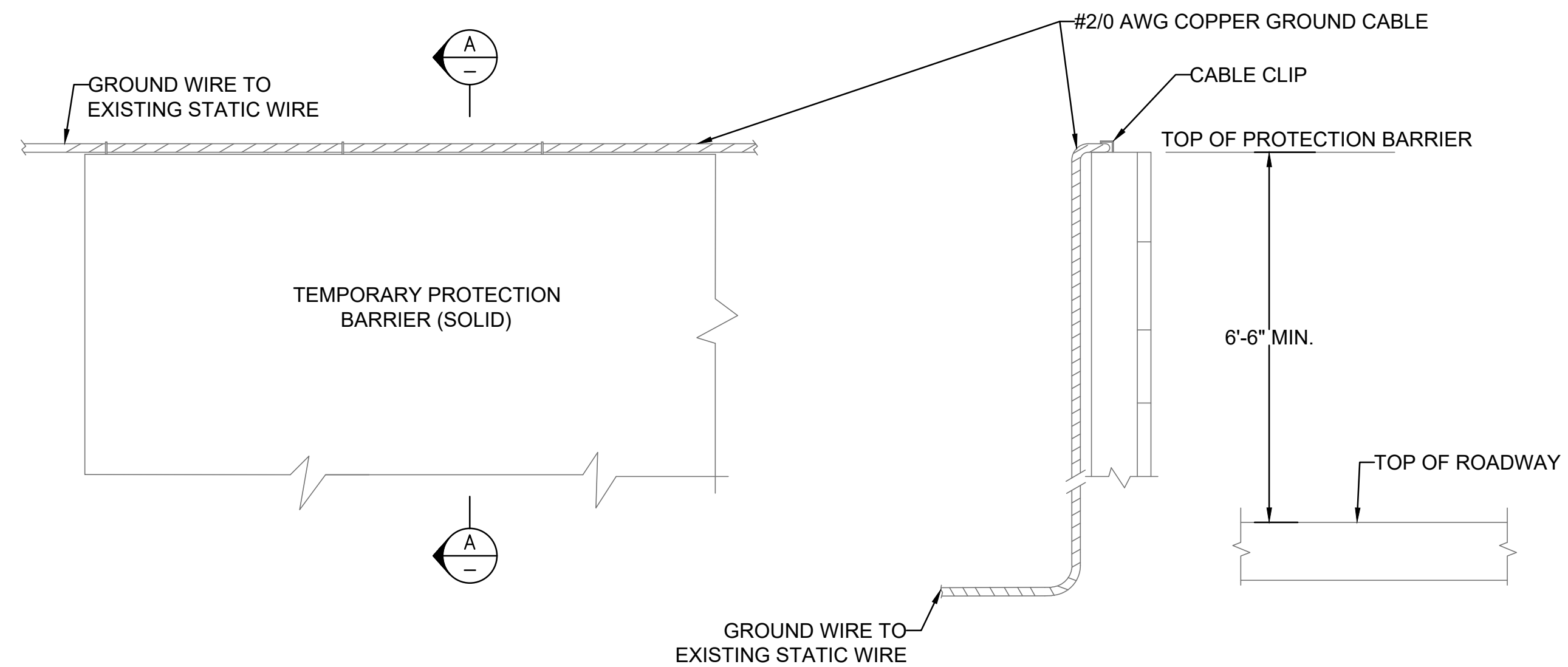
DETAIL "X" - TEMPORARY STRINGERS TRANSVERSE TO BRIDGE

GENERAL NOTES:

- 1.) TEMPORARY PROTECTION SHIELDS SHALL BE USED, WITH CERTAIN EXCEPTIONS, DURING DEMOLITION OF EXISTING BRIDGES OR ERECTION OF NEW BRIDGES IN ORDER THAT WORK ON THE BRIDGE STRUCTURE CAN PROCEED OVER THE ELECTRIFICATION FACILITIES WITHOUT REQUIRING THE WIRES TO BE DEENERGIZED. ELECTRIFICATION FACILITIES SHALL BE DEENERGIZED DURING THE TIME THE STRUCTURAL FRAME AND THE TEMPORARY PROTECTION SHIELD ARE BEING ERECTED OVER OR OTHERWISE NEAR THE WIRES. THE ABOVE WORK SHALL BE DONE UNDER THE DIRECTION OF A QUALIFIED RAILROAD EMPLOYEE. IN CASES WHERE THERE IS INSUFFICIENT ELECTRICAL CLEARANCE BETWEEN THE WIRES AND THE BRIDGE STRUCTURE FOR ERECTION OF THE TEMPORARY PROTECTION SHIELD, ALL WORK OVER THE WIRES SHALL BE PERFORMED WITH THE WIRES DEENERGIZED AND UNDER THE PROTECTION OF A QUALIFIED RAILROAD EMPLOYEE. THE TEMPORARY PROTECTION BARRIER SHALL BE INSTALLED WHETHER OR NOT A TEMPORARY PROTECTION SHIELD IS USED.
- 2.) DETAILS OF ANY PROPOSED SHIELD AND BARRIER SHALL BE SUBMITTED TO THE RAILROAD FOR APPROVAL, AND WORK ON ANY SHIELD OR BARRIER SHALL NOT BE STARTED BEFORE SUCH APPROVAL IS OBTAINED.
- 3.) THE TEMPORARY PROTECTION SHIELD SHALL BE OF SOLID CONSTRUCTION (TONGUE AND GROOVE OR EQUAL) AND SHALL BE PROVIDED WITH A SOLID PROTECTION BARRIER HAVING A MINIMUM HEIGHT OF 6'-6" ABOVE THE SURFACE OF THE SIDEWALK OR CURB OF THE BRIDGE TO PROTECT WORKMAN AGAINST CONTACT WITH RAILROAD WIRES PASSING UNDER THE BRIDGE AND TO PREVENT DAMAGE TO THE WIRES.
- 4.) THE TEMPORARY PROTECTION SHIELD AND BARRIER SHALL EXTEND NOT LESS THAN 10 FEET BEYOND THE CENTERLINE OF TRACK UNDER THE BRIDGE MEASURED IN A HORIZONTAL PLANE AND NORMAL TO THE TRACK, AND SHALL PREVENT DAMAGE TO THE WIRES.
- 5.) THE PROTECTION SHIELD SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 100 LB. PER SQUARE FOOT. IF THE SHIELD IS TO SERVE AS A FORM OR IS TO CARRY ANY PART OF THE OVERHEAD STRUCTURE DURING ERECTION, IT SHALL BE DESIGNED FOR THE SUPERIMPOSED LOADS. IF THE SHIELD IS TO BE USED FOR PROTECTION DURING DEMOLITION OF AN OVERHEAD STRUCTURE, IT SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 100 LB. PER SQUARE FOOT AND A VERTICAL WIND LOAD OF 30 LBS./SQUARE FOOT.
- 6.) NON-METALLIC TEMPORARY PROTECTION BARRIERS SHALL BE PROVIDED WITH 2/0 AWG SIZE COPPER GROUND CABLE CONNECTED TO THE RAILROAD GROUND SYSTEM PER DETAIL "Y", THIS DRAWING.
- 7.) TEMPORARY PROTECTION SHIELDS OF TIMBER CONSTRUCTION SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12 INCHES TO THE RAILROAD WIRES. THE CORRESPONDING CLEARANCE TO STEEL CONSTRUCTION SHALL BE 9 INCHES.
- 8.) WHERE STRINGERS TRANSVERSE TO THE BRIDGE ARE USED, THE MINIMUM HORIZONTAL CLEARANCE BETWEEN STRINGERS AND RAILROAD WIRES SHALL BE 4 FEET AS SHOWN IN DETAIL "X".
- 9.) TEMPORARY PROTECTION BARRIERS SHALL REMAIN IN PLACE AT LEAST UNTIL PERMANENT PROTECTION BARRIERS AND GROUNDING ARE COMPLETED.
- 10.) ANY MODIFICATION OF THE ELECTRICAL REQUIREMENTS SHOWN ON THIS DRAWING SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR APPROVAL.
- 11.) WHERE REQUIRED BY LOCAL CONDITIONS, THE ELECTRICAL CLEARANCES SHOWN ON THIS DRAWING MAY BE INCREASED BY THE ELECTRIC TRACTION DEPARTMENT.



ELEVATION VIEW DEMOLITION SHIELD AND GROUND WIRE ROUTING



DETAIL "Y" - GROUND CABLE TO TEMPORARY PROTECTIVE BARRIER

SECTION A

NOTES:

1. THIS DRAWING IS IN ACCORDANCE WITH STANDARD AMTRAK DRAWING ET-1447-D IS GENERAL IN NATURE AND PROVIDES THE CONTRACTOR TYPICAL INFORMATION WITH REGARD TO TEMPORARY SHIELDING AND GROUNDING.

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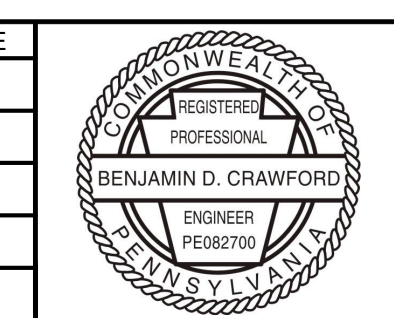
FILE NAME: ET-32_Demolition_Shield.dwg PLOT NAME: Dec. 22, 25 - 12:50 PM

NO.	REVISIONS	DATE	BY



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30TH Street Station, Philadelphia, Pennsylvania 19104

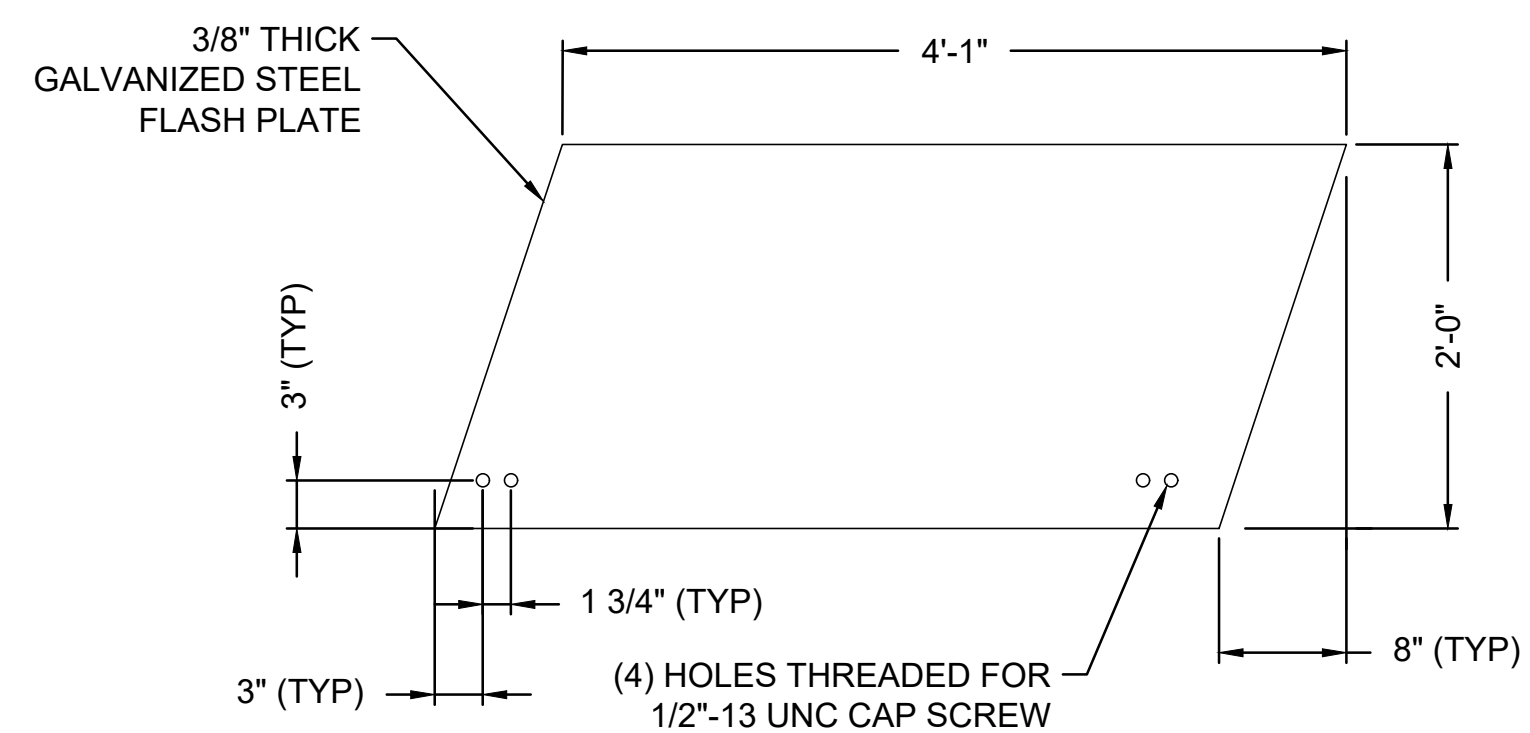
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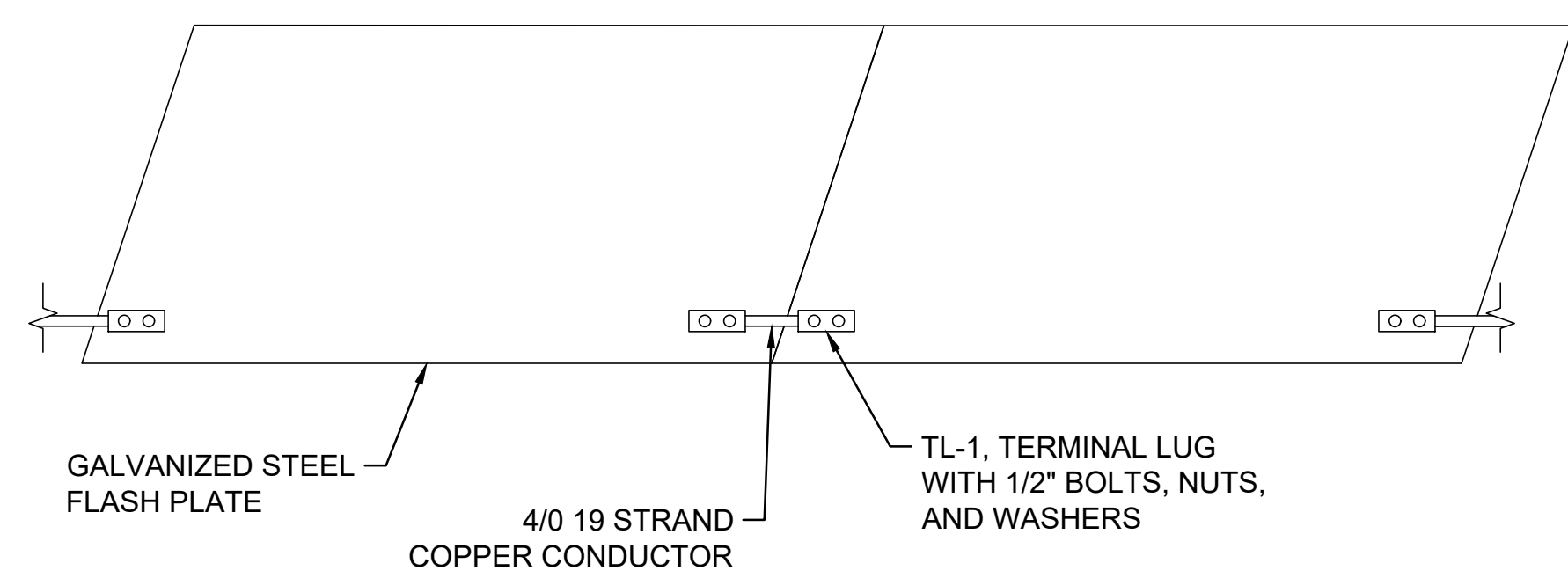
LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
DEMOLITION SHIELD

SCALE:	NOT TO SCALE
PLAN NO.	
SHEET NO.	025 OF 031
SHEET	
ET-32	

DESIGNED: VAR DRAWN: WVD CHECKED: BDC DATE: 12/23/2025

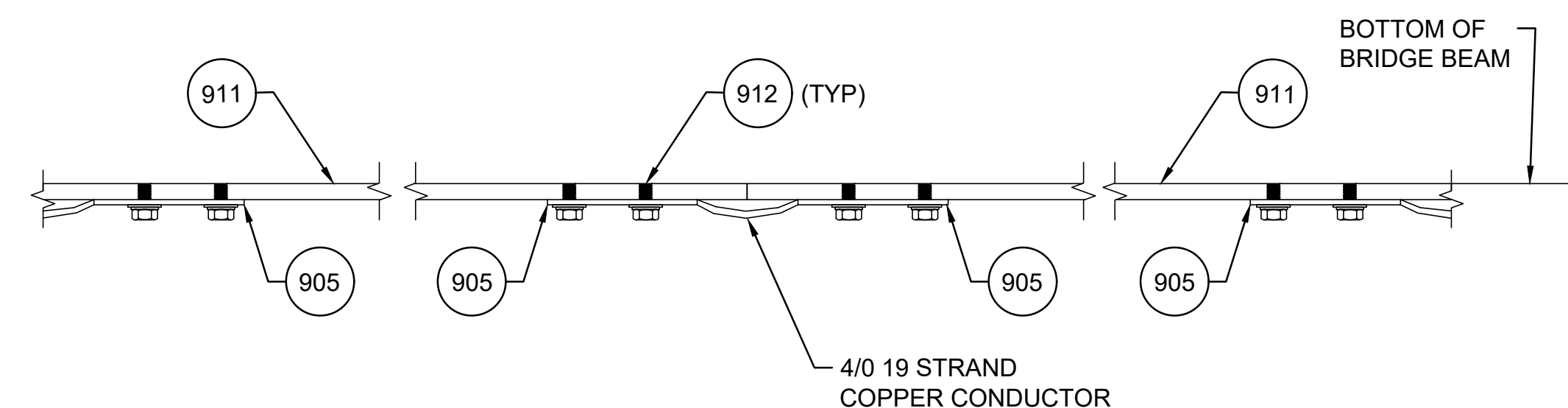


FLASH PLATE FABRICATION DETAIL



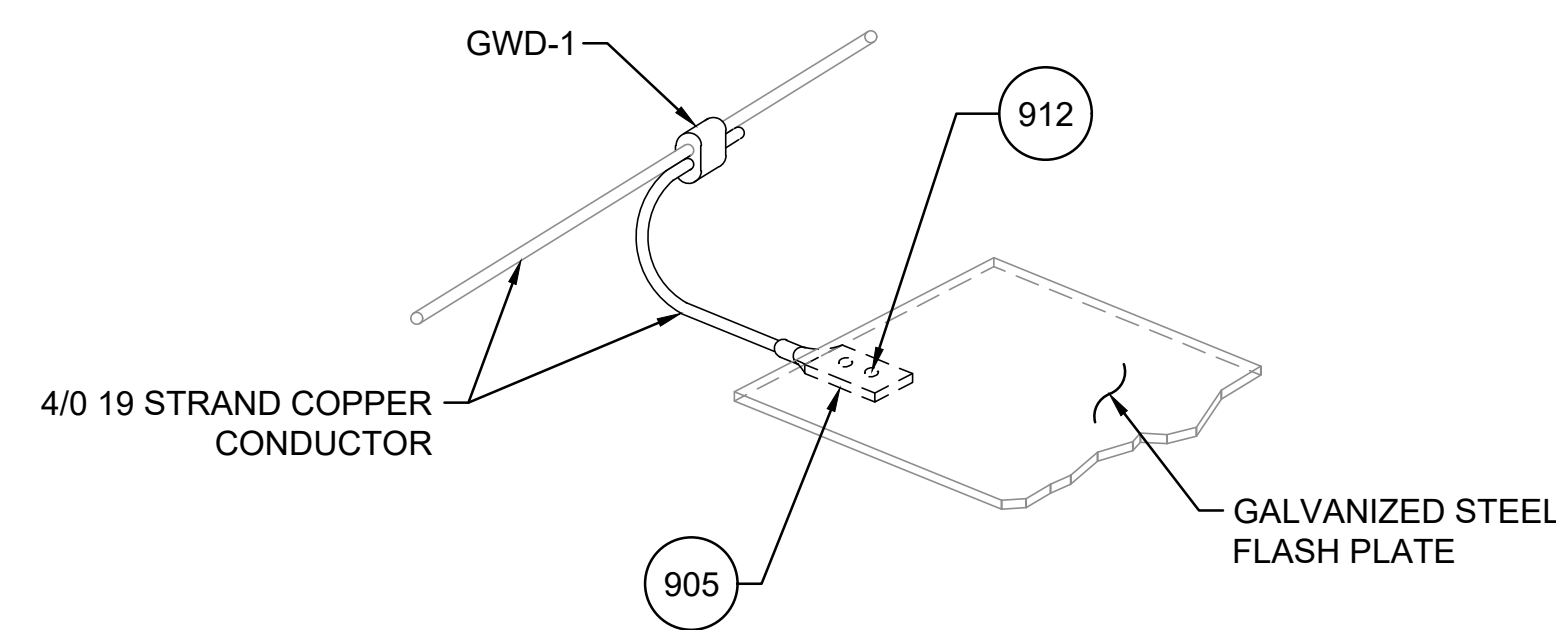
FLASH PLATE CONTINUITY DETAIL

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
905	-	-	TL-1, TERMINAL LUG	EA	4
911	-	-	GALVANIZED STEEL FLASH PLATE	EA	2
912	-	-	BOLT, 1/2" X 3/4" LONG STAINLESS STEEL WITH LOCK WASHER	EA	8
-	-	-	4/0, 19 STRAND COPPER CONDUCTOR	FT	3



ASSEMBLY "FP-1"

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
GWD-1	-	ET-52	JUMPER CONNECTION	EA	1
905	-	-	TL-1, TERMINAL LUG	EA	1
912	-	-	BOLT, 1/2" X 3/4" LONG STAINLESS STEEL WITH LOCK WASHER	EA	2
-	-	-	4/0, 19 STRAND COPPER CONDUCTOR	FT	5



ASSEMBLY "FPG-1"

GENERAL NOTES:

- 1) FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- 2) FLASH PLATES TO BE CENTERED OVER CATENARY WIRES.
- 3) FOR FLASH PLATE ATTACHMENT DETAILS, SEE BRIDGE DRAWINGS.

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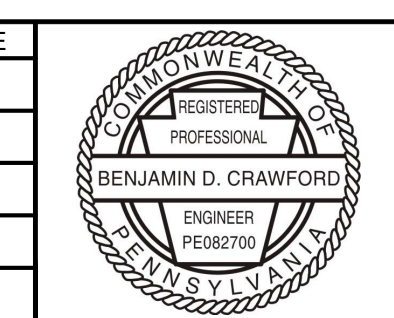
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PLOT NAME: Dec. 22, 25 - 12:52 PM

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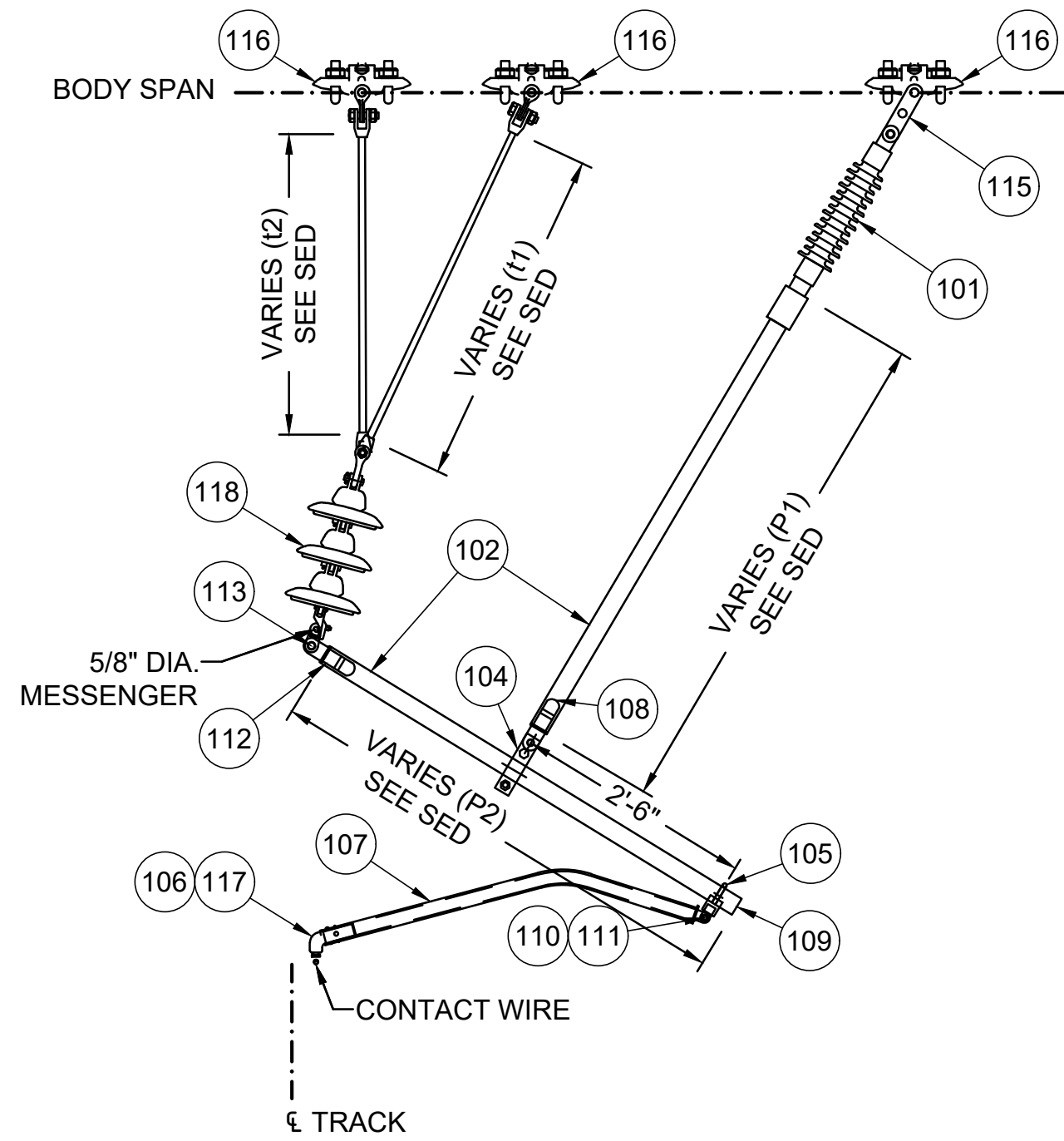


LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
FLASH PLATE
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE:	NOT TO SCALE
PLAN NO.	
SHEET NO.	026 OF 031
SHEET	ET-33

BILL OF MATERIAL						
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY	
101	SA-B0407-01	SAP-401	STRUT PIPE INSULATOR	EA	1	
102	9107F-ET	SAP-605	PIPE 2 INCH IPS SCH 80 ALUMINUM ALLOY 6061-T6	FT	AS REQD	
104	SA-B0408-01	SAP-403	CLEVIS CLAMP FOR PIPE 2 BOLTS	EA	1	
105	SA-B3431-01	SAP-404	STEADY ARM CLEVIS FOR 2 INCH NPS PIPE	EA	1	
106	SA-B3406-01	SAP-405	CONTACT WIRE SWIVEL CLIP	EA	1	
107	SA-B3412-01	SAP-406	STEADY ARM 4.75 FT LONG 1.5 IN	EA	1	
108	C-B0505-01	SAP-501	PIPE EYE END	EA	1	
109	C-B0504-01	SAP-503	CAP FOR 2" SCHD 80 ALUMINUM PIPE DRIVEN	EA	1	
110	10620H1	SAP-601	BOLT STAINLESS STEEL 1/4-20 UNC 3" LONG	EA	1	
111	-	-	LOCK NUT STAINLESS STEEL 1/4-20	EA	1	
112	C-B0505-03	SAP-502	PIPE END CLEVIS	EA	1	
113	BG-3	AET-10406_1	BOLT, HEX HEAD, 3/4"-10 UNC X 3 1/2" & NUT & 3/16" X 1-3/4" BRNZ COT PIN	EA	1	
115	A-SAPSUP	SAP-704	SAP SUPPORT TO BC-XHA	EA	1	
116	BC-XHA-03	SAP-301	BODY STRAND CLAMP	EA	3	
117	H-CLIP	SAP-302	H-CLIP	EA	1	
118	NA-24A	SAP-301	MESSENGER SUSPENSION FROM BODY	EA	1	

* SEE SUB-COMPONENT BILL OF MATERIAL

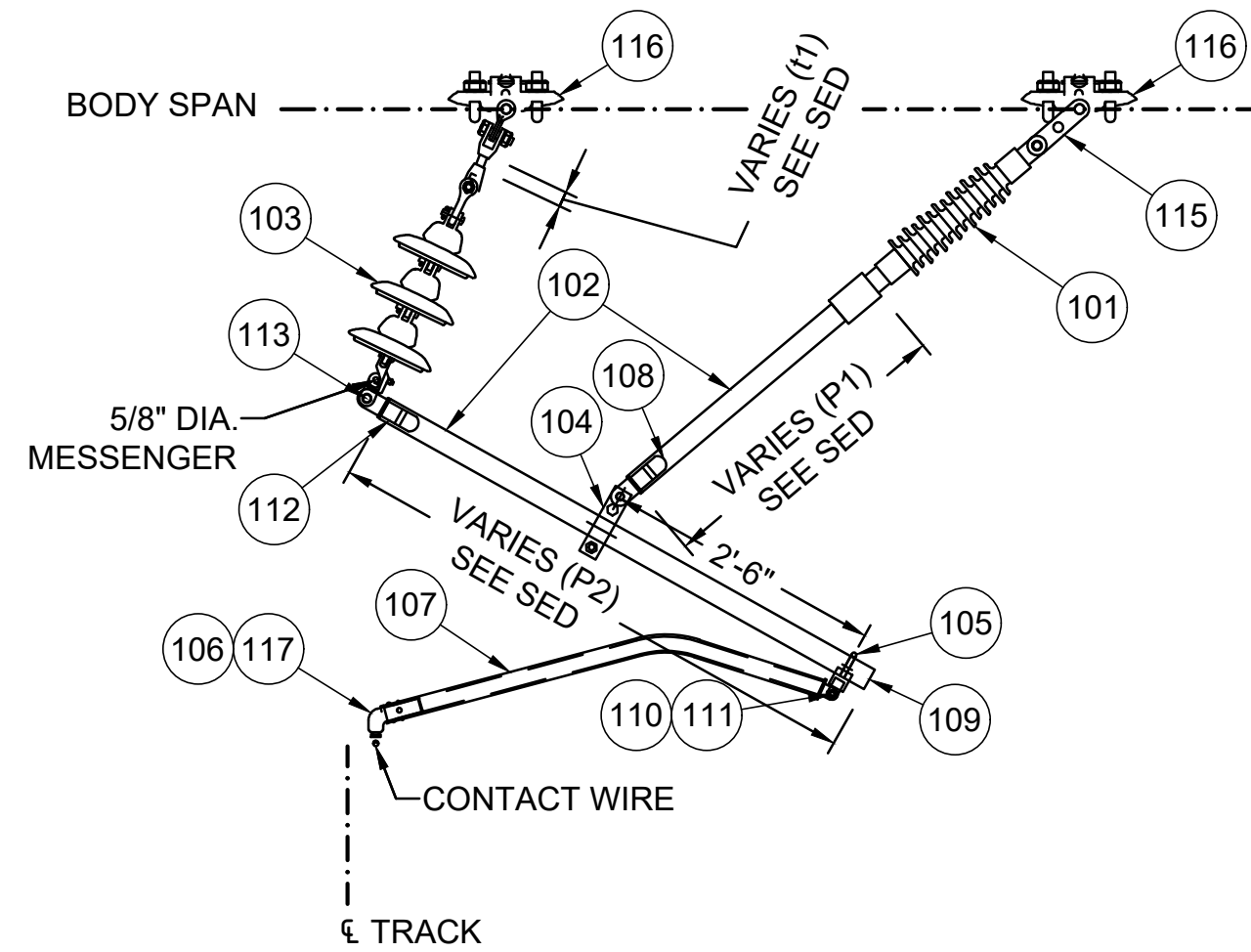


ASSEMBLY "A-SAP-FT-9-04"

FOR COMPOUND CATENARY UNDER BODY
MAY BE USED WHEN DISTANCE FROM
MESSENGER TO BODY IS BETWEEN 2'-7" AND 5'-9"

BILL OF MATERIAL						
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY	
101	SA-B0407-01	SAP-401	STRUT PIPE INSULATOR	EA	1	
102	9107F-ET	SAP-605	PIPE 2 INCH IPS SCH 80 ALUMINUM ALLOY 6061-T6	FT	AS REQD	
103	NA-82	SAP-301	MESSENGER SUSPENSION FROM BODY	EA	1	
104	SA-B0408-01	SAP-403	CLEVIS CLAMP FOR PIPE 2 BOLTS	EA	1	
105	SA-B3431-01	SAP-404	STEADY ARM CLEVIS FOR 2 INCH NPS PIPE	EA	1	
106	SA-B3406-01	SAP-405	CONTACT WIRE SWIVEL CLIP	EA	1	
107	SA-B3412-01	SAP-406	STEADY ARM 4.75 FT LONG 1.5 IN	EA	1	
108	C-B0505-01	SAP-501	PIPE EYE END	EA	1	
109	C-B0504-01	SAP-503	CAP FOR 2" SCHD 80 ALUMINUM PIPE DRIVEN	EA	1	
110	10620H1	SAP-601	BOLT STAINLESS STEEL 1/4-20 UNC 3" LONG	EA	1	
111	-	-	LOCK NUT STAINLESS STEEL 1/4-20	EA	1	
112	C-B0505-03	SAP-502	PIPE END CLEVIS	EA	1	
113	BG-3	AET-10406_1	BOLT, HEX HEAD, 3/4"-10 UNC X 3 1/2" & NUT & 3/16" X 1-3/4" BRNZ COT PIN	EA	1	
115	A-SAPSUP	SAP-704	SAP SUPPORT TO BC-XHA	EA	1	
116	BC-XHA-03	SAP-301	BODY STRAND CLAMP	EA	2	
117	H-CLIP	SAP-302	H-CLIP	EA	1	

* SEE SUB-COMPONENT BILL OF MATERIAL

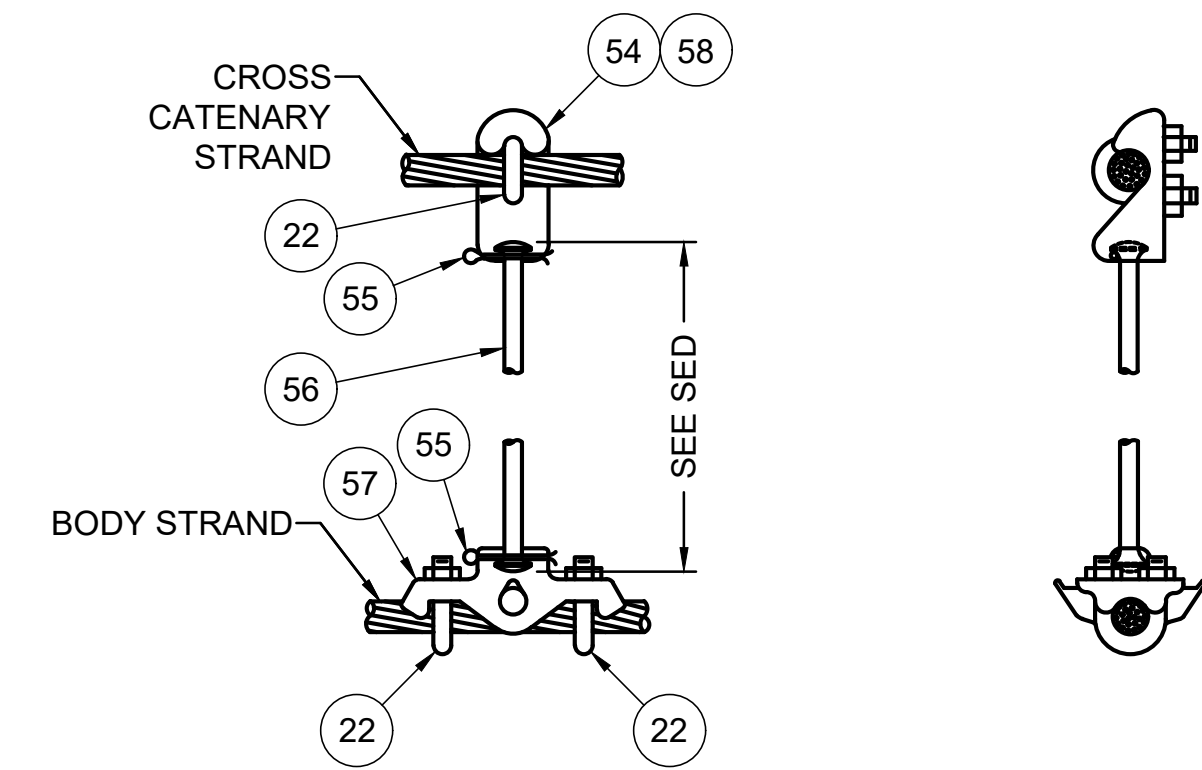


ASSEMBLY "A-SAP-FT-7-04"

FOR COMPOUND CATENARY UNDER BODY
MAY BE USED WHEN DISTANCE FROM
MESSENGER TO BODY IS BETWEEN 1'-11 1/4" AND 2'-7"

ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY	
					XHA-10	XHA-11
22	UB27	11B-1221	U-BOLT	EA	3	3
54	XC-7	14E-66	CLAMP, CROSS CATENARY, M.I., GALV, SPEC P-116	EA	1	-
55	-	-	COTTER PIN, 3/16" x 2 1/2", BRONZE	EA	2	2
56	XH	11B-1282	0.48" DIA. ROD, HEADED HANGER, BRONZE	EA	*	*
57	XC-6	14E-61-7	CLAMP, BODY STRAND TO 1/2" DIA. ROD, M.I.	EA	1	1
58	XC-8	14E-67	CLAMP, CROSS CATENARY, M.I.	EA	-	1

* - FOR LENGTH SEE SECTION ERECTION DIAGRAMS



ASSEMBLIES "XHA-10", "XHA-11"

SUB-COMPONENT BILL OF MATERIAL						
MARK	AMTRAK REF. DWG.	DESCRIPTION	ASSEMBLY			
			BC-XHA-03	H-CLIP	NA-24A	NA-82
B1	AET-10400	INSULATOR, SUSPENSION, RR TYPE B1, CLEVIS 10" BELL, #8100	-	-	3	3
BG1	AET-10406_1	BOLT, GALV STEEL, 3/4"-10 UNC-2AX2 3/4" W/ NUT AND 3/16" X 1 3/4" COTTER PIN	-	-	2	1
CE1	AET-10427	CLEVIS END, BRONZE FOR HANGER ROD	-	-	3	1
EE1	AET-10427	EYE END, BRONZE FOR HANGER ROD	-	-	1	1
JB	AET-10406_3	J-BOLT, 1/2"-13 UNC-2A X 2 3/8", BRONZE W/ HEX NUT	-	-	2	2
MK1	AET-10410	MESSENGER HOOK, MI GALV.	-	-	1	1
NP1	AET-10409	PIN, INSULATOR, 5/8" X 1 7/8" GALV. STEEL W/ 3/16" BRONZE COTTER PIN	-	-	1	1
NR2	AET-10415_4	ROD, 0.72" DIA. BRONZE, LENGTH PER SED	-	-	2	1
S2	AET-10408_1	SHACKLE CHAIN W/ BOLT, NUT AND COTTER PIN	-	-	1	-
XT1	AET-10414_3	TWISTED STRAP FOR BODY STRAND G&H SPEC P-116-5	-	-	4	2
UB27	AET-10406_3	U-BOLT, 5/8" DIA. X 2 7/8" LG. X 1 1/2" OPEN C TO C X 1 5/8" THREAD W/ HEX NUTS	2	-	-	-
XC6	AET-10413_1	CLAMP, BODY STRAND TO 1/2" DIA. ROD, MI	1	-	-	-
-	-	NUT, W/(2) LOCKING SLOTS & CL WASHER, 1/2-13 UNC-2B, WASHER 1.063 DIA. STN. STL.	-	1	-	-
HC-29A	AET-10421_2	CLIP, INTERMEDIATE, ALUMINUM-BRONZE, CONTACT TO AUX, ASTM SPEC. B-148-52	-	2	-	-
SSB-34	ET1-100	BOLT, CARRIAGE, SQ. NECK, RD. HD. 1/2" X 1 5/8" 13 UNC-2A, 316 STN. STL.	-	1	-	-

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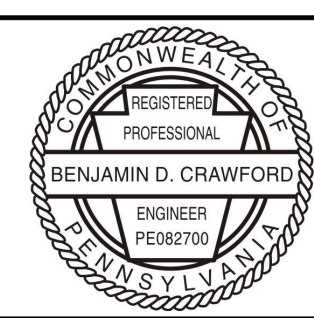
FILE NAME: ET-50_Suspension_Assemblies.dwg
PLOT DATE: Dec. 22, 25 - 1:03 PM

NO.	REVISIONS	DATE	BY



**Office of Engineering
Engineering Design**
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



LANCASTER, PENNSYLVANIA PENNDOT BPT KEYSTONE CORRIDOR SR 3028 PITNEY ROAD				SCALE:	NOT TO SCALE
SUSPENSION ASSEMBLIES				PLAN NO.	
DESIGNED: VAR DRAWN: WVD CHECKED: BDC DATE: 12/23/2025				SHEET NO.	027 OF 031
				SHEET	
				ET-50	

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
47	SSB22	ET1-100	BOLT, STAINLESS STEEL	EA	1
48	-	ET-652E	0.34" DIA. LOOP HANGER	FT	*
73	BC26B	ET-1078E	GROOVE WIRE TO 0.34" DIA. HANGER ROD, CLIP MESSENGER SADDLE	EA	2
74	FHS	ET-652E	MESSENGER SADDLE	EA	1
78	ERM	ET1-100	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	EA	1

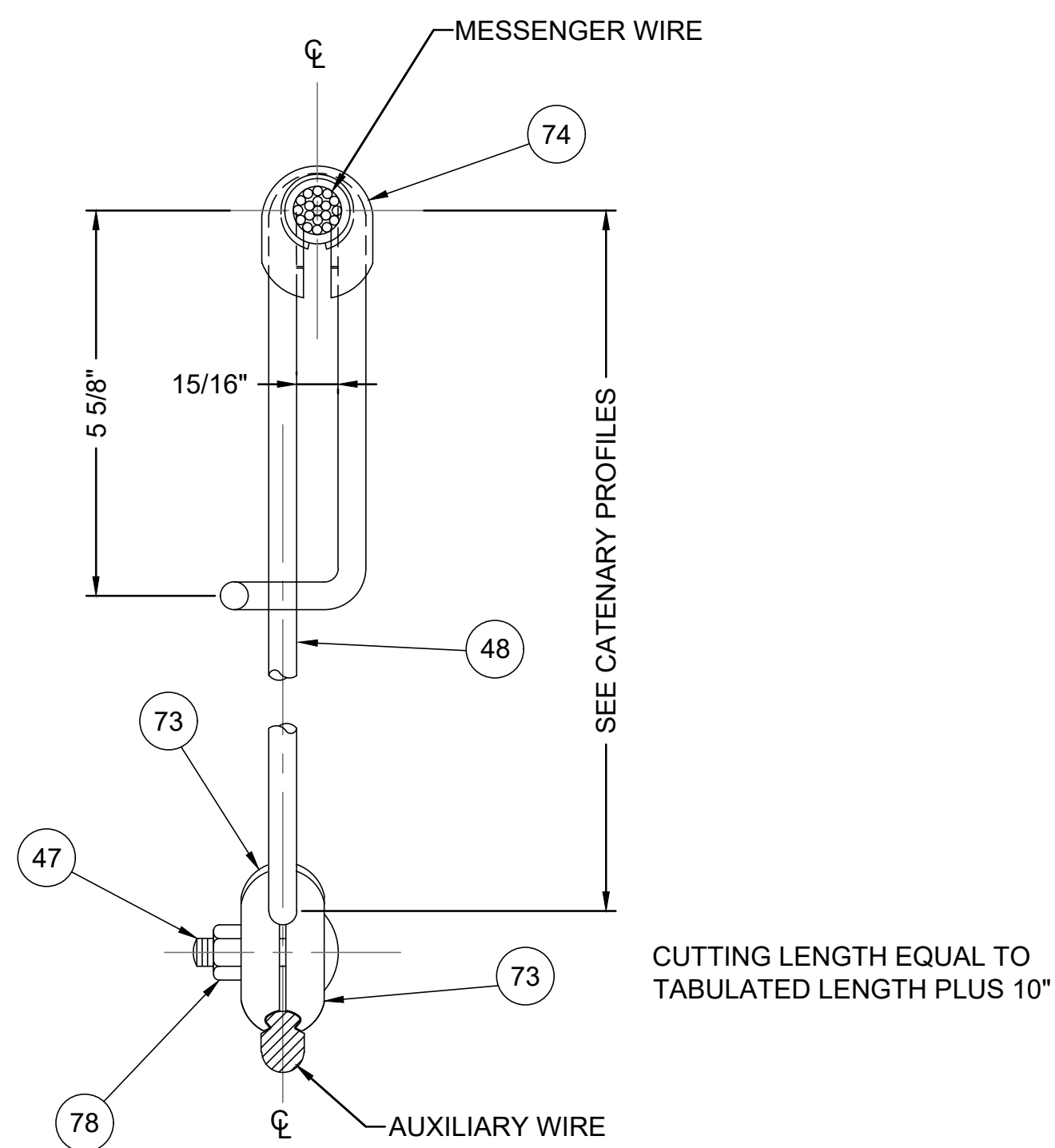
BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
46	BC24B	ET-1087E	5/8" DIA. TO 0.34" DIA. HANGER ROD, CLIP	EA	2
47	SSB22	ET1-100	BOLT, STAINLESS STEEL	EA	2
48	-	ET-652E	0.34" DIA. LOOP HANGER	FT	*
73	BC26B	ET-1078E	GROOVE WIRE TO 0.34" DIA. HANGER ROD, CLIP MESSENGER SADDLE	EA	2
78	ERM	ET1-100	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	EA	2

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
46	BC24B	ET-1087E	5/8" DIA. TO 0.34" DIA. HANGER ROD, CLIP	EA	2
47	SSB22	ET1-100	BOLT, STAINLESS STEEL	EA	2
73	BC26B	ET-1078E	GROOVE WIRE TO 0.34" DIA. HANGER ROD, CLIP MESSENGER SADDLE	EA	2
75	JR	ET-1095E	BRONZE RING HANGER	EA	1
78	ERM	ET1-100	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	EA	2

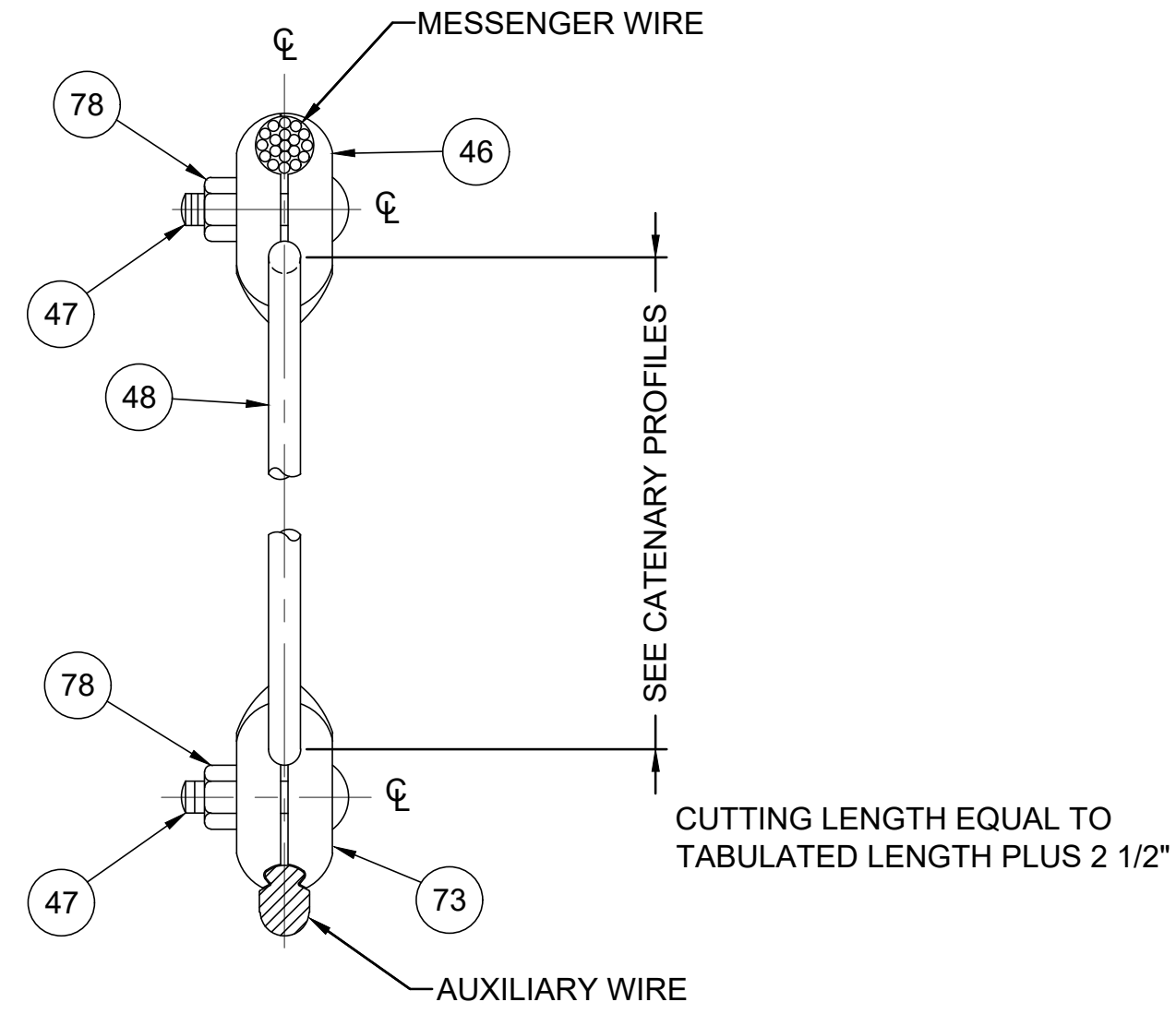
BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
18	HC29A	ET-1029E	INTERMEDIATE CATENARY CLIP	EA	2
20	SSB34	ET1-100	BOLT, STAINLESS STEEL	EA	1
78	ERM	ET1-100	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	EA	1

* - FOR LENGTH SEE CATENARY PROFILES

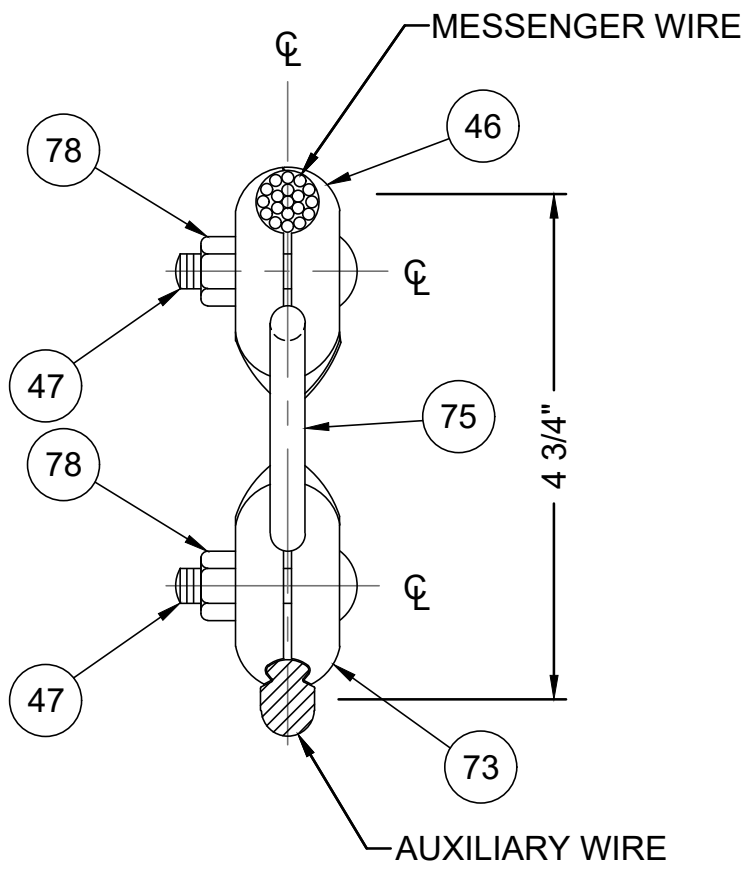
* - FOR LENGTH SEE CATENARY PROFILES



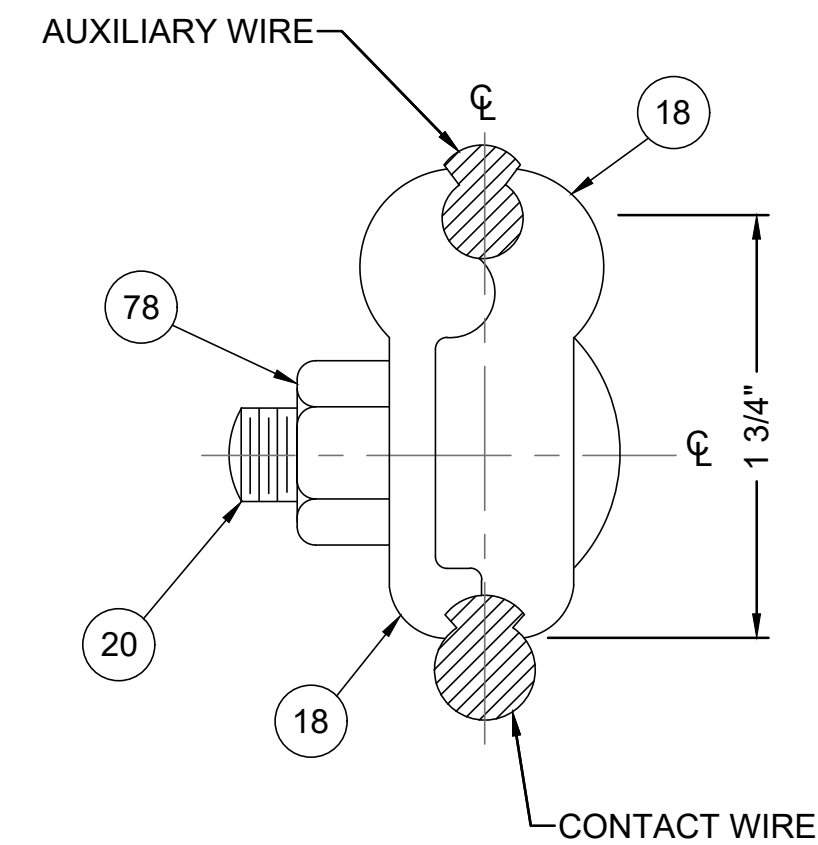
ASSEMBLY "ME"



ASSEMBLY "J"



ASSEMBLY "JM"



ASSEMBLY "H"

CUTTING LENGTH EQUAL TO TABULATED LENGTH PLUS 10"

CUTTING LENGTH EQUAL TO TABULATED LENGTH PLUS 2 1/2"

FILE NAME: ET-51_Hanger Assemblies.dwg
PLOT NAME: Dec. 22, 25 - 1:03 PM

NO.	REVISIONS	DATE	BY



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Engineering Design
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

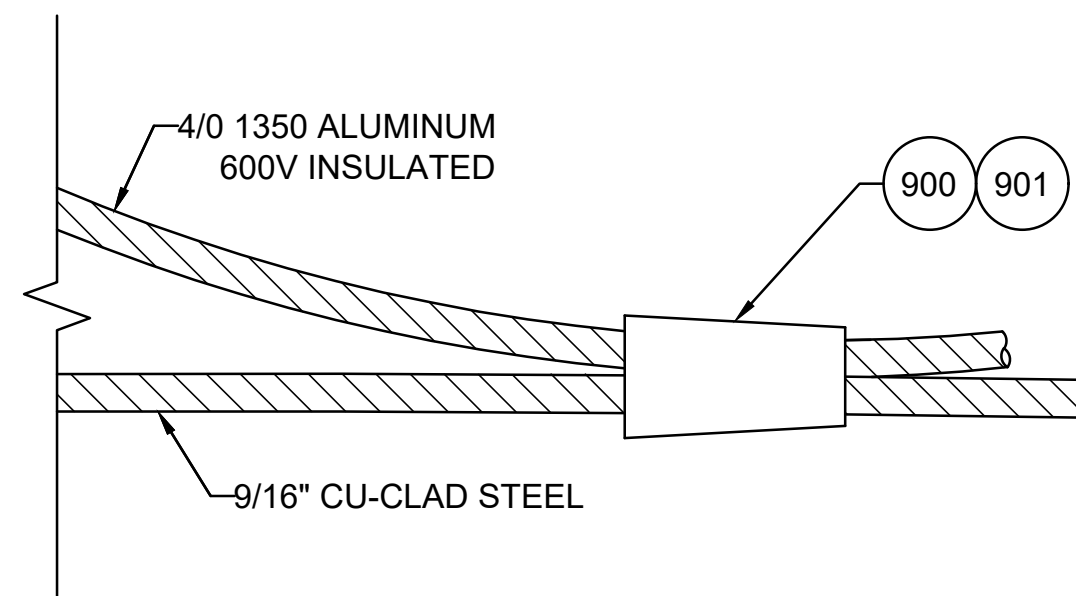
APPROVED	DATE



LANCASTER, PENNSYLVANIA PENNDOT BPT KEYSTONE CORRIDOR SR 3028 PITNEY ROAD		SCALE:	NOT TO SCALE
HANGER ASSEMBLIES		PLAN NO.	
DESIGNED: VAR		SHEET NO.	028 OF 031
DRAWN: WVD		DATE:	12/23/2025
CHECKED: BDC		ET-51	

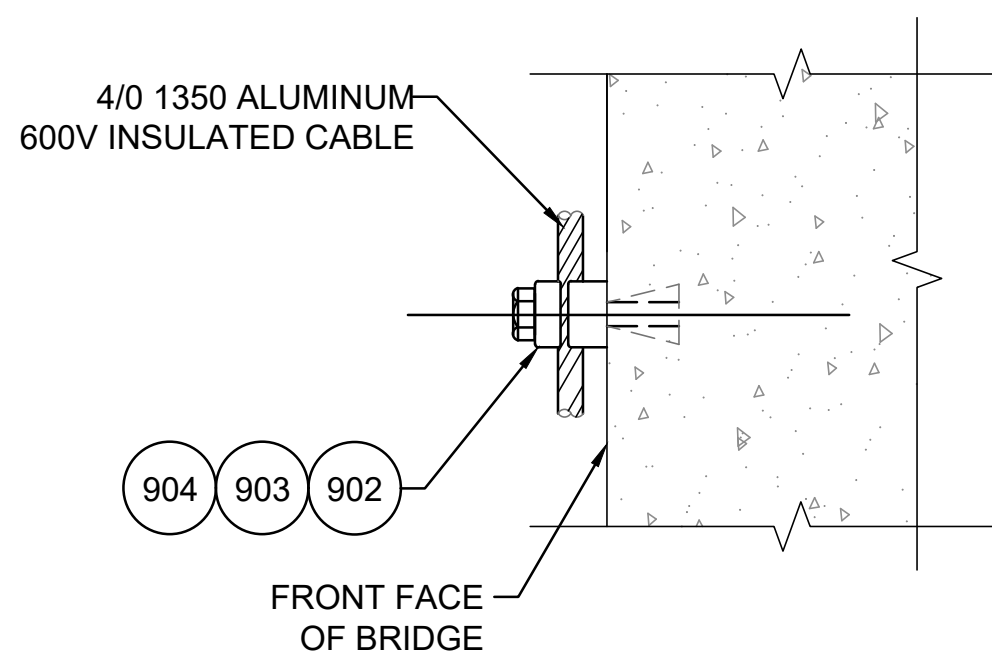
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BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
900	-	-	CONNECTOR, 9/16" CU-CLAD STEEL TO 4/0 1350 ALUMINUM 600V INSULATED CABLE	EA	1
901	-	-	CARTRIDGE, WHITE FOR INSTALLATION OF FEEDER CABLES	EA	2



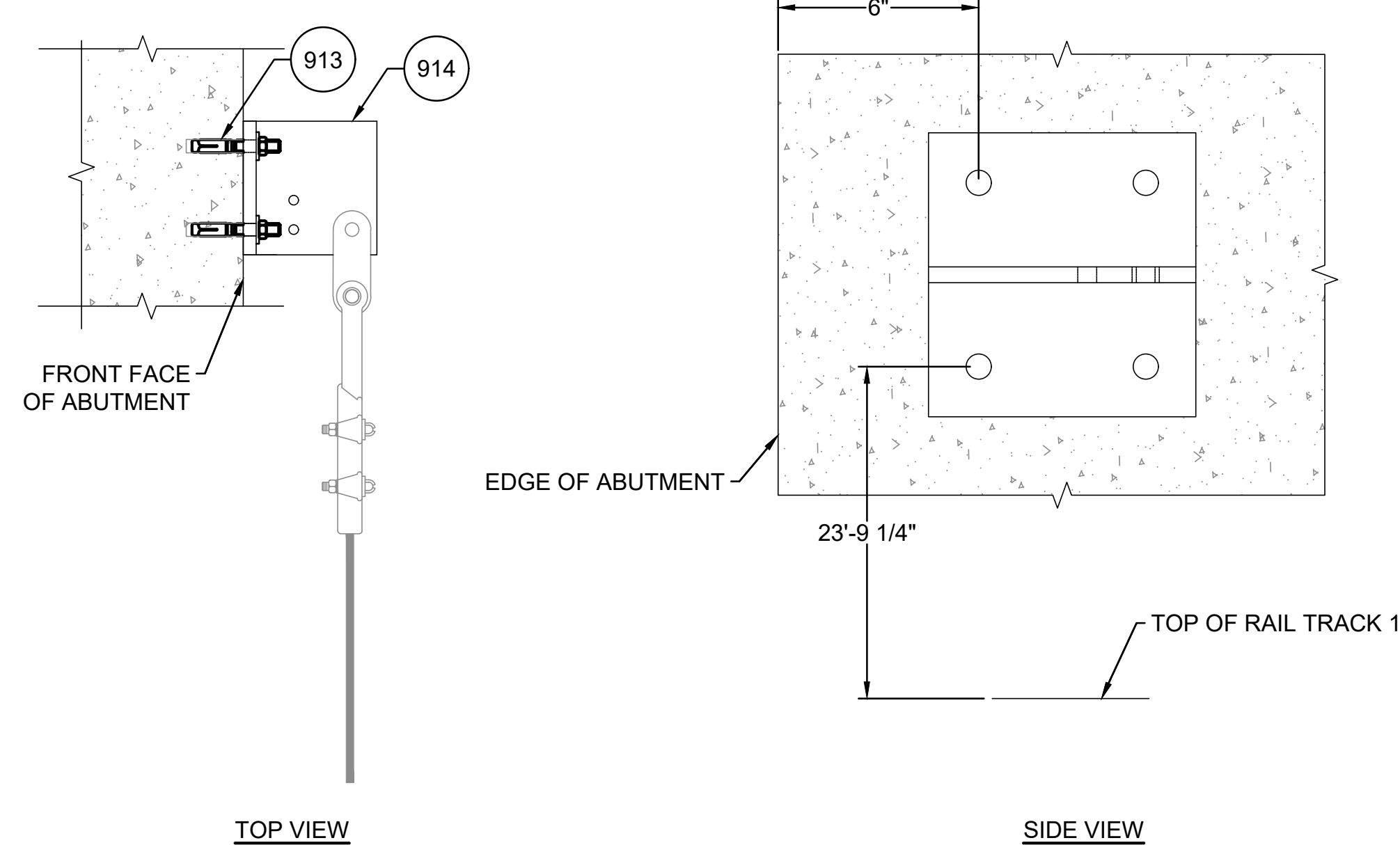
GWD-1 - JUMPER CONNECTION

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
902	-	-	GROUND CLAMP	EA	1
903	-	-	CONCRETE DROP IN ANCHOR, ZINC PLATED FOR 5/8" BOLT	EA	1
904	-	-	BOLT, 5/8" X 3" LONG STAINLESS STEEL WITH LOCK WASHER	EA	1



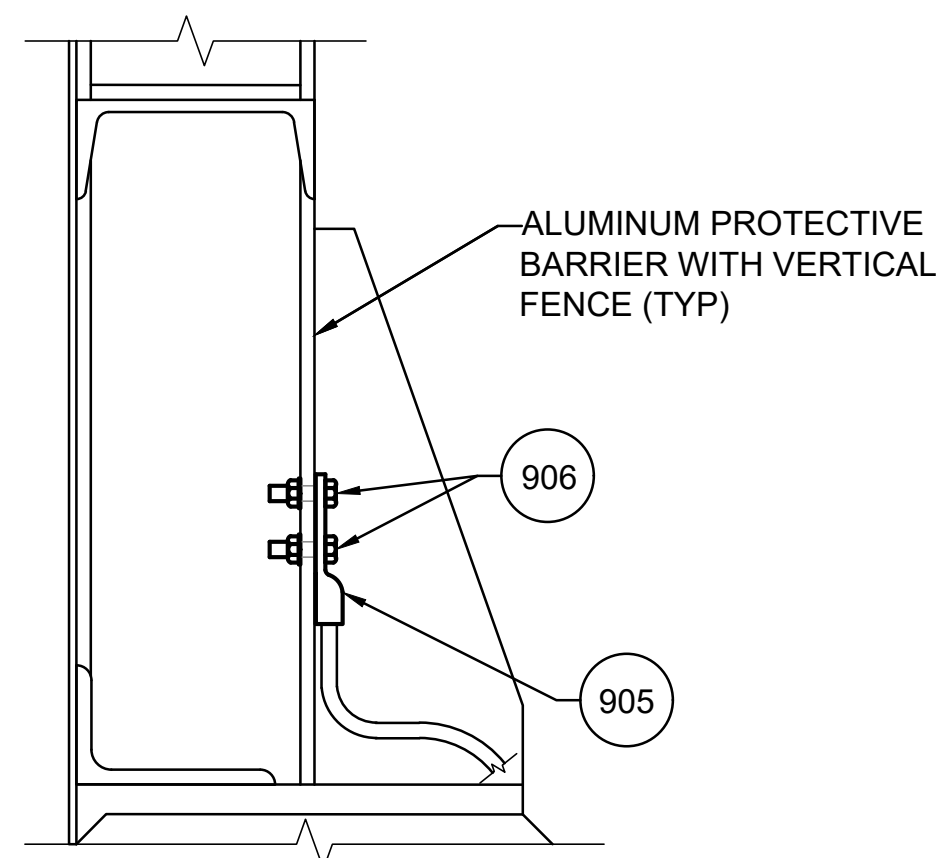
GWD-2 - WIRE TO CONCRETE CONNECTION

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
913	-	-	1/2" x 3 3/4" WEDGE ANCHOR	EA	4
914	-	-	GROUND WIRE SUPPORT PLATE	EA	1



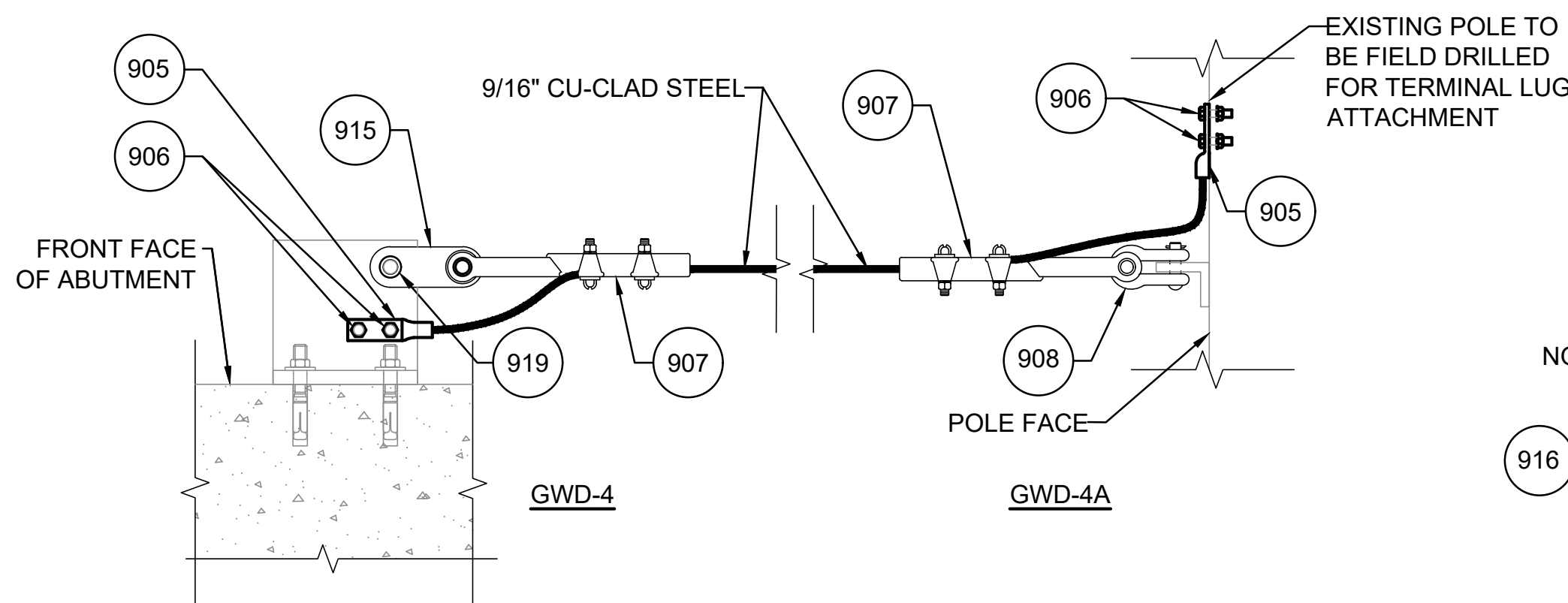
GWD-5 - GROUND WIRE TERMINATION TO BRIDGE ABUTMENT

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
905	-	-	TL-1, TERMINAL LUG	EA	1
906	-	-	BOLT, 1/2" X 3" LONG STAINLESS STEEL WITH NUT AND LOCKWASHER	EA	2



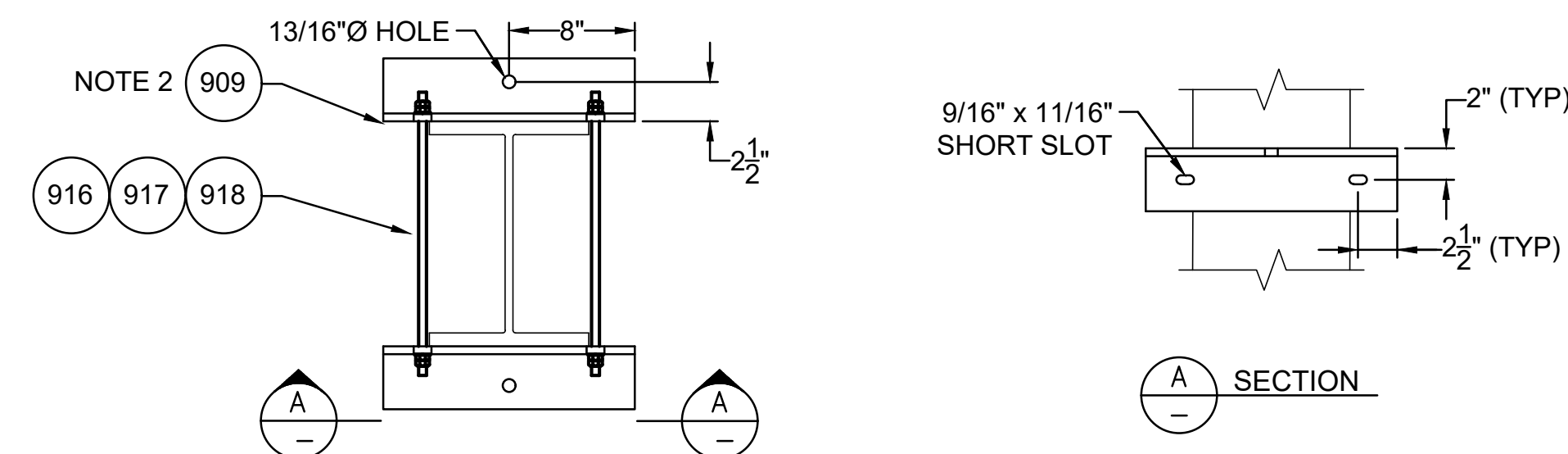
GWD-3 - WIRE TO ALUMINUM BARRIER CONNECTION

BILL OF MATERIAL						
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY	
					GWD-4	GWD-4A
905	-	-	TL-1, TERMINAL LUG	EA	1	1
906	-	-	BOLT, 1/2" X 3" LONG STAINLESS STEEL WITH NUT AND LOCKWASHER	EA	2	2
907	-	-	DEADEND CLAMP FOR 4/0 WIRE	EA	1	1
908	-	ET-305-E	SHACKLE, CHAIN W/ BOLT, NUT & COTTER PIN	EA	-	1
915	ND-2	ET-449-E	ADAPTER CLEVIS	EA	1	-
919	NP-3	11B-1206	PIN WITH COTTER	EA	1	-
-	-	-	9/16" CU-CLAD STEEL CABLE	FT	AS REQ'D	AS REQ'D

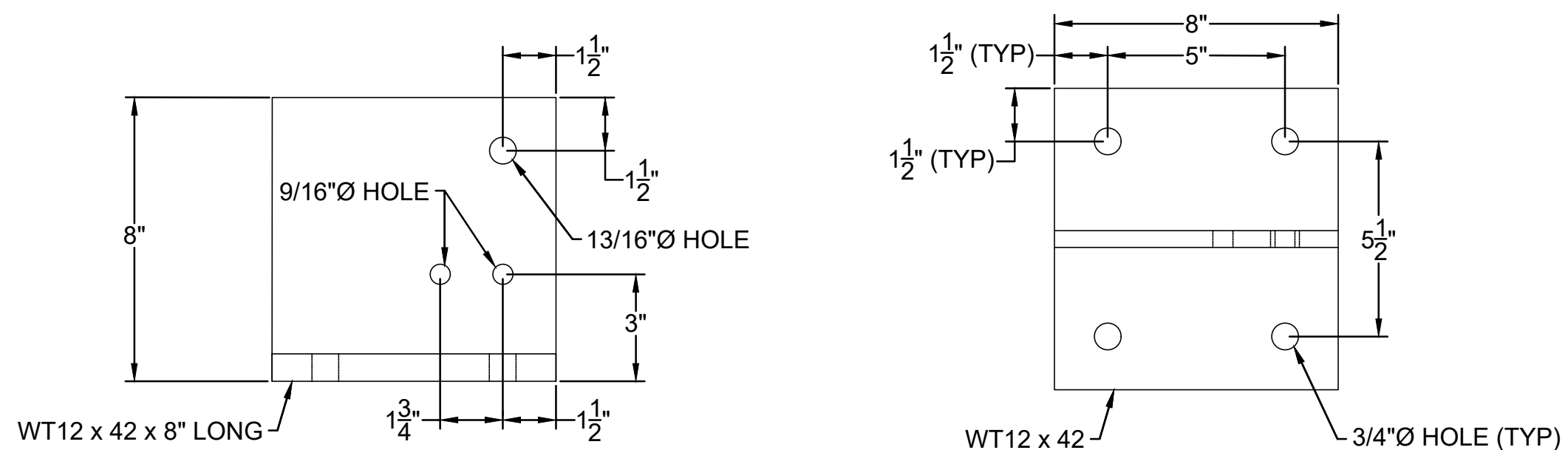


GWD-4 & GWD-4A - WIRE TERMINATION

BILL OF MATERIAL					
ITEM	MARK	AMTRAK REF. DWG.	DESCRIPTION	UNITS	QTY
909	-	-	L 4" x 4" x 1/2" x 16" LONG	EA	2
916	-	-	ROD, 1/2" DIA. 18" LONG	EA	2
917	-	-	NUT, 1/2"	EA	8
918	-	-	WASHER, 1/2"	EA	4



GWD-5A - GROUND WIRE TERMINATION TO POLE



GROUND WIRE SUPPORT PLATE

GENERAL NOTES:

- FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE ET-03 AND ET-04.
- DIMENSIONS OF POLE CLAMP AND HARDWARE ASSUME A W14x82 AS SHOWN ON THE AS-BUILT DOCUMENTS.

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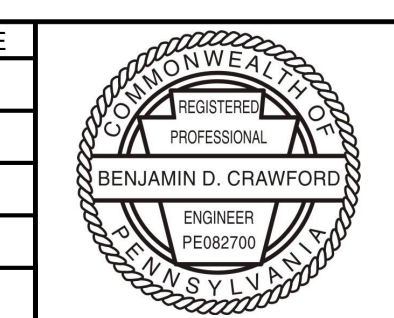
FILE NAME: ET-52_Grounding and Bonding Assemblies.dwg
PLOT NAME: Dec. 22, 25 - 12:25 PM

NO.	REVISIONS	DATE	BY



**Office of Engineering
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National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
GROUNDING AND BONDING ASSEMBLIES
DESIGNED: VAR DRAWN: WVD CHECKED: BDC DATE: 12/23/2025

SCALE:	NOT TO SCALE
PLAN NO.	
SHEET NO.	029 OF 031
SHEET	
ET-52	

ASSEMBLY BILL OF MATERIALS (CONTRACTOR)			
ASSEMBLY	DESCRIPTION	UNIT	QTY.
A-SAP-FT-7-04	STEADY ARM ASSEMBLY	EA	1
A-SAP-FT-9-04	STEADY ARM ASSEMBLY	EA	5
FP-1	FLASH PLATE ASSEMBLY	EA	10
FPG-1	FLASH PLATE GROUND ASSEMBLY	EA	2
GWD-1	JUMPER CONNECTION	EA	6
GWD-2	WIRE TO CONCRETE CONNECTION	EA	44
GWD-3	WIRE TO FLANGE CONNECTION	EA	4
GWD-4	WIRE TERMINATION	EA	2
GWD-4A	WIRE TERMINATION	EA	2
GWD-5	GROUND WIRE TERMINATION TO BRIDGE ABUTMENT	EA	2
GWD-5A	GROUND WIRE TERMINATION TO POLE	EA	2
H	HANGER ASSEMBLY	EA	164
J	HANGER ASSEMBLY	EA	64
JM	HANGER ASSEMBLY	EA	2
ME	HANGER ASSEMBLY	EA	16
XHA-10	CROSS HANGER	EA	3
XHA-11	CROSS HANGER	EA	12

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FILE NAME: ET-90_Assembly_BOM.dwg
PLOT DATE: Dec. 22, 2025 - 12:27 PM

NO.	REVISIONS	DATE	BY



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National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
ASSEMBLY BILL OF MATERIALS
DESIGNED: VAR DRAWN: BJS CHECKED: BDC DATE: 12/23/2025

SCALE: NOT TO SCALE
PLAN NO.
SHEET NO. 030 OF 031
SHEET
ET-90

PRODUCT BILL OF MATERIALS (CONTRACTOR)

ITEM	MARK	REF. DWG	AMTRAK REF. DWG.	DESCRIPTION	UNIT	QTY.
18	HC29A	ET-51	ET-1029E	INTERMEDIATE CATENARY CLIP	EA	328
20	SSB34	ET-50	ET1-003	BOLT, STAINLESS STEEL	EA	164
22	UB27	ET-50	11B-1221	U-BOLT	EA	45
46	BC24B	ET-51	11B-1221	5/8" DIA. TO 0.34" DIA. HANGER ROD, CLIP	EA	132
47	SSB22	ET-51	ET1-100	BOLT, STAINLESS STEEL	EA	148
48	-	ET-51	ET-625E	0.34" DIA. LOOP HANGER	FT	173
54	XC-7	ET-50	14E-66	CLAMP, CROSS CATENARY, M.I., GALV, SPEC P-116	EA	3
55	-	ET-50	-	COTTER PIN, 3/16" x 2 1/2", BRONZE	EA	30
56	XH	ET-50	11B-1282	0.48" DIA. ROD, HEADED HANGER, BRONZE	EA	40
57	XC-6	ET-50	14E-61-7	CLAMP, BODY STRAND TO 1/2" DIA. ROD, M.I.	EA	15
58	XC-8	ET-50	14E-67	CLAMP, CROSS CATENARY, M.I.	EA	12
73	BC26B	ET-51	ET-1078E	GROOVE WIRE TO 0.34" DIA. HANGER ROD, CLIP MESSENGER SADDLE	EA	164
74	FHS	ET-51	ET-625E	MESSENGER SADDLE	EA	16
75	JR	ET-51	ET-1095E	BRONZE RING HANGER	EA	2
78	ERM	ET-50/51	11B-1221	NUT ERM, 1/2 UNC SLOTTED SELF-LOCKING WASHER, 316 SS W/ ANTI-GALLING	EA	312
101	SA-B0407-01	ET-50	SAP-401	STRUT PIPE INSULATOR	EA	6
102	9107F-ET	ET-50	SAP-605	PIPE 2 INCH IPS SCH 80 ALUMINUM ALLOY 6061-T6	FT	60
103	NA-82	ET-50	SAP-301	MESSENGER SUSPENSION FROM BODY	EA	1
104	SA-B0408-01	ET-50	SAP-403	CLEVIS CLAMP FOR PIPE 2 BOLTS	EA	6
105	SA-B3431-01	ET-50	SAP-404	STEADY ARM CLEVIS FOR 2 INCH NPS PIPE	EA	6
106	SA-B3406-01	ET-50	SAP-405	CONTACT WIRE SWIVEL CLIP	EA	6
107	SA-B3412-01	ET-50	SAP-406	STEADY ARM 4.75 FT LONG 1.5 IN	EA	6
108	C-B0505-01	ET-50	SAP-501	PIPE EYE END	EA	6
109	C-B0504-01	ET-50	SAP-503	CAP FOR 2" SCHD 80 ALUMINUM PIPE DRIVEN	EA	6
110	10620H1	ET-50	SAP-601	BOLT STAINLESS STEEL 1/4-20 UNC 3" LONG	EA	6
111	-	ET-50	-	LOCK NUT STAINLESS STEEL 1/4-20	EA	6
112	C-B0505-03	ET-50	SAP-502	PIPE END CLEVIS	EA	6
113	BG-3	ET-50	AET-10406_1	BOLT, HEX HEAD, 3/4"-10 UNC X 3 1/2" & NUT & 3/16" X 1-3/4" BRNZ COT PIN	EA	6
115	A-SAPSUP	ET-50	SAP-704	SAP SUPPORT TO BC-XHA	EA	6
116	BC-XHA-03	ET-50	SAP-301	BODY STRAND CLAMP	EA	17
117	H-CLIP	ET-50	SAP-302	H-CLIP	EA	6
118	NA-24A	ET-50	SAP-301	MESSENGER SUSPENSION FROM BODY	EA	5
900	-	ET-52	-	CONNECTOR, 9/16" TO 4/0 INSULATED CABLE	EA	8
901	-	ET-52	-	CARTRIDGE, WHITE FOR INSTALLATION OF COPPER TAPS	EA	16
902	-	ET-52	-	GROUND CLAMP	EA	44
903	-	ET-52	-	CONCRETE DROP IN ANCHOR, ZINC PLATED FOR 5/8" BOLT	EA	44
904	-	ET-52	-	BOLT, 5/8" X 3" LONG STAINLESS STEEL WITH LOCK WASHER	EA	44
905	-	ET-33/52	-	TL-1, TERMINAL LUG	EA	54
906	-	ET-52	-	BOLT, 1/2" X 3" LONG STAINLESS STEEL WITH NUT AND LOCK WASHER	EA	24
907	-	ET-52	-	DEADEND CLAMP FOR 4/0 WIRE	EA	4
908	S2	ET-50/52	ET-305-E	SHACKLE, CHAIN W/ BOLT, NUT & COTTER PIN	EA	2
909	-	ET-52	-	L 4" x 4" x 1/2" x 16" LONG	EA	4
911	-	ET-33	-	GALVANIZED STEEL FLASH PLATE	EA	20
912	-	ET-33	-	BOLT, 1/2" X 3/4" LONG STAINLESS STEEL WITH LOCK WASHER	EA	84
913	-	ET-52	-	1/2" x 3 3/4" POWER-STUD +SD1 WEDGE ANCHOR OR APPROVED EQUAL	EA	8

PRODUCT BILL OF MATERIALS (CONTRACTOR)

ITEM	MARK	REF. DWG	AMTRAK REF. DWG.	DESCRIPTION	UNIT	QTY.
914	-	ET-52	-	GROUND WIRE SUPPORT PLATE	EA	2
915	ND-2	ET-52	ET-449-E	ADAPTER CLEVIS	EA	2
916	-	ET-52	-	ROD, 1/2" DIA. 18" LONG	EA	4
917	-	ET-52	-	NUT, 1/2"	EA	16
918	-	ET-52	-	WASHER, 1/2"	EA	8
919	NP-3	ET-52	11B-1206	PIN WITH COTTER	EA	2
-	-	ET-52	-	4/0 1350 ALUMINUM 600V INSULATED CABLE	FT	610
-	-	ET-52	-	9/16" CU-CLAD STEEL CABLE	FT	230

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NO.	REVISIONS	DATE	BY



**Office of Engineering
Engineering Design**
National Railroad Passenger Corporation
30TH Street Station, Philadelphia, Pennsylvania 19104

APPROVED	DATE



LANCASTER, PENNSYLVANIA
PENNDOT BPT KEYSTONE CORRIDOR
SR 3028 PITNEY ROAD
PRODUCT BILL OF MATERIALS
DESIGNED: VAR DRAWN: WVD CHECKED: BDC DATE: 12/23/2025

SCALE:	NOT TO SCALE
PLAN NO.	
SHEET NO.	031 OF 031
SHEET	ET-91

FILE NAME: ET-91_Product_BOM.dwg
PLOT NAME: Dec. 22, 25 - 12:50 PM