OS-2 (11-08)

pennsylvania
DEPARTMENT OF TRANSPORTATION
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June 11, 2026

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

Re: Cumberland County
SR 83 3rd Street (2035) Bridge
SR 83, Section 094
DOT # 592197L
PUC No.: A-2021-3023845
MPMS No: 113754

Dear Secretary Homsher:

The Department of Transportation is providing final plans for State Route 83 Section 094 3rd Street Bridge (MPMS 113754) and providing copies to all parties of record. Please see attached.

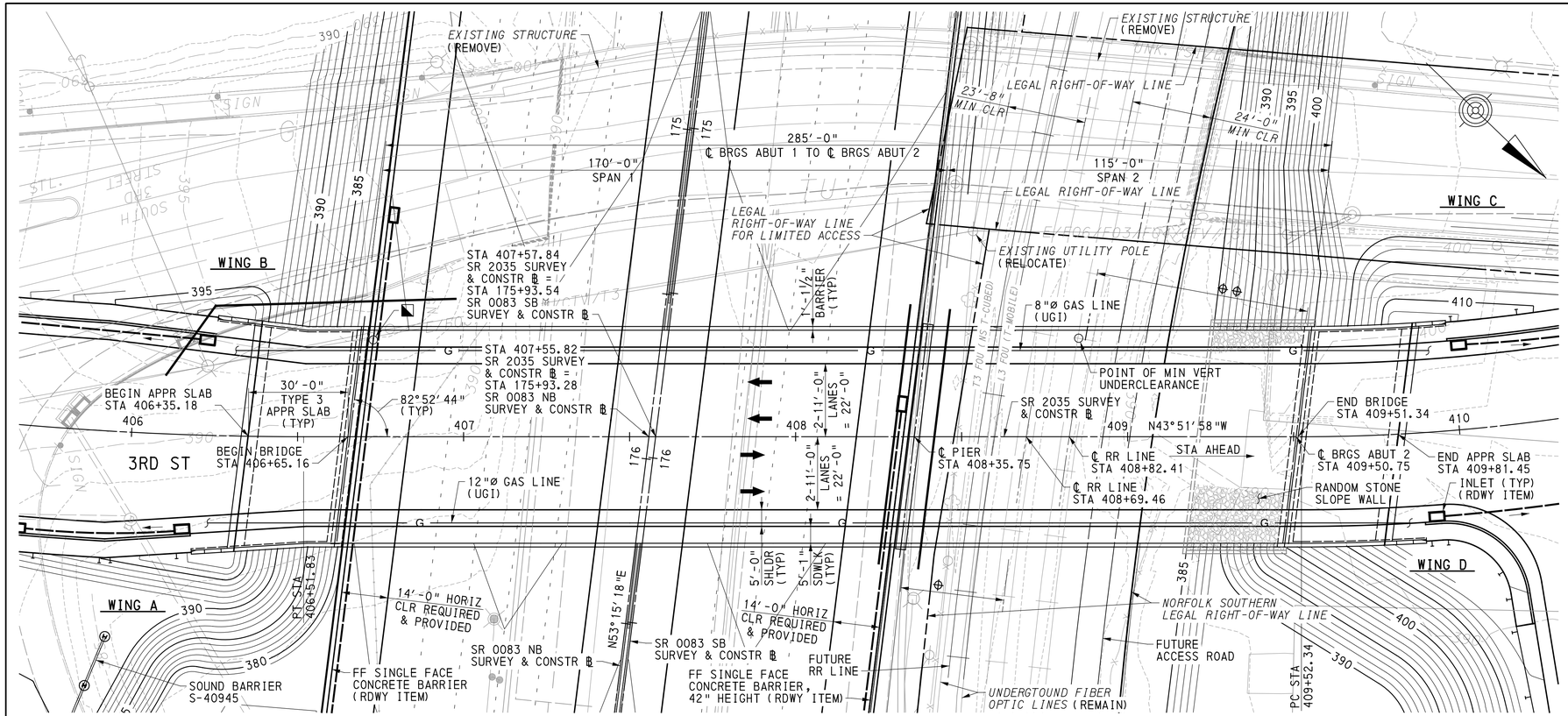
Sincerely,

Grant Rarig

Grant Rarig
Acting Grade Crossing Admin.
Engineering District 8-0
Department of Transportation

Attachments

cc: Parties of Record
Mark Chappell, P.E., Right-of-Way, Utilities, and Grade Crossing, 7th Floor, CKB
Robert Kopacz, Office of Chief Counsel, 9th Floor, CKB
William Sinick, PE., P.E., Rail Safety Engineering Section, PUC, 3rd Floor, CKB



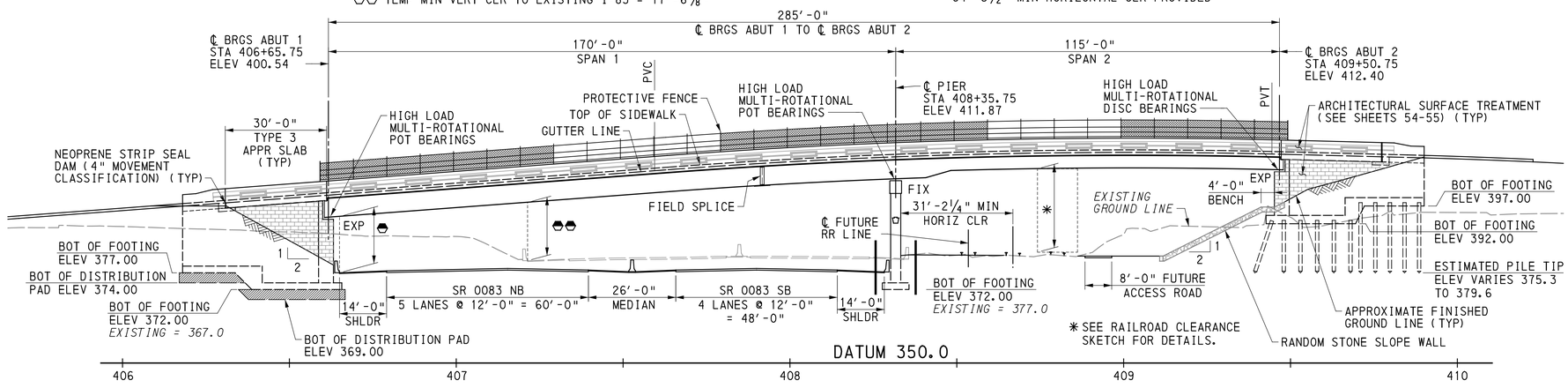
PLAN

20' 0 20'

- ◓ MIN VERT CLR REQUIRED = 16'-6"
  MIN VERT CLR PROVIDED = 17'-1⅝"
- ◓◓ TEMP MIN VERT CLR TO EXISTING I-83 = 17'-6⅞"

RAILROAD HORIZONTAL CLEARANCE NOTES:

- ⊕ 31'-2¼" MIN HORIZONTAL CLR REQUIRED
  31'-2¼" MIN HORIZONTAL CLR PROVIDED
- ⊕⊕ 26'-0" MIN HORIZONTAL CLR REQUIRED
  64'-3½" MIN HORIZONTAL CLR PROVIDED



✳ SEE RAILROAD CLEARANCE SKETCH FOR DETAILS.

ELEVATION

20' 0 20'

LEGEND

- POINT OF MINIMUM VERTICAL CLEARANCE
- DIRECTION OF TRAFFIC
- TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM
- 10 — PROPOSED CONTOURS
- 10 — *EXISTING CONTOURS*

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR SUPPLEMENTAL DRAWINGS, SEE SHEET 6.
3. FOR TYPICAL SECTION, SEE SHEET 40.
4. FOR RAILROAD GEOMTRY DETAILS AND RAILROAD CLEARANCE SKETCH, SEE SHEET 58.

DES: VDL	DWG: STG	CKD: VDL

6/10/2026
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SR 0083 SB HORIZONTAL CURVE DATA

TANGENT AT N 53°15'18" E

SR 0083 SB VERTICAL CURVE DATA

STA 170+04.00 ELEV 383.65 — -1.01% — STA 177+19.00 ELEV 376.40

SR 0083 NB HORIZONTAL CURVE DATA

TANGENT AT N 53°15'18" E

SR 0083 NB VERTICAL CURVE DATA

STA 170+04.00 ELEV 383.65 — -1.01% — STA 177+19.00 ELEV 376.40

SR 2035 HORIZONTAL CURVE DATA

1) PI STA 406+10.68
   Δ= 4°43'05" LT
   D= 5°43'46"
   T=41.20'
   L=82.34'
   R=1000.00'
   E=0.85'

2) TANGENT AT N 43°51'58" W

3) PI STA 410+49.47
   Δ= 20°01'47" LT
   D= 10°25'03"
   T=97.13'
   L=192.27'
   R=550.00'
   E=8.51'

SR 2035 VERTICAL CURVE DATA

PVI STA 408+56.00
ELEV = 414.80
VC = 185.00'
MO = -2.32'
SSD = 200'

STA 407+63.50 ELEV 407.87 — +7.49% — -2.53% — STA 409+48.50 ELEV 412.46

EXISTING STRUCTURE DATA

3RD ST OVER I-83
2-SPAN P/S CONC ADJ BOX BEAM BRIDGE WITH 2 STEEL FASCIA GIRDERS
SPANS : SPAN 1 = 65'-0"
SPAN 2 = 51'-0"
VERT CLEAR = 18'-5"
SKEW = 79°00'00"
CLEAR ROADWAY = 45'-1"

3RD ST OVER NSRR
1-SPAN STEEL PLATE GIRDER BRIDGE
SPAN : 66'-2"
VERT CLEAR = 21'-2"
SKEW = 82°30'00"
CLEAR ROADWAY = 40'-0"
MIN RR HORIZ CLR = 23'-8"±

DESIGN REVIEWED BY:
GFT INFRASTRUCTURE, INC.
300 STERLING PARKWAY, SUITE 200
MECHANICSBURG, PA 17050

REVIEW CONSULTANT'S NAME, SIGNATURE AND DATE

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENT'S DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
GENERAL PLAN AND ELEVATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

PROFESSIONAL ENGINEER — 06/10/2026 DATE

PREPARED BY :
KCI TECHNOLOGIES
ENGINEERS | PLANNERS | SCIENTISTS | CONSTRUCTION MANAGERS
KCI TECHNOLOGIES, INC
5001 LOUISE DRIVE,
SUITE 201
MECHANICSBURG, PA 17055
TEL: (717) 691-1340

RECOMMENDED 2026.06.11
Derek Mitch
DISTRICT BRIDGE ENGINEER

SHEET 1 OF 64
+SUPPLEMENTAL DWGS
S-40598

INDEX OF DRAWINGS

LIST OF ABBREVIATIONS

THE FOLLOWING IS A LIST OF ABBREVIATIONS USED IN THE PLANS THAT ARE NOT DEFINED IN DESIGN MANUAL, PART 3, CHAPTER 14.

EQ = EQUAL
EF = EACH FACE
FF = FRONT FACE
RF = REAR FACE
WP = WORK POINT
FIX = FIXED
FPS = FEET PER SECOND
P/S = PRESTRESSED
PCP = PREFORMED CELLULAR POLYSTYRENE
PPC = POLYESTER POLYMER CONCRETE
PVC = POLYVINYL CHLORIDE
SIP = STAY-IN-PLACE
SPA = SPACING/SPACES
UNO = UNLESS NOTED OTHERWISE
WSE = WATER SURFACE ELEVATION
ADTT = AVERAGE DAILY TRUCK TRAFFIC
CCNS = CLOSED CELL NEOPRENE SPONGE
DIAPH = DIAPHRAGM
EMBED = EMBEDMENT
SQ MI = SQUARE MILES

GENERAL NOTES

DESIGN SPECIFICATIONS

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, 2017, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, DECEMBER 2019 EDITION.

LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DM-4 DISTRIBUTION FACTORS.

DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.

DESIGN LIVE LOADS

PHL-93, P-82 AND P2016-13.

FATIGUE IS BASED ON THE FOLLOWING: ADTT 1013 (YEAR 2050), (ONE-DIRECTIONAL).

DEAD LOADS

INCLUDES A SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE ON THE DECK SLAB.

INCLUDES A SURFACE AREA DENSITY OF 0.015 KSF FOR PERMANENT METAL DECK FORMS THAT TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.

INCLUDES 30 LBS / FT FOR PROTECTIVE FENCE ON EACH BARRIER.

GIRDER CAPACITIES WERE CHECKED TO ACCOMMODATE UTILITIES ASSUMING A NON-COMPOSITE DEAD LOAD EQUAL TO 70 LBS / FT IN THE EXTERIOR BAYS (35 LBS / FT TO THE FASCIA AND FIRST INTERIOR GIRDERS) REPRESENTING A 12"ø NATURAL GAS LINE INCLUDING UTILTY ATTACHMENT HARDWARE.

GENERAL CONSTRUCTION

PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2026, AASHTO/D1.5 2015 BRIDGE WELDING CODE, AND CONTRACT SPECIAL PROVISIONS. USE AASHTO/AWS D1.1/D1.1M 2015 FOR WELDING NOT COVERED IN AASHTO/AWS D1.5/D1.5M 2015.

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270/M 270M (ASTM A 709/ A709 M) GRADE 50 DESIGNATION, EXCEPT WHERE NOTED OTHERWISE.

ALL DIMENSIONS ARE HORIZONTAL, EXCEPT AS NOTED.

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

USE EITHER PERMANENT METAL FORMS OR REMOVABLE FORMS TO CONSTRUCT THE DECK SLAB.

DECK SLAB THICKNESS INCLUDES A ½" INTEGRAL WEARING SURFACE.

SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68° F.

PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(K)9.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFE ERECTION OF ALL STRUCTURES. PROVIDE ALL NECESSARY BRACING AND SUPPORTS.

EXISTING BRIDGE IS NOT WEIGHT RESTRICTED. SEE PUBLICATION 408 SECTION 105.17 FOR CONSTRUCTION LOADING LIMITS.

CONCRETE NOTES

USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB, TYPE 3 APPROACH SLAB AND CONCRETE END DIAPHRAGMS.

USE CLASS AA CEMENT CONCRETE IN BARRIERS, SIDEWALKS, ABUTMENT BACKWALLS, CHEEKWALLS AND SLEEPER SLABS.

USE CLASS A CEMENT CONCRETE IN FOOTINGS, ABUTMENTS BELOW THE CONSTRUCTION JOINT, WINGWALLS AND PIER.

USE CLASS C CEMENT CONCRETE BELOW THE BOTTOM OF FOOTINGS WHERE SPECIFIED.

A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT, IF APPROVED BY THE DISTRICT BRIDGE ENGINEER.

RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS NOTED.

CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.

CHAMFER EXPOSED CONCRETE EDGES ¾" x ¾", EXCEPT AS NOTED.

PLACE CHEEKWALL AND BACKWALL CONCRETE AFTER GIRDERS ARE SET IN POSITION.

ABUTMENT BACKWALLS MAY BE PLACED UP TO A CONSTRUCTION JOINT BELOW THE LEVEL OF THE BOTTOM OF DECK SLAB PRIOR TO CONSTRUCTION OF DECK.

PROVIDE A MINIMUM WIDTH OF 2½" AT 68° FOR STRIP SEAL INSTALLATIONS UNLESS OTHERWISE INDICATED.

CONCRETE NOTES (CONT'D)

DO NOT USE ADHESIVE ANCHORS IN A TENSION APPLICATION FOR PERMANENT INSTALLATIONS.

DO NOT USE ADHESIVE ANCHORS IN A SUSTAINED TENSION APPLICATION FOR TEMPORARY INSTALLATIONS, INCLUDING DURING CONSTRUCTION.

REINFORCEMENT NOTES

PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.

PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615/A 615M, A 996/A 996M OR A 706/A 706M. 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 A 996/A 996M REINFORCEMENT BARS IN BARRIERS, ABUTMENTS, PIER, FOOTINGS, APPROACH SLABS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.

USE EPOXY-COATED REINFORCEMENT BARS UNLESS NOTED OTHERWISE.

GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.

PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH BC-736M, UNLESS OTHERWISE INDICATED.

WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

FOUNDATION NOTES

PRIOR TO FOOTING CONSTRUCTION, ALLOW THE DISTRICT GEOTECHNICAL SPECIALIST TO INSPECT THE BOTTOM OF FOOTING / FOUNDATION DISTRIBUTION PAD EXCAVATION. AS DIRECTED, EXCAVATE SOFT OR UNSUITABLE MATERIAL BELOW THE INDICATED BOTTOM OF FOOTING / FOUNDATION PAD AND REPLACE WITH COARSE AGGREGATE PER ITEM 9000-2200 OVER-EXCAVATION AND BACKFILL WITH COARSE AGGREGATE.

FOUNDATIONS MAY BE ORDERED BY THE REPRESENTATIVE AND DISTRICT GEOTECHNICAL SPECIALIST TO BE AT ANY ELEVATION OR OF ANY DIMENSIONS NECESSARY TO PROVIDE A PROPER FOUNDATION.

PROVIDE HEAVY-DUTY PILE TIP REINFORCEMENT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1005.2(b).

ALL PILES MUST EXTEND A MINIMUM OF 10'-0" BELOW THE BOTTOM OF PILE CAP ELEVATION. IF AN OBSTRUCTION OR SHALLOW BEDROCK IS ENCOUNTERED, PREDRILL IN ACCORDANCE WITH PUBLICATION 408, SECTION 1005.3(j).

DRIVE ALL PILES TO ABSOLUTE REFUSAL IN ACCORDANCE WITH PUBLICATION 408, SECTION 1005.3(b)5.a CASE 1. CONTROL PILE DRIVING IN ACCORDANCE WITH DM-4 PP 1.7.5.1(a) METHOD A. THE REPRESENTATIVE SHALL DETERMINE THE ACCEPTABILITY OF PILES WHICH ATTAIN REFUSAL ABOVE THE ESTIMATED PILE TIP ELEVATION.

PROVIDE TWO TEST PILES AT ABUTMENT 2 AND WINGWALLS C & D. PROVIDE DYNAMIC PILE LOAD TESTING PER PUB 408, SECTION 1005.3(h).

THE CONTRACTOR IS RESPONSIBLE FOR THE CONTROL OF DRAINAGE DURING CONSTRUCTION. DIRECT RUNOFF AWAY FROM THE PROPOSED FOUNDATION FOOTPRINT.

AT ABUTMENT 1 AND WINGWALLS A AND B, INSTALL DISTRIBUTION PAD AS PER DISTRIBUTION PAD DETAIL.

BLASTING IS NOT PERMITTED FOR ROCK EXCAVATION WITHIN THE FOUNDATION FOOTPRINT. EXCAVATE ROCK MECHANICALLY.

AT THE PIER, IF BEDROCK IS NOT ENCOUNTERED AT THE BOTTOM OF FOOTING ELEVATION, OVER-EXCAVATE TO TOP OF ROCK AND BACKFILL WITH CLASS C CEMENT CONCRETE TO THE BOTTOM OF FOOTING ELEVATION PER ITEM 9000-2201.

PROVIDE TEMPORARY EXCAVATION AND SUPPORT SYSTEMS PER ITEM 9203-2101.

IF A SINKHOLE IS ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY CONTACT THE DISTRICT GEOTECHNICAL SPECIALIST.

EXCAVATE ACCORDING TO CURRENT OSHA OR OTHER APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE STABILITY OF THE EXCAVATIONS.

SUPPORT OF EXCAVATION AND EXISTING SUBSTRUCTURE ARE TO BE CUT OFF AT LEAST 2'-0" BELOW PROPOSED FINAL GRADE.

NOTIFY THE DISTRICT GEOTECHNICAL SPECIALIST IF ANY DEVIATIONS FROM THE NOTED SUBSURFACE CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION.

CONSIDER THE SUBSURFACE ENVIRONMENT CORROSIVE; USE EPOXY COATED REINFORCEMENT BARS WITHIN THE SUBSTRUCTURES. DESIGN PILES WITH A 1/16" REDUCTION OF STEEL ON EXPOSED SURFACES.

SITE CLASS IS NOT CLASS E OR F.

AT ABUTMENT 1, MOISTURE SENSITIVE SOIL WAS IDENTIFIED AT THE BOTTOM OF DISTRIBUTION PAD. PROTECT THE MOISTURE SENSITIVE SOIL FROM BECOMING WET WITH POSITIVE DRAINAGE AND TARPAULIN. IF DURING CONSTRUCTION IT IS DETERMINED THAT THE MOISTURE SENSITIVE SOILS ARE UNSUITABLE FOR BEARING, OVER-EXCAVATE TO TOP OF ROCK AND BACKFILL WITH NO. 2A COARSE AGGREGATE TO THE BOTTOM OF FOOTING ELEVATION. IF OVER-EXCAVATION TO TOP OF ROCK IS REQUIRED, THE DISTRIBUTION PAD IS NOT REQUIRED.

PROVIDE NO.3 COARSE AGGREGATE FOR THE TOP 2'-0" OF ANY BACKFILL AT THE PIER.

STRUCTURAL STEEL NOTES

PLACE ALL GIRDERS WITH THEIR WEBS VERTICAL.

IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPLICE(S) WILL BE PERMITTED AT THE REQUEST OF THE CONTRACTOR, BUT NO COMPENSATION WILL BE ALLOWED FOR THE SPLICES.

FIELD SPLICES ARE NOT PERMITTED IN THE BRIDGE SPAN OVER THE RAILROAD.

REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP.

DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.

ALL FASTENERS ARE 7/8"ø HIGH STRENGTH BOLTS, EXCEPT AS NOTED.

DO NOT MAKE WELDS BY MANUAL SHIELDED ARC PROCESS FOR PRIMARY GIRDER WELDS, SUCH AS FLANGE-TO-WEB WELDS OR FOR SHOP SPLICES OF WEBS AND FLANGES.

PROVIDE WELDED STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A108.

SET ANCHOR BOLTS TO TEMPLATE OR IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON THE PLANS. FILL THE PREFORMED HOLES WITH NON-SHRINK GROUT. FILL THE CLEARANCE BETWEEN ANCHOR BOLTS AND HOLES IN MASONRY PLATES WITH APPROVED NON-HARDENING CAULKING COMPOUND CONFORMING TO PUBLICATION 408, SECTION 705.7.

PAINT STRUCTURAL STEEL FEDERAL STANDARD COLOR #15450, BLUE, IN ACCORDANCE WITH PUBLICATION 408, SECTION 1060.

SHOP APPLY AN INORGANIC ZINC PRIMER IN ACCORDANCE WITH SECTION 1060 TO THE TOP SIDES OF THE TOP FLANGES THAT WILL HAVE SHEAR CONNECTORS ATTACHED AND ANY PORTION OF THE BEAM ENDS THAT WILL BE ENCASED IN CONCRETE.

STABILITY OF PARTIAL GIRDERS AND COMPLETE GIRDERS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTIONS ON THE STEEL MEMBERS DURING ANY STAGE OF ERECTION.

AN ALTERNATE SLAB PLACEMENT SEQUENCE MAY BE PERMITTED AT THE REQUEST OF THE CONTRACTOR. SUBMIT FOR REVIEW AND APPROVAL TO THE DEPARTMENT A REVISED SLAB PLACEMENT SEQUENCE WITH SUPPORT CALCULATIONS AND COMPUTER STRESS ANALYSIS. SATISFY THE REQUIREMENTS OF THE ORIGINAL SLAB PLACEMENT SEQUENCE. OBTAIN WRITTEN APPROVAL PRIOR TO THE USE OF THE REVISED SLAB PLACEMENT SEQUENCE AND/OR CAMBER VALUES. NO COMPENSATION WILL BE ALLOWED FOR THE DEVELOPMENT AND APPROVAL OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES. THE DEPARTMENT WILL BE THE SOLE JUDGE OF THE ACCEPTABILITY OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES.

THE STEEL SUPERSTRUCTURE SHALL BE DETAILED AND FABRICATED FOR STEEL DEAD LOAD FIT (SDLF).

BLAST CLEAN THE FAYING SURFACES OF SPLICES AND CONNECTIONS OF ALL STRUCTURAL ELEMENTS IN ACCORDANCE WITH PUBLICATION 408, SECTION 1060.3(b)3. REBLAST UNPAINTED ELEMENTS THAT REMAIN UNASSEMBLED FOR A PERIOD OF 12 MONTHS OR MORE FOLLOWING THE INITIAL CLEANING.

PROVIDE CHARPY V-NOTCH TESTING FOR ZONE 2 IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105.02(a)5. TEST THE FOLLOWING COMPONENTS SUBJECT TO TENSILE STRESS IN ACCORDANCE WITH THESE REQUIREMENTS:

(A) GIRDER WEBS
(B) GIRDER FLANGES IN TENSION ZONES
(C) GIRDER FIELD SPLICE MATERIAL

UTILITY NOTES

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

PILE INSTALLATION INFORMATION

SUBSTRUCTURE UNIT	PILE TYPE	PILE TIP (NONE/NORMAL/ HEAVY DUTY)	PILE TIP ELEVATION	FACTORED DESIGN LOAD (KIPS)	ULTIMATE PILE CAPACITY AT END OF DRIVING (KIPS)	WEAP OR PDA
ABUTMENT 2	HP12x74	HEAVY DUTY		129.38		

NOTE: THE TABLE OF TEST PILE INFORMATION IS TO BE COMPLETED BY THE TEST PILE ENGINEER.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

GENERAL NOTES & DRAWING INDEX

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 2 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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ALTERNATE STRUCTURE ITEMS

ITEM NO.	ITEM	UNIT	TOTAL
8120-0010	BRIDGE STRUCTURE, AS DESIGNED, S-40598 ⊕	LS	LUMP SUM
OR 8000-0010	PRESTRESSED CONCRETE BRIDGE STRUCTURE ⊕	LS	LUMP SUM
OR 8100-0010	STEEL BRIDGE STRUCTURE ⊕	LS	LUMP SUM

TABULATION OF BRIDGE BID ITEMS & APPROXIMATE QUANTITIES (2)

ITEM NO.	ITEM	UNIT	ABUT 1	PIER	ABUT 2	SUPER-STRUCTURE	APPROACH SLAB 1	APPROACH SLAB 2	TOTAL
8120-0010	BRIDGE STRUCTURE, AS DESIGNED, S-40598 ⊕	LS	---	---	---	---	---	---	---
(1)	CLASS 3 EXCAVATION	CY	3575	300	480	---	---	---	4355
(1)	STRUCTURE BACKFILL	CY	2500	---	1350	---	---	---	3850
(1)	RANDOM STONE SLOPE WALL	CY	---	---	110	---	---	---	110
(1)	ELASTOMER WATERPROOFING MEMBRANE ON OTHER SURFACES ⊕(3)	SY	108	31	69	---	---	---	208
(1)	NO. 57 COARSE AGGREGATE (7)	CY	4	---	4	---	---	---	8
(1)	NO. 3 COARSE AGGREGATE	CY	---	71	---	---	---	---	71
(1)	JUNCTION BOXES JB-25	EA	---	---	---	---	---	2	2
(1)	½" CONDUIT IN STRUCTURE ⊕	LF	---	---	---	574	33	40	647
(1)	2" CONDUIT IN STRUCTURE	LF	18	---	47	287	30	50	432
(1)	3" CONDUIT IN STRUCTURE	LF	18	---	17	287	30	30	382
(1)	CLASS AAAP CEMENT CONCRETE (4)(5)	CY	---	---	---	638	123	121	882
(1)	CLASS AA CEMENT CONCRETE (5)	CY	24	---	19	165	30	29	267
(1)	CLASS A CEMENT CONCRETE	CY	473	279	329	---	---	---	1081
(1)	STEEL HP12x74 TEST PILE (8)	EA	---	---	2	---	---	---	2
(1)	RAILROAD PROTECTIVE FENCE, CURVED TOP, VINYL-COATED STEEL, BLACK ⊕	LF	---	---	---	586	---	---	586
(1)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, REINFORCED CONCRETE SUBSTRUCTURE SURFACES)	SY	---	464	---	---	---	---	464
(1)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)	SY	---	---	---	657	85	84	826
(1)	NEOPRENE STRIP SEAL DAM, 4" MOVEMENT	LF	---	---	---	---	70	68	138
(1)	POLYESTER POLYMER CONCRETE OVERLAY, 1¼"	SY	---	---	---	1722	172	168	2062
(1)	FABRICATED STRUCTURAL STEEL (2)(6)	LB	---	---	---	1,061,827	---	---	1,061,827
(1)	HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED	EA	---	5	---	---	---	---	5
(1)	HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION	EA	5	4	---	---	---	---	9
(1)	HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION	EA	4	---	---	---	---	---	4
(1)	DISC BEARINGS, GUIDED EXPANSION	EA	---	---	5	---	---	---	5
(1)	DISC BEARINGS, NON-GUIDED EXPANSION	EA	---	---	4	---	---	---	4
(1)	BARRIER LUMINAIRE ⊕	EA	---	---	---	58	4	4	66
(1)	STAINING OF REINFORCED CONCRETE SURFACES ⊕	SF	1919	5	1392	159	19	19	3513
(1)	ARCHITECTURAL SURFACE TREATMENT, ½" RELIEF, SPLIT BLOCK, 14x22 ⊕	SF	1919	---	1392	---	---	---	3311
AND 1002-0351	REINFORCEMENT BARS, EPOXY COATED (9)	LB	50,036	23,684	26,640	189,274	35,014	34,188	358,836
AND 1005-1825	STEEL HP12x74 PRODUCTION PILE (10)	LF	---	---	1074	---	---	---	1074
AND 1005-2025	STEEL HP12x74 PILE TIP REINFORCEMENT (HEAVY DUTY) (10)	EA	---	---	62	---	---	---	62
0212-0014	GEOTEXTILE, CLASS 4, TYPE A (11)	SY	600	---	---	---	---	---	600
4221-0005	GEOGRIDS, CLASS 2, TYPE A OR B - BIAXIAL ⊕(11)	SY	1109	---	---	---	---	---	1109
0703-0024	NO. 2A COARSE AGGREGATE (11)	CY	243	---	---	---	---	---	243
1005-6000	PREDRILLING FOR UNFORESEEN OBSTRUCTIONS, EARTH DRILLING (10)	DOLLA	---	---	10,800	---	---	---	10,800
1005-6050	PREDRILLING FOR UNFORESEEN OBSTRUCTIONS, OBSTRUCTION DRILLING (10)	DOLLA	---	---	5500	---	---	---	5500
1005-1440	PILE EXTRACTION AND REDRIVING (10)	DOLLA	---	---	16,300	---	---	---	16,300
1005-1460	MOBILIZATION FOR PREDRILLING OF UNFORESEEN OBSTRUCTIONS (10)	DOLLA	---	---	16,300	---	---	---	16,300
1005-1483	DYNAMIC PILE LOAD TEST (10)	EA	---	---	2	---	---	---	2
9000-1551	INSTALLATION OF UGI UTILITIES, INC GAS FACILITIES ON BRIDGE ⊕(2)	LS	---	---	---	---	---	---	LS
9000-2200	OVER-EXCAVATION AND BACKFILL WITH AASHTO NO.2A COARSE AGGREGATE ⊕	CY	7	---	---	---	---	---	7
9000-2201	OVER-EXCAVATION AND BACKFILL WITH CLASS C CEMENT CONCRETE ⊕	CY	---	3	---	---	---	---	3
9000-3743	EXPLORATORY AIR TRACK DRILLING, S-40598 ⊕(13)	LF	---	---	1550	---	---	---	1550
9203-2101	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, S-40598 ⊕(12)	LS	---	---	---	---	---	---	LS

DES: VDL | DWG: STG | CKD: VDL

QUANTITIES NOTES

⊕ SEE SPECIAL PROVISIONS.

(1) ITEMS IN BRIDGE STRUCTURE ITEM 8120-0010 ARE GIVEN FOR INFORMATION ONLY.

(2) TABULATED QUANTITIES DO NOT INCLUDE QUANTITIES REQUIRED FOR STRUCTURE MOUNTED UTILITIES. FOR ADDITIONAL QUANTITIES ASSOCIATED WITH STRUCTURE MOUNTED UTILITIES, SEE TABULATED QUANTITIES FOR ITEM "9000-1551 INSTALLATION OF UGI UTILITIES, INC GAS FACILITIES ON BRIDGE" ON THE UTILITY DETAILS - 1 SHEET, SHEET 56.

(3) SEE ATTACHMENT BC-788 MODIFIED "SPRAY-ON WATERPROOFING DETAILS".

(4) INCLUDES CLASS AAAP CEMENT CONCRETE IN DECK SLAB AND APPROACH SLABS, AND APPROXIMATELY 41 CY OF CLASS AAAP CEMENT CONCRETE TO ACCOUNT FOR STAY-IN-PLACE FORM TROUGHS.

(5) WATERSTOPS, CLOSED CELL NEOPRENE SPONGE, NEOPRENE BEARING PAD MATERIAL, RUBBERIZED JOINT SEALING MATERIAL, POLYETHYLENE SHEETING, PREFORMED CELLULAR POLYSTYRENE, EPOXY BONDING COMPOUND, SAWING AND SEALING JOINTS, BACKER ROD, AND ASPHALT SATURATED PAPER ITEMS ARE INCIDENTAL TO THE ASSOCIATED CEMENT CONCRETE ITEM.

(6) QUANTITY INCLUDES:
1,047,467 POUNDS OF AASHTO M270, GRADE 50
8605 POUNDS OF SHEAR CONNECTORS (NUMBER OF CONNECTORS = 6912)
5755 POUNDS OF CONSTRUCTABILITY STIFFENERS SHOWN ON FASCIA GIRDERS

(7) GEOTEXTILE, CLASS 1 AT WEEP HOLES IS INCIDENTAL TO NO. 57 COARSE AGGREGATE.

(8) ESTIMATED TEST PILE LENGTHS AT ABUTMENT 2 - 1 EA @ 13.40′ AND 1 EA @ 17.70′, INCLUDES HEAVY DUTY PILE TIPS.

(9) FOR AS DESIGNED STRUCTURE, INCLUDED IN BRIDGE BID ITEMS. FOR ALTERNATE DESIGNS, INCLUDED IN BRIDGE STRUCTURE LUMP SUM BID ITEM.

(10) FOR AS DESIGNED STRUCTURE. FOR ALTERNATE STRUCTURE, PROVIDE UPDATED VALUES.

(11) FOR CONSTRUCTION OF PRESSURE DISTRIBUTION PAD BELOW BOTTOM OF FOOTING ELEVATIONS AT ABUTMENT 1 IN ACCORDANCE WITH THE FOUNDATION NOTES AND PRESSURE DISTRIBUTION PAD DETAIL AT THE LOCATIONS INDICATED OR AS DIRECTED BY THE REPRESENTATIVE.

(12) APPROXIMATE QUANTITIES OF EXPOSED AREAS GIVEN FOR INFORMATION ONLY.
ABUTMENT 1 = 2500 SF, PIER = 1750 SF

(13) QUANTITY ASSUMES 25 LF PER PRODUCTION PILE.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
QUANTITIES

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 3 OF 64

S-40598

6/10/2026
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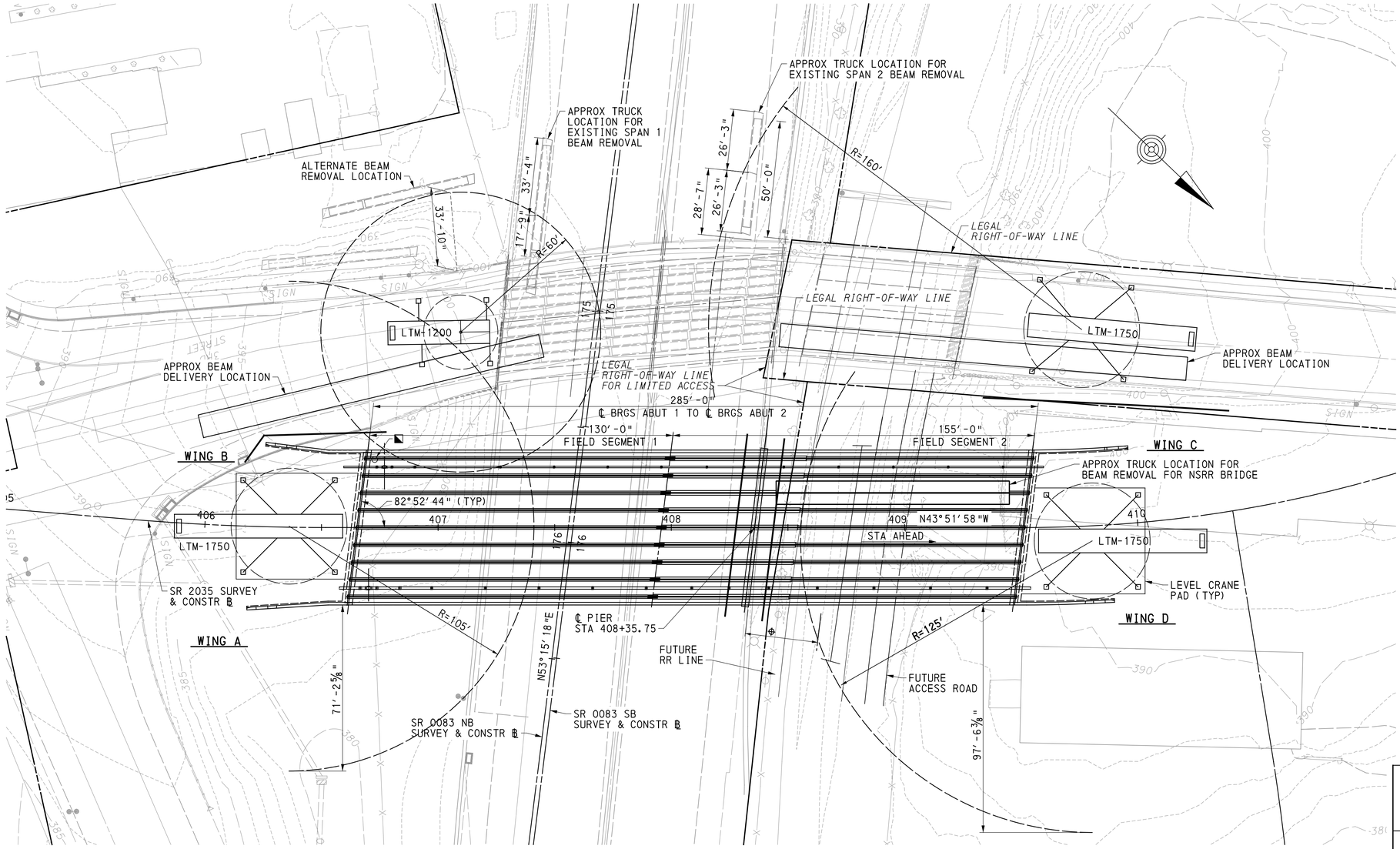
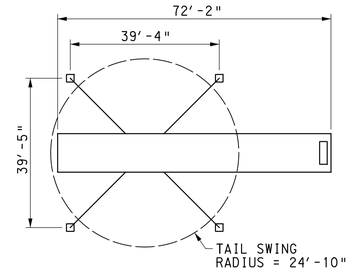
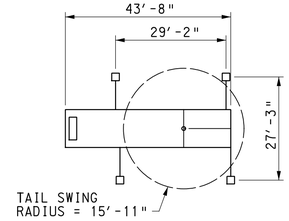


CRANE LAYOUT PLAN

25' 0 25'



LTM-1750
(900 TON ALL-TERRAIN CRANE)



LTM-1200
(235 TON ALL-TERRAIN CRANE)

TYPICAL CRANE DIMENSIONS

20' 0 20'

NOTES

1. FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
2. FOR GENERAL NOTES, SEE SHEET 2.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

SUGGESTED CONSTRUCTION SEQUENCE

1. CONSTRUCT SUBSTRUCTURE.
2. SET SPAN 2 GIRDER FIELD SECTIONS FROM BEHIND NEW ABUTMENT 2.
3. RESET CRANE, SET SPAN 1 GIRDER FIELD SECTIONS FROM BEHIND NEW ABUTMENT 1 AND INSTALL FIELD SPLICES.
4. CONSTRUCT BRIDGE AND SWITCH TRAFFIC TO NEW 3RD STREET ALIGNMENT.
5. DEMO EXISTING SUPERSTRUCTURE OVER NSRR AND EXISTING SPAN 2 SUPERSTRUCTURE OVER SR 0083 FROM BEHIND EXISTING NORTH ABUTMENT OF THE NSRR BRIDGE.
6. DEMO EXISTING SPAN 1 SUPERSTRUCTURE OVER SR 0083 FROM BEHIND EXISTING SOUTH ABUTMENT OF THE SR 0083 BRIDGE.
7. DEMO EXISTING SUBSTRUCTURE.

ERECTION/DEMOLITION NOTES

1. CONCEPTUAL ERECTION/DEMOLITION PLAN IS "FOR INFORMATION ONLY".
2. ESTIMATED BEAM WEIGHTS (ACTUAL, PRIOR TO 150% INCREASE IN NOTE 3):

   SPAN 1: 47.5 KIPS (FROM ABUTMENT 1 TO FIELD SPLICE)

   SPAN 2: 67.5 KIPS (FROM FIELD SPLICE TO ABUTMENT 2)

   EXISTING OVER SR 0083 SPAN 1: 45 KIPS (BEAM ONLY)
   (APPROXIMATELY 70 KIPS WITH TRIBUTARY DECK)

   EXISTING OVER SR 0083 SPAN 2: 35 KIPS (BEAM ONLY)
   (APPROXIMATELY 55 KIPS WITH TRIBUTARY DECK)

   EXISTING OVER NSRR: 15 KIPS (GIRDER ONLY)
   (APPROXIMATELY 100 KIPS WITH TRIBUTARY DECK)

3. CRANE SIZES SHOWN ARE ESTIMATED BASED ON 150% PICK WEIGHT PER NSRR CONSTRUCTION SPECIFICATIONS FOR PICKS OVER THE RAILROAD, AND BEAM ONLY PICKS.
4. SEE ROADWAY CONSTRUCTION PLANS FOR ADDITIONAL INFORMATION.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298
PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

CONCEPTUAL ERECTION/DEMOLITION PLAN

RECOMMENDED 2026.06.11

SHEET 4 OF 64

S-40598

DES: VDL	DWG: STG	CKD: VDL

6/9/2026
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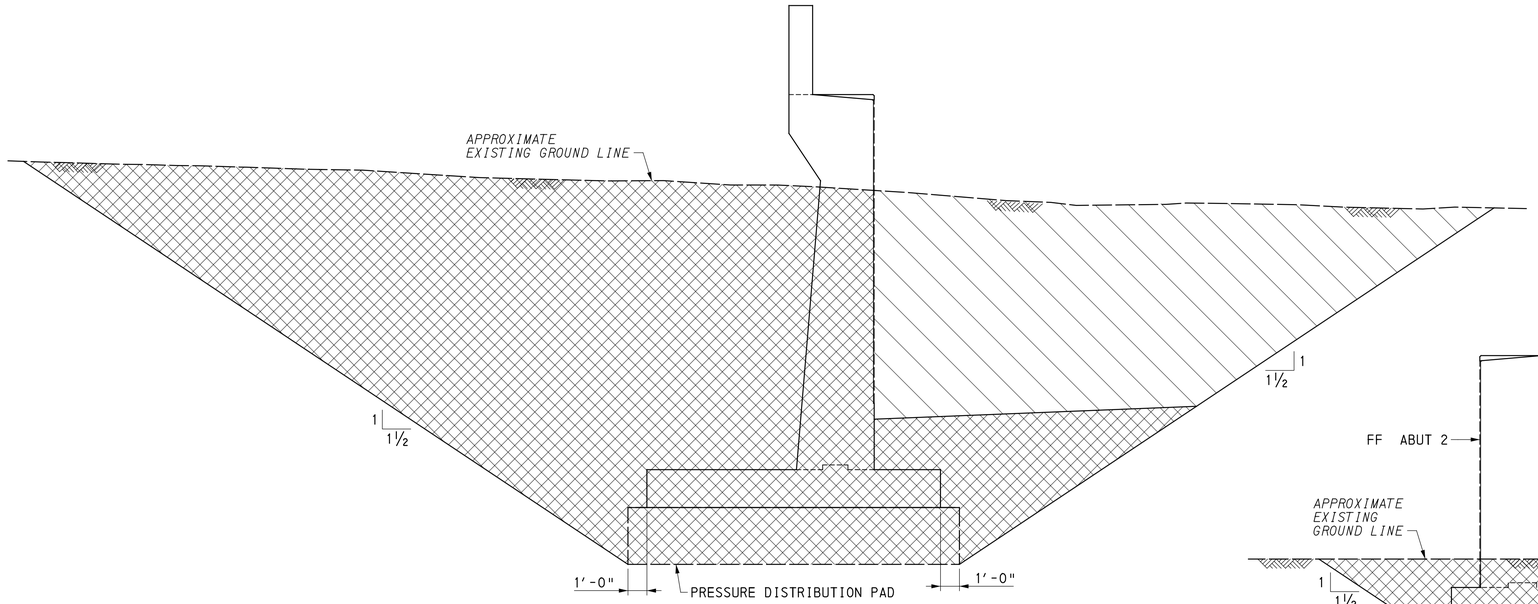
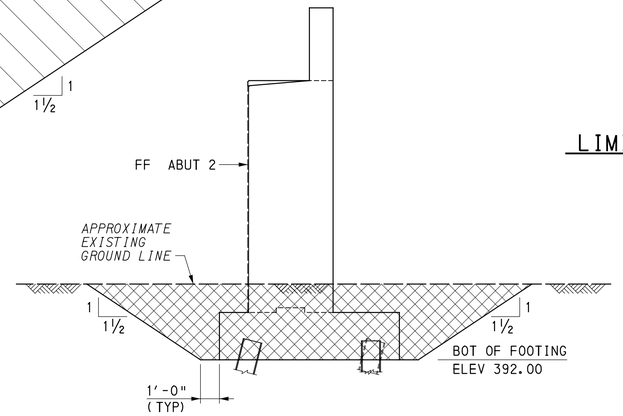


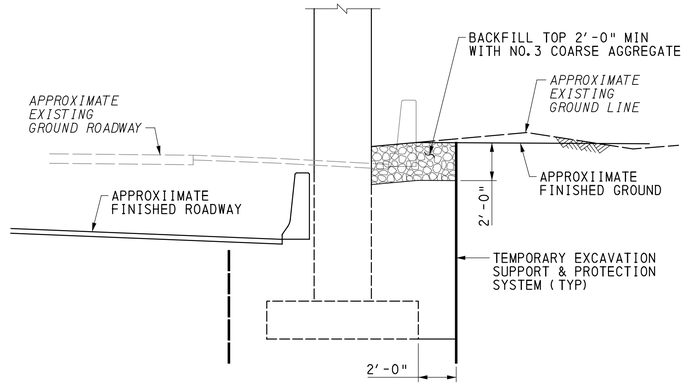
LIMITS OF EXCAVATION AT ABUTMENT 1

NOT TO SCALE



LIMITS OF EXCAVATION AT ABUTMENT 2

NOT TO SCALE



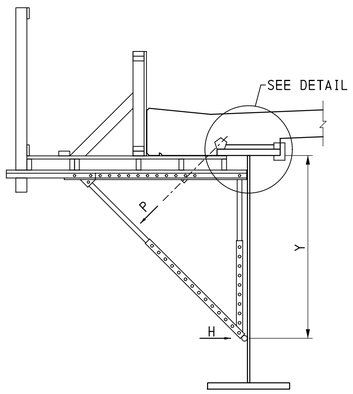
LIMITS OF BACKFILL AT PIER

4' 2' 0 4'

LEGEND

CLASS 3 EXCAVATION

CLASS 1 EXCAVATION (ROADWAY ITEM)

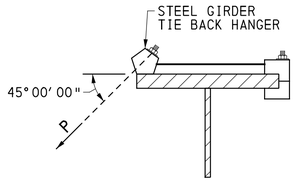


TYPICAL OVERHANG FORMING DETAIL

NOT TO SCALE

NOMINAL DEPTH Y (IN)	MAXIMUM PERMISSABLE HORIZONTAL LOAD H (KIP/FT)
36	1.250
56	0.750
76	0.540

MAXIMUM PERMISSABLE JACK SPACING = 4'-0"

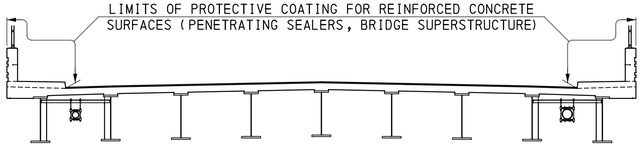


DETAIL AT TENSION AREA

NOT TO SCALE

NOTE:

THE FASCIA GIRDERS ARE DESIGNED FOR A TEMPORARY CONSTRUCTION LOAD APPLIED TO THE WEB AT A MAXIMUM 4'-0" INTERVAL. THIS LOAD (SEE TABLE) APPROXIMATES THE HORIZONTAL COMPONENT OF A DECK OVERHANG FORM SUPPORT BRACKET AND CONSISTS OF AN ALLOWANCE FOR THE WEIGHT OF THE CONCRETE, FORMS AND INCIDENTAL LOADS, PLUS THE DECK FINISHING MACHINE. WHERE A TRANSVERSE STIFFENER SPACING, LESS THAN THAT REQUIRED FOR THE FINAL DESIGN SHEAR, IS INDICATED FOR CONSTRUCTABILITY, THE SPACING FOR THE FINAL DESIGN SHEAR MAY BE USED IF THE OVERHANG FORMS ARE SUPPORTED FROM THE BOTTOM FLANGE OF THE FASCIA GIRDER, OR IF THE GIRDER WEB IS ADEQUATELY BRACED TO PREVENT BUCKLING DUE TO LOADS FROM WEB-BEARING FORM SUPPORT BRACKETS. THE CONTRACTOR HAS THE OPTION TO MODIFY THE OVERHANG BRACKET FROM THAT DESCRIBED HEREIN PROVIDED WORKING DRAWINGS INCLUDING CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA, ARE SUBMITTED FOR REVIEW AND ACCEPTANCE AND SHOW THE MODIFICATIONS DO NOT CAUSE UNACCEPTABLE DEFORMATIONS OR STRESSES IN THE BRIDGE AND IT IS UNDERSTOOD THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF THE BRIDGE.



DECK PROTECTIVE COATING DETAIL

NOT TO SCALE

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 1 DETAILS, SEE SHEETS 7-12.
3. FOR PIER DETAILS, SEE SHEETS 14-15.
4. FOR ABUTMENT 2 DETAILS, SEE SHEETS 16-21.
5. FOR DECK SLAB DETAILS, SEE SHEETS 38-40.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

MISCELLANEOUS DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 5 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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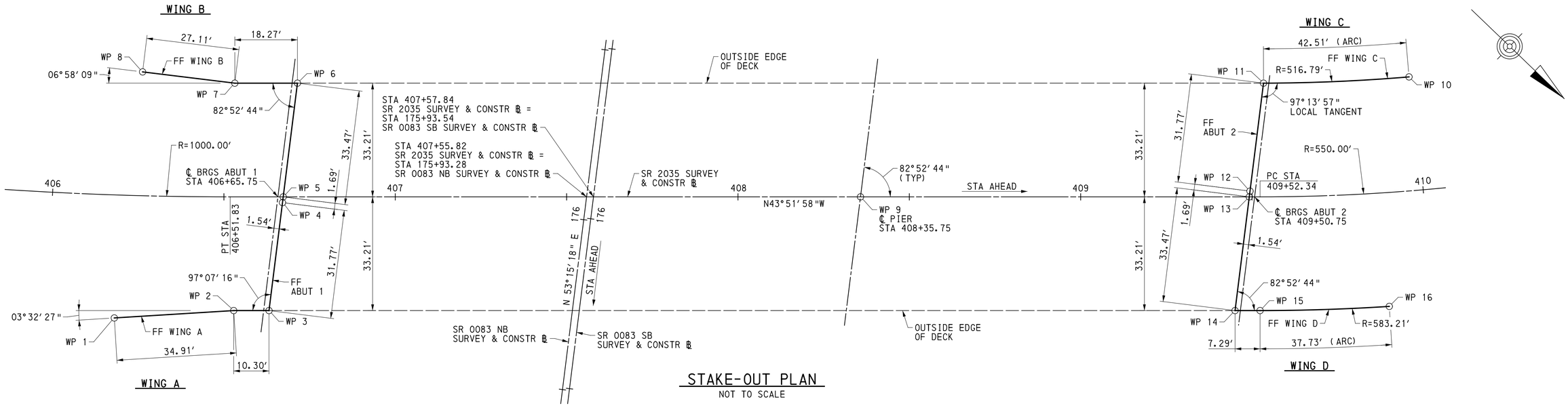

STAKE-OUT PLAN

NOT TO SCALE

WORK POINT COORDINATES				
WP	STATION	OFFSET	NORTHING	EASTING
WP 1	406+19.17	35.92′ R	332122.2181	2209017.7000
WP 2	406+52.85	33.21′ R	332145.8483	2208991.9962
WP 3	406+63.15	33.21′ R	332153.2754	2208984.8574
WP 4	406+67.09	1.68′ R	332134.2666	2208959.3968
WP 5	406+67.30	0.00′	332133.2540	2208958.0405
WP 6	406+71.45	33.21′ L	332113.2326	2208931.2235
WP 7	406+53.18	33.21′ L	332100.0581	2208943.8866
WP 8	406+25.31	36.16′ L	332078.3814	2208960.1602
WP 9	408+35.75	0.00′	332254.6973	2208841.3113
WP 10	409+98.65	33.21′ L	332345.8090	2208705.1354
WP 11	409+53.41	33.21′ L	332316.4659	2208735.8784
WP 12	409+49.41	1.68′ L	332335.4751	2208761.3395
WP 13	409+49.20	0.00′	332336.4877	2208762.6958
WP 14	409+45.05	33.21′ R	332356.5088	2208789.5123
WP 15 (PC)	409+52.34	33.21′ R	332361.7672	2208784.4588
WP 16	409+87.92	33.21′ R	332388.1055	2208757.4505

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

HORIZONTAL CONTROL IS BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE NAD 83).

OFFSET IS MEASURED PERPENDICULAR TO CENTERLINE OF ROADWAY, LOOKING AHEAD STATIONS.

* SEE ATTACHMENT TO THE SPECIAL PROVISIONS

DESCRIPTION	DWG NO.	APP'D DATE
PROTECTIVE FENCE	BC-701M	11-23-2022
ELECTRICAL DETAILS	BC-721M	02-19-2021
PERMANENT METAL DECK FORMS	BC-732M	11-23-2022
ANCHOR SYSTEMS	BC-734M	02-19-2021
WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	09-30-2016
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	11-23-2022
BRIDGE DRAINAGE	BC-751M	01-31-2019
CONCRETE DECK SLAB DETAILS	BC-752M	11-23-2022
STEEL GIRDER DETAILS	BC-753M	01-31-2019
STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES (STRAIGHT GIRDERS ONLY)	BC-754M	11-23-2022
HIGH LOAD MULTI-ROTATIONAL POT BEARINGS	BC-756M	11-23-2022
STEEL PILE TIP REINFORCEMENTS AND SPLICES	BC-757M	09-30-2016
PREFORMED NEOPRENE COMPRESSION SEAL JOINT FOR APPROACH SLABS	BC-766M	11-23-2022
NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES	BC-767M	11-23-2022
RANDOM STONE SLOPE WALL	BC-781M	09-30-2016
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	11-23-2022
SPRAY-ON WATERPROOFING DETAILS *	BC-788 MODIFIED	02-23-2024
UTILITY ATTACHMENT & SUPPORT DETAILS, PRESTRESSED BRIDGES	BC-794M	01-31-2019
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	02-10-2026
BACKFILL AT STRUCTURES	RC-12M	02-10-2026
CONCRETE PAVEMENT JOINTS	RC-20M	02-10-2026
SUBSURFACE DRAINS	RC-30M	02-10-2026
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	02-10-2026

SUPPLEMENTAL DRAWINGS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. ALL DIMENSIONS SHOWN ARE HORIZONTAL.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

STAKE-OUT PLAN

RECOMMENDED 2026.06.11

SHEET 6 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/10/2026
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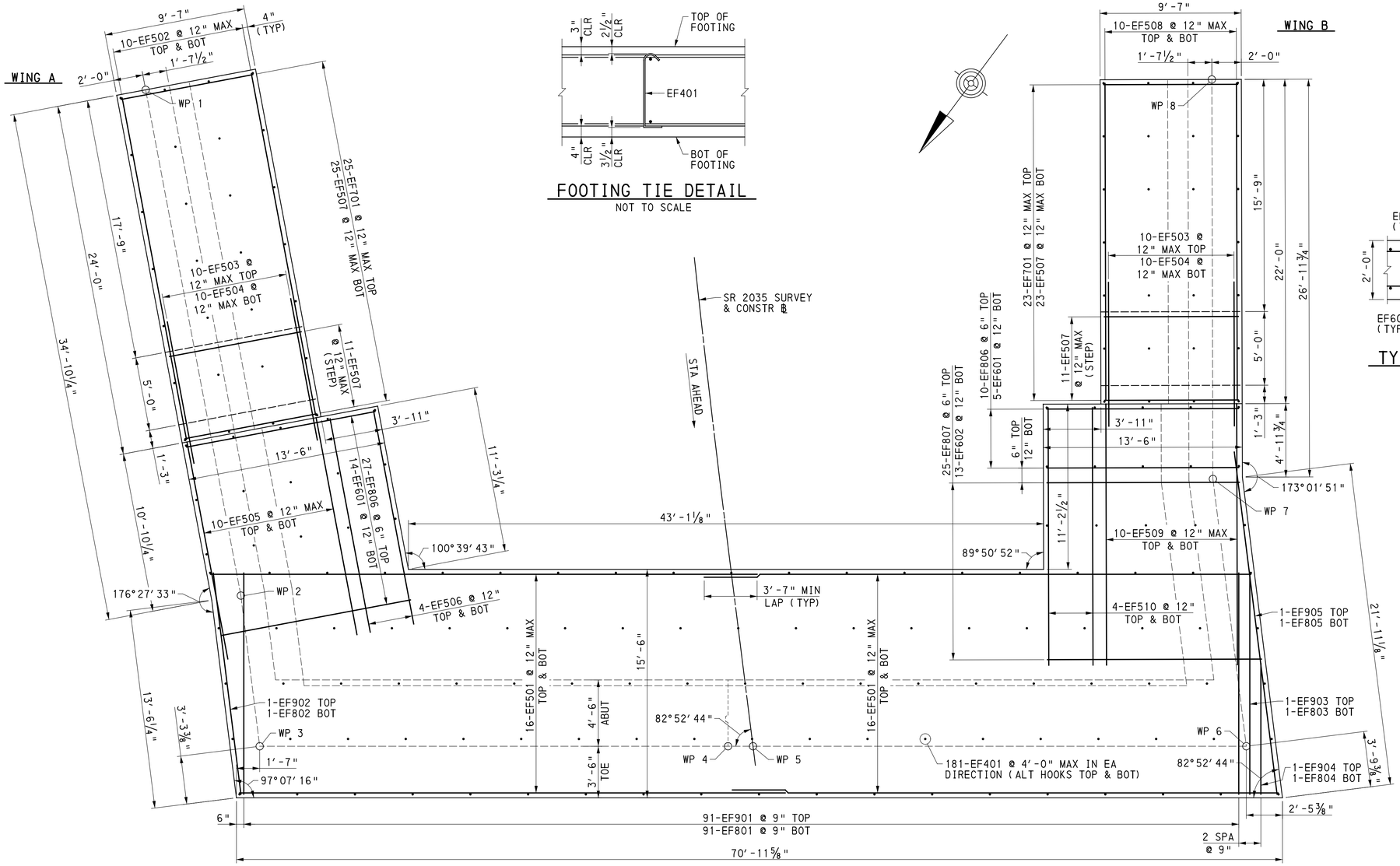
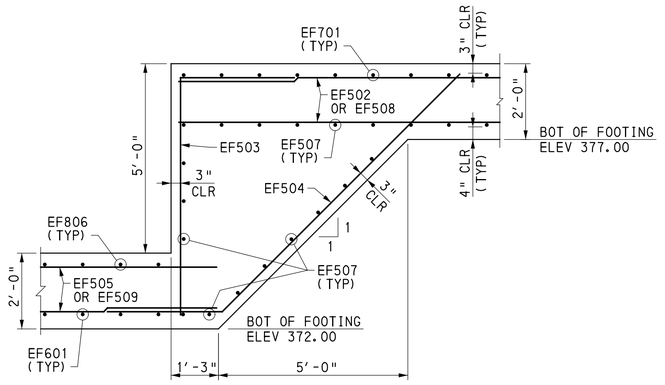


FOOTING TIE DETAIL

NOT TO SCALE

ABUTMENT 1 FOOTING PLAN

4' 2' 0 4'



TYPICAL ABUTMENT 1 FOOTING STEP DETAIL

2' 1' 0 2'

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 1 PLAN, SEE SHEET 8.
4. FOR ABUTMENT 1 ELEVATION, SEE SHEET 9.
5. FOR WING A DETAILS, SEE SHEET 11.
6. FOR WING B DETAILS, SEE SHEET 12.
7. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

FOUNDATION DESIGN DATA

LOCATION	MAXIMUM FACTORED BEARING PRESSURE (KSF)	MAXIMUM FACTORED BEARING RESISTANCE (KSF)	LIMIT STATE	LOAD CASE	STAGE	CONTROLLING FACTORED HORIZONTAL FORCE (KIP/FT)	FACTORED HORIZONTAL RESISTANCE (KIP/FT)	LIMIT STATE	LOAD CASE	STAGE
ABUTMENT 1	8.91	8.96	STR-I	MAX	FINAL	27.50	35.84	STR-I	MIN	FINAL
WINGS A & B	8.00	9.79	STR-I	MAX	FINAL	15.31	15.44	STR-I	MIN	TEMPORARY

COMMONWEALTH OF PENNSYLVANIA
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PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 1 - FOOTING PLAN

RECOMMENDED 2026.06.11

SHEET 7 OF 64

S-40598

6/4/2026
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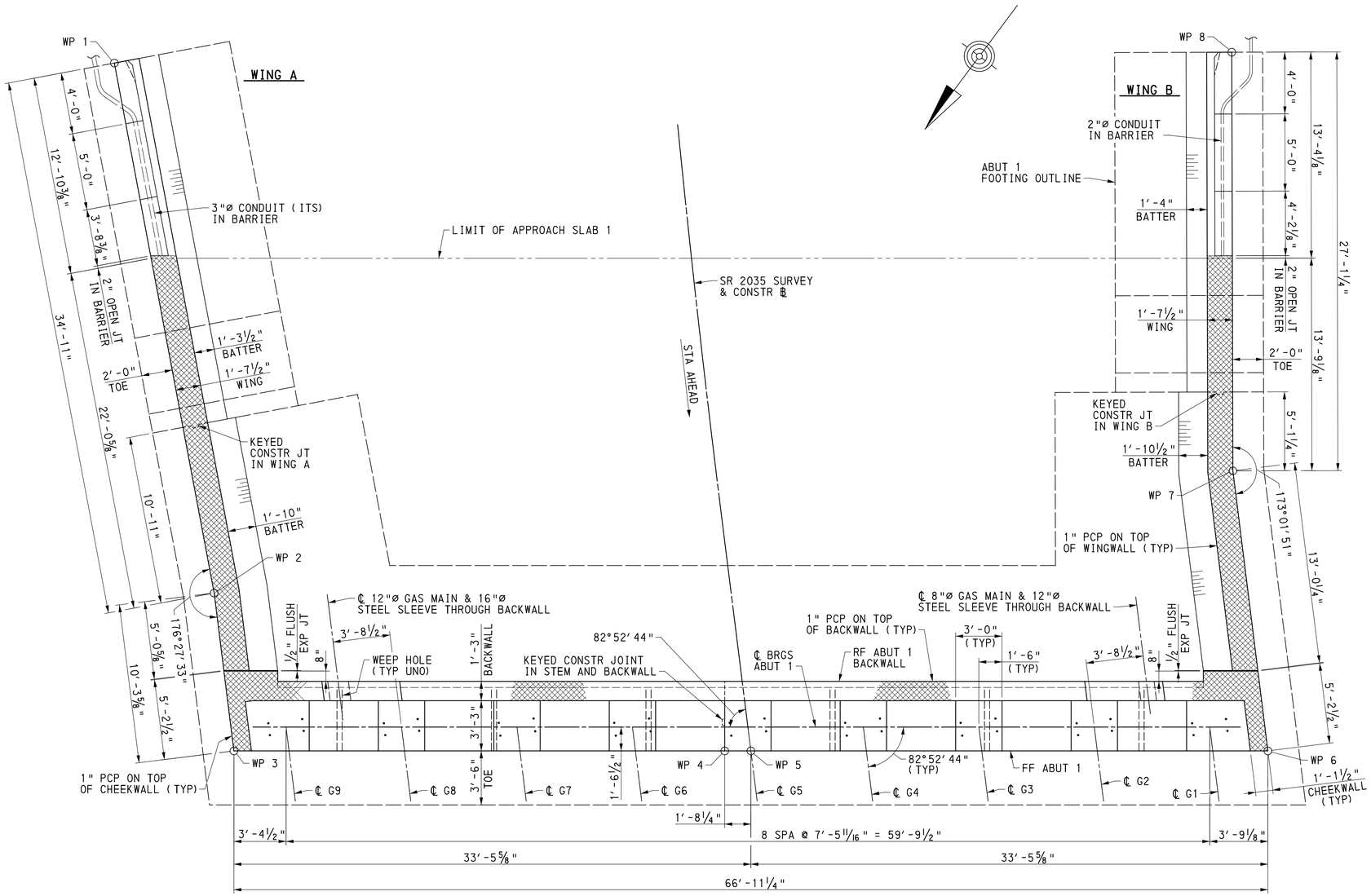
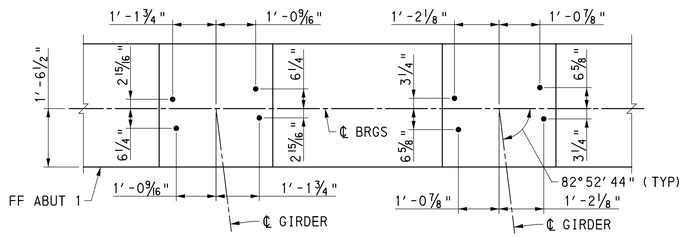


ABUTMENT 1 PLAN

4' 2' 0 4'



G1-G2, G8-G9 G3-G7

ANCHOR BOLT LAYOUT DETAIL

2' 1' 0 2'

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 1 FOOTING PLAN, SEE SHEET 7.
4. FOR ABUTMENT 1 ELEVATION, SEE SHEET 9.
5. FOR ABUTMENT 1 SECTIONS AND DETAILS, SEE SHEET 10.
6. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.
7. FOR UGI GAS LINE UTILITY DETAILS, SEE SHEETS 56-57.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 1 - PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 8 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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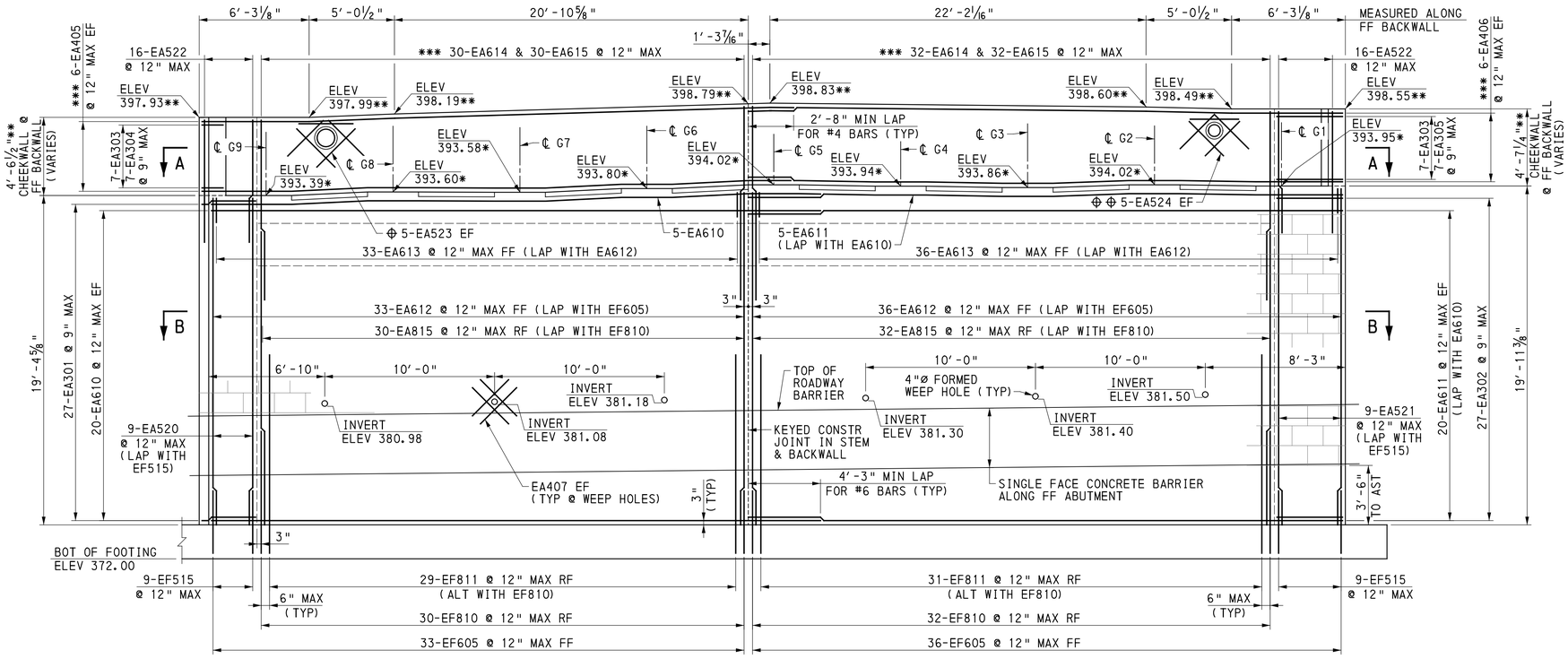


ABUTMENT 1 ELEVATION

4' 2' 0 4'

NOTES: FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

FOR AST DETAILS, SEE ABUTMENT ARCHITECTURAL DETAILS SHEET.

* BEAM SEATS ARE LEVEL.

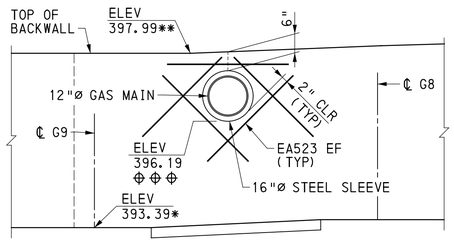
** ELEVATIONS/DIMENSIONS GIVEN @ FF BACKWALL.

*** CUT OR SHIFT BARS TO AVOID CONFLICT WITH STEEL SLEEVE. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.

⊕ 12"Ø GAS MAIN & 16"Ø STEEL SLEEVE (SEE DETAIL BELOW)

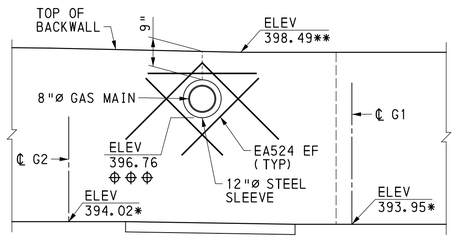
⊕⊕ 8"Ø GAS MAIN & 12"Ø STEEL SLEEVE (SEE DETAIL BELOW)

⊕⊕⊕ BOTTOM OF STEEL SLEEVE ELEVATIONS ARE GIVEN AT FF BACKWALL. HOLES IN BACKWALL AND STEEL SLEEVES ARE SLOPED TO GRADE OF ROADWAY.



12"Ø GAS MAIN DETAIL

2' 1' 0 2'



8"Ø GAS MAIN DETAIL

2' 1' 0 2'

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 1 FOOTING PLAN, SEE SHEET 7.
4. FOR ABUTMENT 1 PLAN, SEE SHEET 8.
5. FOR ABUTMENT 1 TYPICAL SECTION AND SECTIONS A-A & B-B, SEE SHEET 10.
6. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.
7. FOR ABUTMENT ARCHITECTURAL DETAILS, SEE SHEET 54.
8. FOR UGI GAS LINE UTILITY DETAILS, SEE SHEETS 56-57.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 1 - ELEVATION

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 9 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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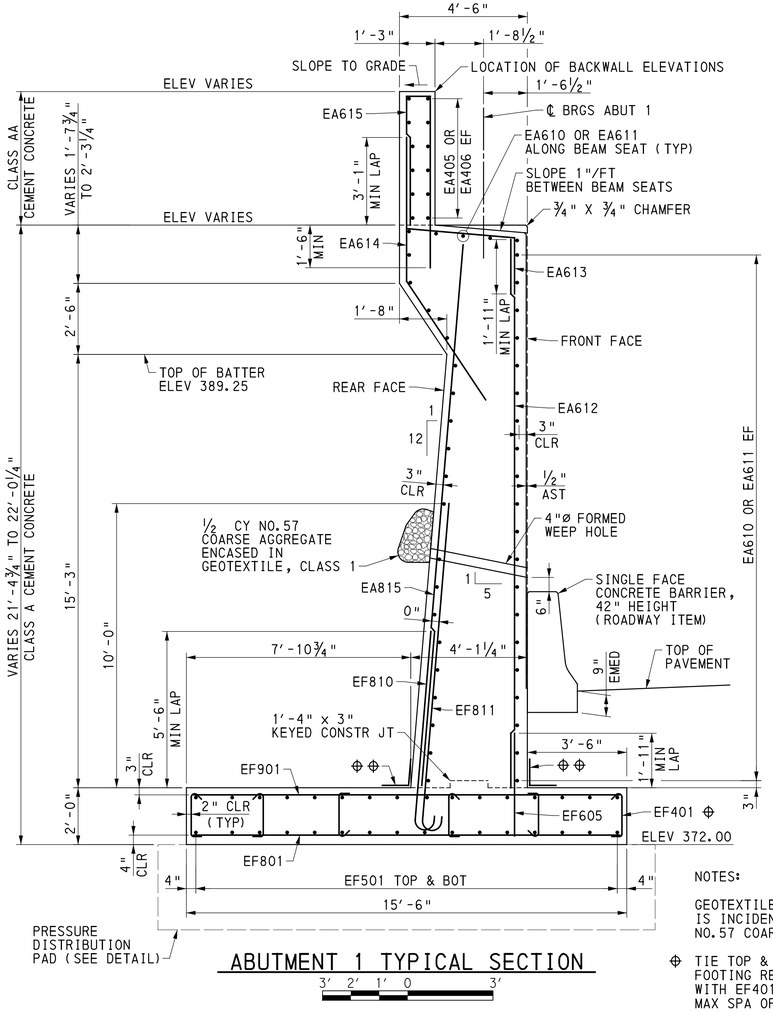


ABUTMENT 1 TYPICAL SECTION

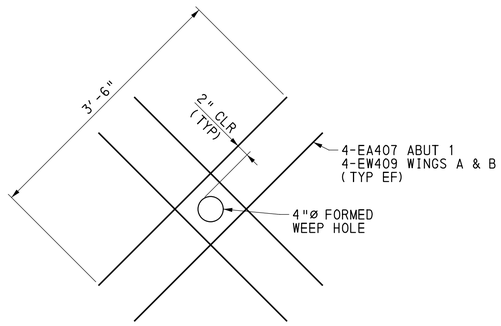
3′ 2′ 1′ 0 3′

NOTES:

GEOTEXTILE, CLASS 1 IS INCIDENTAL TO THE NO.57 COARSE AGGREGATE.

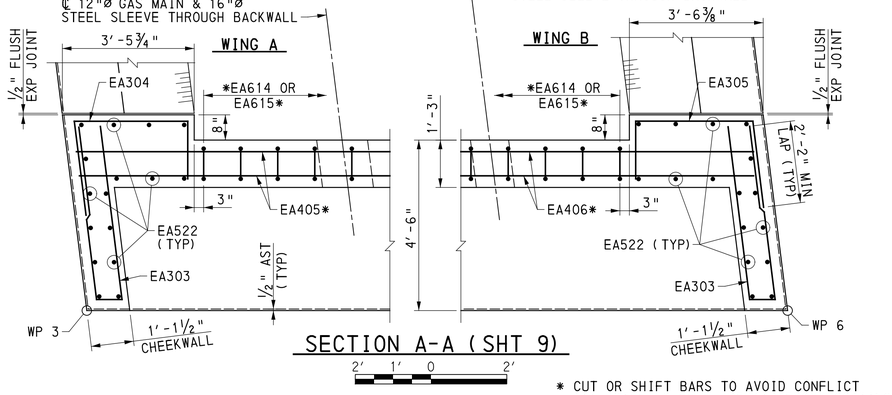
⊕ TIE TOP & BOT MATS OF FOOTING REINFORCING STEEL WITH EF401 TIE BARS AT A MAX SPA OF 4′-0" IN BOTH DIRECTIONS. ALTERNATE 135° HOOKS TOP & BOT IN ALTERNATE TIES.

⊕⊕ WATERPROOFING PER BC-788M



TYPICAL ABUTMENT 1 WEEP HOLE REINFORCEMENT DETAIL

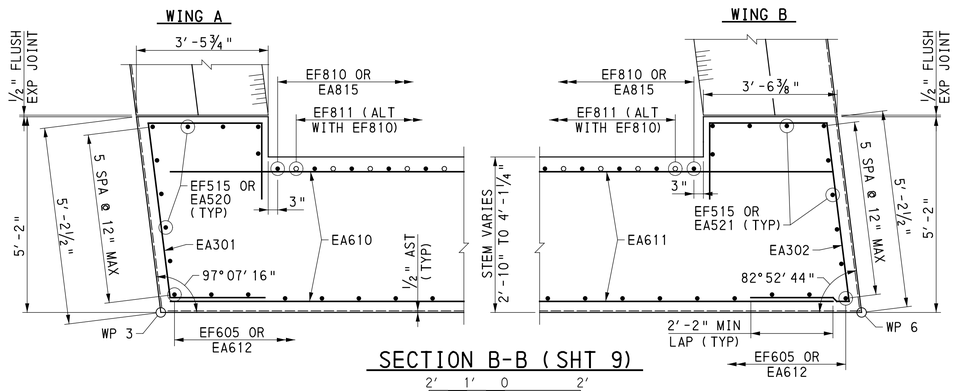
12" 6" 0 12"



SECTION A-A (SHT 9)

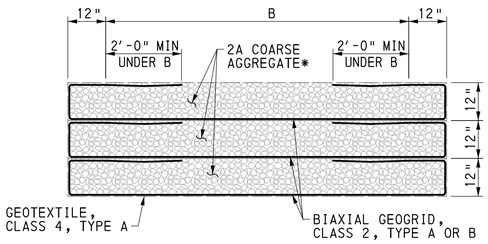
2′ 1′ 0 2′

* CUT OR SHIFT BARS TO AVOID CONFLICT WITH STEEL SLEEVE. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.



SECTION B-B (SHT 9)

2′ 1′ 0 2′



PRESSURE DISTRIBUTION PAD DETAIL

NOT TO SCALE

NOTES:

B = BASE WIDTH OF RESPECTIVE SUBSTRUCTURE

* PLACE 2A COARSE AGGREGATE IN ACCORDANCE WITH PUBLICATION 408, SECTION 206.3.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 1 FOOTING PLAN, SEE SHEET 7.
4. FOR ABUTMENT 1 PLAN, SEE SHEET 8.
5. FOR ABUTMENT 1 ELEVATION, SEE SHEET 9.
6. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.
7. FOR ABUTMENT ARCHITECTURAL DETAILS, SEE SHEET 54.
8. FOR UGI GAS LINE UTILITY DETAILS, SEE SHEETS 56-57.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 1 - SECTIONS & DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 10 OF 64

S-40598

6/4/2026
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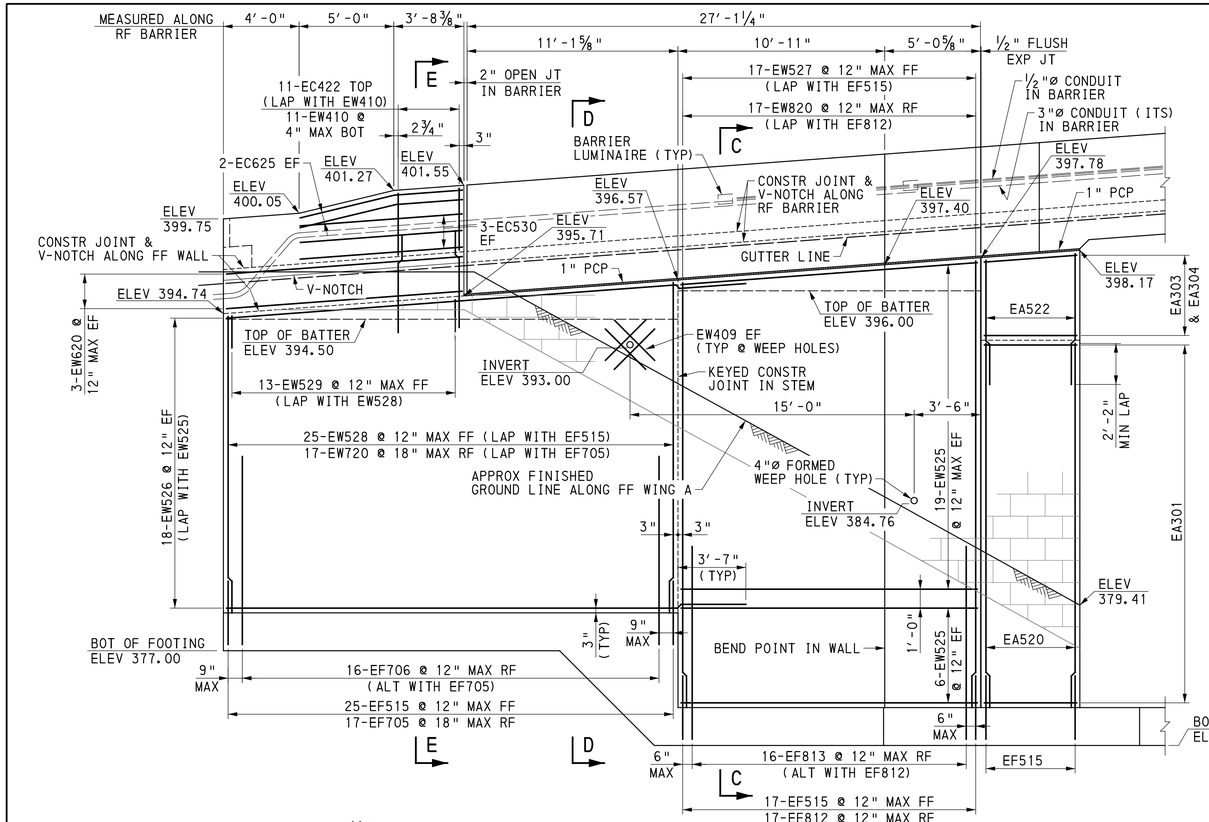
DES: VDL	DWG: STG	CKD: VDL



WING A ELEVATION

4' 2' 0 4'

NOTES

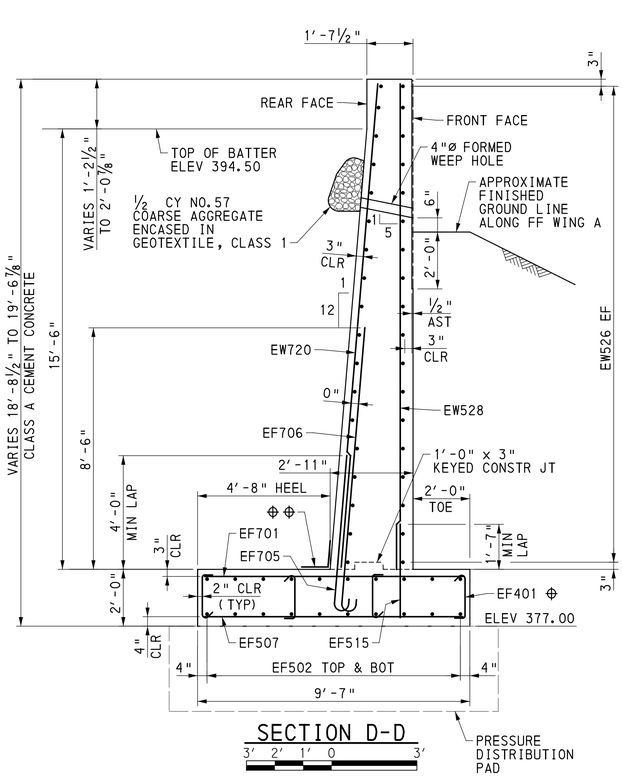
1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 1 FOOTING PLAN, SEE SHEET 7.
3. FOR ABUTMENT 1 PLAN, SEE SHEET 8.
4. FOR ABUTMENT 1 ELEVATION, SEE SHEET 9.
5. FOR WEEP HOLE REINFORCEMENT DETAIL, SEE SHEET 10.
6. FOR BARRIER TRANSITION DETAILS, SEE SHEET 13.
7. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.
8. FOR ABUTMENT ARCHITECTURAL DETAILS, SEE SHEET 54.

NOTES:

FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

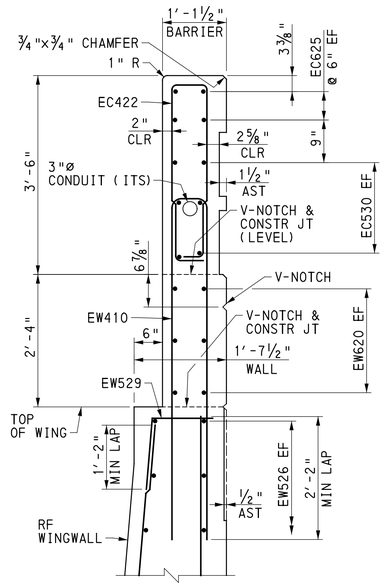
FOR BARRIER TRANSITION REINFORCEMENT NOT SHOWN, SEE BARRIER TRANSITION DETAILS.

FOR AST DETAILS, SEE ABUTMENT ARCHITECTURAL DETAILS SHEET.



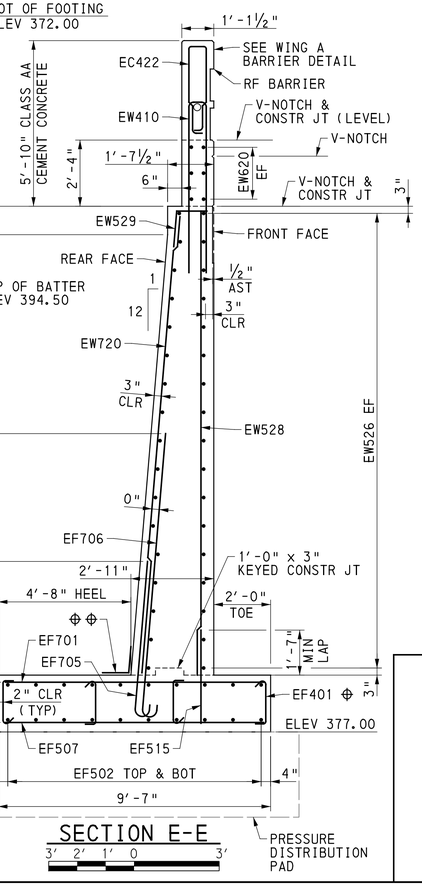
SECTION D-D

3' 2' 1' 0 3'



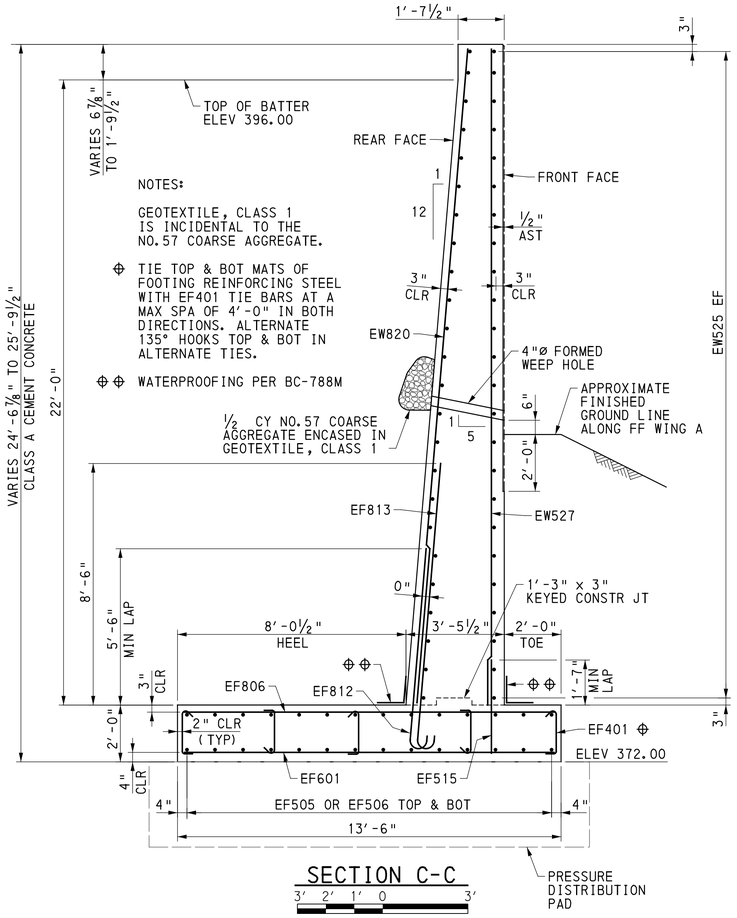
WING A BARRIER DETAIL

12" 0 12"



SECTION E-E

3' 2' 1' 0 3'



SECTION C-C

3' 2' 1' 0 3'

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 1 - WING A DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 11 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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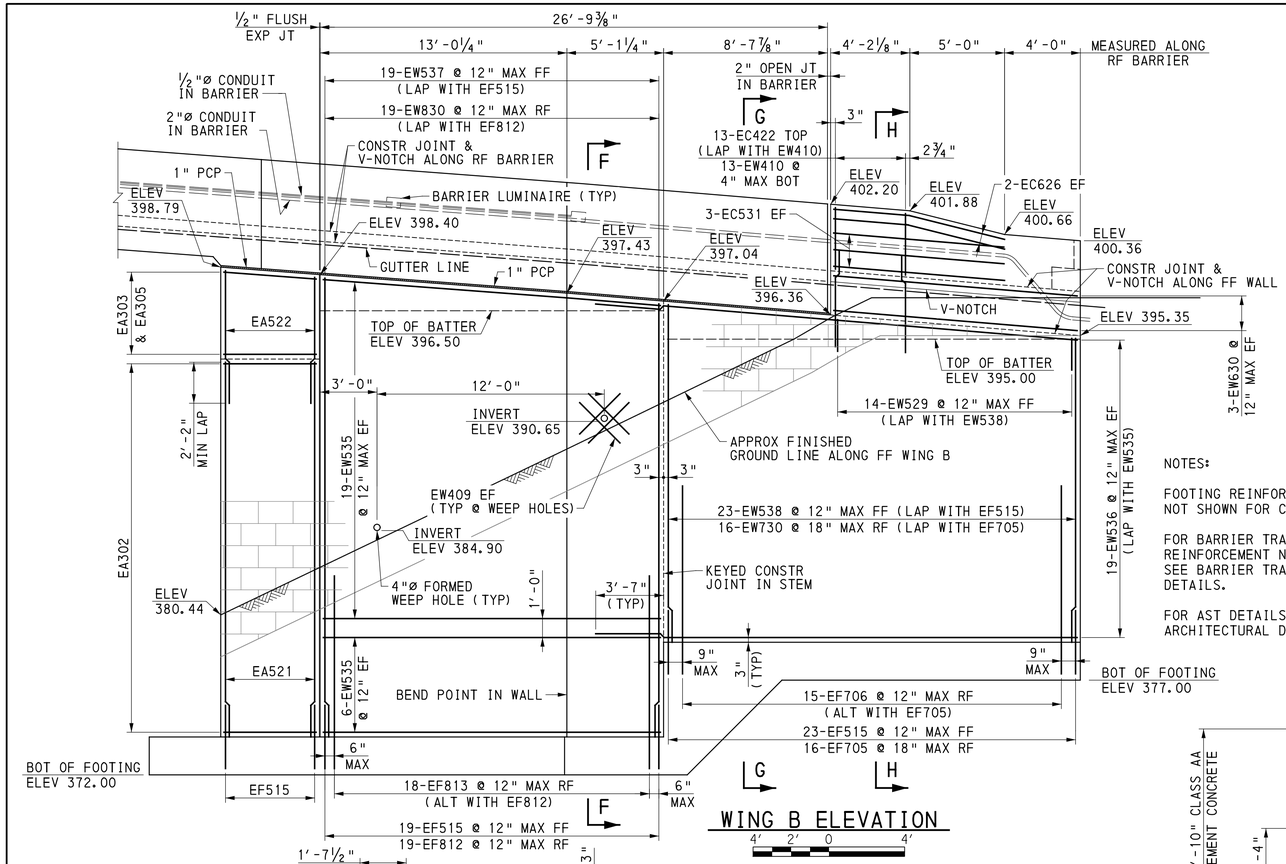


WING B ELEVATION

4' 2' 0 4'

NOTES

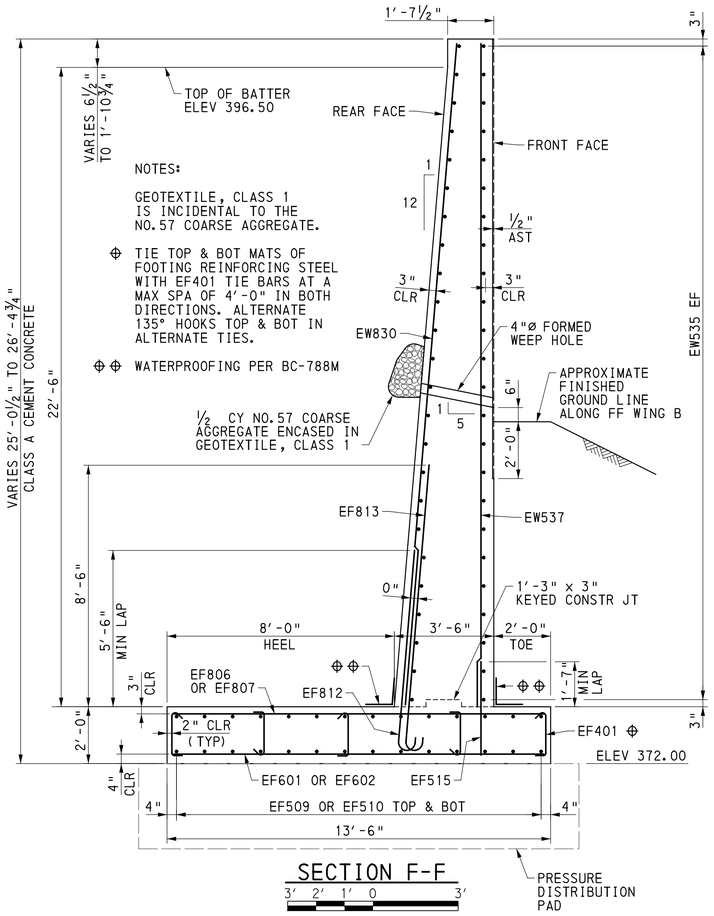
1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 1 FOOTING PLAN, SEE SHEET 7.
3. FOR ABUTMENT 1 PLAN, SEE SHEET 8.
4. FOR ABUTMMENT 1 ELEVATION, SEE SHEET 9.
5. FOR WEEP HOLE REINFORCEMENT DETAIL, SEE SHEET 10.
6. FOR BARRIER TRANSITION DETAILS, SEE SHEET 13.
7. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.
8. FOR ABUTMENT ARCHITECTURAL DETAILS, SEE SHEET 54.

NOTES:

FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

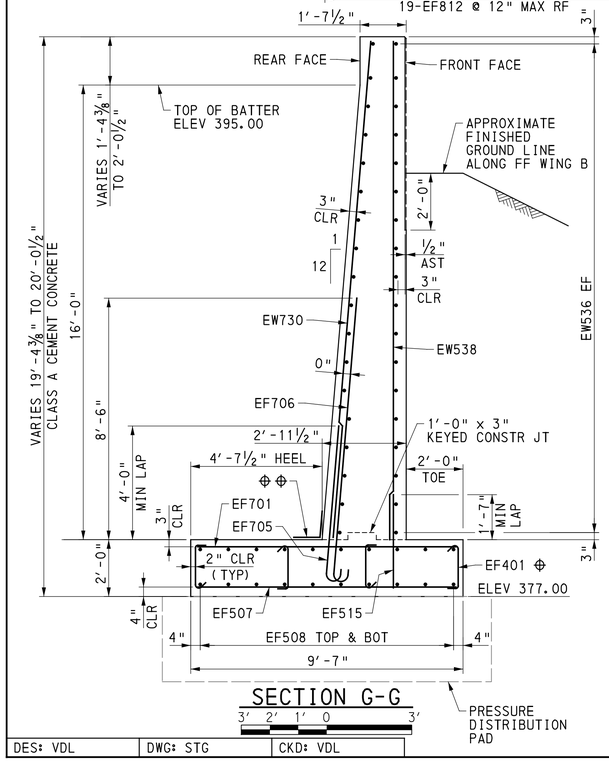
FOR BARRIER TRANSITION REINFORCEMENT NOT SHOWN, SEE BARRIER TRANSITION DETAILS.

FOR AST DETAILS, SEE ABUTMENT ARCHITECTURAL DETAILS SHEET.



SECTION F-F

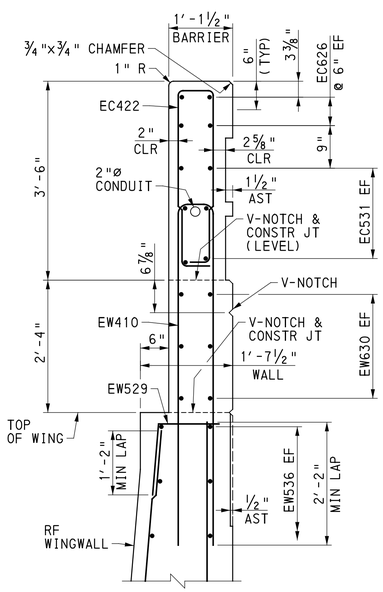
3' 2' 1' 0 3'



SECTION G-G

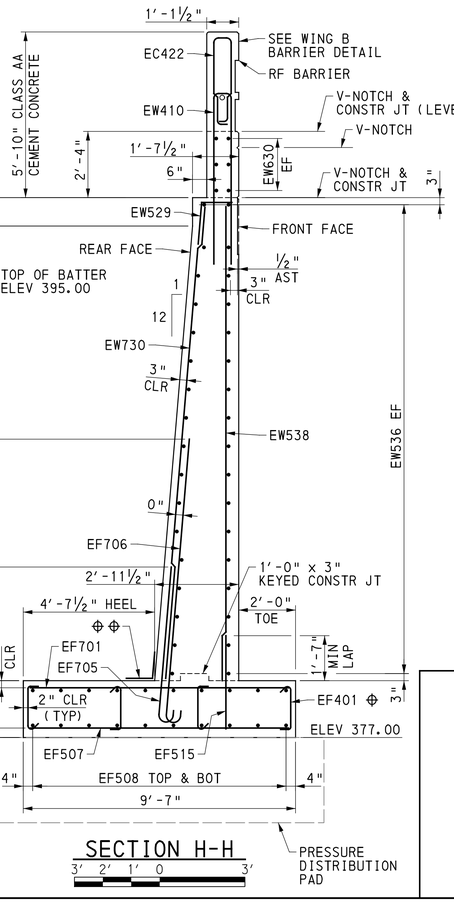
3' 2' 1' 0 3'

PRESSURE DISTRIBUTION PAD



WING B BARRIER DETAIL

12" 0 12"



SECTION H-H

3' 2' 1' 0 3'

PRESSURE DISTRIBUTION PAD

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 1 - WING B DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

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SHEET 12 OF 64

S-40598

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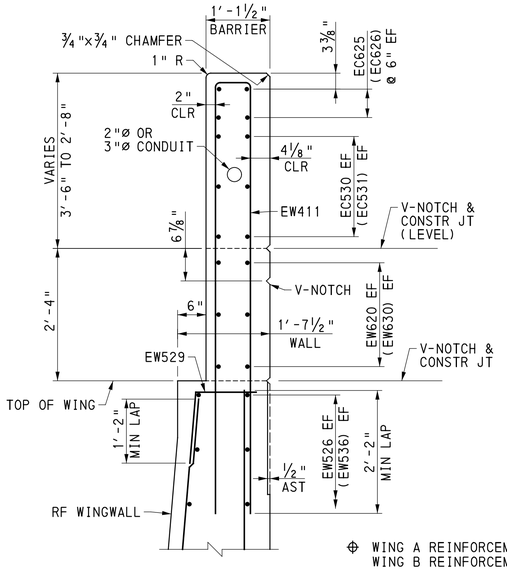
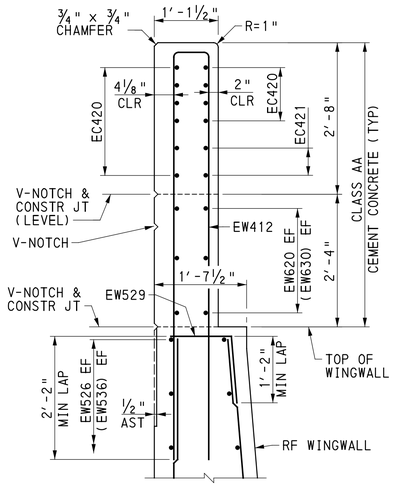
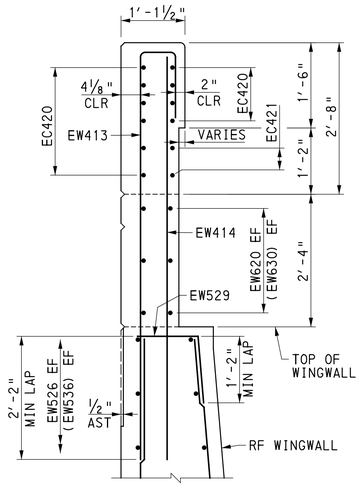




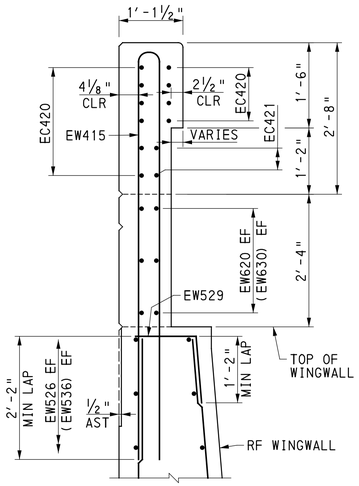
SECTION K-K ⊕

12" 0 12"



SECTION L-L ⊕

12" 0 12"



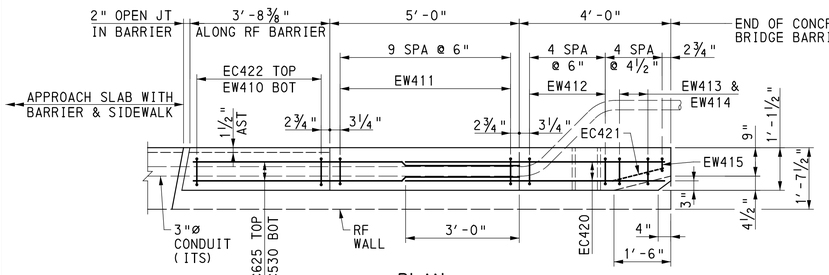
SECTION M-M ⊕

12" 0 12"

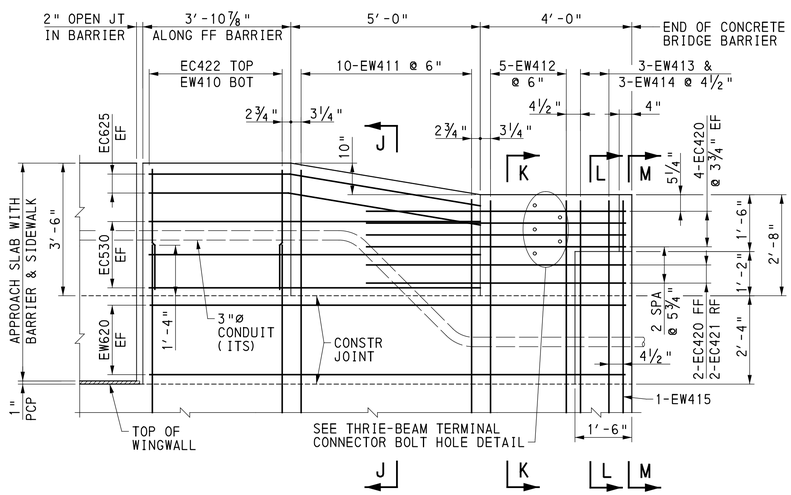
⊕ WING A REINFORCEMENT SHOWN,
WING B REINFORCEMENT SHOWN IN ( ).

SECTION J-J ⊕

12" 0 12"



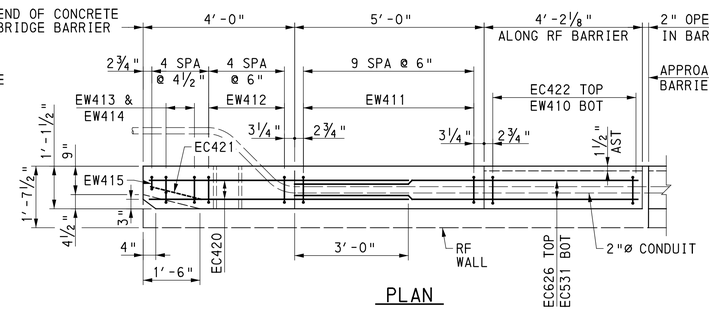
PLAN



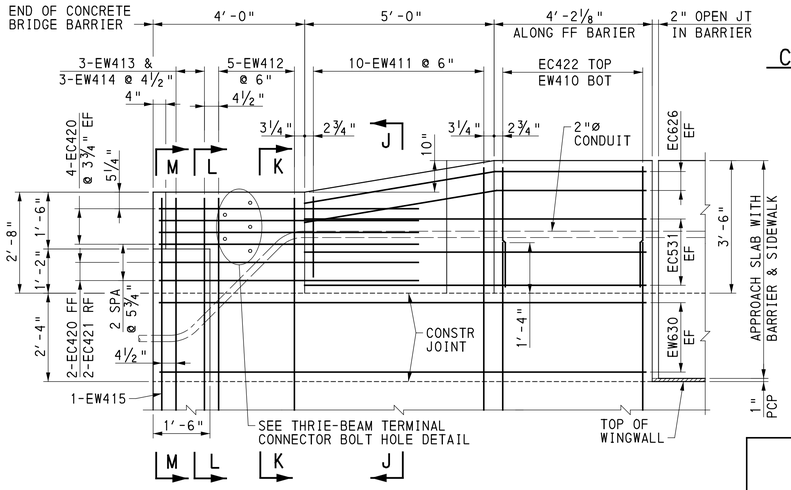
ELEVATION

WING A BARRIER TRANSITION DETAILS

2' 1' 0 2'



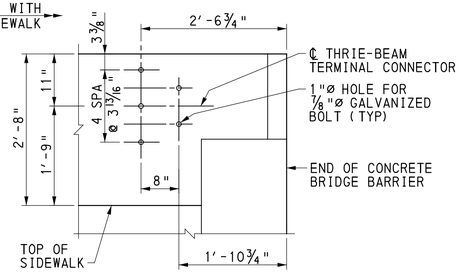
PLAN



ELEVATION

WING B BARRIER TRANSITION DETAILS

2' 1' 0 2'



THRIE-BEAM TERMINAL CONNECTOR BOLT HOLE DETAIL

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 1 DETAILS, SEE SHEETS 7-10.
3. FOR WING A DETAILS, SEE SHEET 11.
4. FOR WING B DETAILS, SEE SHEET 12.
5. FOR ABUTMENT 1 REINFORCEMENT SCHEDULE, SEE SHEET 50.
6. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 1 - BARRIER TRANSITION DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 13 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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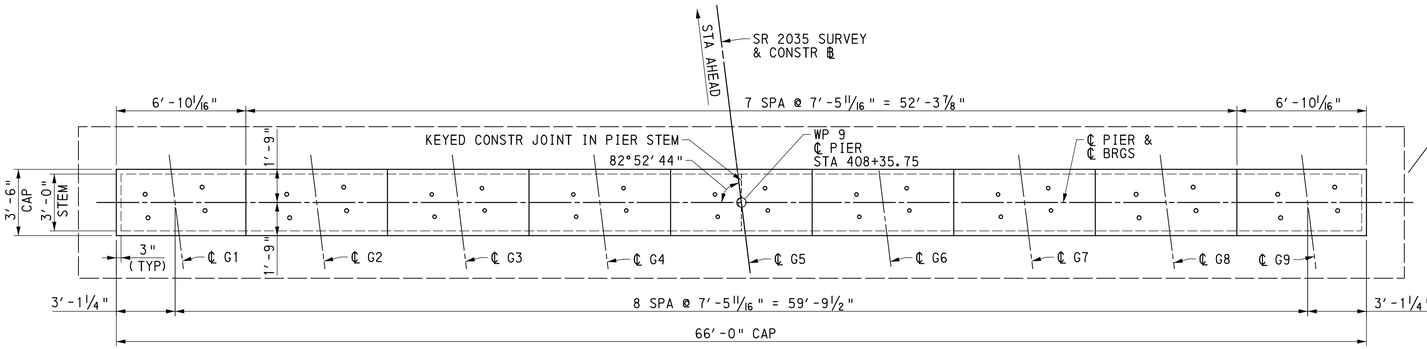
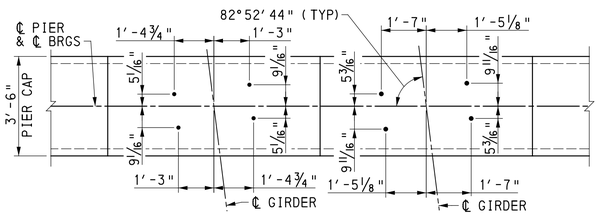


PIER PLAN

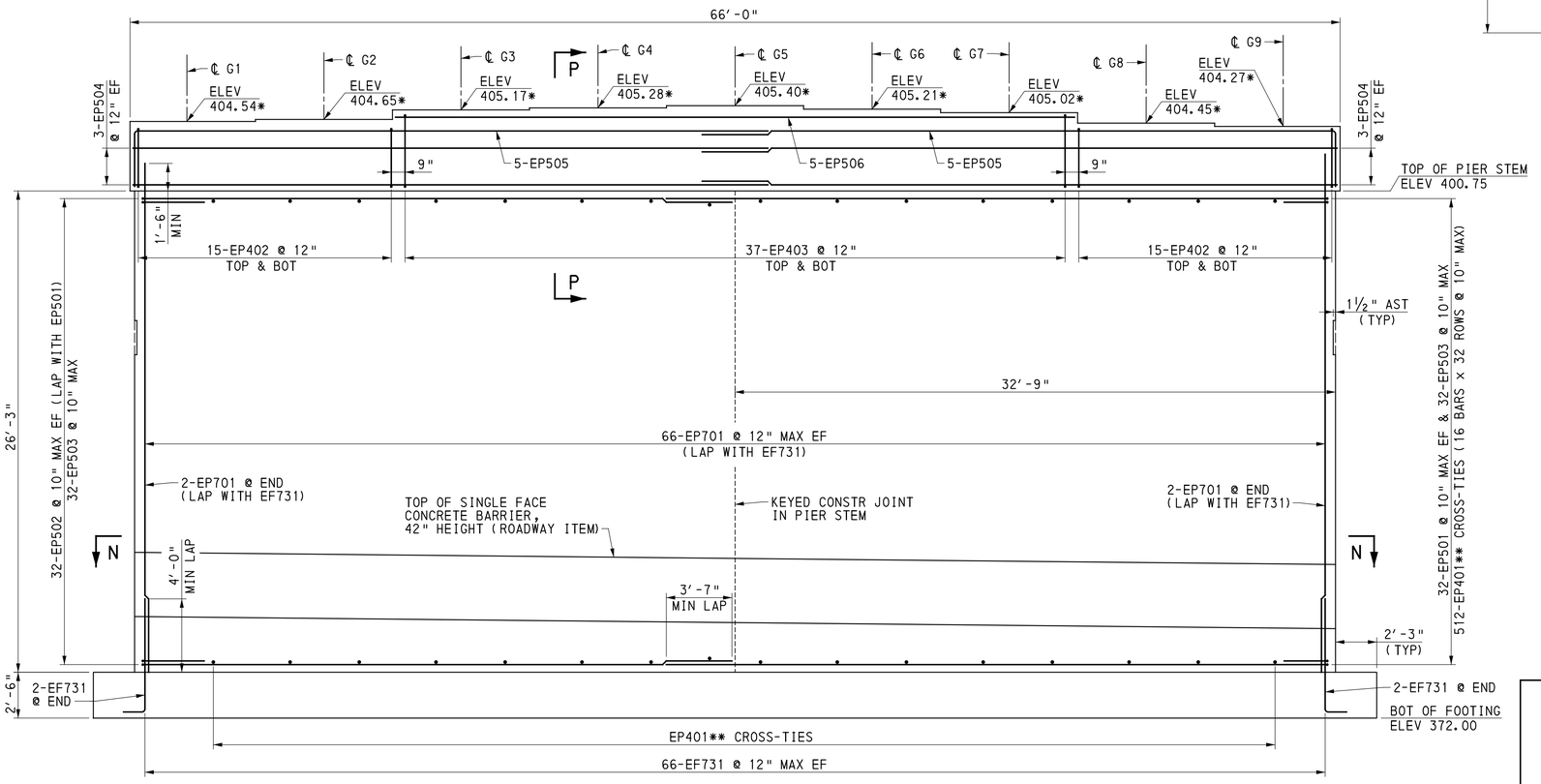
4′ 2′ 0 4′



G3-G7 G1-G2, G8-G9

PIER ANCHOR BOLT LAYOUT DETAIL

3′ 2′ 1′ 0 3′



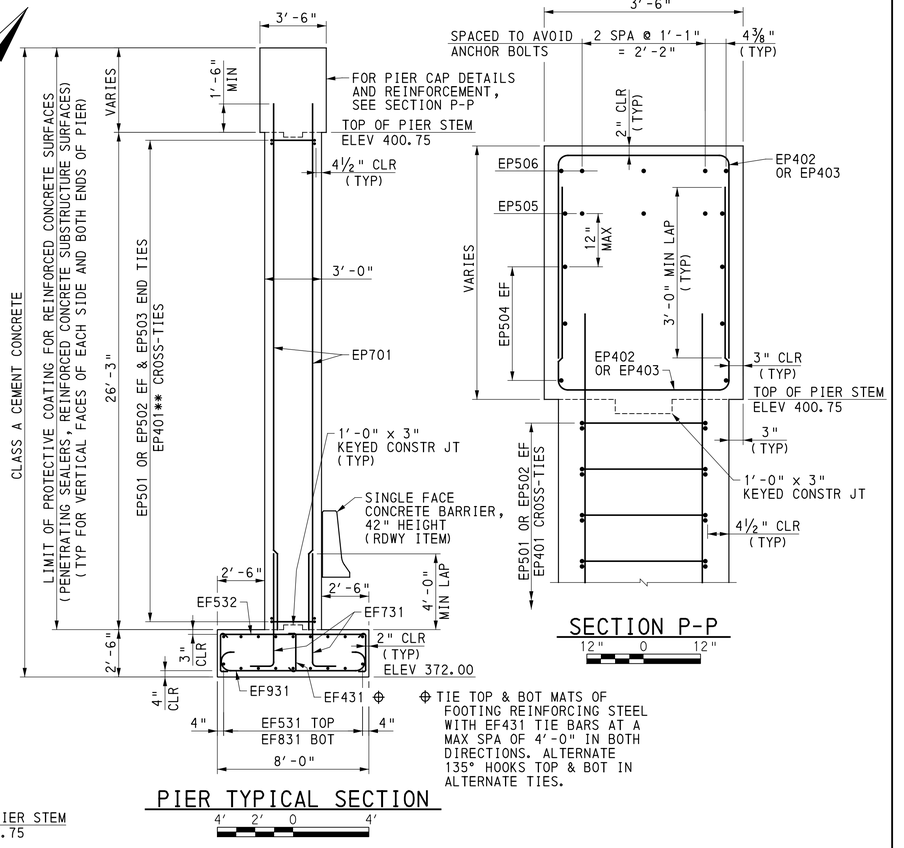
PIER ELEVATION

4′ 2′ 0 4′

NOTES: FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

* BEAM SEATS ARE LEVEL.

** ALL HOOKS ON EP401 CROSS-TIES MUST ENGAGE VERTICAL COLUMN REINFORCING STEEL. ALTERNATE 90° AND 135° HOOKS BOTH VERTICALLY AND HORIZONTALLY.



PIER TYPICAL SECTION

4′ 2′ 0 4′

SECTION P-P

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR PIER FOOTING PLAN, SECTIONS & DETAILS, SEE SHEET 15.
4. FOR PIER REINFORCEMENT SCHEDULE, SEE SHEET 52.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

PIER PLAN, ELEVATION & TYP SECTION

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 14 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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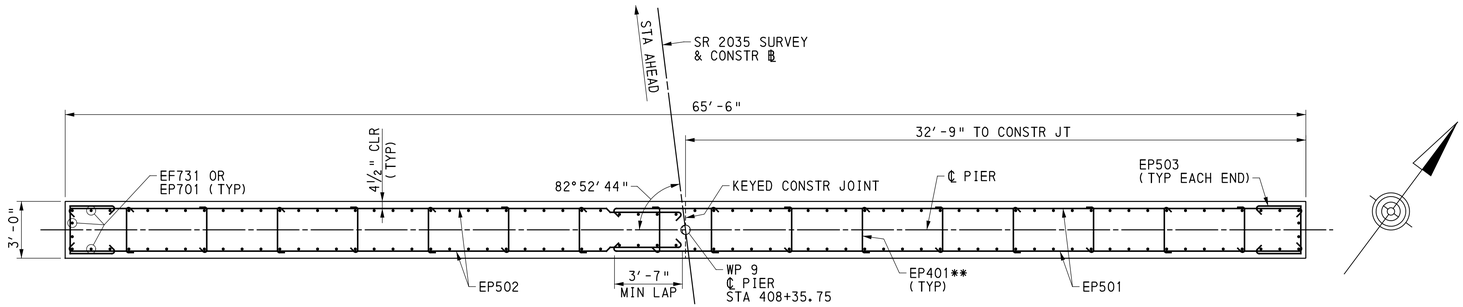
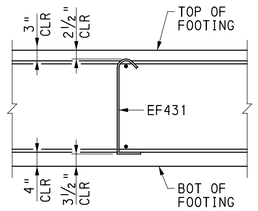


SECTION N-N (SHT 14)

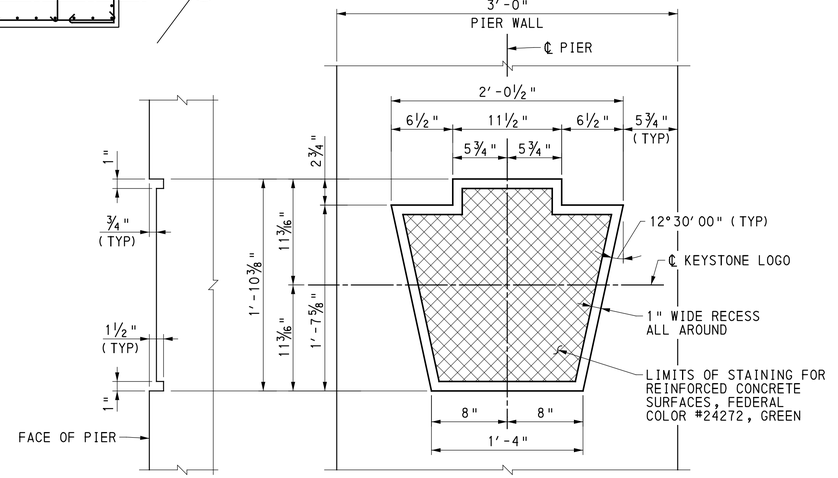
4′ 2′ 0 4′

** ALL HOOKS ON EP401 CROSS-TIES MUST ENGAGE VERTICAL COLUMN REINFORCING STEEL. ALTERNATE 90° AND 135° HOOKS BOTH VERTICALLY AND HORIZONTALLY.



PIER FOOTING TIE DETAIL

NOT TO SCALE

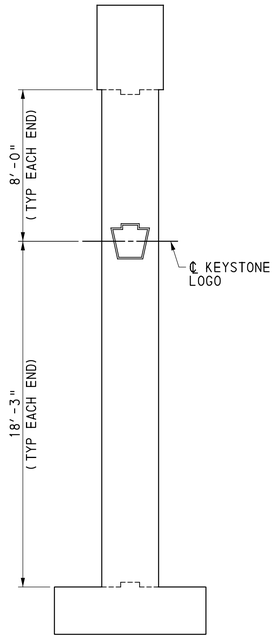


SIDE VIEW

PIER END VIEW

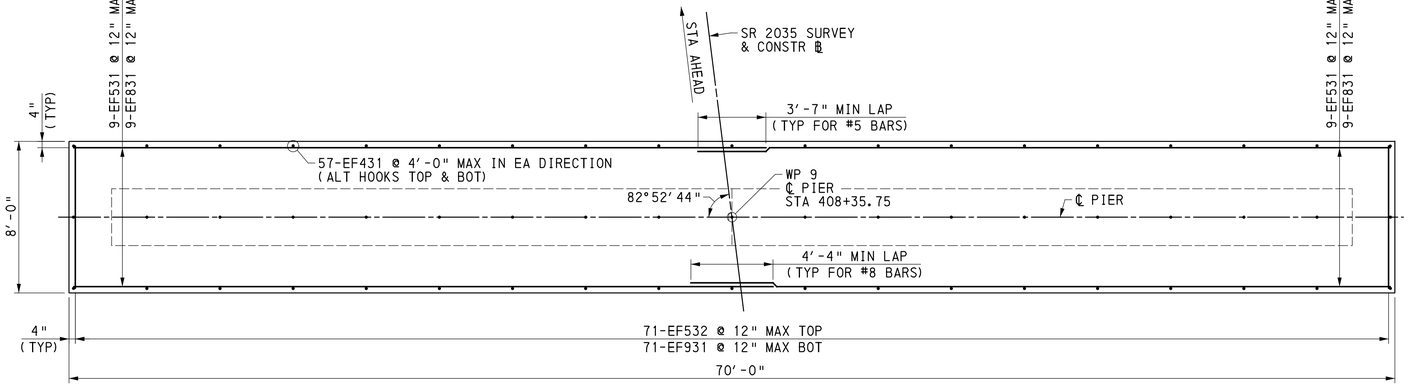
KEYSTONE LOGO DETAIL

6" 0 6"



PIER END VIEW

4′ 2′ 0 4′



PIER FOOTING PLAN

4′ 2′ 0 4′

FOUNDATION DESIGN DATA								
LOCATION	MAXIMUM FACTORED BEARING PRESSURE (KSF)	MAXIMUM FACTORED BEARING RESISTANCE (KSF)	LIMIT STATE	LOAD CASE	CONTROLLING FACTORED HORIZONTAL FORCE (KIP)	FACTORED HORIZONTAL RESISTANCE (KIP)	LIMIT STATE	LOAD CASE
PIER	22.25	100.00	STR-V	MAX	600.40	3074.12	EXT-II	N/A

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR PIER PLAN, ELEVATION & TYPICAL SECTION, SEE SHEET 14.
4. FOR PIER REINFORCEMENT SCHEDULE, SEE SHEET 52.
5. FOR ARCHITECTURAL DETAIL NOTES, SEE SHEET 54.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

PIER FOOTING PLAN & DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 15 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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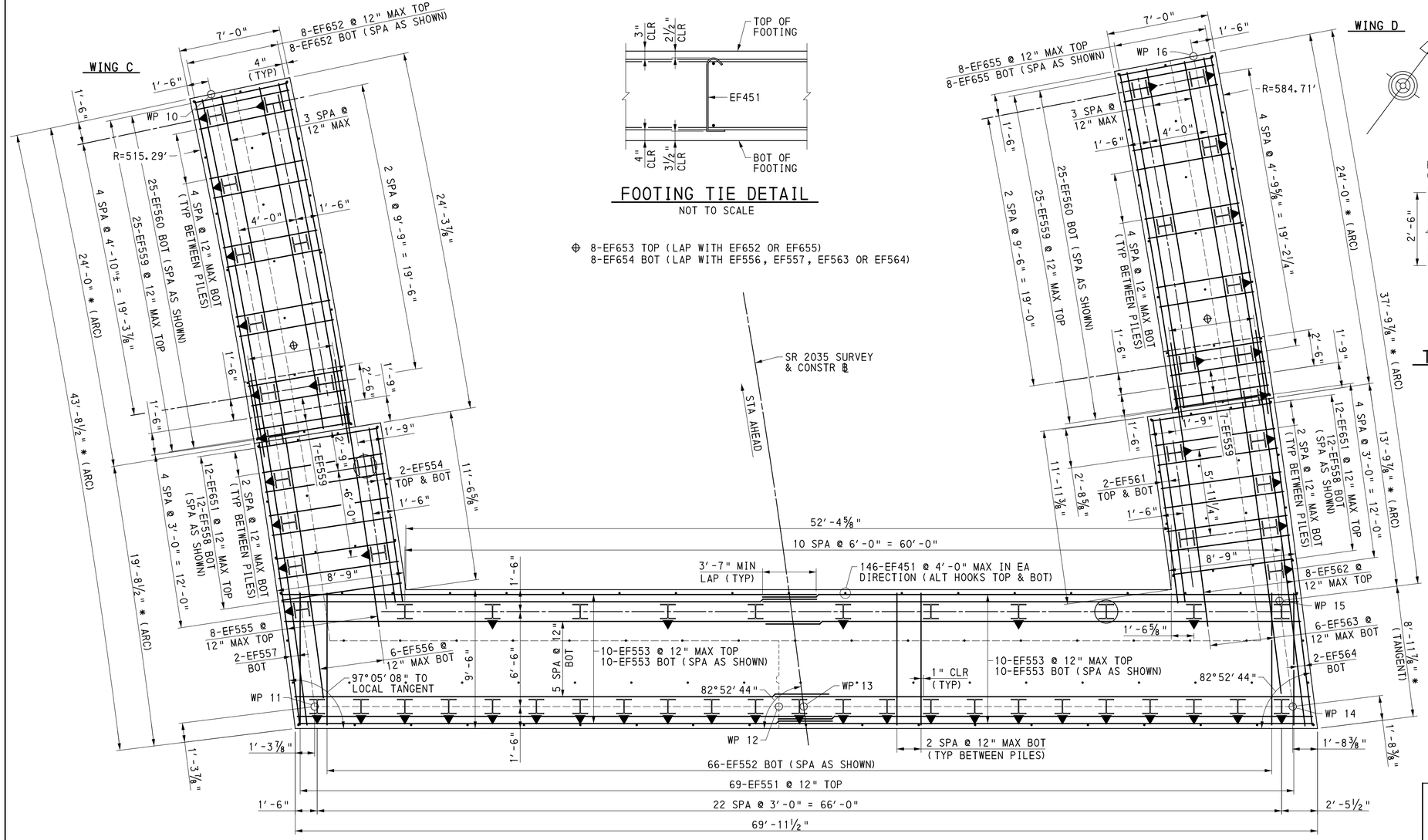


ABUTMENT 2 FOOTING PLAN

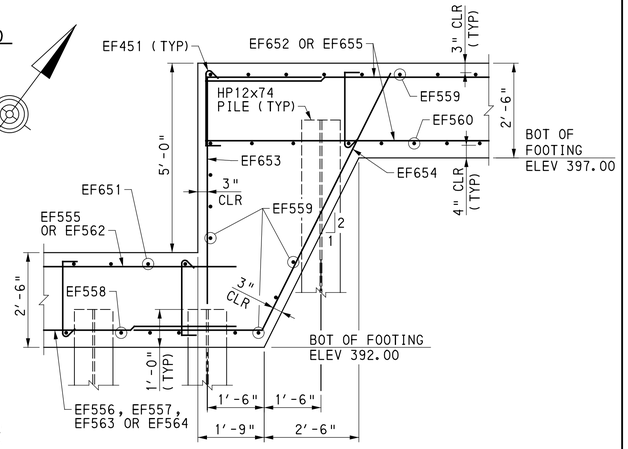
4' 2' 0 4'

* MEASURED ALONG OUTSIDE FACE OF FOOTING

FOOTING TIE DETAIL

NOT TO SCALE

⊕ 8-EF653 TOP (LAP WITH EF652 OR EF655)
8-EF654 BOT (LAP WITH EF556, EF557, EF563 OR EF564)



TYPICAL ABUTMENT 2 FOOTING STEP DETAIL

2' 1' 0 2'

LEGEND

- DENOTES HP12x74 VERTICAL PILE.
- DENOTED HP12x74 PILE BATTERED 1:4 IN THE DIRECTION OF THE ARROW.
- DENOTES HP12x74 TEST PILE.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 2 PLAN, SEE SHEET 17.
4. FOR ABUTMENT 2 ELEVATION, SEE SHEET 18.
5. FOR WING C DETAILS, SEE SHEET 20.
6. FOR WING D DETAILS, SEE SHEET 21.
7. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.

FOUNDATION DESIGN DATA										
LOCATION	FACTORED PILE AXIAL LOAD (KIP)	FACTORED PILE AXIAL RESISTANCE (KIP)	LIMIT STATE	LOAD CASE	STAGE	FACTORED PILE LATERAL LOAD (KIP/FT)	FACTORED PILE LATERAL RESISTANCE (KIP/FT)	LIMIT STATE	LOAD CASE	STAGE
ABUTMENT 2	129.38	154.00	STR-I	MAX	FINAL	15.16	15.56	STR-I	MAX	FINAL
WINGS C & D	90.60	154.00	STR-I	MAX	FINAL	14.05	14.53	STR-I	MAX	FINAL

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 2 - FOOTING PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 16 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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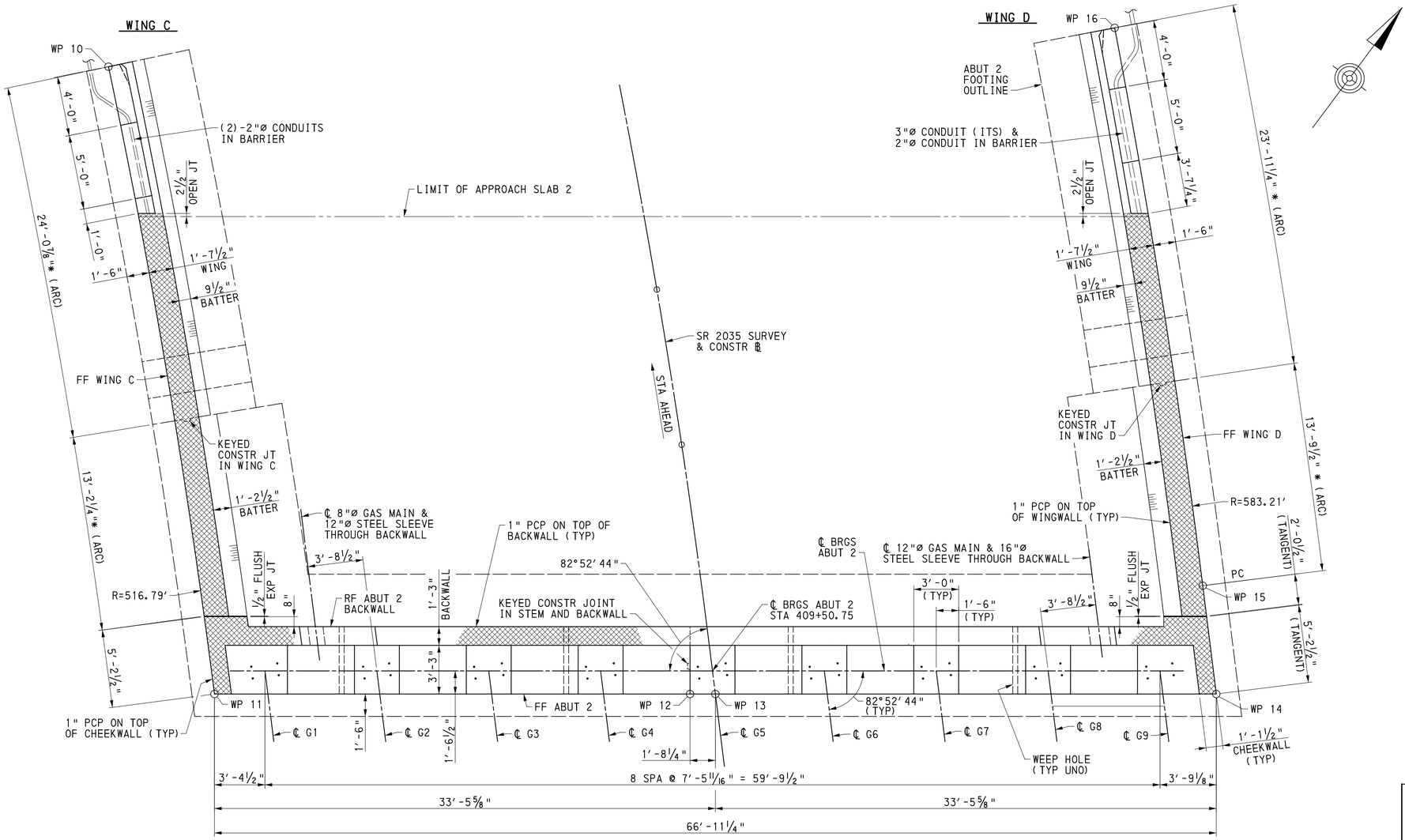
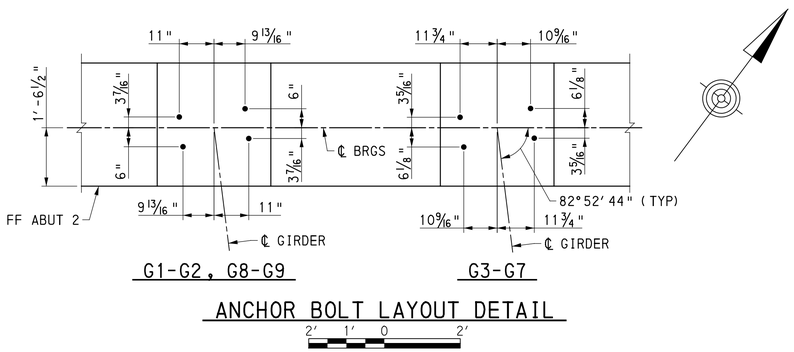


ABUTMENT 2 PLAN

4' 2' 0 4'

* MEASURED ALONG FRONT FACE OF WINGWALL



G1-G2, G8-G9 G3-G7

ANCHOR BOLT LAYOUT DETAIL

2' 1' 0 2'

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 16.
4. FOR ABUTMENT 2 SECTIONS & DETAILS, SEE SHEET 19.
5. FOR WING C DETAILS, SEE SHEET 20.
6. FOR WING D DETAILS, SEE SHEET 21.
7. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 - PLAN

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

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RECOMMENDED 2026.06.11

SHEET 17 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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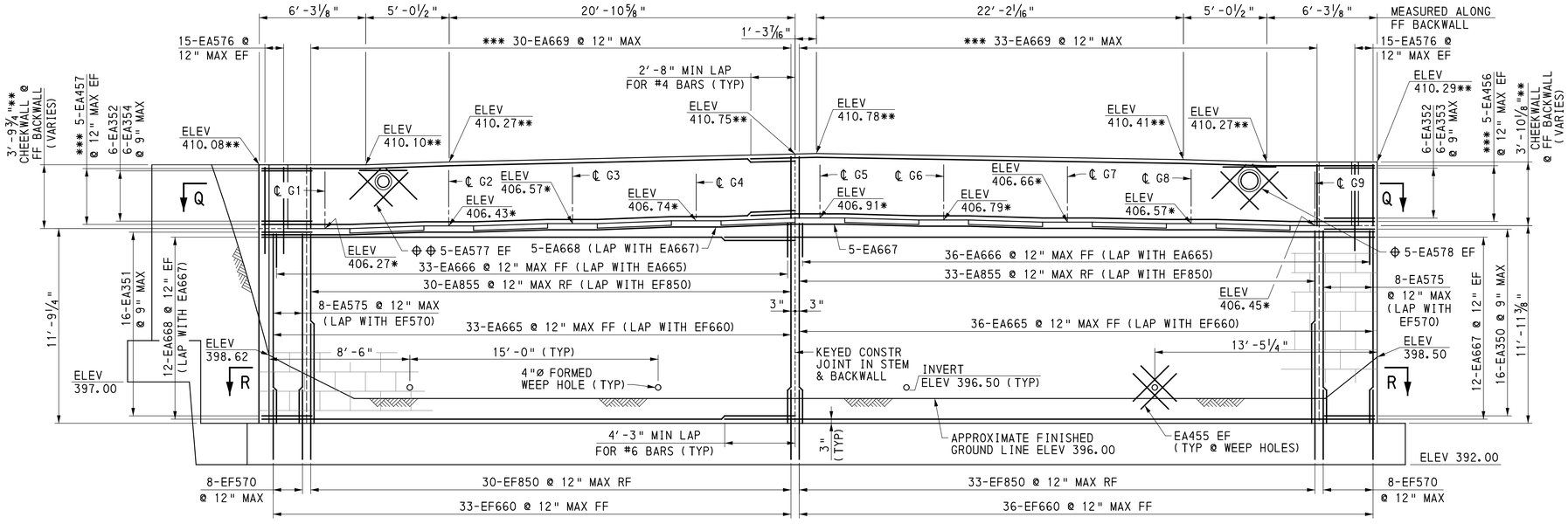


ABUTMENT 2 ELEVATION

4′ 2′ 0 4′

NOTES: PILES & FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

FOR AST DETAILS, SEE ABUTMENT ARCHITECTURAL DETAILS SHEET.

* BEAM SEATS ARE LEVEL.

** ELEVATIONS/DIMENSIONS GIVEN @ FF BACKWALL.

*** CUT OR SHIFT BARS TO AVOID CONFLICT WITH STEEL SLEEVE. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.

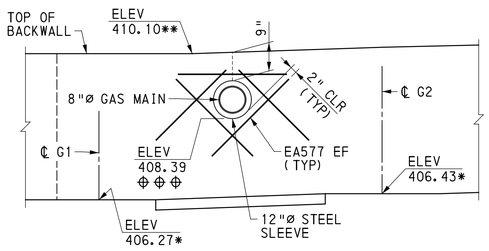
⊕ 12"ø GAS MAIN & 16"ø STEEL SLEEVE (SEE DETAIL BELOW)

⊕⊕ 8"ø GAS MAIN & 12"ø STEEL SLEEVE (SEE DETAIL BELOW)

⊕⊕⊕ BOTTOM OF STEEL SLEEVE ELEVATIONS ARE GIVEN AT FF BACKWALL. HOLES IN BACKWALL AND STEEL SLEEVES ARE SLOPED TO GRADE OF ROADWAY.

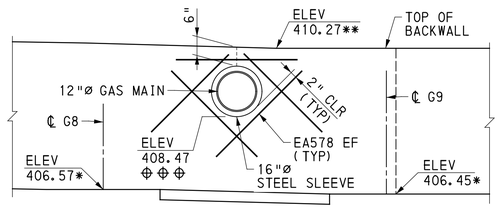
NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 16.
4. FOR ABUTMENT 2 PLAN, SEE SHEET 17.
5. FOR ABUTMENT 2 TYPICAL SECTION AND SECTIONS Q-Q & R-R, SEE SHEET 19.
6. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.
7. FOR ABUTMENT ARCHITECTURAL DETAILS, SEE SHEET 54.
8. FOR UGI GAS LINE UTILITY DETAILS, SEE SHEETS 56-57.



8"ø GAS MAIN DETAIL

2′ 1′ 0 2′



12"ø GAS MAIN DETAIL

2′ 1′ 0 2′

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 2 - ELEVATION

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 18 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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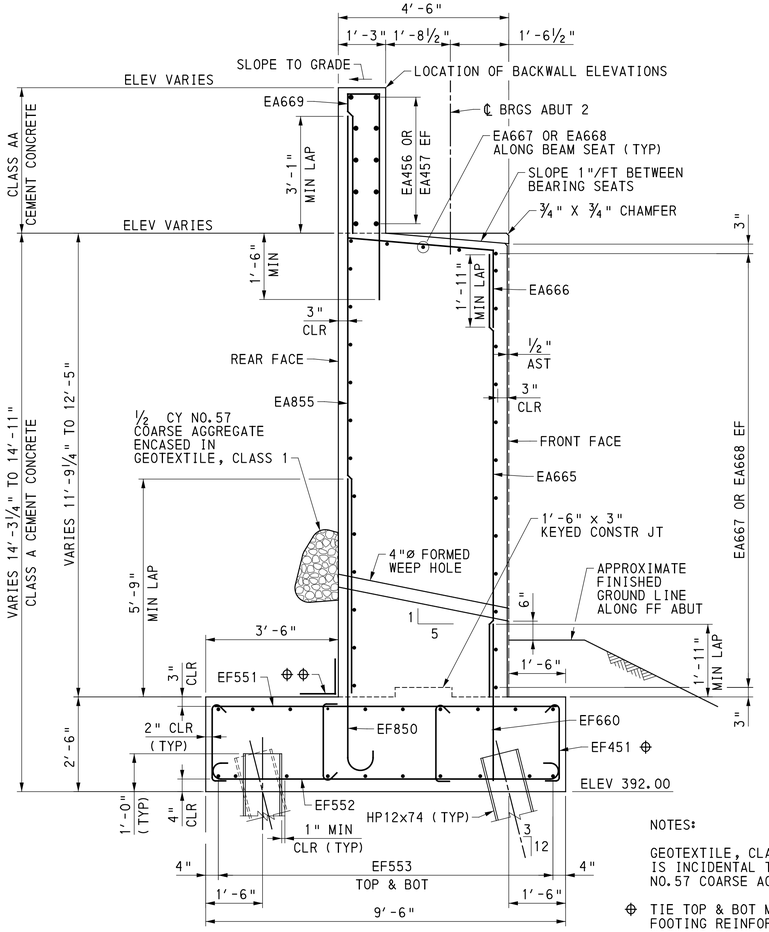


ABUTMENT 2 TYPICAL SECTION

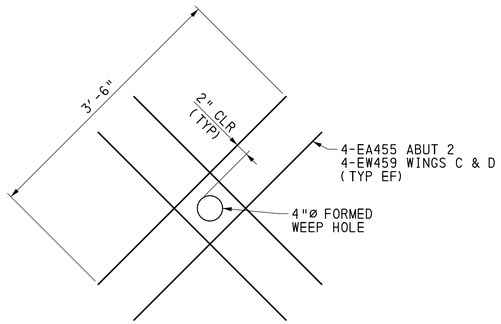
2' 1' 0 2'

NOTES:

GEOTEXTILE, CLASS 1 IS INCIDENTAL TO THE NO.57 COARSE AGGREGATE.

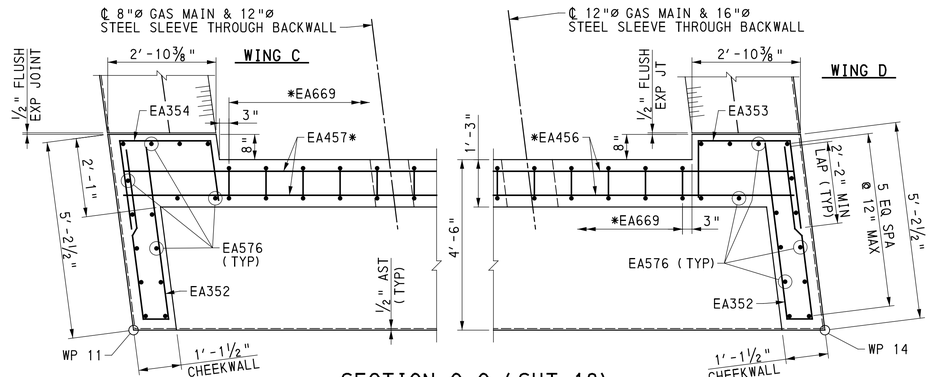
⊕ TIE TOP & BOT MATS OF FOOTING REINFORCING STEEL WITH EF451 TIE BARS AT A MAX SPA OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 135° HOOKS TOP & BOT IN ALTERNATE TIES.

⊕⊕ WATERPROOFING PER BC-788M



TYPICAL ABUTMENT 2 WEEP HOLE REINFORCEMENT DETAIL

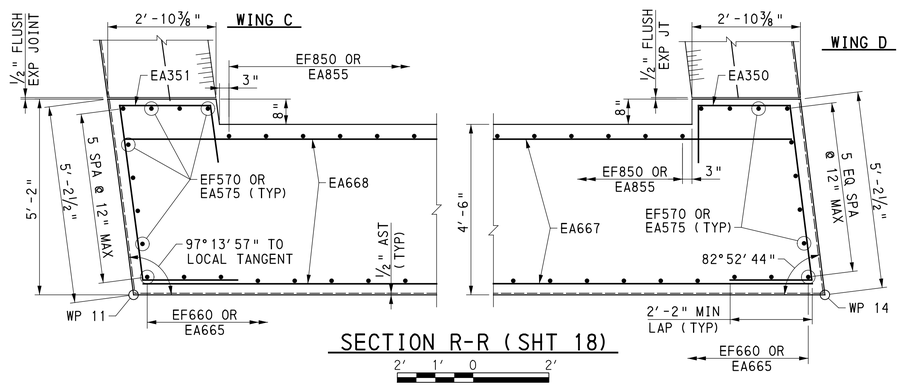
12" 6" 0 12"



SECTION Q-Q (SHT 18)

2' 1' 0 2'

* CUT OR SHIFT BARS TO AVOID CONFLICT WITH STEEL SLEEVE. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.



SECTION R-R (SHT 18)

2' 1' 0 2'

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR STAKE-OUT PLAN, SEE SHEET 6.
3. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 16.
4. FOR ABUTMENT 2 PLAN, SEE SHEET 17.
5. FOR ABUTMENT 2 ELEVATION, SEE SHEET 18.
6. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.
7. FOR ABUTMENT ARCHITECTURAL DETAILS, SEE SHEET 54.
8. FOR UGI GAS LINE UTILITY DETAILS, SEE SHEETS 56-57.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 - SECTIONS & DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 19 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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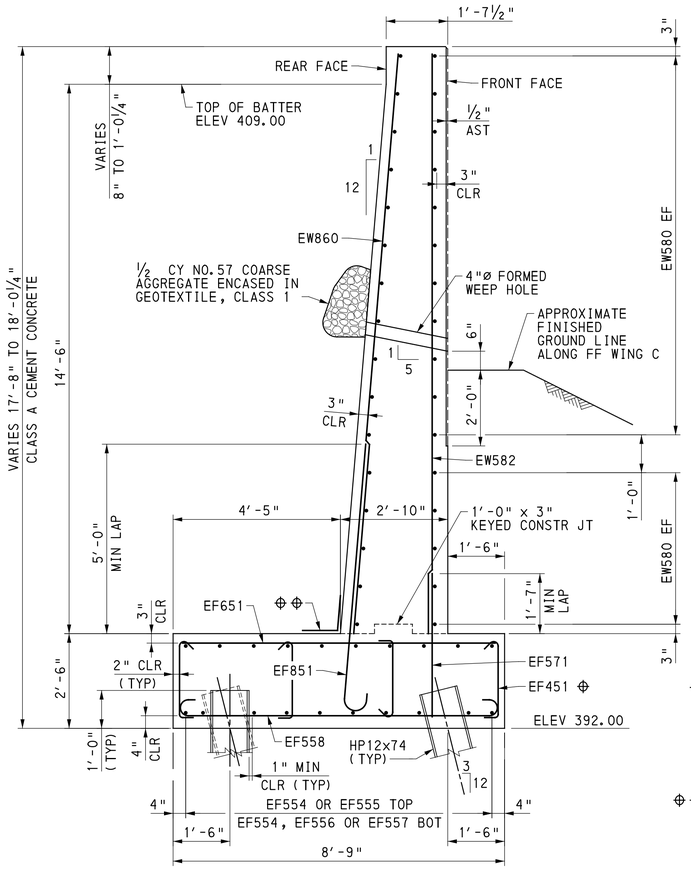
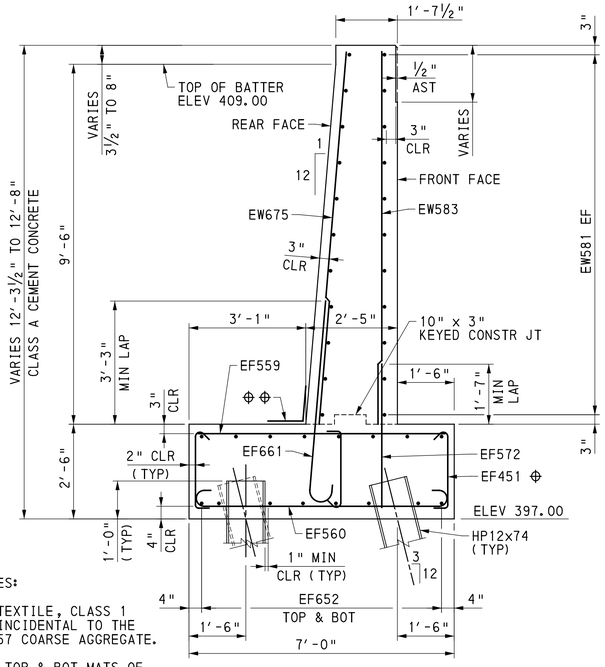


SECTION S-S

2' 1' 0 2'



SECTION T-T

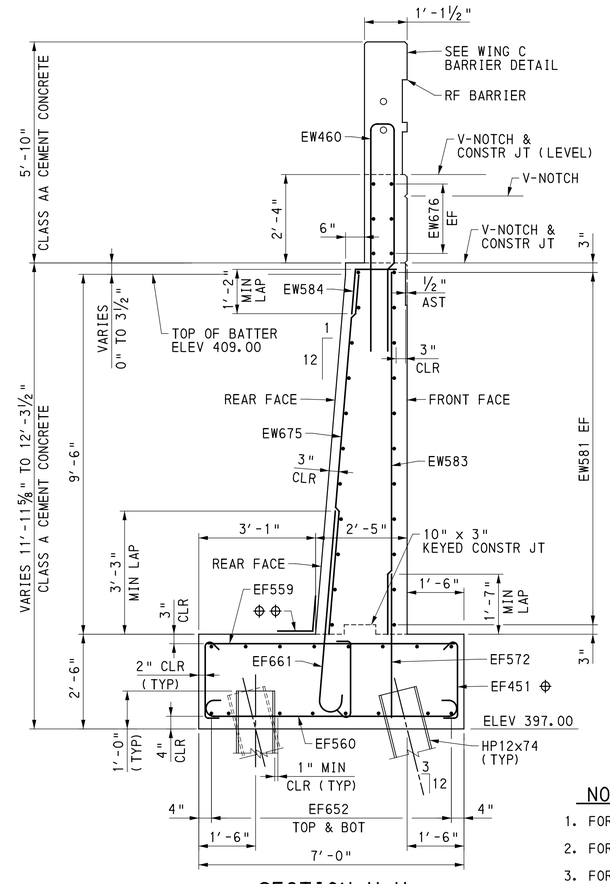
2' 1' 0 2'

NOTES:

GEOTEXTILE, CLASS 1 IS INCIDENTAL TO THE NO.57 COARSE AGGREGATE.

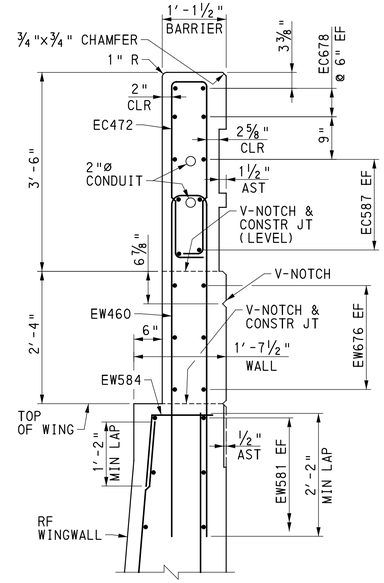
⊕ TIE TOP & BOT MATS OF FOOTING REINFORCING STEEL WITH EF451 TIE BARS AT A MAX SPA OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 135° HOOKS TOP & BOT IN ALTERNATE TIES.

⊕⊕ WATERPROOFING PER BC-788M



SECTION U-U

2' 1' 0 2'

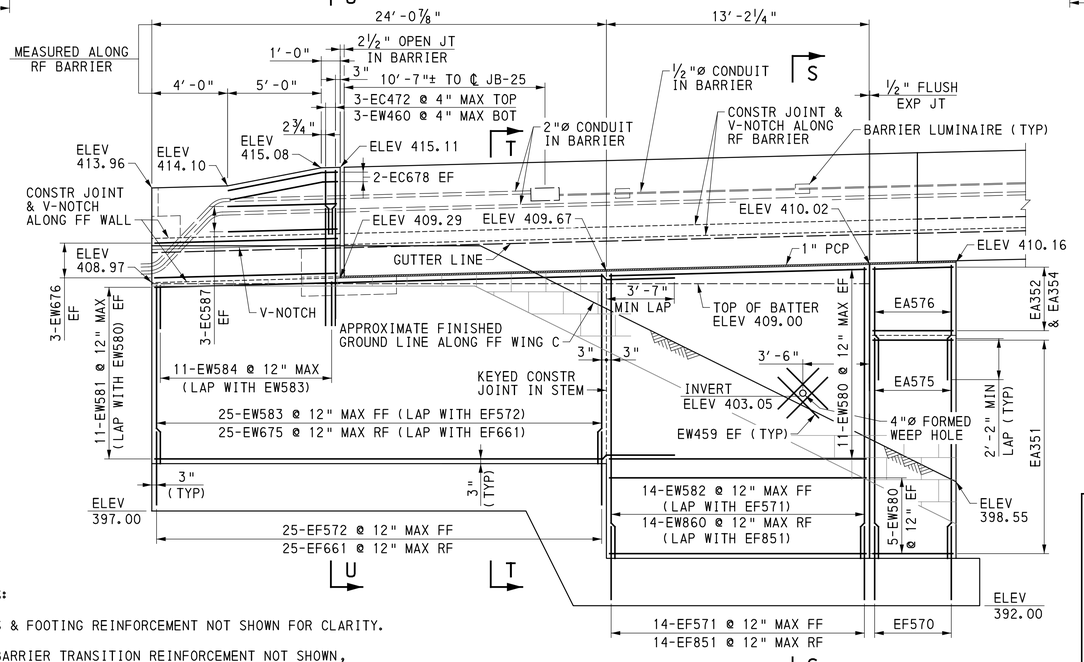


WING C BARRIER DETAIL

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 16.
3. FOR ABUTMENT 2 PLAN, ELEVATION & SECTIONS, SEE SHEETS 17-19.
4. FOR WEEP HOLE REINFORCEMENT DETAIL, SEE SHEET 19.
5. FOR WING C BARRIER TRANSITION DETAILS, SEE SHEET 22.
6. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.
7. FOR ARCHITECTURAL DETAILS, SEE SHEETS 54-55.



WING C ELEVATION

4' 2' 0 4'

NOTES:

PILES & FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

FOR BARRIER TRANSITION REINFORCEMENT NOT SHOWN, SEE BARRIER TRANSITION DETAILS.

FOR AST DETAILS, SEE ABUTMENT ARCHITECTURAL DETAILS SHEET.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 - WING C DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 20 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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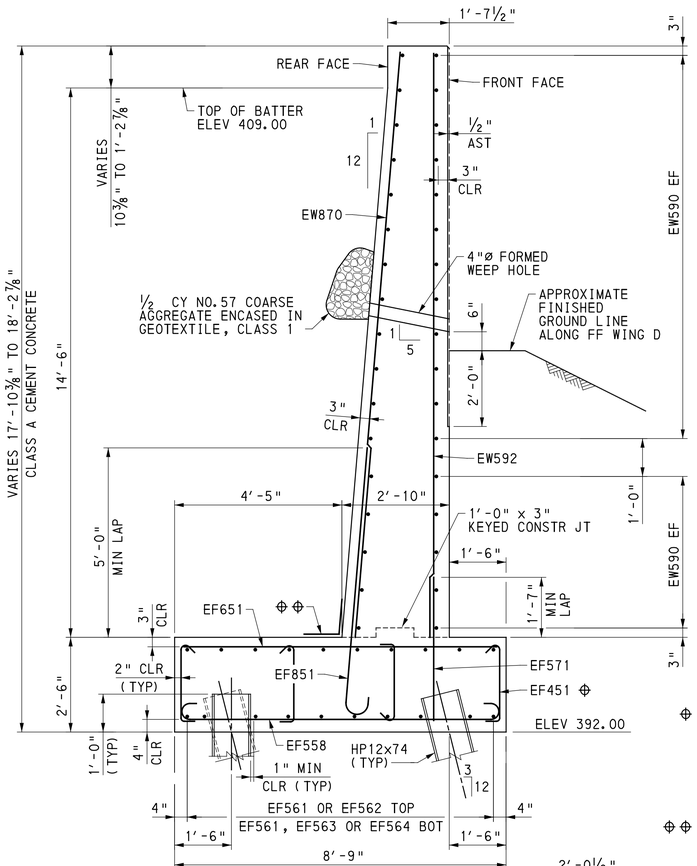
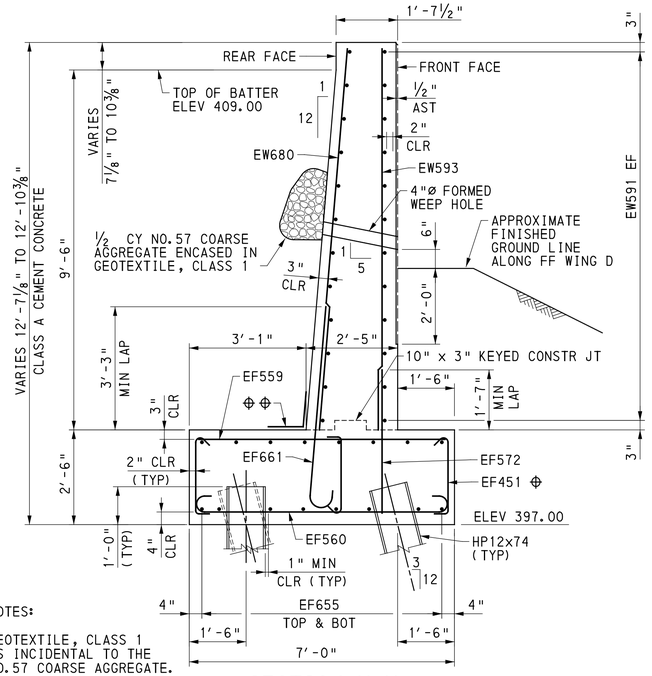


SECTION V-V

2' 1' 0 2'



SECTION W-W

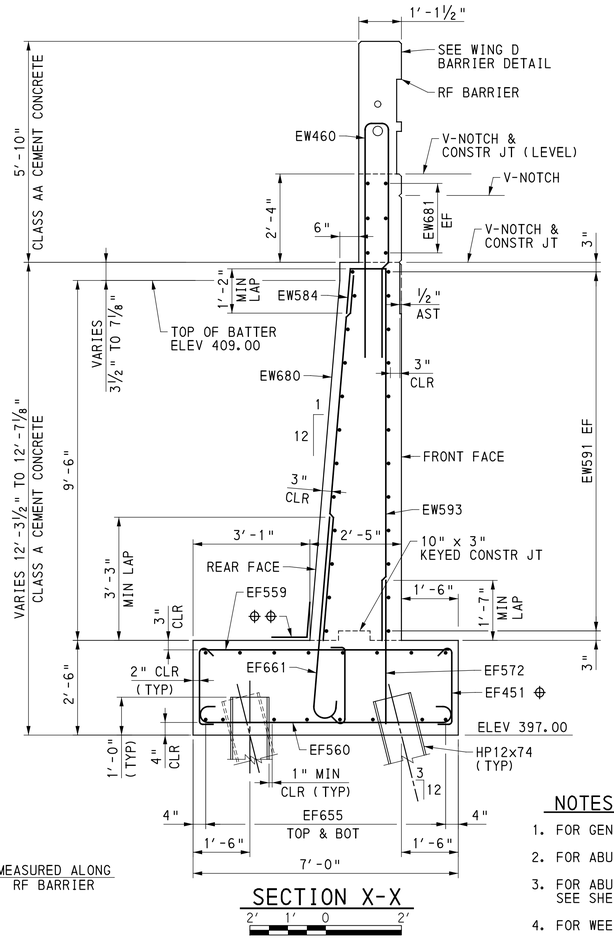
2' 1' 0 2'

NOTES:

GEOTEXTILE, CLASS 1 IS INCIDENTAL TO THE NO.57 COARSE AGGREGATE.

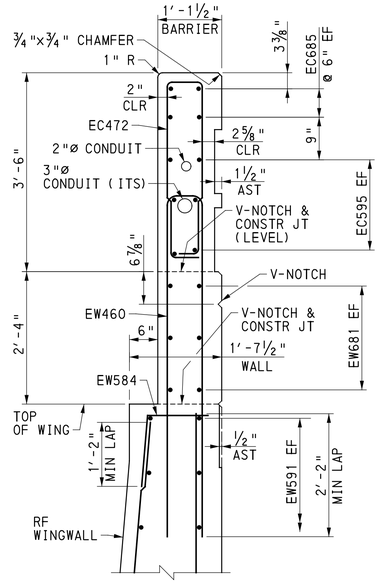
⊕ TIE TOP & BOT MATS OF FOOTING REINFORCING STEEL WITH EF451 TIE BARS AT A MAX SPA OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 135° HOOKS TOP & BOT IN ALTERNATE TIES.

⊕⊕ WATERPROOFING PER BC-788M



SECTION X-X

2' 1' 0 2'

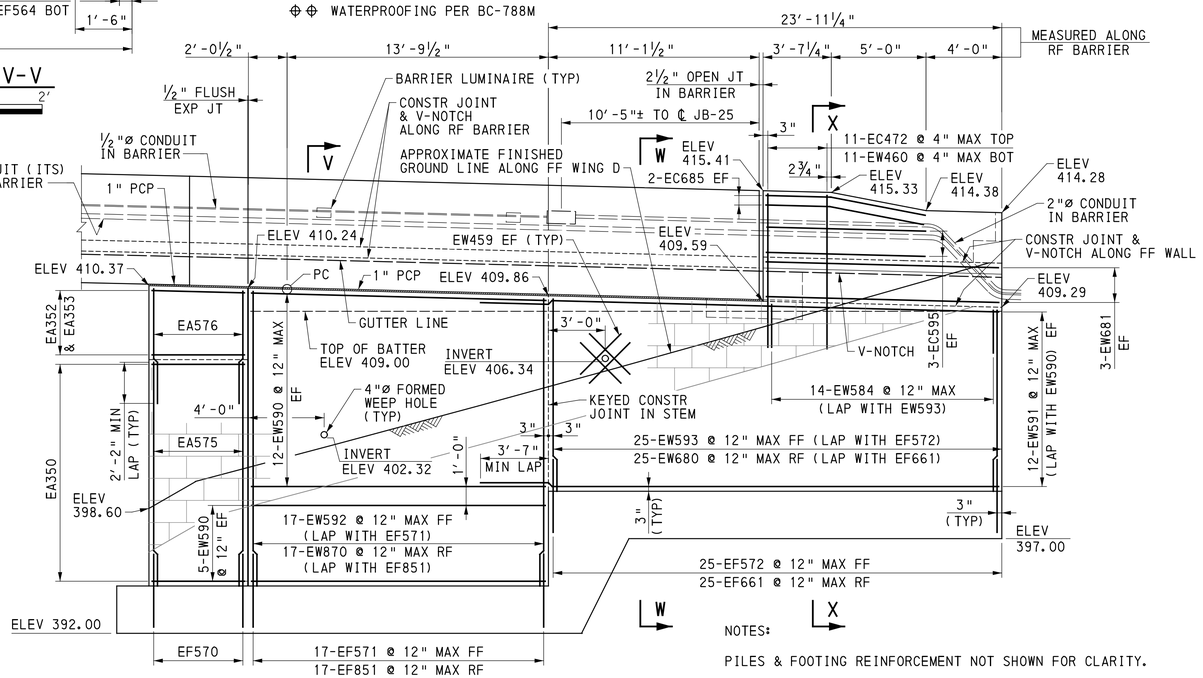


WING D BARRIER DETAIL

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 16.
3. FOR ABUTMENT 2 PLAN, ELEVATION & SECTIONS, SEE SHEETS 17-19.
4. FOR WEEP HOLE REINFORCEMENT DETAIL, SEE SHEET 19.
5. FOR WING D BARRIER TRANSITION DETAILS, SEE SHEET 22.
6. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.
7. FOR ARCHITECTURAL DETAILS, SEE SHEETS 54-55.



WING D ELEVATION

4' 2' 0 4'

NOTES:

PILES & FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY.

FOR BARRIER TRANSITION REINFORCEMENT NOT SHOWN, SEE BARRIER TRANSITION DETAILS.

FOR AST DETAILS, SEE ABUTMENT ARCHITECTURAL DETAILS SHEET.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 - WING D DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 21 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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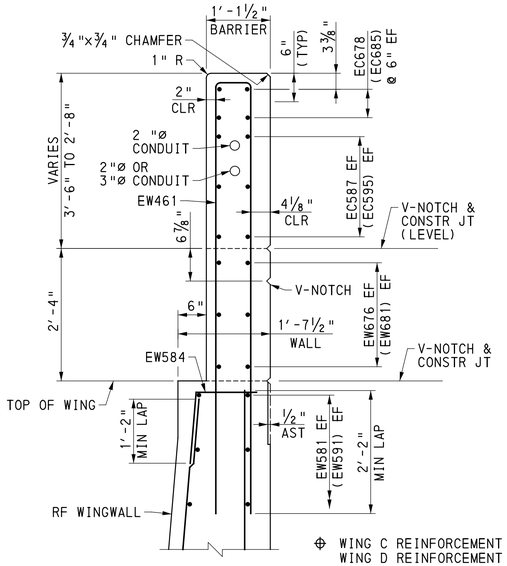
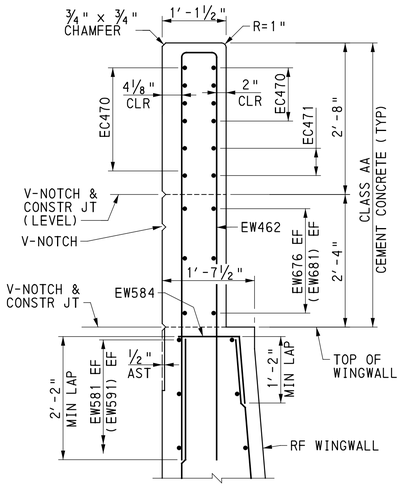


SECTION Y-Y ⊕

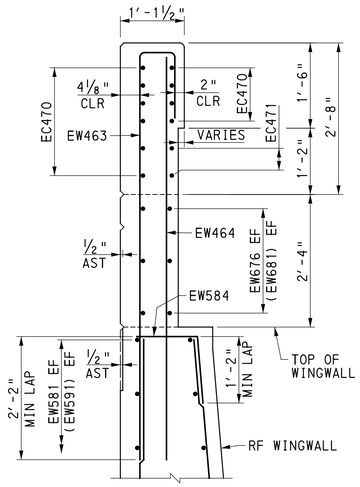
12" 0 12"

⊕ WING C REINFORCEMENT SHOWN, WING D REINFORCEMENT SHOWN IN ( ).



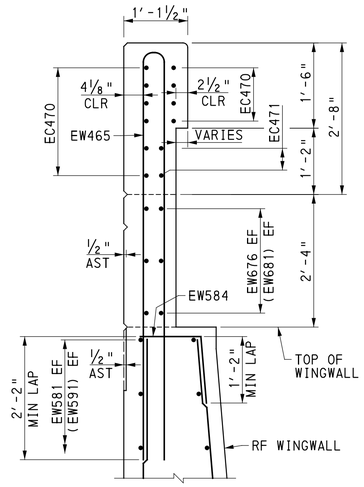
SECTION Z-Z ⊕

12" 0 12"



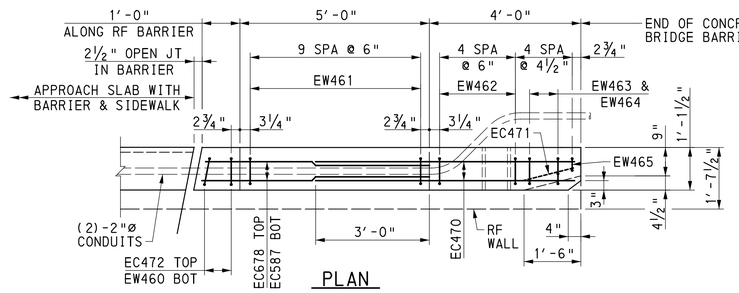
SECTION A1-A1 ⊕

12" 0 12"

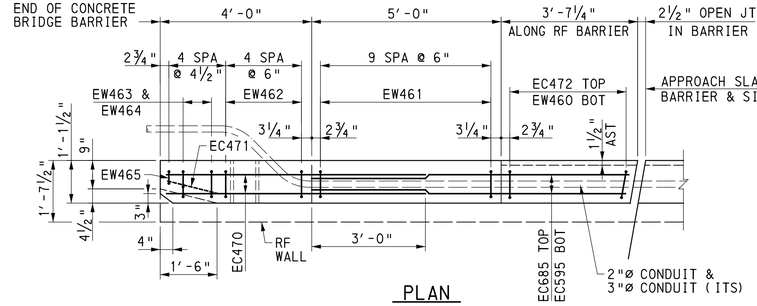


SECTION B1-B1 ⊕

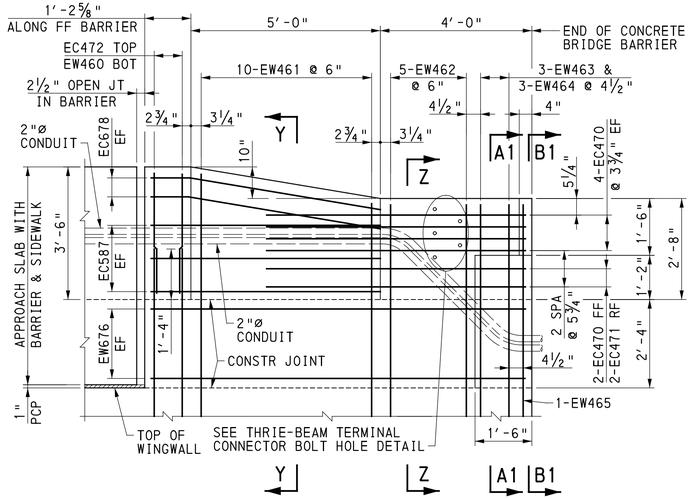
12" 0 12"



PLAN



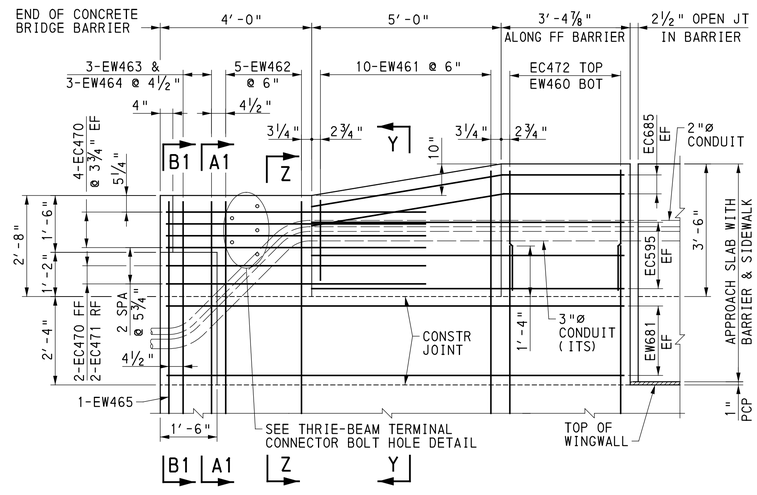
PLAN



ELEVATION

WING C BARRIER TRANSITION DETAILS

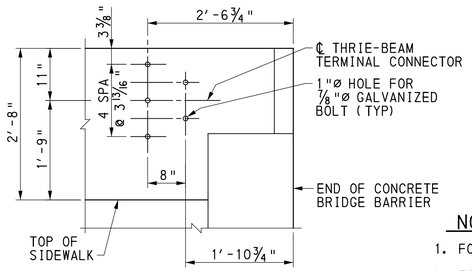
2' 1' 0 2'



ELEVATION

WING D BARRIER TRANSITION DETAILS

2' 1' 0 2'



THRIE-BEAM TERMINAL CONNECTOR BOLT HOLE DETAIL

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 2 DETAILS, SEE SHEETS 16-19.
3. FOR WING C DETAILS, SEE SHEET 20.
4. FOR WING D DETAILS, SEE SHEET 21.
5. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 51.
6. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 - BARRIER TRANSITION DETAILS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 22 OF 64

S-40598

DES: VDL	DWG: STG	CKD: VDL

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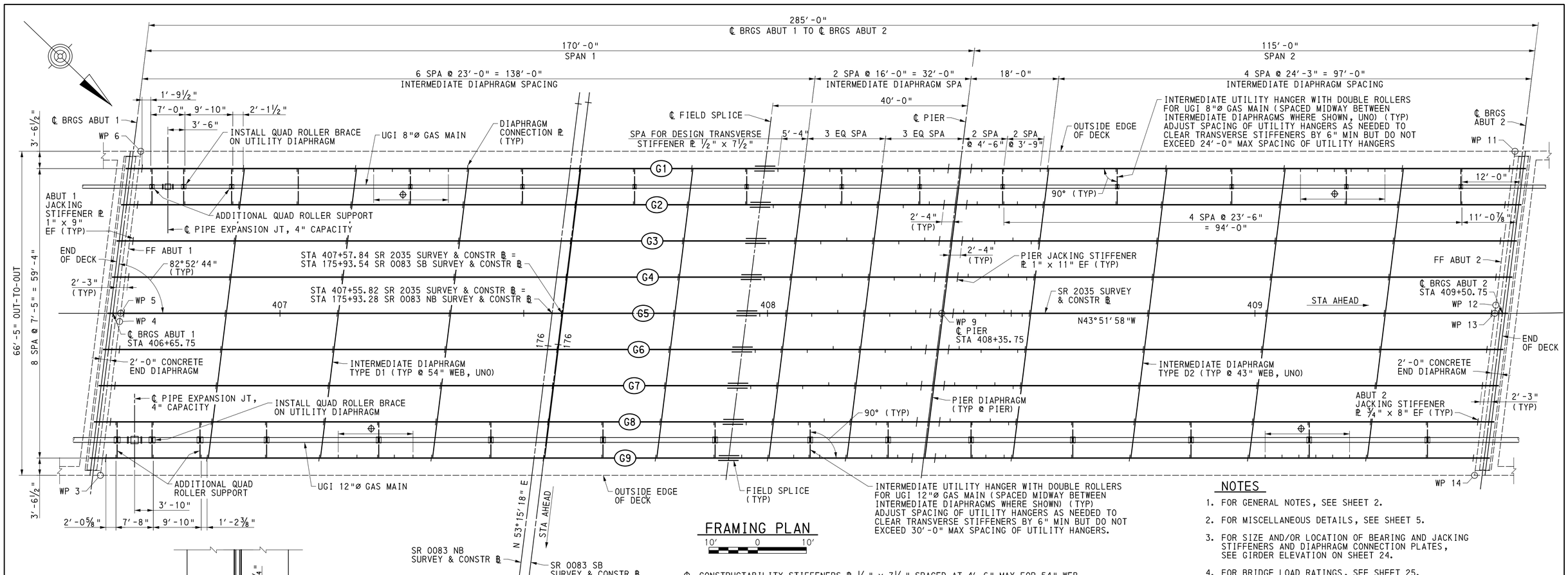


FRAMING PLAN

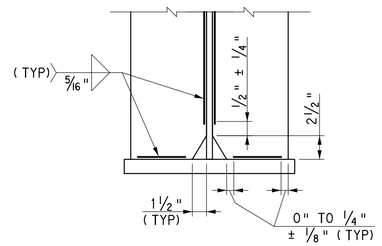
10' 0 10'

⊕ CONSTRUCTABILITY STIFFENERS ℞ ½" x 7½" SPACED AT 4'-6" MAX FOR 54" WEB AND 3'-7" MAX FOR WEB DEPTHS LESS THAN 54", FULL LENGTH OF G-1 AND G-9 WHERE REQUIRED PER "TYPICAL OVERHANG FORMING DETAIL" NOTE. SPACE EVENLY BETWEEN DIAPHRAGM CONNECTION PLATES EXCEPT PROVIDE STIFFENERS AT THE BEGINNING AND END POINTS OF WEB DEPTH TRANSITION IN SPAN 2. ADJUST SPACING AS NECESSARY TO AVOID INTERFERENCE WITH GIRDER PLATE CHANGE LOCATIONS AND SPLICE PLATES. SEE "TYPICAL OVERHANG FORMING DETAIL" ON THE MISCELLANEOUS DETAILS SHEET. REPLACE DESIGN TRANSVERSE STIFFENERS INDICATED ON THE FRAMING PLAN FOR G-1 AND G-9 WITH CONSTRUCTABILITY STIFFENERS WHERE REQUIRED PER "TYPICAL OVERHANG FORMING DETAIL" NOTE. WHEN DESIGN STIFFENER SPACING IS LESS THAN REQUIRED CONSTRUCTABILITY STIFFENER SPACING, USE DESIGN STIFFENER SPACING.

⊕⊕ SEE STEEL GIRDER NOTES ON GIRDER ELEVATION SHEET FOR FLANGE WELD REQUIREMENTS FOR BEARING AND JACKING STIFFENERS.

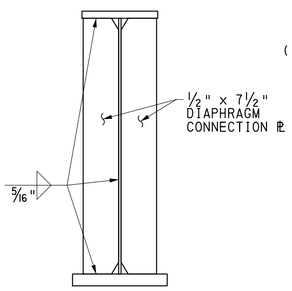
NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR MISCELLANEOUS DETAILS, SEE SHEET 5.
3. FOR SIZE AND/OR LOCATION OF BEARING AND JACKING STIFFENERS AND DIAPHRAGM CONNECTION PLATES, SEE GIRDER ELEVATION ON SHEET 24.
4. FOR BRIDGE LOAD RATINGS, SEE SHEET 25.
5. FOR SECTION PROPERTIES, SEE SHEETS 26-27.
6. FOR FIELD SPLICE DETAILS, SEE SHEET 29.
7. FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEETS 34-36.
8. FOR INTERMEDIATE & PIER DIAPHRAGM DETAILS, SEE SHEET 37.
9. FOR UTILITY DETAILS, SEE SHEETS 56-57.



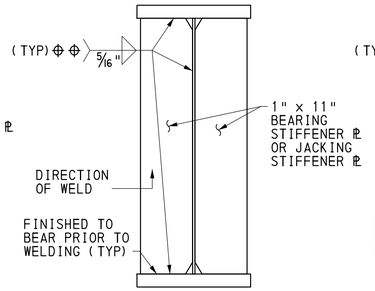
CORNER CHAMFER DETAIL

6" 0 6"



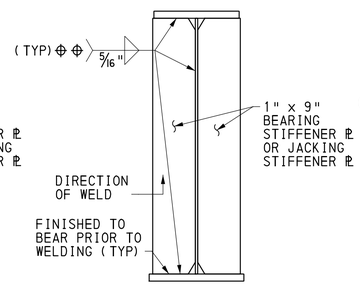
DIAPHRAGM CONNECTION ℞ DETAIL

12" 0 12"



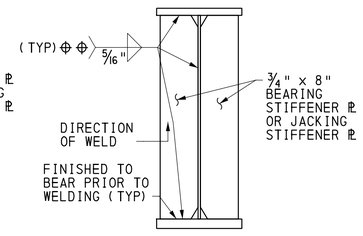
PIER BEARING & JACKING STIFFENER DETAIL

12" 0 12"



ABUTMENT 1 BEARING & JACKING STIFFENER DETAIL

12" 0 12"



ABUTMENT 2 BEARING & JACKING STIFFENER DETAIL

12" 0 12"

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

FRAMING PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 23 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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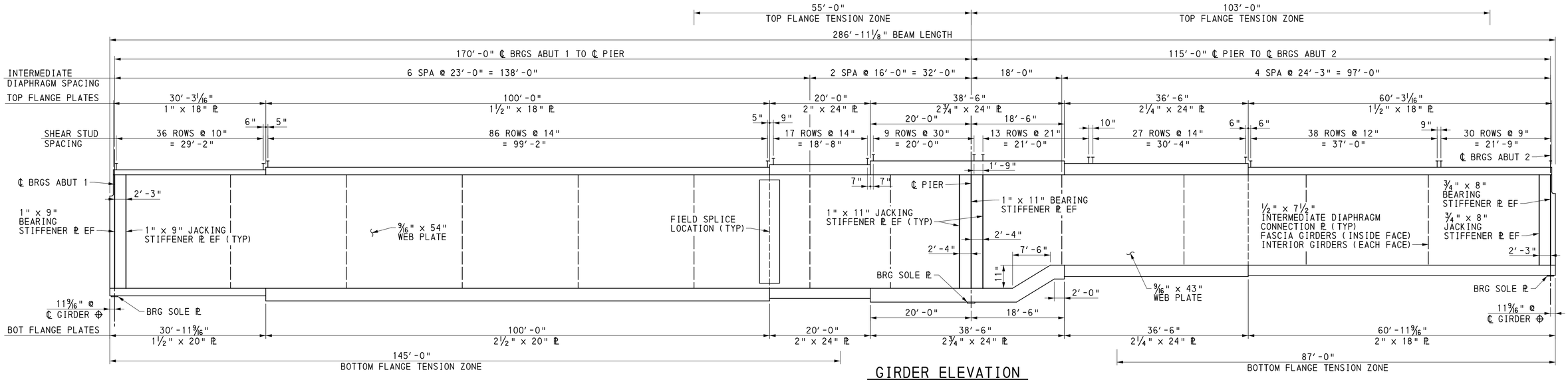


GIRDER ELEVATION

10′ 0 10′

STEEL GIRDER NOTES

1. WELD BEARING STIFFENERS AT TOP AND BOTTOM WHEN USED AS A CONNECTION PLATE. FOR DETAIL, SEE BC-753M, SHEET 1.
2. JACKING STIFFENERS TO BE TIGHT FIT AT TENSION FLANGES AT INTERIOR SUPPORT. PROVIDE FILLET WELDS TO TOP FLANGE AT END SUPPORTS.
3. FOR BEARING AREAS AT BEARING STIFFENERS:

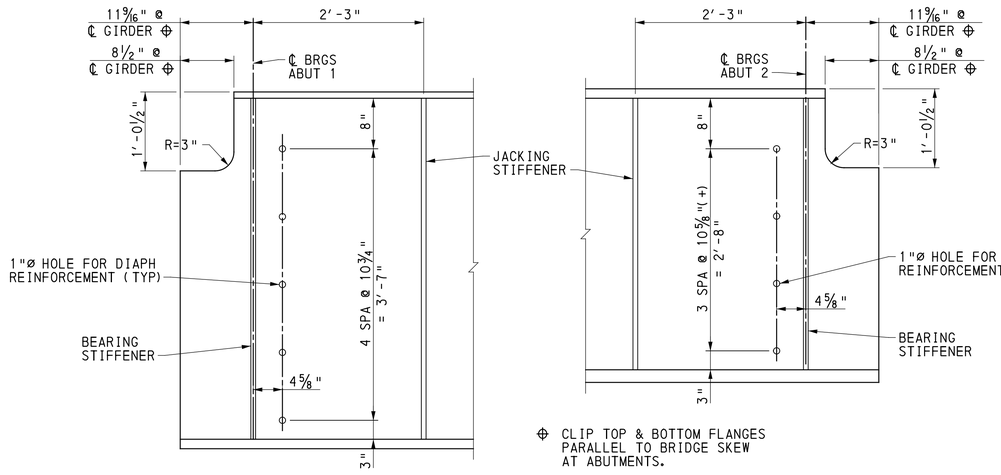
   PROVIDE BOTTOM FLANGE IN A TRUE HORIZONTAL PLANE IN TRANSVERSE DIRECTION AND IN A TRUE PLANE LONGITUDINALLY OVER DIMENSION "L" WHERE L = WIDTH OF SOLE PLATE + 6" AHEAD AND BACK, WHERE APPLICABLE. IF SOLE PLATE IS WELDED TO THE BOTTOM FLANGE, PROVIDE THE SOLE PLATE MEETING THE SAME FLATNESS REQUIREMENTS. EACH BEARING MUST BE STRESSED UNIFORMLY AFTER ALL DEAD LOAD IS PLACED. MAKE NECESSARY SHOP AND/OR FIELD ADJUSTMENTS TO PROVIDE UNIFORM BEARING STRESS UNDER ALL DEAD LOADS.
4. UNDER FULL DEAD LOAD ALL GIRDER ENDS AND ALL BEARING STIFFENERS, INCLUDING BEARING STIFFENERS AT PIER, ARE VERTICAL TO WITHIN APPLICABLE AASHTO/AWS FABRICATION AND CONSTRUCTION TOLERANCES.
5. DIRECTION OF WELDS IS NOT APPLICABLE IF STIFFENERS ARE FITTED WITH TACK WELDS.
6. FOR ADDITIONAL STEEL GIRDER DETAILS FOR WEB AND FLANGE SPLICES, BEARING STIFFENERS AND INTERMEDIATE TRANSVERSE STIFFENERS, SEE BC-753M.

STEEL MATERIAL NOTES

1. ALL STEEL TO BE ASTM A709, GRADE 50.
2. USE ½" x 7½" PLATES FOR INTERMEDIATE DIAPHRAGM CONNECTION PLATES, TRANSVERSE STIFFENERS AND CONSTRUCTABILITY STIFFENERS.
3. INTERMEDIATE TRANSVERSE STIFFENERS AND INTERMEDIATE DIAPHRAGM CONNECTION PLATES ARE TO BE PLACED ONLY ON THE INTERIOR SIDE OF FASCIA GIRDERS (G1 & G9).
4. INTERMEDIATE TRANSVERSE STIFFENERS AND UTILITY HANGER CONNECTION PLATES ARE NOT SHOWN FOR CLARITY. REFER TO THE FRAMING PLAN FOR LOCATIONS.
5. SHEAR CONNECTORS ARE TO BE ⅞"ø. ADJUST STUD HEIGHTS IN FIELD AS NECESSARY TO MEET EMBEDMENT AND CLEARANCE PER THE "SHEAR CONNECTOR/ HAUNCH DETAIL" BASED ON ACTUAL GIRDER ELEVATIONS.
6. RESPACE SHEAR CONNECTORS TO CLEAR FIELD SPLICE CONNECTIONS, AND CHANGES IN PLATE THICKNESS WHERE REQUIRED. DO NOT ELIMINATE ANY SHEAR CONNECTORS.
7. ALL PLATE SIZES ARE IN INCHES.
8. FOR CHARPY V-NOTCH (CVN) TESTING REQUIREMENTS, SEE STRUCTURAL STEEL NOTES ON GENERAL NOTES SHEET.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR BRIDGE LOAD RATINGS, SEE SHEET 25.
4. FOR SECTION PROPERTIES, SEE SHEETS 26-27.
5. FOR CAMBER, SEE SHEET 28.
6. FOR FIELD SPLICE DETAILS, SEE SHEET 29.
7. FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEETS 34-36.
8. FOR INTERMEDIATE AND PIER DIAPHRAGM DETAILS, SEE SHEET 37.
9. FOR ADDITIONAL INTERMEDIATE DIAPHRAGM AND CONNECTION ℙ DETAILS, SEE BC-753M & BC-754M.
10. FOR UTILITY HANGER DETAILS, SEE SHEETS 56-57.

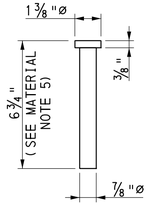


ABUTMENT 1 — ABUTMENT 2

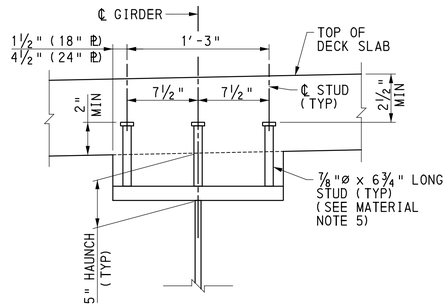
⊕ CLIP TOP & BOTTOM FLANGES PARALLEL TO BRIDGE SKEW AT ABUTMENTS.

GIRDER END DETAILS

12" 6" 0 12"



STUD DETAIL
NOT TO SCALE



SHEAR CONNECTOR/HAUNCH DETAIL
6" 0 6"

NOTE: AUTOMATICALLY END WELD STUDS TO THE GIRDER FLANGES BY A STUD WELDING GUN. STUDS TO CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A108.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
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SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
GIRDER ELEVATION

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 24 OF 64

S-40598

DES: VDL	DWG: STG	CKD: VDL

6/4/2026
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BRIDGE LOAD RATING SUMMARY (WITH FUTURE WEARING SURFACE)

CURRENT ADTT = 880 (2026) DESIGN YEAR ADTT = 1,013 (2050)

CRITICAL GIRDER: G1 & G9		STEEL PLATE GIRDER (VARYING WEB DEPTH, 54" (SPAN 1) TO 43" (SPAN 2))						
		H20	HS20	ML-80	TK527	PHL-93	P-82	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.671	0.671	0.671	0.671	0.671	---	---
	LOCATION (FT)	SP 2 @ 16.5	SP 2 @ 16.5	SP 1 @ 69.0	SP 1 @ 68.0	SP 2 @ 16.5	---	---
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	---	---
	RATING FACTOR	1.72 M	1.72 M	2.11 M	2.02 M	1.17 M	---	---
	RESISTANCE	-14,218 K-FT	-14,218 K-FT	14,064 K-FT	14,064 K-FT	-14,218 K-FT	---	---
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.671	0.671	0.671	0.671	0.671	0.671	0.671
	LOCATION (FT)	SP 2 @ 16.5	SP 2 @ 16.5	SP 1 @ 69.0	SP 1 @ 68.0	SP 2 @ 16.5	SP 1 @ 68.0	SP 1 @ 65.0
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR	2.22 M	2.22 M	2.73 M	2.62 M	1.51 M	1.36 M	1.07 M
	RESISTANCE	-14,218 K-FT	-14,218 K-FT	14,064 K-FT	14,064 K-FT	-14,218 K-FT	14,064 K-FT	14,064 K-FT
ANALYSIS METHOD: AASHTO / PENNDOT DM-4 DISTRIBUTION FACTORS								
DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)								
MAXIMUM FACTORED FLEXURAL RESISTANCE (KIP-FT): SP 1 = -17,444.87 @ 150.0'; SP 2 = -17,403.56 @ 9.0'								
MAXIMUM FACTORED SHEAR RESISTANCE (KIPS): SP 1 = 880.88 @ 0.0'; SP 2 = 875.44 @ 9.0'								

BRIDGE LOAD RATING SUMMARY (WITHOUT FUTURE WEARING SURFACE)

CURRENT ADTT = 880 (2026) DESIGN YEAR ADTT = 1,013 (2050)

CRITICAL GIRDER: G1 & G9		STEEL PLATE GIRDER (VARYING WEB DEPTH, 54" (SPAN 1) TO 43" (SPAN 2))						
		H20	HS20	ML-80	TK527	PHL-93	P-82	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.671	0.671	0.671	0.671	0.671	---	---
	LOCATION (FT)	SP 2 @ 16.5	SP 2 @ 16.5	SP 1 @ 69.0	SP 1 @ 68.0	SP 2 @ 16.5	---	---
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	---	---
	RATING FACTOR	1.97 M	1.97 M	2.29 M	2.20 M	1.34 M	---	---
	RESISTANCE	-14,218 K-FT	-14,218 K-FT	14,064 K-FT	14,064 K-FT	-14,218 K-FT	---	---
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.671	0.671	0.671	0.671	0.671	0.671	0.671
	LOCATION (FT)	SP 2 @ 16.5	SP 2 @ 16.5	SP 1 @ 69.0	SP 1 @ 68.0	SP 2 @ 16.5	SP 1 @ 68.0	SP 1 @ 65.0
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR	2.55 M	2.55 M	2.97 M	2.85 M	1.73 M	1.48 M	1.17 M
	RESISTANCE	-14,218 K-FT	-14,218 K-FT	14,064 K-FT	14,064 K-FT	-14,218 K-FT	14,064 K-FT	14,064 K-FT
ANALYSIS METHOD: AASHTO / PENNDOT DM-4 DISTRIBUTION FACTORS								
DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN (LRFD)								
MAXIMUM FACTORED FLEXURAL RESISTANCE (KIP-FT): SP 1 = -17,444.87 @ 150.0'; SP 2 = -17,403.56 @ 9.0'								
MAXIMUM FACTORED SHEAR RESISTANCE (KIPS): SP 1 = 880.88 @ 0.0'; SP 2 = 875.44 @ 9.0'								

RATING NOTES

1. THE LOCATIONS GIVEN ARE MEASURED FROM THE CENTERLINE OF ABUTMENT BEARINGS OR CENTERLINE OF PIER FOR THE SPAN OF THE CRITICAL MEMBER LISTED.
2. GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING.
3. RATINGS SHOWN WERE OBTAINED FROM PENNDOT'S STLRFD PROGRAM (VERSION 2.9.0.0).
4. SP = SPAN
   M = MOMENT RATING FACTOR CONTROLS
   V = SHEAR RATING FACTOR CONTROLS
   ML-80 = PENNSYLVANIA MAXIMUM LEGAL LOAD
   TK527 = PENNSYLVANIA LEGAL LOAD CONFIGURATION (5-7 AXLE DUMP TRUCK)
   PHL-93 = PENNSYLVANIA LRFD DESIGN LIVE LOAD
   P-82 & P2016-13 = PENNSYLVANIA PERMIT LOADS

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR GIRDER SECTION PROPERTIES, SEE SHEETS 26-27.
5. FOR CAMBER, SEE SHEET 28.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

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CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
BRIDGE LOAD RATINGS SUMMARY

RECOMMENDED 2026.06.11

SHEET 25 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
c:\dms\kci-projects_02\scott.grey\dms5127813rd St_Ratings.dgn

SECTION PROPERTIES - EXTERIOR GIRDERS G1 & G9 (NON-COMPOSITE DL1)							
GIRDER SECTION	18"x1" TOP FLG 54"x 9/16" WEB 20"x1 1/2" BOT FLG POS & NEG MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG POS & NEG MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG POS & NEG MOMENT	24"x2 3/4" TOP FLG 54"x 9/16" WEB 24"x2 3/4" BOT FLG POS & NEG MOMENT	24"x2 3/4" TOP FLG 43"x 9/16" WEB 24"x2 3/4" BOT FLG POS & NEG MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG POS & NEG MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG POS & NEG MOMENT
BEAM AREA (IN^2)	78.38	107.38	126.38	162.38	156.19	132.19	87.19
I (IN^4)	42,649	64,010	82,677	113,743	72,881	59,057	34,833
S TOP (IN^3)	1,320	1,846	2,851	3,823	3,005	2,487	1,371
S BOT (IN^3)	1,763	2,745	2,851	3,823	3,005	2,487	1,651
C BOT (IN)	24.19	23.32	29.00	29.75	24.25	23.75	21.10

SECTION PROPERTIES - EXTERIOR GIRDERS G1 & G9 (COMPOSITE DL2)											
GIRDER SECTION	18"x1" TOP FLG 54"x 9/16" WEB 20"x1 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG NEG MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG POS MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 54"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 43"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG POS MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG NEG MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG NEG MOMENT
BEAM AREA (IN^2)	---	---	---	---	---	---	---	---	---	---	---
I (IN^4)	69,019	96,172	70,384	106,802	92,961	124,693	80,491	76,237	66,312	52,571	42,694
S TOP (IN^3)	2,998	3,573	2,126	4,603	3,508	4,498	3,578	4,000	3,051	2,846	1,916
S BOT (IN^3)	2,061	3,094	2,828	3,069	2,951	3,924	3,095	2,681	2,574	1,876	1,763
C BOT (IN)	33.48	31.09	24.89	34.80	31.50	31.78	26.01	28.44	25.76	28.03	24.22

SECTION PROPERTIES - EXTERIOR GIRDERS G1 & G9 (COMPOSITE LL)											
GIRDER SECTION	18"x1" TOP FLG 54"x 9/16" WEB 20"x1 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG NEG MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG POS MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 54"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 43"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG POS MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG NEG MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG NEG MOMENT
BEAM AREA (IN^2)	---	---	---	---	---	---	---	---	---	---	---
I (IN^4)	94,993	132,839	70,384	136,227	92,961	124,693	80,491	97,584	66,312	71,024	42,694
S TOP (IN^3)	6,825	7,344	2,126	8,433	3,508	4,498	3,578	7,361	3,051	6,279	1,916
S BOT (IN^3)	2,231	3,328	2,828	3,255	2,951	3,924	3,095	2,850	2,574	2,018	1,763
C BOT (IN)	42.58	39.91	24.89	41.85	31.50	31.78	26.01	34.24	25.76	35.19	24.22

SECTION PROPERTIES NOTES

1. SECTION PROPERTIES WERE OBTAINED FROM PENNDOT'S STLRFD PROGRAM (VERSION 2.9.0.0).
2. COMPOSITE DL2 PROPERTIES ARE BASED ON A MODULAR RATIO EQUAL TO 3N.
3. COMPOSITE LL PROPERTIES ARE BASED ON A MODULAR RATIO EQUAL TO N.
4. SEE GIRDER ELEVATION FOR LOCATIONS OF FLANGE PLATES.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR CAMBER, SEE SHEET 28.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
SECTION PROPERTIES - 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 26 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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SECTION PROPERTIES - INTERIOR GIRDERS G2 THRU G8 (NON-COMPOSITE DL1)							
GIRDER SECTION	18"x1" TOP FLG 54"x 9/16" WEB 20"x1 1/2" BOT FLG POS & NEG MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG POS & NEG MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG POS & NEG MOMENT	24"x2 3/4" TOP FLG 54"x 9/16" WEB 24"x2 3/4" BOT FLG POS & NEG MOMENT	24"x2 3/4" TOP FLG 43"x 9/16" WEB 24"x2 3/4" BOT FLG POS & NEG MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG POS & NEG MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG POS & NEG MOMENT
BEAM AREA (IN^2)	78.38	107.38	126.38	162.38	156.19	132.19	87.19
I (IN^4)	42,649	64,010	82,677	113,743	72,881	59,057	34,833
S TOP (IN^3)	1,320	1,846	2,851	3,823	3,005	2,487	1,371
S BOT (IN^3)	1,763	2,745	2,851	3,823	3,005	2,487	1,651
C BOT (IN)	24.19	23.32	29.00	29.75	24.25	23.75	21.10

SECTION PROPERTIES - INTERIOR GIRDERS G2 THRU G8 (COMPOSITE DL2)											
GIRDER SECTION	18"x1" TOP FLG 54"x 9/16" WEB 20"x1 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG NEG MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG POS MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 54"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 43"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG POS MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG NEG MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG NEG MOMENT
BEAM AREA (IN^2)	---	---	---	---	---	---	---	---	---	---	---
I (IN^4)	69,467	96,760	70,043	107,257	92,677	124,387	80,278	76,564	66,111	52,881	42,484
S TOP (IN^3)	3,038	3,614	2,110	4,645	3,489	4,478	3,561	4,036	3,034	2,882	1,900
S BOT (IN^3)	2,065	3,098	2,823	3,073	2,948	3,921	3,093	2,684	2,572	1,879	1,760
C BOT (IN)	33.64	31.23	24.81	34.91	31.43	31.72	25.96	28.53	25.71	28.15	24.14

SECTION PROPERTIES - INTERIOR GIRDERS G2 THRU G8 (COMPOSITE LL)											
GIRDER SECTION	18"x1" TOP FLG 54"x 9/16" WEB 20"x1 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 54"x 9/16" WEB 20"x2 1/2" BOT FLG NEG MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG POS MOMENT	24"x2" TOP FLG 54"x 9/16" WEB 24"x2" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 54"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 3/4" TOP FLG 43"x 9/16" WEB 24"x2 3/4" BOT FLG NEG MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG POS MOMENT	24"x2 1/4" TOP FLG 43"x 9/16" WEB 24"x2 1/4" BOT FLG NEG MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG POS MOMENT	18"x1 1/2" TOP FLG 43"x 9/16" WEB 18"x2" BOT FLG NEG MOMENT
BEAM AREA (IN^2)	---	---	---	---	---	---	---	---	---	---	---
I (IN^4)	95,580	133,733	70,043	136,971	92,677	124,387	80,278	98,131	66,111	71,453	42,484
S TOP (IN^3)	6,970	7,482	2,110	8,574	3,489	4,478	3,561	7,486	3,034	6,411	1,900
S BOT (IN^3)	2,234	3,333	2,823	3,259	2,948	3,921	3,093	2,853	2,572	2,021	1,760
C BOT (IN)	42.79	40.13	24.81	42.02	31.43	31.72	25.96	34.39	25.71	35.36	24.14

SECTION PROPERTIES NOTES

1. SECTION PROPERTIES WERE OBTAINED FROM PENNDOT'S STLRFD PROGRAM (VERSION 2.9.0.0).
2. COMPOSITE DL2 PROPERTIES ARE BASED ON A MODULAR RATIO EQUAL TO 3N.
3. COMPOSITE LL PROPERTIES ARE BASED ON A MODULAR RATIO EQUAL TO N.
4. SEE GIRDER ELEVATION FOR LOCATIONS OF FLANGE PLATES.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
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Mark	Description	By	Chk'd.	Recm'd.	Date
	REVISIONS				

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
SECTION PROPERTIES - 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 27 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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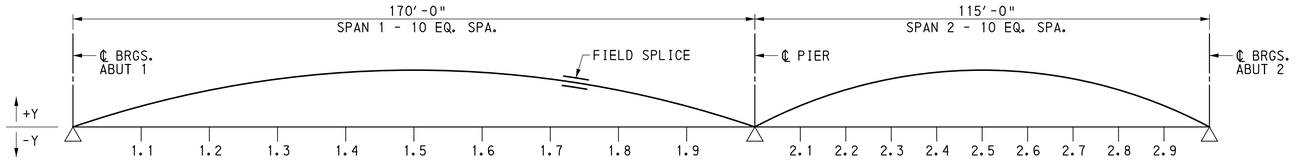

CAMBER DIAGRAM
NOT TO SCALE

TABLE OF CAMBER ORDINATES AT TENTH POINTS (INCHES)

	LOAD	SPAN 1												SPAN 2									
		℄ BRG	1.1	1.2	1.3	1.4	1.5	1.6	1.7	FS	1.8	1.9	℄ PIER	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	℄ BRG
GIRDER G1	A	0.000	0.745	1.349	1.765	1.969	1.944	1.707	1.309	1.000	0.827	0.361	0.000	-0.148	-0.216	-0.211	-0.160	-0.091	-0.023	0.024	0.042	0.030	0.000
	B	0.000	2.233	4.029	5.249	5.828	5.729	5.012	3.823	2.909	2.401	1.045	0.000	-0.424	-0.614	-0.581	-0.408	-0.178	0.039	0.181	0.214	0.142	0.000
	C	0.000	0.826	1.502	1.970	2.198	2.174	1.914	1.473	1.126	0.931	0.404	0.000	-0.158	-0.220	-0.197	-0.122	-0.030	0.051	0.098	0.102	0.064	0.000
	D	0.000	1.800	3.720	5.640	7.440	9.240	11.040	11.040	10.080	9.240	5.520	0.000	3.840	6.840	9.000	10.320	10.680	10.200	8.880	6.720	3.720	0.000
	E	0.000	5.604	10.600	14.624	17.435	19.087	19.673	17.645	15.115	13.399	7.330	0.000	3.110	5.790	8.011	9.630	10.381	10.267	9.183	7.078	3.956	0.000
GIRDER G2	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.821	1.494	1.958	2.186	2.161	1.904	1.465	1.120	0.927	0.403	0.000	-0.157	-0.219	-0.195	-0.121	-0.030	0.051	0.098	0.101	0.064	0.000
	D	0.000	1.800	3.720	5.520	7.320	9.120	10.800	10.920	9.960	9.120	5.520	0.000	3.840	6.840	9.000	10.320	10.680	10.200	9.000	6.840	3.840	0.000
	E	0.000	5.147	9.778	13.432	16.124	17.797	18.410	16.744	14.400	12.788	7.118	0.000	3.198	5.917	8.133	9.718	10.422	10.263	9.269	7.157	4.048	0.000
GIRDER G3	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	0.000	1.680	3.600	5.280	7.080	8.880	10.560	10.680	9.840	9.000	5.400	0.000	3.840	6.840	8.880	10.200	10.680	10.320	9.000	6.720	3.720	0.000
	E	0.000	4.206	8.164	11.234	13.698	15.396	16.266	15.039	13.160	11.741	6.595	0.000	3.355	6.136	8.208	9.719	10.452	10.332	9.171	6.936	3.864	0.000
GIRDER G4	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	0.000	1.680	3.480	5.280	6.960	8.760	10.320	10.560	9.720	9.000	5.400	0.000	3.840	6.840	9.120	10.320	10.680	10.320	9.000	6.840	3.840	0.000
	E	0.000	4.206	8.044	11.234	13.578	15.276	16.026	14.919	13.040	11.741	6.595	0.000	3.355	6.136	8.448	9.839	10.452	10.332	9.171	7.056	3.984	0.000
GIRDER G5	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	0.000	1.680	3.480	5.040	6.720	8.520	10.080	10.440	9.480	8.760	5.280	0.000	3.840	6.840	9.000	10.320	10.680	10.320	9.000	6.960	3.840	0.000
	E	0.000	4.206	8.044	10.994	13.338	15.036	15.786	14.799	12.800	11.501	6.475	0.000	3.355	6.136	8.328	9.839	10.452	10.332	9.171	7.176	3.984	0.000
GIRDER G6	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	0.000	1.560	3.360	4.920	6.600	8.280	9.840	10.200	9.360	8.640	5.280	0.000	3.840	6.840	9.000	10.200	10.680	10.320	9.000	6.840	3.840	0.000
	E	0.000	4.086	7.924	10.874	13.218	14.796	15.546	14.559	12.680	11.381	6.475	0.000	3.355	6.136	8.328	9.719	10.452	10.332	9.171	7.056	3.984	0.000
GIRDER G7	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	0.000	1.560	3.240	4.800	6.360	8.040	9.720	10.080	9.360	8.640	5.280	0.000	3.840	6.840	9.000	10.320	10.680	10.320	9.000	6.840	3.840	0.000
	E	0.000	4.086	7.804	10.754	12.978	14.556	15.426	14.439	12.680	11.381	6.475	0.000	3.355	6.136	8.328	9.839	10.452	10.332	9.171	7.056	3.984	0.000
GIRDER G8	A	0.000	0.764	1.383	1.810	2.018	1.993	1.750	1.342	1.025	0.847	0.370	0.000	-0.151	-0.221	-0.216	-0.163	-0.092	-0.023	0.025	0.044	0.031	0.000
	B	0.000	1.762	3.181	4.144	4.600	4.523	3.956	3.017	2.295	1.894	0.825	0.000	-0.334	-0.483	-0.456	-0.318	-0.136	0.035	0.146	0.172	0.113	0.000
	C	0.000	0.821	1.494	1.958	2.186	2.161	1.904	1.465	1.120	0.927	0.403	0.000	-0.157	-0.219	-0.195	-0.121	-0.030	0.051	0.098	0.101	0.064	0.000
	D	0.000	1.560	3.120	4.680	6.240	7.800	9.360	9.840	9.120	8.520	5.040	0.000	3.840	6.840	9.000	10.320	10.680	10.320	9.000	6.840	3.840	0.000
	E	0.000	4.907	9.178	12.592	15.044	16.477	16.970	15.664	13.560	12.188	6.638	0.000	3.198	5.917	8.133	9.718	10.422	10.383	9.269	7.157	4.048	0.000
GIRDER G9	A	0.000	0.745	1.349	1.765	1.969	1.944	1.707	1.309	1.000	0.827	0.361	0.000	-0.148	-0.216	-0.211	-0.160	-0.091	-0.023	0.024	0.042	0.030	0.000
	B	0.000	2.233	4.029	5.249	5.828	5.729	5.012	3.823	2.909	2.401	1.045	0.000	-0.424	-0.614	-0.581	-0.408	-0.178	0.039	0.181	0.214	0.142	0.000
	C	0.000	0.826	1.502	1.970	2.198	2.174	1.914	1.473	1.126	0.931	0.404	0.000	-0.158	-0.220	-0.197	-0.122	-0.030	0.051	0.098	0.102	0.064	0.000
	D	0.000	1.440	3.120	4.560	6.120	7.680	9.120	9.720	9.120	8.280	5.160	0.000	3.840	6.960	9.000	10.440	10.800	10.320	9.120	6.840	3.960	0.000
	E	0.000	5.244	10.000	13.544	16.115	17.527	17.753	16.325	14.155	12.439	6.970	0.000	3.110	5.910	8.011	9.750	10.501	10.387	9.423	7.198	4.196	0.000

TABLE OF REACTIONS LEGEND

A = NON-COMPOSITE DEAD LOAD (DEAD LOAD 1)
B = COMPOSITE DEAD LOAD (DEAD LOAD 2 INCLUDES FWS)
C = TOTAL DEAD LOAD
D = POSITIVE LIVE LOAD + IMPACT (PHL-93)
E = NEGATIVE LIVE LOAD + IMPACT (PHL-93)
F = POSITIVE LIVE LOAD + IMPACT (P-82)
G = NEGATIVE LIVE LOAD + IMPACT (P-82)

TABLE OF REACTIONS (KIPS)

	LOAD	ABUT 1	PIER	ABUT 2
GIRDER G1	A	112.38	310.94	53.40
	B	40.79	113.97	18.80
	C	153.17	424.91	72.20
	D	92.99	178.74	78.61
	E	-7.21	0.00	-17.73
	F	138.74	163.30	122.49
	G	-11.06	0.00	-24.83
GIRDER G2	A	96.73	265.90	46.45
	B	54.87	153.25	25.29
	C	151.60	419.15	71.74
	D	104.97	206.00	90.60
	E	-8.14	0.00	-20.42
	F	156.61	188.21	141.18
	G	-12.49	0.00	-28.61
GIRDERS G3-G7	A	96.73	265.90	46.45
	B	14.00	39.11	6.46
	C	110.73	305.01	52.91
	D	104.97	206.00	90.60
	E	-8.14	0.00	-20.42
	F	156.61	188.21	141.18
	G	-12.49	0.00	-28.61
GIRDER G8	A	96.73	265.90	46.45
	B	54.87	153.25	25.29
	C	151.60	419.15	71.74
	D	104.97	206.00	90.60
	E	-8.14	0.00	-20.42
	F	156.61	188.21	141.18
	G	-12.49	0.00	-28.61
GIRDER G9	A	112.38	310.94	53.40
	B	40.79	113.97	18.80
	C	153.17	424.91	72.20
	D	91.07	178.74	80.08
	E	-7.06	0.00	-18.06
	F	135.87	163.30	124.79
	G	-10.83	0.00	-25.30

CAMBER LEGEND

A = CAMBER DUE TO WEIGHT OF STEEL INCLUDING DIAPHRAGMS.
B = CAMBER DUE TO WEIGHT OF DECK, HAUNCH AND SIP FORMS.
C = CAMBER DUE TO SUPERIMPOSED DEAD LOAD (WITHOUT FWS)
D = CAMBER DUE TO VERTICAL CURVE AND/OR SUPERELEVATION TRANSITION
E = TOTAL CAMBER

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR LOAD RATINGS, SEE SHEET 25.
5. FOR SECTION PROPERTIES, SEE SHEETS 26-27.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
CAMBER & TABLE OF REACTIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 28 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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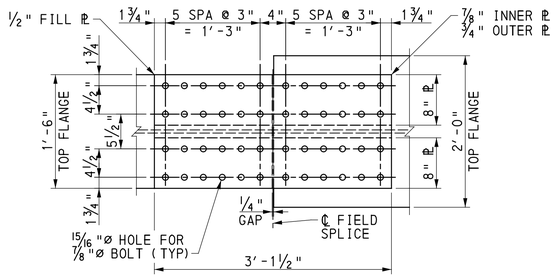
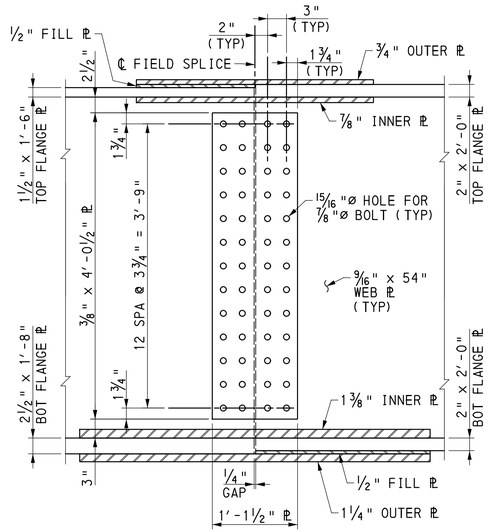
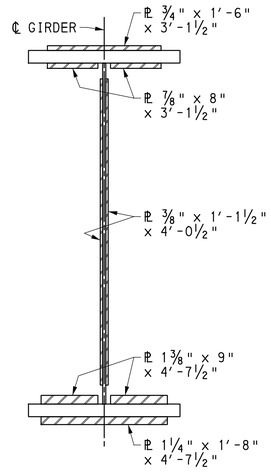


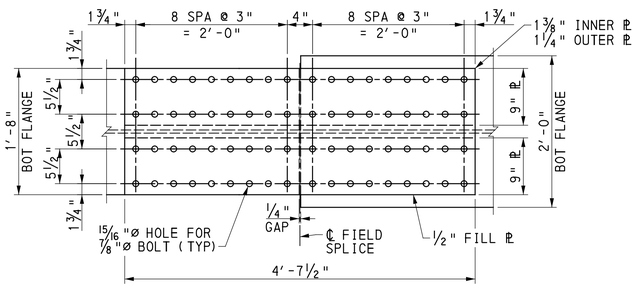
TOP FLANGE PLAN



ELEVATION



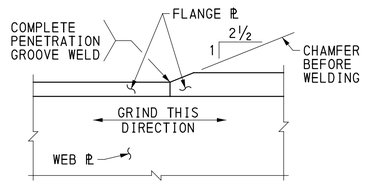
TYPICAL SECTION



BOTTOM FLANGE PLAN

FIELD SPLICE DETAILS

12" 6" 0 12"



ELEVATION
FLANGE SPLICE DETAIL

NOT TO SCALE

NOTE: FOR ADDITIONAL GIRDER DETAILS, SEE BC-753M.

FIELD SPLICE NOTES

1. ALL FIELD SPLICE PLATES TO BE ASTM A709, GRADE 50.
2. USE ⅞"ø ASTM DESIGNATION F3125 GRADE A325 BOLTS HAVING AN UNTHREADED SHANK OF SUFFICIENT LENGTH TO NOT ALLOW ANY THREADS TO EXIST IN THE PLANES BETWEEN CONNECTED PARTS (SHEAR PLANES).
3. USE STANDARD SIZE HOLES FOR ALL BOLTS.
4. FIELD SPLICES ARE DESIGNED AS FRICTION TYPE CONNECTIONS WITH A CLASS A CONTACT SURFACE.
5. FOR CHARPY V-NOTCH (CVN) TESTING REQUIREMENTS, SEE STRUCTURAL STEEL NOTES ON GENERAL NOTES SHEET.
6. ADJUST SHEAR CONNECTOR SPACING TO CLEAR FIELD SPLICE CONNECTIONS. DO NOT ELIMINATE ANY SHEAR CONNECTORS.
7. PLACE BOLT HEADS ON EXPOSED SIDE OF FASCIA GIRDERS. PLACE NUTS ON TOP SURFACE OF BOTTOM FLANGE SPLICE.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR LOAD RATINGS, SEE SHEET 25.
5. FOR SECTION PROPERTIES, SEE SHEETS 26-27.
6. FOR CAMBER & TABLE OF REACTIONS, SEE SHEET 28.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
FIELD SPLICE DETAILS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 29 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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BEARING GENERAL NOTES (POT BEARINGS)

1. PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408, ANSI/AASHTO/AWS/D1.5 BRIDGE WELDING CODE AND CONTRACT SPECIAL PROVISIONS.
2. SANDBLAST IN ACCORDANCE WITH SSPC-SP10 TO REMOVE MILL SCALE FROM BEARINGS.
3. GRIND SMOOTH ALL STEEL SURFACES AND EDGES AND REMOVE ANY SHARP PROTRUSIONS. FABRICATION TOLERANCES AND THE LIMITATIONS ON SURFACE FINISH WILL BE IN ACCORDANCE WITH PUBLICATION 408, SECTION 1111.
4. PAINT ALL STEEL SURFACES IN ACCORDANCE WITH PUBLICATION 408, SECTION 1060. APPLY ALL COATS IN THE FABRICATION SHOP ONLY. DO NOT PAINT PTFE, STAINLESS STEEL OR THE INSIDE OF THE POT. APPLY ONLY PRIME COAT TO THE CONTACT AREA BETWEEN BEAM BOTTOM FLANGE AND SOLE PLATE AND TO THE BOTTOM SIDE OF THE MASONRY PLATE. PAINT COLOR TO MATCH GIRDER PAINT COLOR #15450, BLUE.
5. ROUND ALL PTFE CORNERS TO ACCOMMODATE THE MACHINED RECESS IN STEEL GUIDE PLATE / PISTON.
6. ETCH PTFE ON ONE SIDE FOR BONDING INTO THE MACHINED RECESS.
7. PTFE ON THE SIDE OF GUIDE PLATE MUST BE PIGMENTED.
8. PRIOR TO THE APPLICATION OF ADHESIVE, CLEAN ALL MATING STEEL AND PTFE SURFACES BY GRIT BLASTING AND DEGREASING. APPLY ADHESIVE AS PER THE MANUFACTURER'S RECOMMENDATION.
9. LUBRICATE ALL SURFACES OF NEOPRENE DISC WITH SILICONE GREASE IN ACCORDANCE WITH MILITARY SPECIFICATION SAE-AS8660.
10. CUT FLAT BRASS SEALING RING ENDS AT 45° ANGLE WITH A MAXIMUM GAP OF 0.05". STAGGER THE OPENINGS IN THE BRASS RINGS 120° APART.
11. MARK THE THICKER EDGE OF THE SOLE PLATE AS SUCH FOR THE PURPOSE OF FIELD IDENTIFICATION. PLACE MARK ON THE EDGE OF SOLE PLATE SO THAT IT WILL BE VISIBLE AFTER BEARING INSTALLATION. IN THE CASE OF A SOLE PLATE WITH A COMPOUND BEVEL PLACE THE MARK ON EITHER EDGE OF THE THICKEST SOLE PLATE CORNER.
12. MARK CENTERLINE OF GUIDED AND NON-GUIDED POT BEARINGS ON THE SIDES OF MASONRY PLATE AND SOLE PLATE. THE CENTERLINE IDENTIFICATION MARKS WILL BE USEFUL TO LOCATE OFFSET DISTANCES IN THE FIELD. USE INDELIBLE INK TO PLACE ALL MARKS.
13. MARK EACH BEARING WITH THE NAME OF THE MANUFACTURER AND TYPE OR MODEL NUMBER. PLACE THE IDENTIFICATION MARK IN A PERMANENT MANNER AND LOCATION SO THAT IT IS VISIBLE AFTER ERECTION.
14. WHEN THE POT IS RECESSED INTO THE MASONRY PLATE SEAL AROUND THE POT PERIMETER WITH AN APPROVED CAULKING COMPOUND IN THE SHOP AFTER PAINT COATING HAS DRIED.
15. ENSURE ALL BEARING SURFACES INCLUDING THE BEARING SEAT ARE LEVEL PRIOR TO INSTALLATION OF POT BEARINGS IN ACCORDANCE WITH PUBLICATION 408.
16. TEST ONE BEARING PER TYPE OR PER LOT SIZE OF 25 FOR A HORIZONTAL FORCE CAPACITY PRIOR TO SHIPMENT.
17. USE OF APPROVED ALTERNATE BEARING IS PERMITTED.

MATERIALS (POT BEARINGS)

1. STRUCTURAL STEEL: AASHTO M270/M270M (ASTM A709/A709M), GRADE 50.
2. ANCHOR BOLTS: ASTM F1554, GRADE 55.
3. NUTS: ASTM A563/A563M, GRADE DH.
4. WASHERS: ASTM F436/ F436M, TYPE 1.
5. GALVANIZING OF ANCHOR BOLTS, NUTS AND WASHERS: PUBLICATION 408, SECTION 1105.02(S).
6. STAINLESS STEEL: ASTM A240, GRADE 30, TYPE 304 WITH AN ANSI 0.02 mil SURFACE FINISH OR LESS.
7. FLAT BRASS SEALING RINGS: ASTM B36 (HALF HARD) SPECIFICATION.
8. ELASTOMERIC DISC: VIRGIN PLAIN NEOPRENE OR NATURAL RUBBER WITH HARDNESS OF 50 DUROMETER (±10) PER AASHTO M251.
9. PTFE SHEET: MADE FROM VIRGIN TFE RESIN PER ASTM D4894.

   MAIN SLIDING SURFACE PTFE: UNFILLED, DIMPLED AND LUBRICATED. DIMPLES MUST HAVE A MINIMUM EDGE DISTANCE OF 0.5" AND CONFORM TO 1998 AASHTO LRFD SECTION 14.7.2.

   GUIDE BAR SURFACE PTFE: PIGMENTED, FILLED OR UNFILLED.
10. CAULK FOR SEALING AROUND THE POT PERIMETER: SIKAFLEX 1A OR APPROVED EQUAL.
11. BEDDING MATERIAL: PUBLICATION 408, SECTION 1113.03(h), TYPE II.

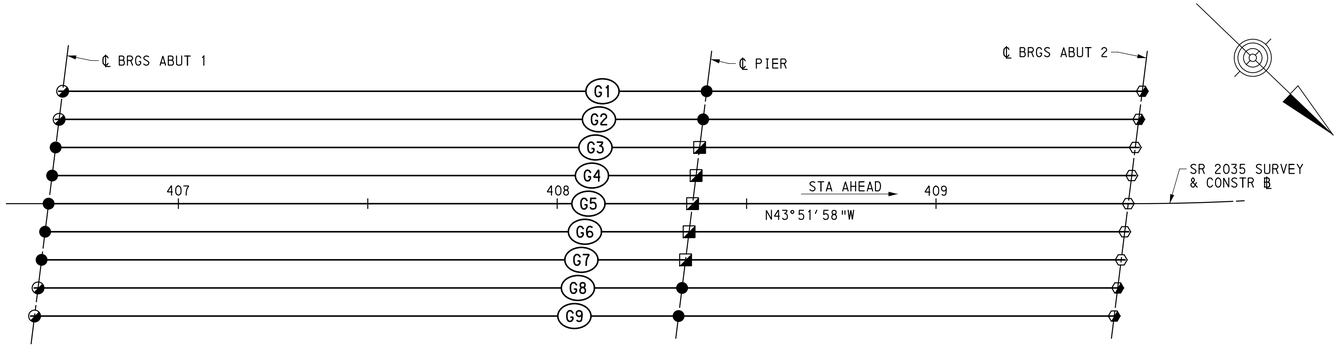
MATERIAL DESIGN PARAMETERS (POT BEARINGS)

1. ALLOWABLE PRESSURE IN ELASTOMER AND PTFE:

   MAXIMUM = 3500 psi ELASTOMER & PTFE
   MINIMUM = 700 psi ELASTOMER
2. COEFFICIENT OF FRICTION BETWEEN PTFE AND STAINLESS STEEL: 0.04.
3. CONCRETE BEARING STRENGTH: f'c = 3000 psi.

ANCHOR BOLT INSTALLATION

1. IF ANCHOR BOLTS ARE GROUTED BEFORE THE MASONRY PLATE INSTALLATION, USE ANCHOR BOLT DETAIL 1 PER BC-756M. USE OF A BLOCKOUT FORM IS OPTIONAL.
2. IF ANCHOR BOLTS ARE GROUTED AFTER THE BEARINGS, ARE INSTALLED, USE ANCHOR BOLT DETAIL 2 PER BC-756M.
3. IF BLOCKOUTS ARE USED, REMOVE BLOCKOUT FORM AND DEBRIS FROM HOLE PRIOR TO GROUTING. INSTALL NON-SHRINK GROUT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001. DO NOT GROUT UNTIL ALL GIRDER UNITS ARE PROPERLY ALIGNED.
4. PREVENT WATER FROM ACCUMULATING IN THE PREFORMED ANCHOR BOLT HOLES OR STANDARD PIPE AND ENSURE THE HOLES ARE COMPLETELY FILLED WITH GROUT.



BEARING LOCATION PLAN

20' 0 20'

LEGEND

- ◪ = FIXED POT BEARING (F-I)
- ● = GUIDED EXPANSION POT BEARING (EL-I @ ABUT 1 OR ET-I @ PIER*)
- ◒ = NON-GUIDED EXPANSION POT BEARING (ES-I)
- ⬡ = GUIDED EXPANSION DISC BEARING (EL-II)
- ◒ = NON-GUIDED EXPANSION DISC BEARING (ES-II)

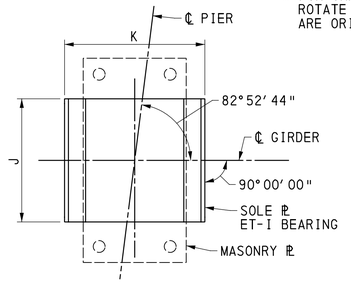
BEARING LOAD TABLE

LOCATION	BEARING TYPE	NUMBER OF BEARINGS REQUIRED	AASHTO LRFD LIMIT STATE	DESIGN LOADS (KIPS)								MINIMUM DESIGN ROTATION (RADIANS)	DESIGN MOVEMENT (INCHES)
				VERTICAL								HORIZONTAL					
				DL		LL+I		WIND		TOTAL		TRANSVERSE	LONGITUDINAL	RESOLUTION		
				MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX					
ABUTMENT 1	ES - I	4	SERVICE-I	124	183	-8	108	-2	2	114	293	0	0	0	0.0300	3.00
			EXTREME-I	124	184	0	0	0	0	124	184	0	0	0		
	EL - I	5	SERVICE-I	97	142	-8	109	-1	1	88	252	26	0	26	0.0300	3.00
			EXTREME-I	97	142	0	0	0	0	97	142	49	0	49		
PIER	ET - I	4	SERVICE-I	341	419	0	206	-3	3	338	628	0	17	17	0.0300	3.00
			EXTREME-I	341	425	0	0	0	0	341	425	0	94	94		
	F - I	5	SERVICE-I	266	305	0	206	-2	2	264	513	43	13	45	0.0300	0.00
			EXTREME-I	266	305	0	0	0	0	266	305	110	28	114		
ABUTMENT 2	ES - II	4	SERVICE-I	59	103	-21	94	-1	1	37	198	0	0	0	0.0200	2.00
			EXTREME-I	59	103	0	0	0	0	59	103	0	0	0		
	EL - II	5	SERVICE-I	46	84	-20	94	-1	1	25	179	17	0	17	0.0200	2.00
			EXTREME-I	46	84	0	0	0	0	46	84	28	0	28		

DL = DEAD LOAD

LL+I = LIVE LOAD PLUS IMPACT

* FOR TRANSVERSELY GUIDED BEARINGS (ET-I) AT PIER, ROTATE SOLE ℙ PER BC-756M 90° SUCH THAT GUIDE BARS ARE ORIENTED PERPENDICULAR TO THE ℄ GIRDER.



ET-I BEARING PLAN

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

BEARING LOCATION PLAN & LOAD DATA

RECOMMENDED 2026.06.11

SHEET 30 OF 64

S-40598

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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DESIGN DATA FOR FIXED POT BEARINGS (F-I)

LOCATION	VERTICAL LOAD (KIPS)	HORIZONTAL LOAD (KIPS)	ROTATION (RADS)	MASONRY PLATE					ANCHOR BOLT		SOLE PLATE					POT						NEOPRENE DISC			PISTON				BRG HEIGHT
				A	B	C	D	E	QTY	G	H	I	MAX THICK	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	PP **
PIER, G3-G5	550	165	0.03	2¾"	20¼"	38"	16"	7⅛"	4	1¾"	13/16"	5/16"	1 15/32"	18½"	26"	3⅜"	18½"	2 7/16"	¾"	¼"	2"	1½"	14½"	⅜"	1⅝"	14.460	9/16"	5/16"	7⅞"
PIER, G6-G7	550	165	0.03	2¾"	20¼"	38"	16"	7⅛"	4	1¾"	13/16"	11/32"	1½"	18½"	26"	3⅜"	18½"	2 7/16"	¾"	¼"	2"	1½"	14½"	⅜"	1⅝"	14.460	9/16"	5/16"	7 29/32"

DESIGN DATA FOR NON-GUIDED POT BEARINGS (ES-I)

LOCATION	VERTICAL LOAD (KIPS)	HORIZONTAL LOAD (KIPS)	ROTATION (RADS)	MASONRY PLATE					ANCHOR BOLT		SOLE PLATE					POT						NEOPRENE DISC			PISTON			PTFE	STAINLESS STEEL		BRG HEIGHT
				A	B	C	D	E	QTY	G	H	I	MAX THICK	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	HH	LL	MM	PP **
ABUT 1, G1-G2, G8-G9	300	30	0.03	2½"	13¾"	31"	13¼"	4⅝"	4	1¼"	13/16"	19/32"	2"	15¾"	22"	2⅝"	12¼"	1¾"	9/16"	¼"	¾"	1⅛"	10¾"	⅜"	15/16"	10.710	⅜"	10½"	15½"	12½"	6 27/32"

DESIGN DATA FOR GUIDED POT BEARINGS (EL-I ℄ ABUT 1 OR ET-I ℄ PIER)

LOCATION	VERTICAL LOAD (KIPS)	HORIZONTAL LOAD (KIPS)	ROTATION (RADS)	MASONRY PLATE					ANCHOR BOLT		SOLE PLATE *					POT						NEOPRENE DISC			PISTON				GUIDE PLATE	
				A	B	C	D	E	QTY	G	H	I	MAX THICK	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
ABUT 1, G3-G7	300	90	0.03	2½"	15¼"	32½"	13⅝"	5"	4	1½"	13/16"	11/16"	2 3/16"	18⅝"	22"	2 7/16"	13¾"	1 13/16"	⅝"	¼"	1½"	1⅛"	10¾"	⅜"	1⅜"	10.710	7/16"	¼"	2½"	13¾"
PIER, G1-G2	650	195	0.03	3¼"	21¾"	43⅛"	18 3/16"	7½"	4	2"	1 3/16"	½"	2 3/16"	26"	29⅝"	3 7/16"	20¼"	2⅝"	1 3/16"	¼"	2¼"	1⅝"	15¾"	⅜"	1⅞"	15.710	⅝"	5/16"	3⅜"	20¼"
PIER, G8-G9	650	195	0.03	3¼"	21¾"	43⅛"	18 3/16"	7½"	4	2"	1 3/16"	9/16"	2 5/16"	26"	29⅝"	3 7/16"	20¼"	2⅝"	1 3/16"	¼"	2¼"	1⅝"	15¾"	⅜"	1⅞"	15.710	⅝"	5/16"	3⅜"	20¼"

DESIGN DATA FOR GUIDED POT BEARINGS (CONTINUED)

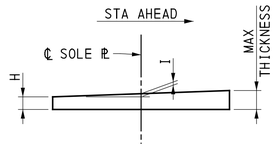
LOCATION	GUIDE BARS							PTFE				STAINLESS STEEL				BRG HEIGHT
	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP **
ABUT 1, G3-G7	2¾"	2¾"	18⅝"	5/16"	½"	5/16"	7.121	9⅜"	3/16"	2"	13½"	18½"	10⅜"	18½"	2¼"	9 11/16"
PIER, G1-G2	3⅝"	3⅝"	25⅛"	½"	⅝"	½"	10.371	13¾"	3/16"	3⅞"	20"	25"	14¾"	25"	3⅛"	12⅝"
PIER, G8-G9	3⅝"	3⅝"	25⅛"	½"	⅝"	½"	10.371	13¾"	3/16"	3⅞"	20"	25"	14¾"	25"	3⅛"	12 11/16"

* SEE BEARING NOTE 2.

** BEARING HEIGHT INCLUDES ⅛" BEDDING MATERIAL.

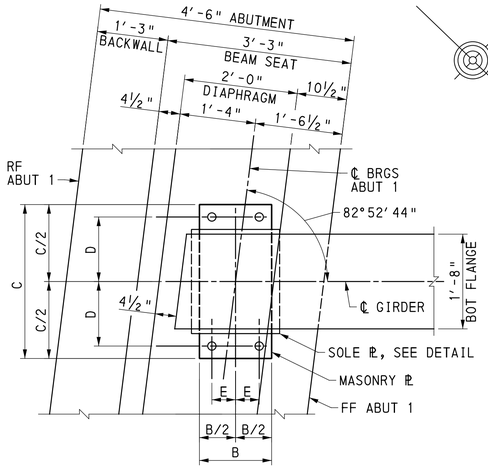
BEARING NOTES

1. FOR DETAILS, SEE BC-756M.
2. FOR ET-I BEARINGS, ROTATE SOLE ℞ 90° SUCH THAT GUIDE BARS ARE PERPENDICULAR TO THE ℄ GIRDER. SEE BEARING LOCATION PLAN & LOAD DATA SHEET.



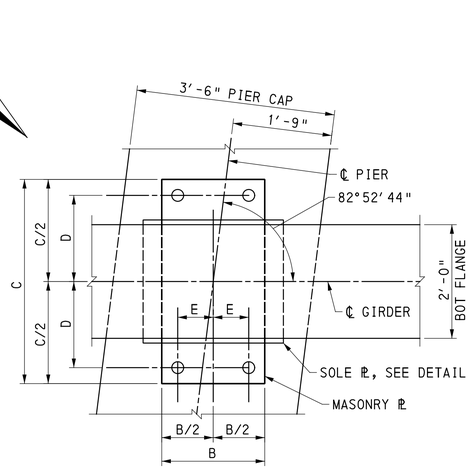
BEVELED SOLE PLATE DETAIL

NOT TO SCALE



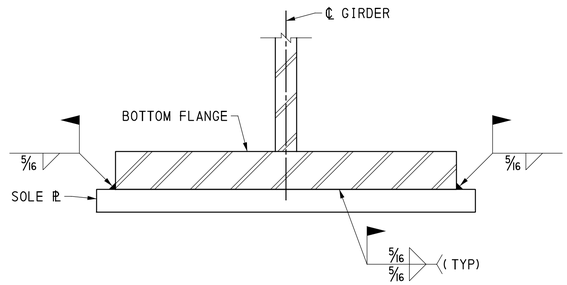
ABUTMENT 1 BEARING PLAN

12" 0 12"



PIER BEARING PLAN

12" 0 12"



GIRDER TO SOLE PLATE CONNECTION DETAIL

3" 0 3"

NOTE: TERMINATE WELDS A MINIMUM 1" FROM EDGE OF PLATES IN THE DIRECTION OF THE WELD.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR BEARING LOCATION PLAN AND LOAD TABLE, SEE SHEET 30.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

BEARING DATA - POT BEARINGS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 31 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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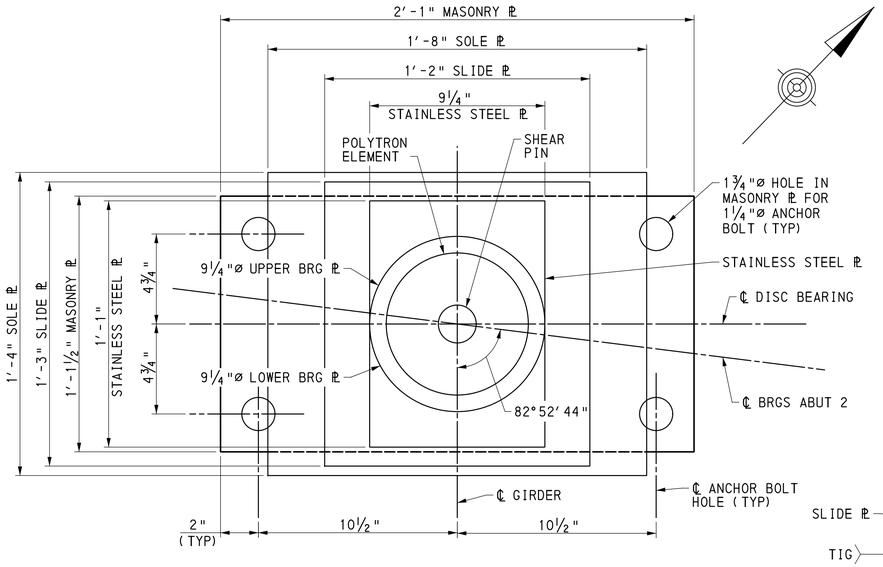
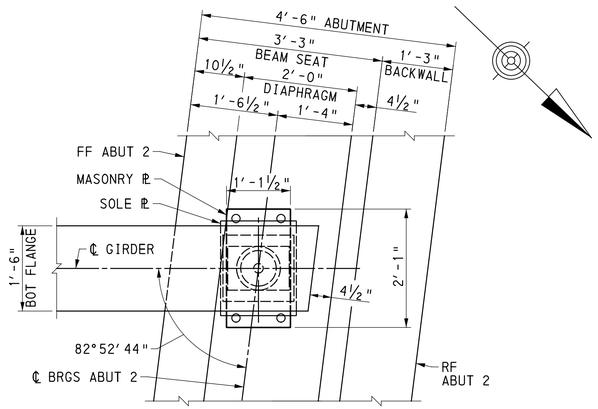


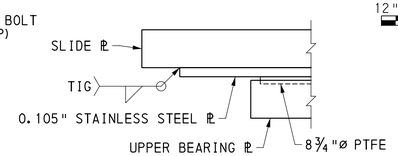
ABUTMENT 2 BEARING PLAN AT GIRDERS G1-G2 & G8-G9

3" 0 3"



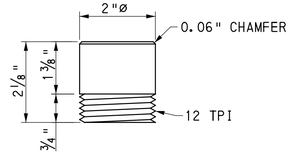
ABUTMENT 2 BEARING PLAN GIRDERS 1,2,8,9

12" 0 12"



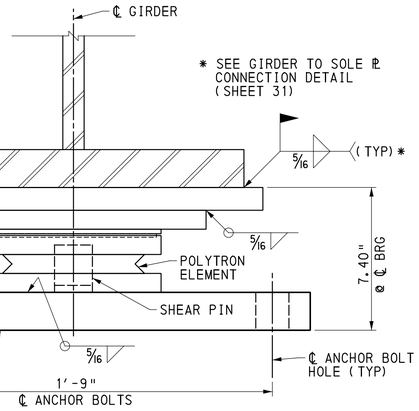
STAINLESS STEEL WELD DETAIL

NOT TO SCALE



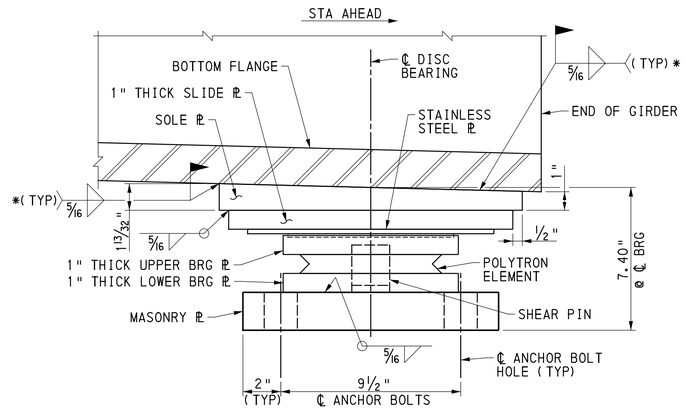
SHEAR PIN

NOT TO SCALE



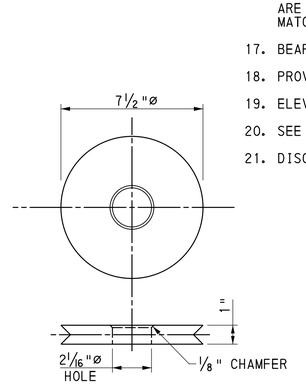
END ELEVATION

3" 0 3"



SIDE ELEVATION

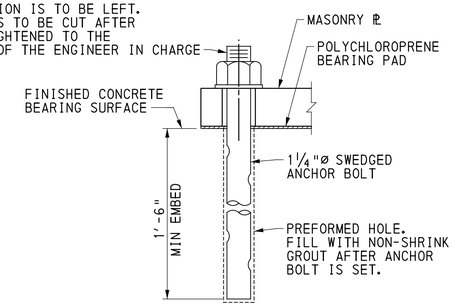
3" 0 3"



POLYTRON DISC

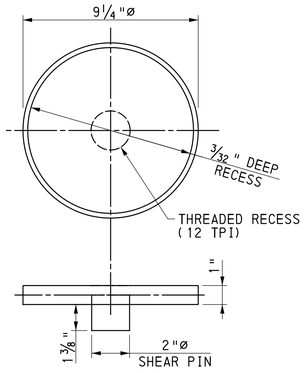
NOT TO SCALE

A ½" PROJECTION IS TO BE LEFT. ANCHOR BOLT IS TO BE CUT AFTER THE NUT IS TIGHTENED TO THE SATISFACTION OF THE ENGINEER IN CHARGE



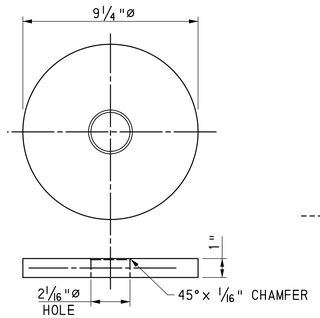
ANCHOR BOLT DETAIL 1

NOT TO SCALE



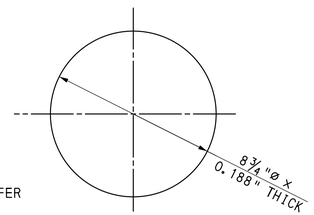
UPPER BEARING PLAN

NOT TO SCALE



LOWER BEARING PLAN

NOT TO SCALE



PTFE DISC

NOT TO SCALE

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR BEARING LOCATION PLAN AND LOAD TABLE, SEE SHEET 30.

DISC BEARING NOTES

1. MATERIAL AND WORKMANSHIP IS TO BE IN ACCORDANCE WITH PUBLICATION 408.
2. ALL STEEL PLATES ARE TO CONFORM TO PUBLICATION 408, SECTION 1111.02(a), GRADE 50, (EXCEPT AS NOTED), AND SHALL BE OF DOMESTIC ORIGIN.
3. SEE POT BEARING MATERIAL NOTES FOR ANCHOR BOLT REQUIREMENTS.
4. THE POLYTRON ELEMENT IS TO BE IN ACCORDANCE WITH AASHTO 16TH EDITION; DIVISION 2; SECTION 18.3.3.7; TABLE 18.3.3; COMPOUND B; AND IS TO BE ROUGHED. ROTATION CAPACITY IS 0.02 RADIANS.
5. PTFE IS TO BE VIRGIN AND ETCHED ON ONE SIDE FOR BONDING INTO MACHINED RECESS PER AASHTO 16TH EDITION; DIVISION 2; SECTION 18.3.3.6. THE MAXIMUM COEFFICIENT OF FRICTION SHALL NOT EXCEED 4% AT 3500 PSI, STATIC OR DYNAMIC PER AASHTO 16TH EDITION; DIVISION 1; SECTION 15.2.6.
6. SIDE PTFE IS TO BE 15% GLASS FILLED AND ETCHED ON ONE SIDE FOR BONDING ONTO THE SIDE OF THE BEARING BLOCK.
7. THE STAINLESS STEEL SHEET IS TO CONFORM TO ASTM-A240, TYPE 304, AND SHALL BE 12 GAUGE (0.1046" THICKNESS). IT IS TO RECEIVE A NO. 8 BRIGHT MIRROR FINISH PER AASHTO 16TH EDITION; DIVISION 2; SECTION 18.3.3.5.
8. ADDITIONAL MATERIALS: SHEAR PIN = ASTM A193, GRADE B7.
   GUIDE BARS = ASTM A108, GRADE C1018.
   COUNTERSUNK SCREWS = GRADE 5.
9. ALL WELDING TO BE PERFORMED IN ACCORDANCE WITH AWS - D1.5 BRIDGE WELDING CODE, AS WELL AS THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
10. ORIENTATION OF BEARING SOLE PLATE TO BE MARKED ON EACH INDIVIDUAL BEARING AS SHOWN ON THE SHOP DRAWINGS.
11. PTFE AND STAINLESS STEEL SURFACES ARE TO BE PROTECTED FROM DAMAGE AS WELL AS AIRBORNE DEBRIS AND CONTAMINANTS AT ALL TIMES PRIOR TO FINAL ASSEMBLY. THESE SURFACES ARE TO BE INSPECTED FOR SUCH DAMAGE AND DEBRIS BEFORE FINAL ASSEMBLY.
12. COMPLETED BEARINGS ARE TO BE INDIVIDUALLY STEEL BANDED FOR SHIPPING AND HANDLING.
13. BEARINGS ARE TO BE STORED IN A CLEAN, DRY, LEVEL UPRIGHT POSITION.
14. AT NO TIME MAY ANY BEARING BE DISASSEMBLED WITHOUT AUTHORIZATION FROM THE MANUFACTURER.
15. ALL MILL SCALE TO BE REMOVED FROM BEARING PLATES VIA SANDBLASTING (SSPC-SP10).
16. ALL EXTERIOR STEEL SURFACES EXCEPT FOR TOP OF SOLE PLATE, AND BOTTOM OF MASONRY PLATE ARE TO BE PAINTED IN ACCORDANCE WITH PUBLICATION 408, SECTION 1060. PAINT COLOR TO MATCH GIRDER PAINT COLOR #15450, BLUE.
17. BEARINGS ARE DESIGNED WITH AN ALLOWABLE CONCRETE BEARING PRESSURE OF 1500 PSI.
18. PROVIDE CERTIFICATION IN ACCORDANCE WITH PUBLICATION 408, SECTION 106.03(b)3.
19. ELEVATIONS SHOWN WITH 0° ROTATION FOR CLARITY.
20. SEE SHEET 30 FOR BEARING LOCATIONS.
21. DISC BEARING DESIGN CAPACITIES:

BEARING TYPE	VERTICAL LOAD (KIPS)	HORIZONTAL LOAD (KIPS)
NON-GUIDED (ES-II)	200	20
GUIDED (EL-II)	300	30

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
NON-GUIDED DISC BEARING (ES-II) DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 32 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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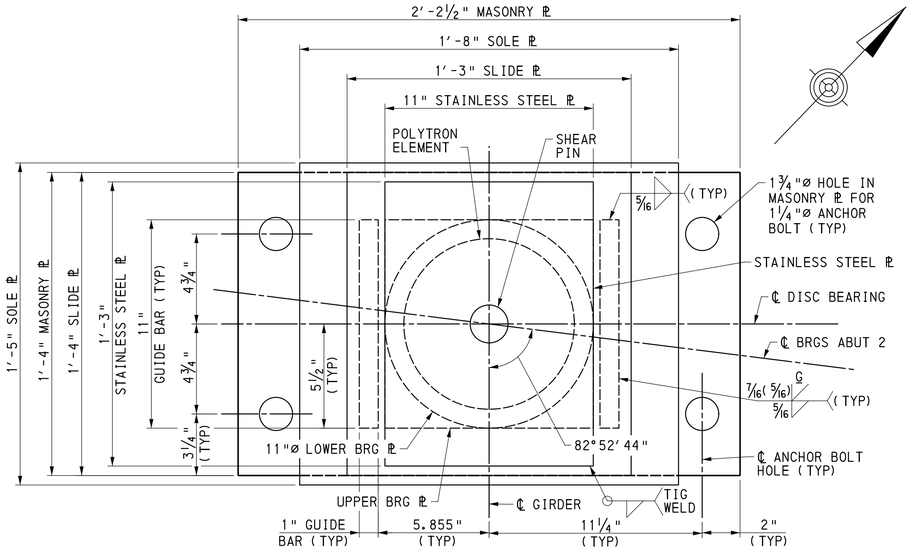
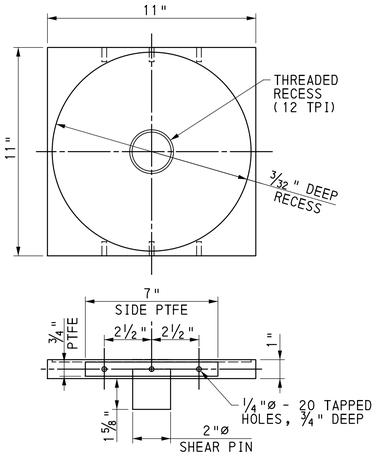


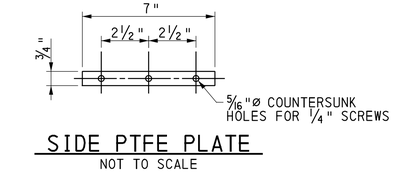
ABUTMENT 2 BEARING PLAN AT GIRDERS G3-G7

3" 0 3"



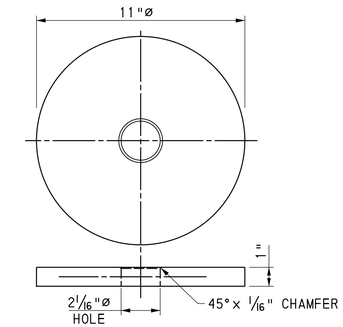
UPPER BEARING PLATE

NOT TO SCALE



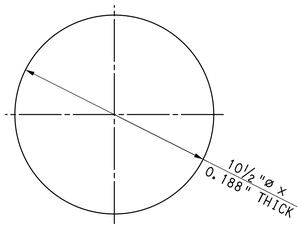
SIDE PTFE PLATE

NOT TO SCALE



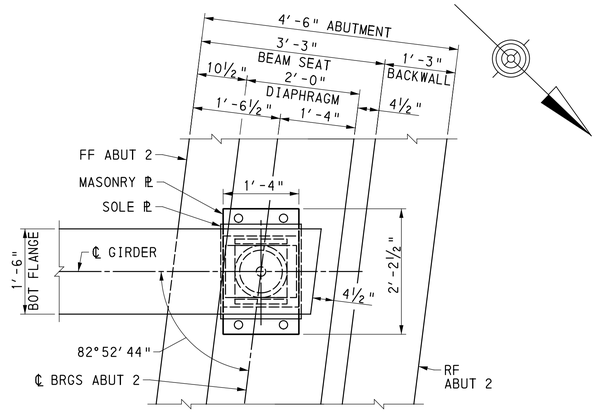
LOWER BEARING PLATE

NOT TO SCALE



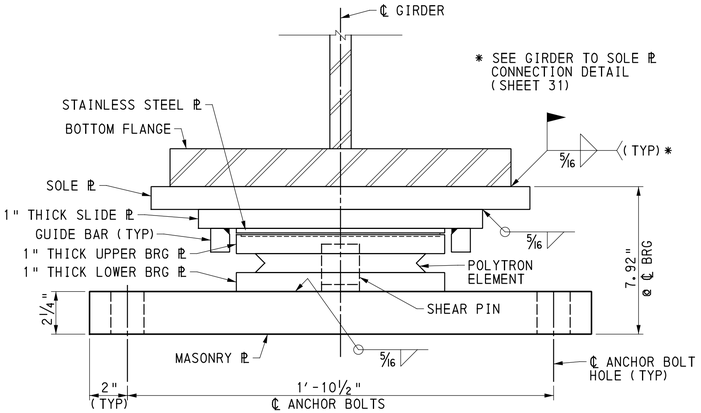
PTFE DISC

NOT TO SCALE



ABUTMENT 2 BEARING PLAN GIRDERS 3-7

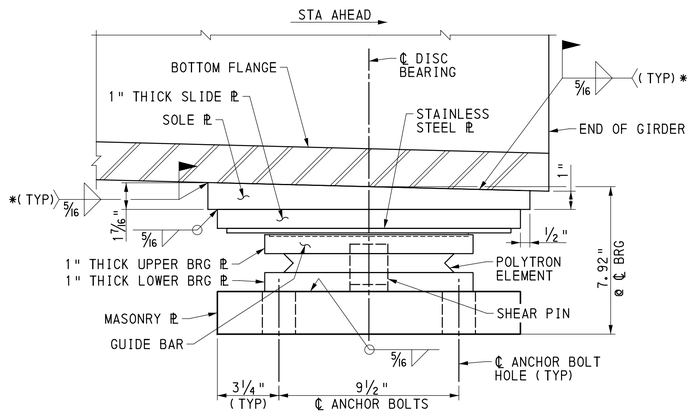
12" 0 12"



END ELEVATION

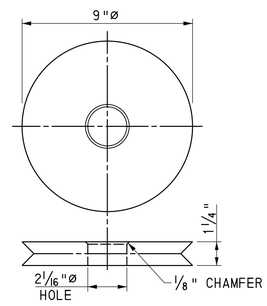
(SIDE PTFE AND SIDE STAINLESS STEEL PLATE NOT SHOWN FOR CLARITY)

3" 0 3"



SIDE ELEVATION

3" 0 3"



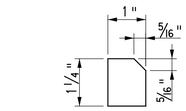
POLYTRON DISC

NOT TO SCALE

NOTES

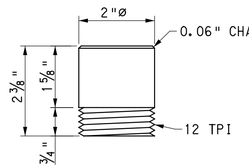
1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER ELEVATION, SEE SHEET 24.
4. FOR BEARING LOCATION PLAN AND LOAD TABLE, SEE SHEET 30.
5. FOR DISC BEARING NOTES AND ANCHOR BOLT DETAIL, SEE SHEET 32.

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



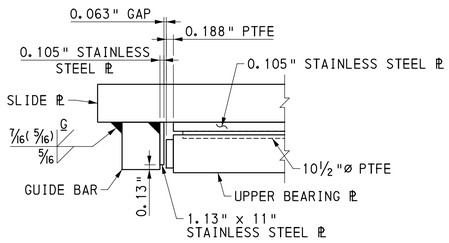
GUIDE BAR DETAIL

NOT TO SCALE



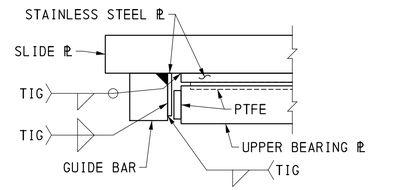
SHEAR PIN

NOT TO SCALE



GUIDE BAR WELD DETAIL

NOT TO SCALE



STAINLESS STEEL WELD DETAIL

NOT TO SCALE

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
GUIDED DISC BEARING (EL-II) DETAILS

RECOMMENDED 2026.06.11

SHEET 33 OF 64

S-40598

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

6/4/2026
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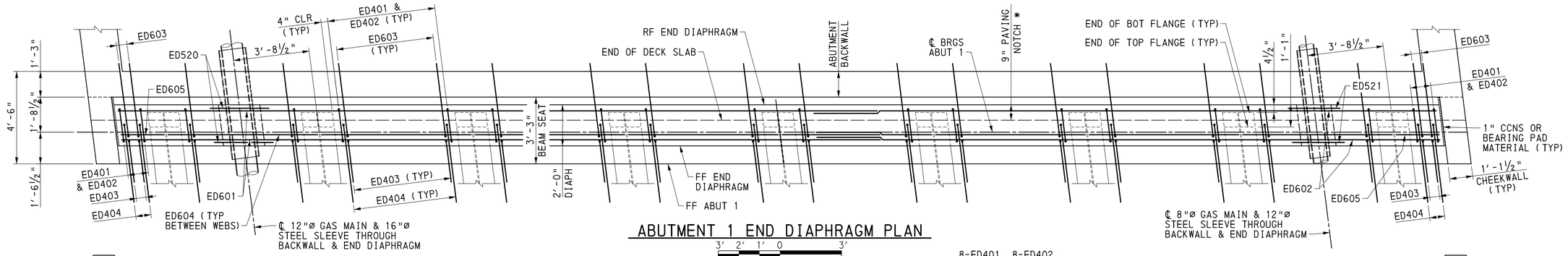
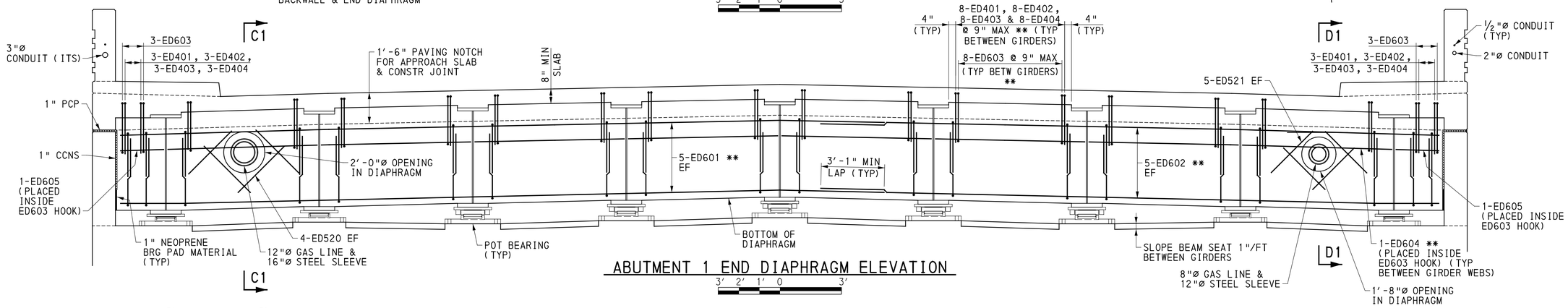
DES: VDL | DWG: STG | CKD: VDL



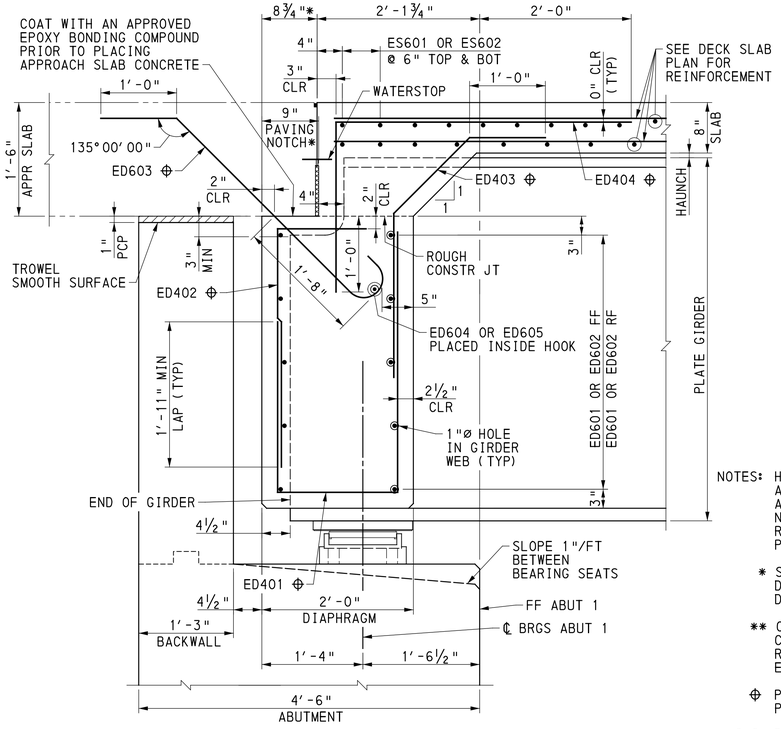
ABUTMENT 1 END DIAPHRAGM PLAN

3' 2' 1' 0 3'



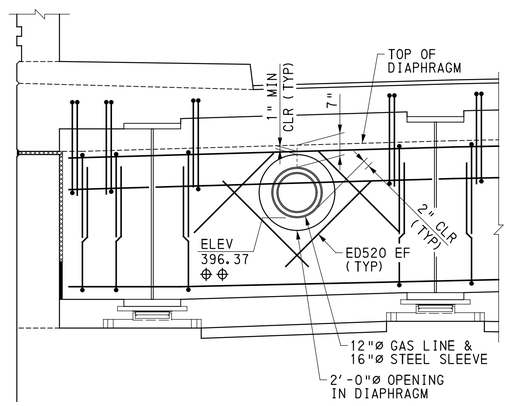
ABUTMENT 1 END DIAPHRAGM ELEVATION

3' 2' 1' 0 3'



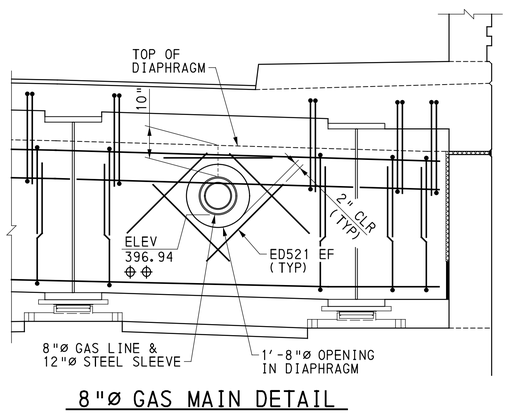
ABUTMENT 1 END DIAPHRAGM TYPICAL SECTION

12" 6" 0 12"



12"ø GAS MAIN DETAIL

2' 1' 0 2'



8"ø GAS MAIN DETAIL

2' 1' 0 2'

NOTES: HORIZONTAL DIMENSIONS ARE PERPENDICULAR TO FF ABUT & DIAPHRAGM EXCEPT NOTED HORIZONTAL LEGS OF REINFORCEMENT PLACED PARALLEL TO ℄ GIRDERS.

* SEE PAVING NOTCH FORMING DETAIL ON APPROACH SLAB DETAILS SHEET.

** CUT OR SHIFT BARS TO AVOID CONFLICT WITH DIAPHRAGM OPENING. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.

⊕ PLACE HORIZONTAL LEG PARALLEL TO ℄ GIRDERS.

⊕⊕ BOTTOM OF STEEL SLEEVE ELEVATIONS ARE GIVEN AT FF DIAPHRAGM. HOLES IN DIAPHRAGMS AND STEEL SLEEVES ARE SLOPED TO GRADE OF ROADWAY.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER DETAILS, SEE SHEET 24.
4. FOR SECTIONS C1-C1 & D1-D1, SEE SHEET 36.
5. FOR DECK SLAB DETAILS, SEE SHEETS 38-39.
6. FOR APPROACH SLAB 1 DETAILS, SEE SHEETS 42-44.
7. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
8. FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 52.
9. PROVIDE PAVING NOTCH OUT-TO-OUT.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 1 END DIAPHRAGM DETAILS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 34 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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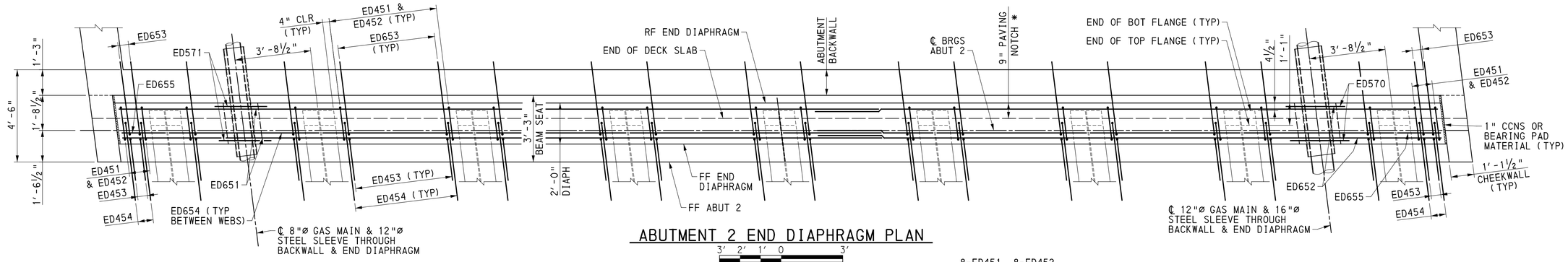
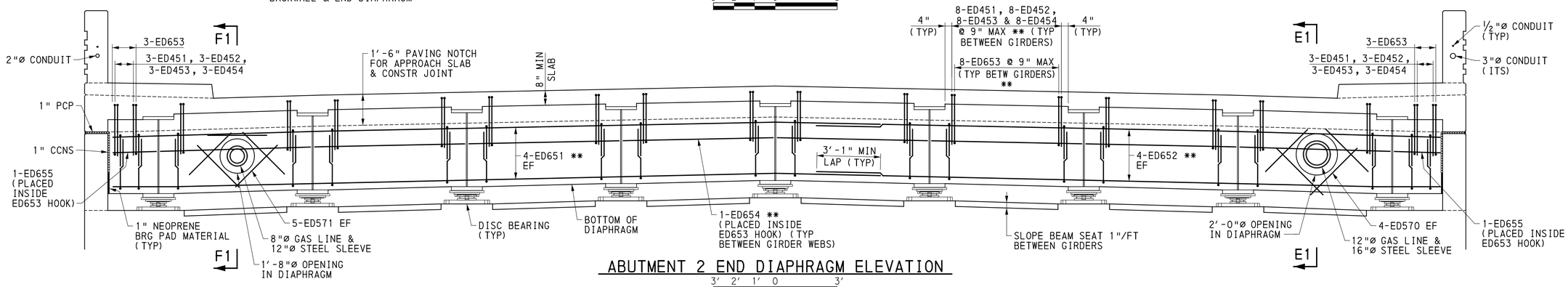


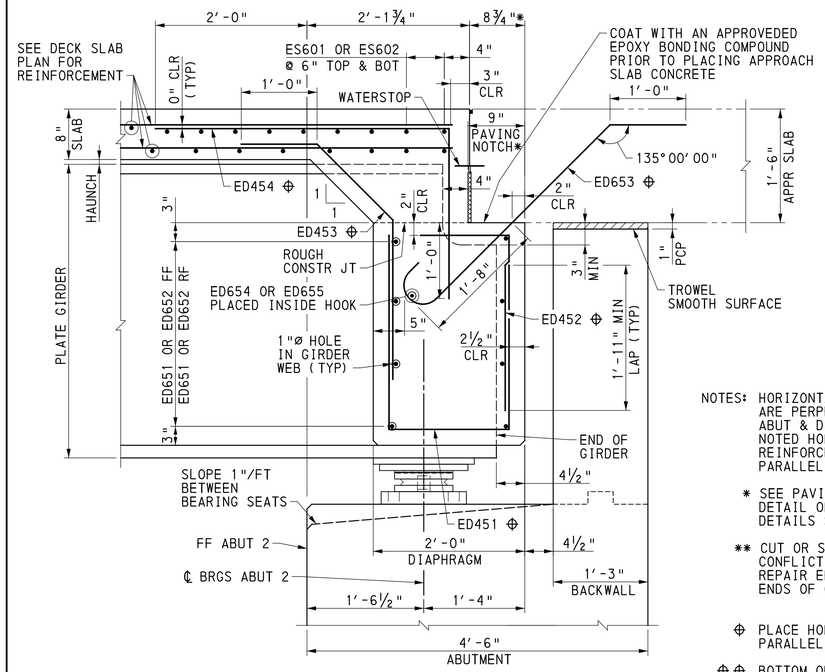
ABUTMENT 2 END DIAPHRAGM PLAN

3' 2' 1' 0 3'



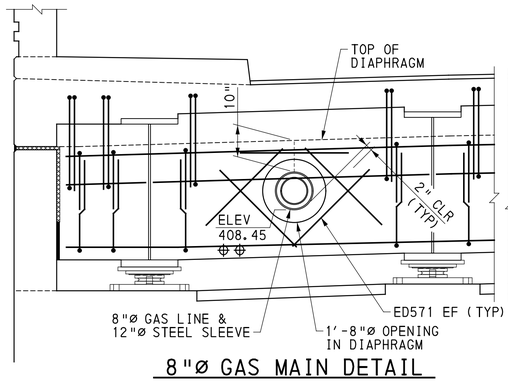
ABUTMENT 2 END DIAPHRAGM ELEVATION

3' 2' 1' 0 3'



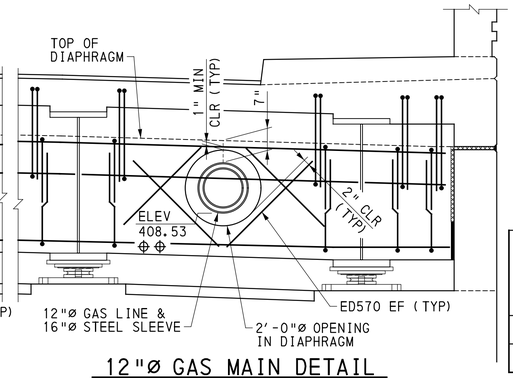
ABUTMENT 2 END DIAPHRAGM TYPICAL SECTION

12" 6" 0 12"



8"Ø GAS MAIN DETAIL

2' 1' 0 2'



12"Ø GAS MAIN DETAIL

2' 1' 0 2'

NOTES: HORIZONTAL DIMENSIONS ARE PERPENDICULAR TO FF ABUT & DIAPHRAGM EXCEPT NOTED HORIZONTAL LEGS OF REINFORCEMENT PLACED PARALLEL TO ℄ GIRDERS.

* SEE PAVING NOTCH FORMING DETAIL ON APPROACH SLAB DETAILS SHEET.

** CUT OR SHIFT BARS TO AVOID CONFLICT WITH DIAPHRAGM OPENING. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.

⊕ PLACE HORIZONTAL LEG PARALLEL TO ℄ GIRDERS.

⊕⊕ BOTTOM OF STEEL SLEEVE ELEVATIONS ARE GIVEN AT FF DIAPHRAGM. HOLES IN DIAPHRAGMS AND STEEL SLEEVES ARE SLOPED TO GRADE OF ROADWAY.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER DETAILS, SEE SHEET 24.
4. FOR SECTIONS E1-E1 & F1-F1, SEE SHEET 36.
5. FOR DECK SLAB DETAILS, SEE SHEETS 38-39.
6. FOR APPROACH SLAB 2 DETAILS, SEE SHEETS 45-47.
7. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
8. FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 52.
9. PROVIDE PAVING NOTCH OUT-TO-OUT.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 END DIAPHRAGM DETAILS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 35 OF 64

S-40598

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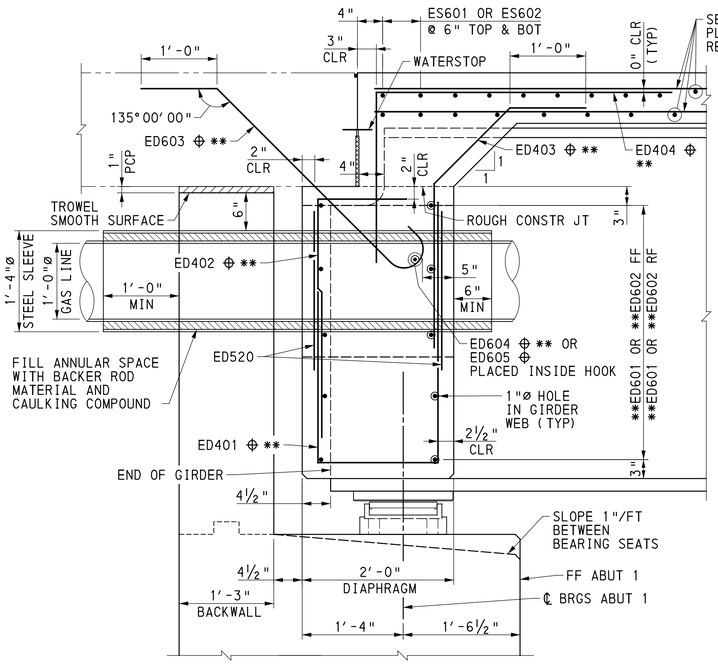
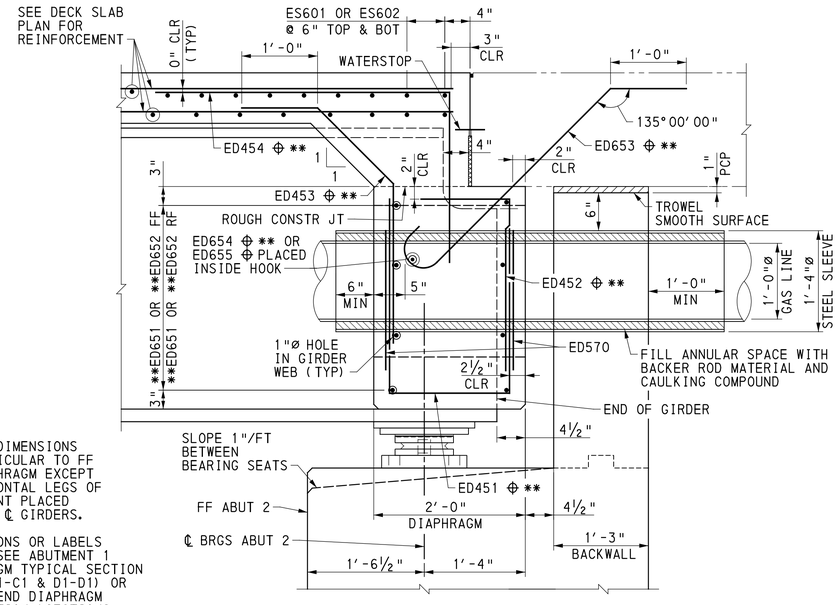


SECTION C1-C1 (SHT 34)

12" 6" 0 12"



SECTION E1-E1 (SHT 35)

12" 6" 0 12"

NOTES: HORIZONTAL DIMENSIONS ARE PERPENDICULAR TO FF ABUT & DIAPHRAGM EXCEPT NOTED HORIZONTAL LEGS OF REINFORCEMENT PLACED PARALLEL TO ℄ GIRDERS.

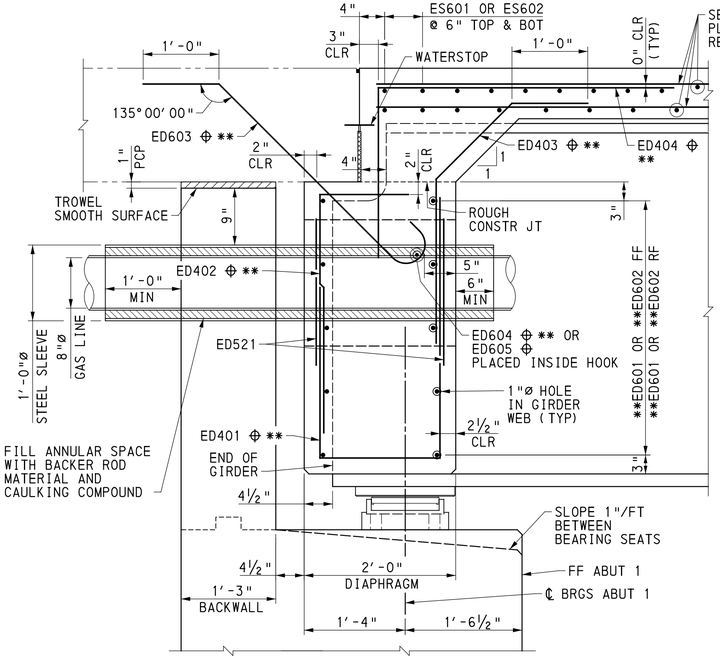
FOR DIMENSIONS OR LABELS NOT SHOWN, SEE ABUTMENT 1 END DIAPHRAGM TYPICAL SECTION (SECTIONS C1-C1 & D1-D1) OR ABUTMENT 2 END DIAPHRAGM TYPICAL SECTION (SECTIONS E1-E1 & F1-F1).

** CUT OR SHIFT BARS TO AVOID CONFLICT WITH DIAPHRAGM OPENING. REPAIR EPOXY COATING AT ENDS OF CUT BARS PER ASTM D 3963.

⊕ PLACE HORIZONTAL LEG PARALLEL TO ℄ GIRDERS.

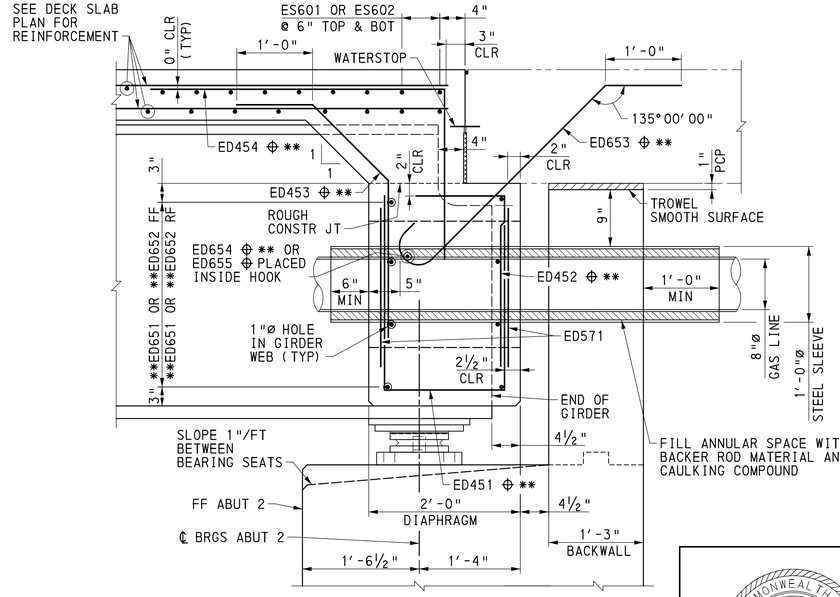
NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR GIRDER DETAILS, SEE SHEET 24.
4. FOR ABUTMENT 1 END DIAPHRAGM TYPICAL SECTION, SEE SHEET 34.
5. FOR ABUTMENT 2 END DIAPHRAGM TYPICAL SECTION, SEE SHEET 35.
6. FOR DECK SLAB DETAILS, SEE SHEETS 38-39.
7. FOR APPROACH SLAB 1 DETAILS, SEE SHEETS 42-44.
8. FOR APPROACH SLAB 2 DETAILS, SEE SHEETS 45-47.
9. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
10. FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 52.
11. PROVIDE PAVING NOTCH OUT-TO-OUT.



SECTION D1-D1 (SHT 34)

12" 6" 0 12"



SECTION F1-F1 (SHT 35)

12" 6" 0 12"

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

END DIAPHRAGM UTILITY SECTIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 36 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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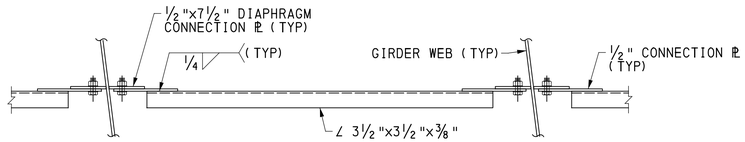
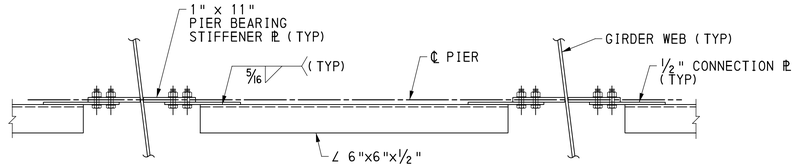
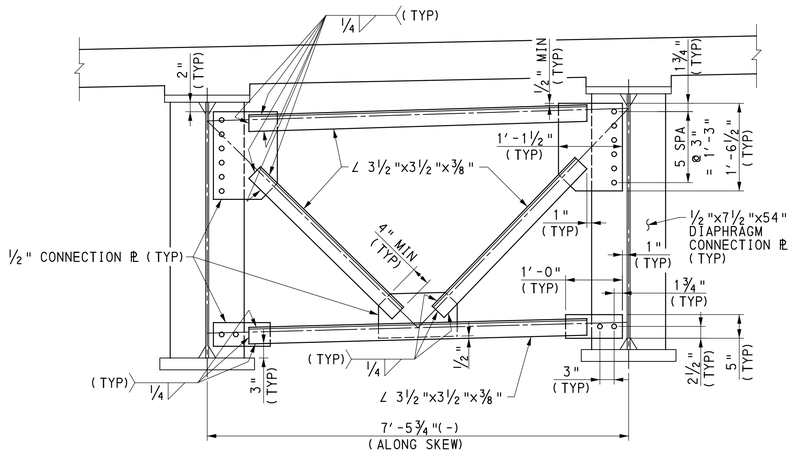


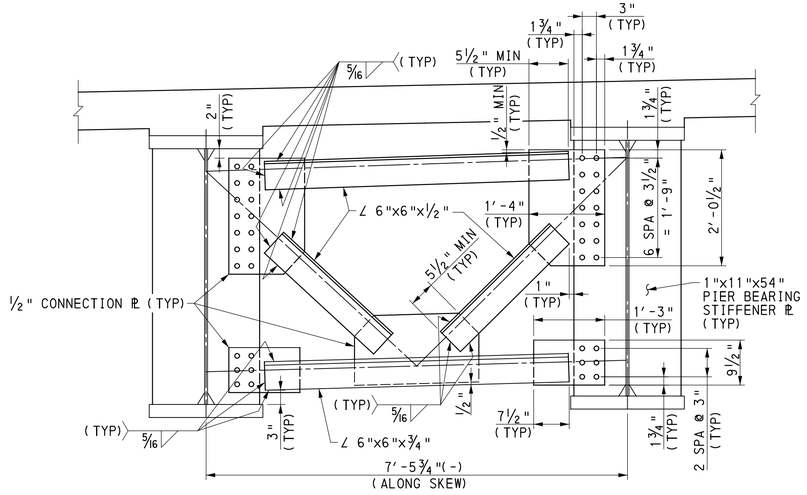
TYPICAL INTERMEDIATE DIAPHRAGM PLAN



TYPICAL PIER DIAPHRAGM PLAN



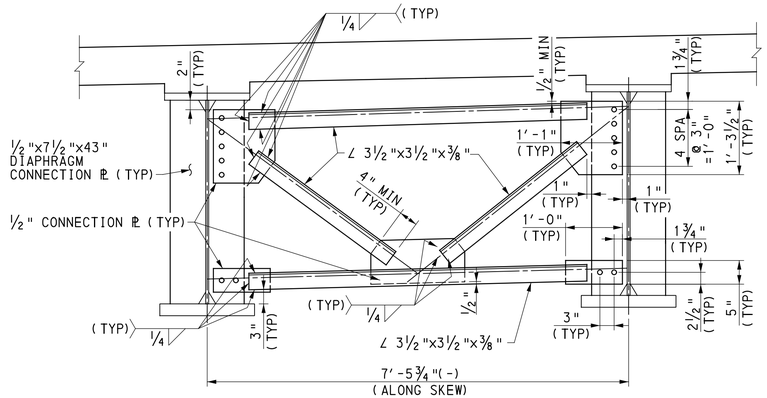
ELEVATION - D1



TYPICAL PIER DIAPHRAGM ELEVATION

PIER DIAPHRAGM DETAILS

12" 0 12"



ELEVATION - D2

INTERMEDIATE DIAPHRAGM DETAILS

12" 0 12"

DIAPHRAGM NOTES

1. DEVELP SHOP DRAWINGS AND ERECTION PROCEDURES THAT DETAIL ALL WEBS VERTICAL UNDER STEEL DEAD LOAD FIT (SDLF) CONDITION.
2. ALL DIAPHRAGM MEMBERS, INCLUDING CONNECTION PLATES TO BE ASTM A709, GRADE 50.
3. USE 7/8"ø ASTM DESIGNATION F3125 GRADE A325 BOLTS HAVING AN UNTHREADED SHANK OF SUFFICIENT LENGTH TO NOT ALLOW ANY THREADS TO EXIST IN THE PLANE BETWEEN THE TWO CONNECTED PARTS (SHEAR PLANE).
4. USE STANDARD SIZE HOLES FOR ALL BOLTS.
5. FOR CHARPY V-NOTCH (CVN) TESTING REQUIREMENTS, SEE STRUCTURAL STEEL NOTES ON THE GENERAL NOTES SHEET.
6. SEE BC-753M FOR BEARING STIFFENER AND CONNECTION PLATE INSTALLATION DETAILS.
7. SEE BC-754M FOR ADDITIONAL DIAPHRAGM DETAILS.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
INTERMEDIATE & PIER DIAPHRAGM DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 37 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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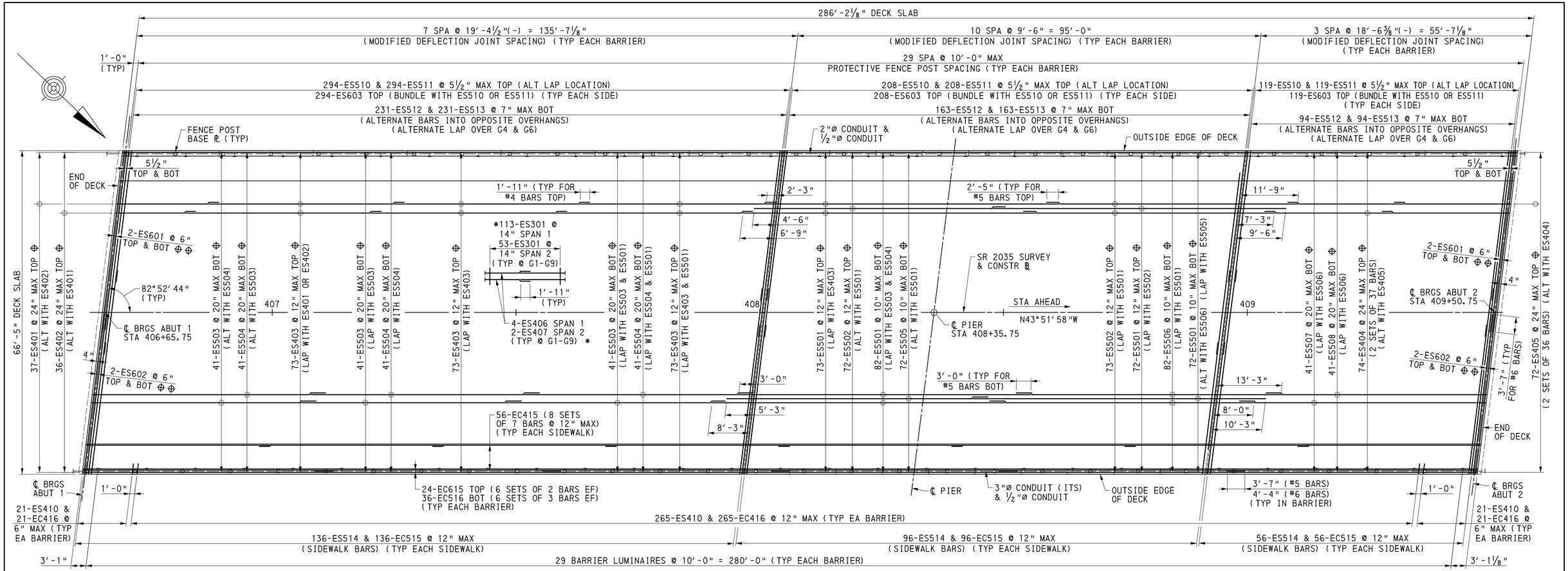
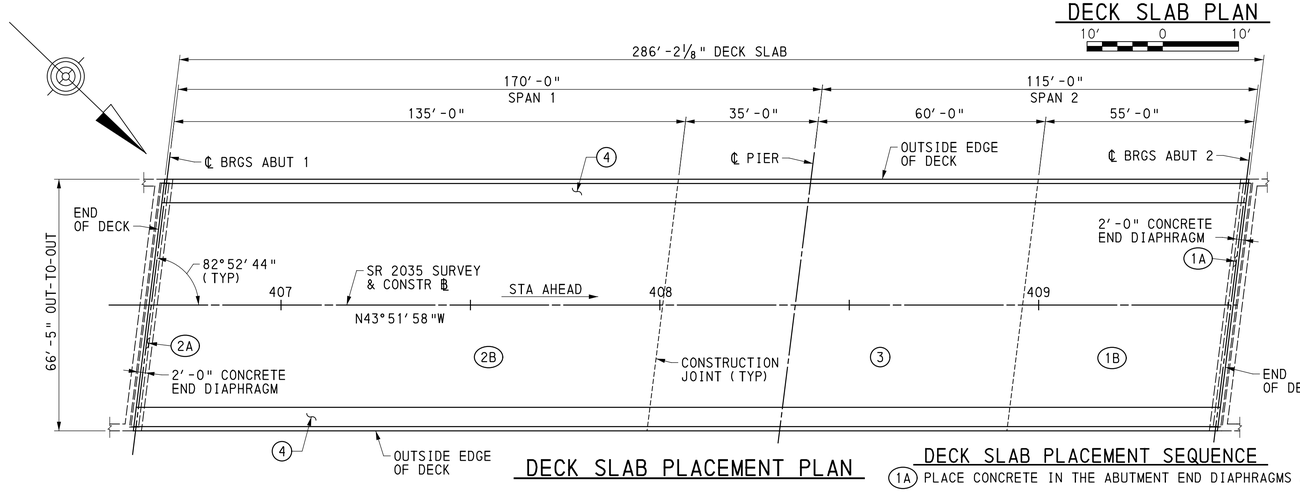


DECK SLAB PLAN



DECK SLAB PLACEMENT PLAN

DECK SLAB PLACEMENT SEQUENCE

(1A) PLACE CONCRETE IN THE ABUTMENT END DIAPHRAGMS AT ABUTMENT 2 (PLACEMENT (1A)).

(1B) WAIT A MINIMUM OF 2 HOURS AFTER PLACEMENT (1A) TO PLACE DECK CONCRETE IN THE SPAN 2 POSITIVE MOMENT REGION BETWEEN CONSTRUCTION JOINTS CONTINUOUSLY (PLACEMENT (1B)). ALLOW 2 DAYS CURING BETWEEN POURS (1B) & (2A).

(2A) PLACE CONCRETE IN THE ABUTMENT END DIAPHRAGMS AT ABUTMENT 1 (PLACEMENT (2A)).

(2B) WAIT A MINIMUM OF 2 HOURS AFTER PLACEMENT (2A) TO PLACE DECK CONCRETE IN THE SPAN 1 POSITIVE MOMENT REGION BETWEEN CONSTRUCTION JOINTS CONTINUOUSLY (PLACEMENT (2B)). ALLOW 2 DAYS CURING BETWEEN POURS (2B) & (3).

(3) PLACE DECK CONCRETE IN THE NEGATIVE MOMENT REGION (PLACEMENT (3)).

(4) PLACE SIDEWALK AND BARRIER CONCRETE IN POSITIVE MOMENT REGION, THEN NEGATIVE MOMENT REGION, UNLESS CONTINUOUS CASTING CAN BE MAINTAINED (PLACEMENT (4)).

NOTES : WHEN TWO DIFFERENT BAR SIZES ARE LAPPED, USE THE REQUIRED LAP LENGTH FOR THE SMALLER BAR.

⊕ SEE TYPICAL DECK REINFORCEMENT SECTIONS FOR PLACEMENT.

⊕⊕ SEE ABUTMENT DIAPHRAGM DETAILS FOR PLACEMENT.

* HAUNCH REINFORCEMENT AT G1-G9 WITH 18" TOP FLANGE (0′-130′ SPAN 1, 55′-115′ SPAN 2)

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT DIAPHRAGM REINFORCEMENT DETAILS, SEE SHEETS 34-36.
3. FOR DECK SLAB REINFORCEMENT SECTIONS & DETAILS, SEE SHEET 39.
4. FOR TYPICAL SECTION & DECK ELEVATIONS, SEE SHEET 40.
5. FOR DECK ELEVATIONS OVER ℄ GIRDERS, SEE SHEET 41.
6. FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 52.
7. FOR ARCHITECTURAL DETAIL NOTES, SEE SHEET 55.
8. FOR ADDITIONAL DETAILS, SEE BC-752M.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

DECK SLAB PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 38 OF 64

S-40598

DES: VDL	DWG: STG	CKD: VDL

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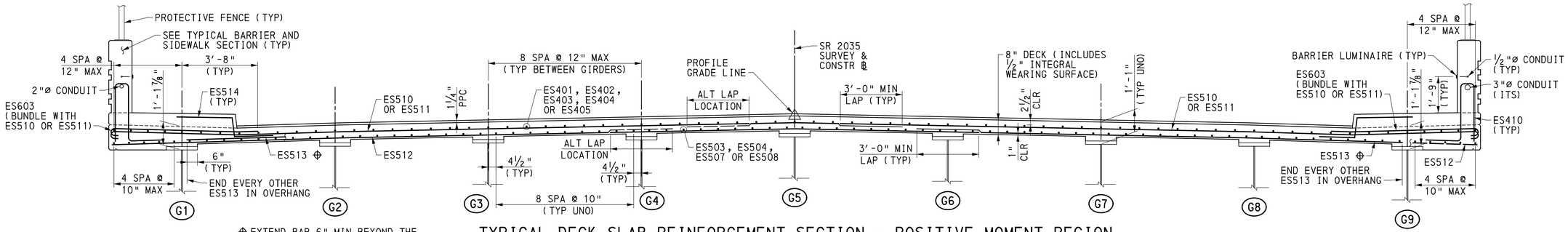
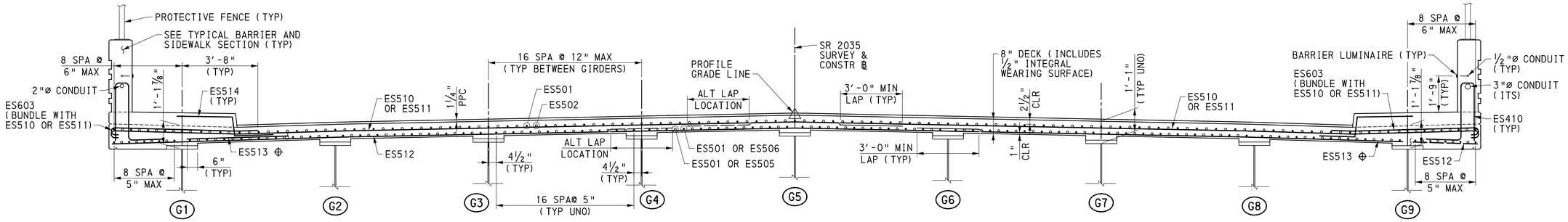


⊕ EXTEND BAR 6" MIN BEYOND THE INTERIOR EDGE OF THE FLANGE OF THE FASCIA BEAM.

TYPICAL DECK SLAB REINFORCEMENT SECTION - POSITIVE MOMENT REGION

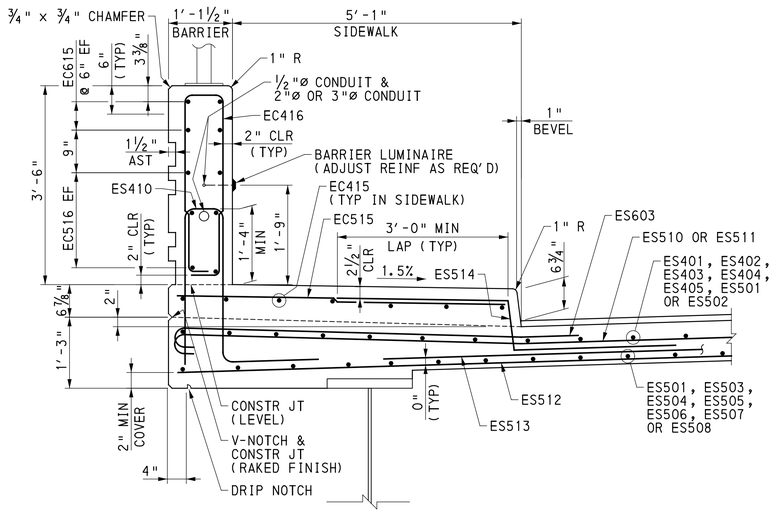
3' 2' 1' 0 3'



⊕ EXTEND BAR 6" MIN BEYOND THE INTERIOR EDGE OF THE FLANGE OF THE FASCIA BEAM.

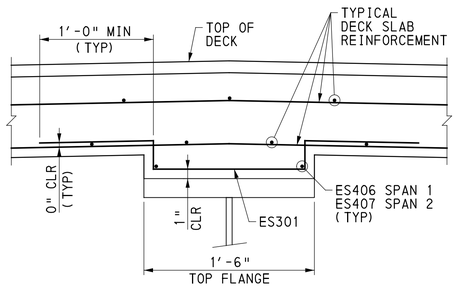
TYPICAL DECK SLAB REINFORCEMENT SECTION - NEGATIVE MOMENT REGION

3' 2' 1' 0 3'



TYPICAL BARRIER & SIDEWALK SECTION

12" 0 12"



HAUNCH REINFORCEMENT DETAIL

6" 0 6"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR DECK SLAB PLAN, SEE SHEET 38.
3. FOR DECK ELEVATIONS, SEE SHEETS 40 & 41.
4. FOR SUPERSTRUCTURE REINFORCEMENT SCHEDULE, SEE SHEET 52.
5. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
DECK SLAB REINFORCEMENT SECTIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 39 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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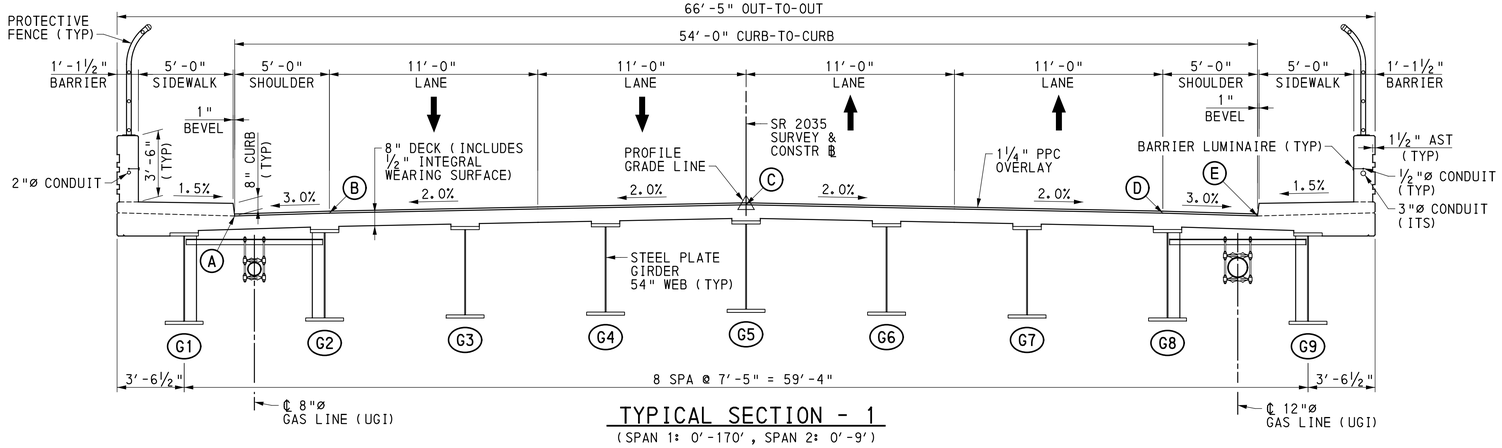
TOP OF DECK ELEVATIONS AT BREAK POINTS *

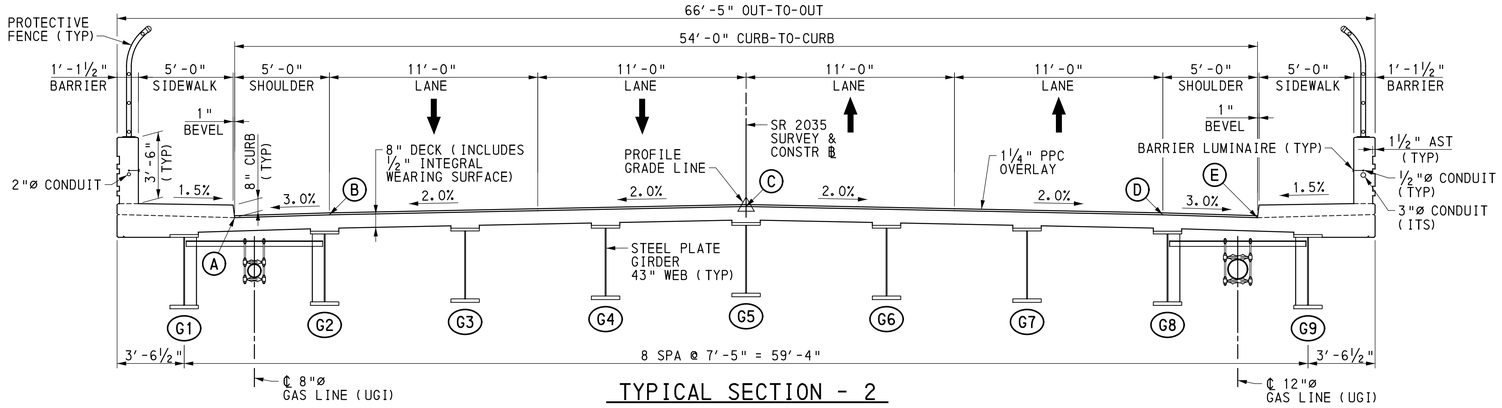
LOCATION	STATION	(A)	(B)	(C)	(D)	(E)
BEGIN APP SLAB 1 @ E	406+32.19	---	---	---	---	397.41
BEGIN APP SLAB 1 @ D	406+32.70	---	---	---	397.60	---
BEGIN APP SLAB 1 @ C	406+35.18	---	---	398.26	---	---
BEGIN APP SLAB 1 @ B	406+37.81	---	397.99	---	---	---
BEGIN APP SLAB 1 @ A	406+38.37	397.88	---	---	---	---
	406+40.00	398.00	398.15	398.62	398.16	398.01
	406+50.00	398.77	398.92	399.37	398.93	398.78
APP SLAB 1 FLARE @ E	406+52.66	---	---	---	---	398.98
APP SLAB 1 FLARE @ D	406+52.51	---	---	---	399.12	---
APP SLAB 1 FLARE @ B	406+52.50	---	399.12	---	---	---
APP SLAB 1 FLARE @ A	406+52.80	398.99	---	---	---	---
	406+60.00	399.53	399.68	400.12	399.68	399.53
BEGIN BRIDGE @ E	406+61.79	---	---	---	---	399.66
BEGIN BRIDGE @ D	406+62.41	---	---	---	399.86	---
BEGIN BRIDGE @ C	406+65.16	---	---	400.50	---	---
BEGIN BRIDGE @ B	406+67.91	---	400.27	---	---	---
BEGIN BRIDGE @ A	406+68.53	400.17	---	---	---	---
	406+70.00	400.28	400.43	400.87	400.43	400.28
	406+80.00	401.03	401.18	401.62	401.18	401.03
	406+90.00	401.77	401.92	402.36	401.92	401.77
	407+00.00	402.52	402.67	403.11	402.67	402.52
	407+10.00	403.27	403.42	403.86	403.42	403.27
	407+20.00	404.02	404.17	404.61	404.17	404.02
	407+30.00	404.77	404.92	405.36	404.92	404.77
	407+40.00	405.52	405.67	406.11	405.67	405.52
	407+50.00	406.27	406.42	406.86	406.42	406.27
	407+60.00	407.02	407.17	407.61	407.17	407.02
	407+70.00	407.76	407.91	408.35	407.91	407.76
	407+80.00	408.44	408.59	409.03	408.59	408.44
	407+90.00	409.07	409.22	409.66	409.22	409.07
	408+00.00	409.65	409.80	410.24	409.80	409.65
	408+10.00	410.18	410.33	410.77	410.33	410.18
	408+20.00	410.65	410.80	411.24	410.80	410.65
	408+30.00	411.06	411.21	411.65	411.21	411.06
℄ PIER @ E	408+32.38	---	---	---	---	411.15
℄ PIER @ D	408+33.00	---	---	---	411.33	---
℄ PIER @ C	408+35.75	---	---	411.87	---	---
℄ PIER @ B	408+38.50	---	411.52	---	---	---
℄ PIER @ A	408+39.12	411.40	---	---	---	---
	408+40.00	411.42	411.57	412.01	411.57	411.42
	408+50.00	411.73	411.88	412.32	411.88	411.73
	408+60.00	411.99	412.14	412.58	412.14	411.99
	408+70.00	412.19	412.34	412.78	412.34	412.19
	408+80.00	412.33	412.48	412.92	412.48	412.33
	408+90.00	412.42	412.57	413.01	412.57	412.42
	409+00.00	412.46	412.61	413.05	412.61	412.46
	409+10.00	412.44	412.59	413.03	412.59	412.44
	409+20.00	412.37	412.52	412.96	412.52	412.37
	409+30.00	412.24	412.39	412.83	412.39	412.24
	409+40.00	412.06	412.21	412.65	412.21	412.06
END BRIDGE @ E	409+47.97	---	---	---	---	411.88
END BRIDGE @ D	409+48.59	---	---	---	412.02	---
	409+50.00	411.83	411.98	412.42	411.98	411.83
END BRIDGE @ C	409+51.34	---	---	412.39	---	---
END BRIDGE @ B	409+54.16	---	411.87	---	---	---
END BRIDGE @ A	409+54.83	411.71	---	---	---	---
	409+60.00	411.58	411.73	412.17	411.73	411.58
	409+70.00	411.32	411.47	411.91	411.47	411.32
END APP SLAB 2 @ E	409+76.84	---	---	---	---	411.15
END APP SLAB 2 @ D	409+77.66	---	---	---	411.28	---
	409+80.00	411.07	411.22	411.66	---	---
END APP SLAB 2 @ C	409+81.45	---	---	411.62	---	---
END APP SLAB 2 @ B	409+85.56	---	411.08	---	---	---
END APP SLAB 2 @ A	409+86.54	410.91	---	---	---	---



TYPICAL SECTION - 1

(SPAN 1: 0'-170', SPAN 2: 0'-9')

4' 2' 0 4'



TYPICAL SECTION - 2

(SPAN 2: 16.5'-115')

4' 2' 0 4'

(NOTE: SPAN 2 FROM 9'-16.5' = VARIABLE DEPTH WEB)

*NOTE:

PROVIDED DECK ELEVATIONS ARE TO TOP OF CIP CONCRETE DECK (BELOW PPC OVERLAY).

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.
4. (G3) DENOTES GIRDER NUMBER.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

TYPICAL SECTION & DECK ELEVATIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

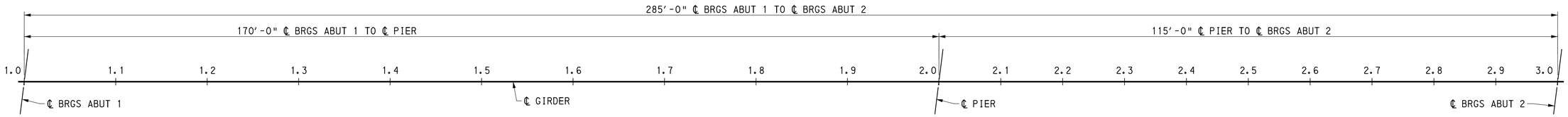
RECOMMENDED 2026.06.11

SHEET 40 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
c:\dms\kci-projects_02\scott.grey\dms5127893\rd St_Typ Sect - Deck Elevs.dgn



DECK ELEVATION GIRDER SCHEMATIC

10′ 0 10′

TOP OF DECK ELEVATIONS OVER ℄ BEAMS *

LOCATION	GIRDER 1		GIRDER 2		GIRDER 3		GIRDER 4		GIRDER 5		GIRDER 6		GIRDER 7		GIRDER 8		GIRDER 9	
	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV
℄ BRGS ABUT 1	406+69.46	400.24	406+68.53	400.31	406+67.60	400.39	406+66.68	400.47	406+65.75	400.55	406+64.82	400.33	406+63.90	400.11	406+62.97	399.89	406+62.04	399.68
1.1	406+86.46	401.51	406+85.53	401.58	406+84.60	401.66	406+83.68	401.74	406+82.75	401.82	406+81.82	401.60	406+80.90	401.38	406+79.97	401.16	406+79.04	400.95
1.2	407+03.46	402.78	407+02.53	402.86	407+01.60	402.94	407+00.68	403.02	406+99.75	403.10	406+98.82	402.88	406+97.90	402.66	406+96.97	402.44	406+96.04	402.23
1.3	407+20.46	404.06	407+19.53	404.13	407+18.60	404.21	407+17.68	404.29	407+16.75	404.37	407+15.82	404.15	407+14.90	403.93	407+13.97	403.71	407+13.04	403.50
1.4	407+37.46	405.33	407+36.53	405.40	407+35.60	405.48	407+34.68	405.56	407+33.75	405.64	407+32.82	405.42	407+31.90	405.20	407+30.97	404.98	407+30.04	404.77
1.5	407+54.46	406.60	407+53.53	406.68	407+52.60	406.76	407+51.68	406.84	407+50.75	406.92	407+49.82	406.70	407+48.90	406.48	407+47.97	406.26	407+47.04	406.05
1.6	407+71.46	407.86	407+70.53	407.94	407+69.60	408.02	407+68.68	408.10	407+67.75	408.18	407+66.82	407.97	407+65.90	407.75	407+64.97	407.53	407+64.04	407.32
1.7	407+88.46	408.98	407+87.53	409.07	407+86.60	409.16	407+85.68	409.25	407+84.75	409.34	407+83.82	409.13	407+82.90	408.92	407+81.97	408.71	407+81.04	408.51
1.8	408+05.46	409.95	408+04.53	410.04	408+03.60	410.14	408+02.68	410.24	408+01.75	410.34	408+00.82	410.14	407+99.90	409.94	407+98.97	409.74	407+98.04	409.54
1.9	408+22.46	410.75	408+21.53	410.86	408+20.60	410.97	408+19.68	411.07	408+18.75	411.18	408+17.82	410.99	408+16.90	410.80	408+15.97	410.60	408+15.04	410.42
℄ PIER	408+39.46	411.41	408+38.53	411.52	408+37.60	411.64	408+36.68	411.75	408+35.75	411.87	408+34.82	411.69	408+33.90	411.50	408+32.97	411.32	408+32.04	411.14
2.1	408+50.96	411.76	408+50.03	411.88	408+49.10	412.00	408+48.18	412.12	408+47.25	412.24	408+46.32	412.07	408+45.40	411.89	408+44.47	411.71	408+43.54	411.54
2.2	408+62.46	412.04	408+61.53	412.16	408+60.60	412.29	408+59.68	412.42	408+58.75	412.55	408+57.82	412.38	408+56.90	412.20	408+55.97	412.03	408+55.04	411.87
2.3	408+73.96	412.25	408+73.03	412.38	408+72.10	412.51	408+71.18	412.65	408+70.25	412.78	408+69.32	412.62	408+68.40	412.45	408+67.47	412.28	408+66.54	412.12
2.4	408+85.46	412.39	408+84.53	412.52	408+83.60	412.66	408+82.68	412.80	408+81.75	412.94	408+80.82	412.78	408+79.90	412.62	408+78.97	412.46	408+78.04	412.31
2.5	408+96.96	412.45	408+96.03	412.59	408+95.10	412.74	408+94.18	412.88	408+93.25	413.03	408+92.32	412.88	408+91.40	412.72	408+90.47	412.56	408+89.54	412.42
2.6	409+08.46	412.45	409+07.53	412.59	409+06.60	412.75	409+05.68	412.90	409+04.75	413.05	409+03.82	412.90	409+02.90	412.75	409+01.97	412.60	409+01.04	412.46
2.7	409+19.96	412.37	409+19.03	412.52	409+18.10	412.68	409+17.18	412.84	409+16.25	412.99	409+15.32	412.85	409+14.40	412.71	409+13.47	412.56	409+12.54	412.43
2.8	409+31.46	412.22	409+30.53	412.38	409+29.60	412.54	409+28.68	412.70	409+27.75	412.87	409+26.82	412.73	409+25.90	412.59	409+24.97	412.45	409+24.04	412.32
2.9	409+42.96	412.00	409+42.03	412.16	409+41.10	412.33	409+40.18	412.50	409+39.25	412.67	409+38.32	412.54	409+37.40	412.41	409+36.47	412.27	409+35.54	412.15
℄ BRGS ABUT 2	409+54.58	411.72	409+53.58	411.88	409+52.60	412.06	409+51.68	412.23	409+50.75	412.40	409+49.82	412.28	409+48.90	412.15	409+47.97	412.02	409+47.04	411.90

*NOTE: PROVIDED DECK ELEVATIONS ARE TO TOP OF CIP CONCRETE DECK (BELOW PPC OVERLAY).

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR FRAMING PLAN, SEE SHEET 23.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
DECK ELEVATIONS - 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

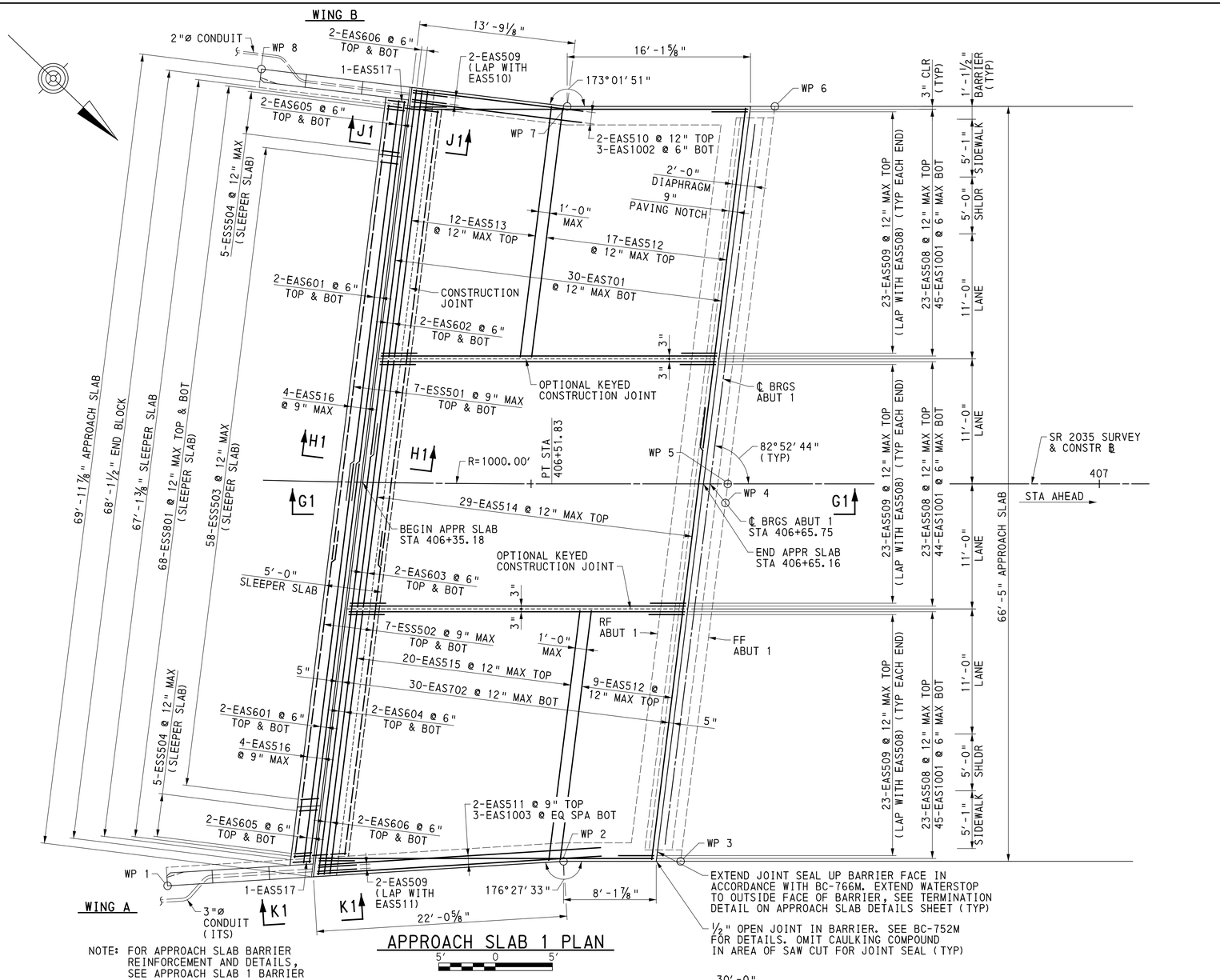
RECOMMENDED 2026.06.11

SHEET 41 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

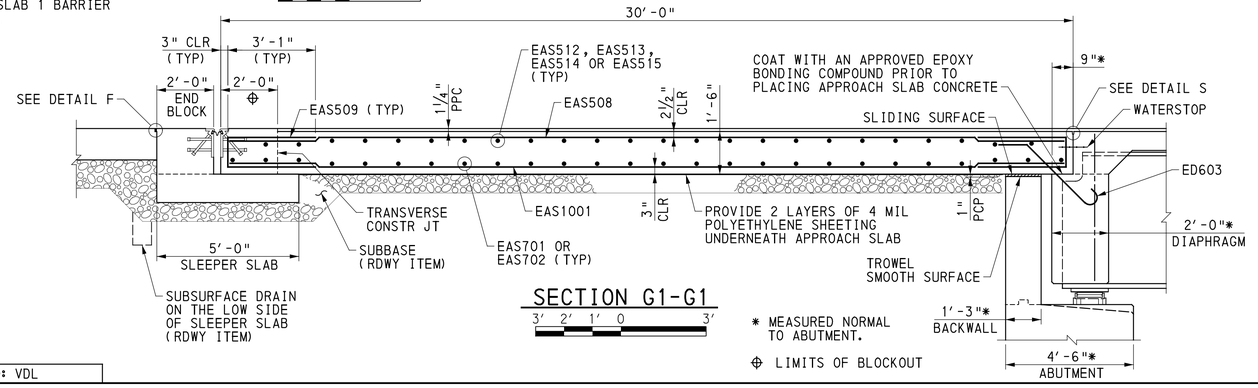
6/4/2026
c:\dms\kci-projects_02\scott.grey\dms512783\3rd St_Typ Sect - Deck Elevs.dgn



NOTE: FOR APPROACH SLAB BARRIER REINFORCEMENT AND DETAILS, SEE APPROACH SLAB 1 BARRIER DETAILS SHEET.

APPROACH SLAB 1 PLAN

5' 0 5'



SECTION G1-G1

3' 2' 1' 0 3'

* MEASURED NORMAL TO ABUTMENT.

⊕ LIMITS OF BLOCKOUT

MIN BAR LAP LENGTHS	
BAR SIZE	APPROACH SLAB
#5	3'-4"
#6	3'-8"
#7	4'-3"

NOTE : THESE LAP LENGTHS APPLY FOR ALL APPROACH SLAB BARS UNLESS NOTED OTHERWISE.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR TOP OF APPROACH SLAB 1 ELEVATIONS, SEE SHEET 40.
3. FOR APPROACH SLAB 1 SECTION, DETAIL F, SECTIONS H1-H1 & J1-J1, SEE SHEET 43.
4. FOR APPROACH SLAB 1 BARRIER DETAILS. SEE SHEET 44.
5. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
6. FOR DETAIL S, SEE SHEET 48.
7. FOR VIEW K1-K1, SEE SHEET 49.
8. FOR APPROACH SLAB 1 REINFORCEMENT SCHEDULE, SEE SHEET 53.
9. PROVIDE PAVING NOTCH OUT-TO-OUT.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
APPROACH SLAB 1 - PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 42 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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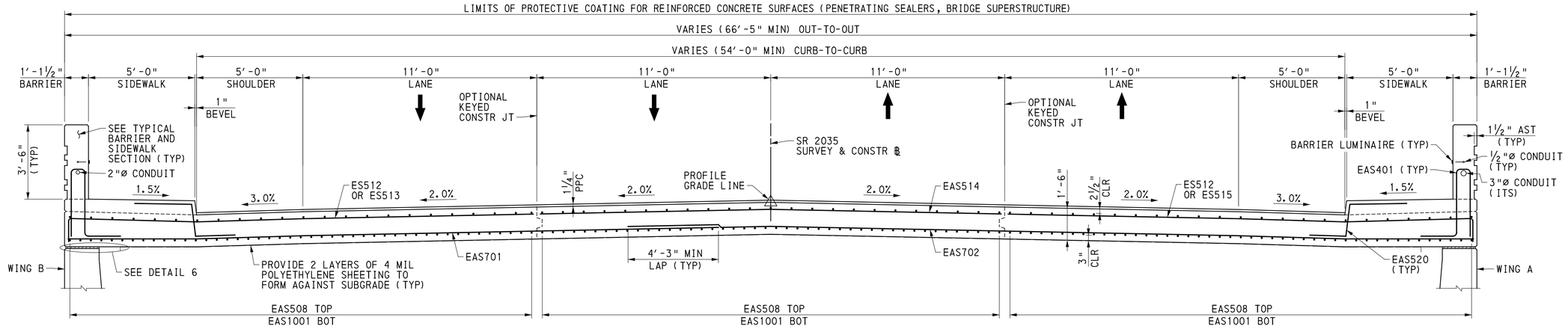
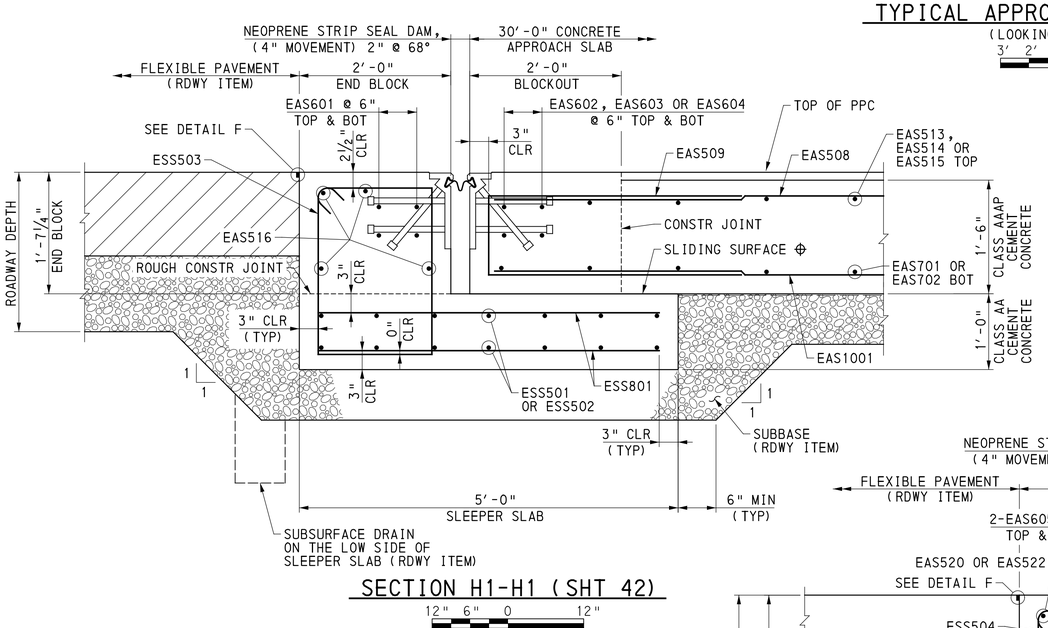


TYPICAL APPROACH SLAB 1 SECTION

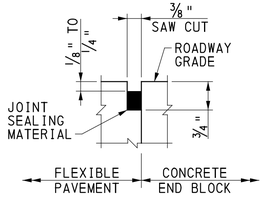
(LOOKING STATIONS AHEAD)

3' 2' 1' 0 3'



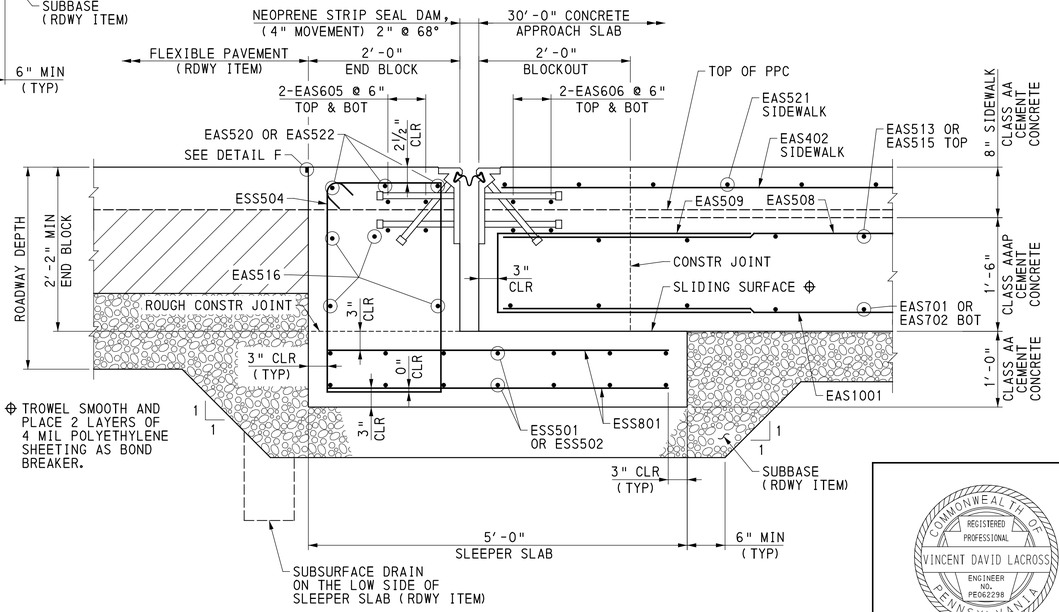
SECTION H1-H1 (SHT 42)

12" 6" 0 12"



DETAIL F

NOT TO SCALE



SECTION J1-J1 (SHTS 42 & 44)

12" 6" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR APPROACH SLAB 1 PLAN AND LOCATION OF SECTIONS H1-H1 & J1-J1, SEE SHEET 42.
3. FOR APPROACH SLAB 1 BARRIER DETAILS, SEE SHEETS 44.
4. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
5. FOR APPROACH SLAB 1 REINFORCEMENT SCHEDULE, SEE SHEET 53.
6. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

APPROACH SLAB 1 - SECTIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 43 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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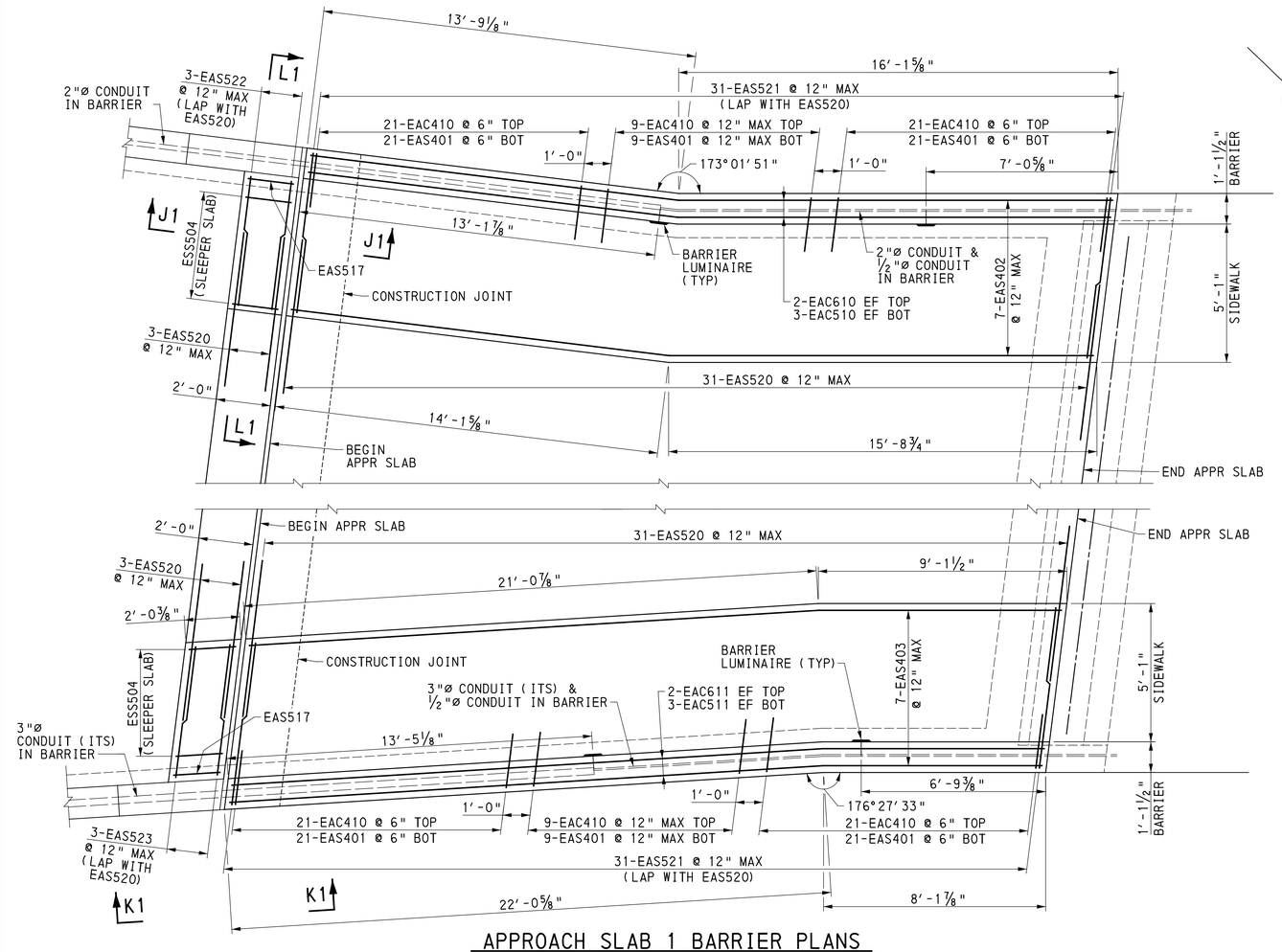
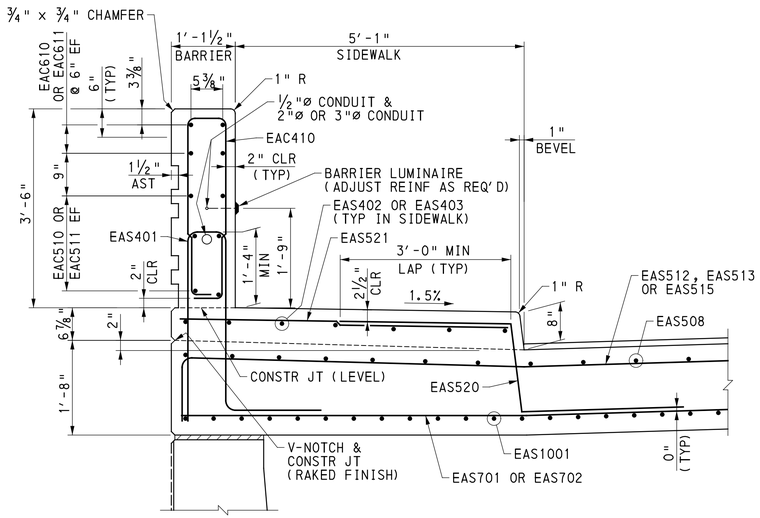


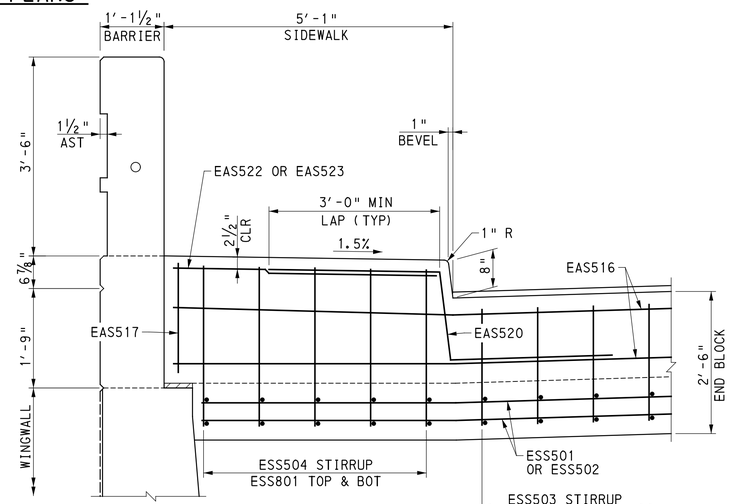
APPROACH SLAB 1 BARRIER PLANS

3′ 2′ 1′ 0 3′



TYPICAL APPROACH SLAB 1 BARRIER & SIDEWALK SECTION

12" 0 12"



SECTION L1-L1

(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND)

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR TOP OF APPROACH SLAB 1 ELEVATIONS, SEE SHEET 40.
3. FOR APPROACH SLAB 1 SECTIONS INCLUDING SECTION J1-J1, SEE SHEET 43.
4. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
5. FOR VIEW K1-K1, SEE SHEET 49.
6. FOR APPROACH SLAB 1 REINFORCEMENT SCHEDULE, SEE SHEET 53.
7. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

APPROACH SLAB 1 - BARRIER DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 44 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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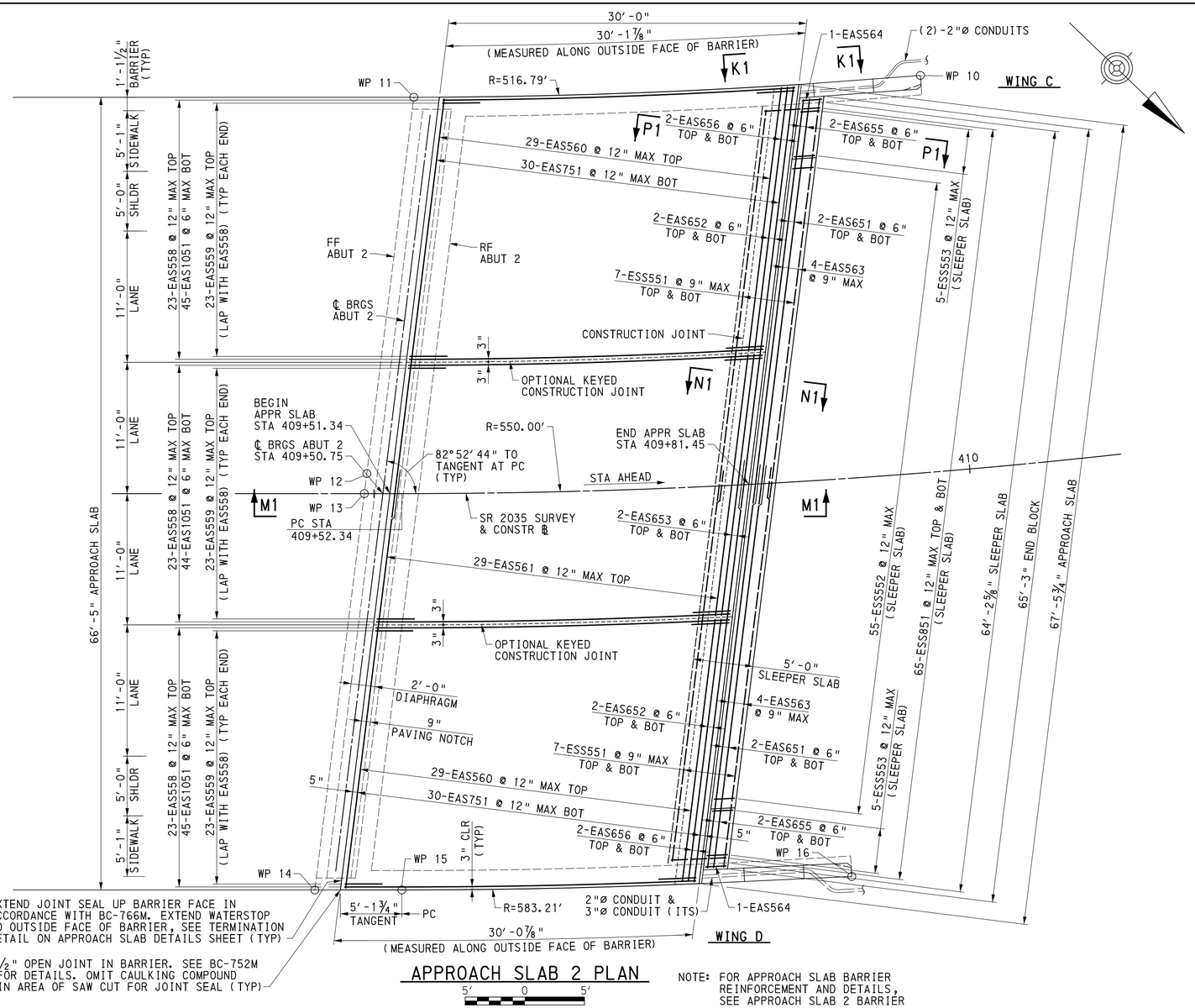
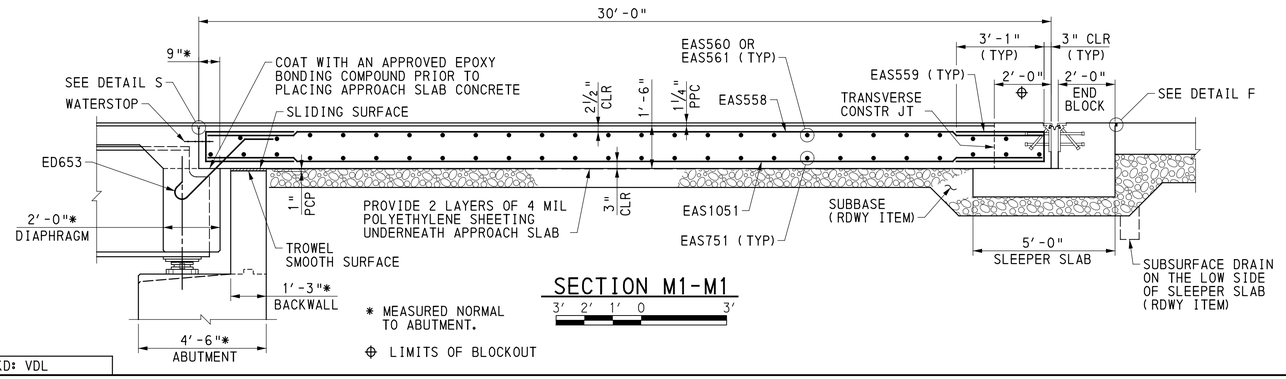


APPROACH SLAB 2 PLAN

5' 0 5'

NOTE: FOR APPROACH SLAB BARRIER REINFORCEMENT AND DETAILS, SEE APPROACH SLAB 2 BARRIER DETAILS SHEET.



SECTION M1-M1

3' 2' 1' 0 3'

* MEASURED NORMAL TO ABUTMENT.

⊕ LIMITS OF BLOCKOUT

MIN BAR LAP LENGTHS	
BAR SIZE	APPROACH SLAB
#5	3'-4"
#6	3'-8"
#7	4'-3"

NOTE : THESE LAP LENGTHS APPLY FOR ALL APPROACH SLAB BARS UNLESS NOTED OTHERWISE.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR TOP OF APPROACH SLAB 2 ELEVATIONS, SEE SHEET 40.
3. FOR APPROACH SLAB 2 SECTION, DETAIL F, SECTIONS N1-N1 & P1-P1, SEE SHEET 46.
4. FOR APPROACH SLAB 2 BARRIER DETAILS. SEE SHEET 47.
5. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
6. FOR DETAIL S, SEE SHEET 48.
7. FOR VIEW K1-K1, SEE SHEET 49.
8. FOR APPROACH SLAB 2 REINFORCEMENT SCHEDULE, SEE SHEET 53.
9. PROVIDE PAVING NOTCH OUT-TO-OUT.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
APPROACH SLAB 2 - PLAN

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL VINCENT DAVID LACROSS ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 45 OF 64

S-40598

DES: VDL	DWG: STG	CKD: VDL

6/4/2026
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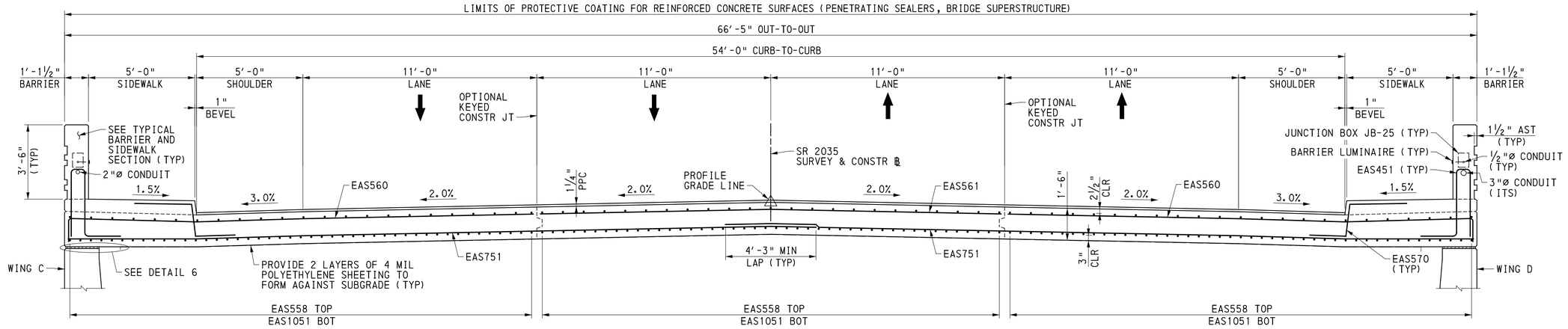
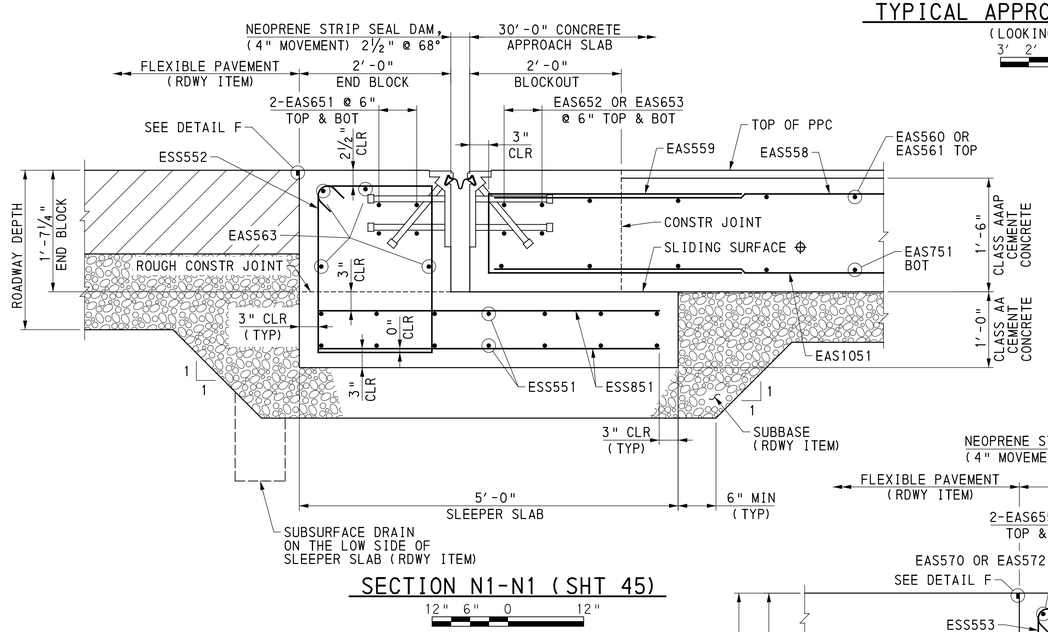


TYPICAL APPROACH SLAB 2 SECTION

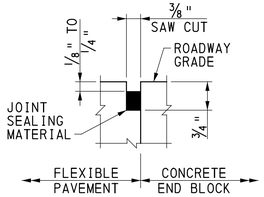
(LOOKING STATIONS AHEAD)

3' 2' 1' 0 3'



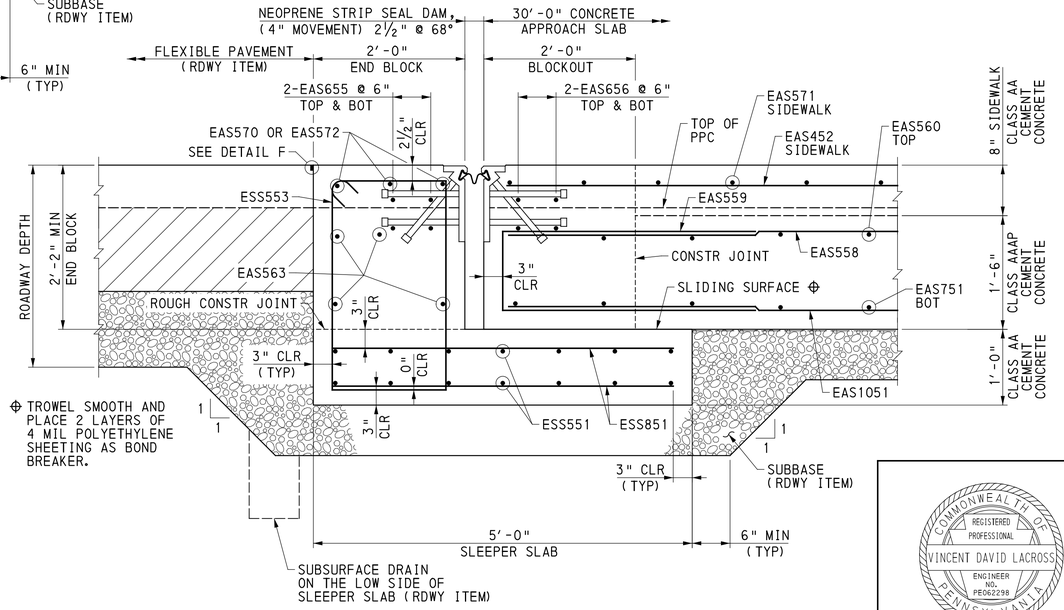
SECTION N1-N1 (SHT 45)

12" 6" 0 12"



DETAIL F

NOT TO SCALE



⊕ TROWEL SMOOTH AND PLACE 2 LAYERS OF 4 MIL POLYETHYLENE SHEETING AS BOND BREAKER.

SECTION P1-P1 (SHTS 45 & 47)

12" 6" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR APPROACH SLAB 2 PLAN AND LOCATION OF SECTIONS N1-N1 & P1-P1, SEE SHEET 45.
3. FOR APPROACH SLAB 2 BARRIER DETAILS, SEE SHEETS 47
4. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
5. FOR APPROACH SLAB 2 REINFORCEMENT SCHEDULE, SEE SHEET 53.
6. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

APPROACH SLAB 2 - SECTIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

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SHEET 46 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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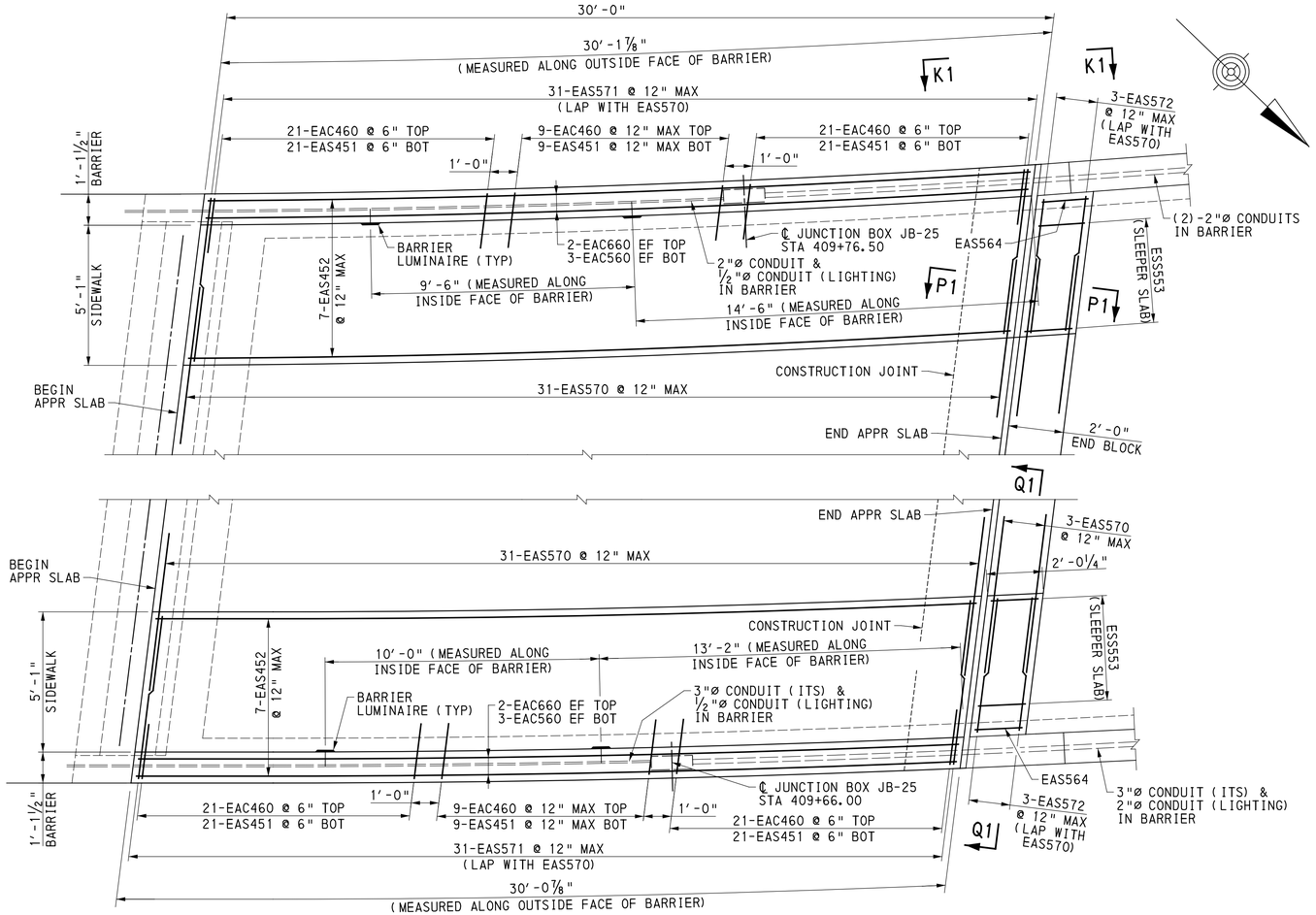
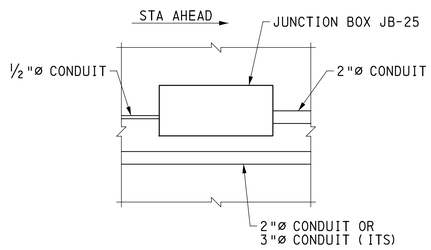


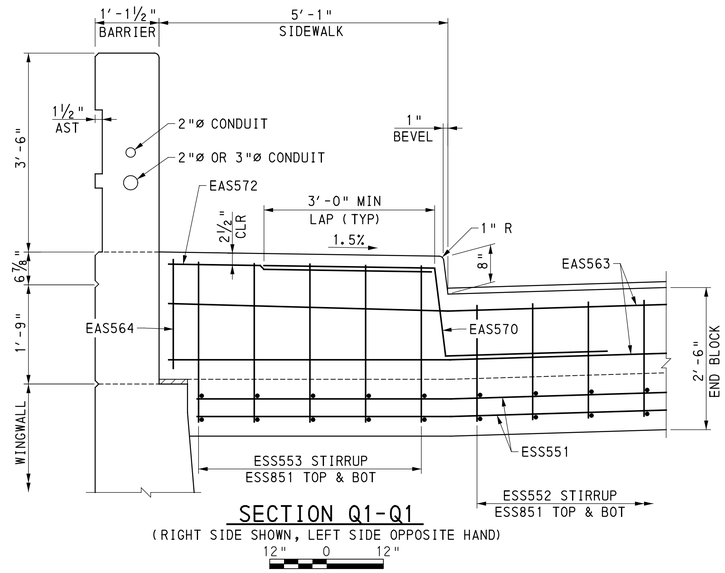
APPROACH SLAB 2 BARRIER PLANS

3' 2' 1' 0 3'



JUNCTION BOX ELEVATION

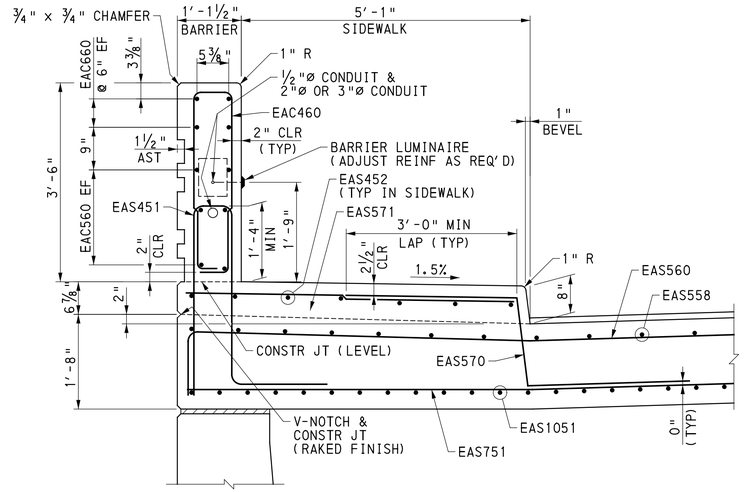
12" 6" 0 12"



SECTION Q1-Q1

(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE HAND)

12" 0 12"



TYPICAL APPROACH SLAB 2 BARRIER & SIDEWALK SECTION

12" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR TOP OF APPROACH SLAB 2 ELEVATIONS, SEE SHEET 40.
3. FOR APPROACH SLAB 2 SECTIONS INCLUDING SECTION P1-P1, SEE SHEET 46.
4. FOR TYPICAL APPROACH SLAB DETAILS, SEE SHEETS 48-49.
5. FOR VIEW K1-K1, SEE SHEET 49.
6. FOR APPROACH SLAB 2 REINFORCEMENT SCHEDULE, SEE SHEET 53.
7. FOR ARCHITECTURAL SURFACE DETAILS, SEE SHEETS 54-55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

APPROACH SLAB 2 - BARRIER DETAILS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

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SHEET 47 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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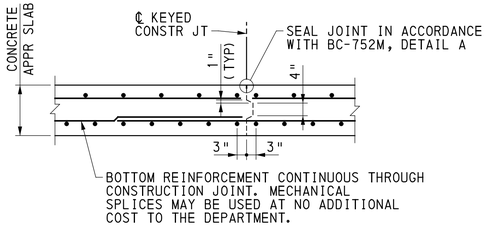
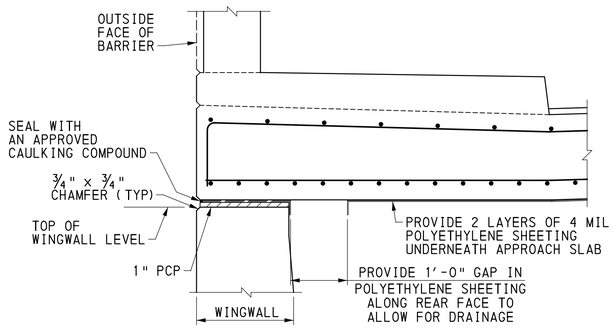


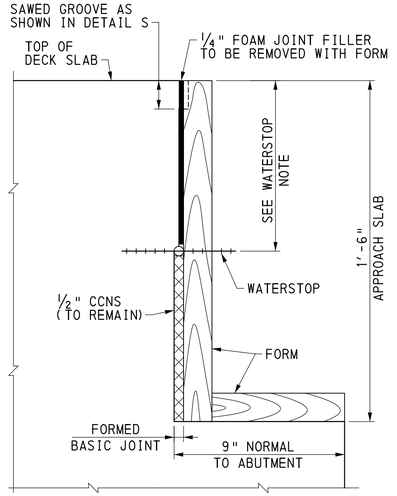
KEYED CONSTRUCTION JOINT DETAIL

NOT TO SCALE



DETAIL 6

12" 0 12"

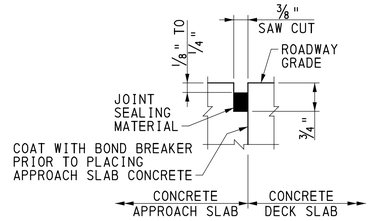


PAVING NOTCH FORMING DETAIL

3" 0 3"

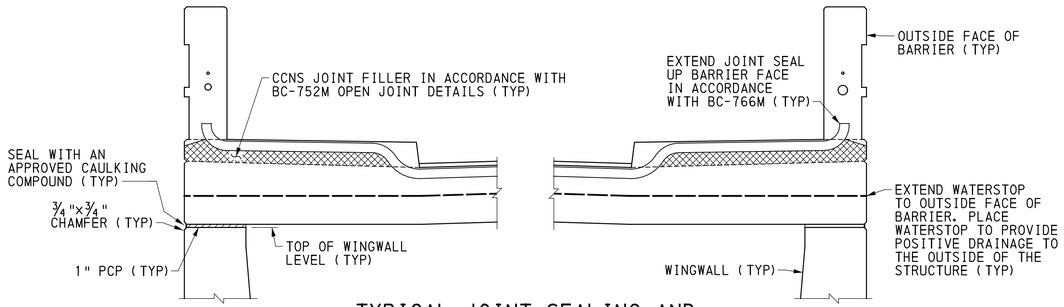
WATERSTOP NOTE:

AN EXPANSION WATERSTOP (TYPE E1 OR E2), IN ACCORDANCE WITH BC-735M, MUST BE INSTALLED AT MID-DEPTH OF APPROACH SLAB. PLACE WATERSTOP TO PROVIDE POSITIVE DRAINAGE TO THE OUTSIDE OF THE STRUCTURE.



DETAIL S

NOT TO SCALE



TYPICAL JOINT SEALING AND WATERSTOP TERMINATION DETAIL

2' 1' 0 2'

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR APPROACH SLAB 1 PLAN & DETAILS. SEE SHEETS 42-44.
3. FOR APPROACH SLAB 2 PLAN & DETAILS, SEE SHEETS 45-47.
4. FOR APPROACH SLAB REINFORCEMENT SCHEDULE, SEE SHEET 53.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
TYPICAL APPROACH SLAB DETAILS - 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

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SHEET 48 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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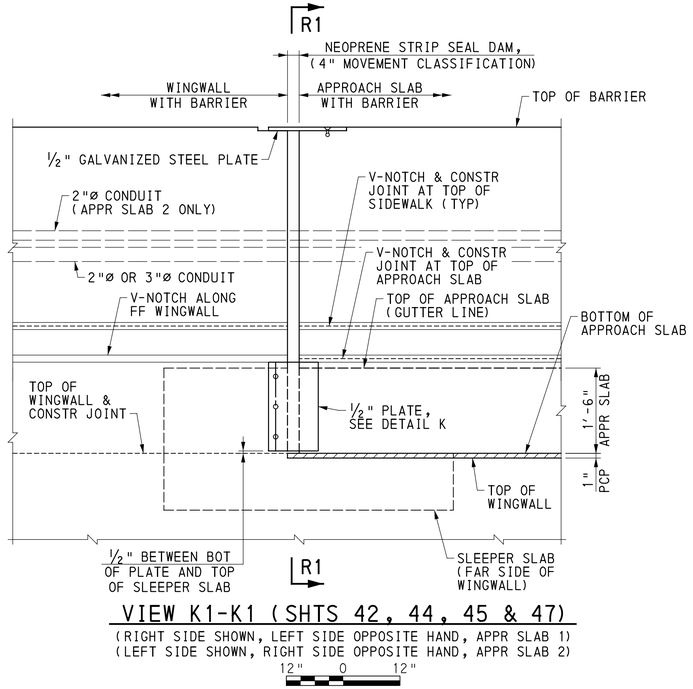
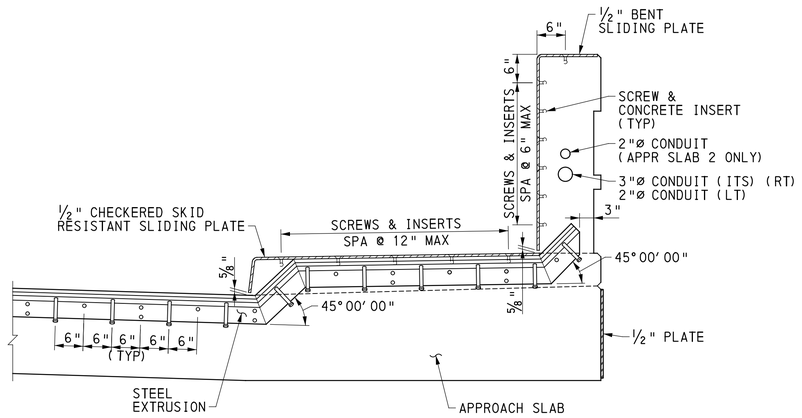


VIEW K1-K1 (SHTS 42, 44, 45 & 47)

(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE HAND, APPR SLAB 1)
(LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE HAND, APPR SLAB 2)

12" 0 12"

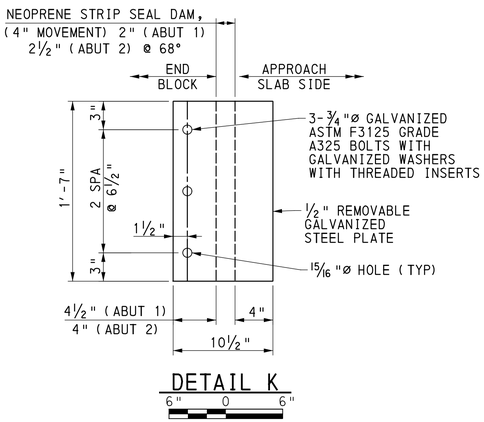


SECTION R1-R1

(RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE HAND)

12" 0 12"

NOTE: FOR ADDITIONAL NEOPRENE STRIP SEAL EXPANSION DAM DETAILS, SEE BC-767M.



DETAIL K

6" 0 6"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR APPROACH SLAB 1 PLAN AND LOCATION OF VIEW K1-K1, SEE SHEET 42.
3. FOR APPROACH SLAB 1 SECTIONS, SEE SHEET 43.
4. FOR APPROACH SLAB 1 BARRIER DETAILS, SEE SHEETS 44.
5. FOR APPROACH SLAB 2 PLAN AND LOCATION OF VIEW K1-K1, SEE SHEET 45.
6. FOR APPROACH SLAB 2 SECTIONS, SEE SHEET 46.
7. FOR APPROACH SLAB 2 BARRIER DETAILS, SEE SHEETS 47.
8. FOR APPROACH SLAB REINFORCEMENT SCHEDULE, SEE SHEET 53.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
TYPICAL APPROACH SLAB DETAILS - 2

RECOMMENDED 2026.06.11

SHEET 49 OF 64

S-40598

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

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6/4/2026
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ABUTMENT 1 REINFORCEMENT BAR SCHEDULE

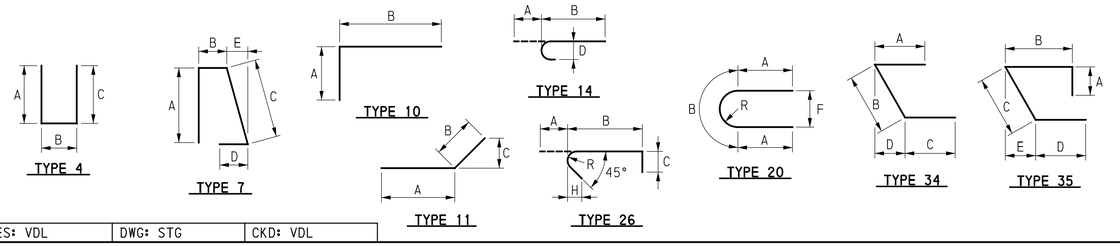
MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
ABUTMENT 1 FOOTING												
EF401	4	181	2′-3"	26	4½"	1′-6"	4½"				1"	H=3"
EF501	5	64	37′-2"	STR								
EF502	5	20	23′-6"	STR								
EF503	5	20	10′-0"	10	6′-5"	3′-7"						
EF504	5	20	12′-5"	11	3′-7"	8′-10"	6′-3"					
EF505	5	20	15′-11"	STR								
EF506	5	8	14′-9"	STR								
EF507	5	70	9′-3"	STR								
EF508	5	20	21′-6"	STR								
EF509	5	20	18′-8"	STR								
EF510	5	8	17′-5"	STR								
EF515	5	102	3′-6"	STR								
EF601	6	19	13′-2"	STR								
EF602	6	13	13′-3" TO 14′-8"	STR								VARY 1 EACH
EF605	6	69	4′-1"	STR								
EF701	7	48	9′-3"	STR								
EF705	7	33	6′-7"	14	10"	5′-9"						
EF706	7	31	11′-1"	14	10"	10′-3"						
EF801	8	91	15′-2"	STR								
EF802	8	1	15′-4"	STR								
EF803	8	1	14′-11"	STR								
EF804	8	1	8′-11"	STR								
EF805	8	1	23′-5"	STR								
EF806	8	37	13′-2"	STR								
EF807	8	25	13′-3" TO 14′-8"	STR								VARY 1 EACH
EF810	8	62	8′-2"	14	11"	7′-3"						
EF811	8	60	12′-7"	14	11"	11′-8"						
EF812	8	36	8′-3"	14	11"	7′-4"						
EF813	8	34	11′-3"	14	11"	10′-4"						
EF901	9	91	15′-2"	STR								
EF902	9	1	15′-4"	STR								
EF903	9	1	14′-11"	STR								
EF904	9	1	8′-11"	STR								
EF905	9	1	23′-5"	STR								
ABUTMENT 1 STEM												
EA301	3	27	12′-3"	35	2′-0"	3′-0"	4′-9"	2′-6"	7"			
EA302	3	27	12′-4"	7	2′-0"	3′-1"	4′-9"	2′-6"	7"			
EA303	3	14	9′-10"	34	4′-7"	8"	4′-7"	1"				
EA304	3	7	7′-0"	35	1′-6"	3′-0"	2′-6"	0"	3½"			
EA305	3	7	7′-1"	7	1′-6"	3′-1"	2′-6"	0"	3½"			
EA405	4	12	35′-0"	STR								
EA406	4	12	34′-2"	STR								
EA407	4	48	3′-6"	STR								8 PER WEEP HOLE
EA520	5	9	19′-2"	STR								
EA521	5	9	19′-9"	STR								
EA522	5	32	7′-0"	STR								
EA523	5	10	3′-2"	STR								
EA524	5	10	2′-10"	STR								
EA610	6	45	36′-6"	STR								
EA611	6	45	34′-3"	STR								
EA612	6	69	18′-11"	STR								
EA613	6	69	6′-7"	11	3′-10"	2′-9"	2′-8⅞"					
EA614	6	62	10′-4"	11	5′-4"	5′-0"	2′-9"					
EA615	6	62	11′-4"	4	4′-2"	10"	6′-4"					
EA815	8	62	19′-2"	STR								

ABUTMENT 1 REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
WINGWALL A STEM												
EW409	4	16	3′-6"	STR								8 PER WEEP HOLE
EW410	4	11	12′-10⅜"	38	6′-0"	2⅜"	6′-0"	0"			2"	
EW411	4	10	16′-7⅛" TO 14′-11⅛"	48	7′-11" TO 7′-1"	4⅜"	7′-11" TO 7′-1"			7⅜"	1"	VARY 1 EACH
EW412	4	5	14′-11⅛"	48	7′-1"	4⅜"	7′-1"			7⅜"	1"	
EW413	4	3	8′-10⅝"	48	7′-1"	4⅜"	1′-0½"			7⅜"	1"	
EW414	4	3	7′-1"	STR								
EW415	4	1	14′-8¼"	20	7′-1"	6¼"				4"	1½"	
EW525	5	50	15′-9"	11	10′-10"	4′-11"	3½"					
EW526	5	36	27′-7"	STR								
EW527	5	17	22′-3" TO 23′-5"	STR								VARY 1 EACH
EW528	5	25	15′-6" TO 17′-3"	STR								VARY 1 EACH
EW529	5	13	2′-4"	11	1′-1"	1′-3"	1′-2⅞"					
EW620	6	6	12′-6"	STR								
EW720	7	17	15′-6" TO 17′-3"	STR								VARY 1 EACH
EW820	8	17	22′-3" TO 23′-5"	STR								VARY 1 EACH
EC420	4	10	6′-10"	STR								
EC421	4	2	6′-10⅝"	11	5′-5⅝"	1′-5"	4⅛"					
EC422	4	11	7′-3⅜"	39	2′-7"	2⅜"	2′-7"	4⅞"	2⅜"		2"	
EC530	5	6	8′-7"	STR								
EC625	6	4	8′-8"	11	3′-7"	5′-1"	10"					
WINGWALL B STEM												
EW409	4	16	3′-6"	STR								8 PER WEEP HOLE
EW410	4	13	12′-10⅜"	38	6′-0"	2⅜"	6′-0"	0"			2"	
EW411	4	10	16′-7⅛" TO 14′-11⅛"	48	7′-11" TO 7′-1"	4⅜"	7′-11" TO 7′-1"			7⅜"	1"	VARY 1 EACH
EW412	4	5	14′-11⅛"	48	7′-1"	4⅜"	7′-1"			7⅜"	1"	
EW413	4	3	8′-10⅝"	48	7′-1"	4⅜"	1′-0½"			7⅜"	1"	
EW414	4	3	7′-1"	STR								
EW415	4	1	14′-8¼"	20	7′-1"	6¼"				4"	1½"	
EW529	5	14	2′-4"	11	1′-1"	1′-3"	1′-2⅞"					
EW535	5	50	17′-10"	11	12′-10"	5′-0"	7¼"					
EW536	5	38	25′-6"	STR								
EW537	5	19	22′-10" TO 24′-1"	STR								VARY 1 EACH
EW538	5	23	16′-0" TO 17′-9"	STR								VARY 1 EACH
EW630	6	6	12′-10"	STR								
EW730	7	16	16′-0" TO 17′-9"	STR								VARY 1 EACH
EW830	8	19	22′-10" TO 24′-1"	STR								VARY 1 EACH
EC420	4	10	6′-10"	STR								
EC421	4	2	6′-10⅝"	11	5′-5⅝"	1′-5"	4⅛"					
EC422	4	13	7′-3⅜"	39	2′-7"	2⅜"	2′-7"	4⅞"	2⅜"		2"	
EC531	5	6	9′-0"	STR								
EC626	6	4	9′-1"	11	4′-0"	5′-1"	10"					

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. DIMENSION "D" ON 180° HOOKS IS SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE, STANDARD HOOKS ARE TO BE USED.
3. EPOXY COATED BARS ARE DENOTED BY THE PREFIX "E".
4. ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" & "D", WHICH ARE SHOWN TO THE INSIDE OF THE BAR.
5. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE BC-736M.



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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT 1 REINFORCEMENT SCHEDULE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 50 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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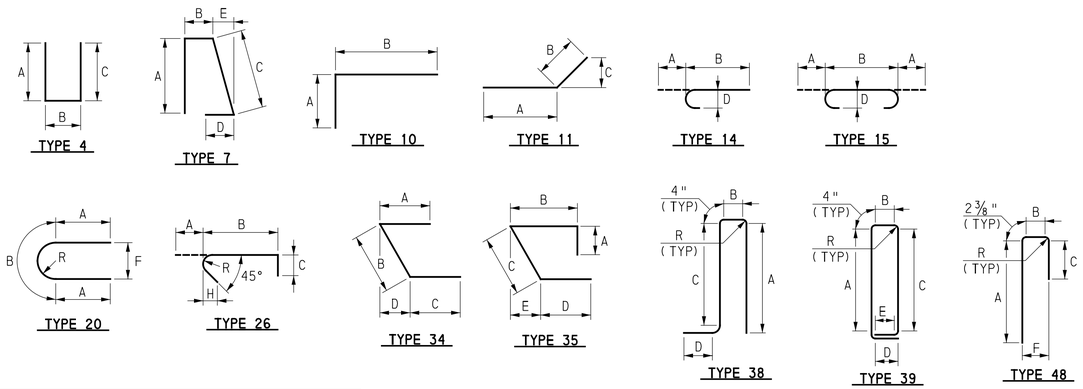
ABUTMENT 2 REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
ABUTMENT 2 FOOTING												
EF451	4	146	2′-9"	26	4½"	2′-0"	4½"				1"	H=3"
EF551	5	69	9′-2"	STR								
EF552	5	66	10′-4"	15	7"	9′-2"						
EF553	5	40	36′-8"	STR								
EF554	5	4	12′-0"	STR								
EF555	5	8	15′-3" TO 20′-6"	STR								VARY 1 EACH
EF556	5	6	15′-3" TO 18′-6"	STR								VARY 1 EACH
EF557	5	2	20′-6"	STR								
EF558	5	24	9′-7"	15	7"	8′-5"						
EF559	5	64	6′-8"	STR								
EF560	5	50	7′-10"	15	7"	6′-8"						
EF561	5	4	12′-8"	STR								
EF562	5	8	16′-4" TO 23′-8"	STR								VARY 1 EACH
EF563	5	6	16′-4" TO 21′-2"	STR								VARY 1 EACH
EF564	5	2	23′-8"	STR								
EF570	5	16	4′-0"	STR								
EF571	5	31	4′-2"	STR								
EF572	5	50	4′-9"	STR								
EF651	6	24	8′-5"	STR								
EF652	6	16	23′-6" TO 23′-10"	STR								VARY 2 EACH
EF653	6	16	9′-8"	10	6′-1"	3′-7"						
EF654	6	16	11′-5"	11	3′-10"	7′-7"	6′-9"					
EF655	6	16	23′-3" TO 23′-6"	STR								VARY 2 EACH
EF660	6	69	4′-6"	STR								
EF661	6	50	6′-11"	14	8"	6′-3"						
EF850	8	63	9′-6"	14	11"	8′-7"						
EF851	8	31	8′-5"	14	11"	7′-6"						
ABUTMENT 2 STEM												
EA350	3	16	11′-8"	7	2′-0"	2′-5"	4′-9"	2′-6"	7"			
EA351	3	16	11′-8"	35	2′-0"	2′-5"	4′-9"	2′-6"	7"			
EA352	3	12	9′-10"	34	4′-7"	8"	4′-7"	1"				
EA353	3	6	6′-5"	7	1′-6"	2′-5"	2′-6"	0"	3½"			
EA354	3	6	6′-5"	35	1′-6"	2′-5"	2′-6"	0"	3½"			
EA455	4	32	3′-6"	STR								8 PER WEEP HOLE
EA456	4	10	37′-2"	STR								
EA457	4	10	31′-10"	STR								
EA575	5	16	11′-6"	STR								
EA576	5	30	6′-1"	STR								
EA577	5	10	2′-10"	STR								
EA578	5	10	3′-2"	STR								
EA665	6	69	11′-6"	STR								
EA666	6	69	6′-5"	10	2′-7"	3′-10"						
EA667	6	29	39′-4"	STR								
EA668	6	29	31′-5"	STR								
EA669	6	63	9′-8"	4	3′-7"	10"	5′-3"					
EA855	8	63	15′-0"	STR								

ABUTMENT 2 REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
WINGWALL C STEM												
EW459	4	8	3′-6"	STR								8 PER WEEP HOLE
EW460	4	3	12′-10⅜"	38	6′-0"	2⅜"	6′-0"	0"			2"	
EW461	4	10	16′-7⅛" TO 14′-11⅛"	48	7′-11" TO 7′-1"	4⅜"	7′-11" TO 7′-1"			7⅜"	1"	VARY 1 EACH
EW462	4	5	14′-11⅛"	48	7′-1"	4⅜"	7′-1"			7⅜"	1"	
EW463	4	3	8′-10⅝"	48	7′-1"	4⅜"	1′-0½"			7⅜"	1"	
EW464	4	3	7′-1"	STR								
EW465	4	1	14′-8¼"	20	7′-1"	6¼"				4"	1½"	
EW580	5	32	12′-10"	STR								
EW581	5	22	27′-6"	STR								
EW582	5	14	14′-11"	STR								
EW583	5	25	9′-3"	STR								
EW584	5	11	2′-4"	10	1′-3"	1′-1"						
EW675	6	25	9′-3"	STR								
EW676	6	6	9′-7"	STR								
EW860	8	14	14′-11"	STR								
EC470	4	10	6′-10"	STR								
EC471	4	2	6′-10⅝"	11	5′-5⅝"	1′-5"	4⅛"					
EC472	4	3	7′-3⅝"	39	2′-7"	2⅜"	2′-7"	4⅞"	2⅜"		2"	
EC587	5	6	5′-9"	STR								
EC678	6	4	5′-10"	11	9"	5′-1"	10"					
WINGWALL D STEM												
EW459	4	16	3′-6"	STR								8 PER WEEP HOLE
EW460	4	11	12′-10⅜"	38	6′-0"	2⅜"	6′-0"	0"			2"	
EW461	4	10	16′-7⅛" TO 14′-11⅛"	48	7′-11" TO 7′-1"	4⅜"	7′-11" TO 7′-1"			7⅜"	1"	VARY 1 EACH
EW462	4	5	14′-11⅛"	48	7′-1"	4⅜"	7′-1"			7⅜"	1"	
EW463	4	3	8′-10⅝"	48	7′-1"	4⅜"	1′-0½"			7⅜"	1"	
EW464	4	3	7′-1"	STR								
EW465	4	1	14′-8¼"	20	7′-1"	6¼"				4"	1½"	
EW584	5	14	2′-4"	10	1′-3"	1′-1"						
EW590	5	34	15′-6"	STR								
EW591	5	24	27′-6"	STR								
EW592	5	17	15′-1"	STR								
EW593	5	25	9′-7"	STR								
EW680	6	25	9′-7"	STR								
EW681	6	6	12′-3"	STR								
EW870	8	17	15′-1"	STR								
EC470	4	10	6′-10"	STR								
EC471	4	2	6′-10⅝"	11	5′-5⅝"	1′-5"	4⅛"					
EC472	4	11	7′-3⅝"	39	2′-7"	2⅜"	2′-7"	4⅞"	2⅜"		2"	
EC595	5	6	8′-5"	STR								
EC685	6	4	8′-4"	11	3′-3"	5′-1"	10"					



NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. DIMENSION "D" ON 180° HOOKS IS SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE, STANDARD HOOKS ARE TO BE USED.
3. EPOXY COATED BARS ARE DENOTED BY THE PREFIX "E".
4. ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" & "D", WHICH ARE SHOWN TO THE INSIDE OF THE BAR.
5. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE BC-736M.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 REINFORCEMENT SCHEDULE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 51 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE

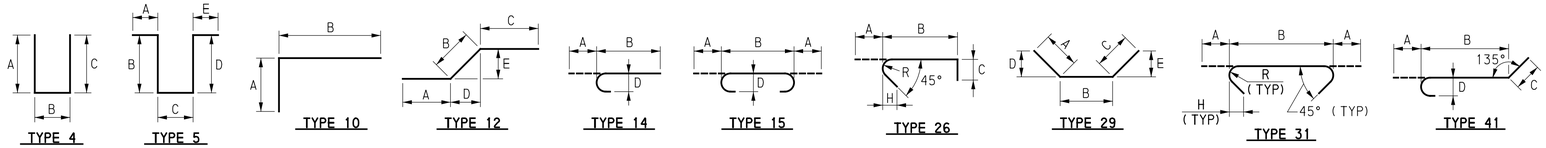
MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
DECK SLAB												
ES301	3	1494	4′-0"	5	1′-0"	4"	1′-4"	4"	1′-0"			
ES401	4	37	20′-11"	STR								
ES402	4	36	16′-5"	STR								
ES403	4	219	40′-0"	STR								
ES404	4	74	26′-0"	STR								
ES405	4	72	23′-9"	STR								
ES406	4	72	34′-0"	STR								
ES407	4	36	28′-9"	STR								
ES410	4	614	7′-7½"	38	2′-6½"	3"	2′-4"	1′-6"			2"	
ES501	5	299	60′-0"	STR								
ES502	5	145	51′-6"	STR								
ES503	5	123	45′-4"	STR								
ES504	5	123	47′-2"	STR								
ES505	5	72	53′-6"	STR								
ES506	5	82	54′-3"	STR								
ES507	5	41	50′-5"	STR								
ES508	5	41	45′-2"	STR								
ES510	5	621	39′-1"	14	7"	38′-6"						
ES511	5	621	31′-7"	14	7"	31′-0"						
ES512	5	488	42′-3"	STR								
ES513	5	488	23′-8"	STR								
ES514	5	576	7′-0⅛"	12	3′-0"	1′-0⅛"	3′-0"	1½"	1′-0"			
ES601	6	8	37′-0"	STR								
ES602	6	8	33′-1"	STR								
ES603	6	1242	7′-10"	14	8"	7′-2"						
SIDEWALKS & BARRIERS												
EC415	4	112	37′-6"	STR								
EC416	4	614	7′-9½"	39	2′-9"	3"	2′-9"	5½"			2"	
EC515	5	576	5′-10"	STR								
EC516	5	72	50′-8"	STR								
EC615	6	48	51′-3"	STR								
ABUTMENT 1 END DIAPHRAGM												
ED401	4	70	7′-10"	4	2′-9"	1′-7"	3′-6"					
ED402	4	70	4′-2"	10	3′-0"	1′-2"						
ED403	4	70	4′-8"	29	2′-3"	1′-5"	1′-0"	1′-7"	8½"			
ED404	4	70	6′-3"	10	2′-4"	3′-11"						
ED520	5	10	3′-2"	STR								
ED521	5	10	2′-10"	STR								
ED601	6	10	37′-1"	STR								
ED602	6	10	30′-6"	STR								
ED603	6	70	5′-2"	41	8"	3′-6"	1′-0"					
ED604	6	8	7′-0"	STR								
ED605	6	2	2′-0"	STR								
ABUTMENT 2 END DIAPHRAGM												
ED451	4	70	6′-7"	4	2′-5"	1′-7"	2′-7"					
ED452	4	70	3-7"	10	2′-5"	1′-2"						
ED453	4	70	4′-8"	29	2′-3"	1′-5"	1′-0"	1′-7"	8½"			
ED454	4	70	6′-3"	10	2′-4"	3′-11"						
ED570	5	10	3′-2"	STR								
ED571	5	10	2′-10"	STR								
ED651	6	8	37′-1"	STR								
ED652	6	8	30′-6"	STR								
ED653	6	70	5′-2"	41	8"	3′-6"	1′-0"					
ED654	6	8	7′-0"	STR								
ED655	6	2	2′-0"	STR								

PIER REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
PIER FOOTING												
EF431	4	57	2′-9"	26	4½"	2′-0"	4½"				1"	H=3"
EF531	5	18	36′-7"	STR								
EF532	5	71	7′-8"	STR								
EF731	7	136	7′-5"	10	6′-3"	1′-2"						
EF831	8	18	37′-11"	14	11"	37′-0"						
EF931	9	71	10′-2"	15	1′-3"	7′-8"						
PIER STEM AND CAP												
EP401	4	512	3′-0"	26	4½"	2′-3"	4½"				1"	H=3"
EP402	4	60	9′-6"	4	3′-3"	3′-0"	3′-3"					
EP403	4	74	10′-4"	4	3′-8"	3′-0"	3′-8"					
EP501	5	64	37′-5"	31	5½"	36′-6"					1¼"	H=3¾"
EP502	5	64	33′-2"	31	5½"	32′-3"					1¼"	H=3¾"
EP503	5	64	7′-10"	59	5½"	2′-4"	2′-3"	2′-4"	1¼"			H=3¾"
EP504	5	12	34′-8"	STR								
EP505	5	10	37′-7"	10	3′-0"	34′-7"						
EP506	5	5	37′-0"	STR								
EP701	7	136	28′-4"	STR								

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. DIMENSION "D" ON 180° HOOKS IS SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE, STANDARD HOOKS ARE TO BE USED.
3. EPOXY COATED BARS ARE DENOTED BY THE PREFIX "E".
4. ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" & "D", WHICH ARE SHOWN TO THE INSIDE OF THE BAR.
5. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE BC-736M.



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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

SUPERSTR / PIER REINFORCEMENT SCHEDULE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 52 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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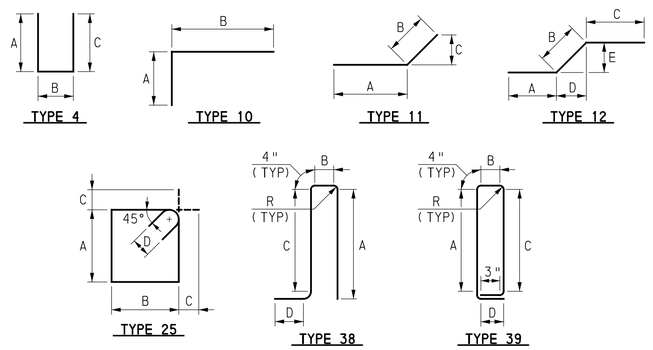
APPROACH SLAB 1 REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
SLEEPER SLAB												
ESS501	5	14	40′-0"	STR								
ESS502	5	14	30′-0"	STR								
ESS503	5	58	8′-2"	25	2′-1½"	1′-6"	5½"	2½"				
ESS504	5	10	9′-4"	25	2′-8½"	1′-6"	5½"	2½"				
ESS801	8	136	4′-6"	STR								
APPROACH SLAB												
EAS401	4	102	8′-11½"	38	3′-2½"	3"	3′-0"	1′-6"			2"	
EAS402	4	7	29′-6"	11	15′-7" TO 15′-11"	13′-11" TO 13′-7"	1′-8"					VARY 1 EACH
EAS403	4	7	29′-10"	11	8′-0" TO 8′-11"	21′-10" TO 20′-11"	1′-4"					VARY 1 EACH
EAS508	5	69	29′-6"	STR								
EAS509	5	142	7′-2"	4	3′-1"	1′-0"	3′-1"					
EAS510	5	2	15′-0"	STR								
EAS511	5	2	25′-0"	STR								
EAS512	5	26	23′-0"	10	1′-0"	22′-0"						
EAS513	5	12	23′-3" TO 24′-7"	10	1′-0"	22′-3" TO 23′-7"						VARY 1 EACH
EAS514	5	29	21′-10"	STR								
EAS515	5	20	23′-1" TO 24′-4"	10	1′-0"	22′-1" TO 23′-4"						VARY 1 EACH
EAS516	5	8	35′-4"	STR								
EAS517	5	2	7′-4"	25	1′-8½"	1′-6"	5½"	2½"				
EAS520	5	68	7′-7"	12	3′-0"	1′-7"	3′-0"	2⅜"	1′-7"			
EAS521	5	62	5′-10"	STR								
EAS522	5	3	4′-9"	STR								
EAS523	5	3	4′-10"	STR								
EAS601	6	8	33′-0"	STR								
EAS602	6	4	23′-7"	STR								
EAS603	6	4	21′-10"	STR								
EAS604	6	4	23′-4"	STR								
EAS605	6	8	6′-1½"	11	4′-0"	2′-1½"	1′-6"					
EAS606	6	8	6′-9½"	11	4′-8"	2′-1½"	1′-6"					
EAS701	7	30	34′-0"	STR								
EAS702	7	30	40′-0"	STR								
EAS1001	10	134	29′-6"	STR								
EAS1002	10	3	15′-0"	STR								
EAS1003	10	3	25′-0"	STR								
EAC410	4	102	7′-9½"	39	2′-9"	3"	2′-9"	5½"			2"	
EAC510	5	6	29′-6"	11	15′-11"	13′-7"	1′-8"					
EAC511	5	6	29′-9"	11	8′-0"	21′-9"	1′-4"					
EAC610	6	4	29′-6"	11	15′-11"	13′-7"	1′-8"					
EAC611	6	4	29′-9"	11	8′-0"	21′-9"	1′-4"					

APPROACH SLAB 2 REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	R	REMARKS
SLEEPER SLAB												
ESS551	5	28	33′-7"	STR								
ESS552	5	55	8′-2"	25	2′-1½"	1′-6"	5½"	2½"				
ESS553	5	10	9′-4"	25	2′-8½"	1′-6"	5½"	2½"				
ESS851	8	130	4′-6"	STR								
APPROACH SLAB												
EAS451	4	102	8′-11½"	38	3′-2½"	3"	3′-0"	1′-6"			2"	
EAS452	4	14	29′-9"	STR								
EAS558	5	69	29′-9"	STR								
EAS559	5	138	7′-2"	4	3′-1"	1′-0"	3′-1"					
EAS560	5	58	23′-1"	10	1′-0"	22′-1"						
EAS561	5	29	21′-10"	STR								
EAS563	5	8	34′-2"	STR								
EAS564	5	2	7′-4"	25	1′-8½"	1′-6"	5½"	2½"				
EAS570	5	68	7′-7"	12	3′-0"	1′-7"	3′-0"	2⅜"	1′-7"			
EAS571	5	62	5′-11"	STR								
EAS572	5	6	4′-10"	STR								
EAS651	6	8	31′-6"	STR								
EAS652	6	8	22′-1"	STR								
EAS653	6	4	21′-10"	STR								
EAS655	6	8	6′-1½"	11	4′-0"	2′-1½"	1′-6"					
EAS656	6	8	6′-9½"	11	4′-8"	2′-1½"	1′-6"					
EAS751	7	60	35′-8"	STR								
EAS1051	10	134	29′-9"	STR								
EAC460	4	102	7′-9½"	39	2′-9"	3"	2′-9"	5½"			2"	
EAC560	5	12	29′-9"	STR								
EAC660	6	8	29′-9"	STR								



NOTES

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DES: VDL	DWG: STG	CKD: VDL

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

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APPROACH SLAB REINFORCEMENT SCHEDULE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 53 OF 64

S-40598

6/4/2026
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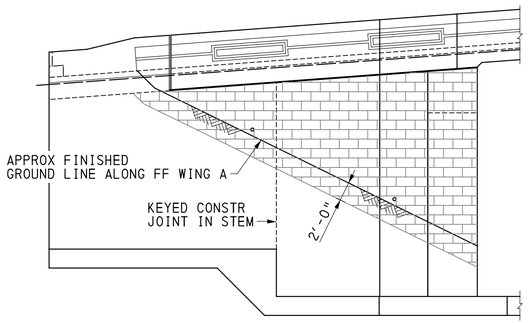
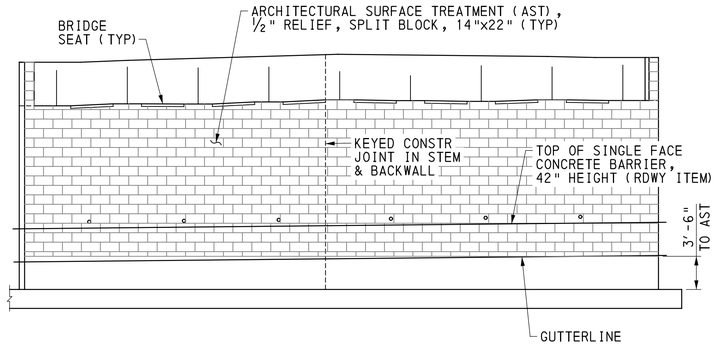
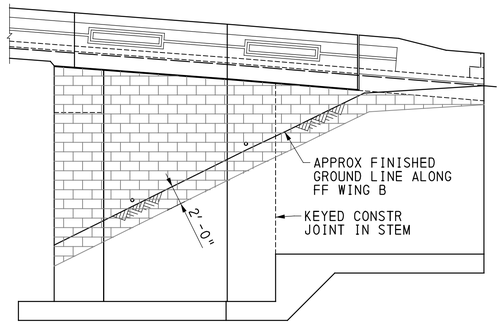


WING A ELEVATION

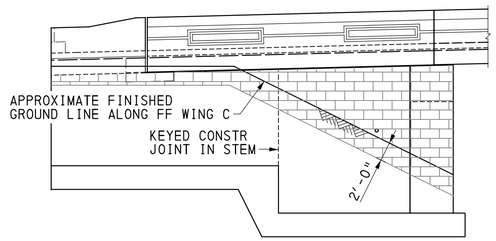


ABUTMENT 1 ELEVATION

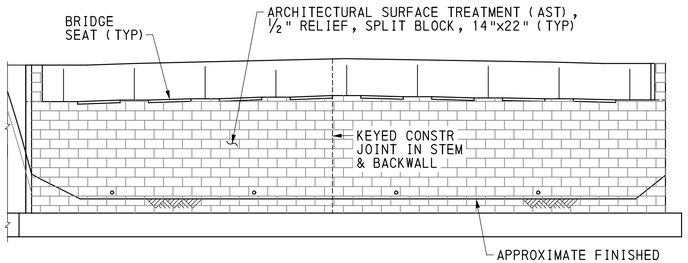
8' 4' 0 8'



WING B ELEVATION

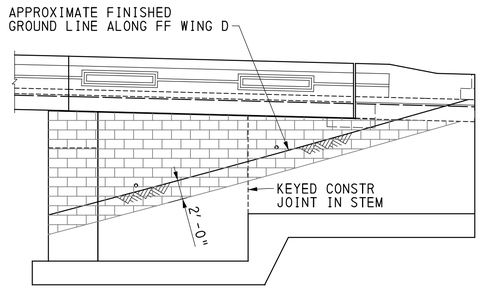


WING C ELEVATION



ABUTMENT 2 ELEVATION

8' 4' 0 8'



WING D ELEVATION

ARCHITECTURAL DETAIL NOTES

1. PROVIDE FORMWORK TO CREATE THE RELIEF DETAILS ON THE OUTSIDE FACES OF BARRIERS AS INDICATED ON THE BARRIER ARCHITECTURAL DETAILS SHEET. THIS FORMWORK IS INCIDENTAL TO THE BARRIER CONCRETE.

2. PROVIDE FORMWORK TO CREATE AN EMBEDDED KEYSTONE PATTERN ON THE ENDS OF THE PIER AS INDICATED ON THE PIER DETAILS SHEET. THIS FORMWORK IS INCIDENTAL TO THE PIER CONCRETE.

3. APPLY AN ARCHITECTURAL SURFACE TREATMENT (FORMLINER) TO THE FRONT FACE OF ABUTMENTS, EXPOSED FACES OF WINGWALLS, AND FRONT FACES OF CHEEKWALLS AT THE ABUTMENTS AS INDICATED ABOVE AND IN ACCORDANCE WITH SPECIAL PROVISION - ARCHITECTURAL SURFACE TREATMENT, ½" RELIEF, SPLIT BLOCK, 14"x22".

4. APPLY STAIN TO CONCRETE SURFACES TO THE LIMITS INDICATED AND IN ACCORDANCE WITH SPECIAL PROVISION - STAINING OF REINFORCED CONCRETE SURFACES. USE THE FOLLOWING COLORS:

   AREAS OF ARCHITECTURAL SURFACE TREATMENT, SPLIT BLOCK, 14"x22"

   BASE COLOR OF ENTIRE SURFACE AREA:
   FEDERAL STANDARD COLOR #30372, BEIGE-SAND

   GROUT LINES:
   FEDERAL STANDARD COLOR #26492, OFF-WHITE

   OTHER CONCRETE SURFACES

   BARRIER RECTANGULAR BLOCKS:
   FEDERAL STANDARD COLOR #15450, BLUE

   KEYSTONE AT PIER ENDS:
   FEDERAL STANDARD COLOR #24272, GREEN

5. BRIDGE BARRIER, SIDEWALK AND PIER TO BE NATURAL COLOR, EXCEPT FOR AREAS INDICATED ABOVE.

6. PROVIDE A PROTECTIVE FENCE AS INDICATED AND IN ACCORDANCE WITH SPECIAL PROVISION - RAILROAD PROTECTIVE FENCE, CURVED TOP, VINYL-COATED STEEL, BLACK.

   FEDERAL STANDARD COLOR #37031, BLACK

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 1 DETAILS, SEE SHEETS 7-13.
3. FOR PIER DETAILS, SEE SHEET 15.
4. FOR ABUTMENT 2 DETAILS, SEE SHEETS 16-22.
5. FOR BARRIER ARCHITECTURAL DETAILS, SEE SHEET 55.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
ABUTMENT ARCHITECTURAL DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 54 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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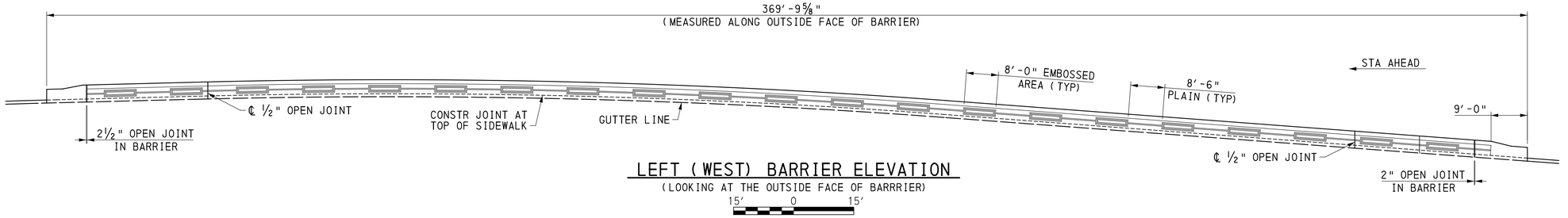
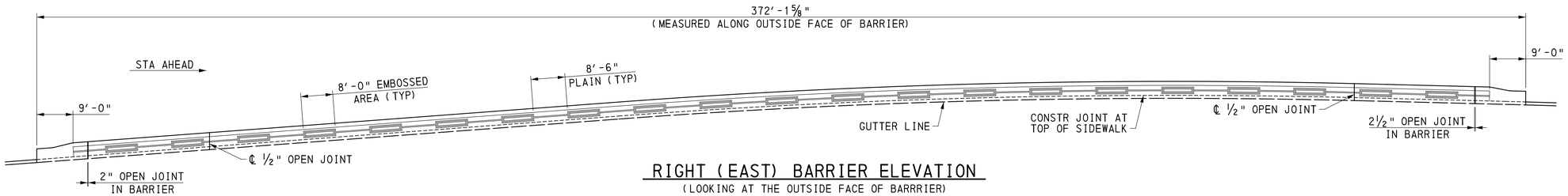


LEFT (WEST) BARRIER ELEVATION

(LOOKING AT THE OUTSIDE FACE OF BARRRIER)

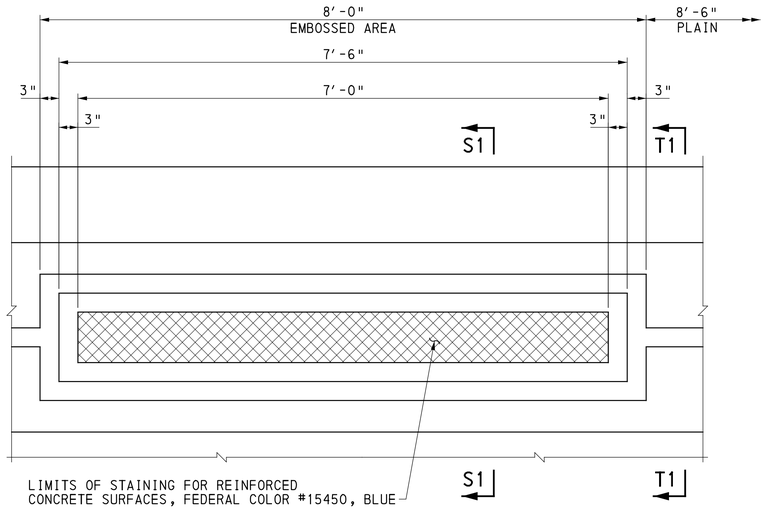
15′ 0 15′



RIGHT (EAST) BARRIER ELEVATION

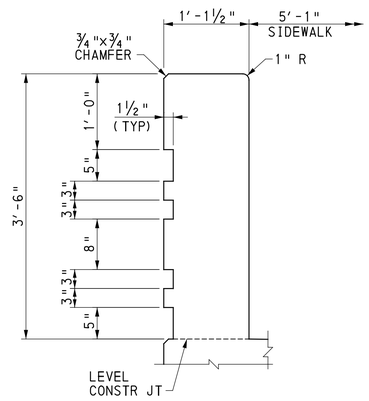
(LOOKING AT THE OUTSIDE FACE OF BARRRIER)

15′ 0 15′



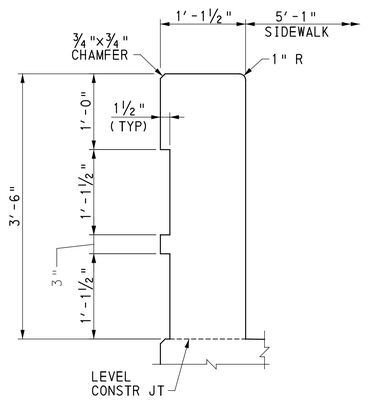
EMBOSSED SQUARE DETAIL

12" 6" 0 12"



SECTION S1-S1

12" 6" 0 12"



SECTION T1-T1

12" 6" 0 12"

(EAST BARRIER SHOWN, WEST BARRIER SIMILAR BY OPPOSITE HAND)

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR WINGWALL BARRIER DETAILS, SEE SHEETS 11-13 & 20-22.
3. DECK SLAB PLAN & DETAILS, SEE SHEETS 38-39.
4. FOR APPROACH SLAB BARRIER DETAILS, SEE SHEETS 44 & 47.
5. FOR ARCHITECTURAL DETAIL NOTES, SEE SHEET 54.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000

SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

BARRIER ARCHITECTURAL DETAILS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

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SHEET 55 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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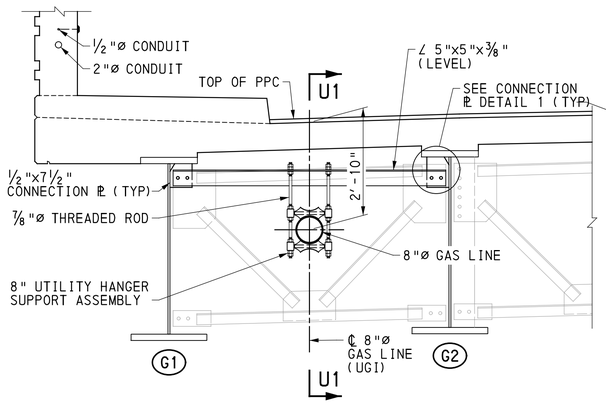
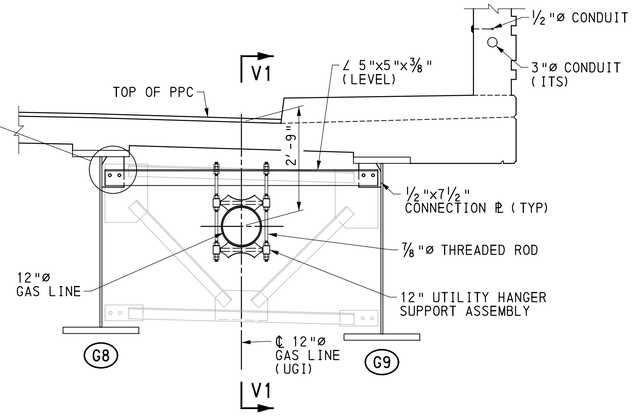


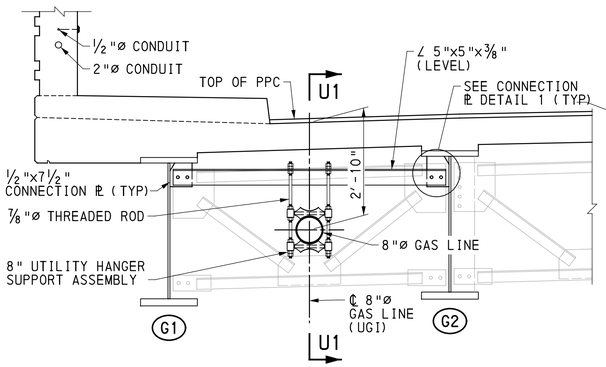
8"ø UGI GAS MAIN SECTION - SPAN 1

2' 1' 0 2'



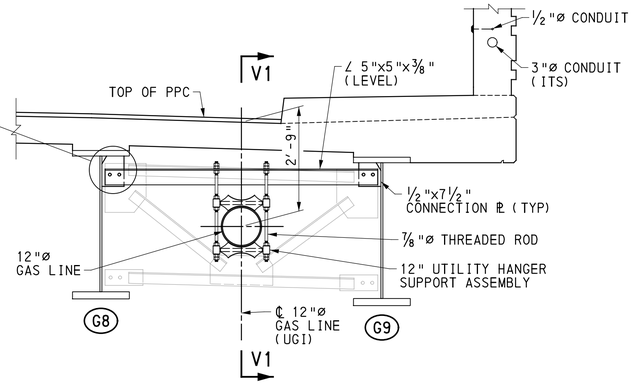
12"ø UGI GAS MAIN SECTION - SPAN 1

2' 1' 0 2'



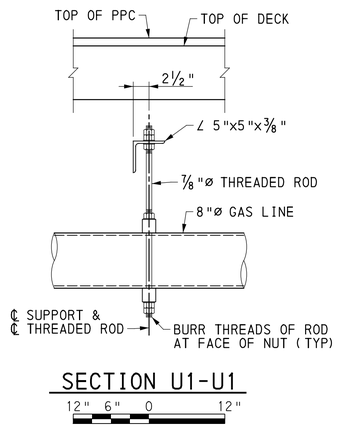
8"ø UGI GAS MAIN SECTION - SPAN 2

2' 1' 0 2'



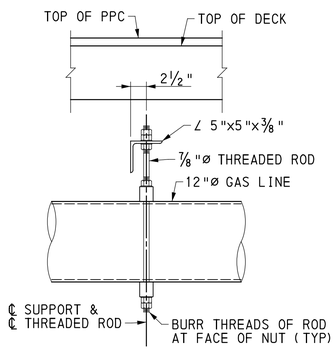
12"ø UGI GAS MAIN SECTION - SPAN 2

2' 1' 0 2'



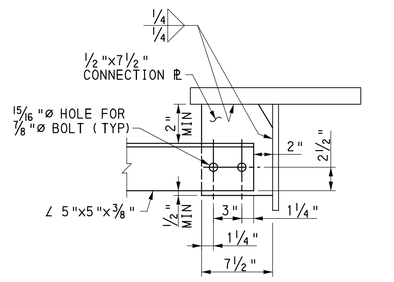
SECTION U1-U1

12" 6" 0 12"



SECTION V1-V1

12" 6" 0 12"



CONNECTION ℄ DETAIL 1

6" 0 6"

ITEM 9000-1551 INSTALLATION OF UGI UTILITIES, INC GAS FACILITIES ON BRIDGE (LUMP SUM) (1)⊕				
MATERIALS	FURNISHED BY	INSTALLED BY	UNIT	QUANTITY
UTILITY HANGER SUPPORT ASSEMBLY, 8", 2-ROLLER (2)	UGI GAS	UGI GAS	EA	12
UTILITY HANGER SUPPORT ASSEMBLY, 12", 2-ROLLER (2)	UGI GAS	UGI GAS	EA	12
UTILITY HANGER SUPPORT ASSEMBLY, 8", QUAD-ROLLER (2)	UGI GAS	UGI GAS	EA	3
UTILITY HANGER SUPPORT ASSEMBLY, 12", QUAD-ROLLER (2)	UGI GAS	UGI GAS	EA	3
FABRICATED STRUCTURAL STEEL (A709, GRADE 50)	CONTRACTOR	CONTRACTOR	LB	3890
12"ø CASING PIPE, STD, POWERCRETE (3)	UGI GAS	CONTRACTOR	LF	11
16"ø CASING PIPE, STD, POWERCRETE (3)	UGI GAS	CONTRACTOR	LF	11
8"ø GAS LINE PIPE, STD, POWERCRETE	UGI GAS	UGI GAS	LF	360
12"ø GAS LINE PIPE, STD, POWERCRETE	UGI GAS	UGI GAS	LF	360
8" GAS LINE EXPANSION JOINT	UGI GAS	UGI GAS	EA	1
12" GAS LINE EXPANSION JOINT	UGI GAS	UGI GAS	EA	1
FULL WEIGHT OF FACILITY = 29.92 LBS/FT (8" GAS LINE)				
FULL WEIGHT OF FACILITY = 51.58 LBS/FT (12" GAS LINE)				

⊕ SEE SPECIAL PROVISIONS.

(1) ITEMS IN INSTALLATION OF UGI UTILITIES, INC GAS FACILITIES ON BRIDGE ITEM 9000-1551 ARE GIVEN FOR INFORMATION ONLY.

(2) UTILITY HANGER SUPPORT ASSEMBLY INCLUDES: ⅞"ø THREADED RODS, PIPE ROLLS, STRAP, INSULATED BUSHINGS, NUTS AND WASHERS AT EACH SUPPORT.

(3) CASING END SEAL AND CASING SPACERS ARE INCIDENTAL.

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR SPACING OF SUPPORT HANGERS, SEE FRAMING PLAN, SHEET 23.
3. FOR DIAPHRAGM DETAILS, SEE SHEETS 34-37.
4. FOR APPROACH SLAB DETAILS, SEE SHEETS 42-49.
5. FOR ADDITIONAL INFORMATION REGARDING THE INSTALLATION OF UGI FACILITIES, SEE THE ROADWAY CONSTRUCTION PLANS.
6. PAINT FABRICATED STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS.
7. SELECT PIPE LENGTHS SO THAT COUPLING LOCATIONS DO NOT COINCIDE WITH HANGER LOCATIONS.
8. ROD ALL CONDUITS AND PLACE GALVANIZED FISH WIRES THEREIN.
9. THE CONDUIT INSTALLATION IS SUBJECT TO INSPECTION AND APPROVAL OF THE UTILITY COMPANY.
10. PROVIDE HOT DIPPED GALVANIZED THREADED ATTACHMENT RODS, NUTS AND WASHERS FOR THE UTILITY SUPPORT HANGERS.
11. (G3) DENOTES GIRDER NUMBER.
12. FOR ADDITIONAL DETAILS, SEE BC-753M & BC-754M.

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094
SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
UTILITY DETAILS - 1

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — VINCENT DAVID LACROSS — ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 56 OF 64

S-40598

DES: VDL	DWG: STG	CKD: VDL

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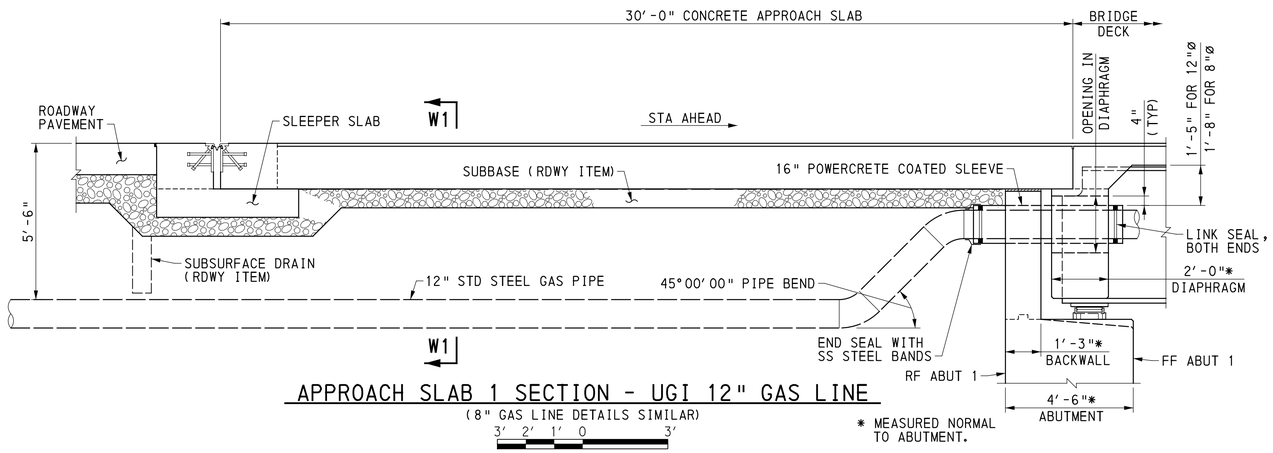
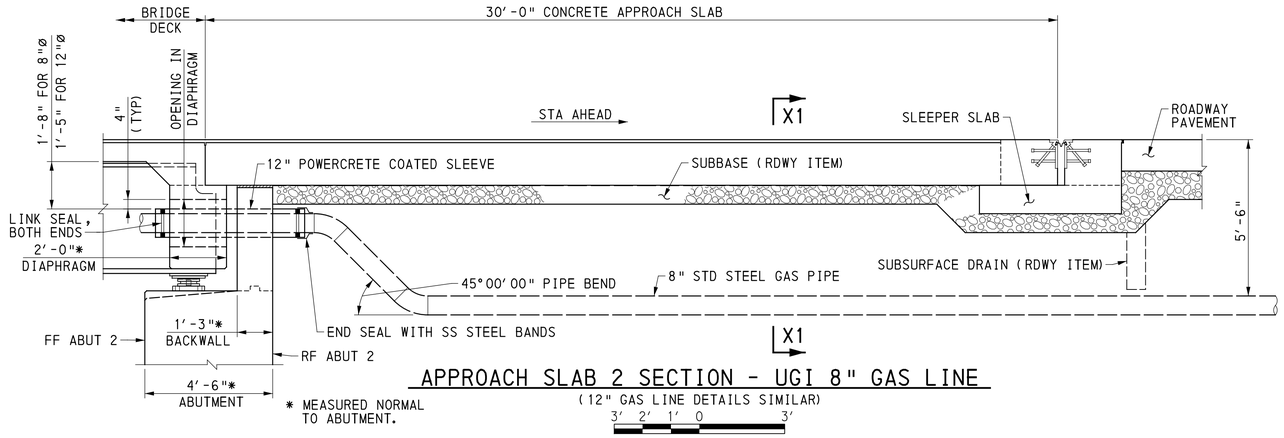


APPROACH SLAB 1 SECTION - UGI 12" GAS LINE

(8" GAS LINE DETAILS SIMILAR)

3' 2' 1' 0 3'

* MEASURED NORMAL TO ABUTMENT.

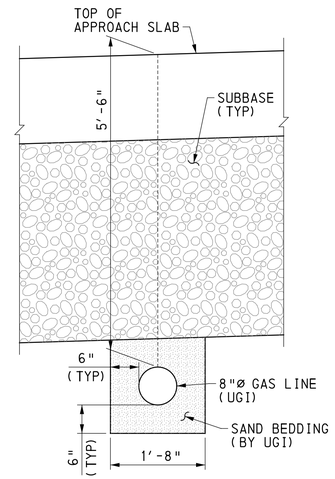


APPROACH SLAB 2 SECTION - UGI 8" GAS LINE

(12" GAS LINE DETAILS SIMILAR)

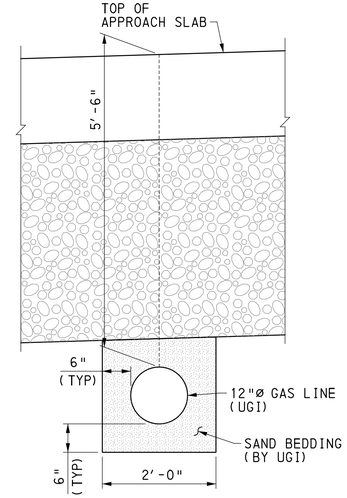
3' 2' 1' 0 3'

* MEASURED NORMAL TO ABUTMENT.



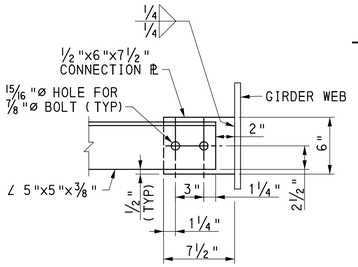
SECTION X1-X1

12" 0 12"



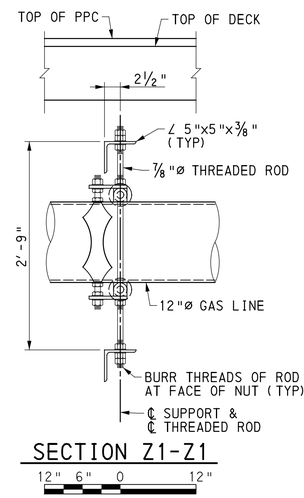
SECTION W1-W1

12" 0 12"



CONNECTION ℄ DETAIL 2

6" 0 6"

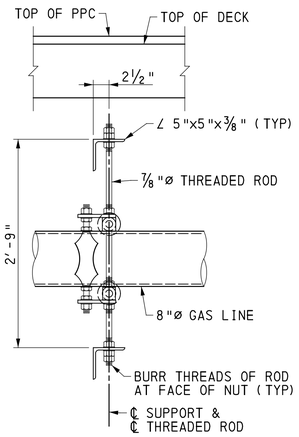


SECTION Z1-Z1

12" 6" 0 12"

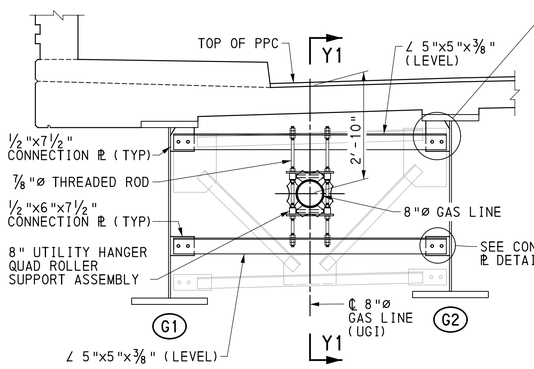
NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR SPACING OF SUPPORT HANGERS, SEE FRAMING PLAN, SHEET 23.
3. FOR DIAPHRAGM DETAILS, SEE SHEETS 34-37.
4. FOR APPROACH SLAB DETAILS, SEE SHEETS 42-49.
5. FOR ADDITIONAL INFORMATION REGARDING THE INSTALLATION OF UGI FACILITIES, SEE THE ROADWAY CONSTRUCTION PLANS.
6. PAINT FABRICATED STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS.
7. SELECT PIPE LENGTHS SO THAT COUPLING LOCATIONS DO NOT COINCIDE WITH HANGER LOCATIONS.
8. PROVIDE HOT DIPPED GALVANIZED THREADED ATTACHMENT RODS, NUTS AND WASHERS FOR THE UTILITY SUPPORT HANGERS.
9. (G3) DENOTES GIRDER NUMBER.
10. FOR ADDITIONAL DETAILS, SEE BC-753M & BC-754M.



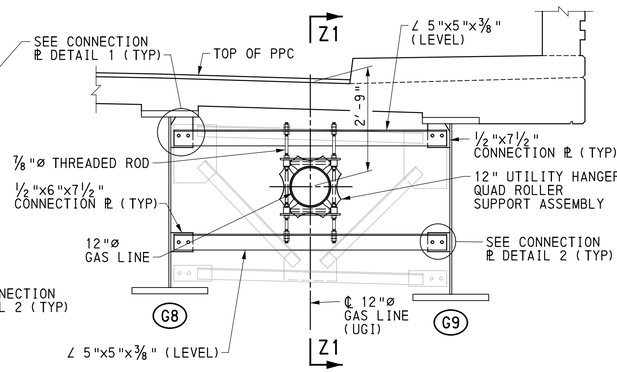
SECTION Y1-Y1

12" 6" 0 12"



QUAD ROLLER SUPPORT AT 8"ø UGI GAS MAIN SECTION

2' 1' 0 2'



QUAD ROLLER SUPPORT AT 12"ø UGI GAS MAIN SECTION

2' 1' 0 2'

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

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
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2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

UTILITY DETAILS - 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 57 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

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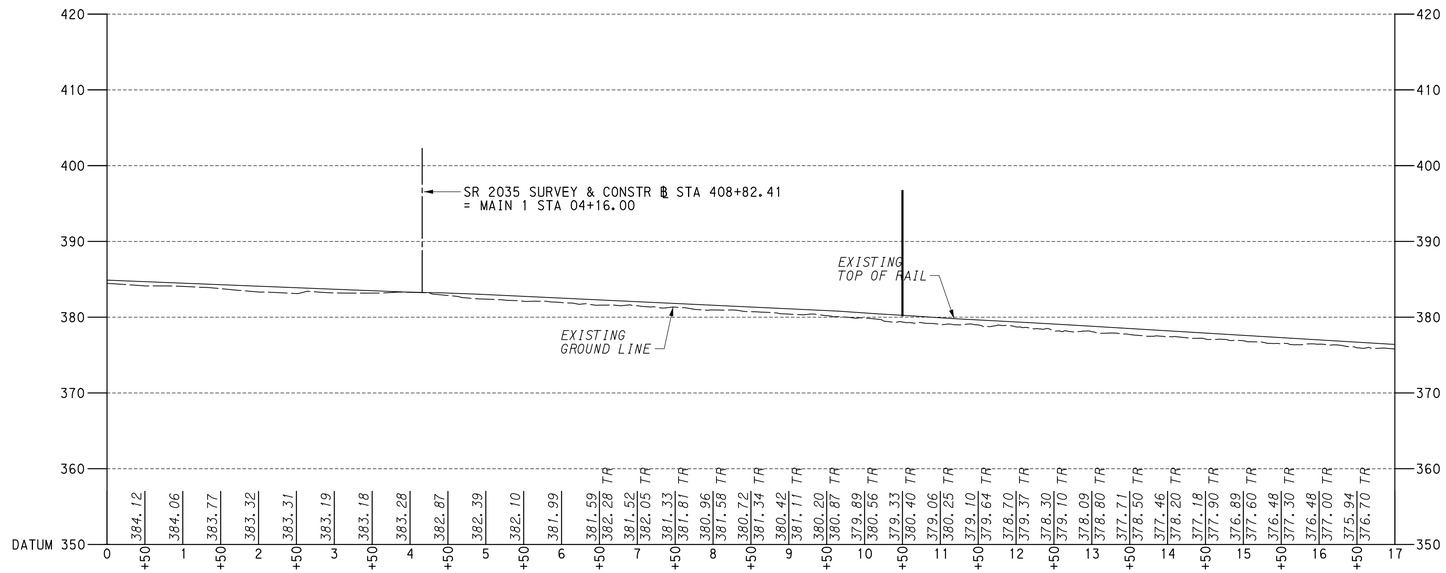
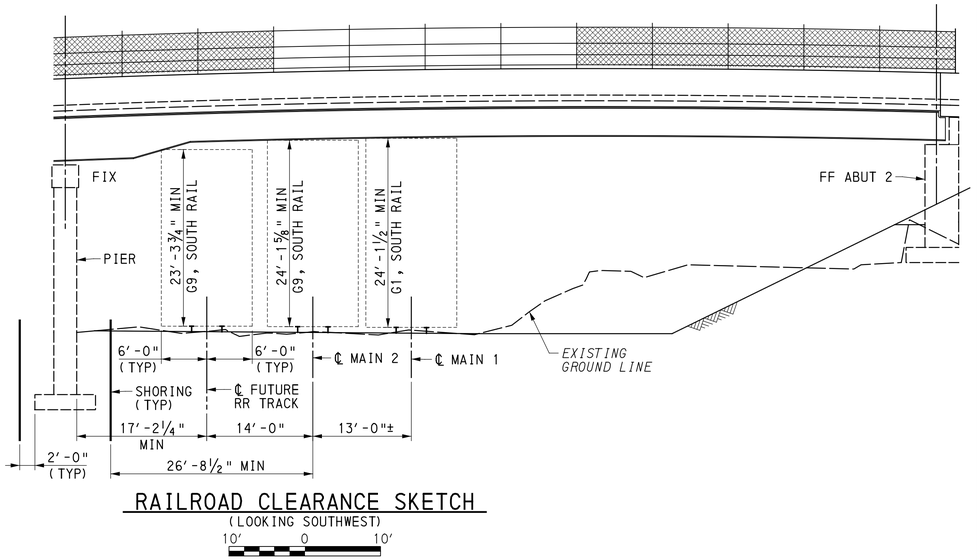


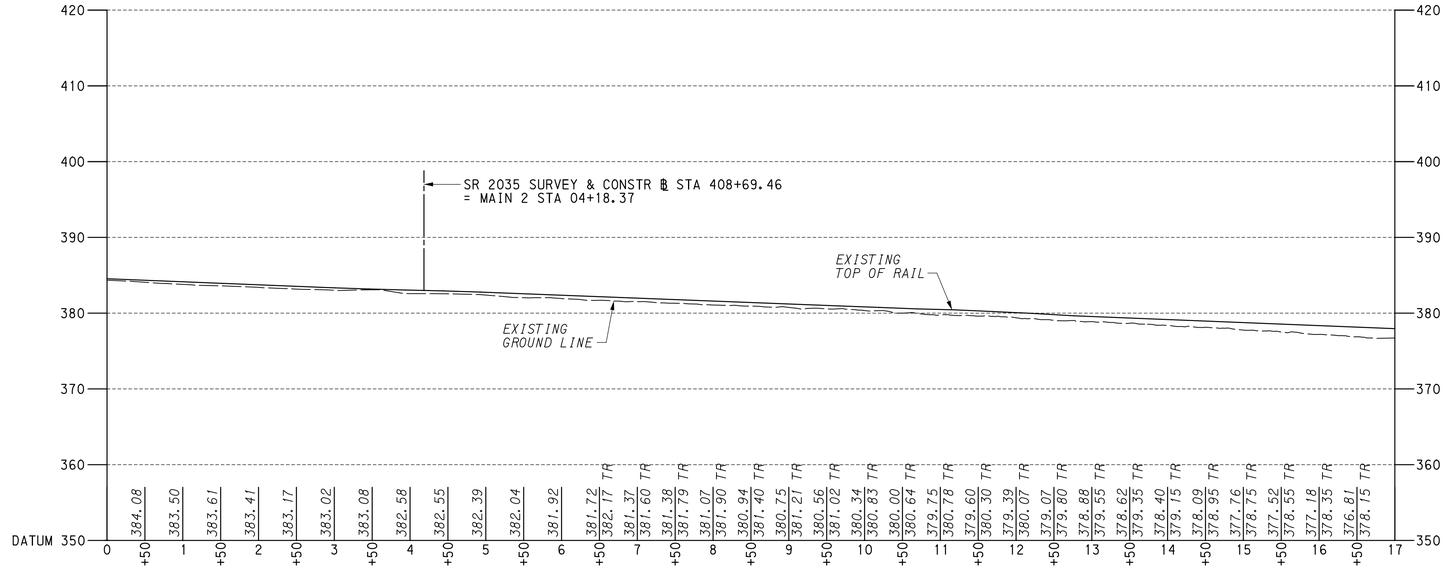
MAIN 1



RAILROAD CLEARANCE SKETCH

(LOOKING SOUTHWEST)

10′ 0 10′



MAIN 2

RAILROAD TRACK PROFILES

HORIZONTAL : 100′ 0 100′

VERTICAL : 10′ 0 10′

NOTES

1. A MINIMUM VERTICAL CLEARANCE OF 22′-0" ABOVE THE TOP OF THE HIGHEST RAIL SHALL BE MAINTAINED AT ALL TIMES. A MINIMUM HORIZONTAL CLEARANCE OF 13′-0" FROM CENTERLINE OF TANGENT TRACK OR 14′-0" FROM CENTERLINE OF CURVED TRACK SHALL BE MAINTAINED AT ALL TIMES.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE NORFOLK SOUTHERN ACCESS ROAD AND DRAINAGE DITCHES THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH SECTION H.1.7.C OF THE NORFOLK SOUTHERN PUBLIC PROJECTS MANUAL, JANUARY 2022 EDITION.
3. EXISTING SUBSTANDARD CLEARANCES SHALL NOT BE FURTHER REDUCED FOR THE TEMPORARY CONSTRUCTION CONDITION WITHOUT WRITTEN PERMISSION FROM NORFOLK SOUTHERN.
4. THE ELEVATIONS OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE NORFOLK SOUTHERN PUBLIC IMPROVEMENTS ENGINEER. HIGHEST TOP OF RAIL ELEVATION USED ON TRACK PROFILES.
5. FOR LOCATION OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, SEE SHEET 1.

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SR 2035 SECTION 094

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RAILROAD GEOMETRY DETAILS

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ENGINEER NO. PE062298

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KCI TECHNOLOGIES

RECOMMENDED 2026.06.11

SHEET 58 OF 64

S-40598

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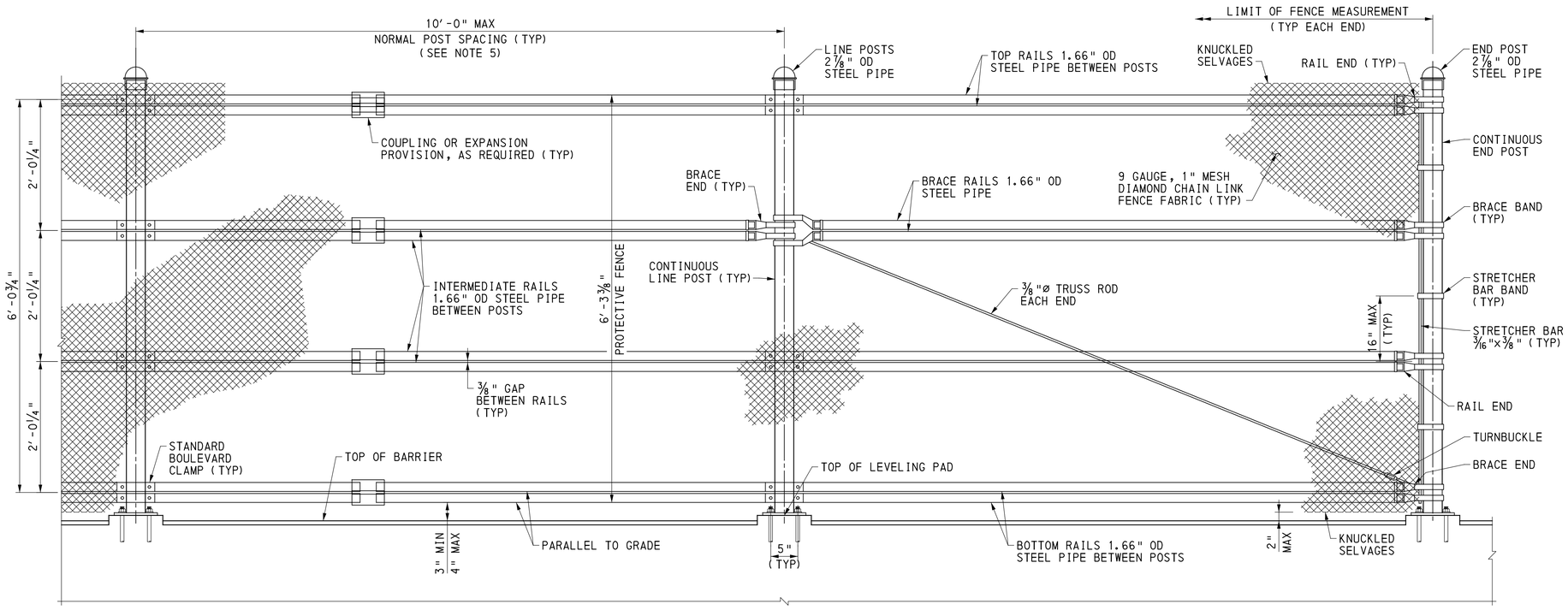
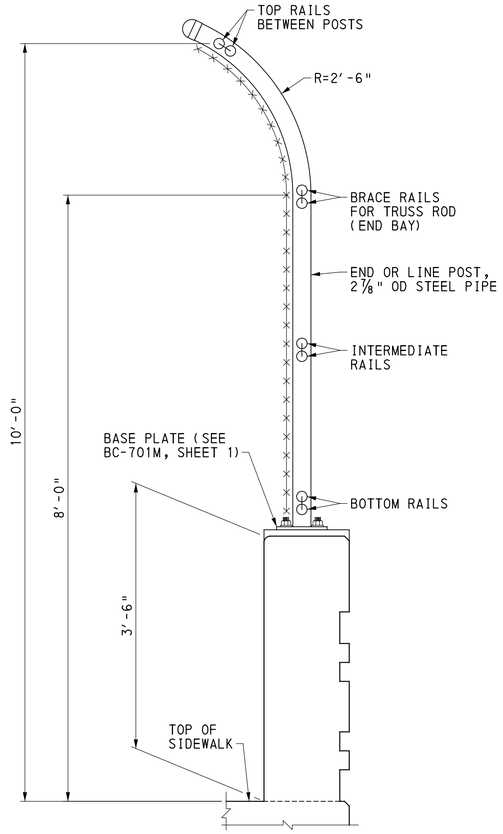


PROTECTIVE FENCE ELEVATION

12" 6" 0 12"



TYPICAL PROTECTIVE FENCE SECTION

12" 6" 0 12"

NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. INCLUDE ANTI-CLIMB SHIELD AT EACH END (4 TOTAL).
3. COORDINATE PROTECTIVE FENCE ANCHOR BOLT LOCATIONS WITH PROTECTIVE FENCE FABRICATOR, BARRIER LUMINAIRES AND JUNCTION BOXES. COORDINATE WITH HIGHWAY LIGHTING ALSO PLAN FOR PLACEMENT OF BARRIER LUMINAIRES AND JUNCTION BOXES.
4. SEE BC-701M FOR ADDITIONAL DETAILS.
5. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VINCENT DAVID LACROSS
ENGINEER NO. PE062298

PREPARED BY
KCI TECHNOLOGIES

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

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SECTION 094

SEGMENT 0050 OFFSET 0000
SR 2035 (3RD ST) STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

PROTECTIVE FENCE DETAILS

RECOMMENDED 2026.06.11

SHEET 59 OF 64

S-40598

DES: VDL | DWG: STG | CKD: VDL

6/4/2026
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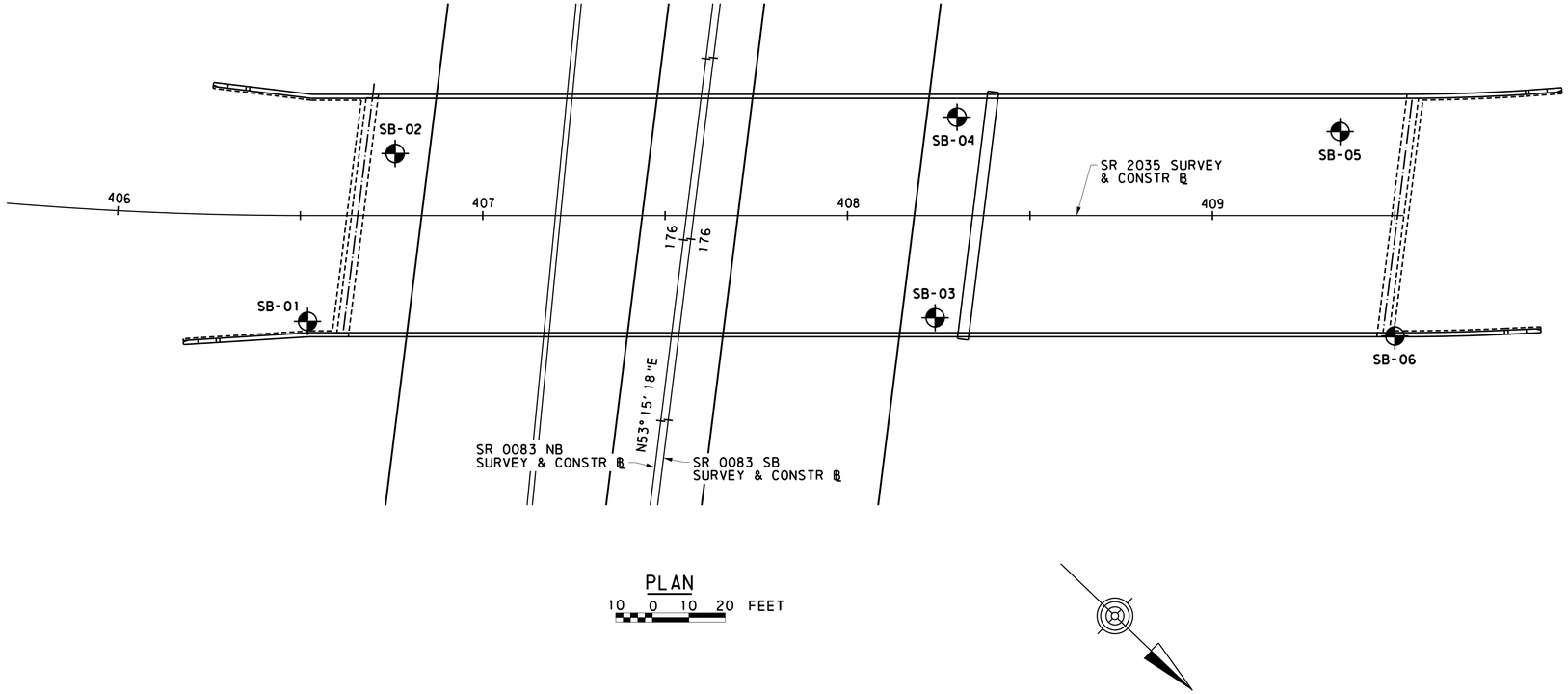

PLAN

10 0 10 20 FEET

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BDP	BOTTOM OF DISTRIBUTION PAD
BFE	BOTTOM OF FOOTING ELEVATION
BOCC	BOTTOM OF CLASS C CONCRETE
BPCE	BOTTOM OF PILE CAP ELEVATION
EPTE	ESTIMATED PILE TIP ELEVATION
FGE	FINISHED GROUND ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

ME

THE SUBSURFACE EXPLORATION DATA THAT ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST — DATE: 12/15/2025

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 WPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SEC 094
SEGMENT 0050 OFFSET 0000
SR 2035-094, STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MARK T. EVANS
GEOLOGIST
PG005251

DISTRICT GEOTECHNICAL SPECIALIST — DATE

SHEET 60 OF 64

S - 40598

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SUBSTRUCTURE UNIT:
ABUTMENT 1

LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START: 09/29/2021 10:00 AM	HAMMER: AUTOMATIC
SB-01	STATION: 406+52.0 OFFSET: 29.0 FT. RT.	FINISH: 09/29/2021 4:00 PM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER XLS TRACK RIG	2.000 IN.	0 FT. [redacted] 5 FT.	384.9 FT.

DRILLING INSPECTOR: ALEXANDER HEAD
DRILLER & DRILLING COMPANY:D. RIZIO
NAVARRO & WRIGHT

▽ 0 HR. READING - ELAPSED TIME: El. 349.9 ft. - 0.0 hr.
▼ 24 HR. READING - ELAPSED TIME: El. 351.3 ft. - 23.5 hr.

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.**	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ 20 40 60 80 ▲ SPT (N_{60}) ▲ 10 20 30 40
		SILT, some Clay, little Gravel, contains organics, stiff, damp, homogeneous, low plastic fines, brown, fill.	a-4 / ml	1.5	S-1	1-4-7	15	0.8	53	
		1.5'/El. 383.4		3.0	S-2	3-4-4 **1.50**	11	0.4	27	
		CLAY, some Gravel, medium to stiff, wet to damp, heterogeneous, medium plastic fines, red brown to gray, fill.		4.5	S-3	4-4-5 **1.00**	12	1.1	73	
380				6.0	S-4	4-4-11 **2.00**	20	1.2	80	
			a-6 / cl	7.5	S-5	6-18-22 **2.00**	53	0.8	53	
FGE 377.00		*S-6, gravel stuck in spoon tip, lost recovery. Possible cobbles, 6.0-9.0'.*		9.0	S-6	24-5-5 **2.00**	13	0.4	27	
375		10.5'/El. 374.4		10.5	S-7	1-1-6	9	0.1	7	
		SILT and **CLAY**, trace Sand, trace Gravel, soft to very stiff, wet to damp, homogeneous, medium plastic fines, red brown, residuum. *Pushed Shelby tube, ST-1, in SB-01A, 10.5-12.5'. Class. on S-9 to S-13 (12.0-19.5') A-7-6(23)/CL N.M.C.=29.2% LL=44, PL=20, PI=24.*		12.0	S-8	WOH-2-1 **1.00**	4	1.3	87	
BFE 372.00				13.5	S-9	WOH-WOH-7 **2.00**	9	1.5	100	
370			A-7-6 / CL	15.0	S-10	5-9-10 **2.00**	25	1.5	100	
BDP 369.00				16.5	S-11	6-8-9 **3.00**	23	1.5	100	
				18.0	S-12	3-4-5 **2.00**	12	1.5	100	
365		*S-14, hard.*		19.5	S-13	3-7-3 **2.00**	13	1.5	100	
TOR 363.90		21.0'/El. 363.9		20.2	S-14	3-50/.2' **0.50**	>67	0.7	100	
		Water @ 18.9' prior to coring.		21.0	S-15	50/.0'	>67	0.0	0	
		LIMESTONE, gray, hard, slightly weathered to fresh, thin to medium bedding with flat to shallow dip, jointed, medium to massive spacing, sheer dip, narrow joint opening, *(RQD=63%). Calcite veins, 21.0-25.3'.*		21.0	R-1		71%	2.0	100	
360				23.0	R-2		70%	4.0	100	
		Calcite veins, 27.1-28.8'.		27.0	R-3		76%	4.9	98	
355				32.0	R-4		48%	5.0	100	
▽ 350				37.0	R-5		60%	4.9	98	
345		*Calcite veins, 39.0-41.2'.*		42.0	R-6		53%	3.0	100	
340		45.0'/El. 339.9								

**SAMPLE NO. shading indicates lab testing performed.

SUBSTRUCTURE UNIT:
ABUTMENT 1

LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START: 09/30/2021 9:00 AM	HAMMER: AUTOMATIC
SB-02	STATION: 406+76.0 OFFSET: 17.0 FT. LT.	FINISH: 09/30/2021 3:30 PM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER XLS TRACK RIG	2.000 IN.	0 FT. [redacted] 5 FT.	392.1 FT.

DRILLING INSPECTOR: ALEXANDER HEAD
DRILLER & DRILLING COMPANY:D. RIZIO
NAVARRO & WRIGHT

▽ 0 HR. READING - ELAPSED TIME: El. 345.6 ft. - 0.0 hr.
▼ 24 HR. READING - ELAPSED TIME: El. 342.9 ft. - 1676.5 hr.

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.**	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ 20 40 60 80 ▲ SPT (N_{60}) ▲ 10 20 30 40
		SILT and **GRAVEL**, some Clay, contains organics, soft to medium, damp, heterogeneous, low plastic fines, brown to gray, fill.	a-4 / ml	1.5	S-1	1-1-3	5	0.5	33	
		6.0'/El. 386.1		3.0	S-2	1-WOH-2	3	0.3	20	
390		*S-4, contains wood fragments.*		4.5	S-3	1-1-1	3	0.2	13	
		SAND, some Gravel, little Silt, trace Clay, very loose to loose, wet to moist, heterogeneous, poorly graded, rounded, black to red brown, fill. *Bag sample, B-1, taken from 6.0-14.5'. Class. on S-5 to S-9 (6.0-13.5') A-2-4(0)/SW-SM N.M.C.=37.2% LL=NP, PL=NP, PI=NP.*	A-2-4 / SW-SM	6.0	S-4	1-WOH-5	7	0.3	20	
		14.5'/El. 377.6		7.5	S-5	1-1-1	3	0.8	53	
385				9.0	S-6	1-1-1	3	0.8	53	
				10.5	S-7	2-1-2	4	1.1	73	
				12.0	S-8	WOH-1-1	3	1.2	80	
				13.5	S-9	1-1-1	3	1.2	80	
FGE 377.00		**CLAY**, some Silt, trace Sand, trace Gravel, contains trace weathered limestone fragments, medium to very stiff, moist to damp, homogeneous, red brown, residuum, *medium to high plastic fines. Bag sample, B-2, taken from 14.5-25.5'.*		15.0	S-10	1-1-3 **1.50**	5	1.5	100	
375				16.5	S-11	2-5-7 **2.50**	16	1.5	100	
				18.0	S-12	3-5-5 **3.00**	13	1.4	93	
				19.5	S-13	6-9-8 **2.50**	23	1.3	87	
BFE 372.00		*Class. on S-12 to S-16 (16.5-24.0') A-7-6(33)/CH N.M.C.=29.4% LL=55, PL=22, PI=33.*		21.0	S-14	6-8-10 **2.50**	24	1.5	100	
370			A-7-6 / CH	22.5	S-15	4-4-6 **2.50**	13	1.5	100	
BDP 369.00				24.0	S-16	5-5-7 **2.50**	16	1.5	100	
				25.5	S-17	6-7-7 **2.50**	19	1.5	100	
		S-20 and S-21 Spoon drove along possible bedrock pinnacle S-20 (28.5-30.0', 4-15-21, 0.8' Rec.). S-21 (30.0-30.2', 50/0.2', 0.2' Rec.). Casing refusal @ 28.0'. Water at 28.0' prior to coring.		27.0	S-18	5-3-3 **2.50**	8	1.5	100	
365		28.0'/El. 364.1		28.0	S-19	4-10 **1.00**	13	1.0	100	
TOR 364.10		**LIMESTONE**, gray, hard, weathered to fresh, thin to moderate bedding with shallow dip, jointed, close to medium spacing, steep to sheer dip, wide joint opening, *(RQD=21%). R-1, low recovery due to possible pinnacle. R-3, lower recovery likely due to weathered, broken rock.*		30.0	R-1		0%	0.4	20	
				32.0	R-2		45%	1.9	95	
360		*Clay infilling joint, 36.8-37.0'.*		37.0	R-3		22%	4.2	84	
		37.4'/El. 354.7		42.0	R-4		52%	4.7	94	
355		**LIMESTONE**, gray, contains calcite veins, hard, fresh, narrow to medium bedding with shallow dip, jointed, moderate to wide spacing, sheer dip, narrow joint opening, *(RQD=68%).*		47.0	R-5		64%	5.0	100	
▽ 350					R-6		93%	3.0	100	
345		50.0'/El. 342.1								
		No water return during coring.								

**SAMPLE NO. shading indicates lab testing performed.

GENERAL NOTES

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FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

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LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BDP	BOTTOM OF DISTRIBUTION PAD
BFE	BOTTOM OF FOOTING ELEVATION
BOCC	BOTTOM OF CLASS C CONCRETE
BPCE	BOTTOM OF PILE CAP ELEVATION
EPTE	ESTIMATED PILE TIP ELEVATION
FGE	FINISHED GROUND ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
ME

SR 2035 PREVIOUSLY KNOWN AS LR 250
BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SEC 094
SEGMENT 0050 OFFSET 0000
SR 2035-094, STA 407+56.00 OVER SR 0083 & NSRR
2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARK T. EVANS — GEOLOGIST PG005251

DATE

SHEET 61 OF 64

S - 40598

SUBSTRUCTURE UNIT: LOG 1 OF 1

PIER

BORING NUMBER:	BORING LOCATION	START:	FINISH:	HAMMER	EFFICIENCY
SB-03	STATION: 408+24.0, OFFSET: 28.0 FT. RT.	10/11/2021 12:00 AM	10/11/2021 3:00 AM	AUTOMATIC	0.8 ERa

DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER REBEL XL

SIZE OF CORE: 2.000 IN.

VERTICAL SCALE: 0 FT. 5 FT.

TOP OF BORING ELEVATION: 381.8 FT.

DRILLING INSPECTOR: ALEXANDER HEAD

DRILLER & DRILLING COMPANY: L. MCCOY NAVARRO & WRIGHT

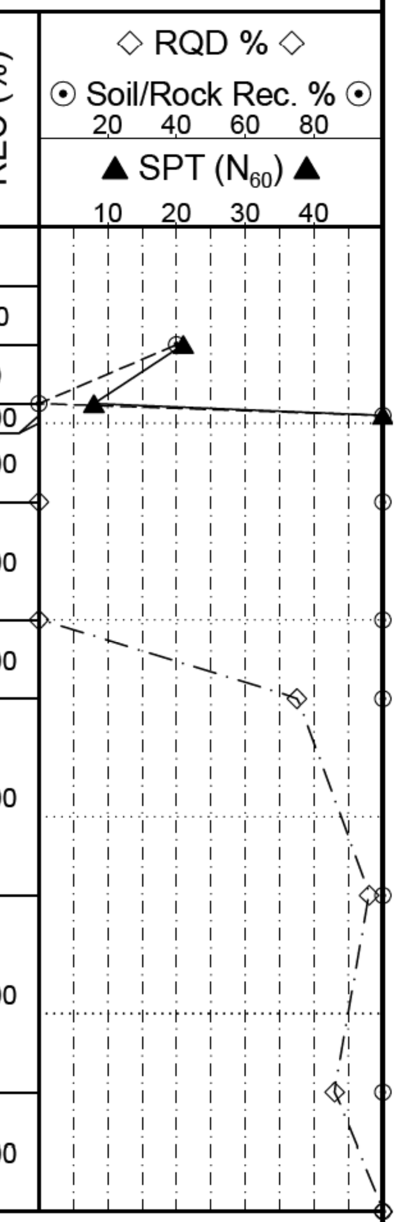
▽ 0 HR. READING - ELAPSED TIME: NR - NR[1]

▼ 24 HR. READING - ELAPSED TIME: NR - NR

FGE 377.00 | TOR 376.80 | BFE 372.00

MATERIAL DESCRIPTION	AASHTO/USCS
BITUMINOUS CONCRETE. 0.1'/El. 381.7	
CONCRETE. 0.9'/El. 380.9	
GRAVEL, subbase. 1.5'/El. 380.3	
SAND, some Gravel, loose to medium dense, damp, heterogeneous, well graded, sub-rounded to angular, gray brown to light gray, fill. 4.5'/El. 377.3 *Bag sample, B-1, collected from 1.5-4.5'.*	a-1-b / sw
GRAVEL, some Sand, contains weathered limestone, very dense, dry, homogeneous, poorly graded, angular, gray, residuum. *Casing refusal @ 5.0'.* 5.0'/El. 376.8	a-1-a / gp
LIMESTONE, gray to light gray, hard, weathered to fresh, thin to narrow bedding with shallow to moderate dip, jointed, close to moderate spacing, sheer dip, narrow joint opening, *(RQD=0%)*. *R-1, very broken.* 10.0'/El. 371.8	
LIMESTONE, gray, hard, fresh, narrow to medium bedding with shallow to moderate dip, jointed, wide spacing, sheer dip, tight joints, *(RQD=91%)*. *Calcite veins, 18.0-20.0'.* 25.0'/El. 356.8 *No water return during coring.*	

SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)
1.5–3.0	S-1	8-8-8	21	0.6	40
3.0–4.5	S-2	5-3-3	8	0.0	0
4.5–4.8	S-3	50/.3'	>67	0.3	100
5.0–7.0	R-1		0%	2.0	100
7.0–10.0	R-2		0%	3.0	100
10.0–12.0	R-3		75%	2.0	100
12.0–17.0	R-4		96%	5.0	100
17.0–22.0	R-5		86%	5.0	100
22.0–25.0	R-6		100%	3.0	100



[1] 0-hr. Water: Tremie pipe blocked during installation @ 4.7'. Driller unable to clear blockage or remove tremie pipe.

SUBSTRUCTURE UNIT: LOG 1 OF 1

PIER

BORING NUMBER:	BORING LOCATION	START:	FINISH:	HAMMER	EFFICIENCY
SB-04	STATION: 408+30.0, OFFSET: 28.0 FT. LT.	10/11/2021 10:30 PM	10/12/2021 1:30 AM	AUTOMATIC	0.8 ERa

DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER REBEL XL

SIZE OF CORE: 2.000 IN.

VERTICAL SCALE: 0 FT. 5 FT.

TOP OF BORING ELEVATION: 381.7 FT.

DRILLING INSPECTOR: ALEXANDER HEAD

DRILLER & DRILLING COMPANY: L. MCCOY NAVARRO & WRIGHT

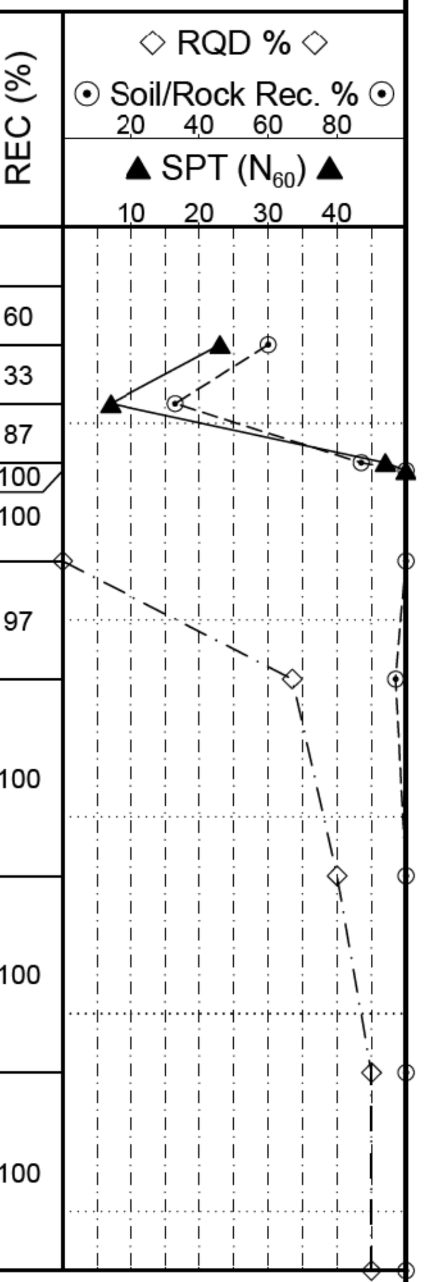
▽ 0 HR. READING - ELAPSED TIME: El. 375.4 ft. - 0.0 hr.

▼ 24 HR. READING - ELAPSED TIME: El. 366.7 ft. - 45.0 hr.

FGE 377.00 | TOR 375.50 | BFE 372.00

MATERIAL DESCRIPTION	AASHTO/USCS
BITUMINOUS CONCRETE. 0.1'/El. 381.6	
CONCRETE. 1.0'/El. 380.7	
GRAVEL, subbase. 1.5'/El. 380.2	
GRAVEL and **SAND**, loose to dense, moist, heterogeneous, well graded, sub-rounded to angular, gray brown to light gray, fill. 5.5'/El. 376.2	a-1-a / gw
GRAVEL, some Sand, contains weathered limestone, dense to very dense, damp to dry, homogeneous, poorly graded, angular, gray, residuum. 6.2'/El. 375.5 *Boring dry prior to coring.*	a-1-a / gp
LIMESTONE, gray, hard, weathered to fresh, thin to narrow bedding with shallow dip, jointed, moderate spacing, sheer dip, wide joint opening, *(RQD=0%)*. 9.0'/El. 372.7	
LIMESTONE, gray, hard, slightly weathered to fresh, thin to medium bedding with shallow to moderate dip, jointed, medium to massive spacing, very steep to sheer dip, narrow joint opening, *(RQD=86%)*. *Calcite veins, 14.5-16.5'.* *Intermittent water return while coring.* 26.5'/El. 355.2	

SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)
1.5–3.0	S-1	14-10-7	23	0.9	60
3.0–4.5	S-2	5-3-2	7	0.5	33
4.5–6.0	S-3	3-7-28	47	1.3	87
6.0–6.2	S-4	50/.2'	>67	0.2	100
6.2–8.5	R-1		0%	2.3	100
8.5–11.5	R-2		67%	2.9	97
11.5–16.5	R-3		80%	5.0	100
16.5–21.5	R-4		90%	5.0	100
21.5–26.5	R-5		90%	5.0	100



GENERAL NOTES

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FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

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LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BDP	BOTTOM OF DISTRIBUTION PAD
BFE	BOTTOM OF FOOTING ELEVATION
BOCC	BOTTOM OF CLASS C CONCRETE
BPCE	BOTTOM OF PILE CAP ELEVATION
EPTE	ESTIMATED PILE TIP ELEVATION
FGE	FINISHED GROUND ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

ME

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SEC 094
SEGMENT 0050 OFFSET 0000
SR 2035-094, STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL MARK T. EVANS GEOLOGIST PG005251

DATE

SHEET 62 OF 64

S - 40598

SUBSTRUCTURE UNIT: LOG 1 OF 1

ABUTMENT 2

BORING NUMBER:	BORING LOCATION	START: 09/24/2021 10:00 AM	HAMMER: AUTOMATIC
SB-05	STATION: 409+35.0 OFFSET: 23.0 FT. LT.	FINISH: 09/28/2021 5:00 PM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER XLS TRACK RIG

SIZE OF CORE: 2.000 IN.

VERTICAL SCALE: 0 FT. 5 FT.

TOP OF BORING ELEVATION: 391.6 FT.

DRILLING INSPECTOR: ALEXANDER HEAD

DRILLER & DRILLING COMPANY: D. RIZIO NAVARRO & WRIGHT

▽ 0 HR. READING - ELAPSED TIME: El. 382.1 ft. - 0.0 hr.

▼ 24 HR. READING - ELAPSED TIME: El. 373.6 ft. - 67.0 hr.

FGE 396.00 NTS; BPCE 392.00 NTS; TOR 379.60; EPTE 379.60

MATERIAL DESCRIPTION

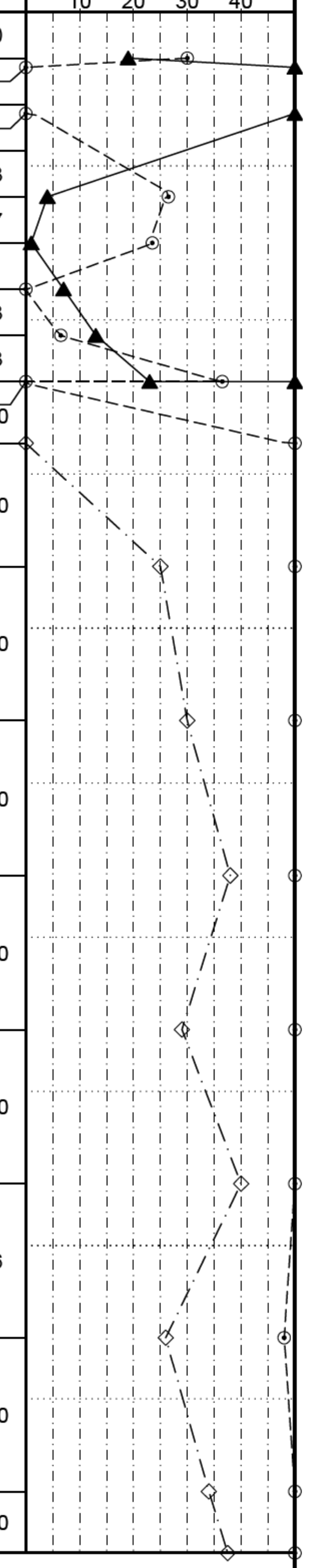
GRAVEL, little Clay, little Sand, medium dense to very dense, damp, heterogeneous, poorly graded, sub-rounded to sub-angular, gray to brown, fill.
S-2 and S-3, no recovery due to limestone boulder and brick fill.
PID=0.0 ppm, S-1 to S-9.
4.5'/El. 387.1 — AASHTO/USCS: a-1-a / gp-gc

SILT, some Clay, little Sand, trace Gravel, stiff to hard, damp, heterogeneous, high plastic fines, orange brown to gray, residuum.
Class. on S-4 to S-5 (4.5-7.5')
A-7-6(18)/CL
N.M.C.=24.9%
LL=43, PL=19, PI=24.
S-6 and S-7, little to no recovery due to gravel in spoon shoe.
12.0'/El. 379.6 — AASHTO/USCS: A-7-6 / CL
Water level at 8.2' prior to coring.

LIMESTONE, light gray to gray, hard, slightly weathered, thin to narrow bedding with shallow to moderate dip, jointed, close spacing, sheer dip, open joints, *(RQD=0%).*
14.6'/El. 377.0

LIMESTONE, gray, hard, slightly weathered to fresh, thin to medium bedding with shallow to moderate dip, jointed, moderate to wide spacing, steep to sheer dip, narrow joint opening, *(RQD=66%).*
Calcite veins, 25.0-27.6'.
Calcite veins, 45.5-48.0'.
50.0'/El. 341.6
Never lost water return.

SAMPLE DEPTH	SAMPLE NO.**	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)
0.0-1.5	S-1	4-5-9	19	0.9	60
1.5-1.8	S-2	50/.3'	>67	0.0	0
3.0-3.3	S-3	50/.3'	>67	0.0	0
4.5-6.0	S-4 (shaded)	2-1-2 / **2.50**	4	0.8	53
6.0-7.5	S-5 (shaded)	WOH-WOH-1 / **1.50**	1	0.7	47
7.5-9.0	S-6	WOH-2-3	7	0.0	0
9.0-10.5	S-7	2-3-7	13	0.2	13
10.5-12.0	S-8	10-8-9 / **4.50**	23	1.1	73
12.0-12.0	S-9	50/.0'	>67	0.0	0
12.0-14.0	R-1		0%	2.0	100
14.0-18.0	R-2		50%	4.0	100
18.0-23.0	R-3		60%	5.0	100
23.0-28.0	R-4		76%	5.0	100
28.0-33.0	R-5		58%	5.0	100
33.0-38.0	R-6		80%	5.0	100
38.0-43.0	R-7		52%	4.8	96
43.0-48.0	R-8		68%	5.0	100
48.0-50.0	R-4		75%	2.0	100



**SAMPLE NO. shading indicates lab testing performed.

SUBSTRUCTURE UNIT: LOG 1 OF 1

ABUTMENT 2

BORING NUMBER:	BORING LOCATION	START: 09/22/2021 10:00 AM	HAMMER: AUTOMATIC
SB-06	STATION: 409+50.0 OFFSET: 33.0 FT. RT.	FINISH: 09/24/2021 9:30 AM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER XLS TRACK RIG

SIZE OF CORE: 2.000 IN.

VERTICAL SCALE: 0 FT. 5 FT.

TOP OF BORING ELEVATION: 389.3 FT.

DRILLING INSPECTOR: LUKE SHERER

DRILLER & DRILLING COMPANY: D. RIZIO NAVARRO & WRIGHT

▽ 0 HR. READING - ELAPSED TIME: El. 374.5 ft. - 0.0 hr.

▼ 24 HR. READING - ELAPSED TIME: El. 363.8 ft. - 170.5 hr.

FGE 396.00 NTS; BPCE 392.00 NTS; TOR 375.30; EPTE 375.30

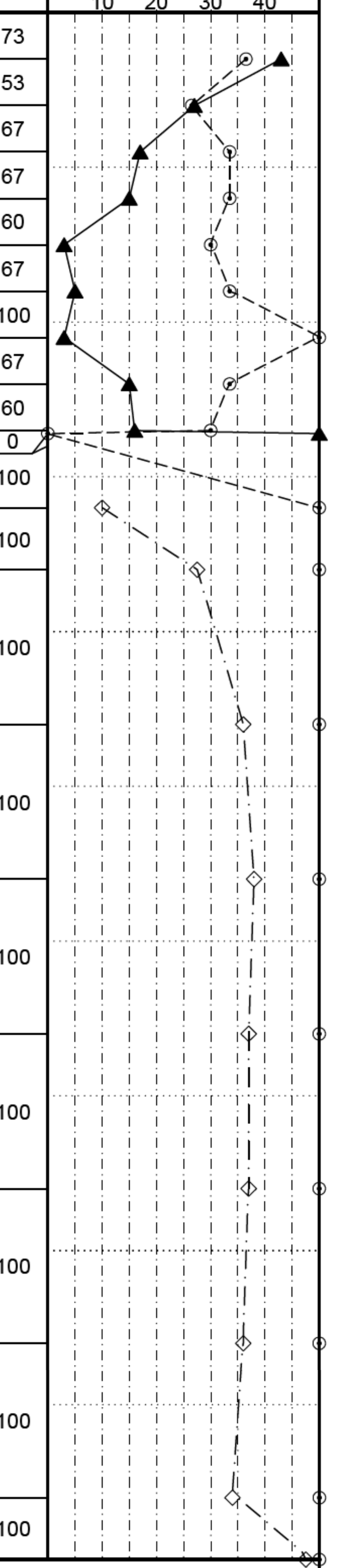
MATERIAL DESCRIPTION

GRAVEL, some Sand, trace Clay, dense, damp, heterogeneous, poorly graded, sub-angular to sub-rounded, gray, fill.
2.0'/El. 387.3 — AASHTO/USCS: a-1-a / gp

SILT, some Clay, little Sand, little Gravel, stiff to hard, damp, heterogeneous, high plastic fines, orange brown, residuum.
Class. on S-3 to S-9 (3.0-13.5')
A-6(13)/CL
N.M.C.=21.8%
LL=40, PL=18, PI=22.
PID=0.0 ppm, S-1 to S-10.
S-6, increase in sand.
S-5 to S-9, steady increase in grain size.
S-8 and S-9, increase in rounded gravel.
Casing refusal @ 14.0 ft.
14.0'/El. 375.3 — AASHTO/USCS: A-6 / CL
Water level @ 8.8' prior to coring.
S-10, hard.

LIMESTONE, light gray to gray, medium hard to hard, fresh, narrow to medium bedding with shallow to moderate dip, jointed, medium to wide spacing, very steep to sheer dip, *tight to narrow joints, (RQD=70%).*
Calcite veins, 20.5-21.1'.
Large abundant calcite veins, 29.7-31.0'.
Calcite veins, 32.0-33.7'.
Calcite veins, 35.2-37.6'.
Calcite veins, 41.5-43.0'.
Intermitten water return, 40.0' - 45.0', water return after 45.0'.
Calcite veins, 43.9-45.7'.
Calcite veins, 48.0-50.0'.
50.0'/El. 339.3

SAMPLE DEPTH	SAMPLE NO.**	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)
0.0-1.5	S-1	16-24-8	43	1.1	73
1.5-3.0	S-2	10-10-10 / **4.50**	27	0.8	53
3.0-4.5	S-3 (shaded)	6-6-7 / **3.00**	17	1.0	67
4.5-6.0	S-4 (shaded)	6-5-6 / **3.00**	15	1.0	67
6.0-7.5	S-5 (shaded)	2-1-1 / **2.00**	3	0.9	60
7.5-9.0	S-6 (shaded)	2-2-2 / **1.50**	5	1.0	67
9.0-10.5	S-7 (shaded)	WOH-WOH-2 / **1.50**	3	1.5	100
10.5-12.0	S-8 (shaded)	6-5-6 / **3.00**	15	1.0	67
12.0-13.5	S-9 (shaded)	2-4-8 / **4.00**	16	0.9	60
13.5-13.6	S-10	50/.1'	>67	0.0	0
14.0-16.0	R-1		20%	2.0	100
16.0-18.0	R-2		55%	2.0	100
18.0-23.0	R-3		72%	5.0	100
23.0-28.0	R-4		76%	5.0	100
28.0-33.0	R-5		74%	5.0	100
33.0-38.0	R-6		74%	5.0	100
38.0-43.0	R-7		72%	5.0	100
43.0-48.0	R-8		68%	5.0	100
48.0-50.0	R-9		95%	2.0	100



**SAMPLE NO. shading indicates lab testing performed.

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BDP	BOTTOM OF DISTRIBUTION PAD
BFE	BOTTOM OF FOOTING ELEVATION
BOCC	BOTTOM OF CLASS C CONCRETE
BPCE	BOTTOM OF PILE CAP ELEVATION
EPTE	ESTIMATED PILE TIP ELEVATION
FGE	FINISHED GROUND ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

ME

SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SEC 094
SEGMENT 0050 OFFSET 0000
SR 2035-094, STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE

STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL MARK T. EVANS GEOLOGIST PG005251

DATE

SHEET 63 OF 64

S - 40598

LABORATORY TEST SUMMARY - SOILS

					% GRAIN SIZE DISTRIBUTION (AASHTO)							CLASSIFICATION			PLASTICITY PARAMETERS			SHEAR STRENGTH				
BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	NATURAL MOISTURE %	GRAVEL %	SAND %	COARSE SAND %	FINE SAND %	FINES %	SILT %	CLAY %	AASHTO	USCS	S.G.	LIQUID LIMIT	PLASTIC LIMIT	P. I.	C (TSF)	ϕ (DEG.)	C' (TSF)	ϕ' (DEG)	TEST METHOD
SB-01	406+52.0 29 ft. RT.	S-9 to 13	12.0 to 19.5	29.2	2.9	6.1			91.0	54.8	36.2	A-7-6	CL		44	20	24					
SB-02	406+76.0 17 ft. LT.	S-5 to 9	6.0 to 13.5	37.2	26.9	61.4			11.7	10.4	1.3	A-2-4	SW-SM		NP	NP	NP	0.144	26.1			DIR. SHR.-CD
SB-02	406+76.0 17 ft. LT.	S-12 to 16	16.5 to 24.0	29.4	2.9	6.6			90.5	31.0	59.5	A-7-6	CH		55	22	33					
SB-05	409+35.0 23 ft. LT.	S-4 to 5	4.5 to 7.5	24.9	5.3	15.9			78.8	47.0	31.8	A-7-6	CL		43	19	24					
SB-06	409+50.0 33 ft. RT.	S-3 to 9	3.0 to 13.5	21.8	11.9	19.7			68.3	42.1	26.2	A-6	CL		40	18	22	0.130	31.7			DIR. SHR.-CD

LABORATORY TEST SUMMARY - ROCK CORE

BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	TEST	STRENGTH	JAR SLAKE TEST PERFORMED?	SLAKE DURABILITY INDEX & TYPE	ROCK RECOVERY %	RQD %	BEDROCK LITHOLOGY	STRATIGRAPHIC UNIT
SB-01	406+52.0 29 ft. RT.	R-1	21.5 to 22.1	UNCONFINED COMPRESSIVE TEST	24996.0 PSI / 1,799.7 TSF	NO		101	71	LIMESTONE	
SB-01	406+52.0 29 ft. RT.	R-2	24.3 to 24.8	UNCONFINED COMPRESSIVE TEST	24727.0 PSI / 1,780.3 TSF	NO		100	70	LIMESTONE	
SB-02	406+76.0 17 ft. LT.	R-2	31.6 to 32.0	UNCONFINED COMPRESSIVE TEST	19348.0 PSI / 1,393.1 TSF	NO		95	45	LIMESTONE	
SB-02	406+76.0 17 ft. LT.	R-4	41.3 to 41.8	UNCONFINED COMPRESSIVE TEST	28223.0 PSI / 2,032.1 TSF	NO		94	52	LIMESTONE	
SB-03	408+24.0 28 ft. RT.	R-3	11.0 to 11.5	UNCONFINED COMPRESSIVE TEST	21457.0 PSI / 1,544.9 TSF	NO		100	75	LIMESTONE	
SB-03	408+24.0 28 ft. RT.	R-5	18.1 to 18.7	UNCONFINED COMPRESSIVE TEST	31942.0 PSI / 2,299.8 TSF	NO		100	86	LIMESTONE	
SB-04	408+30.0 28 ft. LT.	R-2	11.0 to 11.5	UNCONFINED COMPRESSIVE TEST	25370.0 PSI / 1,826.6 TSF	NO		97	67	LIMESTONE	
SB-04	408+30.0 28 ft. LT.	R-4	19.7 to 20.4	UNCONFINED COMPRESSIVE TEST	24358.0 PSI / 1,753.8 TSF	NO		100	90	LIMESTONE	
SB-05	409+35.0 23 ft. LT.	R-2	17.6 to 18.0	UNCONFINED COMPRESSIVE TEST	22462.0 PSI / 1,617.3 TSF	NO		100	50	LIMESTONE	
SB-05	409+35.0 23 ft. LT.	R-5	30.6 to 31.2	UNCONFINED COMPRESSIVE TEST	24762.0 PSI / 1,782.9 TSF	NO		100	58	LIMESTONE	
SB-06	409+50.0 33 ft. RT.	R-2	16.0 to 16.6	UNCONFINED COMPRESSIVE TEST	30286.0 PSI / 2,180.6 TSF	NO		100	55	LIMESTONE	
SB-06	409+50.0 33 ft. RT.	R-3	20.1 to 21.6	UNCONFINED COMPRESSIVE TEST	37179.0 PSI / 2,676.9 TSF	NO		100	72	LIMESTONE	

LABORATORY TEST SUMMARY - ELECTROCHEMICAL

BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	SAMPLE SOURCE	pH	MINIMUM RESISTIVITY (ohm-cm)	CHLORIDE CONTENT (ppm)	SULFATE CONTENT (ppm)	HIGH ORGANIC CONTENT?	CORROSIVE FOR CONCRETE?	CORROSIVE FOR STEEL?
SB-01	406+52.0 29 ft. RT.	S-9 to 13	12.0 to 19.5	GROUNDWATER SOIL	7.8	2,613	10	30	No	No No	No No

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SR 2035 PREVIOUSLY KNOWN AS LR 250

BMS STR ID: 21-2035-0050-0000 MPMS/ECMS PROJ: 113754/E00915 BRKEY: 68710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

CUMBERLAND COUNTY
SR 2035 SEC 094
SEGMENT 0050 OFFSET 0000
SR 2035-094, STA 407+56.00 OVER SR 0083 & NSRR

2-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL MARK T. EVANS GEOLOGIST PG005251

DATE

SHEET 64 OF 64

S - 40598

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of the Pennsylvania Department of Transportation for approval to alter the public crossing (DOT 592 197 L) by the removal and replacement of the existing bridge where SR 2035 (South Third Street) crosses, above grade, the tracks of Norfolk Southern Railway Company located in Lemoyne Borough, Cumberland County, and the allocation of costs incident thereto.	:	**Docket No. A-2021-3023845** **Electronically Filed**

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of 52 Pa. Code §1.54, by:

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Respectfully submitted,

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

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DATED: June 11, 2026