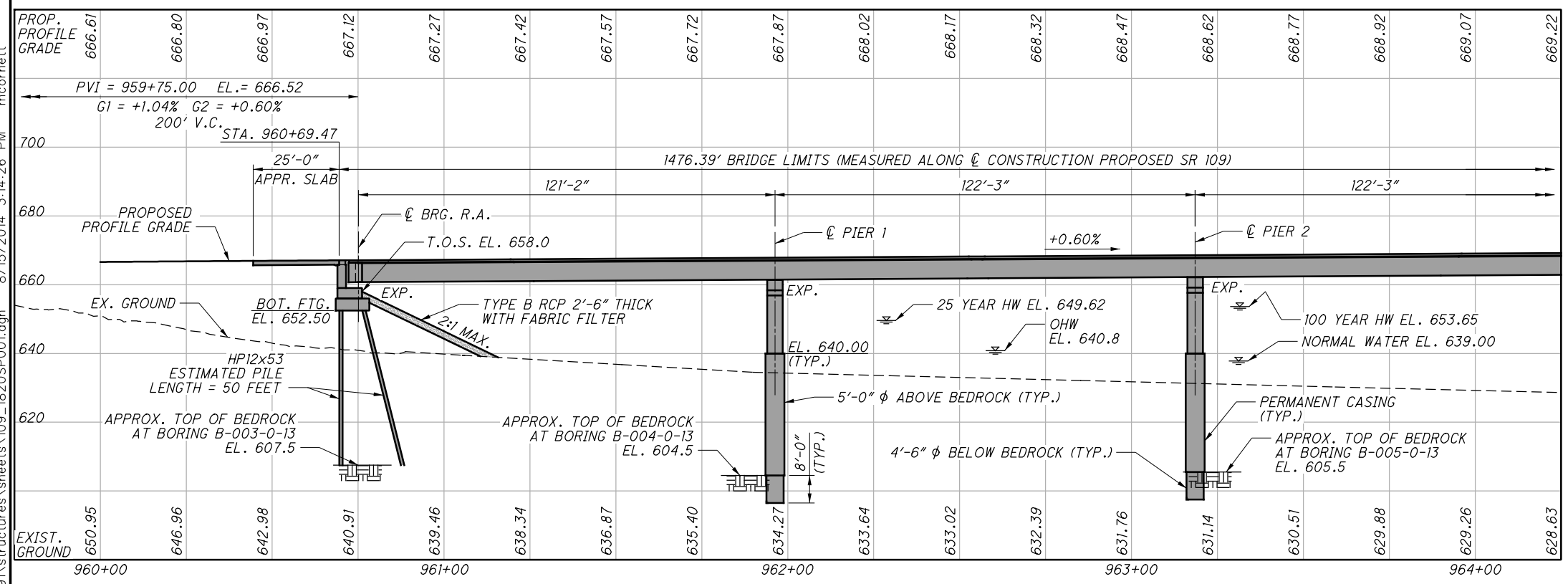


PLAN



PROFILE ALONG C CONSTRUCTION PROPOSED SR 109

BENCHMARK DATA

PT: BENCHMARK 1 STA. 983+66.70, EL. 664.33, OFFSET 43.80' RT.
PROJECT CONTROL PT#2 3/4 IN ALUMINUM CAP
PT: BENCHMARK 2 STA. 982+89.50, EL. 660.57, OFFSET 815.50' LT.
MAG NAIL IN W FACE OF 48" TREE

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 133

NOTES:

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

DESIGN TRAFFIC:

2016 ADT = 2,460 2016 ADTT = 394
2036 ADT = 2,560 2036 ADTT = 410
DIRECTIONAL DISTRIBUTION = 50%

LEGEND:

- BORING LOCATION
- ⊕ HISTORICAL BORING LOCATION
- DTBD - DISPOSITION TO BE DETERMINED
- RCP - ROCK CHANNEL PROTECTION
- TOS- TOP OF SLOPE

HYDRAULIC DATA:

DRAINAGE AREA = 5683 SQ. MILES
Q (25) = 72,400 CFS V (25) = 3.0 FT/S
Q (100) = 115,900 CFS V (100) = 3.9 FT/S
STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 8.5 FEET.

EXISTING STRUCTURE

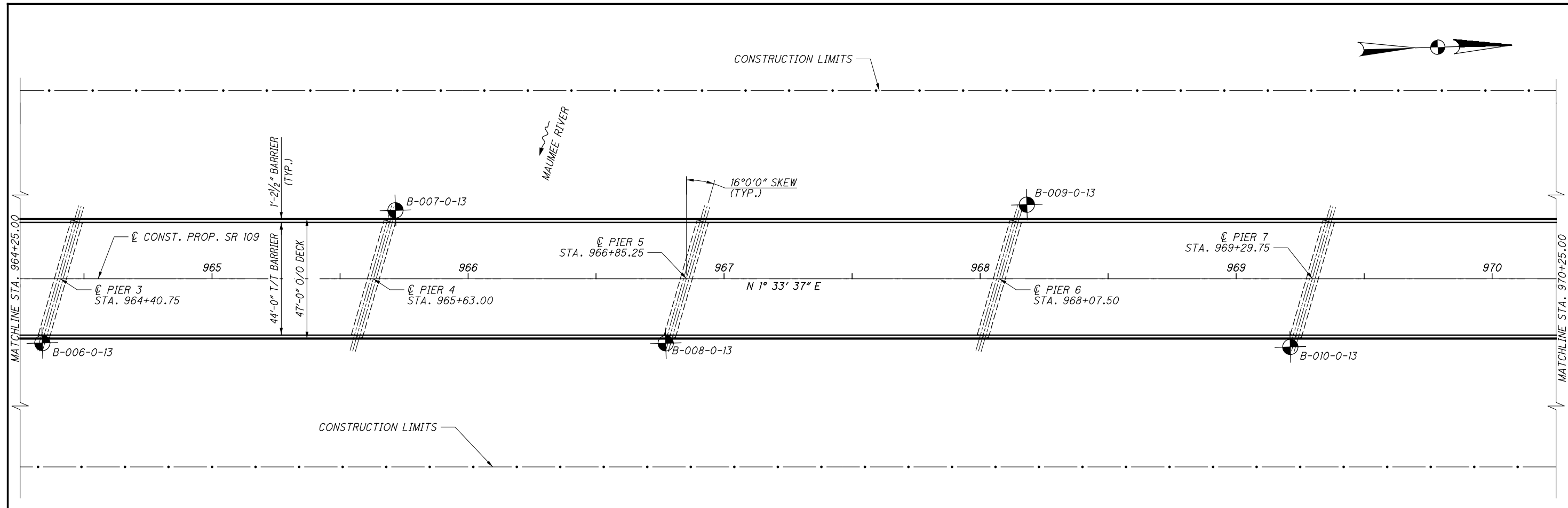
TYPE: CONTINUOUS STEEL GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 102'-0", 136'-0", 4 SPANS @ 200'-0", 136'-0", 102'-0" C/C BRG.
ROADWAY: 24'-0" F/F PARAPETS
LOADING: HS20-44
SKEW: NONE
WEARING SURFACE: BITUMINOUS
APPROACH SLABS: AS-1-72, 25'-0" LONG
ALIGNMENT: TANGENT
CROWN: 0.016 FT./FT.
STRUCTURAL FILE NUMBER: 3503135
DATE BUILT: 1974 (SUPERSTRUCTURE), 1908 (SUBSTRUCTURE)
DISPOSITION: TO BE REMOVED

PROPOSED STRUCTURE

TYPE: 12 SPAN PRESTRESSED CONCRETE I-BEAM BRIDGE WITH COMPOSITE REINFORCED CONCRETE DECK ON STUB ABUTMENTS AND CAP AND COLUMN PIERS.
SPANS: 12 SPANS @ 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", 120'-1", AND 120'-4 3/8" C/C BEARINGS MEASURED ALONG C CONSTRUCTION PROPOSED SR 109
ROADWAY: 44'-0" TOE/TOE BARRIER
LOADING: HL-93
FUTURE WEARING SURFACE: 60 PSF
WEARING SURFACE: 1" MONOLITHIC
SKEW: 16° 00' 00" L.F.
APPROACH SLABS: 25'-0" LONG (AS-1-81)
ALIGNMENT: SPANS 1-11 TANGENT, SPAN 12 CURVED LEFT
CROWN: 0.016 FT./FT. (SPANS 1-10, SPANS 11 & 12 VARIABLE SUPERELEVATION)
COORDINATES: LATITUDE N41°24'31"
LONGITUDE W84°00'30"

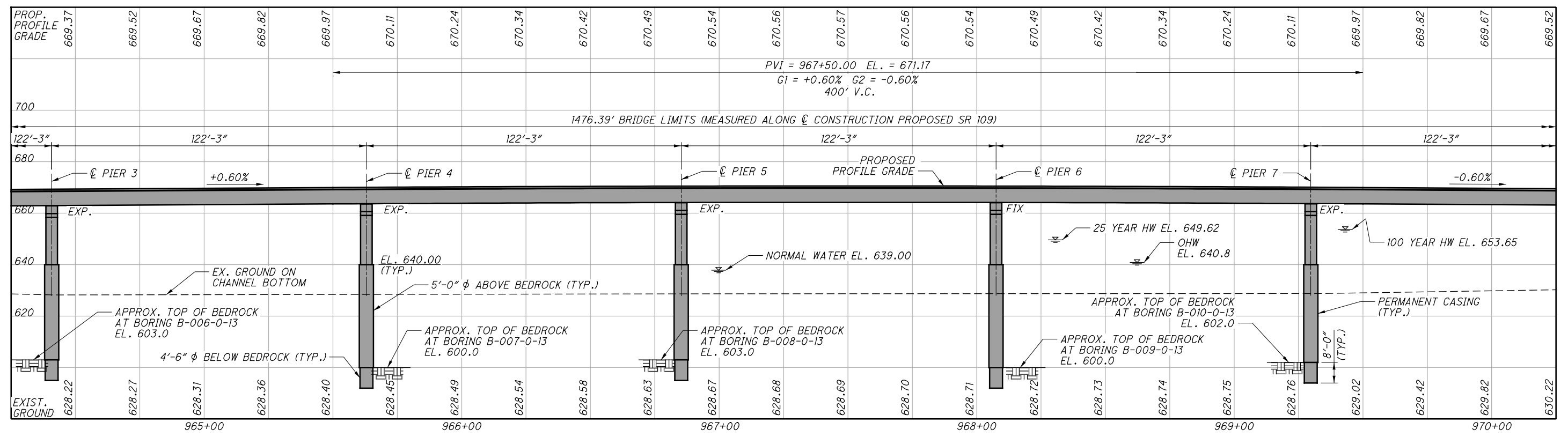
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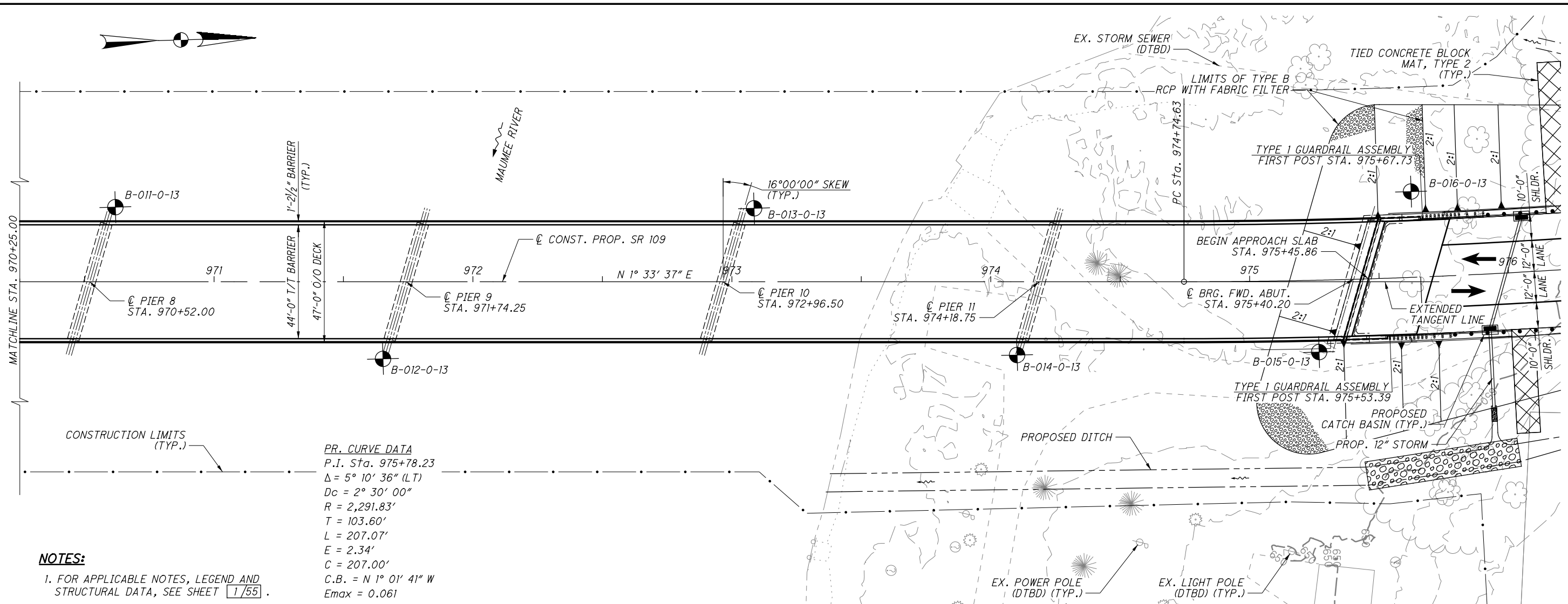
PLAN

NOTES:
 1. FOR APPLICABLE NOTES, LEGEND AND STRUCTURAL DATA, SEE SHEET 1/55.



PROFILE ALONG ϕ CONSTRUCTION PROPOSED SR 109

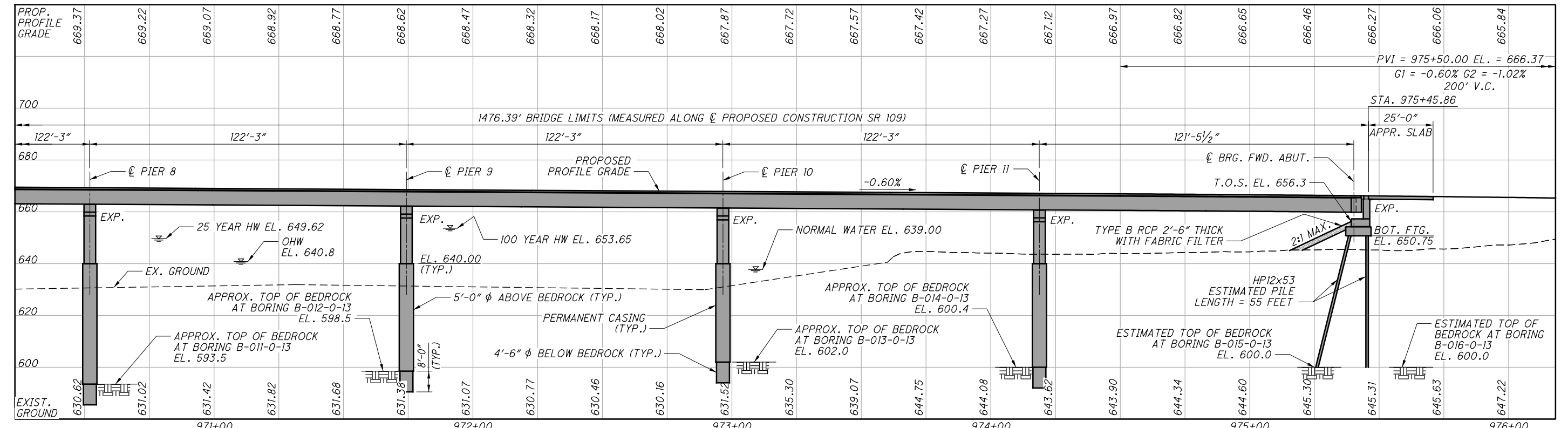
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|---|----------------|-----------------------|
| E.L. ROBINSON ENGINEERING 1801 Walmark Drive, Suite 310 - Columbus, Ohio 43215 www.elrobinsonengineering.com | DATE | 08/2014 |
| | REVIEWED RLE | 3502392 |
| DESIGNED BMG | DRAWN DTA | STRUCTURE FILE NUMBER |
| CHECKED | REVISOR | DFT |
| HENRY COUNTY | STA. 960+69.47 | STA. 975+45.86 |
| SITE PLAN | | |
| BRIDGE NO. HEN-109-1820 OVER THE MAUMEE RIVER | | |
| HEN-109-18.02 | | |
| PID No. 90991 | | |
| 2 / 55 | | |
| 71 133 | | |



PR. CURVE DATA
 P.I. Sta. 975+78.23
 $\Delta = 5^\circ 10' 36''$ (LT)
 $D_c = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $T = 103.60'$
 $L = 207.07'$
 $E = 2.34'$
 $C = 207.00'$
 $C.B. = N 1^\circ 01' 41'' W$
 $E_{max} = 0.061$

NOTES:
 1. FOR APPLICABLE NOTES, LEGEND AND STRUCTURAL DATA, SEE SHEET 1/55.

PLAN



PROFILE ALONG C CONSTRUCTION PROPOSED SR 109

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| DATE | 08/2014 |
| REVIEWED RLE | 3502392 |
| DRAWN DTA | |
| CHECKED | |
| DESIGNED BMG | |
| DFT | |

HENRY COUNTY
 STA. 960+69.47
 STA. 975+45.86

SITE PLAN
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):
A-1-69 REVISED 7-19-02
AS-1-81 REVISED 1-18-13
BR-2-98 REVISED 7-20-12
PSID-1-13 REVISED 10-18-13

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2012 - 6th EDITION INCLUDING THE 2013 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING:

DESIGN LOADING:
HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ. FT.

DESIGN STRESSES:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.0 KSI (DRILLED SHAFTS)
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
SEE SPECIAL PROVISIONS FOR STEEL RAILING INFORMATION

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI
STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.5 KSI
COMPRESSIVE STRENGTH (RELEASE) - 6.5 KSI

WELDED WIRE FABRIC:
YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND:
AREA = 0.217 SQ. IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

EXISTING BRIDGE PLANS:

EXISTING PLANS MAY BE INSPECTED IN THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OH OR AT THE ODOT DISTRICT 2 OFFICE AT 317 EAST POE RD., BOWLING GREEN, OH.

MAINTENANCE OF TRAFFIC:

SEE ROADWAY PLANS FOR ADDITIONAL MAINTENANCE OF TRAFFIC NOTES AND DETAILS.

UTILITY LINES:

THE UTILITIES SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES UNLESS DETERMINED OTHERWISE BY THE COUNTY UTILITY COORDINATOR. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

PILE DRIVING CONSTRAINTS:

PRIOR TO DRIVING PILES, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

PILES TO BEDROCK:

DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED BY PENETRATING WEAK BEDROCK FOR SEVERAL INCHES TO A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR BY CONTACTING STRONG BEDROCK AND THE PILE RECEIVING AT LEAST 20 BLOWS. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL. INSTEAD OF DRIVING TO REFUSAL, THE CONTRACTOR MAY PERFORM DYNAMIC LOAD TESTING ACCORDING TO C&MS 523 TO ESTABLISH A DRIVING CRITERIA FOR EACH PILE TYPE AND CAPACITY. ESTABLISH THE DRIVING CRITERIA TO ACHIEVE AN ULTIMATE BEARING VALUE THAT IS 1.5 TIMES THE TOTAL FACTORED LOAD GIVEN BELOW FOR THE PILES. PAYMENT FOR DYNAMIC LOAD TESTING PERFORMED AT THE CONTRACTOR'S OPTION IS INCLUDED IN THE UNIT PRICE PAY ITEM FOR PILES DRIVEN.

THE TOTAL FACTORED LOAD IS 350 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENT LOADS.

ABUTMENT PILES:
REAR ABUTMENT HP12x53 PILES 55 FEET LONG, ORDER LENGTH
FORWARD ABUTMENT HP12x53 PILES 60 FEET LONG, ORDER LENGTH

PILE SPLICES:

IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN C&MS 507.09 TO SPLICE H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION
8 WOOD HOLLOW RD. PLAZA 1
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 1.15 KIPS FOR A TOTAL MACHINE LOAD OF 9.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

ITEM 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 960+00 TO 976+50

ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

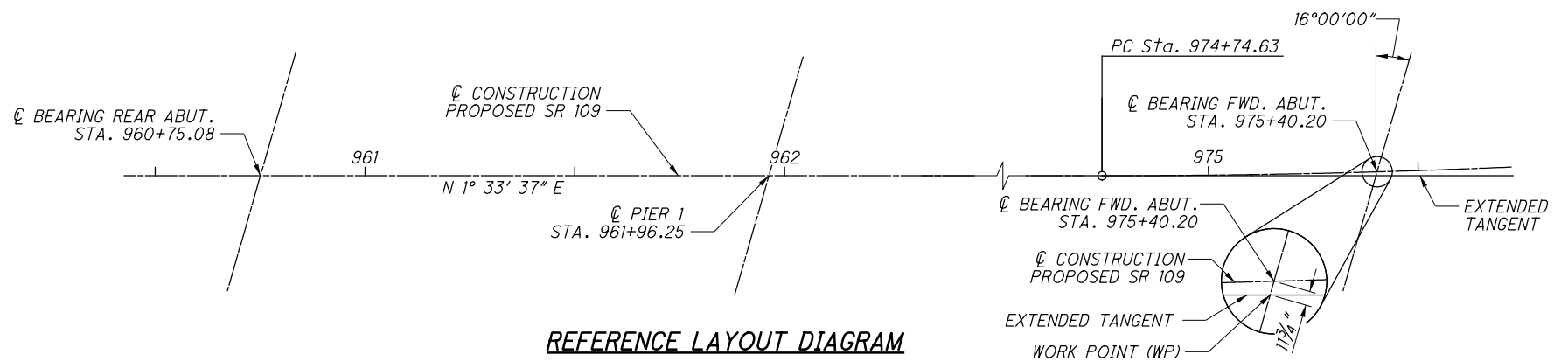
THE CONTRACTOR SHALL INCLUDE ALL WORK REQUIRED UNDER THIS PAY ITEM FOR CONSTRUCTION OF THE PROPOSED STRUCTURE. INCLUDED IN THIS PAY ITEM SHALL BE ANY TEMPORARY SHORING REQUIRED AT THE REAR ABUTMENT TO MAINTAIN THE EXISTING STRUCTURE WHILE THE PROPOSED STRUCTURE IS BEING CONSTRUCTED.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL PLACED IN BEHIND THE ABUTMENTS SHALL BE 703.17 MATERIAL PLACED IN 6 INCH LIFTS AS PER 304.05.

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

ALL EXPOSED CONCRETE SURFACES OF THE ABUTMENT, INCLUDING WINGWALLS, AND LIMITS OF THE CONCRETE SUPERSTRUCTURE AS PER PLAN DETAILS SHALL BE SEALED. EPOXY-URETHANE SHALL BE THE LIGHT NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NO. 17778.



REFERENCE LAYOUT DIAGRAM

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| STRUCTURE FILE NUMBER | | | 3502392 |

GENERAL NOTES (1 OF 4)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

**ITEM 511 QC/QA CONCRETE CLASS QSC2. SUPERSTRUCTURE (DECK).
AS PER PLAN:**

DESCRIPTION:

IN ADDITION TO THE WORK REQUIREMENTS OF 511, THE CONTRACTOR MAY EITHER PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508 OR DESIGN, BUILD, PROVIDE AND CONSTRUCT GALVANIZED STEEL STAY-IN-PLACE (SIP) FABRICATED METAL FORMS CONFORMING TO CMS 508 AND THESE ADDITIONAL REQUIREMENTS. THE DEPARTMENT WILL NOT SEPARATELY PAY FOR SIP FORMS. THE COST OF THIS WORK IF CHOSEN BY THE CONTRACTOR SHALL BE INCLUDED FOR PAYMENT IN THE PRICE BID FOR ITEM 511. THE DEPARTMENT WILL PAY NO EXTRA FOR ANY ADDITIONAL CONCRETE, REINFORCEMENT STEEL, OR STRUCTURAL STEEL THAT MAY BE REQUIRED WHEN USING SIP FORMS. ANY ADDITIONAL COST AND/OR DESIGN ASSOCIATED WITH THE USE OF SIP FORMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE ADDITIONAL DEAD LOAD OF THE SIP FORM PLUS THE WEIGHT OF THE ADDITIONAL CONCRETE SHALL BE DETERMINED FROM THE REQUIRED BEAM SPACING AND DEPTH OF FORM. THIS LOAD WILL BE IN ADDITION TO THE LOADS AS SPECIFIED AS DESIGN LOADS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN, FABRICATION AND INSTALLATION MODIFICATIONS TO THE BRIDGE COMPONENTS INCLUDING THE BRIDGE BEAMS OR GIRDERS, CAMBER DIAGRAMS, DECK SCREED TABLES, BRIDGE BEARINGS, AND SUBSTRUCTURES. ALL PLAN MODIFICATIONS SHALL BE PREPARED AS PER 501.

DESIGN, BUILD, SIP FORMS WILL NOT BE PERMITTED AT OVERHANGS, AND WITHIN EIGHT FEET OF ALL EXPANSION JOINTS AND FOUR FEET OF ALL THROUGH DECK DRAINAGE SYSTEMS. IN ADDITION SIP FORMS WILL NOT BE PERMITTED WITHIN STRINGER BAYS WHERE CONSTRUCTION IS PHASED OR CLOSURE POURS ARE USED.

IF THE CONTRACTOR ELECTS TO USE CONVENTIONAL FORM METHODS OR SIP FORMS, THE FORM METHOD SELECTED SHALL BE USED FOR THE ENTIRE BRIDGE PROJECT UNLESS SPECIFIED IN THE PLAN OR APPROVED BY THE ENGINEER. THIS INCLUDES PROJECTS UTILIZING PHASED CONSTRUCTION AND STIPULATES THAT ALL PHASES CONSTRUCTED ALIKE.

DESIGN:

SUBMIT CONSTRUCTION PLANS ACCORDING TO 501.05.B.3. DESIGN SIP FORMS TO SUPPORT THE SELF WEIGHT OF SIP FORMS, REINFORCEMENT, WET DECK CONCRETE, ANY CONSTRUCTION EQUIPMENT LOADS, AND AT LEAST A 50 PSF LOAD FOR CONSTRUCTION LIVE LOADS. MEET THE DEFLECTION REQUIREMENTS OF 508.

DESIGN SIP FORMS THAT HAVE THE DEPTH OF THE FORM CORRUGATION FILLED WITH CONCRETE.

INCLUDE THE FOLLOWING INFORMATION IN THE CONSTRUCTION PLAN:

- A. DESIGN CALCULATIONS
- B. PHYSICAL PROPERTIES OF THE SIP FORMS (GAGE, SECTION MODULUS, WEIGHT, DEPTH AND PITCH)
- C. CROSS SECTION VIEW AND DIMENSIONS OF: SIP FORMS, SUPPORT ANGLES, CHANNEL CLOSURES, SAFETY STOPS, CLIPS, PLATES AND HARDWARE.
- D. INCLUDE AN OVERALL LAYOUT PLAN WITH:
 1. WORKING POINTS OR CONTROL ELEVATIONS NECESSARY TO SET SUPPORT ANGLES.
 2. TYPICAL AND SPECIFIC CROSS SECTIONS OR DETAILS: SUPPORT CONNECTIONS TO THE STRUCTURAL MEMBERS, SIP FORM CONNECTIONS TO SUPPORTS, FORM LAPS AND CLOSURE SECTIONS.
 3. MINIMUM BEARING LENGTHS (EDGE DISTANCES) OF SIP FORMS TO THE SUPPORT ANGLES.
 4. WELDING DETAILS: SIZE, LENGTH, LOCATIONS, ELECTRODES AND PROCESS.
- E. WORKER SAFETY RESTRICTIONS.
- F. INSTALLATION INSPECTION CHECK LISTS.

MATERIALS:

SUBMIT 501.06 TEST REPORTS AND WRITTEN ACCEPTANCE LETTERS TO THE ENGINEER. MATERIAL INSPECTION AND ACCEPTANCE IS PERFORMED BY THE ENGINEER AT THE PROJECT SITE. FURNISH FORM, SUPPORT MATERIALS AND HARDWARE CONFORMING THE FOLLOWING:

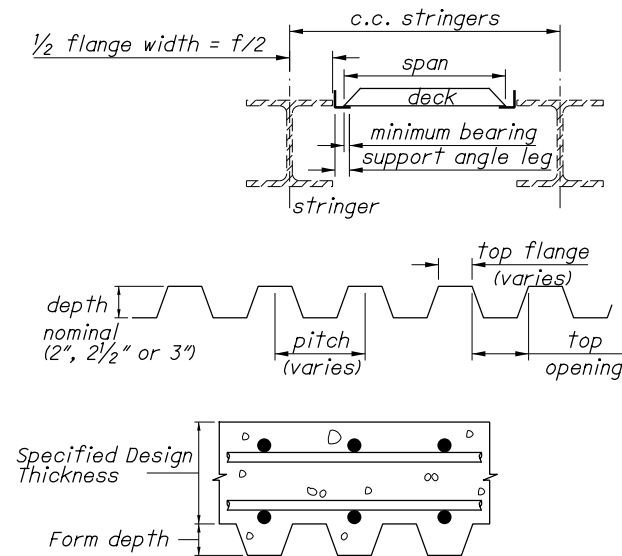
- A. FORM AND SUPPORT MATERIAL, ASTM A653 HAVING COATING DESIGNATION OF G235 AND CONFORMING TO THE MECHANICAL PROPERTIES THE DESIGN REQUIRES.
- B. PROVIDE DECK FORMS WITH A 2 INCH MINIMUM FORM DEPTH.
- C. PROVIDE MINIMUM MATERIAL THICKNESS AS FOLLOWS: SIP FORMS (20 GAUGE), SUPPORT ANGLES (12 GAUGE) AND SUPPORT BARS (12 GAUGE).
- D. SUPPLY DECK, SELF DRILLING FASTENERS WITH CADMIUM PLATING PER ASTM B766 WITH MINIMUM THICKNESS OF 5, TEN THOUSANDTHS (0.0005 INCH). THE HEADS OF THESE FASTENERS WILL BE A HIGHLY VISIBLE COLOR, RED OR OTHER, TO AID IN INSPECTION.

WELDING:

DO NOT WELD SIP FORMS OR THEIR SUPPORTS TO THE STEEL BRIDGE MEMBERS. SIP SUPPORTS MAY BE WELDED TO ANCHORS CAST INTO PRECAST CONCRETE BRIDGE MEMBERS. PERFORM WELDING PER 513.21.

INSTALLATION LIMITATIONS:

- A. FIELD CUT SIP FORMS USING MECHANICAL CUTTING METHODS. THERMAL CUTTING IS NOT PERMITTED.
- B. PLACE FORMS ON FORM SUPPORTS. DO NOT INSTALL SIP FORMS DIRECTLY TO THE BRIDGE'S STRUCTURAL MEMBERS.
- C. ADJUST THE SCREED ELEVATIONS BY PRORATING THE CONCRETE DEAD LOAD DEFLECTION TO ACCOUNT FOR THE ADDITIONAL PERMANENT DEAD LOADS ASSOCIATED WITH CONCRETE FILLED STAY IN PLACE FORMS.
- D. SET THE HEIGHT OF THE FORM SUPPORTS TO DEVELOP THE ADJUSTED SCREED ELEVATIONS, DECK THICKNESS AND PLAN PROFILE.
- E. PLACE SIP FORMS ON FORM SUPPORTS TO ACHIEVE MINIMUM BEARING LENGTH PER MANUFACTURES DESIGN.
- F. CONNECT SIP FORMS TO FORM SUPPORTS BEFORE USING THE SIP AS A WORKING SURFACE AND BEFORE THE END OF EACH WORK SHIFT.
- G. PROVIDE SAFETY STOPS TO ELIMINATE HAZARDS FROM SUDDEN UPLIFT AND LATERAL MOVEMENT. AFTER THE DECK CONCRETE MEETS THE LOADING REQUIREMENTS OF C&MS 511.17, REMOVE THE VISIBLE PORTION OF ALL SAFETY STOPS.
- H. COATINGS DAMAGED CAUSED BY MECHANICAL CUTTING OR FIELD WELDING NEED NOT BE REPAIRED UNLESS SPECIFIED BY THE SIP FORM MANUFACTURE.
- I. THE CONTRACTOR SHALL PROTECT INSTALLED SIP FORMS FROM ANY CLEANING SOLUTIONS, BLASTING OR OTHER WORK OPERATIONS THAT MAY DAMAGE THE FORM COATING. FORMS THAT ARE DAMAGED FROM LACK OF PROTECTION SHALL BE REPAIRED OR REMOVED AS DIRECTED BY THE ENGINEER. IF DIRECTED TO REPAIR, THE DAMAGED AREAS SHALL BE METALIZED AS PER 516.03 AND SUPPLEMENTAL SPECIFICATION 845. ALL COST FOR THE REPAIR OR REMOVAL SHALL BE PAID BY THE CONTRACTOR.



INSPECTION:

THE ENGINEER WILL CHECK SIP MATERIALS, DESIGN REQUIREMENTS AND EVALUATE INSTALLATION BASED ON CONSTRUCTION PLANS.

BASIS OF PAYMENT:

THE DEPARTMENT WILL NOT SEPARATELY PAY FOR SIP FORMS. THE COST OF THIS WORK IS INCLUDED FOR PAYMENT IN THE PRICE BID FOR THE ITEM FOR WHICH THE SIP FORMS ARE USED.

ITEM 513. STRUCTURAL STEEL MEMBERS. MODULAR EXPANSION JOINT. LEVEL UF. AS PER PLAN:

ABUTMENT JOINTS SHALL BE WATSON BOWMAN ACME (WABO) MODULAR D-900, DS BROWN D-240, OR APPROVED ALTERNATE. THE MANUFACTURER SHALL SUBMIT DESIGN CALCULATIONS SHOWING THAT THE DEVICE CAN MEET THE IMPACT AND FATIGUE DESIGN REQUIREMENTS SET FORTH BY AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, SECTION 14.5.

A. DESCRIPTION

FURNISH ALL MATERIALS, SERVICES, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO DESIGN, FABRICATE, INSPECT, TEST AND INSTALL MODULAR EXPANSION JOINTS IN ACCORDANCE WITH THE PLANS AND THESE NOTES. ALL REQUIREMENTS OF 513, UF LEVEL FABRICATION APPLY, UNLESS MODIFIED BY THESE NOTES.

B. DESIGN

1. PREPARE AND CHECK THE DESIGN UNDER THE AUTHORITY OF AN OHIO REGISTERED PROFESSIONAL ENGINEER. THE REGISTERED ENGINEER SHALL SEAL, SIGN AND DATE THE DESIGN CALCULATIONS AND SHOP DRAWINGS.
2. INCLUDE DESIGN CALCULATIONS WITH THE CONTRACTOR'S SUBMISSION OF SHOP DRAWINGS PER 513.06.
3. PROVIDE A DETAILED INSTALLATION PROCEDURE AND INCLUDE ANY SPECIFIC MANUFACTURER'S NOTES NECESSARY FOR COMPLETION OF THE WORK.
4. DESIGN AND TEST THE MODULAR JOINT COMPONENTS, JOINT ARMOR AND ANCHORAGES ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 402 "FATIGUE DESIGN OF MODULAR BRIDGE EXPANSION JOINTS" APPENDIX A AND B.
5. DESIGN TEMPORARY AND FIELD CONNECTIONS TO THE BRIDGE TO ACCOMMODATE ADJUSTMENTS FOR ROADWAY GEOMETRY AND VARYING TEMPERATURE.
6. DESIGN FOR THE PLAN SPECIFIED MOVEMENT PER AASHTO LRFD 3.12.2 FOR A COLD CLIMATE (TEMPERATE RANGE IS FROM -30°F TO +120°F WITH BASE TEMPERATURE SET TO 60°F).

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ITEM 513. STRUCTURAL STEEL MEMBERS, MODULAR EXPANSION JOINT, LEVEL UP, AS PER PLAN (CONT.):

7. SUPPLY SUPPORT BAR BEARINGS TO TRANSFER THE LOAD FROM THE SUPPORT BARS TO THE JOINT ARMOR.

8. FOR DESIGN OF THE DECK JOINT AT ALL LIMIT STATES, THE DYNAMIC LOAD ALLOWANCE (IM) SHALL BE TAKEN AS 125% OF THE STATIC EFFECT OF EITHER THE DESIGN TRUCK OR THE DESIGN TANDEM.

9. SUPPLY EQUALIZATION SPRINGS TO COUNTER THE COMPRESSION FORCES FROM THE SEALING ELEMENTS AND MAINTAIN EQUAL EXPANSION PROPERTIES FOR EACH SEALING ELEMENT ACROSS THE JOINT.

10. SUPPLY CONTROL SPRINGS WHICH WORK LONGITUDINALLY TO MAINTAIN EQUIDISTANT SPACING BETWEEN TRANSVERSE SEPARATION BEAMS.

11. SUPPLY SEPARATION BEAMS/TRANSVERSE DIVIDERS/CENTER BEAMS TO LIMIT TOTAL HORIZONTAL MOVEMENT IN ANY INDIVIDUAL STRIP SEAL.

12. SUPPLY A STRIP SEAL TYPE SEAL CONNECTED TO MATCHING RETAINERS CONNECTED TO THE JOINT ARMOR AND THE SEPARATION BEAMS. DO NOT EXCEED 3.15 INCHES OF TOTAL HORIZONTAL MOVEMENT IN ANY INDIVIDUAL STRIP SEAL.

13. SUPPLY REMOVABLE AND REPLACEABLE NEOPRENE SEALS, SUPPORT BAR BEARINGS AND EQUALIZATION SPRINGS.

14. SET SEALS AND RETAINERS 1/8" LOWER THAN THE ROADWAY SURFACE.

15. DESIGN AND FABRICATE THE MODULAR JOINT AS A CONTINUOUS FULL LENGTH MEMBER WITHOUT FIELD SPLICES.

C. MATERIALS

1. SUPPLY STRUCTURAL STEEL MEETING ASTM A709 GRADE 50. SUPPLY SEPARATION BEAMS/TRANSVERSE DIVIDERS/CENTER BEAMS, EDGE BEAMS AND JOINT ARMOR MEETING CHARPY V NOTCH IMPACT REQUIREMENTS PER ASTM A709 TABLE S1.2 ZONE 2 TEMPERATURE RANGE. SUPPLY TUBE SECTIONS MEETING ASTM A501 OR A500 GRADE B.

2. SUPPLY ASTM A240, TYPE 304 STAINLESS STEEL, 13 GAGE MINIMUM THICKNESSES WITH NO. 8 FINISH FOR SLIDING SURFACES IN CONTACT WITH PTFE.

3. SUPPLY TESTING AND REPORTS BY THE MANUFACTURER OR AN INDEPENDENT TESTING LABORATORY FOR ALL ELASTOMERIC, PTFE URETHANE AND PREFORMED FABRIC MATERIALS USED IN ALL BEARINGS AND SPRINGS. THE SUBMISSION OF MATERIAL CERTIFICATION AND TESTING DATA SHALL BE PER 513.08. THESE MATERIALS SHALL BE TESTED ACCORDING TO THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 402 APPENDIX A "A GUIDELINE FOR DURABILITY (NCHRP) REPORT 402 APPENDIX A "A GUIDELINE FOR DURABILITY TESTING OF SPRINGS AND BEARINGS FOR MBEJ."

4. SUPPLY STRIP SEALS CONFORMING TO ASTM D5973. SUBMIT CERTIFIED TEST DATA PER 513.08 FROM THE MANUFACTURER OR AN ACCREDITED LABORATORY. D5973 SECTION 8, LOT SIZE IS ONE SAMPLE PER JOINT. A SAMPLE IS A PIECE 4 FEET LONG WITH ALL MANUFACTURERS' MARKINGS. THE SEAL AND RETAINER ARE AN INTEGRAL SYSTEM SUPPLIED BY ONE MANUFACTURER.

5. SEAL RETAINERS: EXTRUDE, HOT ROLL OR MACHINE, STEEL RETAINERS INTO A SOLID SHAPE. RETAINERS MANUFACTURED FROM BENT PLATE OR BUILT UP PIECES ARE NOT ACCEPTABLE. THE INTERNAL DIMENSIONS OF THE RETAINER SHALL BE SPECIFIED BY THE MANUFACTURER TO ACHIEVE POSITIVE SEAL ANCHORAGE.

6. SEPARATION BEAMS/TRANSVERSE DIVIDERS/CENTER BEAMS SHALL BE A SOLID, NON WELDED MACHINED OR EXTRUDED STEEL SECTION.

7. LUBRICANT - ADHESIVE. ONE PART MOISTURE CURING POLYURETHANE COMPOUND MEETING THE REQUIREMENTS OF ASTM D4070 AND AS SPECIFIED BY THE SEAL MANUFACTURER.

8. HARDWARE SHALL BE ASTM A325 TYPE 1, GALVANIZED, OR A449 GALVANIZED.

D. FABRICATION

1. THE MODULAR JOINTS SHALL BE FABRICATED ACCORDING TO CMS 513.

2. SHOP ASSEMBLE THE MODULAR JOINT WITH ALL COMPONENTS EXCEPT, NEOPRENE SEALS, PER 513.24 EXCEPT THAT FULL ASSEMBLY IS REQUIRED WITH PHASED CONSTRUCTION.

3. JOINTS IN STRIP SEALS: NO JOINTS ARE ALLOWED.

4. JOINTS IN RETAINERS: WELDS ARE WATER TIGHT, PARTIAL PENETRATION WELDS AROUND THE OUTER PERIPHERY OF THE ABUTTING SURFACES. MAKE SPLICES ONLY IN COMPRESSION ZONES OF THE JOINT ARMOR. GRIND FLUSH ALL WELDS IN CONTACT WITH THE SEAL AND JOINT ARMOR. DO NOT USE SHORT PIECES OF RETAINERS LESS THAN 6'-0" LONG, UNLESS REQUIRED . AT CURBS OR SIDEWALKS. DO NOT PROVIDE ADDITIONAL SPLICES IN RETAINERS AT CURB OR SIDEWALK SECTIONS OTHER THAN REQUIRED FOR GEOMETRY.

5. SHOP OR FIELD WELDS OF CENTER BEAMS AND JOINT ARMOR, SHALL BE COMPLETE PENETRATION WELDS, GROUND TO PROVIDE SMOOTH TRANSITIONS AND BE 100% ULTRASONICALLY TESTED PER AASHTO/AWS BRIDGE WELDING CODE, WITH TENSION ACCEPTANCE CRITERIA, WITNESSED BY THE DEPARTMENT.

6. CODE, WITH TENSION ACCEPTANCE CRITERIA, WITNESSED BY THE DEPARTMENT. SUPPORT BAR CONNECTIONS SHALL BE COMPLETE PENETRATION WELDS GROUND TO PROVIDE SMOOTH TRANSITIONS AND BE 100% ULTRASONICALLY TESTED PER AASHTO/AWS BRIDGE WELDING CODE, WITH TENSION ACCEPTANCE CRITERIA, WITNESSED BY THE DEPARTMENT.

7. TEMPORARY SUPPORTS: FABRICATOR DESIGNED AND INSTALLED SUPPORTS ARE REQUIRED TO SUPPORT SHIPPING, ERECTION AND CONSTRUCTION FORCES WITHOUT DAMAGE TO THE STEEL ARMOR OR COATINGS. THESE SUPPORTS SHALL BE ADJUSTABLE FOR FIELD TEMPERATURE SETTING.

E. COATING

1. GALVANIZE OR METALIZE ALL STEEL SURFACES AND COMPONENTS, EXCEPT AT STAINLESS STEEL AND PTFE SLIDING SURFACES. THESE COATING MAY BE MIXED ON ONE ASSEMBLY, IF ALL SIMILAR COMPONENTS OF THE ASSEMBLY HAVE THE SAME COATING TYPE.

2. PROVIDE A GALVANIZED COATING PER ASTM A123, WITH A MINIMUM THICKNESS OF 4 MILS. CLEAN EXCESSIVE GALVANIZING AS NECESSARY TO ACHIEVE MECHANICAL MOVEMENT AND SEAL INSTALLATION.

3. PROVIDE A METALIZED COATING PER SOCIETY FOR PROTECTIVE COATINGS (SSPC) SPECIFICATION SSPC-CS23.00 (MARCH 17, 2003) FOR THERMAL SPRAY METALLIC COATINGS. THE COATING SHALL BE A MINIMUM OF 8 MILS THICK. THE METALIZING WIRE SHALL BE 100% ZINC. AREAS OF STRUCTURAL STEEL THAT ARE IN CONTACT WITH CAST-IN-PLACE CONCRETE SHALL HAVE AN ADDITIONAL COATING. THE COATING SHALL BE THE EPOXY INTERMEDIATE COAT SPECIFIED IN CMS 514. THE COATING THICKNESS WILL COVER ALL PEAKS, VALLEYS AND SURFACE ROUGHNESS ATTRIBUTED TO METALIZING.

4. COATING REPAIRS: DAMAGED COATINGS SHALL BE REPAIRED BY ASTM A780, ANNEX "A1. REPAIR USING ZINC BASED ALLOYS". THE PROCEDURE SHALL BE AS FOLLOWS: REMOVE SURFACE CONTAMINATES, PREHEAT TO 600 DEGREES F, AND APPLY ZINC COATING BY RUBBING WITH PURE WITH A PURE ZINC STICK OR SPRINKLING ZINC POWDER ON THE PREHEATED SURFACE, TO ACHIEVE A MINIMUM COATING. THICKNESS OF 6 MILS.

5. THE METALIZED OR GALVANIZED COATINGS SHOULD NOT BE FIELD PAINTED. DAMAGED AREAS SHALL BE METALIZED AS PER 516.03 AND SUPPLEMENTAL SPECIFICATION 845.

6. PRIOR TO SHIPPING, RETAINER GROOVES SHALL BE PROTECTED FROM CONSTRUCTION DEBRIS BY THE INSTALLATION OF BACKER RODS OR OTHER EFFECTIVE MASKING TECHNIQUES.

F. INSTALLATION

1. A JOINT MANUFACTURER'S TECHNICAL REPRESENTATIVE TO PHYSICALLY OVERSEE THE FABRICATION, INSTALLATION, ADJUSTMENT AND TESTING DURING ALL OPERATIONS. WHERE SPECIAL INSTRUCTIONS ARE NOT CONTAINED HEREIN OR ELSEWHERE IN THESE NOTES, DIRECTION FOR THE INSTALLATION SHALL BE ACCORDING TO THE RECOMMENDATIONS OF THE TECHNICAL REPRESENTATIVE.

2. COORDINATE AND SCHEDULE THE TECHNICAL REPRESENTATIVE.

3. INSTALL THE SUPERSTRUCTURE SUPPORTING UNITS BEFORE INSTALLING THE MODULAR JOINT. POSITION THE JOINT TO MATCH ROADWAY GEOMETRY SUPERSTRUCTURE CONNECTIONS AND TEMPERATURE OPENING. TAKE CARE TO MAINTAIN EXACT ALIGNMENT OF ADJACENT ENDS OF THE ARMOR AND SEPARATION BEAMS/TRANSVERSE DIVIDERS/CENTER BEAMS FOR FIELD WELDED UNITS. PROVIDE TEMPORARY SUPPORTS AS DIRECTED BY THE MANUFACTURER TO MAINTAIN THE PROPER POSITIONING. FOR PHASED CONSTRUCTION, THE CONTRACTOR'S METHODS FOR INSTALLATION AND TEMPORARY SUPPORTS SHALL ACHIEVE SEPARATION OF THE PHASES AND UNRESTRICTED TEMPERATURE MOVEMENT.

4. PERFORM CONCRETE PLACEMENT USING VIBRATION AND HAND WORK AS NECESSARY TO ACHIEVE CONSOLIDATION AND ELIMINATE AIR VOIDS. THE MAXIMUM AGGREGATE SIZE SHALL BE #8 FOR CONCRETE BLOCKOUT AREAS.

5. PLACE THE DECK CONCRETE FIRST. CHECK THE ABUTMENT OR ADJACENT SPAN SIDE OF THE MODULAR JOINT FOR ALIGNMENT AND TEMPERATURE ADJUSTMENT. TEMPERATURE SHALL BE MEASURED AT THE UNDERSIDE OF THE CONCRETE DECK AT EACH END AND MID-SPAN TO ACHIEVE THE AVERAGE SUPERSTRUCTURE TEMPERATURE. PLACE THE BACKWALL OR ADJACENT SPAN CONCRETE SECOND. THE MANUFACTURER'S REPRESENTATIVE SHALL CHECK THAT TEMPERATURE MOVEMENT HAS NOT CAUSED ANY DAMAGE TO THE BOND BETWEEN THE JOINT AND THE CONCRETE.

6. EXAMINE SEAL RETAINERS FOR SOIL OR DEFECTS THAT CAN DAMAGE THE SEAL. REPAIR ANY DEFECTS AS DIRECTED BY THE MANUFACTURER'S REPRESENTATIVE.

7. SOLVENT CLEAN THE NEOPRENE SEAL ELEMENTS AND THE RETAINER GROOVES TO REMOVE OIL, GREASE OR OTHER SOIL IMMEDIATELY PRIOR TO INSTALLING THE SEALS. INSTALL SEALS USING PROCEDURES AND ADHESIVE SPECIFIED BY THE JOINT MANUFACTURER. KEEP THE BONDING SURFACES CLEAN, DRY AND WARMER THAN 45°F.

8. TEST THE INSTALLED MODULAR JOINT FOR LEAKS. FLOOD THE TOTAL EXPANSION JOINT LENGTH WITH WATER FOR A PERIOD OF NOT LESS THAN ONE HOUR. COVER THE ENTIRE JOINT SYSTEM BY EITHER PONDING OR FLOWING WATER. LOCATE ANY POINTS OF LEAKAGE AND TAKE ANY AND ALL MEASURES NECESSARY TO STOP THE LEAKAGE. PERFORM THIS WORK AT THE CONTRACTOR'S EXPENSE. PERFORM A SECOND WATER TEST AFTER ALL REPAIRS HAVE BEEN MADE.

ITEM 515. INTERMEDIATE DIAPHRAGM, AS PER PLAN:

THE GALVANIZED STEEL OPTION FOR INTERMEDIATE DIAPHRAGMS SHALL BE USED. THE CONCRETE OPTION SHALL NOT BE USED.

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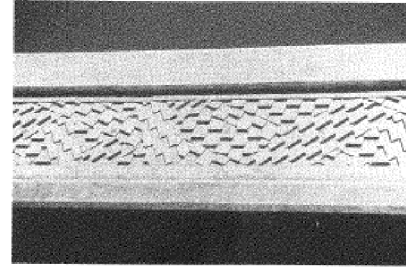
GENERAL NOTES (3 OF 4)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

ITEM 517 RAILING, MISC.: CONCRETE PARAPET CLASS QC2 CONCRETE WITH QC/QA AND STEEL RAILING

THE CONTRACTOR SHALL FURNISH AND INSTALL THE CONCRETE PARAPET WITH TEXTURED FINISHED ON TRAFFIC SIDE AND STEEL RAILING ACCORDING TO THE DETAIL PLANS. THE STEEL RAILING SHALL BE FABRICATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS PROVIDED WITH CONTRACT DOCUMENTS. THE STEEL RAILING SHALL BE GALVANIZED AND PAINTED WITH A BLACK FINISH. THE CONTRACTOR SHALL INCORPORATE ANY PROVISIONS DEEMED NECESSARY FOR INSTALLATION OF STEEL RAILING TO ACCOMMODATE CONSTRUCTION TOLERANCES, LENGTH OF RAILING AND VERTICAL PROFILE OF THE ROADWAY.

THE TRAFFIC SIDE WITHIN THE 3/4" INCH RECESSED AREA SHALL BE TEXTURED. THE TEXTURED SURFACE SHALL REPLICATE CLOSELY THE RANDOM PATTERN AS SHOWN IN THE DRAWING BELOW.



THE FORMLINER RELIEF SHALL BE A MAXIMUM OF 1/2" INCH. THE CONTRACTOR SHALL SUPPLY ODOT A RENDERING OF THE PATTERN FOR APPROVAL. AFTER APPROVAL OF THE RENDERING A MOCK-UP OF THE TRAFFIC SIDE OF THE PARAPET (10 FEET LONG) PLACED UPRIGHT TO THE COMPLETE TWO FOOT HEIGHT AND DIMENSIONS IN THE PLANS SHALL BE CONSTRUCTURED BY THE CONTRACTOR FOR VISUAL APPROVAL BY ODOT. A RELEASING AGENT COMPATIBLE WITH CONCRETE AND CONCRETE SEALER SHALL BE USED IN THE MOCK-UP TO DEMONSTRATE FINAL PRODUCT. THE MOCK-UP MUST MEET THE APPROVAL OF ODOT. FAILURE WILL CONSTITUTE THE PLACEMENT OF ANOTHER MOCK-UP. THE MOCK-UP LOCATION TO BE DETERMINED AT AN AGREED SITE BETWEEN THE CONTRACTOR AND ODOT.

PAYMENT FOR LABOR, MATERIALS AND INSTALLATION OF THE CONCRETE PARAPET WITH TEXTURED INSERTS AND STEEL RAILING SHALL BE INCLUDED IN THIS PAY ITEM FOR PAYMENT.

ITEM 524, DRILLED SHAFTS, 54" DIAMETER, INTO BEDROCK, AS PER PLAN: ITEM 524, DRILLED SHAFTS, 60" DIAMETER, ABOVE BEDROCK, AS PER PLAN:

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 780 KIPS AT THE PIERS. THIS LOAD IS RESISTED BY TIP RESISTANCE. THE FACTORED RESISTANCE PROVIDED BY THE DRILLED SHAFT TIP IS 6360 KIPS. EACH DRILLED SHAFT IS SOCKETED 8 FEET INTO ROCK TO PROVIDE LATERAL STABILITY.

FOR HOLE EXCAVATION SEE C&MS 524.04, CASE D PERMANENT CASING CONSTRUCTION METHOD SHALL BE USED TO CONSTRUCT PIERS 1 THRU 10. NOT REQUIRED FOR PIER 11.

DRILLED SHAFTS, MISC.: SHAFT INSPECTION DEVICE:

SUPPLY ALL REQUIRED EQUIPMENT AND PERSONNEL NECESSARY TO PERFORM VIDEO INSPECTION OF THE DRILLED SHAFT EXCAVATION, INCLUDING INSPECTIONS PERFORMED UNDERWATER OR WITHIN SLURRY. PROVIDE EQUIPMENT CAPABLE OF THE FOLLOWING: MEASURING THE DEPTH OF LOOSE OR DISTURBED MATERIAL AT THE BOTTOM OF THE SHAFT, AND RECORDING COLOR VIDEO IMAGES OF THE INSPECTION TO A DVD OR VIDEOTAPE. FURNISH ALL NECESSARY SUPPLIES, FUEL AND ELECTRIC SERVICE TO OPERATE THE EQUIPMENT. PERFORM THE VIDEO INSPECTION IMMEDIATELY BEFORE POURING THE CONCRETE, AND IN THE PRESENCE OF THE ENGINEER OR INSPECTOR. SUBMIT RECORDINGS OF ALL VIDEO INSPECTIONS TO THE ENGINEER AFTER COMPLETING ALL VIDEO INSPECTIONS, OR WHEN REQUESTED BY THE ENGINEER.

PAYMENT IS FULL COMPENSATION FOR SUPPLYING THE REQUIRED EQUIPMENT AND PERSONNEL, AND FOR PERFORMING THE VIDEO INSPECTION OF THE DRILLED SHAFT EXCAVATIONS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE LUMP SUM CONTRACT PRICE FOR ITEM 524, DRILLED SHAFT, MISC.: SHAFT INSPECTION DEVICE.

ABBREVIATIONS:

- | | |
|---------------------------|----------------------------------|
| ABUT. - ABUTMENT | INV. - INVERT |
| APPR. - APPROACH | JT. - JOINT |
| APPROX. - APPROXIMATELY | LT. - LEFT |
| B - BOTTOM | MIN. - MINIMUM |
| B.F. - BACK FACE | MAX. - MAXIMUM |
| BRG. - BEARING | NO. - NUMBER |
| BOT. - BOTTOM | N.P.C.P.P. - NON-PERFORATED |
| BTWN - BETWEEN | CORRUGATED PLASTIC PIPE |
| C/C - CENTER TO CENTER | O/O - OUT TO OUT |
| C.I.P. - CAST-IN-PLACE | P.C.P.P. - PERFORATED CORRUGATED |
| C.J. - CONSTRUCTION JOINT | PLASTIC PIPE |
| CLR. - CLEAR | P.E.J.F. - PREFORMED EXPANSION |
| CONC. - CONCRETE | JOINT FILLER |
| CONSTR. - CONSTRUCTION | PROP. - PROPOSED |
| CVN - CHARPY V-NOTCH | RT. - RIGHT |
| DIA. - DIAMETER | SER. - SERIES |
| DIM. - DIMENSION | SHLDR - SHOULDER |
| DWG. - DRAWING | SPA. - SPACE OR SPACES |
| E.F. - EACH FACE | STA. - STATION |
| EL. OR ELEV. - ELEVATION | STD. - STANDARD |
| EOP - EDGE OF PAVEMENT | T - TOP |
| EQ. - EQUAL | TEMP. - TEMPORARY |
| EX. - EXISTING | T.O.S. - TOP OF SLOPE |
| EXP. - EXPANSION | T/T - TOE TO TOE |
| F.F. - FRONT FACE | TYP. - TYPICAL |
| FT. - FOOT OR FEET | U.N.O. - UNLESS NOTED OTHERWISE |
| FWD. - FORWARD | VAR. - VARIES |

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| ESTIMATED QUANTITIES | | | | | | | | | | |
|----------------------|-----------|--------|-------|--|-------|--------|--------|------|---------|--------|
| ITEM | EXTENSION | TOTAL | UNIT | DESCRIPTION | ABUT. | PIER | SUPER. | GEN. | SHEET # | |
| 202 | 11002 | LUMP | | STRUCTURE REMOVED, OVER 20 FOOT SPAN | | | | LUMP | | |
| 202 | 22900 | 125 | SQ YD | APPROACH SLAB REMOVED | | | | 125 | | |
| 202 | 23500 | 3202 | SQ YD | WEARING COARSE REMOVED | | | | 3202 | | |
| 503 | 11101 | LUMP | | COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN | | | | LUMP | | 4 |
| 503 | 21301 | LUMP | | UNCLASSIFIED EXCAVATION, AS PER PLAN | LUMP | | | | | 4 |
| 505 | 11100 | LUMP | | PILE DRIVING EQUIPMENT MOBILIZATION | LUMP | | | | | |
| 507 | 00200 | 1610 | FT | STEEL PILES HP12x53, FURNISHED | 1610 | | | | | |
| 507 | 00250 | 1470 | FT | STEEL PILES HP12x53, DRIVEN | 1470 | | | | | |
| 507 | 93300 | 28 | EACH | STEEL POINTS OR SHOES | 28 | | | | | |
| 509 | 10000 | 889097 | POUND | EPOXY COATED REINFORCING STEEL | 20517 | 157897 | 710683 | | | |
| 511 | 21523 | 2477 | CU YD | CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN | | | 2477 | | | 5 |
| 511 | 41012 | 743 | CU YD | CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTING | | 743 | | | | |
| 511 | 43512 | 317 | CU YD | CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING | 317 | | | | | |
| 512 | 10100 | 5884 | SQ YD | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) | 226 | | 5658 | | | |
| 513 | 17001 | 97 | FT | STRUCTURAL STEEL MEMBERS, MODULAR EXPANSION JOINT, LEVEL UF, AS PER PLAN | | | 97 | | | 5, 6 |
| 515 | 15040 | 72 | EACH | DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (66") (LENGTH = 121'-9") | | | 72 | | | |
| 515 | 20001 | 180 | EACH | INTERMEDIATE DIAPHRAGMS, AS PER PLAN | | | 180 | | | 6 |
| 516 | 13600 | 125 | SQ FT | 1" PREFORMED EXPANSION JOINT FILLER | | | | 125 | | |
| 516 | 13900 | 79 | SQ FT | 2" PREFORMED EXPANSION JOINT FILLER | 79 | | | | | |
| 516 | 44101 | 60 | EACH | ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (13" x 19" x 2.948" WITH 19" x 25.5" x 1.5" LOAD PLATE) | | 60 | | | | 28 |
| 516 | 44101 | 72 | EACH | ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (13" x 19" x 2.948" WITH 20" x 25.5" x 1.5" LOAD PLATE) | | 72 | | | | 27 |
| 516 | 44101 | 12 | EACH | ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (13" x 19" x 2.948" WITH 21" x 25.5" x 1.5" LOAD PLATE) | 12 | | | | | 26 |
| 517 | 76300 | 3003 | FT | RAILING, MISC.: CONCRETE PARAPET CLASS QC2 CONCRETE WITH QC/QA AND STEEL RAILING * | | | | 3003 | | * |
| 518 | 21200 | 75 | CU YD | POROUS BACKFILL WITH FILTER FABRIC | 75 | | | | | |
| 518 | 40000 | 101 | FT | 6" PERFORATED CORRUGATED PLASTIC PIPE | 101 | | | | | |
| 518 | 40011 | 70 | FT | 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN | 70 | | | | | 13, 18 |
| 518 | 42201 | 40 | FT | 8" NON-PERFORATED CORRUGATED STEEL PIPE, 707.01, AS PER PLAN | 40 | | | | | 13, 18 |
| 524 | 94909 | 264 | FT | DRILLED SHAFTS, 54" DIAMETER, INTO BEDROCK, AS PER PLAN | | 264 | | | | 7 |
| 524 | 94915 | 1283 | FT | DRILLED SHAFTS, 60" DIAMETER, ABOVE BEDROCK, AS PER PLAN | | 1283 | | | | 7 |
| 524 | 95100 | 33 | EACH | DRILLED SHAFTS, MISC.: CSL TESTING, 5'-0" DIAMETER SHAFT* | | 33 | | | | * |
| 524 | 95200 | LUMP | | DRILLED SHAFTS, MISC.: SHAFT INSPECTION DEVICE | | LUMP | | | | |
| 526 | 25000 | 244 | SQ YD | REINFORCED CONCRETE APPROACH SLABS (T=15") | | | | 244 | | |
| 601 | 32104 | 1200 | CU YD | ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER | | | | 1200 | | |

* SEE SPECIAL PROVISIONS

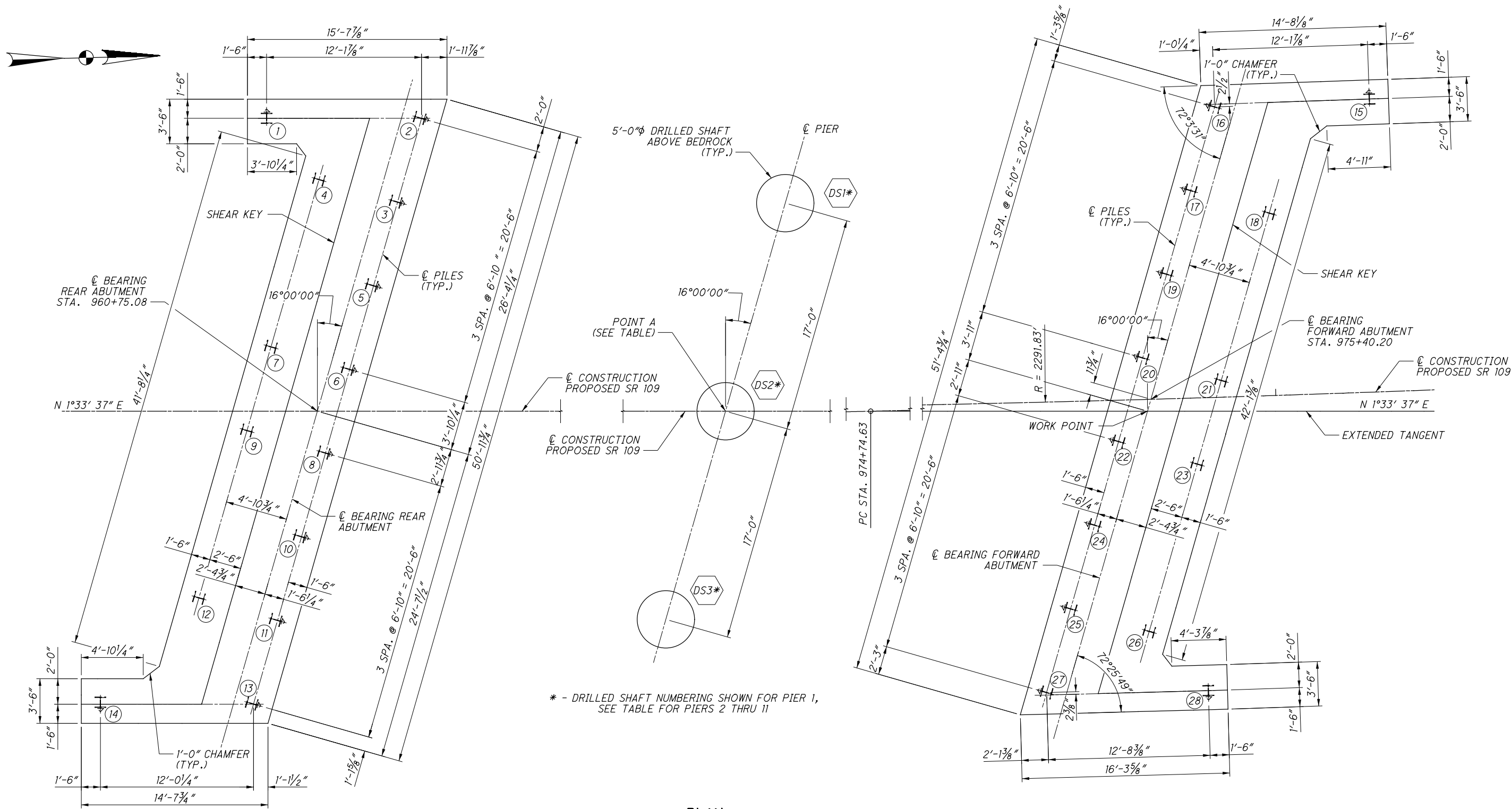


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 STRUCTURE FILE NUMBER: 3502392
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ESTIMATED QUANTITIES
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

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PLAN

* - DRILLED SHAFT NUMBERING SHOWN FOR PIER 1, SEE TABLE FOR PIERS 2 THRU 11

POINT A TABLE

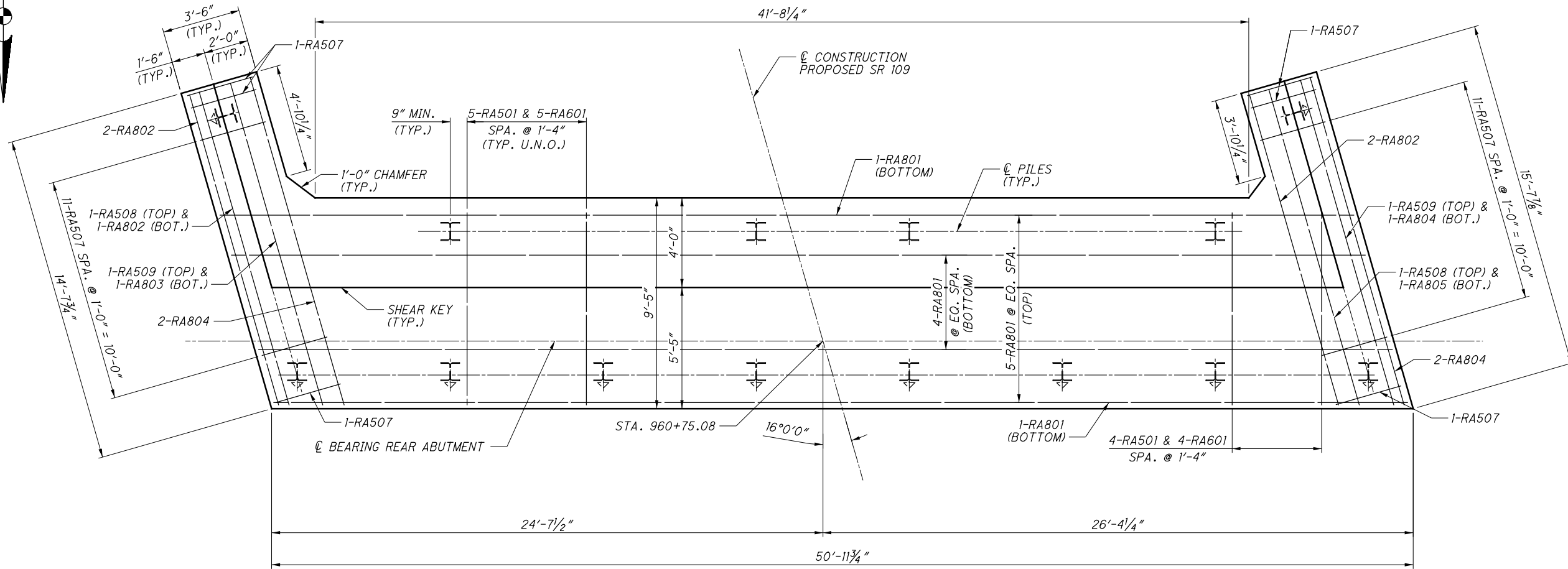
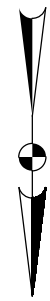
| PIER NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| STATION | 961+96.25 | 963+18.50 | 964+40.75 | 965+63.00 | 966+85.25 | 968+07.50 | 969+29.75 | 970+52.00 | 971+74.25 | 972+96.50 | 974+18.75 |
| DS # | 1-3 | 4-6 | 7-9 | 10-12 | 13-15 | 16-18 | 19-21 | 22-24 | 25-27 | 28-30 | 31-33 |

LEGEND:

- ⊕ - PILE NUMBER
- DS# - DRILLED SHAFT NUMBER
- ⊥ - HP12x53 DRIVEN AT A 4:1 BATTER IN DIRECTION SHOWN
- ⊥ - HP12x53 DRIVEN STRAIGHT

NOTES:

1. FOR PILE AND DRILLED SHAFT CAPACITY, SEE SHEETS 4/55 AND 6/55.



PLAN

NOTES:

1. FOR PILE LAYOUT PLAN, SEE SHEET 9/55.

REAR ABUTMENT FOOTING DETAILS

BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02

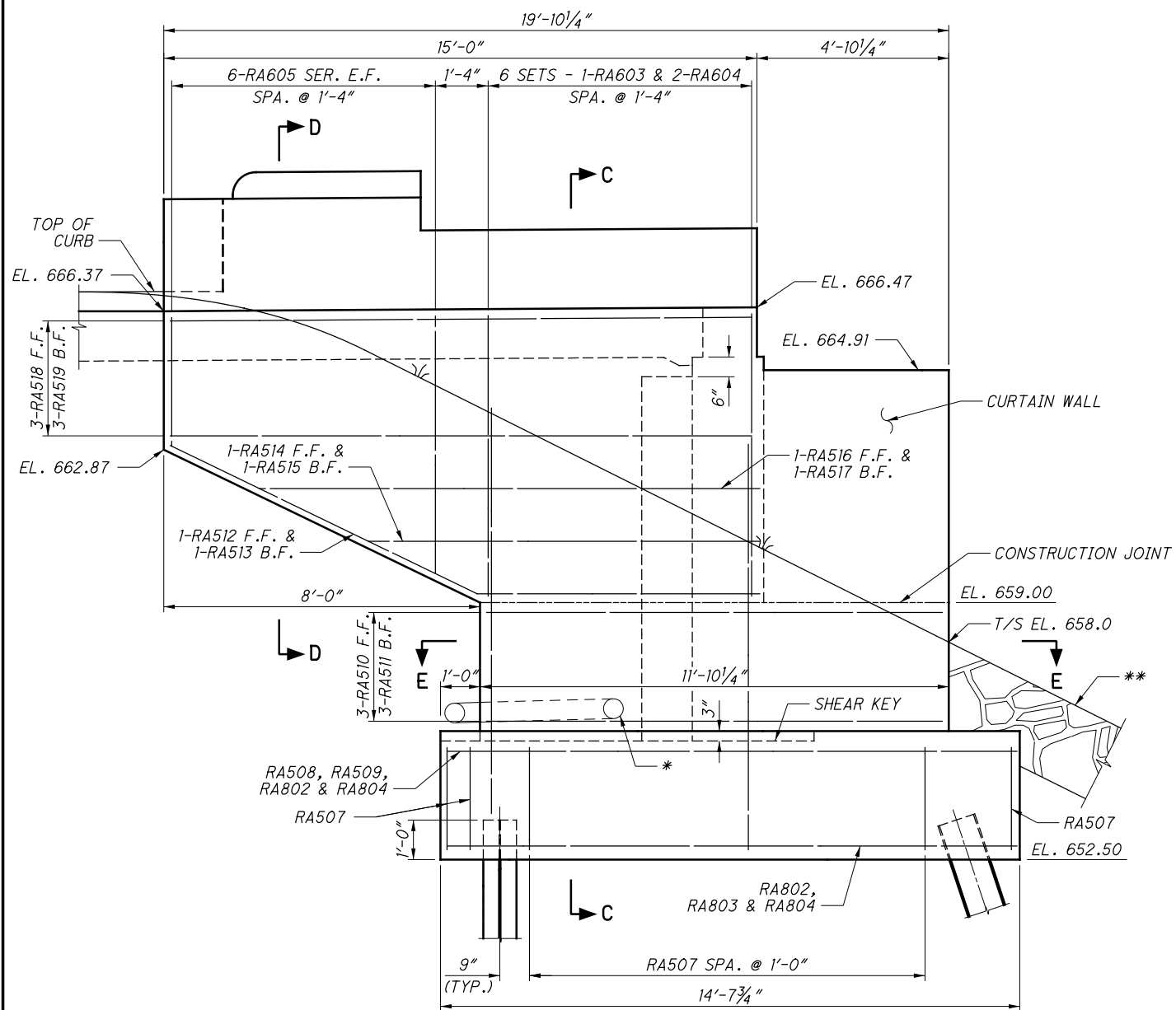
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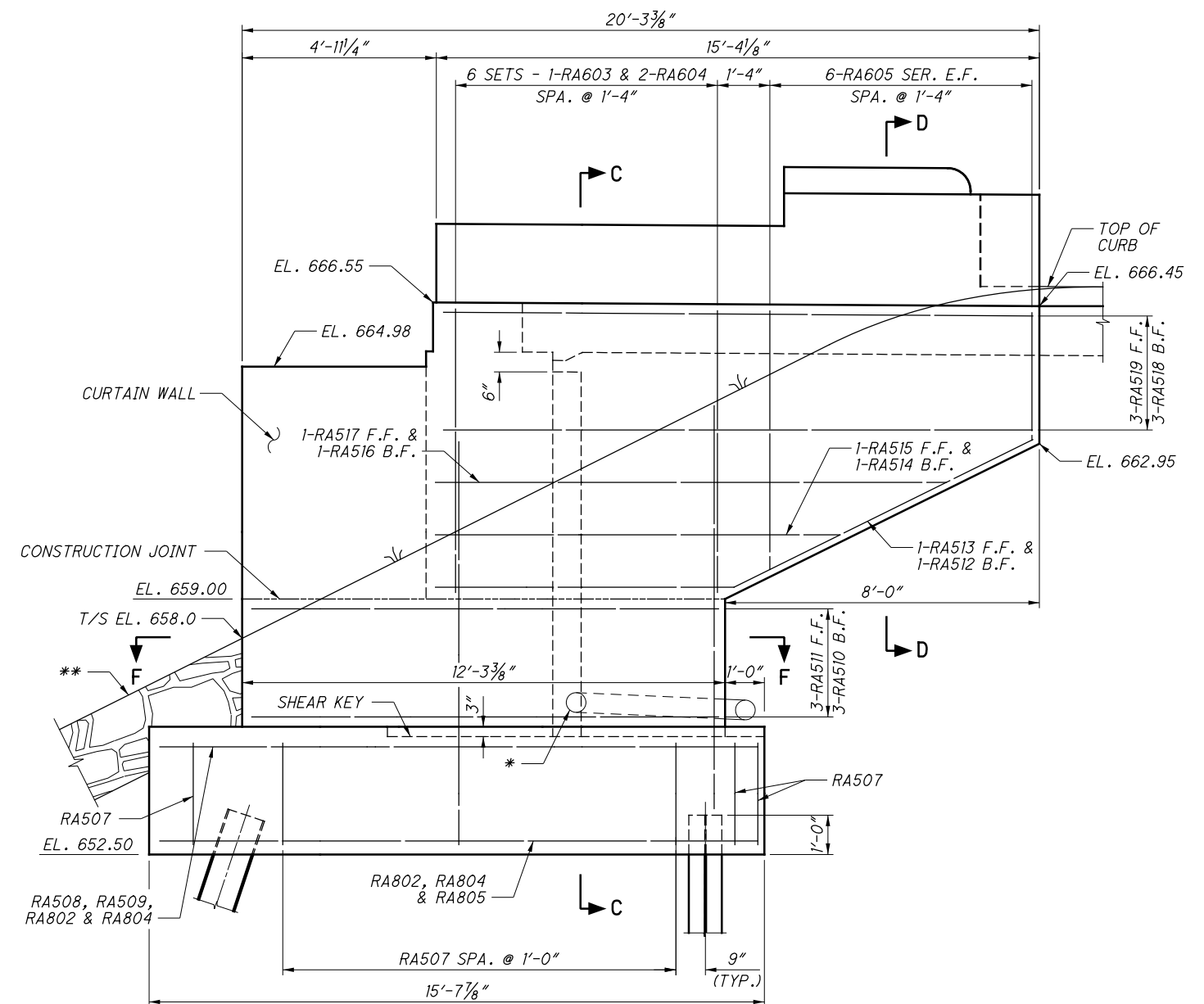
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RIGHT WINGWALL ELEVATION



LEFT WINGWALL ELEVATION

| LAP LENGTHS | |
|-------------|-------------|
| NO. 6 BARS | 3'-10" MIN. |

LEGEND:

- * - 6" NON-PERFORATED, CORRUGATED PLASTIC PIPE
- ** - 2'-6" THICK ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER

NOTES:

1. FOR SECTIONS C-C THRU F-F, SEE SHEET 13/55.
2. FOR REAR ABUTMENT PLAN AND ELEVATION, SEE SHEET 11/55.
3. FOR CONCRETE PARAPET REINFORCING DETAILS, SEE SHEET 18/55.
4. FOR PILE LAYOUT PLAN, SEE FOUNDATION PLAN SHEET 9/55.
5. FOR PIPE TERMINATION DETAIL, SEE SHEET 13/55.
6. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINTS.

REAR ABUTMENT WINGWALL ELEVATIONS

BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

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| DESIGNED BMG | CHECKED MRV | DRAWN BMG | REVIEWED RLE |
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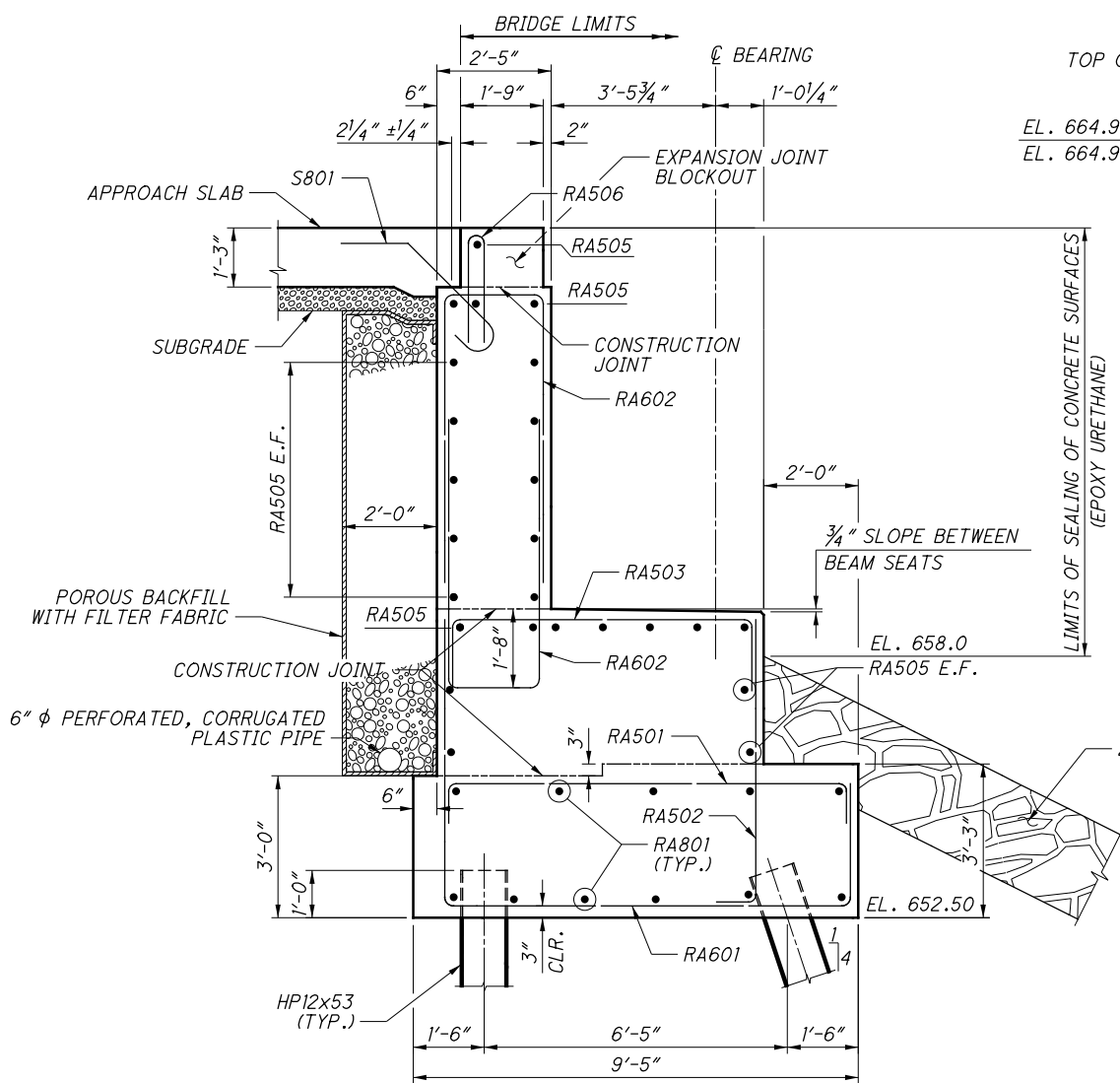
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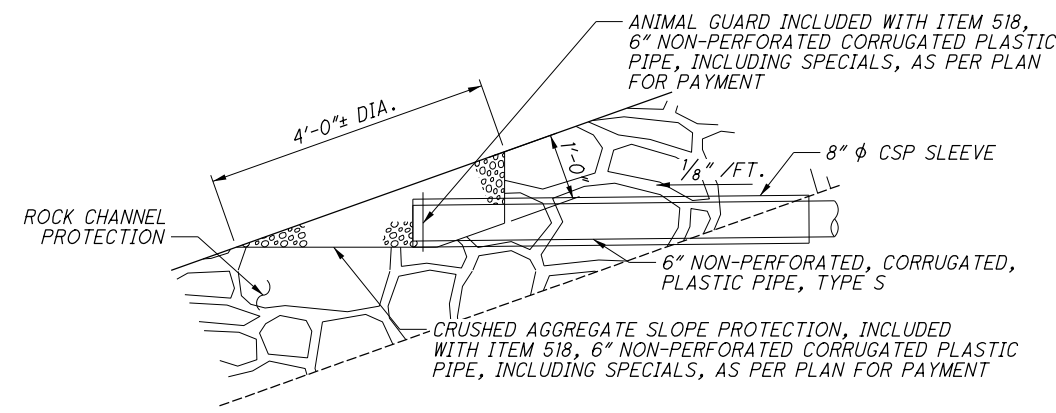
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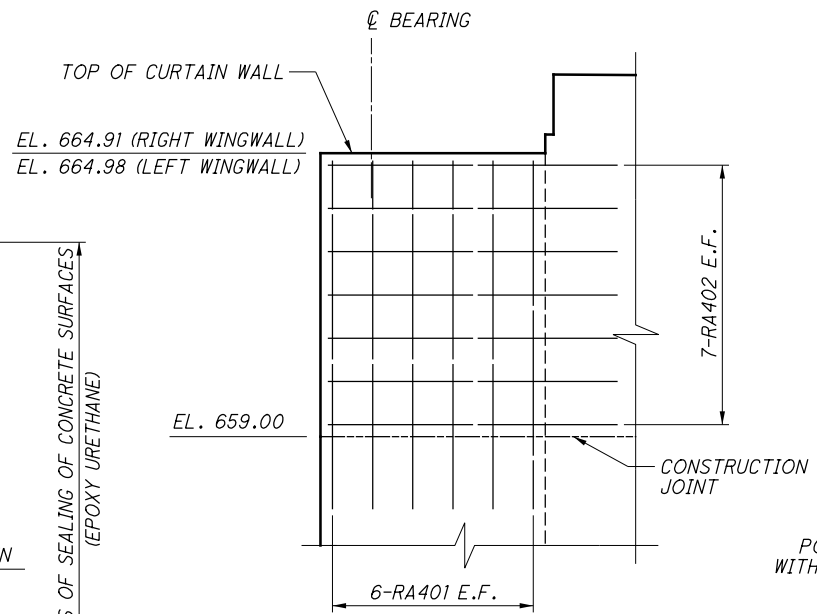
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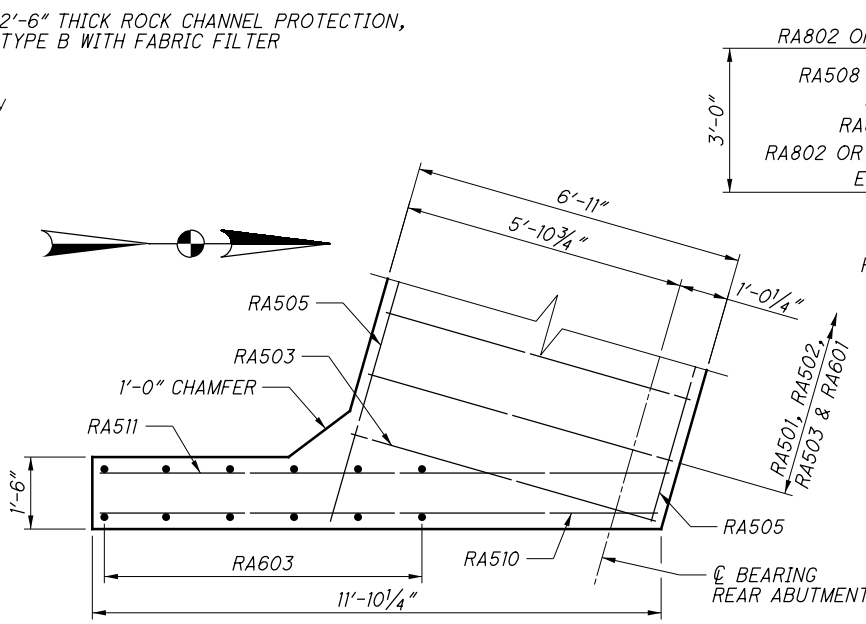
SECTION A-A



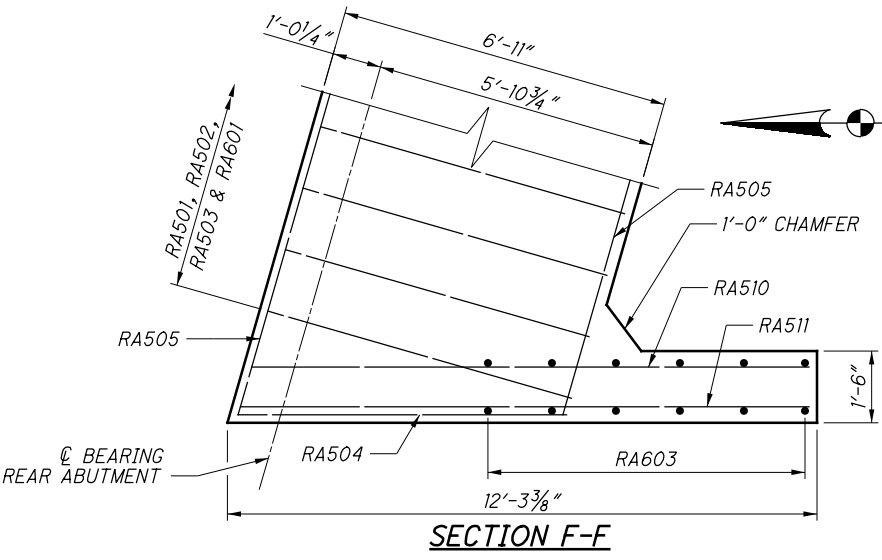
TERMINATION OF 6" N.P.C.P.P. DETAIL



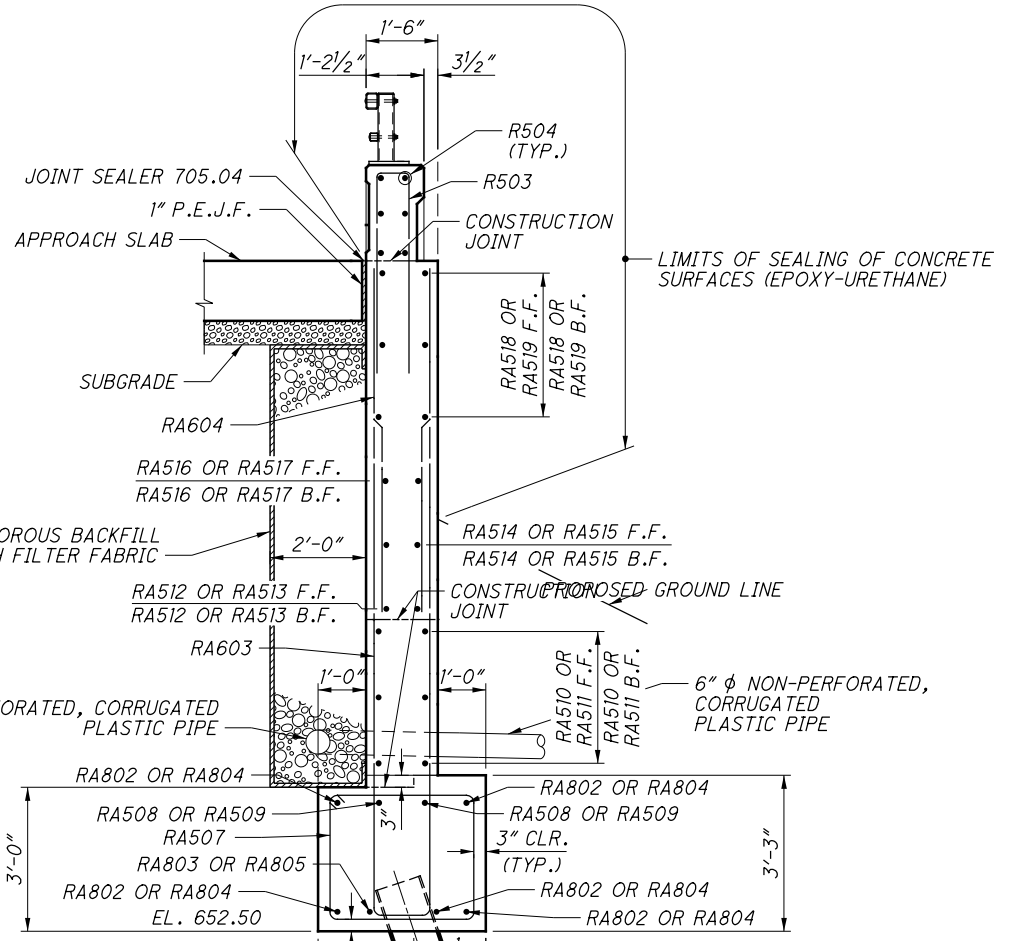
VIEW B-B



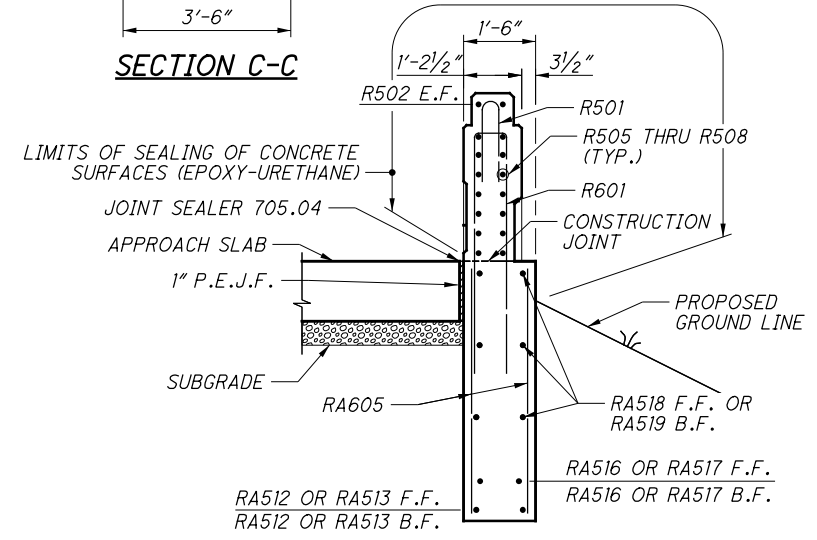
SECTION E-E



SECTION F-F



SECTION C-C



SECTION D-D

- NOTES:**
1. FOR REAR ABUTMENT PLAN AND ELEVATION, SEE SHEET 11/55.
 2. FOR WINGWALL DETAILS, SEE SHEET 12/55.
 3. FOR ABUTMENT DIAPHRAGM DETAILS, SEE SHEET 29/55.
 4. FOR PILE LAYOUT PLAN, SEE FOUNDATION PLAN SHEET 9/55.
 5. FOR MODULAR EXPANSION JOINT DETAILS, SEE SHEETS 50/55 AND 51/55.
 6. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINTS. FOR CONCRETE PARAPET DETAILS, SEE SHEETS 46/55 THRU 49/55.

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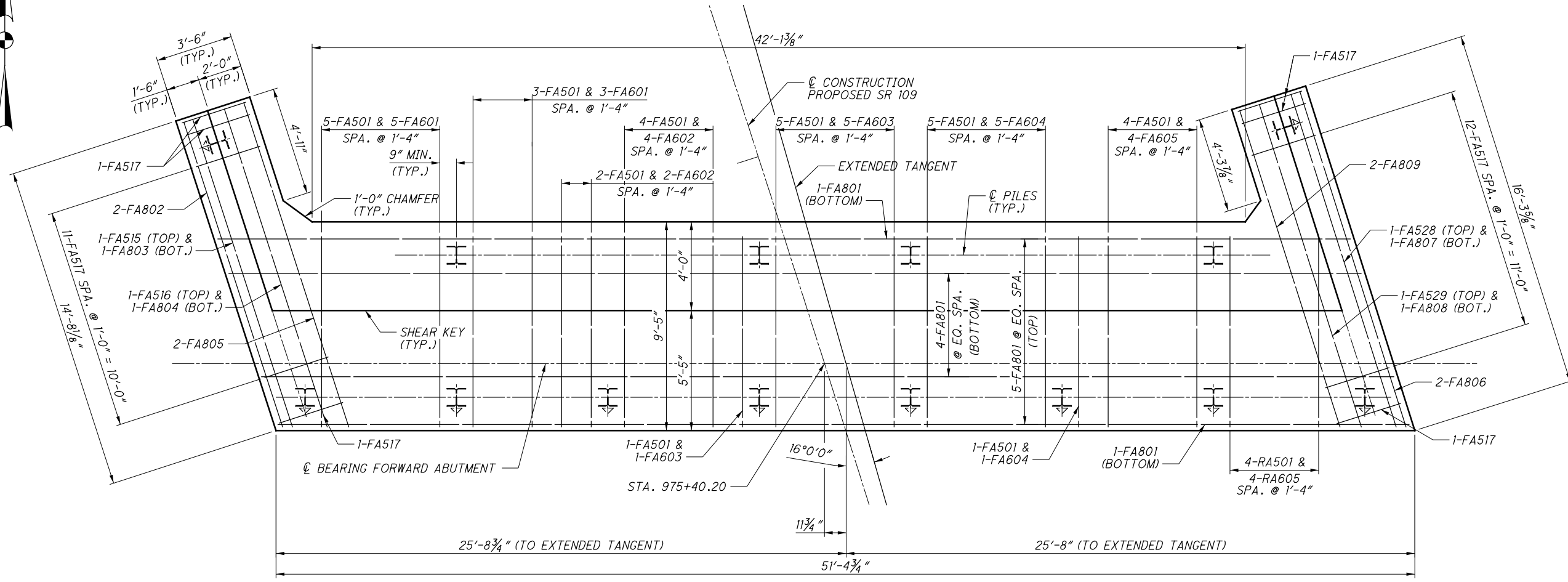
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| DESIGNED | BMG | CHECKED | MRV |
| DRAWN | BMG | REVISED | |
| REVIEWED | RL | STRUCTURE FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |

REAR ABUTMENT DETAILS
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

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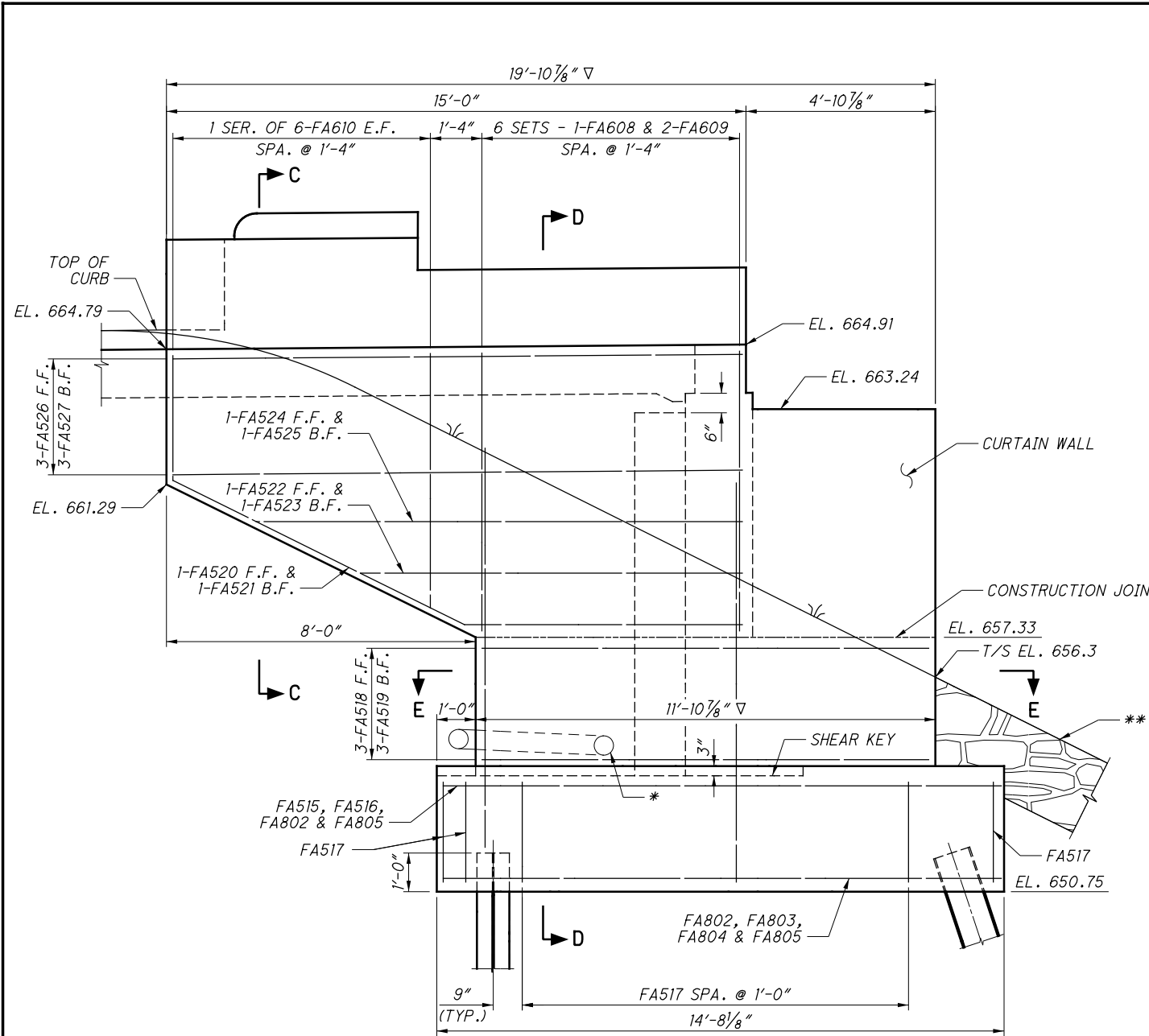
PLAN

NOTES:
 1. FOR PILE LAYOUT PLAN, SEE SHEET 9/55.

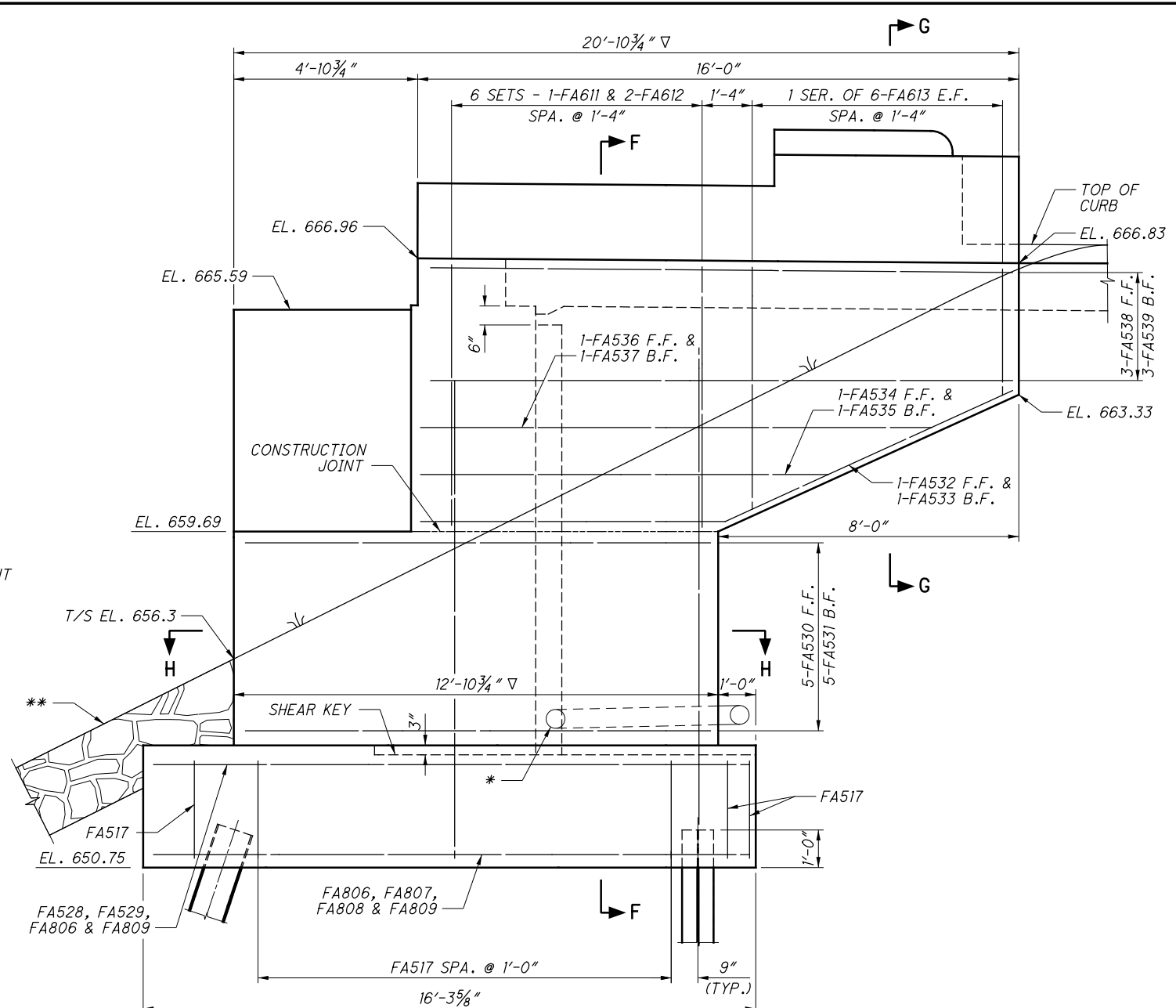
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| DESIGNED | BMG | CHECKED | DFT |
| DRAWN | BMG | REVISED | |
| REVIEWED | RLE | DATE | 08/2014 |
| STRUCTURE FILE NUMBER | 3502392 | | |

FORWARD ABUTMENT FOOTING DETAILS
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991



LEFT WINGWALL ELEVATION



RIGHT WINGWALL ELEVATION

| LAP LENGTHS | |
|-------------|-------------|
| NO. 6 BARS | 3'-10" MIN. |

LEGEND:

- * - 6" NON-PERFORATED, CORRUGATED PLASTIC PIPE
- ** - 2'-6" THICK ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER
- ∇ - MEASURED RADially ALONG FRONT FACE OF WALL

NOTES:

1. FOR SECTIONS C-C THRU E-E, SEE SHEET 17/55.
2. FOR SECTIONS F-F THRU H-H, SEE SHEET 18/55.
3. FOR FORWARD ABUTMENT PLAN AND ELEVATION, SEE SHEET 15/55.
4. FOR CONCRETE PARAPET REINFORCING DETAILS, SEE SHEET 18/55.
5. FOR PILE LAYOUT PLAN, SEE FOUNDATION PLAN SHEET 9/55.
6. FOR PIPE TERMINATION DETAIL, SEE SHEET 18/55.
7. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINTS.

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| | | | |
|----------|---------|-----------------------|---------|
| DESIGNED | BMG | CHECKED | MRV |
| DRAWN | BMG | REVIEWED | |
| DATE | 08/2014 | STRUCTURE FILE NUMBER | 3502392 |

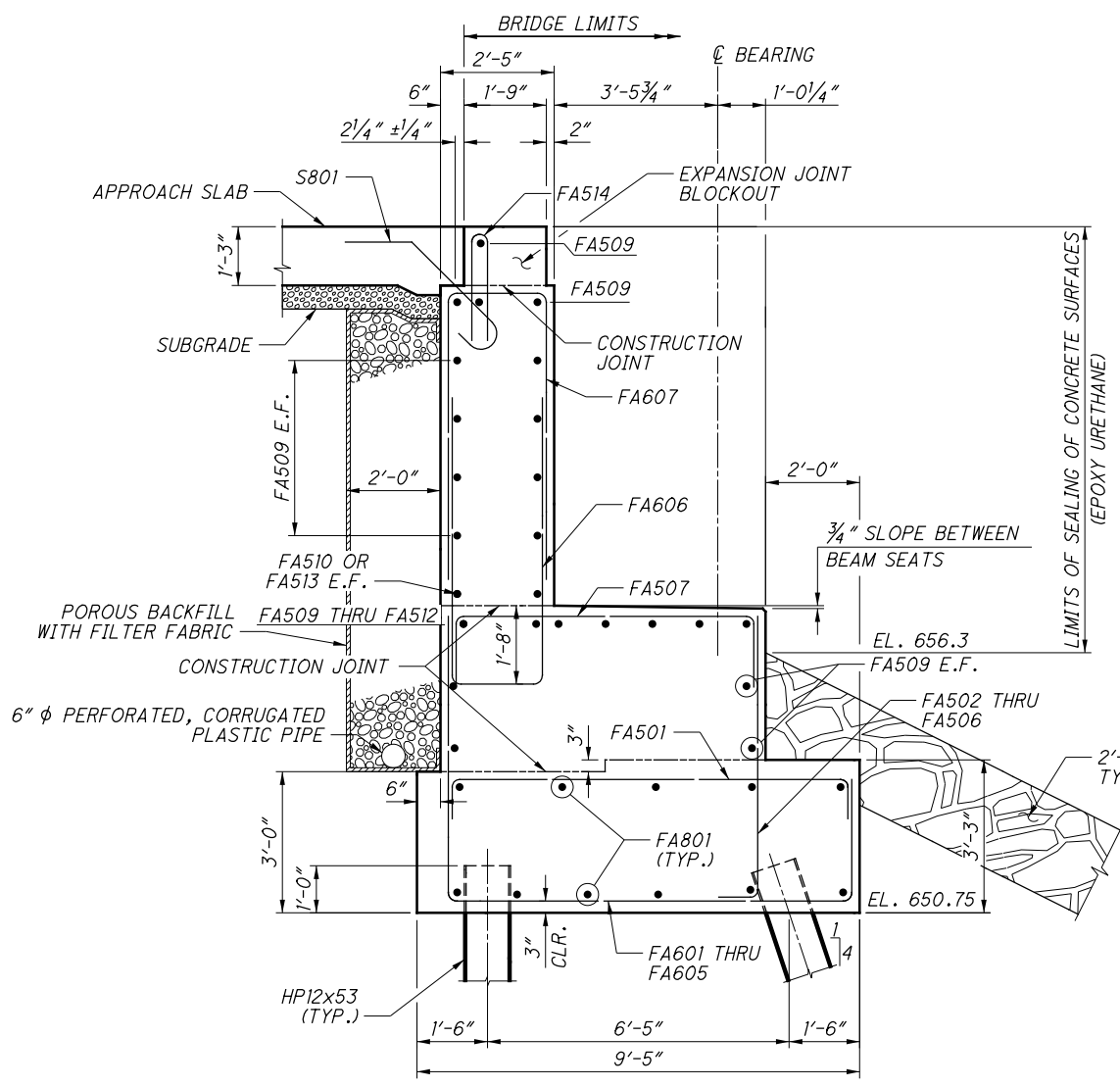
FORWARD ABUTMENT WINGWALL ELEVATION
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

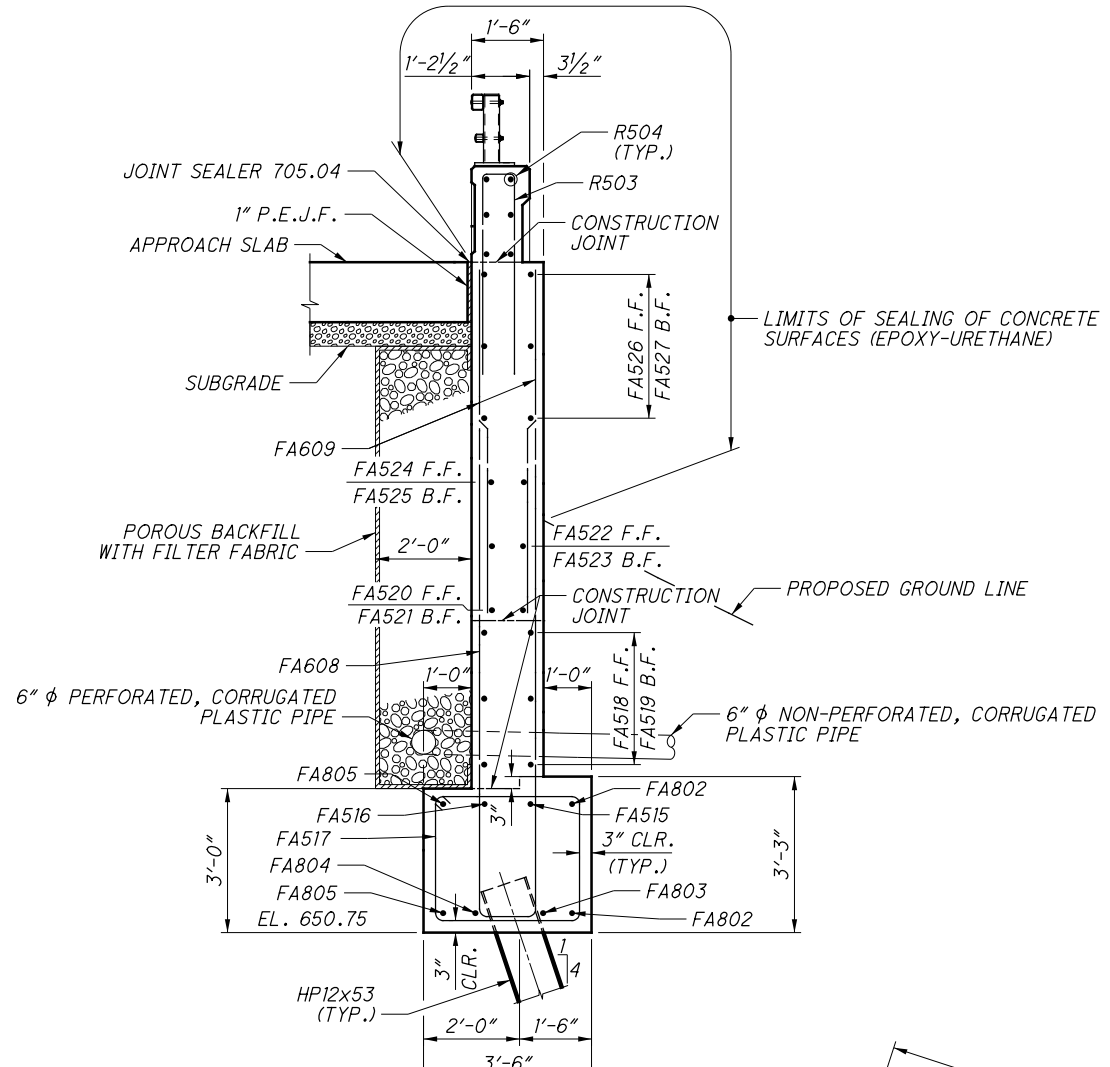
16 / 55

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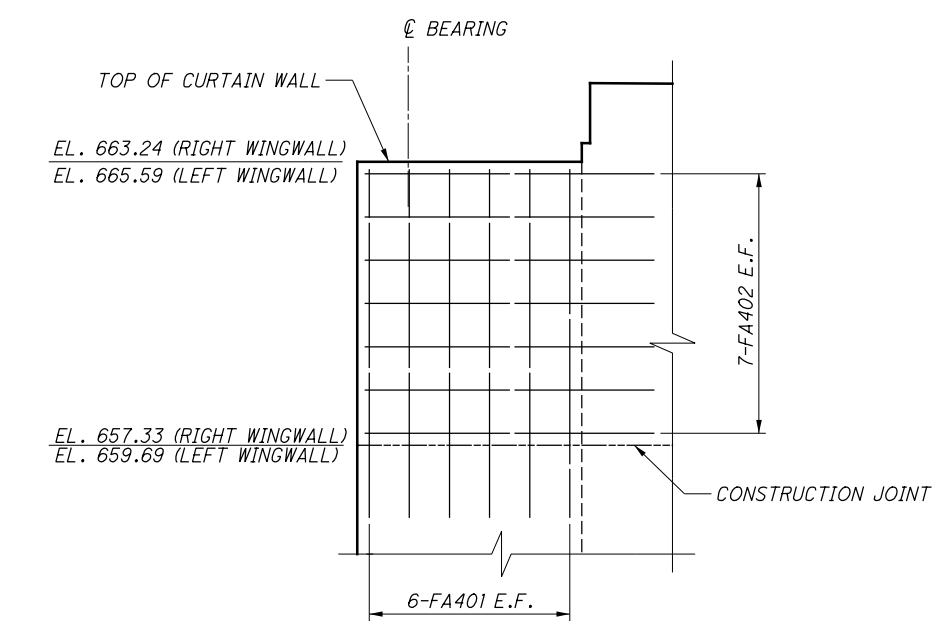
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SECTION A-A

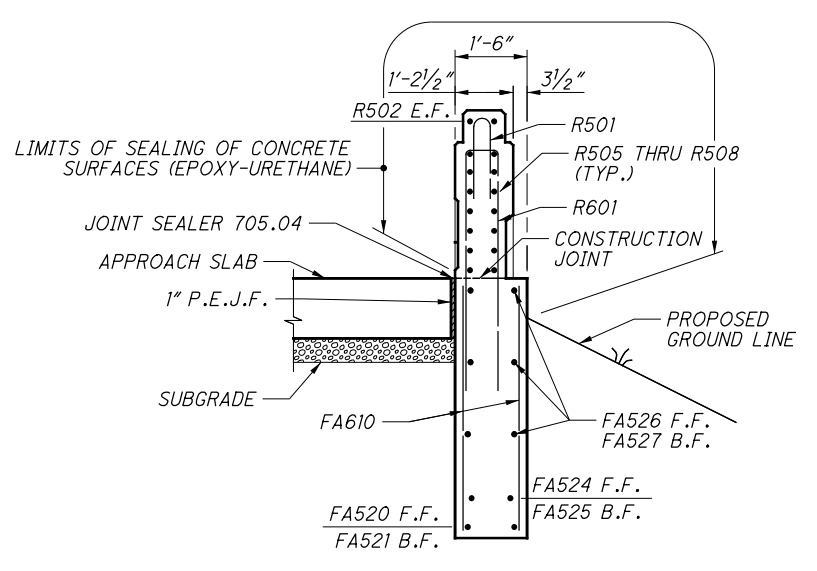


SECTION D-D

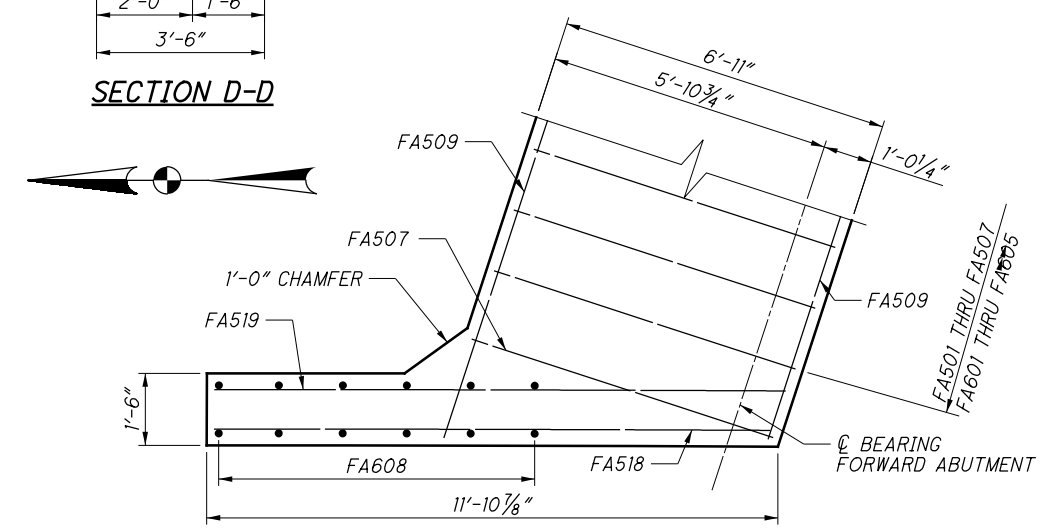


VIEW B-B

10" THICK LEFT WINGWALL
6" THICK RIGHT WINGWALL



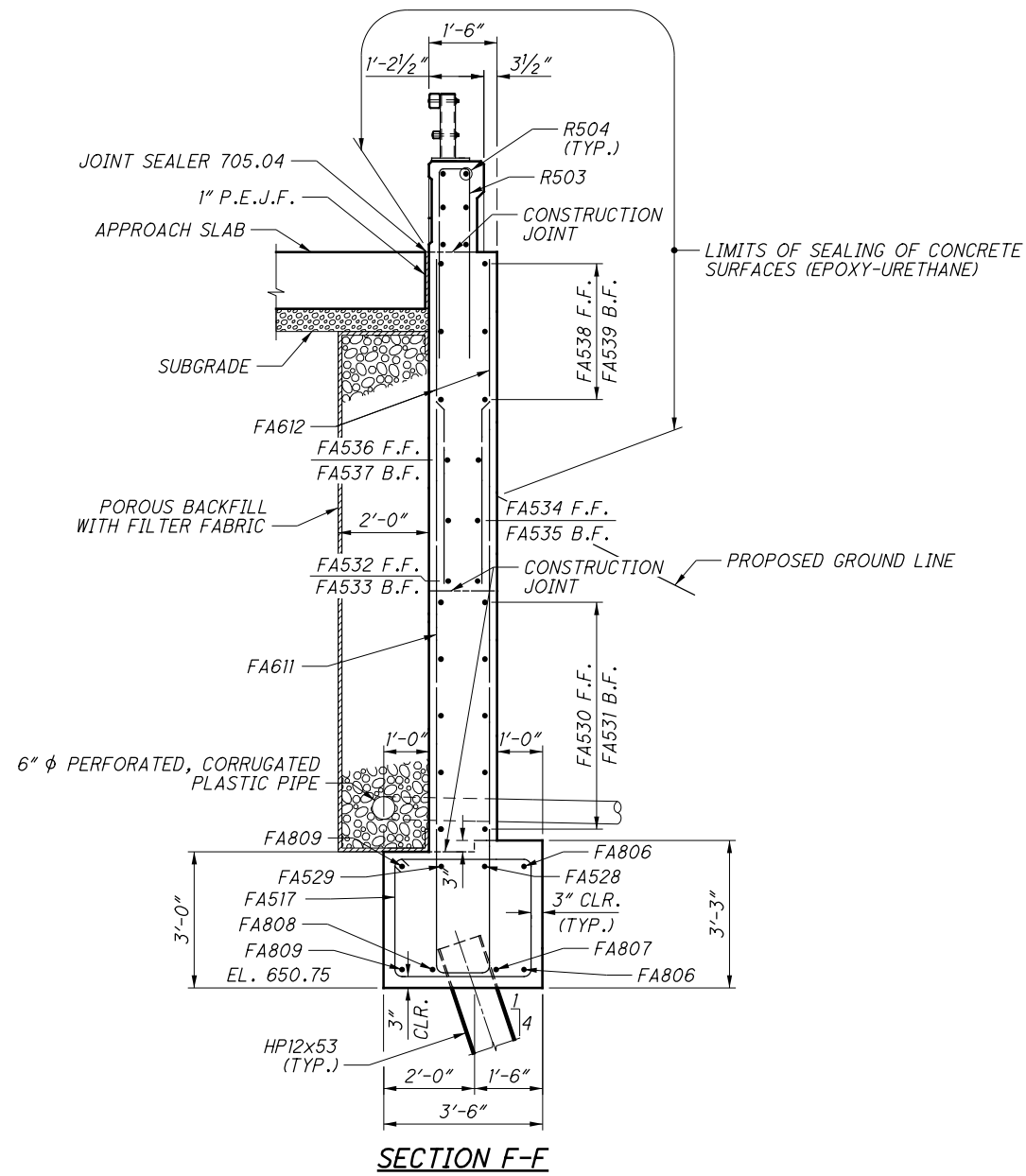
SECTION C-C



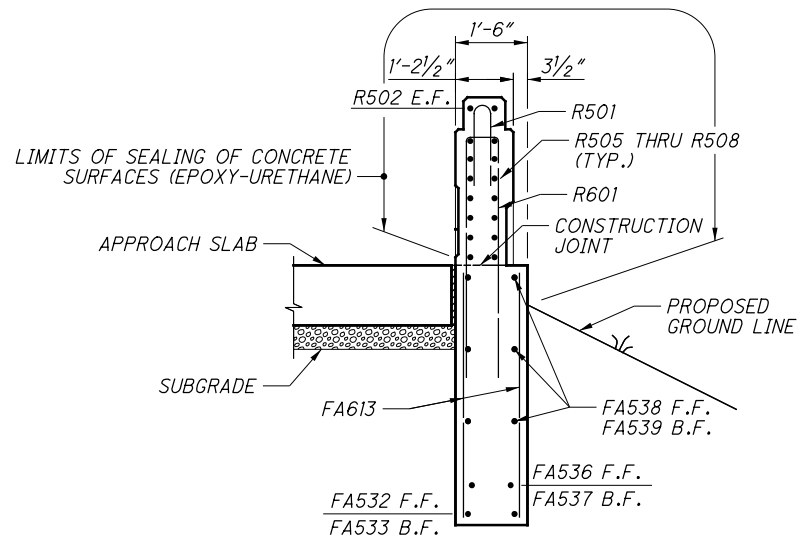
SECTION E-E

- NOTES:**
1. FOR FORWARD ABUTMENT PLAN AND ELEVATION, SEE SHEET 15/55.
 2. FOR WINGWALL DETAILS, SEE SHEET 16/55.
 3. FOR ABUTMENT DIAPHRAGM DETAILS, SEE SHEET 29/55.
 4. FOR PILE LAYOUT PLAN, SEE FOUNDATION PLAN SHEET 9/55.
 5. FOR MODULAR EXPANSION JOINT DETAILS, SEE SHEETS 50/55 AND 51/55.
 6. FOR PIPE TERMINATION DETAILS, SEE SHEET 18/55.
 7. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINTS. FOR CONCRETE PARAPET DETAILS, SEE SHEETS 46/55 THRU 49/55.

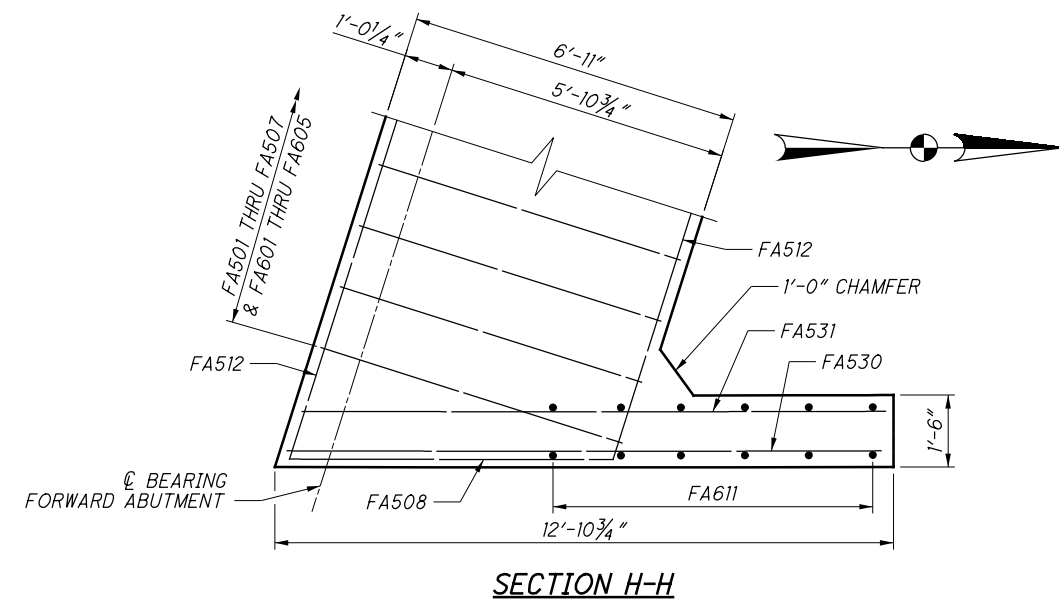
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| DESIGNED | BMG | CHECKED | MRV |
| DRAWN | BMG | REVISED | |
| REVIEWED | RL | FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |



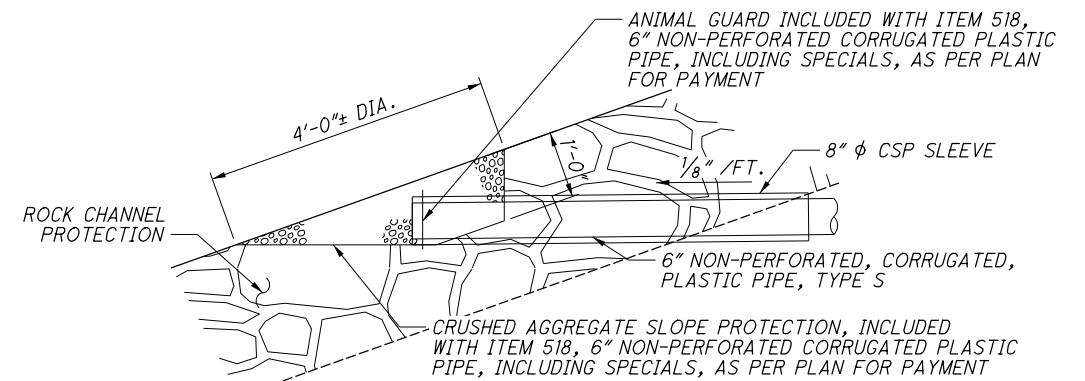
SECTION F-F



SECTION G-G



SECTION H-H



TERMINATION OF 6" N.P.C.P.P. DETAIL

NOTES:

1. FOR FORWARD ABUTMENT PLAN AND ELEVATION, SEE SHEET 15/55.
2. FOR WINGWALL DETAILS, SEE SHEET 16/55.
3. FOR ABUTMENT DIAPHRAGM DETAILS, SEE SHEET 29/55.
4. FOR PILE LAYOUT PLAN, SEE FOUNDATION PLAN SHEET 9/55.
5. FOR MODULAR EXPANSION JOINT DETAILS, SEE SHEETS 50/55 AND 51/55.
6. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINTS. FOR CONCRETE PARAPET DETAILS, SEE SHEETS 46/55 THRU 49/55.

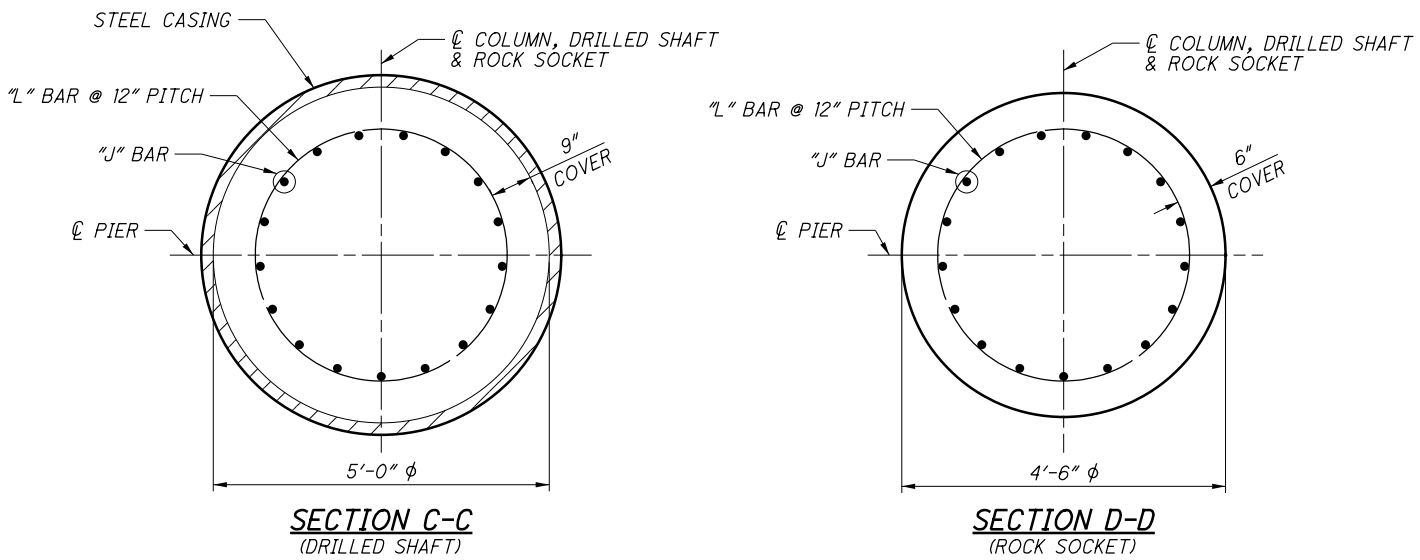
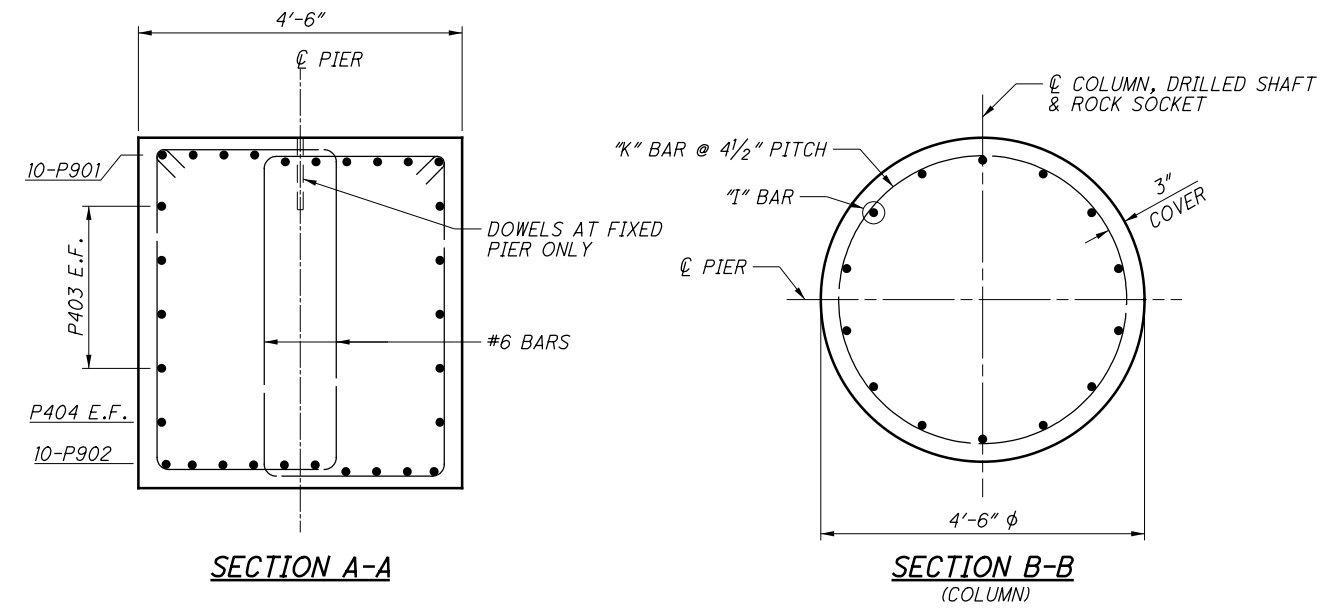
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| DESIGNED | BMG | CHECKED | MRV |
| DRAWN | BMG | REVIEWED | |
| DATE | 08/2014 | FILE NUMBER | 3502392 |

FORWARD ABUTMENT DETAILS
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

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| PIER NO. | STATION POINT A | DRILLED SHAFT ABOVE BEDROCK (FT) | ELEVATIONS | | | | | | | | | | REINFORCING CALLOUT | | | | | | | | | | | |
|----------|-----------------|----------------------------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | | EL. A | EL. B | EL. C | EL. D | EL. E | EL. F | EL. G | EL. H | EL. I | EL. J | BAR "A" | BAR "B" | BAR "C" | BAR "D" | BAR "E" | BAR "F" | BAR "G" | BAR "H" | BAR "I" | BAR "J" | BAR "K" | BAR "L" |
| 1 | 961+96.25 | 35.50 | 660.17 | 660.51 | 660.64 | 661.89 | 660.62 | 660.47 | 660.10 | 657.10 | 655.60 | 604.5 | P601 | P602 | P603 | P604 | P604 | P603 | P607 | P608 | P1101 | DS1101 | SP401 | DS401 |
| 2 | 963+18.50 | 34.50 | 660.93 | 661.24 | 661.37 | 662.62 | 661.36 | 661.20 | 660.86 | 657.86 | 656.36 | 605.5 | P601 | P602 | P603 | P604 | P604 | P603 | P607 | P608 | P1102 | DS1102 | SP402 | DS402 |
| 3 | 964+40.75 | 37.00 | 661.64 | 661.98 | 662.10 | 663.35 | 662.09 | 661.93 | 661.57 | 658.57 | 657.07 | 603.0 | P601 | P602 | P603 | P604 | P604 | P603 | P607 | P608 | P1103 | DS1103 | SP403 | DS403 |
| 4 | 965+63.00 | 40.00 | 662.54 | 662.85 | 662.98 | 664.23 | 662.96 | 662.81 | 662.47 | 659.47 | 657.97 | 600.0 | P601 | P602 | P603 | P604 | P604 | P603 | P607 | P608 | P1104 | DS1104 | SP404 | DS404 |
| 5 | 966+85.25 | 37.00 | 663.05 | 663.40 | 663.53 | 664.78 | 663.53 | 663.39 | 663.03 | 660.03 | 658.53 | 603.0 | P608 | P607 | P603 | P604 | P604 | P603 | P607 | P608 | P1105 | DS1103 | SP405 | DS403 |
| 6 | 968+07.50 | 40.00 | 662.97 | 663.30 | 663.45 | 664.70 | 663.45 | 663.31 | 662.98 | 659.97 | 658.47 | 600.0 | P608 | P607 | P603 | P604 | P604 | P603 | P607 | P608 | P1105 | DS1104 | SP405 | DS404 |
| 7 | 969+29.75 | 38.00 | 662.59 | 662.95 | 663.10 | 664.37 | 663.12 | 662.99 | 662.66 | 659.59 | 658.09 | 602.0 | P608 | P607 | P603 | P604 | P604 | P603 | P602 | P601 | P1106 | DS1105 | SP404 | DS405 |
| 8 | 970+52.00 | 46.50 | 661.65 | 662.00 | 662.15 | 663.42 | 662.17 | 662.04 | 661.73 | 658.65 | 657.15 | 593.5 | P608 | P607 | P603 | P604 | P604 | P603 | P602 | P601 | P1103 | DS1106 | SP403 | DS406 |
| 9 | 971+74.25 | 41.50 | 660.98 | 661.34 | 661.49 | 662.76 | 661.51 | 661.38 | 661.05 | 657.98 | 656.48 | 598.5 | P608 | P607 | P603 | P604 | P604 | P603 | P602 | P601 | P1102 | DS1107 | SP406 | DS407 |
| 10 | 972+96.50 | 38.00 | 660.04 | 660.39 | 660.54 | 661.81 | 660.56 | 660.43 | 660.12 | 657.04 | 655.54 | 602.0 | P608 | P607 | P603 | P604 | P604 | P603 | P602 | P601 | P1107 | DS1105 | SP401 | DS405 |
| 11 | 974+18.75 | 39.60 | 659.51 | 659.87 | 660.03 | 661.42 | 660.17 | 660.26 | 659.91 | 656.51 | 655.01 | 600.4 | P608 | P607 | P603 | P604 | P605 | P606 | P609 | P610 | P1108 | DS1108 | SP407 | DS408 |

NOTES:
 1. FOR LOCATION OF SECTIONS A-A THRU D-D AND ADDITIONAL NOTES, SEE SHEET 19/55.

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| DESIGNED | CJW | CHECKED | MRV |
| DRAWN | FIB | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |

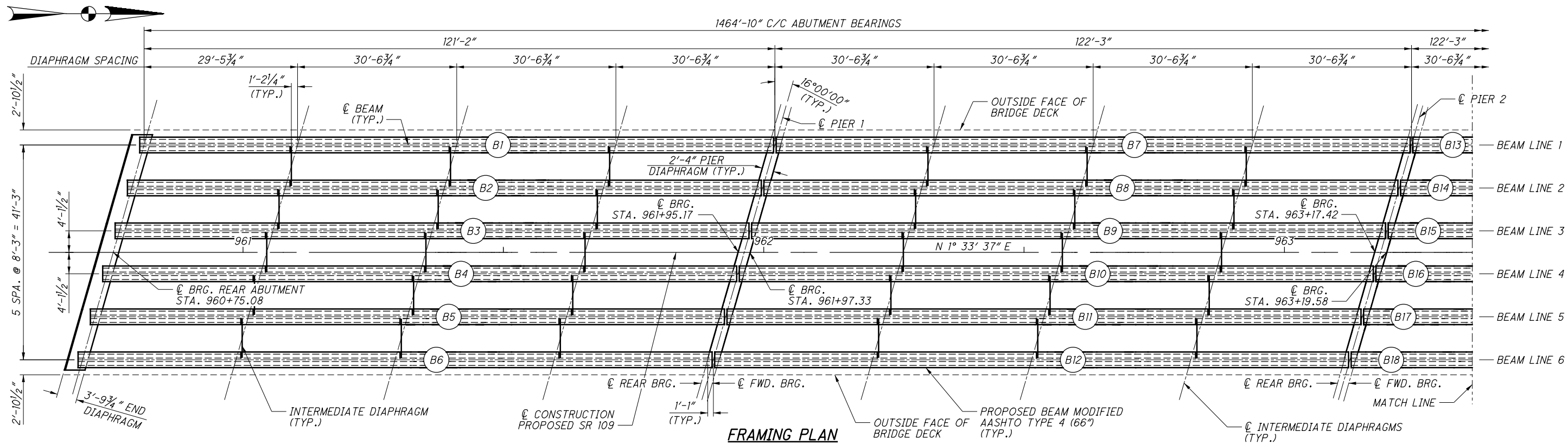
PIER DETAILS
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

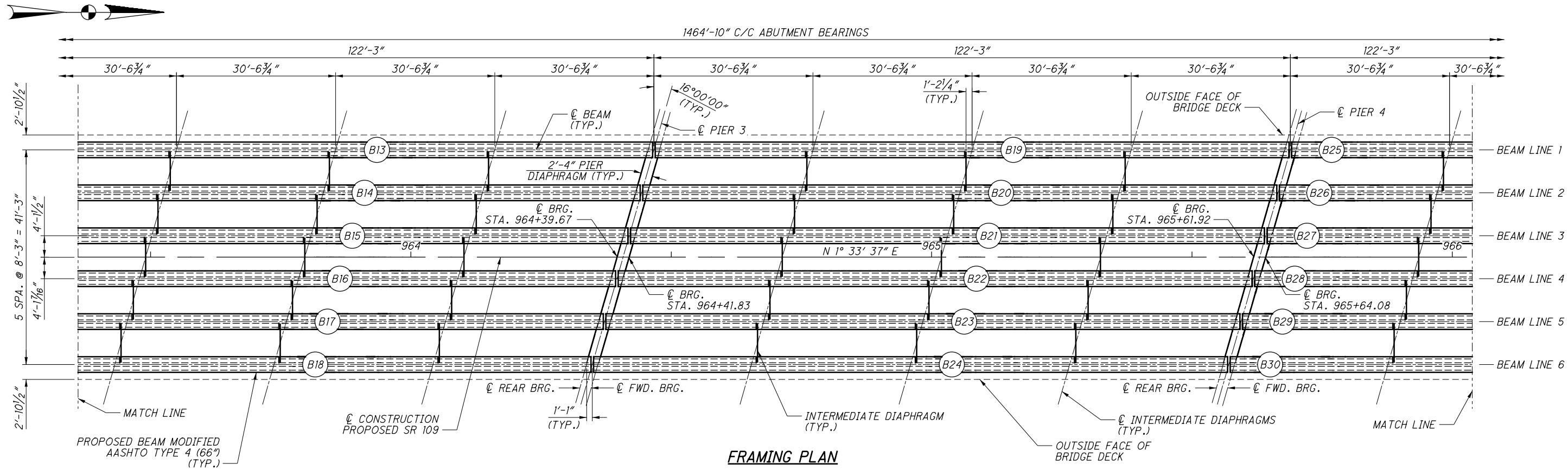
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FRAMING PLAN



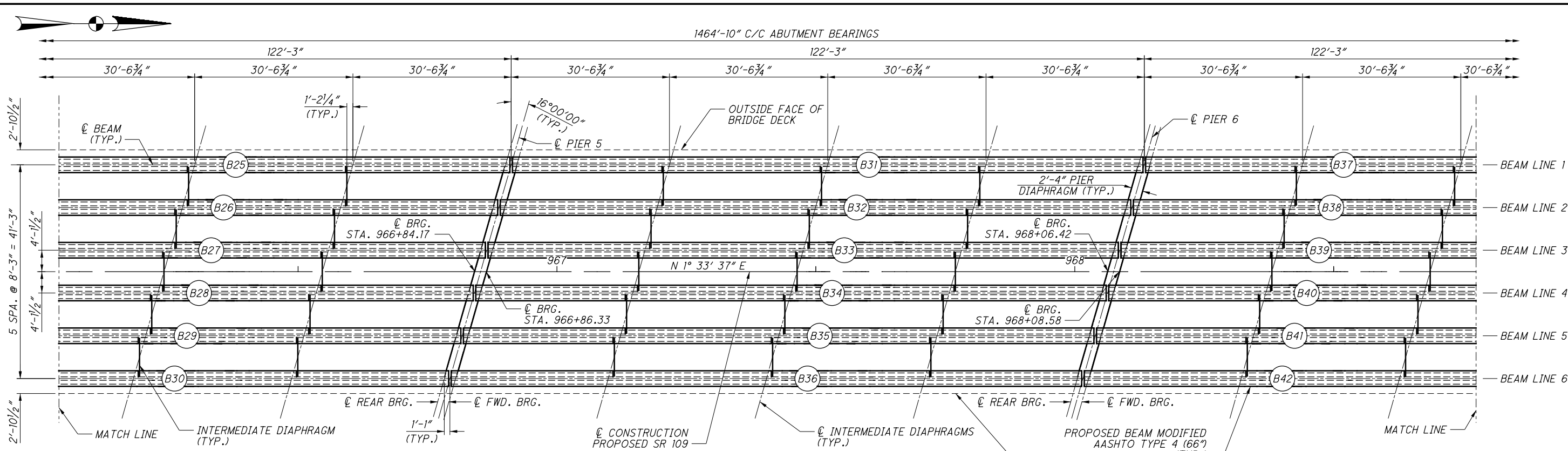
FRAMING PLAN

NOTES:

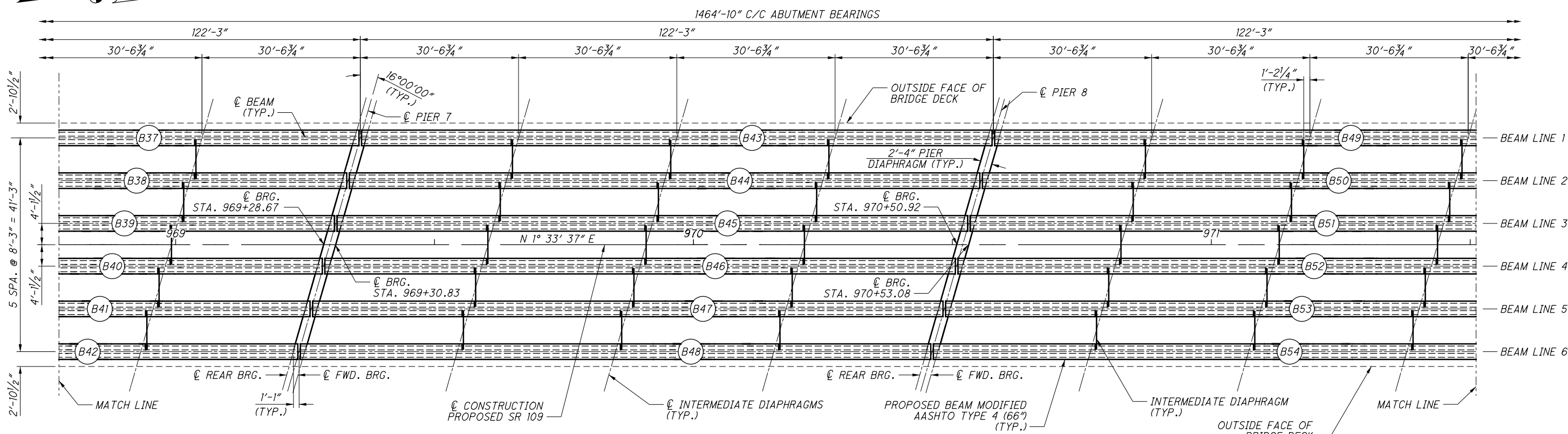
1. FOR PRESTRESSED I-BEAM DETAILS, SEE SHEETS 24/55 AND 25/55.
2. FOR BEARING DETAILS, SEE SHEETS 26/55 THRU 28/55.
3. FOR HAUNCH AND CAMBER INFORMATION, SEE SHEETS 43/55 THRU 45/55.
4. FOR SCREED ELEVATIONS, SEE SHEETS 35/55 AND 36/55.
5. FOR TOP OF HAUNCH ELEVATIONS, SEE SHEETS 37/55 THRU 39/55.
6. FOR FINAL DECK ELEVATIONS, SEE SHEETS 40/55 THRU 42/55.
7. FOR END DIAPHRAGM DETAILS, SEE SHEET 29/55.
8. FOR PIER DIAPHRAGM DETAILS, SEE SHEET 30/55.
9. FOR INTERMEDIATE DIAPHRAGM DETAILS AND ADDITIONAL NOTES, SEE ODOT STANDARD DRAWING PSID-I-13.

| | | | |
|----------|---------|-----------------------|---------|
| DESIGNED | BMG | CHECKED | CJW |
| DRAWN | BMG | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |

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FRAMING PLAN



FRAMING PLAN

NOTES:
1. FOR NOTES, SEE SHEET 21/55.

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| DESIGNED | BMG | CHECKED | CJW |
| DRAWN | BMG | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |

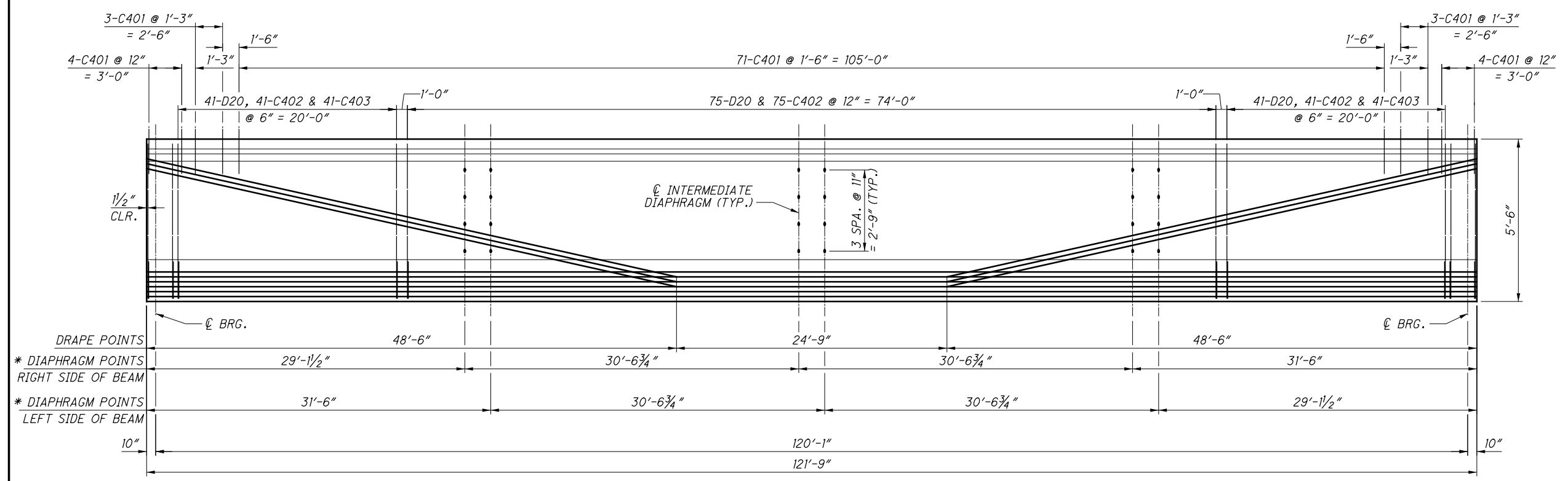
FRAMING PLAN (2 OF 3)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

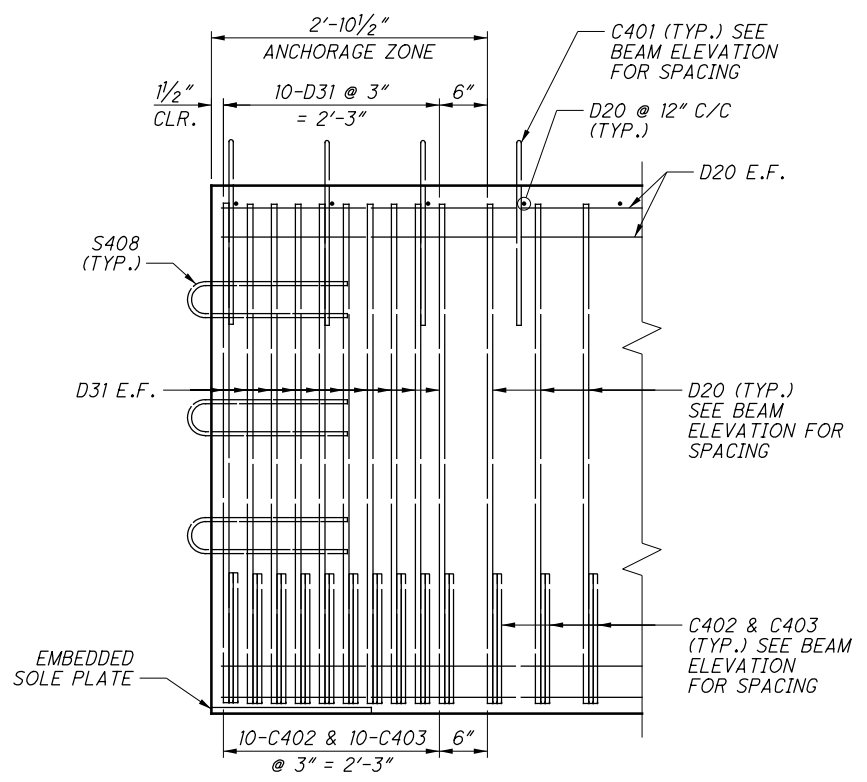
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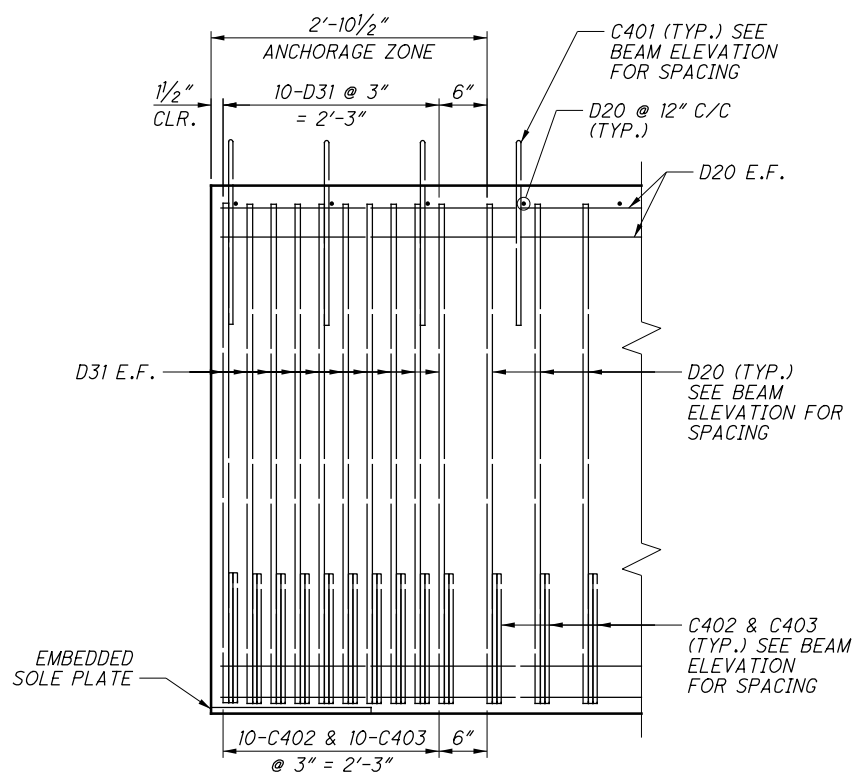
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BEAM ELEVATION



ANCHORAGE REINFORCEMENT DETAIL AT ABUTMENTS



ANCHORAGE REINFORCEMENT DETAIL AT PIERS

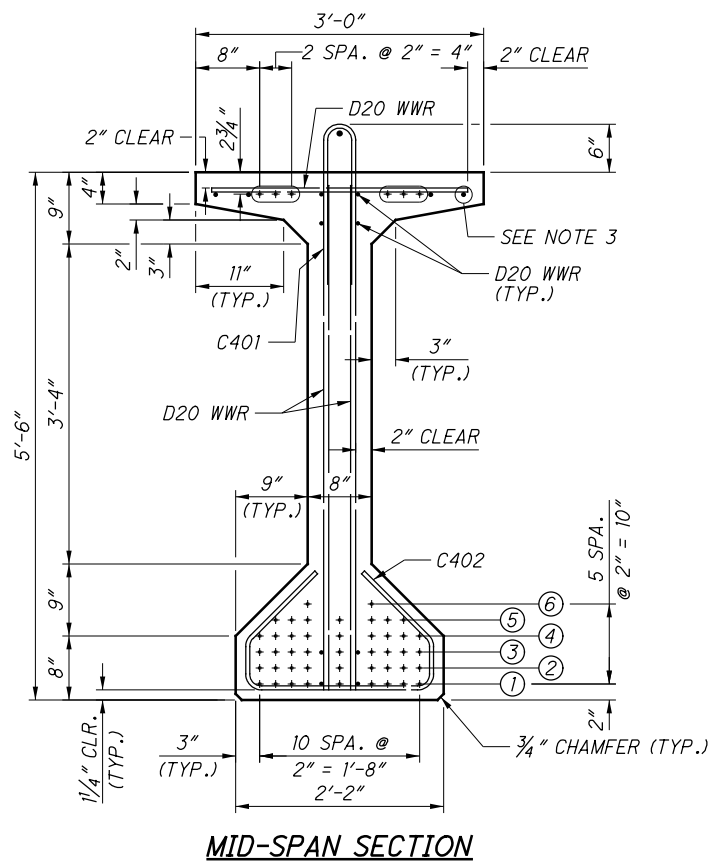
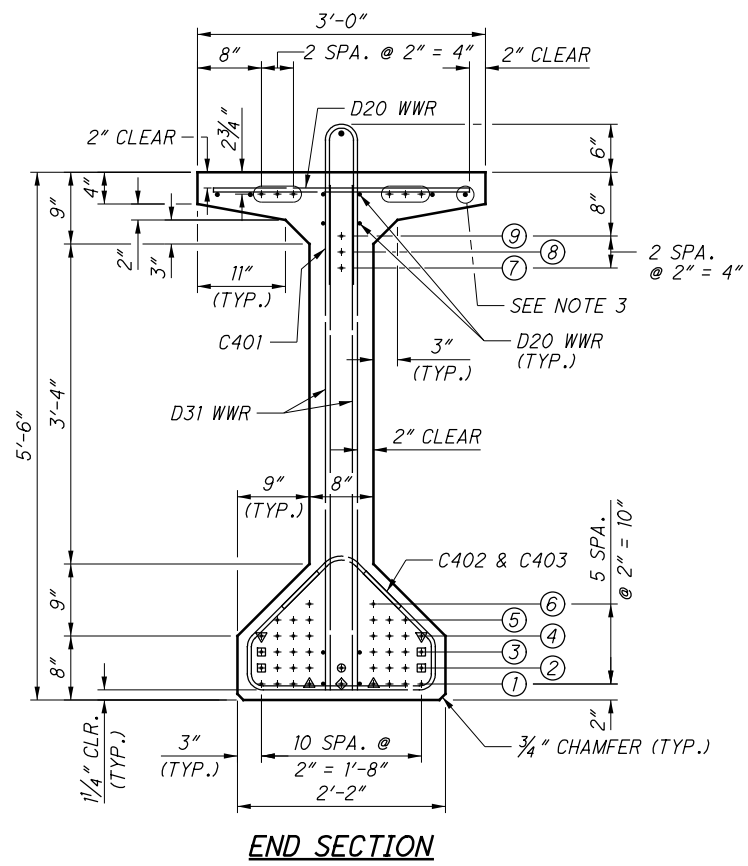
LEGEND:

* - INSERTS ARE NOT INCLUDED ON THE OUTSIDE OF THE EXTERIOR BEAMS

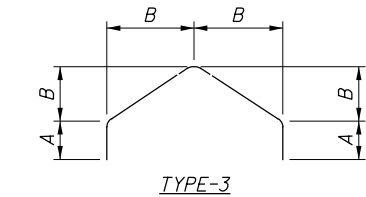
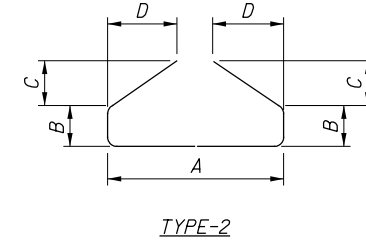
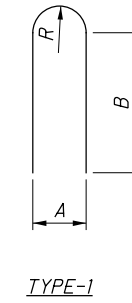
NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STANDARD DRAWING PSID-1-13 AND SHEET 25/55.
2. ALL PRESTRESSING STRANDS SHALL BE GRADE 270 KIPS SEVEN WIRE, UNCOATED, LOW RELAXATION STRAND, WITH A DIAMETER OF 0.6 INCHES AND A NOMINAL AREA OF 0.217 SQUARE INCHES.
3. ONLY THE C401 REINFORCING BARS SHALL BE EPOXY COATED, GRADE 60.
4. INITIAL FORCE PER STRAND = 43,942 POUNDS/STRAND / TOTAL HOLD-DOWN CAPACITY REQUIRED = 21,252 POUNDS

| | | | |
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| DESIGNED | BMG | CHECKED | CJW |
| DRAWN | DTA | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |



| BAR BENDING DIMENSIONS | | | | | | |
|------------------------|------|------------|---------|--------|--------|--------|
| MARK | TYPE | DIMENSIONS | | | | |
| | | A | B | C | D | R |
| C401 | 1 | 4" | 1'-8" | - | - | 2 1/4" |
| C402 | 2 | 1'-11 1/2" | 6 1/4" | 8 1/2" | 8 1/2" | - |
| C403 | 3 | 6 1/4" | 11 3/4" | - | - | - |



| BEAM PRESTRESSING STRANDS, MATERIALS, AND REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------|---|---|---|---|---|------------------|---|---|---|---|---|---------------|--------------------|-----|-----------------|-----------------|-----------------|-------------|-----|-----|-------------|
| BEAM MARK | NUMBER OF STRANDS PER ROW | | | | | | | | | | | | TOTAL STRANDS | CONCRETE STRENGTHS | | C401 BARS REQ'D | C402 BARS REQ'D | C403 BARS REQ'D | BEAM WEIGHT | | | |
| | END SECTION | | | | | | MID-SPAN SECTION | | | | | | | f'ci | f'c | | | | | | | |
| | ① | ② | ③ | ④ | ⑤ | ⑥ | ① | ② | ③ | ④ | ⑤ | ⑥ | | | | | | | | | | |
| B1 - B72 | 9 | 9 | 8 | 8 | 6 | 2 | 1 | 1 | 1 | 9 | 9 | 9 | 9 | 7 | 2 | 45 | 6500 psi | 7500 psi | 85 | 177 | 102 | 115,200 lbs |

LEGEND:

- ② - INDICATES STRAND ROW
- ▽ - STRAND DEBONDED 2'-0" EACH END
- ◻ - STRAND DEBONDED 4'-0" EACH END
- ⊙ - STRAND DEBONDED 6'-0" EACH END
- ◇ - STRAND DEBONDED 10'-0" EACH END
- △ - STRAND DEBONDED 14'-0" EACH END

NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STANDARD DRAWING PSID-1-13.
2. ALL PRESTRESSING STRANDS SHALL BE GRADE 270 KIPS SEVEN WIRE, UNCOATED, LOW RELAXATION STRAND, WITH A DIAMETER OF 0.6 INCHES AND A NOMINAL AREA OF 0.217 SQUARE INCHES.
3. FOUR CONTINUOUS D31 BARS SHALL BE PROVIDED IN THE TOP FLANGE AS SHOWN FOR THE FULL LENGTH OF THE BEAMS PER PSID-1-13.
4. ONLY THE C401 REINFORCING BARS SHALL BE EPOXY COATED, GRADE 60.

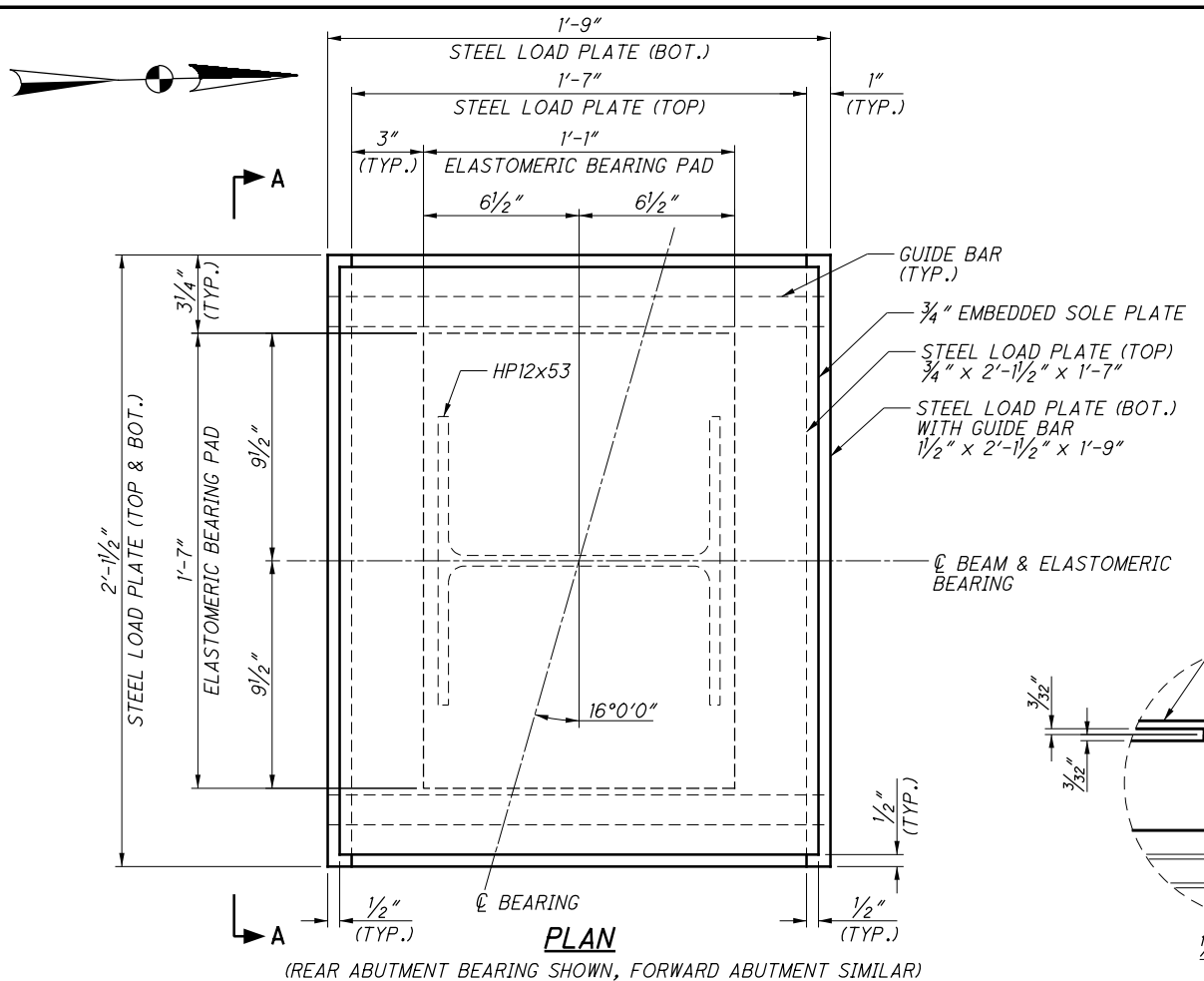
PRESTRESSED I-BEAM DETAILS

BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

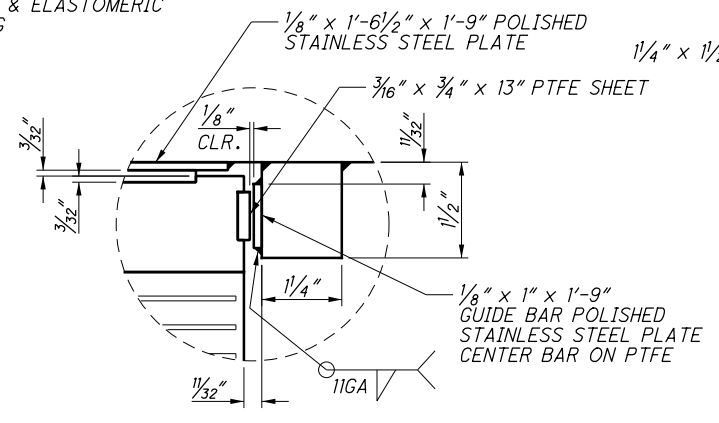
HEH-109-18.02
PID No. 90991

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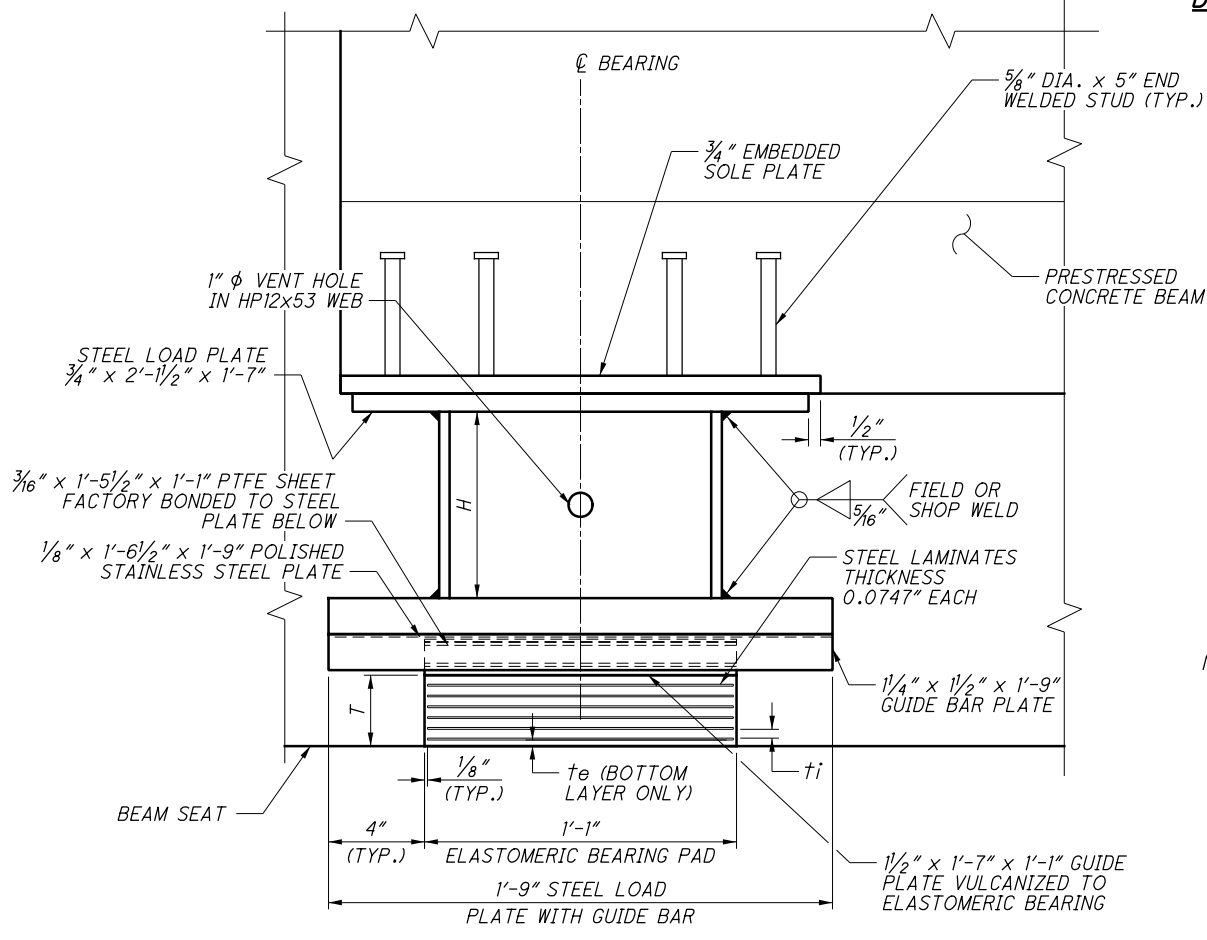
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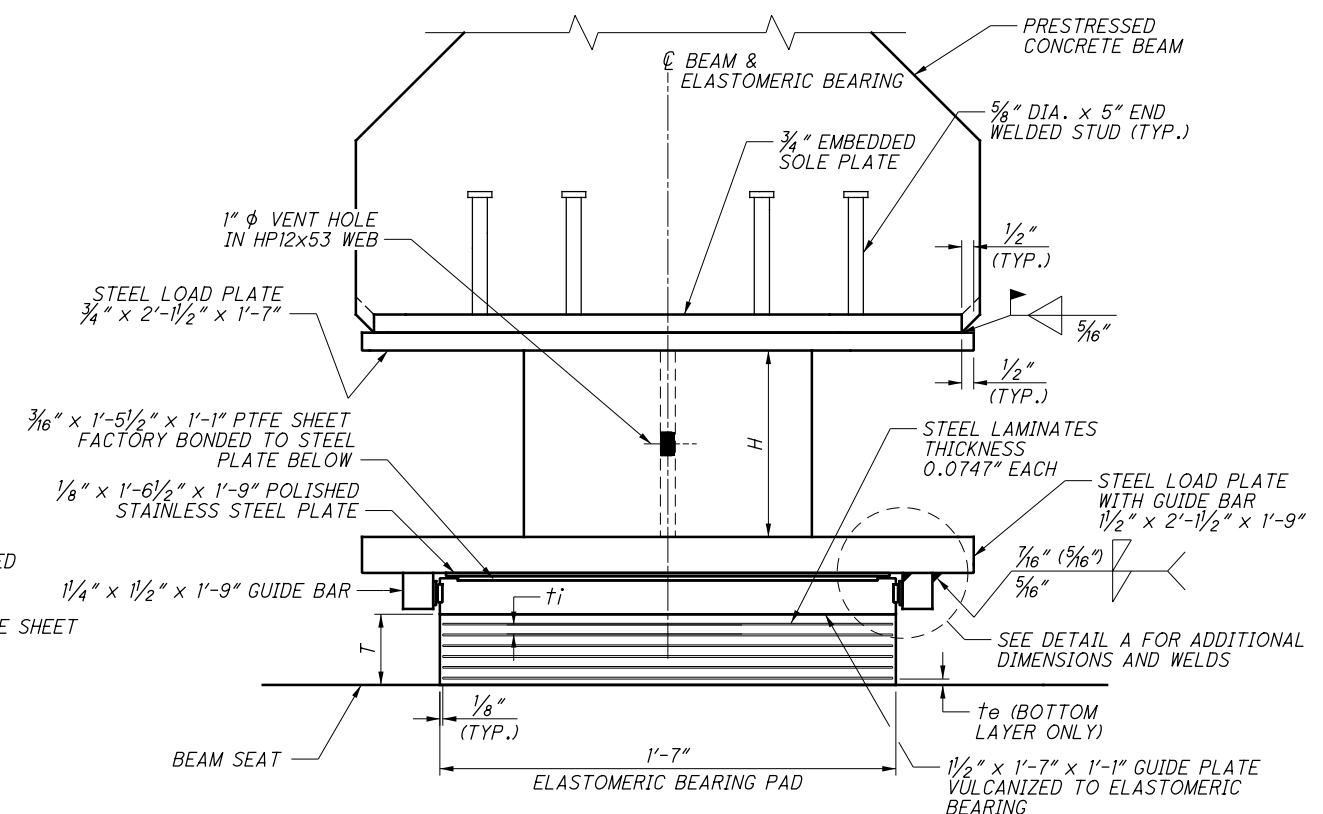
PLAN
(REAR ABUTMENT BEARING SHOWN, FORWARD ABUTMENT SIMILAR)



DETAIL A



ELEVATION
(REAR ABUTMENT BEARING SHOWN, FORWARD ABUTMENT SIMILAR)

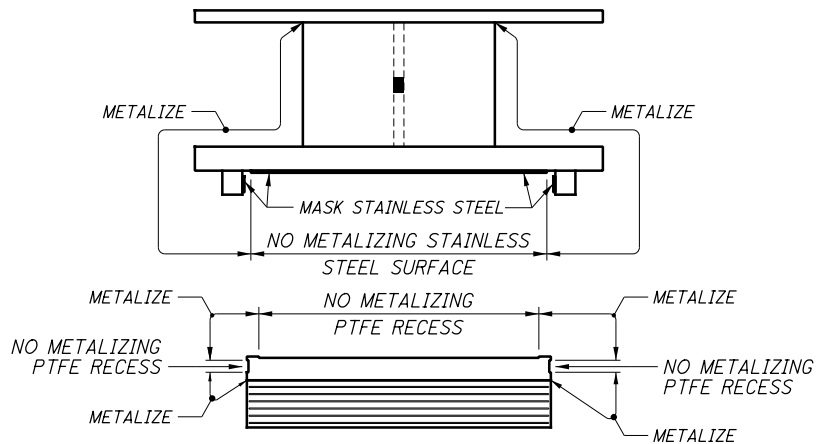


VIEW A-A
(REAR ABUTMENT BEARING SHOWN, FORWARD ABUTMENT SIMILAR)

| H-PILE 'H' DIMENSION | | | | | | |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| LOCATION | BEAM LINE 1 | BEAM LINE 2 | BEAM LINE 3 | BEAM LINE 4 | BEAM LINE 5 | BEAM LINE 6 |
| REAR ABUT. | 4 7/8" | 8 3/4" | 10 1/4" | 10 1/8" | 8 1/4" | 4" |
| FWD. ABUT. | 4" | 4" | 4" | 4" | 4" | 4" |

| LAMINATED ELASTOMERIC BEARINGS AT ABUTMENTS | | | | | | | |
|---|-------|--------|-----|-----------|-------|---------------------|-------|
| BEARING DIMENSIONS | | | | REACTIONS | | MAXIMUM DESIGN LOAD | |
| t_i | t_e | T | n | N | DL | LL W/O IMPACT | |
| 0.375" | 0.25" | 2.948" | 6 | 6 | 180 K | 105 K | 285 K |

t_i = THICKNESS OF INTERNAL LAYER
 t_e = THICKNESS OF EXTERNAL LAYER
 T = TOTAL THICKNESS OF ELASTOMER BEARING
 n = NUMBER OF INTERNAL ELASTOMER LAYERS
 N = NO. OF STEEL LAMINATES
 INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
 DUROMETER OF ELASTOMER = 50 DUROMETER



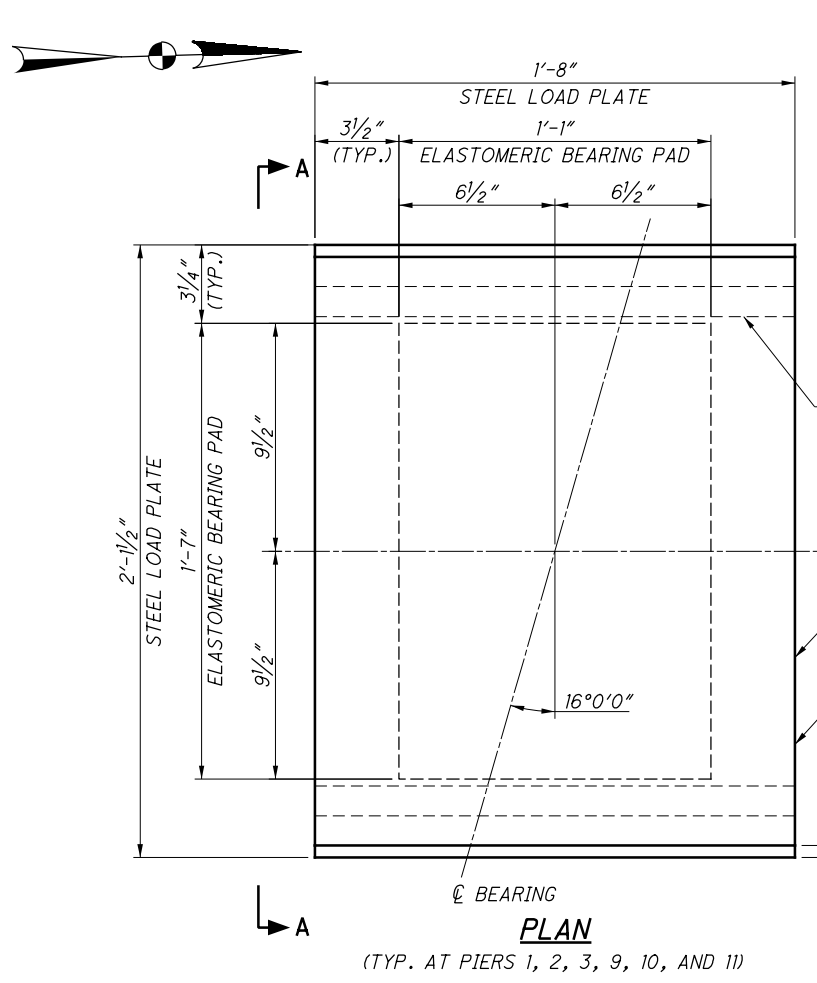
METALIZING DIAGRAM

NOTES:

1. THE STEEL LOAD PLATE, TOP PLATE, GUIDE BAR AND HP SECTION SHALL BE METALIZED ASTM A709 GRADE 50 STEEL.
2. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE THE LOAD PLATE, HP 12X53 PEDESTAL, STEEL PLATE, ALL COMPONENTS OF GUIDE BEARINGS AND ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. FOR THE ABUTMENTS, PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
3. FOR ADDITIONAL NOTES, SEE SHEET 28/55.
4. FOR PIER BEARING DETAILS, SEE SHEETS 27/55 & 28/55.

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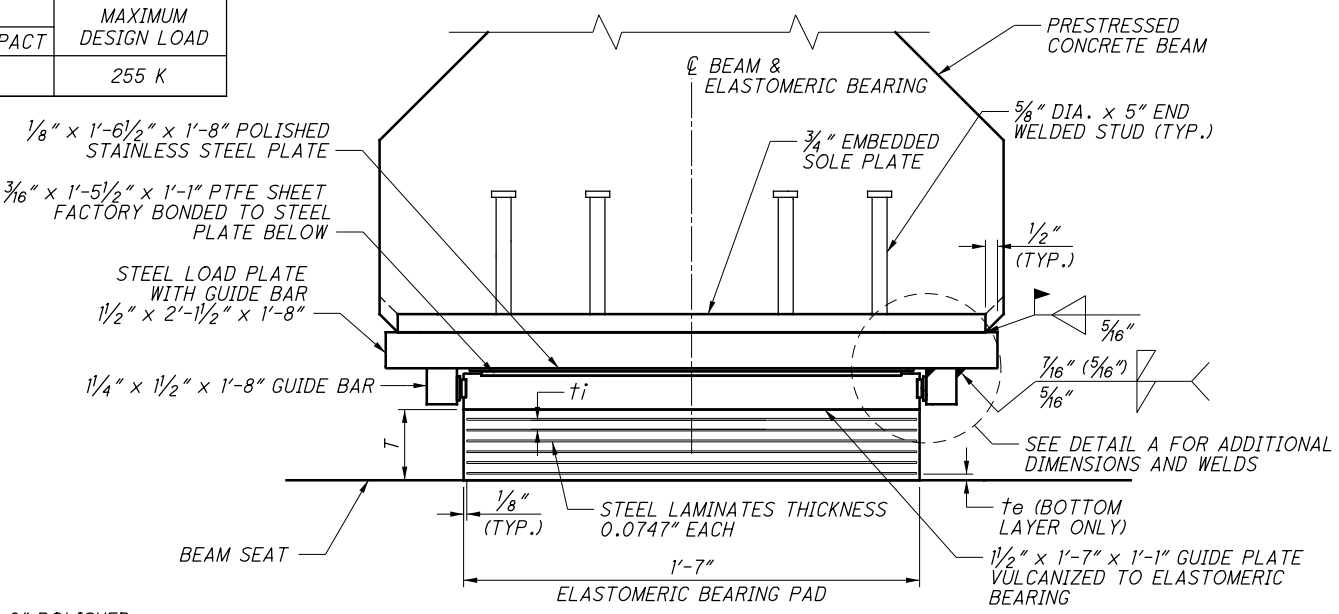
P:\90991\structures\sheets\109_1820BR002.dgn 8/15/2014 3:14:55 PM mcorneett



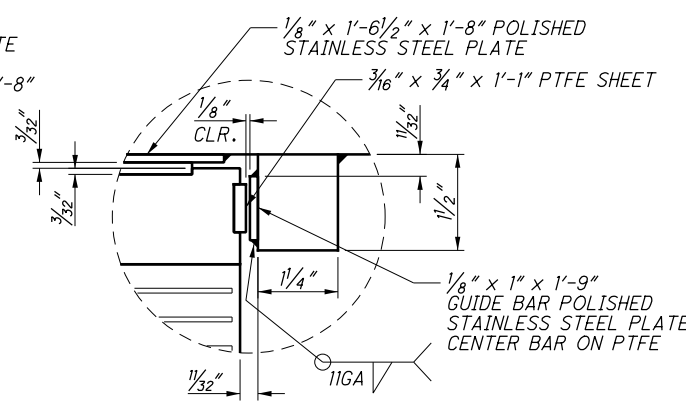
PLAN
(TYP. AT PIERS 1, 2, 3, 9, 10, AND 11)

| LAMINATED ELASTOMERIC BEARINGS AT PIERS | | | | | | |
|---|-------|--------|-----------|---|---------------------|---------------|
| BEARING DIMENSIONS | | | REACTIONS | | MAXIMUM DESIGN LOAD | |
| t_i | t_e | T | n | N | DL | LL W/O IMPACT |
| 0.375" | 0.25" | 2.948" | 6 | 6 | 174 K | 81 K |
| | | | | | 255 K | |

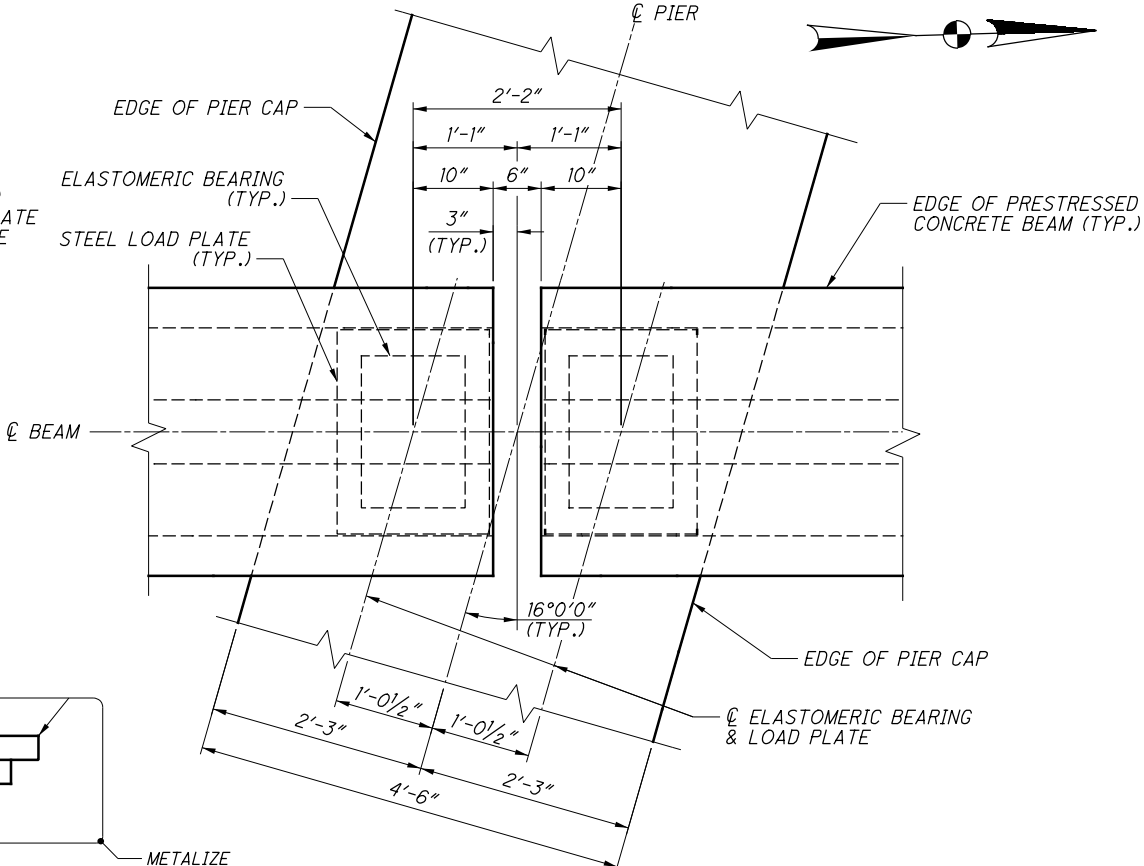
t_i = THICKNESS OF INTERNAL LAYER
 t_e = THICKNESS OF EXTERNAL LAYER
 T = TOTAL THICKNESS OF ELASTOMERIC BEARING
 n = NUMBER OF INTERNAL ELASTOMER LAYERS
 N = NO. OF STEEL LAMINATES
 INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
 DUROMETER OF ELASTOMER = 50 DUROMETER



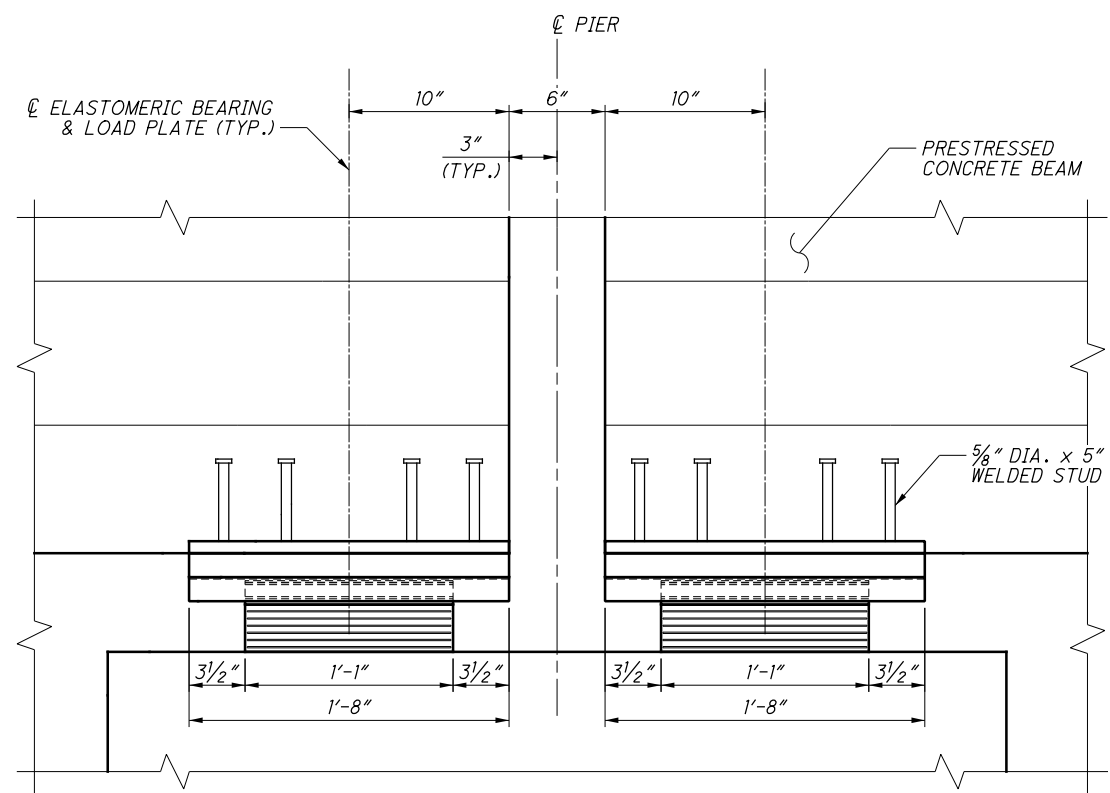
VIEW A-A
(TYP. AT PIERS 1, 2, 3, 9, 10, AND 11)



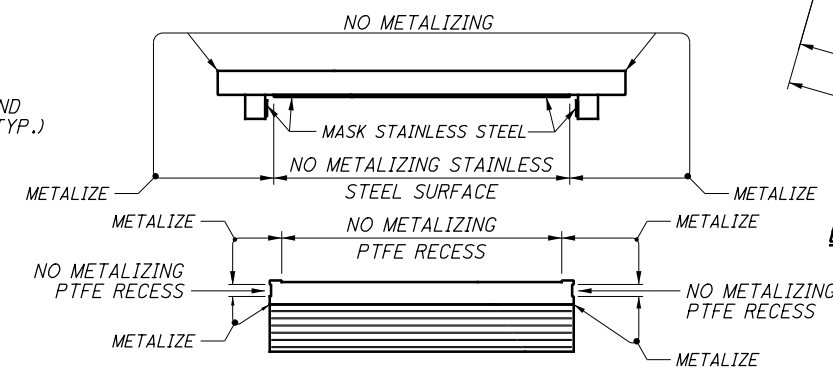
DETAIL A



BEARING ORIENTATION PLAN AT PIERS
(TYPICAL ALL PIERS)

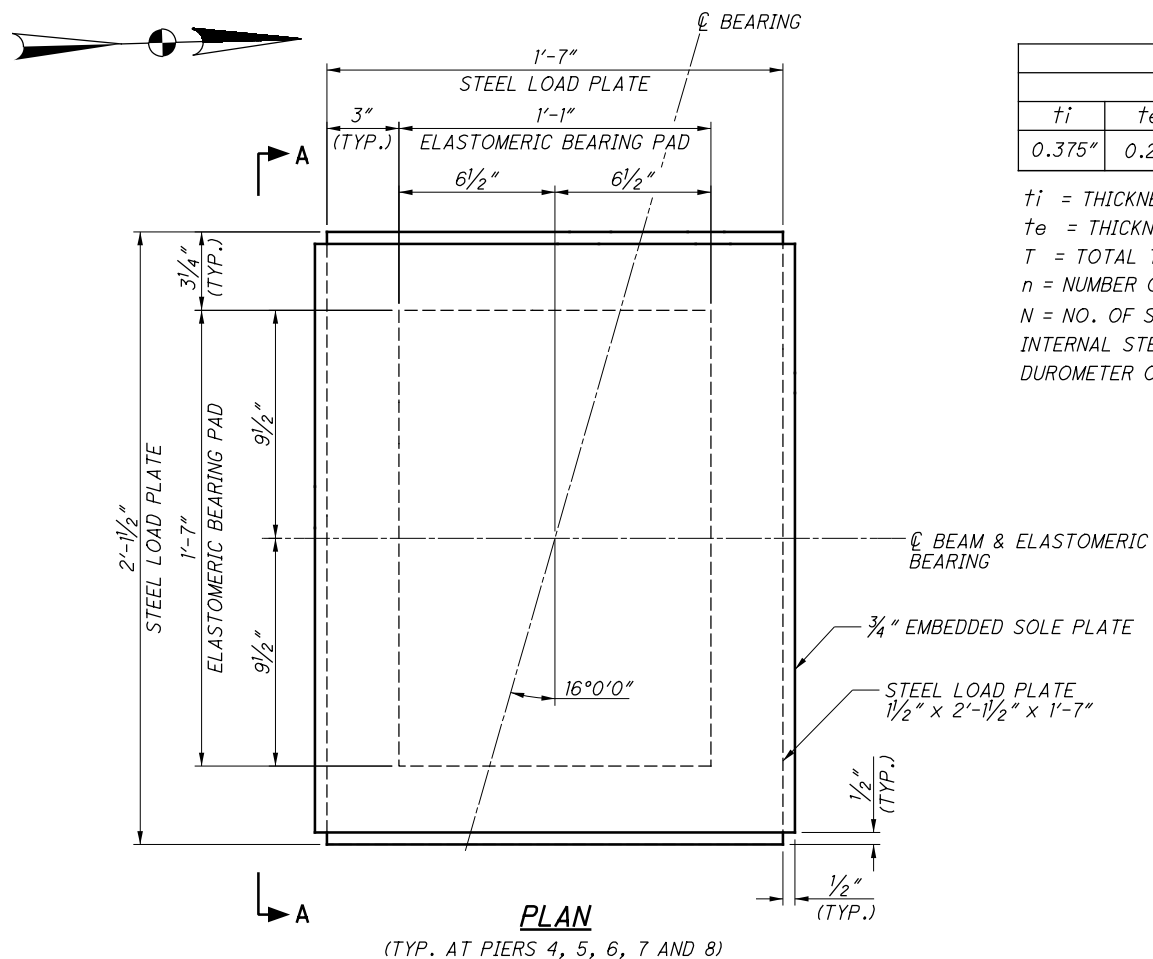


LAMINATED ELASTOMERIC BEARINGS AT PIERS
(TYP. AT PIERS 1, 2, 3, 9, 10, AND 11)



METALIZING DIAGRAM

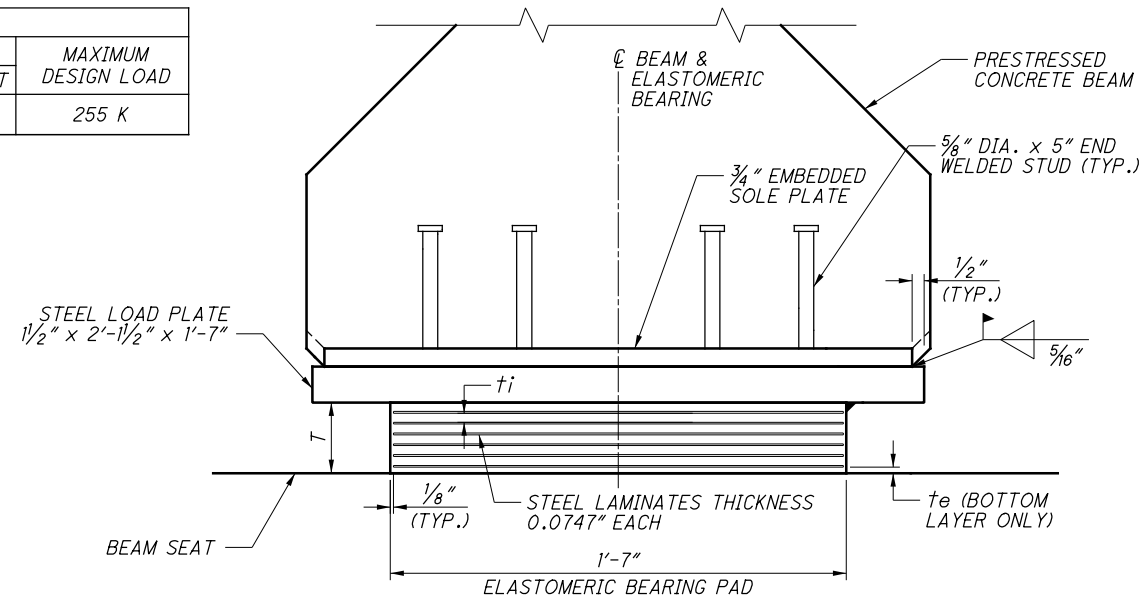
- NOTES:**
1. FOR ADDITIONAL NOTES, SEE SHEET 28/55.
 2. FOR ABUTMENT BEARING DETAILS, SEE SHEET 26/55.
 3. FOR BEARING DETAILS AT PIERS 4, 5, 6, 7 AND 8, SEE SHEET 28/55.
 4. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE THE LOAD PLATE, STEEL PLATE, ALL COMPONENTS OF GUIDE BEARINGS AND ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. FOR THE ABUTMENTS, PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.



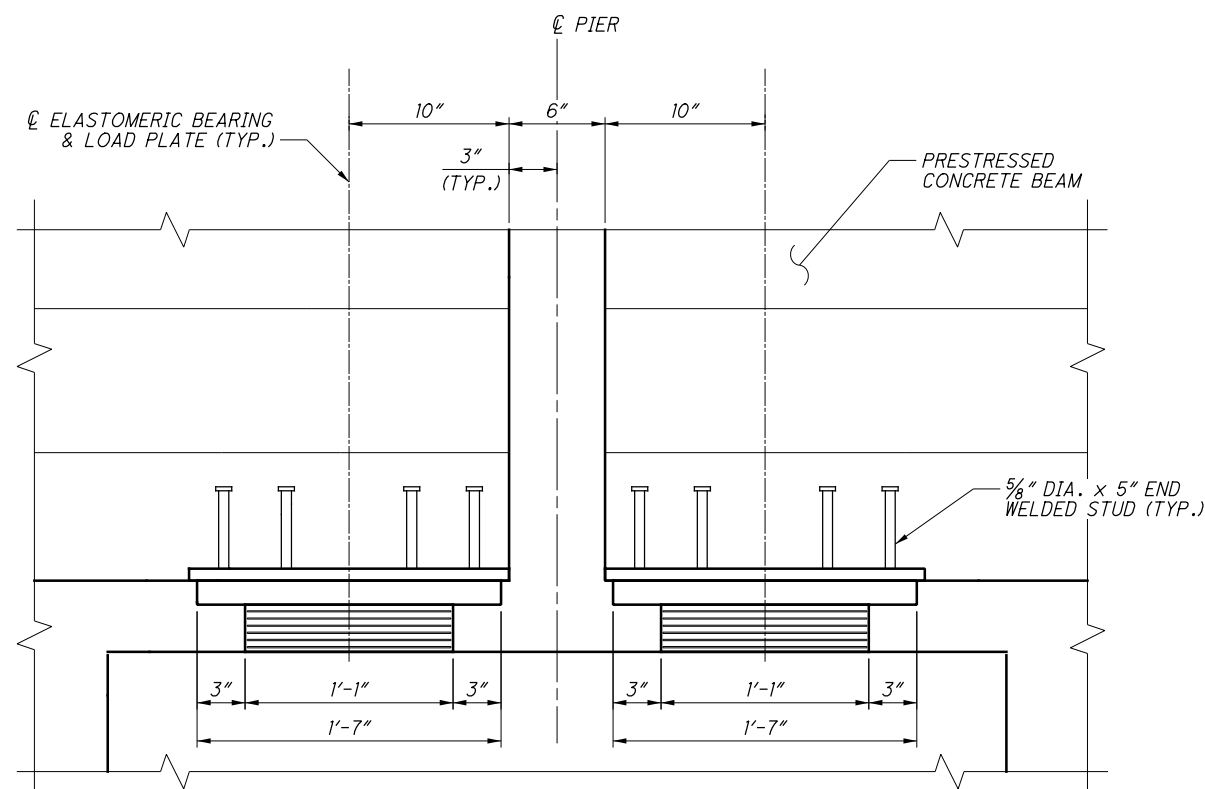
PLAN
(TYP. AT PIERS 4, 5, 6, 7 AND 8)

| LAMINATED ELASTOMERIC BEARINGS AT PIERS | | | | | | | |
|---|-------|--------|-----|-----|-----------|---------------|---------------------|
| BEARING DIMENSIONS | | | | | REACTIONS | | MAXIMUM DESIGN LOAD |
| t_i | t_e | T | n | N | DL | LL W/O IMPACT | |
| 0.375" | 0.25" | 2.948" | 6 | 6 | 174 K | 81 K | 255 K |

t_i = THICKNESS OF INTERNAL LAYER
 t_e = THICKNESS OF EXTERNAL LAYER
 T = TOTAL THICKNESS OF ELASTOMERIC BEARING
 n = NUMBER OF INTERNAL ELASTOMER LAYERS
 N = NO. OF STEEL LAMINATES
 INTERNAL STEEL LAMINATE THICKNESS = 0.0747"
 DUROMETER OF ELASTOMER = 50 DUROMETER



VIEW A-A
(TYP. AT PIERS 4, 5, 6, 7 AND 8)

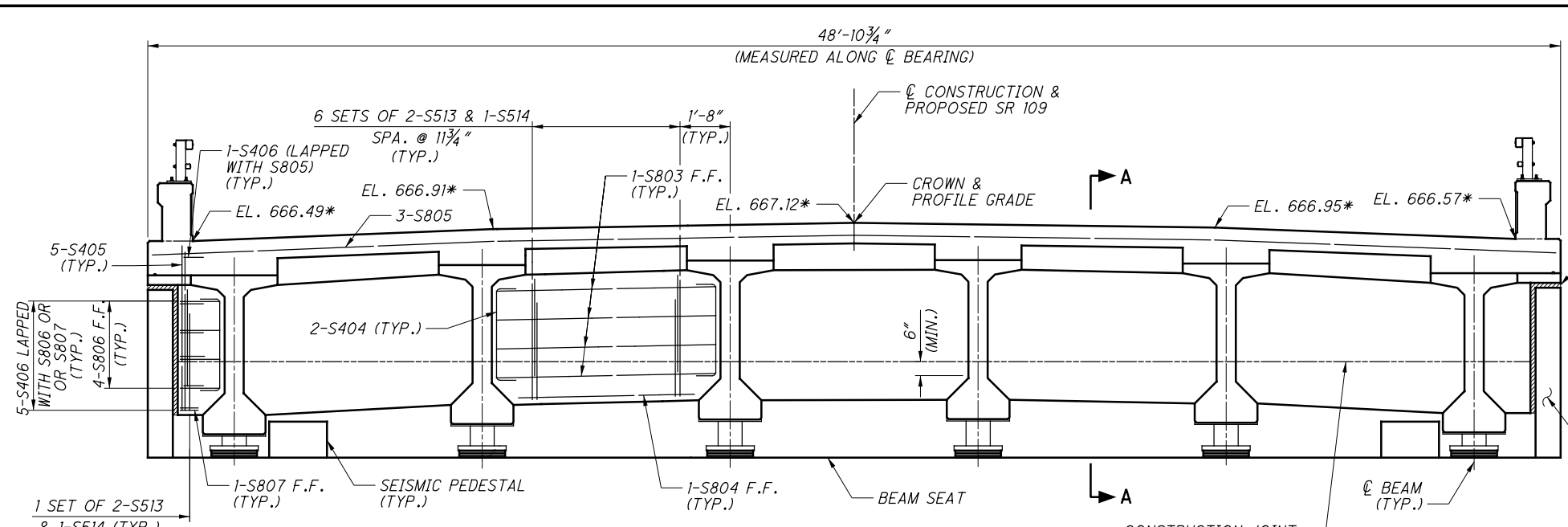


LAMINATED ELASTOMERIC BEARINGS AT PIERS
(TYP. AT PIERS 4, 5, 6, 7 AND 8)

NOTES:

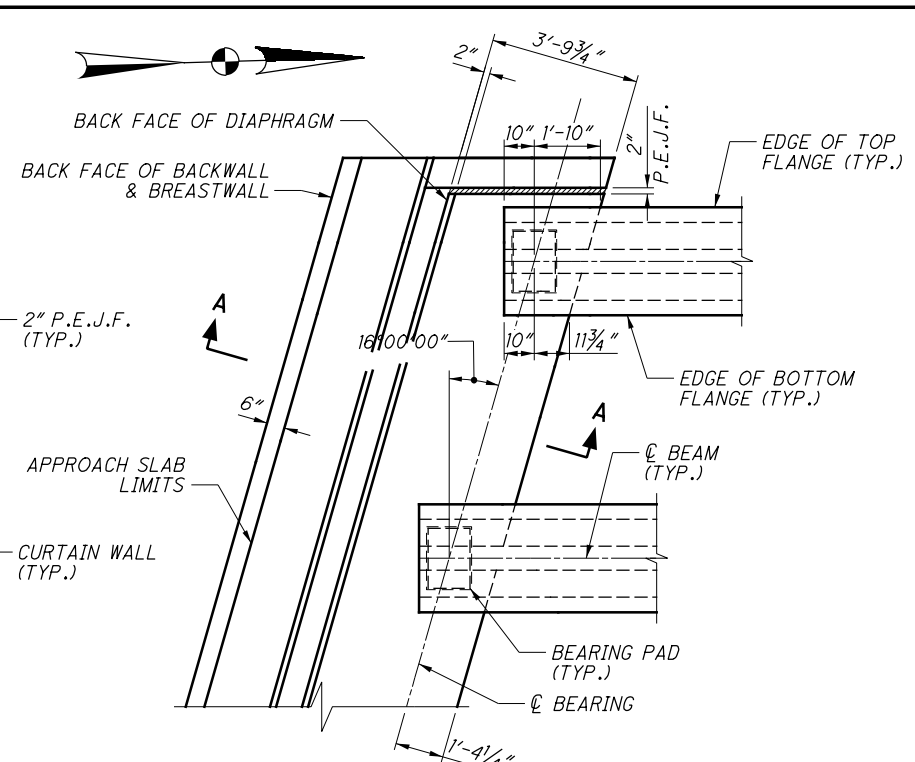
- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- THE STEEL LOAD PLATES SHALL MEET THE GRADE 50 REQUIREMENTS OF STRUCTURAL STEEL ASTM A709 AND SHALL BE METALIZED PER CMS 711.02.
- THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
- FOR ADDITIONAL EMBEDDED LOAD PLATE NOTES AND DETAILS, REFER TO STD. DWG. PSID-1-13.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE. IMPACT IS NOT INCLUDED. LOADS ARE UNFACTORED.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE THE LOAD PLATE, STEEL PLATE, AND ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. FOR THE ABUTMENTS, PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
- FOR ABUTMENT BEARING DETAILS, SEE SHEET 26/55.
- FOR BEARING DETAILS AT PIERS 1, 2, 3, 9, 10 AND 11, SEE SHEET 27/55.
- FOR BEARING ORIENTATION PLAN AT PIERS, SEE SHEET 27/55.

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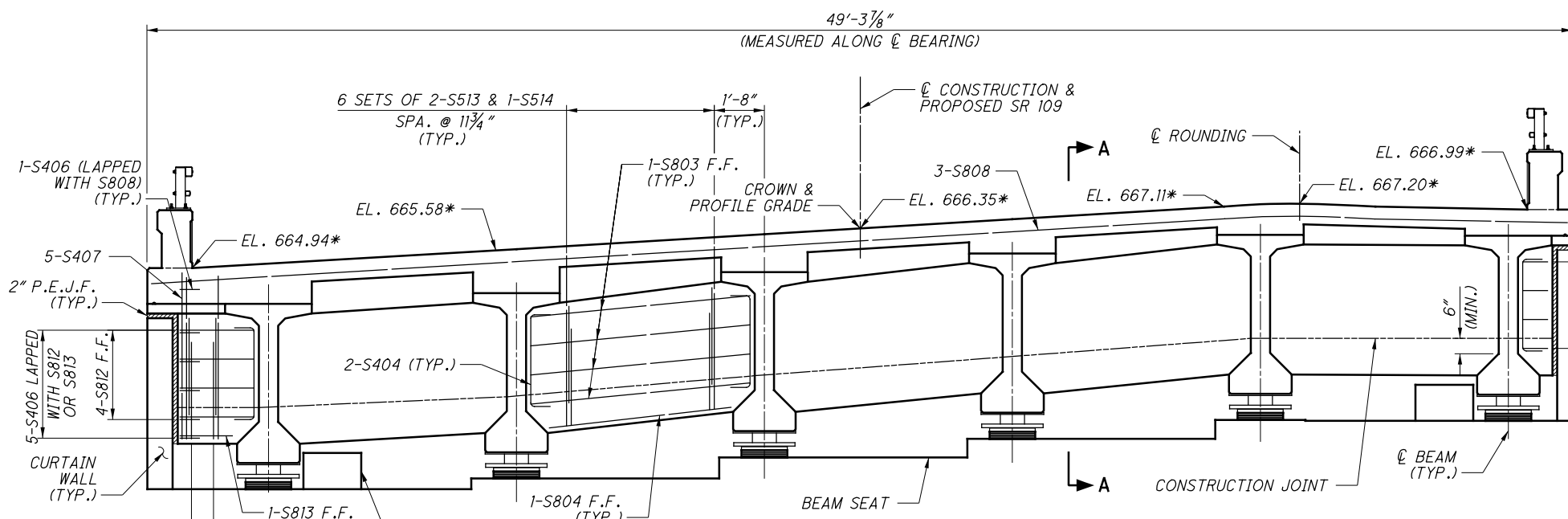
REAR ABUTMENT DIAPHRAGM ELEVATION

* ELEVATIONS GIVEN AT \bar{C} BEARING
(5-S816 \diamond B.F. NOT SHOWN FOR CLARITY)



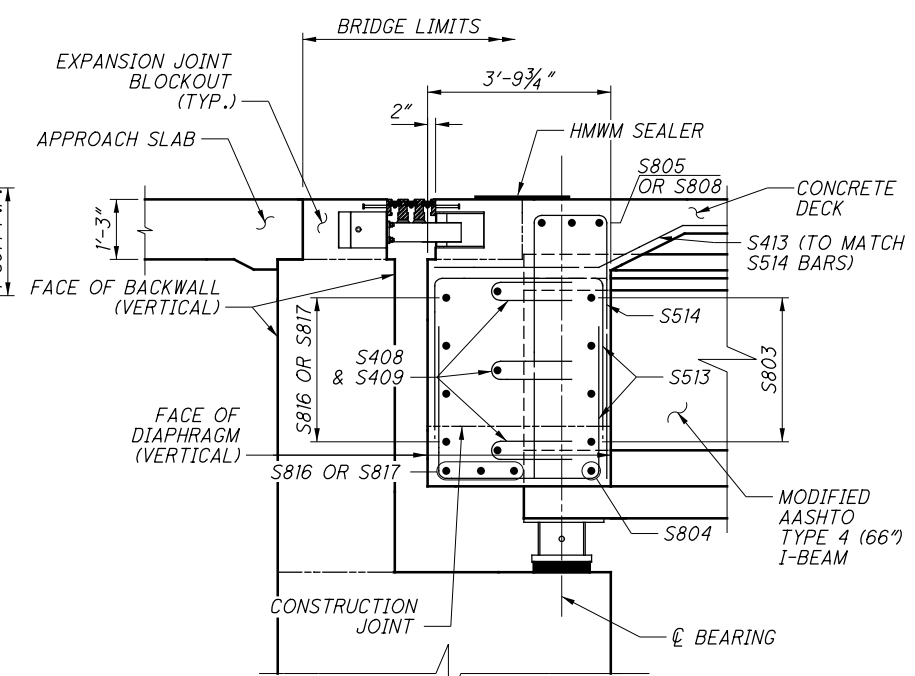
END DIAPHRAGM PARTIAL PLAN

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR)
(MODULAR EXPANSION JOINT NOT SHOWN FOR CLARITY)

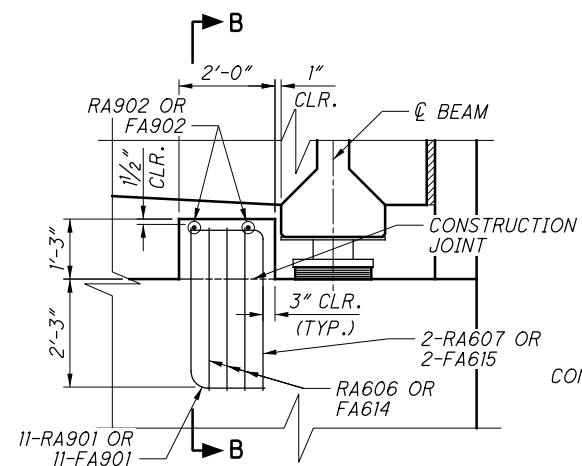


FORWARD ABUTMENT DIAPHRAGM ELEVATION

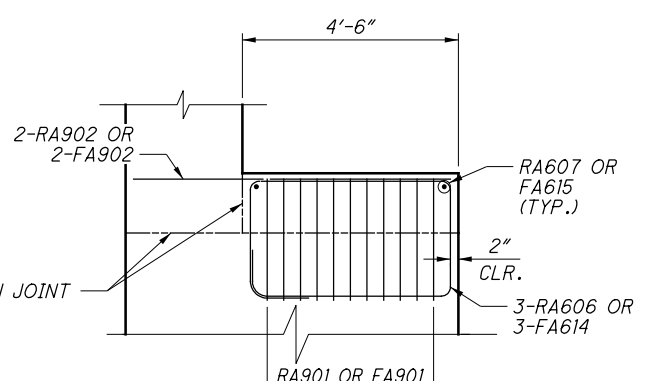
* ELEVATIONS GIVEN AT \bar{C} BEARING
(5-S817 \diamond B.F. NOT SHOWN FOR CLARITY)



SECTION A-A



FRONT VIEW OF SEISMIC PEDESTAL



SECTION B-B

LEGEND:

\diamond - FIELD BEND AS NECESSARY

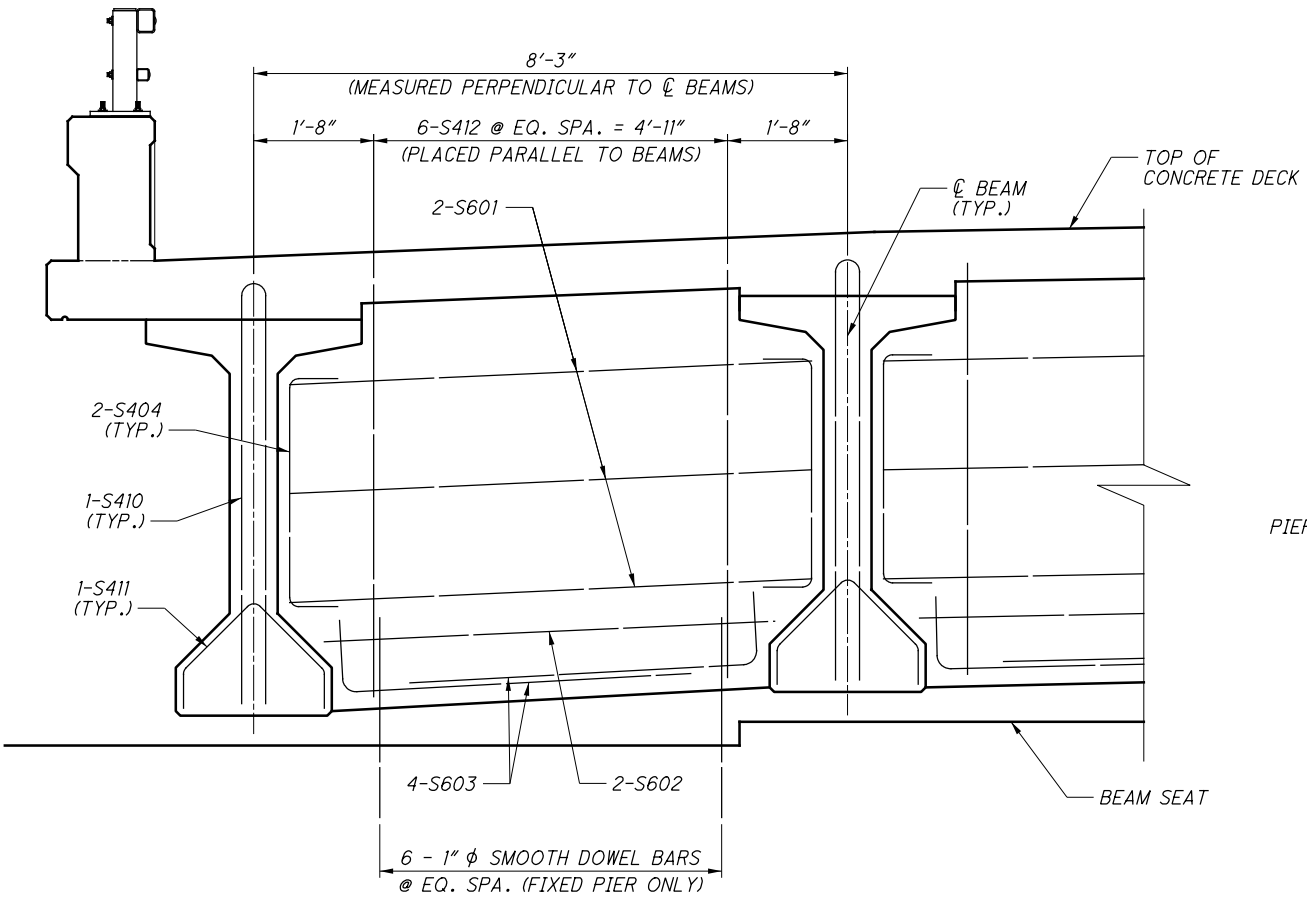
NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES NOT SHOWN, SEE ODOT STANDARD DRAWING PSID-1-13.
2. FOR BEARING DETAILS, SEE SHEET 26/55.
3. PLACE VERTICAL BARS PARALLEL TO BEAMS.
4. FOR REINFORCING BAR SCHEDULE, SEE SHEETS 53/55 THRU 55/55.

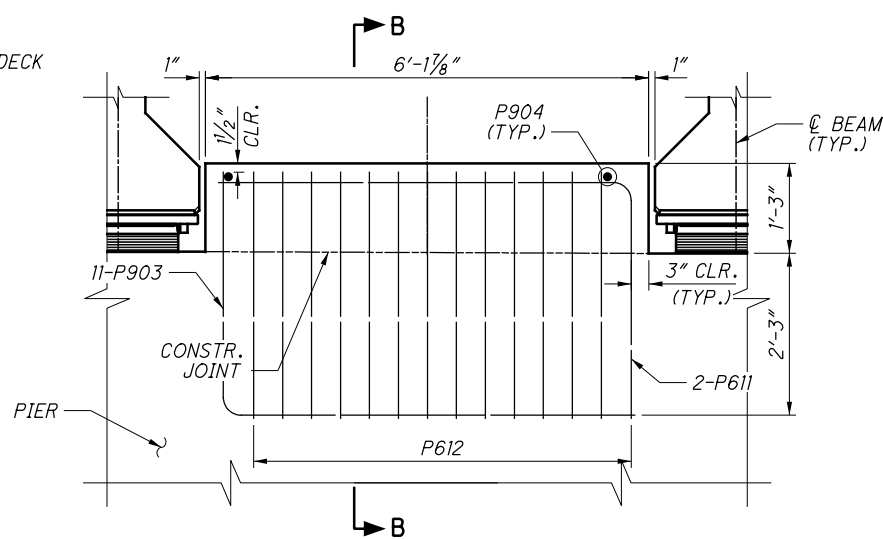
5. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET.

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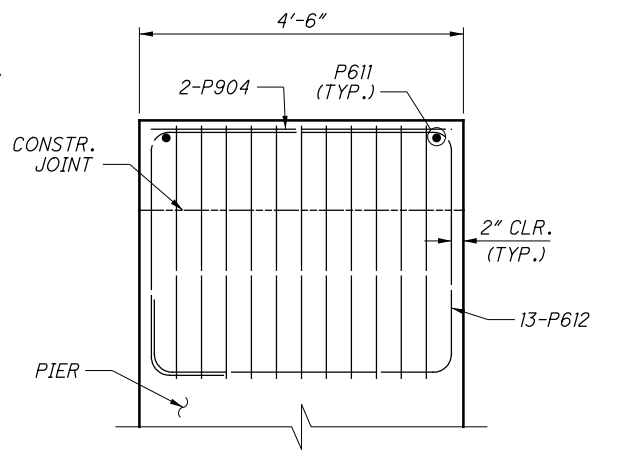
| | | | |
|----------|---------|-----------------------|---------|
| DESIGNED | BMG | CHECKED | CJW |
| DRAWN | BMG | REVIEWED | |
| DATE | 08/2014 | STRUCTURE FILE NUMBER | 3502392 |



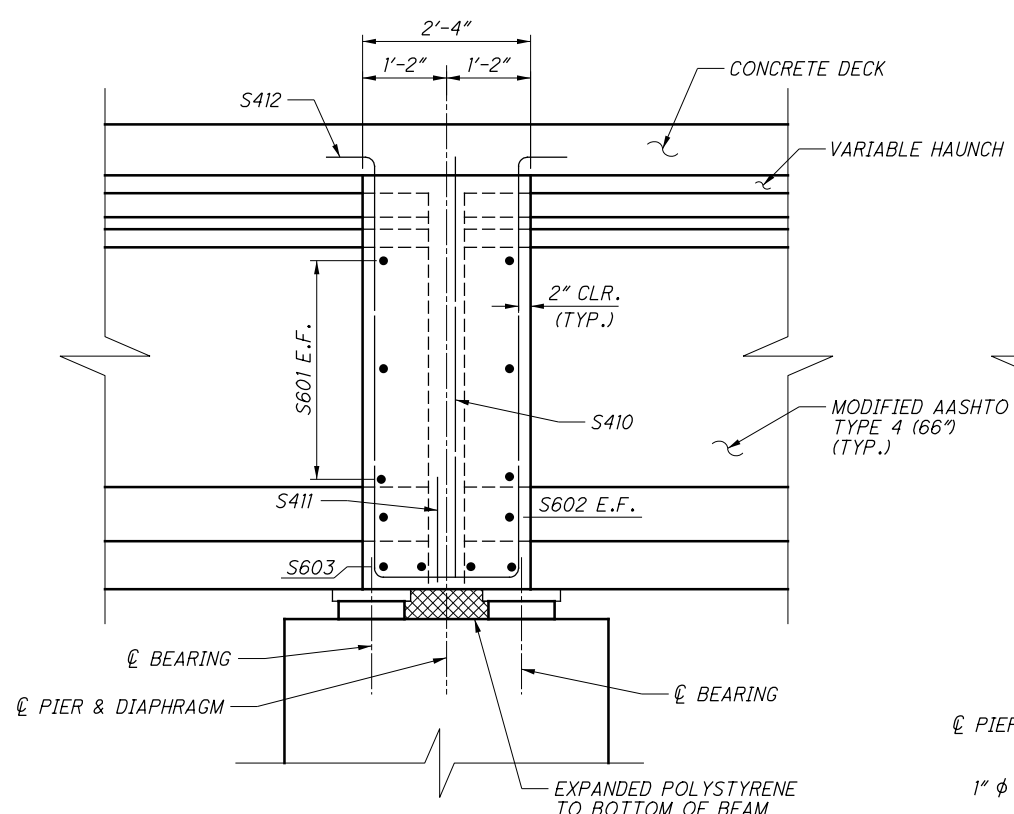
PIER DIAPHRAGM PART ELEVATION
(6 BAYS, LOOKING UPSTATION)



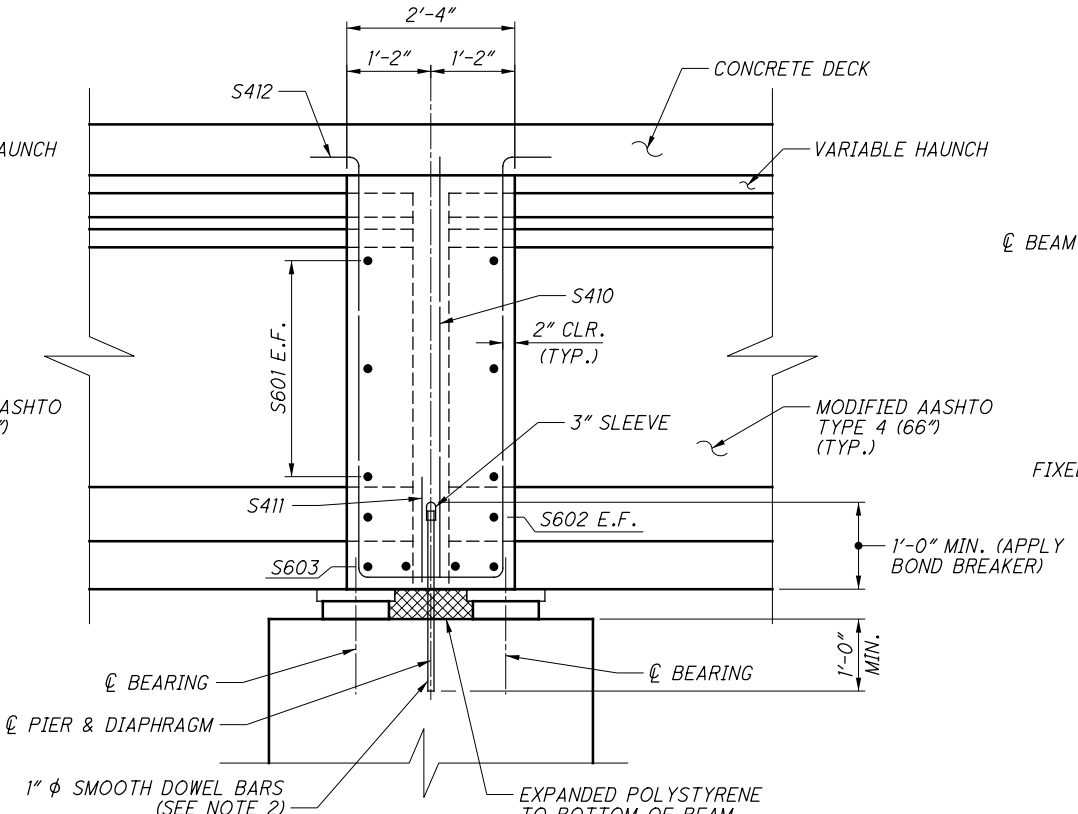
FRONT VIEW OF SEISMIC PEDESTAL



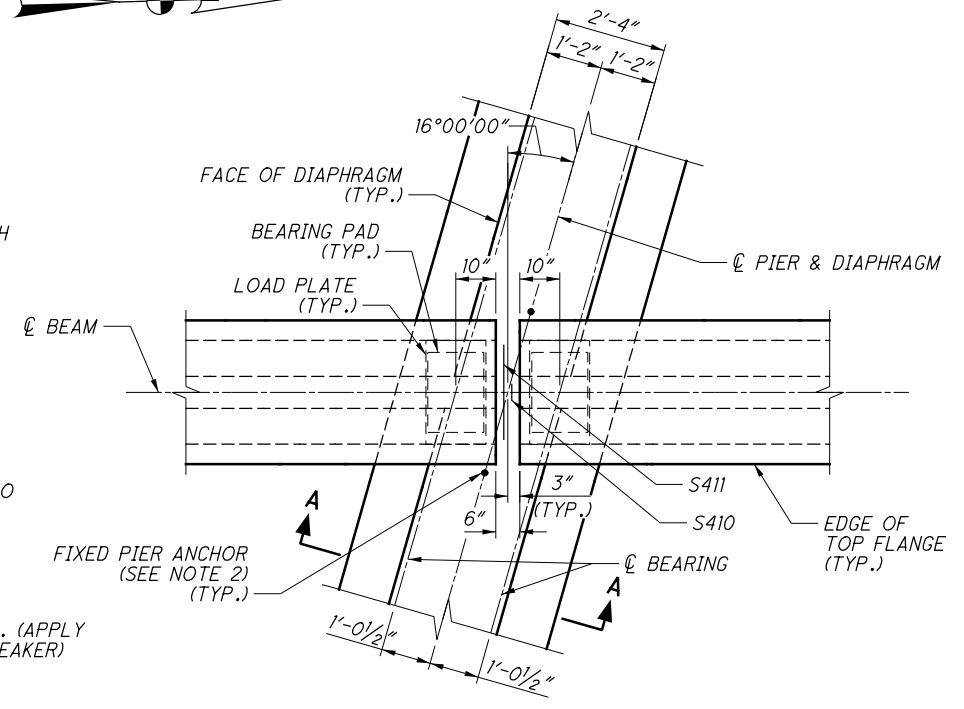
SECTION B-B



SECTION A-A
(PIERS 1 THRU 5 & 7 THRU 11)



SECTION A-A
(PIER 6)



PIER PARTIAL PLAN

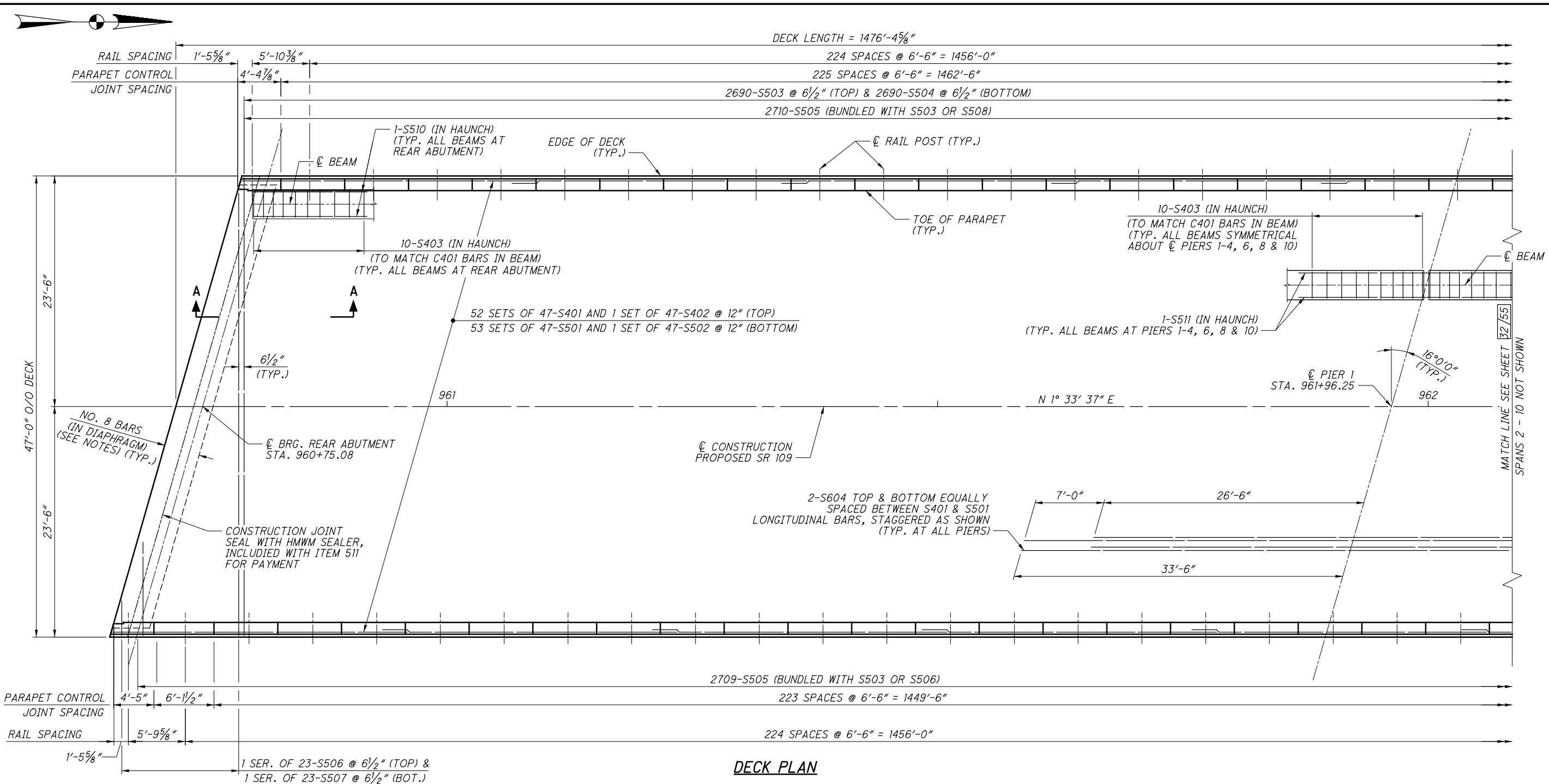
NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES NOT SHOWN, SEE ODOT STANDARD DRAWING PSID-1-13.
2. 1" ϕ SMOOTH DOWEL BARS ARE ASTM A311 CLASS A, GRADE 1018, WITH SLEEVE. (INSTALL DOWEL ACCORDING TO ITEM 510 DOWEL HOLES WITH NONSHRINK, NON-METALLIC GROUT, 705.20.). INCLUDED WITH ITEM 515, DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (66") FOR PAYMENT.

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| | | | |
|----------|---------|-----------------------|---------|
| DESIGNED | BMG | CHEKED | CJW |
| DRAWN | BMG | REVISED | |
| REVIEWED | DFT | STRUCTURE FILE NUMBER | 3502392 |
| DATE | 08/2014 | | |

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DECK PLAN

NOTES:

1. FOR TRANSVERSE SECTION AND ADDITIONAL NOTES, SEE SHEET 33/55.
2. FOR ABUTMENT DETAILS, INCLUDING NO. 8 BARS IN DIAPHRAGM, SEE SHEETS 11/55 THRU 18/55, 29/55 AND 30/55.
3. FOR REINFORCING SCHEDULE, SEE SHEETS 33/55 THRU 35/55.
4. FOR SCREED AND TOP OF HAUNCH ELEVATIONS, SEE SHEETS 35/55 THRU 39/55.
5. FOR FINAL DECK SURFACE ELEVATIONS, SEE SHEETS 40/55 THRU 42/55.
6. FOR PARAPET CONTROL JOINT DETAILS AND ADDITIONAL PARAPET TRANSITION DETAILS NOT SHOWN, SEE ODOT STANDARD DRAWING BR-2-98.
7. FOR APPROACH SLAB PLAN, SEE SHEET 52/55.
8. DECK POUR SEQUENCE SHALL BE AS PER STANDARD DRAWING PSID-1-13.
9. FOR HAUNCH DETAILS, SEE SHEETS 43/55 THRU 45/55.
10. FOR PARAPET DETAILS, SEE SHEETS 46/55 THRU 49/55.

| REQUIRED LAP LENGTHS | |
|----------------------|------------|
| NO. 4 BARS | 2'-0" MIN. |
| NO. 5 BARS | 2'-9" MIN. |
| NO. 6 BARS | 3'-4" MIN. |

E.L. ROBINSON
ENGINEERING
1801 Watermark Drive, Suite 310 - Columbus, Ohio 43215
www.elrobinsonengineering.com

DATE: 08/2014
REVIEWED: DFT
DRAWN: BMG
DESIGNED: BMG
CHECKED: CUW

STRUCTURE FILE NUMBER: 3502392

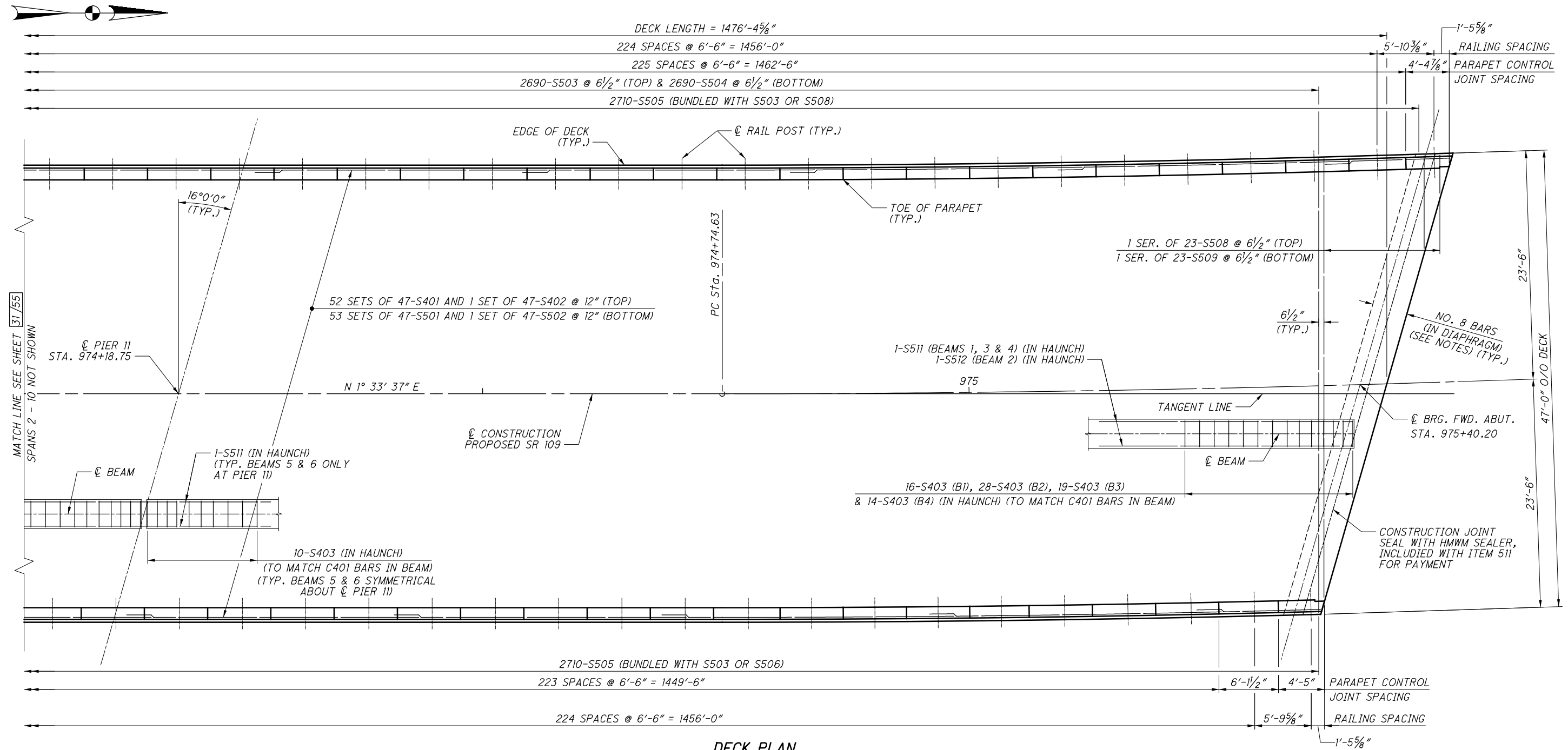
DECK PLAN (1 OF 2)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HE-109-18.02
PID No. 90991

31 / 55

100
133

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DECK PLAN

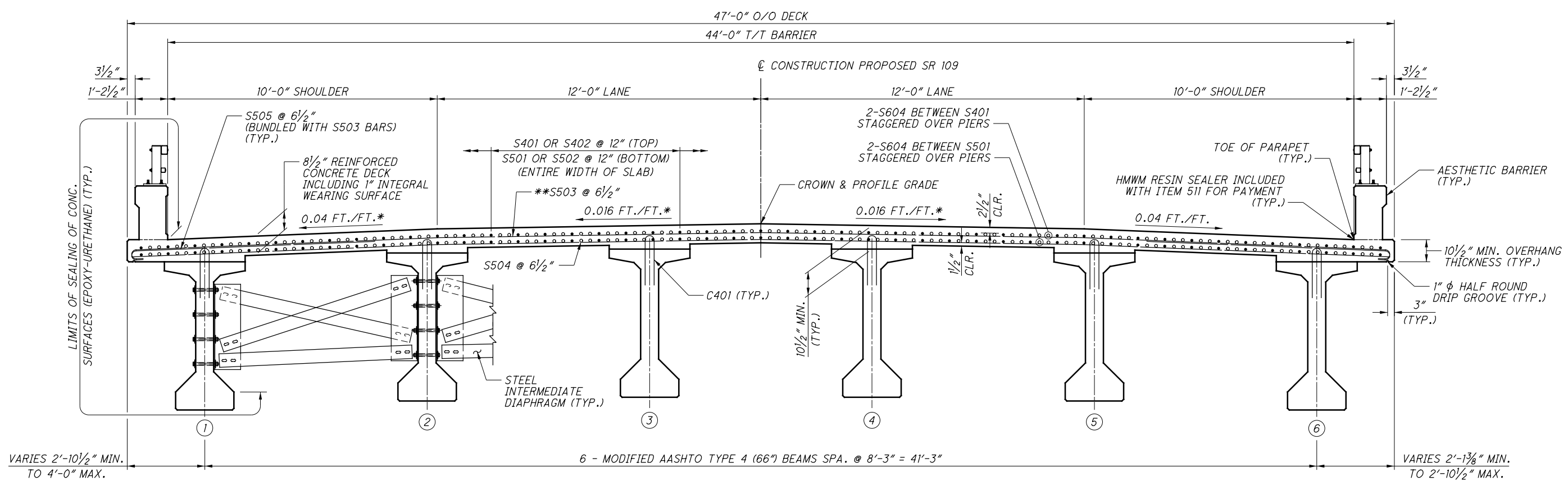
| REQUIRED LAP LENGTHS | |
|----------------------|------------|
| NO. 4 BARS | 2'-0" MIN. |
| NO. 5 BARS | 2'-9" MIN. |
| NO. 6 BARS | 3'-4" MIN. |

NOTES:
1. FOR NOTES, SEE SHEET 31/55.

| | | |
|----------|---------|-----------------------|
| DESIGNED | BMG | CJW |
| DRAWN | BMG | REVISED |
| REVIEWED | DFT | STRUCTURE FILE NUMBER |
| DATE | 08/2014 | 3502392 |

DECK PLAN (2 OF 2)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

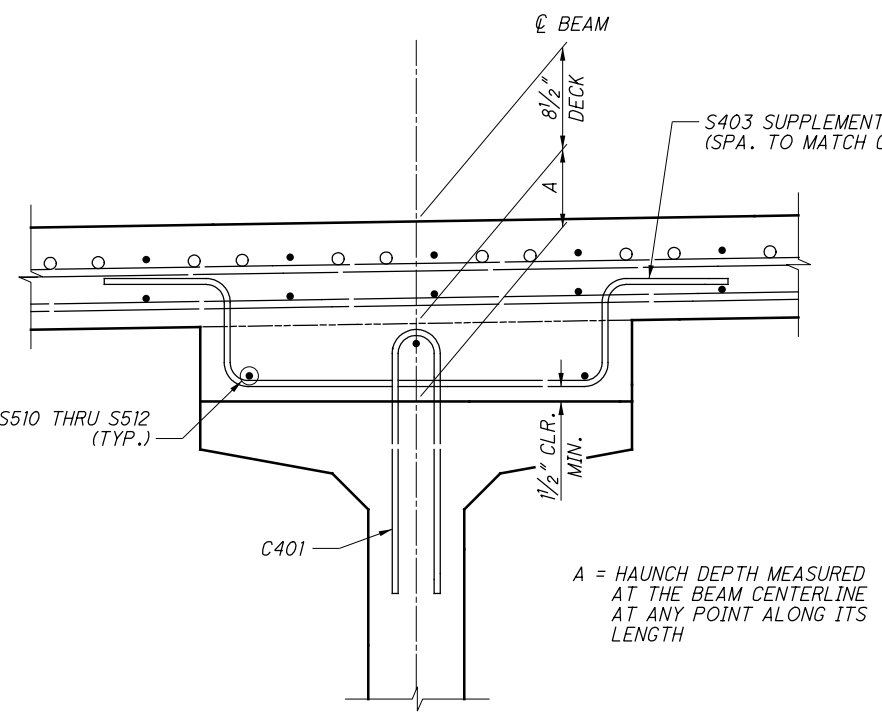
HEN-109-18.02
PID No. 90991



TRANSVERSE SECTION

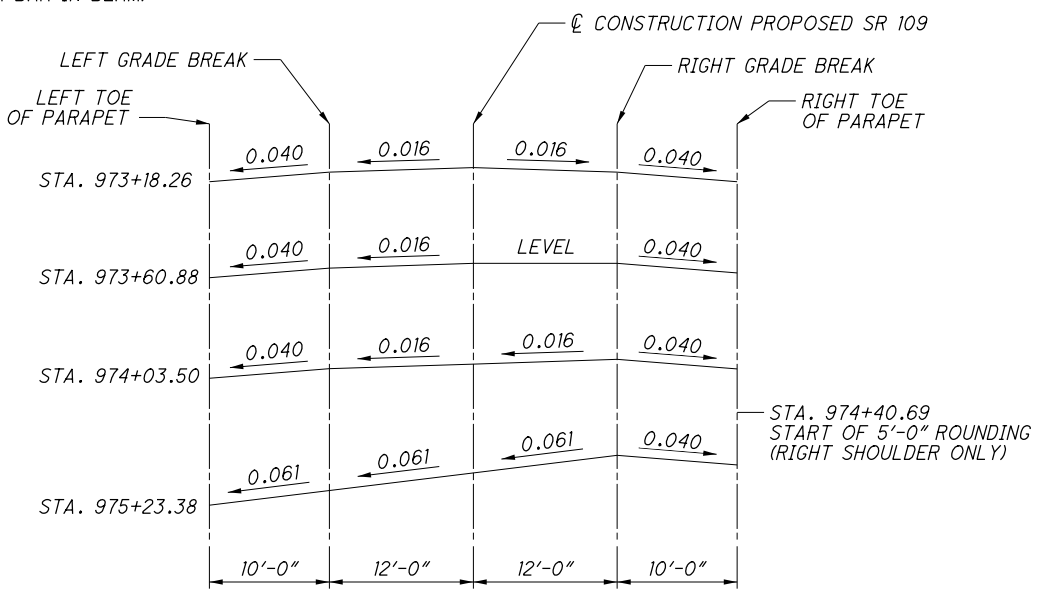
* - 0.016 FT./FT. AND 0.04 FT./FT. SLOPE TYPICAL FOR SPANS 1 THROUGH 10, FOR SPANS 11 AND 12 SEE SUPERELEVATION TABLE IN ROADWAY PLANS.

** - FIELD BEND AS NECESSARY, PAYMENT INCIDENTAL TO 509



HAUNCH REINFORCEMENT

(THE SUPPLEMENTAL HAUNCH BAR IS NOT REQUIRED WHERE A < 4")



SUPERELEVATION TRANSITION DIAGRAM

LEGEND:

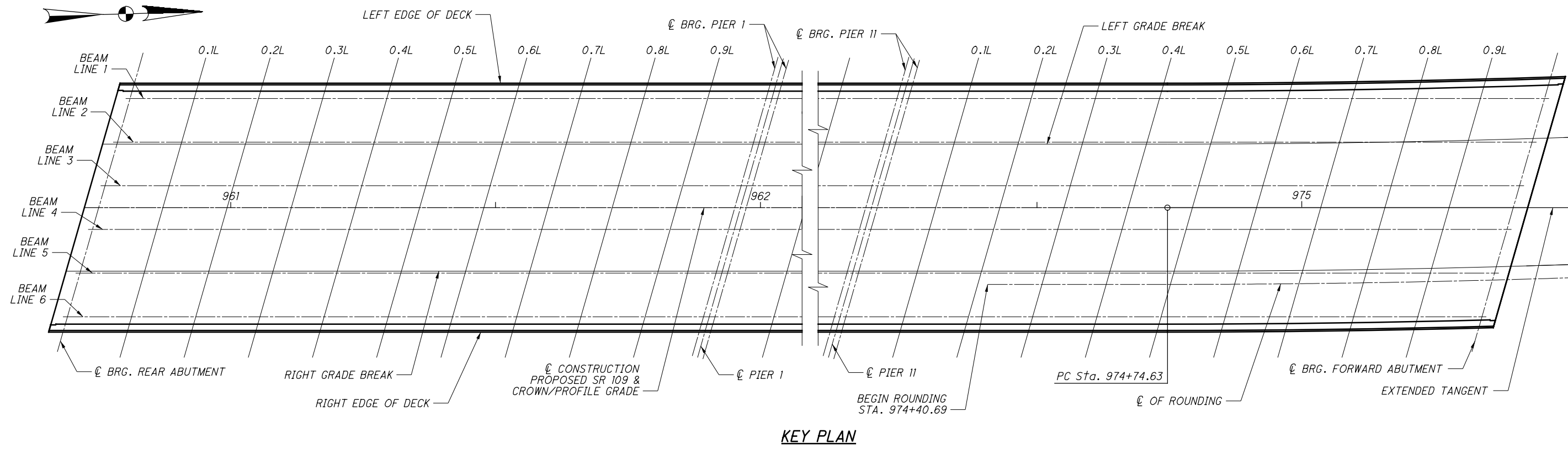
⊕ - DESIGNATES BEAM LINE NUMBER

NOTES:

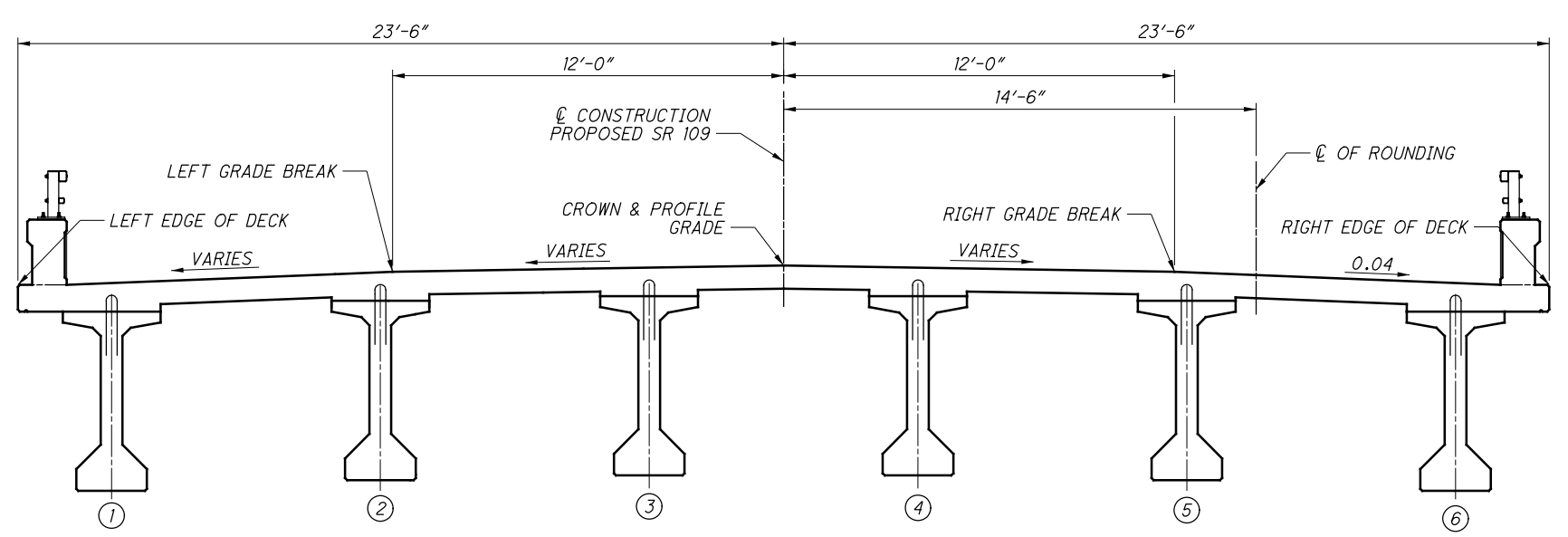
- FOR DECK PLAN, SEE SHEETS 31/55 AND 32/55.
- FOR LOCATION OF BEAM LINES, SEE SHEETS 21/55 THRU 23/55.
- DECK SLAB THICKNESS FOR CONCRETE QUANTITY: THE TOPPING THICKNESSES SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE TOP FLANGE ALONG THE CENTERLINE OF THE I-BEAM ARE THEORETICAL DIMENSIONS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. THE DEPARTMENT WILL PAY FOR SUPERSTRUCTURE CONCRETE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE THEORETICAL HAUNCH DEPTHS AT MID-SPAN AND AT EACH BEAM BEARING EVEN THOUGH DEVIATION FROM THE DIMENSIONS SHOWN MAY BE NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE ACTUAL CAMBER FOR EACH MEMBER WILL BE THE TOP OF BEAM ELEVATION AT THE MID-SPAN MINUS THE AVERAGE TOP OF BEAM ELEVATION AT EACH BEARING. THE ACTUAL TOPPING THICKNESS AT MID-SPAN WILL BE THE THEORETICAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.
- FOR STEEL DIAPHRAGM DETAILS, SEE ODOT STANDARD DRAWING PSID-1-13.
- FOR HAUNCH REINFORCEMENT AND LOCATIONS, SEE SHEETS 43/55 THRU 45/55.
- FOR PARAPET DETAILS, SEE SHEETS 46/55 THRU 49/55.

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KEY PLAN



TYPICAL CROSS SECTION

(OFFSETS FOR BEAM & ROUNDING NOT SHOWN, SEE ELEVATION TABLES)

LEGEND:

- DESIGNATES BEAM LINE NUMBER

BEAM LINE 1 IS MADE UP OF BEAMS B1, B7, B13, B19, B25, B31, B37, B43, B49, B55, B61 AND B67.
 BEAM LINE 2 IS MADE UP OF BEAMS B2, B8, B14, B20, B26, B32, B38, B44, B50, B56, B62 AND B68.
 BEAM LINE 3 IS MADE UP OF BEAMS B3, B9, B15, B21, B27, B33, B39, B45, B51, B57, B63 AND B69.
 BEAM LINE 4 IS MADE UP OF BEAMS B4, B10, B16, B22, B28, B34, B40, B46, B52, B58, B64 AND B70.
 BEAM LINE 5 IS MADE UP OF BEAMS B5, B11, B17, B23, B29, B35, B41, B47, B53, B59, B65 AND B71.
 BEAM LINE 6 IS MADE UP OF BEAMS B6, B12, B18, B24, B30, B36, B42, B48, B54, B60, B66 AND B72.

NOTES:

- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM/GIRDER HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.
- FOR SCREED, TOP OF HAUNCH AND FINAL DECK ELEVATIONS, SEE SHEETS 35/55 THRU 42/55.

| | |
|---|-----------------------|
| <p>E.L. ROBINSON ENGINEERING 1801 Walmark Drive, Suite 310 - Columbus, Ohio 43215 www.elrobinsonengineering.com</p> | |
| DESIGNED | DATE |
| BMG | 08/2014 |
| CHECKED | DFT |
| MRV | STRUCTURE FILE NUMBER |
| | 3502392 |
| <p>KEY PLAN BRIDGE NO. HEN-109-1820 OVER THE MAUMEE RIVER</p> | |
| <p>HEN-109-18.02 PID No. 90991</p> | |
| <p>34 / 55</p> | |
| <p>103 133</p> | |

| SCREED ELEVATIONS | | | | | | | | | | | |
|-------------------|-------------------|-----------|------------------|-----------|--------------|-----------|-------------------|-----------|--------------------|-----------|--------|
| LOCATION | LEFT EDGE OF DECK | | LEFT GRADE BREAK | | CROWN & P.G. | | RIGHT GRADE BREAK | | RIGHT EDGE OF DECK | | |
| | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | |
| BRG. R.A. | 960+81.82 | 666.57 | 960+78.53 | 666.95 | 960+75.08 | 667.12 | 960+71.64 | 666.91 | 960+68.35 | 666.49 | |
| SPAN 1 | 0.1L | 960+93.94 | 666.69 | 960+90.65 | 667.07 | 960+87.20 | 667.25 | 960+83.76 | 667.03 | 960+80.47 | 666.61 |
| | 0.2L | 961+06.05 | 666.81 | 961+02.76 | 667.20 | 960+99.31 | 667.37 | 960+95.87 | 667.15 | 960+92.58 | 666.73 |
| | 0.3L | 961+18.17 | 666.92 | 961+14.88 | 667.31 | 961+11.43 | 667.48 | 961+07.99 | 667.26 | 961+04.70 | 666.84 |
| | 0.4L | 961+30.29 | 667.01 | 961+26.99 | 667.40 | 961+23.55 | 667.57 | 961+20.11 | 667.36 | 961+16.81 | 666.93 |
| | 0.5L | 961+42.41 | 667.09 | 961+39.11 | 667.48 | 961+35.67 | 667.66 | 961+32.23 | 667.44 | 961+28.93 | 667.01 |
| | 0.6L | 961+54.52 | 667.16 | 961+51.23 | 667.55 | 961+47.78 | 667.72 | 961+44.34 | 667.51 | 961+41.05 | 667.08 |
| | 0.7L | 961+66.64 | 667.21 | 961+63.34 | 667.60 | 961+59.90 | 667.77 | 961+56.46 | 667.56 | 961+53.16 | 667.13 |
| | 0.8L | 961+78.76 | 667.25 | 961+75.46 | 667.63 | 961+72.02 | 667.80 | 961+68.58 | 667.59 | 961+65.28 | 667.16 |
| | 0.9L | 961+90.87 | 667.27 | 961+87.57 | 667.66 | 961+84.13 | 667.83 | 961+80.69 | 667.62 | 961+77.39 | 667.19 |
| PIER 1 | 962+02.99 | 667.30 | 961+99.69 | 667.68 | 961+96.25 | 667.85 | 961+92.81 | 667.64 | 961+89.51 | 667.22 | |
| SPAN 2 | 0.1L | 962+15.22 | 667.42 | 962+11.92 | 667.80 | 962+08.48 | 667.97 | 962+05.04 | 667.76 | 962+01.74 | 667.34 |
| | 0.2L | 962+27.44 | 667.54 | 962+24.14 | 667.92 | 962+20.70 | 668.10 | 962+17.26 | 667.88 | 962+13.96 | 667.46 |
| | 0.3L | 962+39.67 | 667.65 | 962+36.37 | 668.03 | 962+32.93 | 668.21 | 962+29.49 | 667.99 | 962+26.19 | 667.56 |
| | 0.4L | 962+51.89 | 667.74 | 962+48.59 | 668.13 | 962+45.15 | 668.30 | 962+41.71 | 668.09 | 962+38.41 | 667.66 |
| | 0.5L | 962+64.12 | 667.82 | 962+60.82 | 668.21 | 962+57.38 | 668.39 | 962+53.94 | 668.17 | 962+50.64 | 667.74 |
| | 0.6L | 962+76.34 | 667.89 | 962+73.04 | 668.28 | 962+69.60 | 668.45 | 962+66.16 | 668.24 | 962+62.86 | 667.81 |
| | 0.7L | 962+88.57 | 667.94 | 962+85.27 | 668.33 | 962+81.83 | 668.50 | 962+78.39 | 668.29 | 962+75.09 | 667.86 |
| | 0.8L | 963+00.79 | 667.98 | 962+97.49 | 668.36 | 962+94.05 | 668.54 | 962+90.61 | 668.32 | 962+87.31 | 667.90 |
| | 0.9L | 963+13.02 | 668.01 | 963+09.72 | 668.39 | 963+06.28 | 668.56 | 963+02.84 | 668.35 | 962+99.54 | 667.92 |
| PIER 2 | 963+25.24 | 668.03 | 963+21.94 | 668.41 | 963+18.50 | 668.58 | 963+15.06 | 668.37 | 963+11.76 | 667.95 | |
| SPAN 3 | 0.1L | 963+37.47 | 668.15 | 963+34.17 | 668.54 | 963+30.73 | 668.71 | 963+27.29 | 668.49 | 963+23.99 | 668.07 |
| | 0.2L | 963+49.69 | 668.27 | 963+46.39 | 668.66 | 963+42.95 | 668.83 | 963+39.51 | 668.62 | 963+36.21 | 668.19 |
| | 0.3L | 963+61.92 | 668.38 | 963+58.62 | 668.77 | 963+55.18 | 668.94 | 963+51.74 | 668.73 | 963+48.44 | 668.30 |
| | 0.4L | 963+74.14 | 668.48 | 963+70.84 | 668.87 | 963+67.40 | 669.04 | 963+63.96 | 668.82 | 963+60.66 | 668.39 |
| | 0.5L | 963+86.37 | 668.56 | 963+83.07 | 668.95 | 963+79.63 | 669.12 | 963+76.19 | 668.91 | 963+72.89 | 668.48 |
| | 0.6L | 963+98.59 | 668.62 | 963+95.29 | 669.01 | 963+91.85 | 669.18 | 963+88.41 | 668.97 | 963+85.11 | 668.54 |
| | 0.7L | 964+10.82 | 668.67 | 964+07.52 | 669.06 | 964+04.08 | 669.23 | 964+00.64 | 669.02 | 963+97.34 | 668.59 |
| | 0.8L | 964+23.04 | 668.71 | 964+19.74 | 669.10 | 964+16.30 | 669.27 | 964+12.86 | 669.06 | 964+09.56 | 668.63 |
| | 0.9L | 964+35.27 | 668.74 | 964+31.97 | 669.12 | 964+28.53 | 669.29 | 964+25.09 | 669.08 | 964+21.79 | 668.66 |
| PIER 3 | 964+47.49 | 668.77 | 964+44.19 | 669.15 | 964+40.75 | 669.32 | 964+37.31 | 669.10 | 964+34.01 | 668.68 | |
| SPAN 4 | 0.1L | 964+59.72 | 668.89 | 964+56.42 | 669.27 | 964+52.98 | 669.44 | 964+49.54 | 669.23 | 964+46.24 | 668.81 |
| | 0.2L | 964+71.94 | 669.00 | 964+68.64 | 669.39 | 964+65.20 | 669.56 | 964+61.76 | 669.35 | 964+58.46 | 668.92 |
| | 0.3L | 964+84.17 | 669.11 | 964+80.87 | 669.50 | 964+77.43 | 669.67 | 964+73.99 | 669.46 | 964+70.69 | 669.03 |
| | 0.4L | 964+96.39 | 669.21 | 964+93.09 | 669.60 | 964+89.65 | 669.77 | 964+86.21 | 669.56 | 964+82.91 | 669.13 |
| | 0.5L | 965+08.62 | 669.29 | 965+05.32 | 669.68 | 965+01.88 | 669.85 | 964+98.44 | 669.64 | 964+95.14 | 669.21 |
| | 0.6L | 965+20.84 | 669.36 | 965+17.54 | 669.75 | 965+14.10 | 669.92 | 965+10.66 | 669.70 | 965+07.36 | 669.27 |
| | 0.7L | 965+33.07 | 669.41 | 965+29.77 | 669.80 | 965+26.33 | 669.97 | 965+22.89 | 669.75 | 965+19.59 | 669.33 |
| | 0.8L | 965+45.29 | 669.44 | 965+41.99 | 669.83 | 965+38.55 | 670.00 | 965+35.11 | 669.79 | 965+31.81 | 669.36 |
| | 0.9L | 965+57.52 | 669.47 | 965+54.22 | 669.86 | 965+50.78 | 670.03 | 965+47.34 | 669.81 | 965+44.04 | 669.39 |
| PIER 4 | 965+69.74 | 669.49 | 965+66.44 | 669.88 | 965+63.00 | 670.05 | 965+59.56 | 669.84 | 965+56.26 | 669.42 | |

| SCREED ELEVATIONS | | | | | | | | | | | |
|-------------------|-------------------|-----------|------------------|-----------|--------------|-----------|-------------------|-----------|--------------------|-----------|--------|
| LOCATION | LEFT EDGE OF DECK | | LEFT GRADE BREAK | | CROWN & P.G. | | RIGHT GRADE BREAK | | RIGHT EDGE OF DECK | | |
| | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | |
| PIER 4 | 965+69.74 | 669.49 | 965+66.44 | 669.88 | 965+63.00 | 670.05 | 965+59.56 | 669.84 | 965+56.26 | 669.42 | |
| SPAN 5 | 0.1L | 965+81.97 | 669.60 | 965+78.67 | 669.99 | 965+75.23 | 670.16 | 965+71.79 | 669.95 | 965+68.49 | 669.53 |
| | 0.2L | 965+94.19 | 669.71 | 965+90.89 | 670.10 | 965+87.45 | 670.27 | 965+84.01 | 670.07 | 965+80.71 | 669.64 |
| | 0.3L | 966+06.42 | 669.80 | 966+03.12 | 670.19 | 965+99.68 | 670.37 | 965+96.24 | 670.16 | 965+92.94 | 669.74 |
| | 0.4L | 966+18.64 | 669.87 | 966+15.34 | 670.27 | 966+11.90 | 670.45 | 966+08.46 | 670.24 | 966+05.16 | 669.82 |
| | 0.5L | 966+30.87 | 669.92 | 966+27.57 | 670.32 | 966+24.13 | 670.50 | 966+20.69 | 670.30 | 966+17.39 | 669.87 |
| | 0.6L | 966+43.09 | 669.96 | 966+39.79 | 670.36 | 966+36.35 | 670.54 | 966+32.91 | 670.34 | 966+29.61 | 669.91 |
| | 0.7L | 966+55.32 | 669.97 | 966+52.02 | 670.37 | 966+48.58 | 670.55 | 966+45.14 | 670.35 | 966+41.84 | 669.93 |
| | 0.8L | 966+67.54 | 669.97 | 966+64.24 | 670.37 | 966+60.80 | 670.55 | 966+57.36 | 670.35 | 966+54.06 | 669.93 |
| | 0.9L | 966+79.77 | 669.95 | 966+76.47 | 670.35 | 966+73.03 | 670.53 | 966+69.59 | 670.33 | 966+66.29 | 669.92 |
| PIER 5 | 966+91.99 | 669.93 | 966+88.69 | 670.32 | 966+85.25 | 670.51 | 966+81.81 | 670.31 | 966+78.51 | 669.90 | |
| SPAN 6 | 0.1L | 967+04.22 | 670.00 | 967+00.92 | 670.39 | 966+97.48 | 670.58 | 966+94.04 | 670.38 | 966+90.74 | 669.97 |
| | 0.2L | 967+16.44 | 670.06 | 967+13.14 | 670.46 | 967+09.70 | 670.65 | 967+06.26 | 670.45 | 967+02.96 | 670.04 |
| | 0.3L | 967+28.67 | 670.10 | 967+25.37 | 670.51 | 967+21.93 | 670.70 | 967+18.49 | 670.50 | 967+15.19 | 670.09 |
| | 0.4L | 967+40.89 | 670.13 | 967+37.59 | 670.54 | 967+34.15 | 670.73 | 967+30.71 | 670.54 | 967+27.41 | 670.12 |
| | 0.5L | 967+53.12 | 670.14 | 967+49.82 | 670.55 | 967+46.38 | 670.74 | 967+42.94 | 670.55 | 967+39.64 | 670.14 |
| | 0.6L | 967+65.34 | 670.13 | 967+62.04 | 670.54 | 967+58.60 | 670.73 | 967+55.16 | 670.54 | 967+51.86 | 670.13 |
| | 0.7L | 967+77.57 | 670.10 | 967+74.27 | 670.51 | 967+70.83 | 670.70 | 967+67.39 | 670.51 | 967+64.09 | 670.10 |
| | 0.8L | 967+89.79 | 670.05 | 967+86.49 | 670.46 | 967+83.05 | 670.65 | 967+79.61 | 670.47 | 967+76.31 | 670.06 |
| | 0.9L | 968+02.02 | 669.99 | 967+98.72 | 670.40 | 967+95.28 | 670.59 | 967+91.84 | 670.40 | 967+88.54 | 670.01 |
| PIER 6 | 968+14.24 | 669.92 | 968+10.94 | 670.33 | 968+07.50 | 670.52 | 968+04.06 | 670.34 | 968+00.76 | 669.94 | |
| SPAN 7 | 0.1L | 968+26.47 | 669.94 | 968+23.17 | 670.35 | 968+19.73 | 670.55 | 968+16.29 | 670.36 | 968+12.99 | 669.97 |
| | 0.2L | 968+38.69 | 669.95 | 968+35.39 | 670.37 | 968+31.95 | 670.57 | 968+28.51 | 670.39 | 968+25.21 | 669.99 |
| | 0.3L | 968+50.92 | 669.96 | 968+47.62 | 670.37 | 968+44.18 | 670.58 | 968+40.74 | 670.39 | 968+37.44 | 669.99 |
| | 0.4L | 968+63.14 | 669.94 | 968+59.84 | 670.36 | 968+56.40 | 670.56 | 968+52.96 | 670.38 | 968+49.66 | 669.98 |
| | 0.5L | 968+75.37 | 669.90 | 968+72.07 | 670.33 | 968+68.63 | 670.53 | 968+65.19 | 670.35 | 968+61.89 | 669.95 |
| | 0.6L | 968+87.59 | 669.85 | 968+84.29 | 670.27 | 968+80.85 | 670.48 | 968+77.41 | 670.30 | 968+74.11 | 669.90 |
| | 0.7L | 968+99.82 | 669.77 | 968+96.52 | 670.19 | 968+93.08 | 670.40 | 968+89.64 | 670.22 | 968+86.34 | 669.83 |
| | 0.8L | 969+12.04 | 669.68 | 969+08.74 | 670.10 | 969+05.30 | 670.31 | 969+01.86 | 670.13 | 968+98.56 | 669.74 |
| | 0.9L | 969+24.27 | 669.57 | 969+20.97 | 669.99 | 969+17.53 | 670.20 | 969+14.09 | 670.03 | 969+10.79 | 669.64 |
| PIER 7 | 969+36.49 | 669.46 | 969+33.19 | 669.88 | 969+29.75 | 670.09 | 969+26.31 | 669.91 | 969+23.01 | 669.53 | |
| SPAN 8 | 0.1L | 969+48.72 | 669.44 | 969+45.42 | 669.86 | 969+41.98 | 670.07 | 969+38.54 | 669.90 | 969+35.24 | 669.51 |
| | 0.2L | 969+60.94 | 669.41 | 969+57.64 | 669.83 | 969+54.20 | 670.05 | 969+50.76 | 669.87 | 969+47.46 | 669.49 |
| | 0.3L | 969+73.17 | 669.37 | 969+69.87 | 669.80 | 969+66.43 | 670.01 | 969+62.99 | 669.84 | 969+59.69 | 669.45 |
| | 0.4L | 969+85.39 | 669.32 | 969+82.09 | 669.75 | 969+78.65 | 669.96 | 969+75.21 | 669.79 | 969+71.91 | 669.40 |
| | 0.5L | 969+97.62 | 669.25 | 969+94.32 | 669.68 | 969+90.88 | 669.90 | 969+87.44 | 669.72 | 969+84.14 | 669.33 |
| | 0.6L | | | | | | | | | | |

| SCREED ELEVATIONS | | | | | | | | | | | | | |
|-------------------|-------------------|-----------|------------------|-----------|--------------|-----------|-------------------|-----------|------------|-----------|--------------------|-----------|--------|
| LOCATION | LEFT EDGE OF DECK | | LEFT GRADE BREAK | | CROWN & P.G. | | RIGHT GRADE BREAK | | Ø ROUNDING | | RIGHT EDGE OF DECK | | |
| | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | STATION | ELEV. | |
| Ø PIER 8 | 970+58.74 | 668.73 | 970+55.44 | 669.15 | 970+52.00 | 669.36 | 970+48.56 | 669.19 | -- | -- | 970+45.26 | 668.81 | |
| SPAN 9 | 0.1L | 970+70.97 | 668.70 | 970+67.67 | 669.12 | 970+64.23 | 669.34 | 970+60.79 | 669.17 | -- | -- | 970+57.49 | 668.78 |
| | 0.2L | 970+83.19 | 668.67 | 970+79.89 | 669.10 | 970+76.45 | 669.31 | 970+73.01 | 669.14 | -- | -- | 970+69.71 | 668.75 |
| | 0.3L | 970+95.42 | 668.64 | 970+92.12 | 669.06 | 970+88.68 | 669.28 | 970+85.24 | 669.11 | -- | -- | 970+81.94 | 668.72 |
| | 0.4L | 971+07.64 | 668.58 | 971+04.34 | 669.01 | 971+00.90 | 669.23 | 970+97.46 | 669.06 | -- | -- | 970+94.16 | 668.67 |
| | 0.5L | 971+19.87 | 668.52 | 971+16.57 | 668.95 | 971+13.13 | 669.16 | 971+09.69 | 668.99 | -- | -- | 971+06.39 | 668.60 |
| | 0.6L | 971+32.09 | 668.44 | 971+28.79 | 668.87 | 971+25.35 | 669.08 | 971+21.91 | 668.91 | -- | -- | 971+18.61 | 668.52 |
| | 0.7L | 971+44.32 | 668.34 | 971+41.02 | 668.77 | 971+37.58 | 668.98 | 971+34.14 | 668.81 | -- | -- | 971+30.84 | 668.42 |
| | 0.8L | 971+56.54 | 668.23 | 971+53.24 | 668.66 | 971+49.80 | 668.87 | 971+46.36 | 668.70 | -- | -- | 971+43.06 | 668.31 |
| | 0.9L | 971+68.77 | 668.12 | 971+65.47 | 668.54 | 971+62.03 | 668.75 | 971+58.59 | 668.58 | -- | -- | 971+55.29 | 668.20 |
| Ø PIER 9 | 971+80.99 | 667.99 | 971+77.69 | 668.41 | 971+74.25 | 668.63 | 971+70.81 | 668.46 | -- | -- | 971+67.51 | 668.08 | |
| SPAN 10 | 0.1L | 971+93.22 | 667.97 | 971+89.92 | 668.39 | 971+86.48 | 668.60 | 971+83.04 | 668.43 | -- | -- | 971+79.74 | 668.05 |
| | 0.2L | 972+05.44 | 667.94 | 972+02.14 | 668.37 | 971+98.70 | 668.58 | 971+95.26 | 668.41 | -- | -- | 971+91.96 | 668.02 |
| | 0.3L | 972+17.67 | 667.90 | 972+14.37 | 668.33 | 972+10.93 | 668.54 | 972+07.49 | 668.37 | -- | -- | 972+04.19 | 667.98 |
| | 0.4L | 972+29.89 | 667.85 | 972+26.59 | 668.28 | 972+23.15 | 668.49 | 972+19.71 | 668.32 | -- | -- | 972+16.41 | 667.93 |
| | 0.5L | 972+42.12 | 667.79 | 972+38.82 | 668.22 | 972+35.38 | 668.43 | 972+31.94 | 668.26 | -- | -- | 972+28.64 | 667.87 |
| | 0.6L | 972+54.34 | 667.70 | 972+51.04 | 668.13 | 972+47.60 | 668.35 | 972+44.16 | 668.18 | -- | -- | 972+40.86 | 667.79 |
| | 0.7L | 972+66.57 | 667.61 | 972+63.27 | 668.04 | 972+59.83 | 668.25 | 972+56.39 | 668.08 | -- | -- | 972+53.09 | 667.69 |
| | 0.8L | 972+78.79 | 667.50 | 972+75.49 | 667.93 | 972+72.05 | 668.14 | 972+68.61 | 667.97 | -- | -- | 972+65.31 | 667.58 |
| | 0.9L | 972+91.02 | 667.38 | 972+87.72 | 667.80 | 972+84.28 | 668.02 | 972+80.84 | 667.85 | -- | -- | 972+77.54 | 667.46 |
| Ø PIER 10 | 973+03.24 | 667.26 | 972+99.94 | 667.68 | 972+96.50 | 667.89 | 972+93.06 | 667.72 | -- | -- | 972+89.76 | 667.34 | |
| SPAN 11 | 0.1L | 973+15.47 | 667.23 | 973+12.17 | 667.66 | 973+08.73 | 667.87 | 973+05.29 | 667.70 | -- | -- | 973+01.99 | 667.32 |
| | 0.2L | 973+27.69 | 667.21 | 973+24.39 | 667.63 | 973+20.95 | 667.85 | 973+17.51 | 667.67 | -- | -- | 973+14.21 | 667.29 |
| | 0.3L | 973+39.92 | 667.17 | 973+36.62 | 667.60 | 973+33.18 | 667.81 | 973+29.74 | 667.69 | -- | -- | 973+26.44 | 667.29 |
| | 0.4L | 973+52.14 | 667.12 | 973+48.84 | 667.55 | 973+45.40 | 667.76 | 973+41.96 | 667.70 | -- | -- | 973+38.66 | 667.29 |
| | 0.5L | 973+64.37 | 667.05 | 973+61.07 | 667.48 | 973+57.63 | 667.70 | 973+54.19 | 667.69 | -- | -- | 973+50.89 | 667.28 |
| | 0.6L | 973+76.59 | 666.97 | 973+73.29 | 667.40 | 973+69.85 | 667.61 | 973+66.41 | 667.66 | -- | -- | 973+63.11 | 667.26 |
| | 0.7L | 973+88.82 | 666.87 | 973+85.52 | 667.30 | 973+82.08 | 667.52 | 973+78.64 | 667.62 | -- | -- | 973+75.34 | 667.21 |
| | 0.8L | 974+01.04 | 666.77 | 973+97.74 | 667.19 | 973+94.30 | 667.41 | 973+90.86 | 667.56 | -- | -- | 973+87.56 | 667.16 |
| | 0.9L | 974+13.27 | 666.60 | 974+09.97 | 667.04 | 974+06.53 | 667.28 | 974+03.09 | 667.49 | -- | -- | 973+99.79 | 667.10 |
| Ø PIER 11 | 974+25.49 | 666.43 | 974+22.19 | 666.86 | 974+18.75 | 667.16 | 974+15.31 | 667.43 | -- | -- | 974+12.01 | 667.03 | |
| SPAN 12 | 0.1L | 974+37.61 | 666.35 | 974+34.31 | 666.79 | 974+30.87 | 667.14 | 974+27.43 | 667.46 | -- | -- | 974+24.13 | 667.06 |
| | 0.2L | 974+49.72 | 666.27 | 974+46.43 | 666.71 | 974+42.98 | 667.11 | 974+39.54 | 667.49 | -- | -- | 974+36.25 | 667.09 |
| | 0.3L | 974+61.84 | 666.17 | 974+58.54 | 666.62 | 974+55.10 | 667.08 | 974+51.66 | 667.51 | 974+50.94 | 667.55 | 974+48.36 | 667.29 |
| | 0.4L | 974+73.96 | 666.04 | 974+70.66 | 666.51 | 974+67.22 | 667.03 | 974+63.78 | 667.51 | 974+63.06 | 667.56 | 974+60.48 | 667.30 |
| | 0.5L | 974+86.20 | 665.86 | 974+82.82 | 666.38 | 974+79.33 | 666.96 | 974+75.89 | 667.50 | 974+75.17 | 667.55 | 974+72.60 | 667.30 |
| | 0.6L | 974+98.47 | 665.67 | 974+95.02 | 666.24 | 974+91.47 | 666.87 | 974+87.95 | 667.46 | 974+87.22 | 667.53 | 974+84.62 | 667.27 |
| | 0.7L | 975+10.76 | 665.46 | 975+07.25 | 666.07 | 975+03.62 | 666.76 | 975+00.03 | 667.41 | 974+99.29 | 667.48 | 974+96.63 | 667.24 |
| | 0.8L | 975+23.07 | 665.23 | 975+19.49 | 665.89 | 975+15.79 | 666.63 | 975+12.14 | 667.34 | 975+11.38 | 667.42 | 975+08.67 | 667.17 |
| | 0.9L | 975+35.40 | 665.09 | 975+31.75 | 665.73 | 975+27.98 | 666.49 | 975+24.26 | 667.25 | 975+23.49 | 667.35 | 975+20.73 | 667.11 |
| Ø BRG. F.A. | 975+47.75 | 664.94 | 975+44.03 | 665.58 | 975+40.20 | 666.35 | 975+36.40 | 667.11 | 975+35.62 | 667.20 | 975+32.80 | 666.99 | |



DATE: 08/2014
 REVIEWED: DFT
 STRUCTURE FILE NUMBER: 3502392

DRAWN: BMG
 CHECKED: MRV
 REVISION: REVISED

DESIGNED: BMG
 CHECKED: MRV

SCREED ELEVATIONS (2 OF 2)
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

NOTES:

1. FOR NOTES, LEGEND, KEY PLAN AND TYPICAL CROSS SECTION, SEE SHEET 34/55.
2. FOR TOP OF HAUNCH AND FINAL DECK ELEVATIONS, SEE SHEETS 37/55 THRU 42/55.
3. FOR HAUNCH THICKNESSES, SEE SHEETS 43/55 THRU 45/55.
4. FOR OFFSETS, SEE TYPICAL SECTION ON SHEET 34/55.

| TOP OF HAUNCH ELEVATIONS | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|-----------|-----------|-------------|-----------|-----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|-----------|-------------|-----------|-----------|--------|
| LOCATION | BEAM LINE 1 | | | BEAM LINE 2 | | | BEAM LINE 3 | | | BEAM LINE 4 | | | BEAM LINE 5 | | | BEAM LINE 6 | | | |
| | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | |
| ⊕ BRG. R.A. | 960+81.00 | 20.63 LT. | 665.91 | 960+78.63 | 12.38 LT. | 666.23 | 960+76.27 | 4.13 LT. | 666.36 | 960+73.90 | 4.13 RT. | 666.34 | 960+71.54 | 12.38 RT. | 666.19 | 960+69.17 | 20.63 RT. | 665.84 | |
| SPAN 1 | 0.1L | 960+93.12 | 20.63 LT. | 666.03 | 960+90.75 | 12.38 LT. | 666.35 | 960+88.39 | 4.13 LT. | 666.48 | 960+86.02 | 4.13 RT. | 666.46 | 960+83.66 | 12.38 RT. | 666.31 | 960+81.29 | 20.63 RT. | 665.96 |
| | 0.2L | 961+05.23 | 20.63 LT. | 666.15 | 961+02.86 | 12.38 LT. | 666.47 | 961+00.50 | 4.13 LT. | 666.60 | 960+98.13 | 4.13 RT. | 666.59 | 960+95.77 | 12.38 RT. | 666.43 | 960+93.40 | 20.63 RT. | 666.08 |
| | 0.3L | 961+17.35 | 20.63 LT. | 666.26 | 961+14.98 | 12.38 LT. | 666.58 | 961+12.62 | 4.13 LT. | 666.71 | 961+10.25 | 4.13 RT. | 666.70 | 961+07.89 | 12.38 RT. | 666.54 | 961+05.52 | 20.63 RT. | 666.19 |
| | 0.4L | 961+29.47 | 20.63 LT. | 666.35 | 961+27.10 | 12.38 LT. | 666.68 | 961+24.73 | 4.13 LT. | 666.81 | 961+22.37 | 4.13 RT. | 666.79 | 961+20.00 | 12.38 RT. | 666.64 | 961+17.64 | 20.63 RT. | 666.28 |
| | 0.5L | 961+41.59 | 20.63 LT. | 666.43 | 961+39.22 | 12.38 LT. | 666.76 | 961+36.85 | 4.13 LT. | 666.89 | 961+34.49 | 4.13 RT. | 666.87 | 961+32.12 | 12.38 RT. | 666.72 | 961+29.76 | 20.63 RT. | 666.36 |
| | 0.6L | 961+53.70 | 20.63 LT. | 666.50 | 961+51.33 | 12.38 LT. | 666.83 | 961+48.97 | 4.13 LT. | 666.95 | 961+46.60 | 4.13 RT. | 666.94 | 961+44.24 | 12.38 RT. | 666.78 | 961+41.87 | 20.63 RT. | 666.43 |
| | 0.7L | 961+65.82 | 20.63 LT. | 666.55 | 961+63.45 | 12.38 LT. | 666.87 | 961+61.08 | 4.13 LT. | 667.00 | 961+58.72 | 4.13 RT. | 666.99 | 961+56.35 | 12.38 RT. | 666.83 | 961+53.99 | 20.63 RT. | 666.48 |
| | 0.8L | 961+77.94 | 20.63 LT. | 666.59 | 961+75.57 | 12.38 LT. | 666.91 | 961+73.20 | 4.13 LT. | 667.04 | 961+70.84 | 4.13 RT. | 667.02 | 961+68.47 | 12.38 RT. | 666.87 | 961+66.11 | 20.63 RT. | 666.52 |
| | 0.9L | 961+90.05 | 20.63 LT. | 666.61 | 961+87.68 | 12.38 LT. | 666.93 | 961+85.31 | 4.13 LT. | 667.06 | 961+82.95 | 4.13 RT. | 667.05 | 961+80.58 | 12.38 RT. | 666.89 | 961+78.22 | 20.63 RT. | 666.54 |
| ⊕ PIER 1 | 962+02.17 | 20.63 LT. | 666.64 | 961+99.80 | 12.38 LT. | 666.96 | 961+97.43 | 4.13 LT. | 667.08 | 961+95.07 | 4.13 RT. | 667.07 | 961+92.70 | 12.38 RT. | 666.91 | 961+90.34 | 20.63 RT. | 666.57 | |
| SPAN 2 | 0.1L | 962+14.40 | 20.63 LT. | 666.76 | 962+12.03 | 12.38 LT. | 667.08 | 962+09.66 | 4.13 LT. | 667.21 | 962+07.30 | 4.13 RT. | 667.19 | 962+04.93 | 12.38 RT. | 667.04 | 962+02.57 | 20.63 RT. | 666.69 |
| | 0.2L | 962+26.62 | 20.63 LT. | 666.88 | 962+24.25 | 12.38 LT. | 667.20 | 962+21.88 | 4.13 LT. | 667.33 | 962+19.52 | 4.13 RT. | 667.31 | 962+17.15 | 12.38 RT. | 667.16 | 962+14.79 | 20.63 RT. | 666.81 |
| | 0.3L | 962+38.85 | 20.63 LT. | 666.99 | 962+36.48 | 12.38 LT. | 667.31 | 962+34.11 | 4.13 LT. | 667.44 | 962+31.75 | 4.13 RT. | 667.42 | 962+29.38 | 12.38 RT. | 667.27 | 962+27.02 | 20.63 RT. | 666.92 |
| | 0.4L | 962+51.07 | 20.63 LT. | 667.08 | 962+48.70 | 12.38 LT. | 667.41 | 962+46.33 | 4.13 LT. | 667.54 | 962+43.97 | 4.13 RT. | 667.52 | 962+41.60 | 12.38 RT. | 667.37 | 962+39.24 | 20.63 RT. | 667.01 |
| | 0.5L | 962+63.30 | 20.63 LT. | 667.16 | 962+60.93 | 12.38 LT. | 667.49 | 962+58.56 | 4.13 LT. | 667.62 | 962+56.20 | 4.13 RT. | 667.60 | 962+53.83 | 12.38 RT. | 667.45 | 962+51.47 | 20.63 RT. | 667.09 |
| | 0.6L | 962+75.52 | 20.63 LT. | 667.23 | 962+73.15 | 12.38 LT. | 667.56 | 962+70.78 | 4.13 LT. | 667.68 | 962+68.42 | 4.13 RT. | 667.67 | 962+66.05 | 12.38 RT. | 667.51 | 962+63.69 | 20.63 RT. | 667.16 |
| | 0.7L | 962+87.75 | 20.63 LT. | 667.28 | 962+85.38 | 12.38 LT. | 667.61 | 962+83.01 | 4.13 LT. | 667.73 | 962+80.65 | 4.13 RT. | 667.72 | 962+78.28 | 12.38 RT. | 667.56 | 962+75.92 | 20.63 RT. | 667.21 |
| | 0.8L | 962+99.97 | 20.63 LT. | 667.32 | 962+97.60 | 12.38 LT. | 667.64 | 962+95.23 | 4.13 LT. | 667.77 | 962+92.87 | 4.13 RT. | 667.75 | 962+90.50 | 12.38 RT. | 667.60 | 962+88.14 | 20.63 RT. | 667.25 |
| | 0.9L | 963+12.20 | 20.63 LT. | 667.35 | 963+09.83 | 12.38 LT. | 667.67 | 963+07.46 | 4.13 LT. | 667.79 | 963+05.10 | 4.13 RT. | 667.78 | 963+02.73 | 12.38 RT. | 667.62 | 963+00.37 | 20.63 RT. | 667.28 |
| ⊕ PIER 2 | 963+24.42 | 20.63 LT. | 667.37 | 963+22.05 | 12.38 LT. | 667.69 | 963+19.68 | 4.13 LT. | 667.82 | 963+17.32 | 4.13 RT. | 667.80 | 963+14.95 | 12.38 RT. | 667.65 | 963+12.59 | 20.63 RT. | 667.30 | |
| SPAN 3 | 0.1L | 963+36.65 | 20.63 LT. | 667.49 | 963+34.28 | 12.38 LT. | 667.81 | 963+31.91 | 4.13 LT. | 667.94 | 963+29.55 | 4.13 RT. | 667.93 | 963+27.18 | 12.38 RT. | 667.77 | 963+24.82 | 20.63 RT. | 667.42 |
| | 0.2L | 963+48.87 | 20.63 LT. | 667.61 | 963+46.50 | 12.38 LT. | 667.93 | 963+44.13 | 4.13 LT. | 668.06 | 963+41.77 | 4.13 RT. | 668.05 | 963+39.40 | 12.38 RT. | 667.89 | 963+37.04 | 20.63 RT. | 667.54 |
| | 0.3L | 963+61.10 | 20.63 LT. | 667.72 | 963+58.73 | 12.38 LT. | 668.05 | 963+56.36 | 4.13 LT. | 668.17 | 963+54.00 | 4.13 RT. | 668.16 | 963+51.63 | 12.38 RT. | 668.00 | 963+49.27 | 20.63 RT. | 667.65 |
| | 0.4L | 963+73.32 | 20.63 LT. | 667.82 | 963+70.95 | 12.38 LT. | 668.14 | 963+68.58 | 4.13 LT. | 668.27 | 963+66.22 | 4.13 RT. | 668.26 | 963+63.85 | 12.38 RT. | 668.10 | 963+61.49 | 20.63 RT. | 667.75 |
| | 0.5L | 963+85.55 | 20.63 LT. | 667.90 | 963+83.18 | 12.38 LT. | 668.22 | 963+80.81 | 4.13 LT. | 668.35 | 963+78.45 | 4.13 RT. | 668.34 | 963+76.08 | 12.38 RT. | 668.18 | 963+73.72 | 20.63 RT. | 667.83 |
| | 0.6L | 963+97.77 | 20.63 LT. | 667.96 | 963+95.40 | 12.38 LT. | 668.29 | 963+93.03 | 4.13 LT. | 668.42 | 963+90.67 | 4.13 RT. | 668.40 | 963+88.30 | 12.38 RT. | 668.25 | 963+85.94 | 20.63 RT. | 667.89 |
| | 0.7L | 964+10.00 | 20.63 LT. | 668.01 | 964+07.63 | 12.38 LT. | 668.34 | 964+05.26 | 4.13 LT. | 668.47 | 964+02.90 | 4.13 RT. | 668.45 | 964+00.53 | 12.38 RT. | 668.30 | 963+98.17 | 20.63 RT. | 667.94 |
| | 0.8L | 964+22.22 | 20.63 LT. | 668.05 | 964+19.85 | 12.38 LT. | 668.37 | 964+17.48 | 4.13 LT. | 668.50 | 964+15.12 | 4.13 RT. | 668.49 | 964+12.75 | 12.38 RT. | 668.33 | 964+10.39 | 20.63 RT. | 667.98 |
| | 0.9L | 964+34.45 | 20.63 LT. | 668.08 | 964+32.08 | 12.38 LT. | 668.40 | 964+29.71 | 4.13 LT. | 668.53 | 964+27.35 | 4.13 RT. | 668.51 | 964+24.98 | 12.38 RT. | 668.36 | 964+22.62 | 20.63 RT. | 668.01 |
| ⊕ PIER 3 | 964+46.67 | 20.63 LT. | 668.11 | 964+44.30 | 12.38 LT. | 668.42 | 964+41.93 | 4.13 LT. | 668.55 | 964+39.57 | 4.13 RT. | 668.54 | 964+37.20 | 12.38 RT. | 668.38 | 964+34.84 | 20.63 RT. | 668.04 | |
| SPAN 4 | 0.1L | 964+58.90 | 20.63 LT. | 668.23 | 964+56.53 | 12.38 LT. | 668.55 | 964+54.16 | 4.13 LT. | 668.67 | 964+51.80 | 4.13 RT. | 668.66 | 964+49.43 | 12.38 RT. | 668.50 | 964+47.07 | 20.63 RT. | 668.16 |
| | 0.2L | 964+71.12 | 20.63 LT. | 668.35 | 964+68.75 | 12.38 LT. | 668.67 | 964+66.38 | 4.13 LT. | 668.80 | 964+64.02 | 4.13 RT. | 668.78 | 964+61.65 | 12.38 RT. | 668.63 | 964+59.29 | 20.63 RT. | 668.28 |
| | 0.3L | 964+83.35 | 20.63 LT. | 668.45 | 964+80.98 | 12.38 LT. | 668.78 | 964+78.61 | 4.13 LT. | 668.91 | 964+76.25 | 4.13 RT. | 668.89 | 964+73.88 | 12.38 RT. | 668.74 | 964+71.52 | 20.63 RT. | 668.38 |
| | 0.4L | 964+95.57 | 20.63 LT. | 668.55 | 964+93.20 | 12.38 LT. | 668.88 | 964+90.83 | 4.13 LT. | 669.00 | 964+88.47 | 4.13 RT. | 668.99 | 964+86.10 | 12.38 RT. | 668.83 | 964+83.74 | 20.63 RT. | 668.48 |
| | 0.5L | 965+07.80 | 20.63 LT. | 668.63 | 965+05.43 | 12.38 LT. | 668.96 | 965+03.06 | 4.13 LT. | 669.09 | 965+00.70 | 4.13 RT. | 669.07 | 964+98.33 | 12.38 RT. | 668.92 | 964+95.97 | 20.63 RT. | 668.56 |
| | 0.6L | 965+20.02 | 20.63 LT. | 668.70 | 965+17.65 | 12.38 LT. | 669.02 | 965+15.28 | 4.13 LT. | 669.15 | 965+12.92 | 4.13 RT. | 669.14 | 965+10.55 | 12.38 RT. | 668.98 | 965+08.19 | 20.63 RT. | 668.63 |
| | 0.7L | 965+32.25 | 20.63 LT. | 668.75 | 965+29.88 | 12.38 LT. | 669.07 | 965+27.51 | 4.13 LT. | 669.20 | 965+25.15 | 4.13 RT. | 669.19 | 965+22.78 | 12.38 RT. | 669.03 | 965+20.42 | 20.63 RT. | 668.68 |
| | 0.8L | 965+44.47 | 20.63 LT. | 668.79 | 965+42.10 | 12.38 LT. | 669.11 | 965+39.73 | 4.13 LT. | 669.24 | 965+37.37 | 4.13 RT. | 669.22 | 965+35.00 | 12.38 RT. | 669.07 | 965+32.64 | 20.63 RT. | 668.72 |
| | 0.9L | 965+56.70 | 20.63 LT. | 668.81 | 965+54.33 | 12.38 LT. | 669.13 | 965+51.96 | 4.13 LT. | 669.26 | 965+49.60 | 4.13 RT. | 669.25 | 965+47.23 | 12.38 RT. | 669.09 | 965+44.87 | 20.63 RT. | 668.74 |
| ⊕ PIER 4 | 965+68.92 | 20.63 LT. | 668.84 | 965+66.55 | 12.38 LT. | 669.15 | 965+64.18 | 4.13 LT. | 669.28 | 965+61.82 | 4.13 RT. | 669.27 | 965+59.45 | 12.38 RT. | 669.11 | 965+57.09 | 20.63 RT. | 668.77 | |
| SPAN 5 | 0.1L | 965+81.15 | 20.63 LT. | 668.95 | 965+78.78 | 12.38 LT. | 669.27 | 965+76.41 | 4.13 LT. | 669.40 | 965+74.05 | 4.13 RT. | 669.38 | 965+71.68 | 12.38 RT. | 669.23 | 965+69.32 | 20.63 RT. | 668.88 |
| | 0.2L | 965+93.37 | 20.63 LT. | 669.05 | 965+91.00 | 12.38 LT. | 669.38 | 965+88.63 | 4.13 LT. | 669.51 | 965+86.27 | 4.13 RT. | 669.49 | 965+83.90 | 12.38 RT. | 669.34 | 965+81.54 | 20.63 RT. | 668.99 |
| | 0.3L | 966+05.60 | 20.63 LT. | 669.14 | 966+03.23 | 12.38 LT. | 669.47 | 966+00.86 | 4.13 LT. | 669.60 | 965+98.50 | 4.13 RT. | 669.59 | 965+96.13 | 12.38 RT. | 669.44 | 965+93.77 | 20.63 RT. | 669.09 |
| | 0.4L | 966+17.82 | 20.63 LT. | 669.21 | 966+15.45 | 12.38 LT. | 669.55 | 966+13.08 | 4.13 LT. | 669.68 | 966+10.72 | 4.13 RT. | 669.67 | 966+08.35 | 12.38 RT. | 669.52 | 966+05.99 | 20.63 RT. | 669.17 |
| | 0.5L | 966+30.05 | 20.63 LT. | 669.27 | 966+27.68 | 12.38 LT. | 669.60 | 966+25.31 | 4.13 LT. | 669.73 | 966+22.95 | 4.13 RT. | 669.72 | 966+20.58 | 12.38 RT. | 669.57 | 966+18.22 | 20.63 RT. | 669.22 |
| | 0.6L | 966+42.27 | 20.63 LT. | 669.30 | 966+39.90 | 12.38 LT. | 669.64 | 966+37.53 | 4.13 LT. | 669.77 | 966+35.17 | 4.13 RT. | 669.76 | 966+32.80 | 12.38 RT. | 669.61 | 966+30.44 | 20.63 RT. | 669.26 |
| | 0.7L | 966+54.50 | 20.63 LT. | 669.32 | 966+52.13 | 12.38 LT. | 669.65 | 966+49.76 | 4.13 LT. | 669.78 | 966+47.40 | 4.13 RT. | 669.78 | 966+45.03 | 12.38 RT. | 669.63 | 96 | | |

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| TOP OF HAUNCH ELEVATIONS | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|-----------|-----------|-------------|-----------|-----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|-----------|-------------|-------------|-----------|--------|
| LOCATION | BEAM LINE 1 | | | BEAM LINE 2 | | | BEAM LINE 3 | | | BEAM LINE 4 | | | BEAM LINE 5 | | | BEAM LINE 6 | | | |
| | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | |
| ☉ PIER 5 | 966+91.17 | 20.63 LT. | 669.28 | 966+88.80 | 12.38 LT. | 669.60 | 966+86.43 | 4.13 LT. | 669.74 | 966+84.07 | 4.13 RT. | 669.73 | 966+81.70 | 12.38 RT. | 669.59 | 966+79.34 | 20.63 RT. | 669.25 | |
| SPAN 6 | 0.1L | 967+03.40 | 20.63 LT. | 669.34 | 967+01.03 | 12.38 LT. | 669.67 | 966+98.66 | 4.13 LT. | 669.81 | 966+96.30 | 4.13 RT. | 669.81 | 966+93.93 | 12.38 RT. | 669.66 | 966+91.57 | 20.63 RT. | 669.32 |
| | 0.2L | 967+15.62 | 20.63 LT. | 669.40 | 967+13.25 | 12.38 LT. | 669.74 | 967+10.88 | 4.13 LT. | 669.87 | 967+08.52 | 4.13 RT. | 669.87 | 967+06.15 | 12.38 RT. | 669.73 | 967+03.79 | 20.63 RT. | 669.39 |
| | 0.3L | 967+27.85 | 20.63 LT. | 669.45 | 967+25.48 | 12.38 LT. | 669.78 | 967+23.11 | 4.13 LT. | 669.92 | 967+20.75 | 4.13 RT. | 669.92 | 967+18.38 | 12.38 RT. | 669.78 | 967+16.02 | 20.63 RT. | 669.44 |
| | 0.4L | 967+40.07 | 20.63 LT. | 669.48 | 967+37.70 | 12.38 LT. | 669.82 | 967+35.33 | 4.13 LT. | 669.96 | 967+32.97 | 4.13 RT. | 669.95 | 967+30.60 | 12.38 RT. | 669.81 | 967+28.24 | 20.63 RT. | 669.47 |
| | 0.5L | 967+52.30 | 20.63 LT. | 669.48 | 967+49.93 | 12.38 LT. | 669.83 | 967+47.56 | 4.13 LT. | 669.97 | 967+45.20 | 4.13 RT. | 669.97 | 967+42.83 | 12.38 RT. | 669.83 | 967+40.47 | 20.63 RT. | 669.48 |
| | 0.6L | 967+64.52 | 20.63 LT. | 669.47 | 967+62.15 | 12.38 LT. | 669.82 | 967+59.78 | 4.13 LT. | 669.96 | 967+57.42 | 4.13 RT. | 669.96 | 967+55.05 | 12.38 RT. | 669.82 | 967+52.69 | 20.63 RT. | 669.48 |
| | 0.7L | 967+76.75 | 20.63 LT. | 669.44 | 967+74.38 | 12.38 LT. | 669.78 | 967+72.01 | 4.13 LT. | 669.93 | 967+69.65 | 4.13 RT. | 669.93 | 967+67.28 | 12.38 RT. | 669.79 | 967+64.92 | 20.63 RT. | 669.45 |
| | 0.8L | 967+88.97 | 20.63 LT. | 669.40 | 967+86.60 | 12.38 LT. | 669.74 | 967+84.23 | 4.13 LT. | 669.88 | 967+81.87 | 4.13 RT. | 669.88 | 967+79.50 | 12.38 RT. | 669.74 | 967+77.14 | 20.63 RT. | 669.41 |
| | 0.9L | 968+01.20 | 20.63 LT. | 669.33 | 967+98.83 | 12.38 LT. | 669.67 | 967+96.46 | 4.13 LT. | 669.82 | 967+94.10 | 4.13 RT. | 669.82 | 967+91.73 | 12.38 RT. | 669.68 | 967+89.37 | 20.63 RT. | 669.35 |
| ☉ PIER 6 | 968+13.42 | 20.63 LT. | 669.27 | 968+11.05 | 12.38 LT. | 669.60 | 968+08.68 | 4.13 LT. | 669.75 | 968+06.32 | 4.13 RT. | 669.75 | 968+03.95 | 12.38 RT. | 669.61 | 968+01.59 | 20.63 RT. | 669.29 | |
| SPAN 7 | 0.1L | 968+25.65 | 20.63 LT. | 669.29 | 968+23.28 | 12.38 LT. | 669.63 | 968+20.91 | 4.13 LT. | 669.77 | 968+18.55 | 4.13 RT. | 669.78 | 968+16.18 | 12.38 RT. | 669.64 | 968+13.82 | 20.63 RT. | 669.31 |
| | 0.2L | 968+37.87 | 20.63 LT. | 669.30 | 968+35.50 | 12.38 LT. | 669.65 | 968+33.13 | 4.13 LT. | 669.79 | 968+30.77 | 4.13 RT. | 669.80 | 968+28.40 | 12.38 RT. | 669.66 | 968+26.04 | 20.63 RT. | 669.33 |
| | 0.3L | 968+50.10 | 20.63 LT. | 669.30 | 968+47.73 | 12.38 LT. | 669.65 | 968+45.36 | 4.13 LT. | 669.80 | 968+43.00 | 4.13 RT. | 669.80 | 968+40.63 | 12.38 RT. | 669.67 | 968+38.27 | 20.63 RT. | 669.34 |
| | 0.4L | 968+62.32 | 20.63 LT. | 669.29 | 968+59.95 | 12.38 LT. | 669.64 | 968+57.58 | 4.13 LT. | 669.78 | 968+55.22 | 4.13 RT. | 669.79 | 968+52.85 | 12.38 RT. | 669.66 | 968+50.49 | 20.63 RT. | 669.33 |
| | 0.5L | 968+74.55 | 20.63 LT. | 669.25 | 968+72.18 | 12.38 LT. | 669.60 | 968+69.81 | 4.13 LT. | 669.75 | 968+67.45 | 4.13 RT. | 669.76 | 968+65.08 | 12.38 RT. | 669.63 | 968+62.72 | 20.63 RT. | 669.29 |
| | 0.6L | 968+86.77 | 20.63 LT. | 669.20 | 968+84.40 | 12.38 LT. | 669.55 | 968+82.03 | 4.13 LT. | 669.70 | 968+79.67 | 4.13 RT. | 669.71 | 968+77.30 | 12.38 RT. | 669.57 | 968+74.94 | 20.63 RT. | 669.24 |
| | 0.7L | 968+99.00 | 20.63 LT. | 669.12 | 968+96.63 | 12.38 LT. | 669.47 | 968+94.26 | 4.13 LT. | 669.62 | 968+91.90 | 4.13 RT. | 669.63 | 968+89.53 | 12.38 RT. | 669.50 | 968+87.17 | 20.63 RT. | 669.17 |
| | 0.8L | 969+11.22 | 20.63 LT. | 669.03 | 969+08.85 | 12.38 LT. | 669.38 | 969+06.48 | 4.13 LT. | 669.53 | 969+04.12 | 4.13 RT. | 669.54 | 969+01.75 | 12.38 RT. | 669.41 | 968+99.39 | 20.63 RT. | 669.08 |
| | 0.9L | 969+23.45 | 20.63 LT. | 668.92 | 969+21.08 | 12.38 LT. | 669.27 | 969+18.71 | 4.13 LT. | 669.42 | 969+16.35 | 4.13 RT. | 669.43 | 969+13.98 | 12.38 RT. | 669.30 | 969+11.62 | 20.63 RT. | 668.98 |
| ☉ PIER 7 | 969+35.67 | 20.63 LT. | 668.81 | 969+33.30 | 12.38 LT. | 669.15 | 969+30.93 | 4.13 LT. | 669.31 | 969+28.57 | 4.13 RT. | 669.32 | 969+26.20 | 12.38 RT. | 669.19 | 969+23.84 | 20.63 RT. | 668.87 | |
| SPAN 8 | 0.1L | 969+47.90 | 20.63 LT. | 668.79 | 969+45.53 | 12.38 LT. | 669.13 | 969+43.16 | 4.13 LT. | 669.29 | 969+40.80 | 4.13 RT. | 669.30 | 969+38.43 | 12.38 RT. | 669.17 | 969+36.07 | 20.63 RT. | 668.85 |
| | 0.2L | 969+60.12 | 20.63 LT. | 668.76 | 969+57.75 | 12.38 LT. | 669.11 | 969+55.38 | 4.13 LT. | 669.26 | 969+53.02 | 4.13 RT. | 669.28 | 969+50.65 | 12.38 RT. | 669.15 | 969+48.29 | 20.63 RT. | 668.83 |
| | 0.3L | 969+72.35 | 20.63 LT. | 668.72 | 969+69.98 | 12.38 LT. | 669.07 | 969+67.61 | 4.13 LT. | 669.23 | 969+65.25 | 4.13 RT. | 669.24 | 969+62.88 | 12.38 RT. | 669.12 | 969+60.52 | 20.63 RT. | 668.79 |
| | 0.4L | 969+84.57 | 20.63 LT. | 668.67 | 969+82.20 | 12.38 LT. | 669.02 | 969+79.83 | 4.13 LT. | 669.18 | 969+77.47 | 4.13 RT. | 669.19 | 969+75.10 | 12.38 RT. | 669.07 | 969+72.74 | 20.63 RT. | 668.74 |
| | 0.5L | 969+96.80 | 20.63 LT. | 668.60 | 969+94.43 | 12.38 LT. | 668.96 | 969+92.06 | 4.13 LT. | 669.11 | 969+89.70 | 4.13 RT. | 669.13 | 969+87.33 | 12.38 RT. | 669.00 | 969+84.97 | 20.63 RT. | 668.67 |
| | 0.6L | 970+09.02 | 20.63 LT. | 668.52 | 970+06.65 | 12.38 LT. | 668.88 | 970+04.28 | 4.13 LT. | 669.03 | 970+01.92 | 4.13 RT. | 669.05 | 969+99.55 | 12.38 RT. | 668.92 | 969+97.19 | 20.63 RT. | 668.59 |
| | 0.7L | 970+21.25 | 20.63 LT. | 668.43 | 970+18.88 | 12.38 LT. | 668.78 | 970+16.51 | 4.13 LT. | 668.94 | 970+14.15 | 4.13 RT. | 668.95 | 970+11.78 | 12.38 RT. | 668.82 | 970+09.42 | 20.63 RT. | 668.50 |
| | 0.8L | 970+33.47 | 20.63 LT. | 668.32 | 970+31.10 | 12.38 LT. | 668.67 | 970+28.73 | 4.13 LT. | 668.82 | 970+26.37 | 4.13 RT. | 668.84 | 970+24.00 | 12.38 RT. | 668.71 | 970+21.64 | 20.63 RT. | 668.39 |
| | 0.9L | 970+45.70 | 20.63 LT. | 668.20 | 970+43.33 | 12.38 LT. | 668.55 | 970+40.96 | 4.13 LT. | 668.70 | 970+38.60 | 4.13 RT. | 668.72 | 970+36.23 | 12.38 RT. | 668.59 | 970+33.87 | 20.63 RT. | 668.27 |
| ☉ PIER 8 | 970+57.92 | 20.63 LT. | 668.08 | 970+55.55 | 12.38 LT. | 668.42 | 970+53.18 | 4.13 LT. | 668.58 | 970+50.82 | 4.13 RT. | 668.59 | 970+48.45 | 12.38 RT. | 668.47 | 970+46.09 | 20.63 RT. | 668.15 | |
| SPAN 9 | 0.1L | 970+70.15 | 20.63 LT. | 668.05 | 970+67.78 | 12.38 LT. | 668.40 | 970+65.41 | 4.13 LT. | 668.56 | 970+63.05 | 4.13 RT. | 668.57 | 970+60.68 | 12.38 RT. | 668.44 | 970+58.32 | 20.63 RT. | 668.12 |
| | 0.2L | 970+82.37 | 20.63 LT. | 668.03 | 970+80.00 | 12.38 LT. | 668.38 | 970+77.63 | 4.13 LT. | 668.53 | 970+75.27 | 4.13 RT. | 668.55 | 970+72.90 | 12.38 RT. | 668.42 | 970+70.54 | 20.63 RT. | 668.10 |
| | 0.3L | 970+94.60 | 20.63 LT. | 667.99 | 970+92.23 | 12.38 LT. | 668.34 | 970+89.86 | 4.13 LT. | 668.50 | 970+87.50 | 4.13 RT. | 668.51 | 970+85.13 | 12.38 RT. | 668.38 | 970+82.77 | 20.63 RT. | 668.06 |
| | 0.4L | 971+06.82 | 20.63 LT. | 667.94 | 971+04.45 | 12.38 LT. | 668.29 | 971+02.08 | 4.13 LT. | 668.45 | 970+99.72 | 4.13 RT. | 668.46 | 970+97.35 | 12.38 RT. | 668.33 | 970+94.99 | 20.63 RT. | 668.01 |
| | 0.5L | 971+19.05 | 20.63 LT. | 667.87 | 971+16.68 | 12.38 LT. | 668.23 | 971+14.31 | 4.13 LT. | 668.38 | 971+11.95 | 4.13 RT. | 668.40 | 971+09.58 | 12.38 RT. | 668.27 | 971+07.22 | 20.63 RT. | 667.94 |
| | 0.6L | 971+31.27 | 20.63 LT. | 667.79 | 971+28.90 | 12.38 LT. | 668.14 | 971+26.53 | 4.13 LT. | 668.30 | 971+24.17 | 4.13 RT. | 668.31 | 971+21.80 | 12.38 RT. | 668.19 | 971+19.44 | 20.63 RT. | 667.86 |
| | 0.7L | 971+43.50 | 20.63 LT. | 667.69 | 971+41.13 | 12.38 LT. | 668.05 | 971+38.76 | 4.13 LT. | 668.20 | 971+36.40 | 4.13 RT. | 668.22 | 971+34.03 | 12.38 RT. | 668.09 | 971+31.67 | 20.63 RT. | 667.76 |
| | 0.8L | 971+55.72 | 20.63 LT. | 667.58 | 971+53.35 | 12.38 LT. | 667.94 | 971+50.98 | 4.13 LT. | 668.09 | 971+48.62 | 4.13 RT. | 668.11 | 971+46.25 | 12.38 RT. | 667.98 | 971+43.89 | 20.63 RT. | 667.66 |
| | 0.9L | 971+67.95 | 20.63 LT. | 667.47 | 971+65.58 | 12.38 LT. | 667.81 | 971+63.21 | 4.13 LT. | 667.97 | 971+60.85 | 4.13 RT. | 667.98 | 971+58.48 | 12.38 RT. | 667.86 | 971+56.12 | 20.63 RT. | 667.54 |
| ☉ PIER 9 | 971+80.17 | 20.63 LT. | 667.35 | 971+77.80 | 12.38 LT. | 667.69 | 971+75.43 | 4.13 LT. | 667.85 | 971+73.07 | 4.13 RT. | 667.86 | 971+70.70 | 12.38 RT. | 667.73 | 971+68.34 | 20.63 RT. | 667.42 | |
| SPAN 10 | 0.1L | 971+92.40 | 20.63 LT. | 667.32 | 971+90.03 | 12.38 LT. | 667.67 | 971+87.66 | 4.13 LT. | 667.82 | 971+85.30 | 4.13 RT. | 667.84 | 971+82.93 | 12.38 RT. | 667.71 | 971+80.57 | 20.63 RT. | 667.39 |
| | 0.2L | 972+04.62 | 20.63 LT. | 667.29 | 972+02.25 | 12.38 LT. | 667.64 | 971+99.88 | 4.13 LT. | 667.80 | 971+97.52 | 4.13 RT. | 667.81 | 971+95.15 | 12.38 RT. | 667.68 | 971+92.79 | 20.63 RT. | 667.36 |
| | 0.3L | 972+16.85 | 20.63 LT. | 667.25 | 972+14.48 | 12.38 LT. | 667.61 | 972+12.11 | 4.13 LT. | 667.76 | 972+09.75 | 4.13 RT. | 667.78 | 972+07.38 | 12.38 RT. | 667.65 | 972+05.02 | 20.63 RT. | 667.32 |
| | 0.4L | 972+29.07 | 20.63 LT. | 667.20 | 972+26.70 | 12.38 LT. | 667.56 | 972+24.33 | 4.13 LT. | 667.71 | 972+21.97 | 4.13 RT. | 667.73 | 972+19.60 | 12.38 RT. | 667.60 | 972+17.24 | 20.63 RT. | 667.27 |
| | 0.5L | 972+41.30 | 20.63 LT. | 667.14 | 972+38.93 | 12.38 LT. | 667.49 | 972+36.56 | 4.13 LT. | 667.65 | 972+34.20 | 4.13 RT. | 667.66 | 972+31.83 | 12.38 RT. | 667.53 | 972+29.47 | 20.63 RT. | 667.21 |
| | 0.6L | 972+53.52 | 20.63 LT. | 667.06 | 972+51.15 | 12.38 LT. | 667.41 | 972+48.78 | 4.13 LT. | 667.57 | 972+46.42 | 4.13 RT. | 667.58 | 972+44.05 | 12.38 RT. | 667.45 | 972+41.69 | 20.63 RT. | 667.13 |
| | 0.7L | 972+65.75 | 20.63 LT. | 666.96 | 972+63.38 | 12.38 LT. | 667.31 | 972+61.01 | 4.13 LT. | 667.47 | 972+58.65 | 4.13 RT. | 667.48 | 972+56.28 | 12.38 RT. | 667.36 | 972+53.92</ | | |

| TOP OF HAUNCH ELEVATIONS | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|-----------|-----------|-------------|-----------|-----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|-----------|-------------|-----------|-----------|--------|
| LOCATION | BEAM LINE 1 | | | BEAM LINE 2 | | | BEAM LINE 3 | | | BEAM LINE 4 | | | BEAM LINE 5 | | | BEAM LINE 6 | | | |
| | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | |
| ⊕ PIER 10 | 973+02.42 | 20.63 LT. | 666.61 | 973+00.05 | 12.38 LT. | 666.96 | 972+97.68 | 4.13 LT. | 667.11 | 972+95.32 | 4.13 RT. | 667.13 | 972+92.95 | 12.38 RT. | 667.00 | 972+90.59 | 20.63 RT. | 666.68 | |
| SPAN 11 | 0.1L | 973+14.65 | 20.63 LT. | 666.59 | 973+12.28 | 12.38 LT. | 666.93 | 973+09.91 | 4.13 LT. | 667.09 | 973+07.55 | 4.13 RT. | 667.10 | 973+05.18 | 12.38 RT. | 666.98 | 973+02.82 | 20.63 RT. | 666.66 |
| | 0.2L | 973+26.87 | 20.63 LT. | 666.56 | 973+24.50 | 12.38 LT. | 666.91 | 973+22.13 | 4.13 LT. | 667.06 | 973+19.77 | 4.13 RT. | 667.08 | 973+17.40 | 12.38 RT. | 666.95 | 973+15.04 | 20.63 RT. | 666.63 |
| | 0.3L | 973+39.10 | 20.63 LT. | 666.52 | 973+36.73 | 12.38 LT. | 666.87 | 973+34.36 | 4.13 LT. | 667.03 | 973+32.00 | 4.13 RT. | 667.06 | 973+29.63 | 12.38 RT. | 666.97 | 973+27.27 | 20.63 RT. | 666.63 |
| | 0.4L | 973+51.32 | 20.63 LT. | 666.47 | 973+48.95 | 12.38 LT. | 666.82 | 973+46.58 | 4.13 LT. | 666.98 | 973+44.22 | 4.13 RT. | 667.03 | 973+41.85 | 12.38 RT. | 666.98 | 973+39.49 | 20.63 RT. | 666.64 |
| | 0.5L | 973+63.55 | 20.63 LT. | 666.40 | 973+61.18 | 12.38 LT. | 666.76 | 973+58.81 | 4.13 LT. | 666.91 | 973+56.45 | 4.13 RT. | 666.99 | 973+54.08 | 12.38 RT. | 666.96 | 973+51.72 | 20.63 RT. | 666.63 |
| | 0.6L | 973+75.77 | 20.63 LT. | 666.32 | 973+73.40 | 12.38 LT. | 666.68 | 973+71.03 | 4.13 LT. | 666.83 | 973+68.67 | 4.13 RT. | 666.93 | 973+66.30 | 12.38 RT. | 666.94 | 973+63.94 | 20.63 RT. | 666.60 |
| | 0.7L | 973+88.00 | 20.63 LT. | 666.23 | 973+85.63 | 12.38 LT. | 666.58 | 973+83.26 | 4.13 LT. | 666.73 | 973+80.90 | 4.13 RT. | 666.85 | 973+78.53 | 12.38 RT. | 666.90 | 973+76.17 | 20.63 RT. | 666.56 |
| | 0.8L | 974+00.22 | 20.63 LT. | 666.12 | 973+97.85 | 12.38 LT. | 666.47 | 973+95.48 | 4.13 LT. | 666.62 | 973+93.12 | 4.13 RT. | 666.75 | 973+90.75 | 12.38 RT. | 666.84 | 973+88.39 | 20.63 RT. | 666.51 |
| | 0.9L | 974+12.45 | 20.63 LT. | 665.96 | 974+10.08 | 12.38 LT. | 666.32 | 974+07.71 | 4.13 LT. | 666.50 | 974+05.35 | 4.13 RT. | 666.65 | 974+02.98 | 12.38 RT. | 666.77 | 974+00.62 | 20.63 RT. | 666.44 |
| ⊕ PIER 11 | 974+24.67 | 20.63 LT. | 665.78 | 974+22.30 | 12.38 LT. | 666.14 | 974+19.93 | 4.13 LT. | 666.35 | 974+17.57 | 4.13 RT. | 666.55 | 974+15.20 | 12.38 RT. | 666.70 | 974+12.84 | 20.63 RT. | 666.38 | |
| SPAN 12 | 0.1L | 974+36.78 | 20.63 LT. | 665.70 | 974+34.42 | 12.38 LT. | 666.06 | 974+32.05 | 4.13 LT. | 666.31 | 974+29.68 | 4.13 RT. | 666.54 | 974+27.32 | 12.38 RT. | 666.73 | 974+24.95 | 20.63 RT. | 666.41 |
| | 0.2L | 974+48.90 | 20.63 LT. | 665.62 | 974+46.53 | 12.38 LT. | 665.98 | 974+44.17 | 4.13 LT. | 666.27 | 974+41.80 | 4.13 RT. | 666.54 | 974+39.44 | 12.38 RT. | 666.77 | 974+37.07 | 20.63 RT. | 666.43 |
| | 0.3L | 974+61.02 | 20.63 LT. | 665.53 | 974+58.65 | 12.38 LT. | 665.89 | 974+56.28 | 4.13 LT. | 666.21 | 974+53.92 | 4.13 RT. | 666.52 | 974+51.55 | 12.38 RT. | 666.81 | 974+49.19 | 20.63 RT. | 666.63 |
| | 0.4L | 974+73.13 | 20.63 LT. | 665.40 | 974+70.77 | 12.38 LT. | 665.78 | 974+68.40 | 4.13 LT. | 666.14 | 974+66.03 | 4.13 RT. | 666.49 | 974+63.67 | 12.38 RT. | 666.82 | 974+61.30 | 20.63 RT. | 666.65 |
| | 0.5L | 974+85.34 | 20.60 LT. | 665.23 | 974+82.93 | 12.36 LT. | 665.66 | 974+80.53 | 4.12 LT. | 666.05 | 974+78.14 | 4.13 RT. | 666.44 | 974+75.78 | 12.38 RT. | 666.80 | 974+73.42 | 20.63 RT. | 666.64 |
| | 0.6L | 974+97.57 | 20.51 LT. | 665.05 | 974+95.11 | 12.28 LT. | 665.51 | 974+92.67 | 4.05 LT. | 665.95 | 974+90.24 | 4.18 RT. | 666.37 | 974+87.83 | 12.41 RT. | 666.77 | 974+85.44 | 20.65 RT. | 666.62 |
| | 0.7L | 975+09.80 | 20.36 LT. | 664.86 | 975+07.29 | 12.14 LT. | 665.35 | 975+04.80 | 3.93 LT. | 665.83 | 975+02.33 | 4.29 RT. | 666.29 | 974+99.88 | 12.51 RT. | 666.73 | 974+97.45 | 20.74 RT. | 666.58 |
| | 0.8L | 975+22.02 | 20.14 LT. | 664.65 | 975+19.47 | 11.94 LT. | 665.18 | 975+16.94 | 3.74 LT. | 665.70 | 975+14.43 | 4.47 RT. | 666.19 | 975+11.93 | 12.68 RT. | 666.67 | 975+09.45 | 20.89 RT. | 666.52 |
| | 0.9L | 975+34.24 | 19.86 LT. | 664.52 | 975+31.65 | 11.67 LT. | 665.04 | 975+29.07 | 3.48 LT. | 665.56 | 975+26.52 | 4.71 RT. | 666.08 | 975+23.98 | 12.91 RT. | 666.60 | 975+21.46 | 21.11 RT. | 666.44 |
| ⊕ BRG. F.A. | 975+46.45 | 19.51 LT. | 664.40 | 975+43.82 | 11.34 LT. | 664.92 | 975+41.20 | 3.16 LT. | 665.44 | 975+38.60 | 5.02 RT. | 665.96 | 975+36.02 | 13.20 RT. | 666.48 | 975+33.46 | 21.39 RT. | 666.30 | |

NOTES:

- FOR NOTES, LEGEND, KEY PLAN AND TYPICAL CROSS SECTION, SEE SHEET 34/55.
- FOR SCREED AND FINAL DECK ELEVATIONS, SEE SHEETS 35/55 AND 36/55 AND 40/55 THRU 42/55.
- FOR HAUNCH THICKNESSES, SEE SHEETS 43/55 THRU 45/55.
- OFFSETS SHOWN ARE GIVEN FROM ⊕ CONSTRUCTION SR 109.

TOP OF HAUNCH ELEVATIONS (3 OF 3)

BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

FINAL DECK ELEVATIONS

| LOCATION | LEFT EDGE OF DECK | | BEAM LINE 1 | | | BEAM LINE 2 | | | LEFT GRADE BREAK | | BEAM LINE 3 | | | CROWN & P.G. | | BEAM LINE 4 | | | RIGHT GRADE BREAK | | BEAM LINE 5 | | | BEAM LINE 6 | | | RIGHT EDGE OF DECK | | | | |
|-------------|-------------------|-----------|-------------|-----------|-----------|-------------|-----------|-----------|------------------|-----------|-------------|-----------|----------|--------------|-----------|-------------|-----------|----------|-------------------|-----------|-------------|-----------|-----------|-------------|-----------|-----------|--------------------|-----------|--------|---------|--------|
| | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET |
| ☉ BRG. R.A. | 960+81.82 | 666.57 | 960+81.00 | 20.63 LT. | 666.62 | 960+78.63 | 12.38 LT. | 666.94 | 960+78.53 | 666.95 | 960+76.27 | 4.13 LT. | 667.06 | 960+75.08 | 667.12 | 960+73.90 | 4.13 RT. | 667.05 | 960+71.64 | 666.91 | 960+71.54 | 12.38 RT. | 666.89 | 960+69.17 | 20.63 RT. | 666.55 | 960+68.35 | 666.49 | | | |
| SPAN 1 | 0.1L | 960+93.94 | 666.64 | 960+93.12 | 20.63 LT. | 666.69 | 960+90.75 | 12.38 LT. | 667.01 | 960+90.65 | 667.02 | 960+88.39 | 4.13 LT. | 667.14 | 960+87.20 | 667.20 | 960+86.02 | 4.13 RT. | 667.12 | 960+83.76 | 666.98 | 960+83.66 | 12.38 RT. | 666.97 | 960+81.29 | 20.63 RT. | 666.62 | 960+80.47 | 666.56 | | |
| | 0.2L | 961+06.05 | 666.72 | 961+05.23 | 20.63 LT. | 666.77 | 961+02.86 | 12.38 LT. | 667.08 | 961+02.76 | 667.10 | 961+00.50 | 4.13 LT. | 667.21 | 960+99.31 | 667.27 | 960+98.13 | 4.13 RT. | 667.20 | 960+95.87 | 667.06 | 960+95.77 | 12.38 RT. | 667.04 | 960+93.40 | 20.63 RT. | 666.70 | 960+92.58 | 666.64 | | |
| | 0.3L | 961+18.17 | 666.79 | 961+17.35 | 20.63 LT. | 666.84 | 961+14.98 | 12.38 LT. | 667.16 | 961+14.88 | 667.17 | 961+12.62 | 4.13 LT. | 667.28 | 961+11.43 | 667.34 | 961+10.25 | 4.13 RT. | 667.27 | 961+07.99 | 667.13 | 961+07.89 | 12.38 RT. | 667.11 | 961+05.52 | 20.63 RT. | 666.77 | 961+04.70 | 666.71 | | |
| | 0.4L | 961+30.29 | 666.86 | 961+29.47 | 20.63 LT. | 666.91 | 961+27.10 | 12.38 LT. | 667.23 | 961+26.99 | 667.24 | 961+24.73 | 4.13 LT. | 667.36 | 961+23.55 | 667.41 | 961+22.37 | 4.13 RT. | 667.34 | 961+20.11 | 667.20 | 961+20.00 | 12.38 RT. | 667.19 | 961+17.64 | 20.63 RT. | 666.84 | 961+16.81 | 666.78 | | |
| | 0.5L | 961+42.41 | 666.94 | 961+41.59 | 20.63 LT. | 666.99 | 961+39.22 | 12.38 LT. | 667.30 | 961+39.11 | 667.32 | 961+36.85 | 4.13 LT. | 667.43 | 961+35.67 | 667.49 | 961+34.49 | 4.13 RT. | 667.41 | 961+32.23 | 667.27 | 961+32.12 | 12.38 RT. | 667.26 | 961+29.76 | 20.63 RT. | 666.91 | 961+28.93 | 666.85 | | |
| | 0.6L | 961+54.52 | 667.01 | 961+53.70 | 20.63 LT. | 667.06 | 961+51.33 | 12.38 LT. | 667.37 | 961+51.23 | 667.39 | 961+48.97 | 4.13 LT. | 667.50 | 961+47.78 | 667.56 | 961+46.60 | 4.13 RT. | 667.49 | 961+44.34 | 667.35 | 961+44.24 | 12.38 RT. | 667.33 | 961+41.87 | 20.63 RT. | 666.99 | 961+41.05 | 666.93 | | |
| | 0.7L | 961+66.64 | 667.08 | 961+65.82 | 20.63 LT. | 667.13 | 961+63.45 | 12.38 LT. | 667.45 | 961+63.34 | 667.46 | 961+61.08 | 4.13 LT. | 667.57 | 961+59.90 | 667.63 | 961+58.72 | 4.13 RT. | 667.56 | 961+56.46 | 667.42 | 961+56.35 | 12.38 RT. | 667.40 | 961+53.99 | 20.63 RT. | 667.06 | 961+53.16 | 667.00 | | |
| | 0.8L | 961+78.76 | 667.15 | 961+77.94 | 20.63 LT. | 667.20 | 961+75.57 | 12.38 LT. | 667.52 | 961+75.46 | 667.53 | 961+73.20 | 4.13 LT. | 667.65 | 961+72.02 | 667.70 | 961+70.84 | 4.13 RT. | 667.63 | 961+68.58 | 667.49 | 961+68.47 | 12.38 RT. | 667.48 | 961+66.11 | 20.63 RT. | 667.13 | 961+65.28 | 667.07 | | |
| | 0.9L | 961+90.87 | 667.23 | 961+90.05 | 20.63 LT. | 667.28 | 961+87.68 | 12.38 LT. | 667.59 | 961+87.57 | 667.61 | 961+85.31 | 4.13 LT. | 667.72 | 961+84.13 | 667.78 | 961+82.95 | 4.13 RT. | 667.70 | 961+80.69 | 667.56 | 961+80.58 | 12.38 RT. | 667.55 | 961+78.22 | 20.63 RT. | 667.21 | 961+77.39 | 667.15 | | |
| ☉ PIER 1 | 962+02.99 | 667.30 | 962+02.17 | 20.63 LT. | 667.35 | 961+99.80 | 12.38 LT. | 667.66 | 961+99.69 | 667.68 | 961+97.43 | 4.13 LT. | 667.79 | 961+96.25 | 667.85 | 961+95.07 | 4.13 RT. | 667.78 | 961+92.81 | 667.64 | 961+92.70 | 12.38 RT. | 667.62 | 961+90.34 | 20.63 RT. | 667.28 | 961+89.51 | 667.22 | | | |
| SPAN 2 | 0.1L | 962+15.22 | 667.37 | 962+14.40 | 20.63 LT. | 667.42 | 962+12.03 | 12.38 LT. | 667.74 | 962+11.92 | 667.75 | 962+09.66 | 4.13 LT. | 667.86 | 962+08.48 | 667.92 | 962+07.30 | 4.13 RT. | 667.85 | 962+05.04 | 667.71 | 962+04.93 | 12.38 RT. | 667.70 | 962+02.57 | 20.63 RT. | 667.35 | 962+01.74 | 667.29 | | |
| | 0.2L | 962+27.44 | 667.45 | 962+26.62 | 20.63 LT. | 667.50 | 962+24.25 | 12.38 LT. | 667.81 | 962+24.14 | 667.83 | 962+21.88 | 4.13 LT. | 667.94 | 962+20.70 | 668.00 | 962+19.52 | 4.13 RT. | 667.92 | 962+17.26 | 667.78 | 962+17.15 | 12.38 RT. | 667.77 | 962+14.79 | 20.63 RT. | 667.42 | 962+13.96 | 667.36 | | |
| | 0.3L | 962+39.67 | 667.52 | 962+38.85 | 20.63 LT. | 667.57 | 962+36.48 | 12.38 LT. | 667.88 | 962+36.37 | 667.90 | 962+34.11 | 4.13 LT. | 668.01 | 962+32.93 | 668.07 | 962+31.75 | 4.13 RT. | 668.00 | 962+29.49 | 667.86 | 962+29.38 | 12.38 RT. | 667.84 | 962+27.02 | 20.63 RT. | 667.50 | 962+26.19 | 667.44 | | |
| | 0.4L | 962+51.89 | 667.59 | 962+51.07 | 20.63 LT. | 667.64 | 962+48.70 | 12.38 LT. | 667.96 | 962+48.59 | 667.97 | 962+46.33 | 4.13 LT. | 668.08 | 962+45.15 | 668.14 | 962+43.97 | 4.13 RT. | 668.07 | 962+41.71 | 667.93 | 962+41.60 | 12.38 RT. | 667.92 | 962+39.24 | 20.63 RT. | 667.57 | 962+38.41 | 667.51 | | |
| | 0.5L | 962+64.12 | 667.67 | 962+63.30 | 20.63 LT. | 667.72 | 962+60.93 | 12.38 LT. | 668.03 | 962+60.82 | 668.05 | 962+58.56 | 4.13 LT. | 668.16 | 962+57.38 | 668.22 | 962+56.20 | 4.13 RT. | 668.14 | 962+53.94 | 668.00 | 962+53.83 | 12.38 RT. | 667.99 | 962+51.47 | 20.63 RT. | 667.64 | 962+50.64 | 667.58 | | |
| | 0.6L | 962+76.34 | 667.74 | 962+75.52 | 20.63 LT. | 667.79 | 962+73.15 | 12.38 LT. | 668.10 | 962+73.04 | 668.12 | 962+70.78 | 4.13 LT. | 668.23 | 962+69.60 | 668.29 | 962+68.42 | 4.13 RT. | 668.22 | 962+66.16 | 668.08 | 962+66.05 | 12.38 RT. | 668.06 | 962+63.69 | 20.63 RT. | 667.72 | 962+62.86 | 667.66 | | |
| | 0.7L | 962+88.57 | 667.81 | 962+87.75 | 20.63 LT. | 667.86 | 962+85.38 | 12.38 LT. | 668.18 | 962+85.27 | 668.19 | 962+83.01 | 4.13 LT. | 668.30 | 962+81.83 | 668.36 | 962+80.65 | 4.13 RT. | 668.29 | 962+78.39 | 668.15 | 962+78.28 | 12.38 RT. | 668.14 | 962+75.92 | 20.63 RT. | 667.79 | 962+75.09 | 667.73 | | |
| | 0.8L | 963+00.79 | 667.89 | 962+99.97 | 20.63 LT. | 667.94 | 962+97.60 | 12.38 LT. | 668.25 | 962+97.49 | 668.27 | 962+95.23 | 4.13 LT. | 668.38 | 962+94.05 | 668.44 | 962+92.87 | 4.13 RT. | 668.36 | 962+90.61 | 668.22 | 962+90.50 | 12.38 RT. | 668.21 | 962+88.14 | 20.63 RT. | 667.86 | 962+87.31 | 667.80 | | |
| | 0.9L | 963+13.02 | 667.96 | 963+12.20 | 20.63 LT. | 668.01 | 963+09.83 | 12.38 LT. | 668.32 | 963+09.72 | 668.34 | 963+07.46 | 4.13 LT. | 668.45 | 963+06.28 | 668.51 | 963+05.10 | 4.13 RT. | 668.44 | 963+02.84 | 668.30 | 963+02.73 | 12.38 RT. | 668.28 | 963+00.37 | 20.63 RT. | 667.94 | 962+99.54 | 667.88 | | |
| ☉ PIER 2 | 963+25.24 | 668.03 | 963+24.42 | 20.63 LT. | 668.08 | 963+22.05 | 12.38 LT. | 668.40 | 963+21.94 | 668.41 | 963+19.68 | 4.13 LT. | 668.52 | 963+18.50 | 668.58 | 963+17.32 | 4.13 RT. | 668.51 | 963+15.06 | 668.37 | 963+14.95 | 12.38 RT. | 668.36 | 963+12.59 | 20.63 RT. | 668.01 | 963+11.76 | 667.95 | | | |
| SPAN 3 | 0.1L | 963+37.47 | 668.11 | 963+36.65 | 20.63 LT. | 668.16 | 963+34.28 | 12.38 LT. | 668.47 | 963+34.17 | 668.49 | 963+31.91 | 4.13 LT. | 668.60 | 963+30.73 | 668.66 | 963+29.55 | 4.13 RT. | 668.58 | 963+27.29 | 668.44 | 963+27.18 | 12.38 RT. | 668.43 | 963+24.82 | 20.63 RT. | 668.08 | 963+23.99 | 668.02 | | |
| | 0.2L | 963+49.69 | 668.18 | 963+48.87 | 20.63 LT. | 668.23 | 963+46.50 | 12.38 LT. | 668.54 | 963+46.39 | 668.56 | 963+44.13 | 4.13 LT. | 668.67 | 963+42.95 | 668.73 | 963+41.77 | 4.13 RT. | 668.66 | 963+39.51 | 668.52 | 963+39.40 | 12.38 RT. | 668.50 | 963+37.04 | 20.63 RT. | 668.16 | 963+36.21 | 668.10 | | |
| | 0.3L | 963+61.92 | 668.25 | 963+61.10 | 20.63 LT. | 668.30 | 963+58.73 | 12.38 LT. | 668.62 | 963+58.62 | 668.63 | 963+56.36 | 4.13 LT. | 668.74 | 963+55.18 | 668.80 | 963+54.00 | 4.13 RT. | 668.73 | 963+51.74 | 668.59 | 963+51.63 | 12.38 RT. | 668.58 | 963+49.27 | 20.63 RT. | 668.23 | 963+48.44 | 668.17 | | |
| | 0.4L | 963+74.14 | 668.33 | 963+73.32 | 20.63 LT. | 668.38 | 963+70.95 | 12.38 LT. | 668.69 | 963+70.84 | 668.71 | 963+68.58 | 4.13 LT. | 668.82 | 963+67.40 | 668.88 | 963+66.22 | 4.13 RT. | 668.80 | 963+63.96 | 668.66 | 963+63.85 | 12.38 RT. | 668.65 | 963+61.49 | 20.63 RT. | 668.30 | 963+60.66 | 668.24 | | |
| | 0.5L | 963+86.37 | 668.40 | 963+85.55 | 20.63 LT. | 668.45 | 963+83.18 | 12.38 LT. | 668.76 | 963+83.07 | 668.78 | 963+80.81 | 4.13 LT. | 668.89 | 963+79.63 | 668.95 | 963+78.45 | 4.13 RT. | 668.88 | 963+76.19 | 668.74 | 963+76.08 | 12.38 RT. | 668.72 | 963+73.72 | 20.63 RT. | 668.38 | 963+72.89 | 668.32 | | |
| | 0.6L | 963+98.59 | 668.47 | 963+97.77 | 20.63 LT. | 668.52 | 963+95.40 | 12.38 LT. | 668.84 | 963+95.29 | 668.85 | 963+93.03 | 4.13 LT. | 668.96 | 963+91.85 | 669.02 | 963+90.67 | 4.13 RT. | 668.95 | 963+88.41 | 668.81 | 963+88.30 | 12.38 RT. | 668.80 | 963+85.94 | 20.63 RT. | 668.45 | 963+85.11 | 668.39 | | |
| | 0.7L | 964+10.82 | 668.55 | 964+10.00 | 20.63 LT. | 668.60 | 964+07.63 | 12.38 LT. | 668.91 | 964+07.52 | 668.93 | 964+05.26 | 4.13 LT. | 669.04 | 964+04.08 | 669.10 | 964+02.90 | 4.13 RT. | 669.02 | 964+00.64 | 668.88 | 964+00.53 | 12.38 RT. | 668.87 | 963+98.17 | 20.63 RT. | 668.52 | 963+97.34 | 668.46 | | |
| | 0.8L | 964+23.04 | 668.62 | 964+22.22 | 20.63 LT. | 668.67 | 964+19.85 | 12.38 LT. | 668.98 | 964+19.74 | 669.00 | 964+17.48 | 4.13 LT. | 669.11 | 964+16.30 | 669.17 | 964+15.12 | 4.13 RT. | 669.10 | 964+12.86 | 668.96 | 964+12.75 | 12.38 RT. | 668.94 | 964+10.39 | 20.63 RT. | 668.60 | 964+09.56 | 668.54 | | |
| | 0.9L | 964+35.27 | 668.69 | 964+34.45 | 20.63 LT. | 668.74 | 964+32.08 | 12.38 LT. | 669.06 | 964+31.97 | 669.07 | 964+29.71 | 4.13 LT. | 669.19 | 964+28.53 | 669.24 | 964+27.35 | 4.13 RT. | 669.17 | 964+25.09 | 669.03 | 964+24.98 | 12.38 RT. | 669.02 | 964+22.62 | | | | | | |

FINAL DECK ELEVATIONS

| LOCATION | LEFT EDGE OF DECK | | BEAM LINE 1 | | | BEAM LINE 2 | | | LEFT GRADE BREAK | | BEAM LINE 3 | | | CROWN & P.G. | | BEAM LINE 4 | | | RIGHT GRADE BREAK | | BEAM LINE 5 | | | BEAM LINE 6 | | RIGHT EDGE OF DECK | | | |
|----------|-------------------|-----------|-------------|-----------|-----------|-------------|-----------|-----------|------------------|-----------|-------------|-----------|----------|--------------|-----------|-------------|-----------|----------|-------------------|-----------|-------------|-----------|-----------|-------------|-----------|--------------------|-----------|-----------|--------|
| | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | |
| PIER 5 | 966+91.99 | 669.93 | 966+91.17 | 20.63 LT. | 669.98 | 966+88.80 | 12.38 LT. | 670.31 | 966+88.69 | 670.32 | 966+86.43 | 4.13 LT. | 670.45 | 966+85.25 | 670.51 | 966+84.07 | 4.13 RT. | 670.44 | 966+81.81 | 670.31 | 966+81.70 | 12.38 RT. | 670.30 | 966+79.34 | 20.63 RT. | 669.96 | 966+78.51 | 669.90 | |
| SPAN 6 | 0.1L | 967+04.22 | 669.95 | 967+03.40 | 20.63 LT. | 670.00 | 967+01.03 | 12.38 LT. | 670.33 | 967+00.92 | 670.34 | 966+98.66 | 4.13 LT. | 670.47 | 966+97.48 | 670.53 | 966+96.30 | 4.13 RT. | 670.46 | 966+94.04 | 670.33 | 966+93.93 | 12.38 RT. | 670.32 | 966+91.57 | 20.63 RT. | 669.98 | 966+90.74 | 669.93 |
| | 0.2L | 967+16.44 | 669.96 | 967+15.62 | 20.63 LT. | 670.02 | 967+13.25 | 12.38 LT. | 670.35 | 967+13.14 | 670.36 | 967+10.88 | 4.13 LT. | 670.48 | 967+09.70 | 670.55 | 967+08.52 | 4.13 RT. | 670.48 | 967+06.26 | 670.35 | 967+06.15 | 12.38 RT. | 670.34 | 967+03.79 | 20.63 RT. | 670.00 | 967+02.96 | 669.95 |
| | 0.3L | 967+28.67 | 669.97 | 967+27.85 | 20.63 LT. | 670.03 | 967+25.48 | 12.38 LT. | 670.36 | 967+25.37 | 670.37 | 967+23.11 | 4.13 LT. | 670.50 | 967+21.93 | 670.56 | 967+20.75 | 4.13 RT. | 670.49 | 967+18.49 | 670.37 | 967+18.38 | 12.38 RT. | 670.35 | 967+16.02 | 20.63 RT. | 670.02 | 967+15.19 | 669.96 |
| | 0.4L | 967+40.89 | 669.98 | 967+40.07 | 20.63 LT. | 670.03 | 967+37.70 | 12.38 LT. | 670.36 | 967+37.59 | 670.38 | 967+35.33 | 4.13 LT. | 670.50 | 967+34.15 | 670.57 | 967+32.97 | 4.13 RT. | 670.50 | 967+30.71 | 670.38 | 967+30.60 | 12.38 RT. | 670.36 | 967+28.24 | 20.63 RT. | 670.03 | 967+27.41 | 669.97 |
| | 0.5L | 967+53.12 | 669.98 | 967+52.30 | 20.63 LT. | 670.04 | 967+49.93 | 12.38 LT. | 670.37 | 967+49.82 | 670.38 | 967+47.56 | 4.13 LT. | 670.51 | 967+46.38 | 670.57 | 967+45.20 | 4.13 RT. | 670.51 | 967+42.94 | 670.38 | 967+42.83 | 12.38 RT. | 670.37 | 967+40.47 | 20.63 RT. | 670.03 | 967+39.64 | 669.98 |
| | 0.6L | 967+65.34 | 669.98 | 967+64.52 | 20.63 LT. | 670.03 | 967+62.15 | 12.38 LT. | 670.36 | 967+62.04 | 670.38 | 967+59.78 | 4.13 LT. | 670.51 | 967+58.60 | 670.57 | 967+57.42 | 4.13 RT. | 670.51 | 967+55.16 | 670.38 | 967+55.05 | 12.38 RT. | 670.37 | 967+52.69 | 20.63 RT. | 670.04 | 967+51.86 | 669.98 |
| | 0.7L | 967+77.57 | 669.97 | 967+76.75 | 20.63 LT. | 670.03 | 967+74.38 | 12.38 LT. | 670.36 | 967+74.27 | 670.37 | 967+72.01 | 4.13 LT. | 670.50 | 967+70.83 | 670.57 | 967+69.65 | 4.13 RT. | 670.50 | 967+67.39 | 670.38 | 967+67.28 | 12.38 RT. | 670.36 | 967+64.92 | 20.63 RT. | 670.03 | 967+64.09 | 669.98 |
| | 0.8L | 967+89.79 | 669.96 | 967+88.97 | 20.63 LT. | 670.01 | 967+86.60 | 12.38 LT. | 670.35 | 967+86.49 | 670.36 | 967+84.23 | 4.13 LT. | 670.49 | 967+83.05 | 670.56 | 967+81.87 | 4.13 RT. | 670.49 | 967+79.61 | 670.37 | 967+79.50 | 12.38 RT. | 670.35 | 967+77.14 | 20.63 RT. | 670.02 | 967+76.31 | 669.97 |
| | 0.9L | 968+02.02 | 669.94 | 968+01.20 | 20.63 LT. | 670.00 | 967+98.83 | 12.38 LT. | 670.33 | 967+98.72 | 670.35 | 967+96.46 | 4.13 LT. | 670.47 | 967+95.28 | 670.54 | 967+94.10 | 4.13 RT. | 670.48 | 967+91.84 | 670.35 | 967+91.73 | 12.38 RT. | 670.34 | 967+89.37 | 20.63 RT. | 670.01 | 967+88.54 | 669.96 |
| PIER 6 | 968+14.24 | 669.92 | 968+13.42 | 20.63 LT. | 669.98 | 968+11.05 | 12.38 LT. | 670.31 | 968+10.94 | 670.33 | 968+08.68 | 4.13 LT. | 670.46 | 968+07.50 | 670.52 | 968+06.32 | 4.13 RT. | 670.46 | 968+04.06 | 670.34 | 968+03.95 | 12.38 RT. | 670.32 | 968+01.59 | 20.63 RT. | 670.00 | 968+00.76 | 669.94 | |
| SPAN 7 | 0.1L | 968+26.47 | 669.89 | 968+25.65 | 20.63 LT. | 669.95 | 968+23.28 | 12.38 LT. | 670.29 | 968+23.17 | 670.30 | 968+20.91 | 4.13 LT. | 670.43 | 968+19.73 | 670.50 | 968+18.55 | 4.13 RT. | 670.44 | 968+16.29 | 670.31 | 968+16.18 | 12.38 RT. | 670.30 | 968+13.82 | 20.63 RT. | 669.97 | 968+12.99 | 669.92 |
| | 0.2L | 968+38.69 | 669.86 | 968+37.87 | 20.63 LT. | 669.92 | 968+35.50 | 12.38 LT. | 670.26 | 968+35.39 | 670.27 | 968+33.13 | 4.13 LT. | 670.40 | 968+31.95 | 670.47 | 968+30.77 | 4.13 RT. | 670.41 | 968+28.51 | 670.29 | 968+28.40 | 12.38 RT. | 670.27 | 968+26.04 | 20.63 RT. | 669.95 | 968+25.21 | 669.90 |
| | 0.3L | 968+50.92 | 669.83 | 968+50.10 | 20.63 LT. | 669.89 | 968+47.73 | 12.38 LT. | 670.22 | 968+47.62 | 670.24 | 968+45.36 | 4.13 LT. | 670.37 | 968+44.18 | 670.44 | 968+43.00 | 4.13 RT. | 670.38 | 968+40.74 | 670.26 | 968+40.63 | 12.38 RT. | 670.24 | 968+38.27 | 20.63 RT. | 669.92 | 968+37.44 | 669.87 |
| | 0.4L | 968+63.14 | 669.79 | 968+62.32 | 20.63 LT. | 669.85 | 968+59.95 | 12.38 LT. | 670.18 | 968+59.84 | 670.20 | 968+57.58 | 4.13 LT. | 670.33 | 968+56.40 | 670.40 | 968+55.22 | 4.13 RT. | 670.34 | 968+52.96 | 670.22 | 968+52.85 | 12.38 RT. | 670.21 | 968+50.49 | 20.63 RT. | 669.88 | 968+49.66 | 669.83 |
| | 0.5L | 968+75.37 | 669.75 | 968+74.55 | 20.63 LT. | 669.80 | 968+72.18 | 12.38 LT. | 670.14 | 968+72.07 | 670.16 | 968+69.81 | 4.13 LT. | 670.29 | 968+68.63 | 670.36 | 968+67.45 | 4.13 RT. | 670.30 | 968+65.19 | 670.18 | 968+65.08 | 12.38 RT. | 670.17 | 968+62.72 | 20.63 RT. | 669.85 | 968+61.89 | 669.79 |
| | 0.6L | 968+87.59 | 669.70 | 968+86.77 | 20.63 LT. | 669.76 | 968+84.40 | 12.38 LT. | 670.09 | 968+84.29 | 670.11 | 968+82.03 | 4.13 LT. | 670.25 | 968+80.85 | 670.32 | 968+79.67 | 4.13 RT. | 670.25 | 968+77.41 | 670.14 | 968+77.30 | 12.38 RT. | 670.12 | 968+74.94 | 20.63 RT. | 669.80 | 968+74.11 | 669.75 |
| | 0.7L | 968+99.82 | 669.64 | 968+99.00 | 20.63 LT. | 669.70 | 968+96.63 | 12.38 LT. | 670.04 | 968+96.52 | 670.06 | 968+94.26 | 4.13 LT. | 670.19 | 968+93.08 | 670.27 | 968+91.90 | 4.13 RT. | 670.20 | 968+89.64 | 670.09 | 968+89.53 | 12.38 RT. | 670.07 | 968+87.17 | 20.63 RT. | 669.75 | 968+86.34 | 669.70 |
| | 0.8L | 969+12.04 | 669.59 | 969+11.22 | 20.63 LT. | 669.65 | 969+08.85 | 12.38 LT. | 669.99 | 969+08.74 | 670.00 | 969+06.48 | 4.13 LT. | 670.14 | 969+05.30 | 670.21 | 969+04.12 | 4.13 RT. | 670.15 | 969+01.86 | 670.03 | 969+01.75 | 12.38 RT. | 670.02 | 968+99.39 | 20.63 RT. | 669.70 | 968+98.56 | 669.65 |
| | 0.9L | 969+24.27 | 669.53 | 969+23.45 | 20.63 LT. | 669.58 | 969+21.08 | 12.38 LT. | 669.93 | 969+20.97 | 669.94 | 969+18.71 | 4.13 LT. | 670.08 | 969+17.53 | 670.15 | 969+16.35 | 4.13 RT. | 670.09 | 969+14.09 | 669.98 | 969+13.98 | 12.38 RT. | 669.96 | 969+11.62 | 20.63 RT. | 669.64 | 969+10.79 | 669.59 |
| PIER 7 | 969+36.49 | 669.46 | 969+35.67 | 20.63 LT. | 669.52 | 969+33.30 | 12.38 LT. | 669.86 | 969+33.19 | 669.88 | 969+30.93 | 4.13 LT. | 670.02 | 969+29.75 | 670.09 | 969+28.57 | 4.13 RT. | 670.03 | 969+26.31 | 669.91 | 969+26.20 | 12.38 RT. | 669.90 | 969+23.84 | 20.63 RT. | 669.58 | 969+23.01 | 669.53 | |
| SPAN 8 | 0.1L | 969+48.72 | 669.39 | 969+47.90 | 20.63 LT. | 669.45 | 969+45.53 | 12.38 LT. | 669.79 | 969+45.42 | 669.81 | 969+43.16 | 4.13 LT. | 669.95 | 969+41.98 | 670.02 | 969+40.80 | 4.13 RT. | 669.96 | 969+38.54 | 669.85 | 969+38.43 | 12.38 RT. | 669.83 | 969+36.07 | 20.63 RT. | 669.52 | 969+35.24 | 669.47 |
| | 0.2L | 969+60.94 | 669.32 | 969+60.12 | 20.63 LT. | 669.38 | 969+57.75 | 12.38 LT. | 669.72 | 969+57.64 | 669.73 | 969+55.38 | 4.13 LT. | 669.87 | 969+54.20 | 669.95 | 969+53.02 | 4.13 RT. | 669.89 | 969+50.76 | 669.78 | 969+50.65 | 12.38 RT. | 669.76 | 969+48.29 | 20.63 RT. | 669.45 | 969+47.46 | 669.40 |
| | 0.3L | 969+73.17 | 669.24 | 969+72.35 | 20.63 LT. | 669.30 | 969+69.98 | 12.38 LT. | 669.65 | 969+69.87 | 669.66 | 969+67.61 | 4.13 LT. | 669.80 | 969+66.43 | 669.87 | 969+65.25 | 4.13 RT. | 669.82 | 969+62.99 | 669.70 | 969+62.88 | 12.38 RT. | 669.69 | 969+60.52 | 20.63 RT. | 669.37 | 969+59.69 | 669.32 |
| | 0.4L | 969+85.39 | 669.17 | 969+84.57 | 20.63 LT. | 669.23 | 969+82.20 | 12.38 LT. | 669.57 | 969+82.09 | 669.59 | 969+79.83 | 4.13 LT. | 669.73 | 969+78.65 | 669.80 | 969+77.47 | 4.13 RT. | 669.74 | 969+75.21 | 669.63 | 969+75.10 | 12.38 RT. | 669.62 | 969+72.74 | 20.63 RT. | 669.30 | 969+71.91 | 669.25 |
| | 0.5L | 969+97.62 | 669.10 | 969+96.80 | 20.63 LT. | 669.16 | 969+94.43 | 12.38 LT. | 669.50 | 969+94.32 | 669.51 | 969+92.06 | 4.13 LT. | 669.65 | 969+90.88 | 669.73 | 969+89.70 | 4.13 RT. | 669.67 | 969+87.44 | 669.56 | 969+87.33 | 12.38 RT. | 669.54 | 969+84.97 | 20.63 RT. | 669.23 | 969+84.14 | 669.18 |
| | 0.6L | 970+09.84 | 669.02 | 970+09.02 | 20.63 LT. | 669.08 | 970+06.65 | 12.38 LT. | 669.43 | 970+06.54 | 669.44 | 970+04.28 | 4.13 LT. | 669.58 | 970+03.10 | 669.65 | 970+01.92 | 4.13 RT. | 669.60 | 969+99.66 | 669.48 | 969+99.55 | 12.38 RT. | 669.47 | 969+97.19 | 20.63 RT. | 669.15 | 969+96.36 | 669.10 |
| | 0.7L | 970+22.07 | 668.95 | 970+21.25 | 20.63 LT. | 669.01 | 970+18.88 | 12.38 LT. | 669.35 | 970+18.77 | 669.37 | 970+16.51 | 4.13 LT. | 669.51 | 970+15.33 | 669.58 | 970+14.15 | 4.13 RT. | 669.52 | 970+11.89 | 669.41 | 970+11.78 | 12.38 RT. | 669.40 | 970+09.42 | 20.63 RT. | 669.08 | 970+08.59 | 669.03 |
| | 0.8L | 970+34.29 | 668.88 | 970+33.47 | 20.63 LT. | 668.93 | 970+31.10 | 12.38 LT. | 669.28 | 970+30.99 | 669.29 | 970+28.73 | 4.13 LT. | 669.43 | 970+27.55 | 669.51 | 970+26.37 | 4.13 RT. | 669.45 | 970+24.11 | 669.34 | 970+24.00 | 12.38 RT. | 669.32 | 970+21.64 | 20.63 RT. | 669.01 | 970+20.81 | 668.96 |
| | 0.9L | 970+46.52 | 668.80 | 970+45.70 | 20.63 LT. | 668.86 | 970+43.33 | 12.38 LT. | 669.21 | 970+43.22 | 669.22 | 970+40.96 | 4.13 LT. | 669.36 | 970+39.78 | 669.43 | 970+38.60 | 4.13 RT. | 669.38 | 970+36.34 | 669.26 | 970+36.23 | 12.38 RT. | 669.25 | 970+33.87 | 20.63 RT. | 668.93 | 970+33.04 | 668.88 |
| PIER 8 | 970+58.74 | 668.73 | 970+57.92 | 20.63 LT. | 668.79 | 970+55.55 | 12.38 LT. | 669.13 | 970+55.44 | 669.15 | 970+53.18 | 4.13 LT. | 669.29 | 970+52.00 | 669.36 | 970+50.82 | 4.13 RT. | 669.30 | 970+48.56 | 669.1 | | | | | | | | | |

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| FINAL DECK ELEVATIONS | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-------------------|-----------|-------------|-----------|-----------|-------------|-----------|-----------|------------------|-----------|-------------|-----------|----------|--------------|-----------|-------------|-----------|----------|-------------------|-----------|-------------|-----------|-----------|--------|
| LOCATION | LEFT EDGE OF DECK | | BEAM LINE 1 | | | BEAM LINE 2 | | | LEFT GRADE BREAK | | BEAM LINE 3 | | | CROWN & P.G. | | BEAM LINE 4 | | | RIGHT GRADE BREAK | | BEAM LINE 5 | | | |
| | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | STATION | OFFSET | ELEV. | |
| ⊕ PIER 10 | 973+03.24 | 667.26 | 973+02.42 | 20.63 LT. | 667.32 | 973+00.05 | 12.38 LT. | 667.67 | 972+99.94 | 667.68 | 972+97.68 | 4.13 LT. | 667.82 | 972+96.50 | 667.89 | 972+95.32 | 4.13 RT. | 667.83 | 972+93.06 | 667.72 | 972+92.95 | 12.38 RT. | 667.71 | |
| SPAN 11 | 0.1L | 973+15.47 | 667.19 | 973+14.65 | 20.63 LT. | 667.25 | 973+12.28 | 12.38 LT. | 667.59 | 973+12.17 | 667.61 | 973+09.91 | 4.13 LT. | 667.75 | 973+08.73 | 667.82 | 973+07.55 | 4.13 RT. | 667.76 | 973+05.29 | 667.65 | 973+05.18 | 12.38 RT. | 667.63 |
| | 0.2L | 973+27.69 | 667.11 | 973+26.87 | 20.63 LT. | 667.17 | 973+24.50 | 12.38 LT. | 667.52 | 973+24.39 | 667.53 | 973+22.13 | 4.13 LT. | 667.67 | 973+20.95 | 667.75 | 973+19.77 | 4.13 RT. | 667.69 | 973+17.51 | 667.58 | 973+17.40 | 12.38 RT. | 667.56 |
| | 0.3L | 973+39.92 | 667.04 | 973+39.10 | 20.63 LT. | 667.10 | 973+36.73 | 12.38 LT. | 667.45 | 973+36.62 | 667.46 | 973+34.36 | 4.13 LT. | 667.60 | 973+33.18 | 667.67 | 973+32.00 | 4.13 RT. | 667.64 | 973+29.74 | 667.55 | 973+29.63 | 12.38 RT. | 667.54 |
| | 0.4L | 973+52.14 | 666.97 | 973+51.32 | 20.63 LT. | 667.03 | 973+48.95 | 12.38 LT. | 667.37 | 973+48.84 | 667.39 | 973+46.58 | 4.13 LT. | 667.53 | 973+45.40 | 667.60 | 973+44.22 | 4.13 RT. | 667.58 | 973+41.96 | 667.54 | 973+41.85 | 12.38 RT. | 667.52 |
| | 0.5L | 973+64.37 | 666.89 | 973+63.55 | 20.63 LT. | 666.95 | 973+61.18 | 12.38 LT. | 667.30 | 973+61.07 | 667.31 | 973+58.81 | 4.13 LT. | 667.45 | 973+57.63 | 667.53 | 973+56.45 | 4.13 RT. | 667.53 | 973+54.19 | 667.52 | 973+54.08 | 12.38 RT. | 667.50 |
| | 0.6L | 973+76.59 | 666.82 | 973+75.77 | 20.63 LT. | 666.88 | 973+73.40 | 12.38 LT. | 667.23 | 973+73.29 | 667.24 | 973+71.03 | 4.13 LT. | 667.38 | 973+69.85 | 667.45 | 973+68.67 | 4.13 RT. | 667.47 | 973+66.41 | 667.50 | 973+66.30 | 12.38 RT. | 667.48 |
| | 0.7L | 973+88.82 | 666.75 | 973+88.00 | 20.63 LT. | 666.81 | 973+85.63 | 12.38 LT. | 667.15 | 973+85.52 | 667.17 | 973+83.26 | 4.13 LT. | 667.31 | 973+82.08 | 667.38 | 973+80.90 | 4.13 RT. | 667.42 | 973+78.64 | 667.48 | 973+78.53 | 12.38 RT. | 667.47 |
| | 0.8L | 974+01.04 | 666.67 | 974+00.22 | 20.63 LT. | 666.73 | 973+97.85 | 12.38 LT. | 667.08 | 973+97.74 | 667.09 | 973+95.48 | 4.13 LT. | 667.23 | 973+94.30 | 667.31 | 973+93.12 | 4.13 RT. | 667.36 | 973+90.86 | 667.46 | 973+90.75 | 12.38 RT. | 667.45 |
| | 0.9L | 974+13.27 | 666.56 | 974+12.45 | 20.63 LT. | 666.62 | 974+10.08 | 12.38 LT. | 666.98 | 974+09.97 | 666.99 | 974+07.71 | 4.13 LT. | 667.15 | 974+06.53 | 667.23 | 974+05.35 | 4.13 RT. | 667.31 | 974+03.09 | 667.44 | 974+02.98 | 12.38 RT. | 667.43 |
| ⊕ PIER 11 | 974+25.49 | 666.43 | 974+24.67 | 20.63 LT. | 666.49 | 974+22.30 | 12.38 LT. | 666.85 | 974+22.19 | 666.86 | 974+19.93 | 4.13 LT. | 667.06 | 974+18.75 | 667.16 | 974+17.57 | 4.13 RT. | 667.26 | 974+15.31 | 667.43 | 974+15.20 | 12.38 RT. | 667.41 | |
| SPAN 12 | 0.1L | 974+37.61 | 666.30 | 974+36.78 | 20.63 LT. | 666.37 | 974+34.42 | 12.38 LT. | 666.72 | 974+34.31 | 666.74 | 974+32.05 | 4.13 LT. | 666.97 | 974+30.87 | 667.09 | 974+29.68 | 4.13 RT. | 667.20 | 974+27.43 | 667.41 | 974+27.32 | 12.38 RT. | 667.39 |
| | 0.2L | 974+49.72 | 666.17 | 974+48.90 | 20.63 LT. | 666.24 | 974+46.53 | 12.38 LT. | 666.59 | 974+46.43 | 666.61 | 974+44.17 | 4.13 LT. | 666.88 | 974+42.98 | 667.01 | 974+41.80 | 4.13 RT. | 667.15 | 974+39.54 | 667.39 | 974+39.44 | 12.38 RT. | 667.38 |
| | 0.3L | 974+61.84 | 666.05 | 974+61.02 | 20.63 LT. | 666.11 | 974+58.65 | 12.38 LT. | 666.46 | 974+58.54 | 666.48 | 974+56.28 | 4.13 LT. | 666.79 | 974+55.10 | 666.94 | 974+53.92 | 4.13 RT. | 667.09 | 974+51.66 | 667.37 | 974+51.55 | 12.38 RT. | 667.38 |
| | 0.4L | 974+73.96 | 665.89 | 974+73.13 | 20.63 LT. | 665.96 | 974+70.77 | 12.38 LT. | 666.33 | 974+70.66 | 666.35 | 974+68.40 | 4.13 LT. | 666.69 | 974+67.22 | 666.87 | 974+66.03 | 4.13 RT. | 667.04 | 974+63.78 | 667.35 | 974+63.67 | 12.38 RT. | 667.37 |
| | 0.5L | 974+86.20 | 665.71 | 974+85.34 | 20.60 LT. | 665.79 | 974+82.93 | 12.36 LT. | 666.20 | 974+82.82 | 666.21 | 974+80.53 | 4.12 LT. | 666.59 | 974+79.33 | 666.79 | 974+78.14 | 4.13 RT. | 666.98 | 974+75.89 | 667.33 | 974+75.78 | 12.38 RT. | 667.34 |
| | 0.6L | 974+98.47 | 665.52 | 974+97.57 | 20.51 LT. | 665.61 | 974+95.11 | 12.28 LT. | 666.06 | 974+95.02 | 666.08 | 974+92.67 | 4.05 LT. | 666.50 | 974+91.47 | 666.71 | 974+90.24 | 4.18 RT. | 666.92 | 974+87.95 | 667.30 | 974+87.83 | 12.41 RT. | 667.32 |
| | 0.7L | 975+10.76 | 665.33 | 975+09.80 | 20.36 LT. | 665.44 | 975+07.29 | 12.14 LT. | 665.93 | 975+07.25 | 665.94 | 975+04.80 | 3.93 LT. | 666.40 | 975+03.62 | 666.62 | 975+02.33 | 4.29 RT. | 666.86 | 975+00.03 | 667.27 | 974+99.88 | 12.51 RT. | 667.30 |
| | 0.8L | 975+23.07 | 665.14 | 975+22.02 | 20.14 LT. | 665.27 | 975+19.47 | 11.94 LT. | 665.79 | 975+19.49 | 665.79 | 975+16.94 | 3.74 LT. | 666.31 | 975+15.79 | 666.53 | 975+14.43 | 4.47 RT. | 666.80 | 975+12.14 | 667.24 | 975+11.93 | 12.68 RT. | 667.28 |
| | 0.9L | 975+35.40 | 665.04 | 975+34.24 | 19.86 LT. | 665.18 | 975+31.65 | 11.67 LT. | 665.70 | 975+31.75 | 665.68 | 975+29.07 | 3.48 LT. | 666.22 | 975+27.98 | 666.44 | 975+26.52 | 4.71 RT. | 666.74 | 975+24.26 | 667.20 | 975+23.98 | 12.91 RT. | 667.26 |
| ⊕ BRG. F.A. | 975+47.75 | 664.94 | 975+46.45 | 19.51 LT. | 665.11 | 975+43.82 | 11.34 LT. | 665.63 | 975+44.03 | 665.58 | 975+41.20 | 3.16 LT. | 666.15 | 975+40.20 | 666.35 | 975+38.60 | 5.02 RT. | 666.66 | 975+36.40 | 667.11 | 975+36.02 | 13.20 RT. | 667.18 | |

| FINAL DECK ELEVATIONS | | | | | | | | |
|-----------------------|------------|-----------|-------------|-----------|-----------|--------------------|-----------|--------|
| LOCATION | ⊕ ROUNDING | | BEAM LINE 6 | | | RIGHT EDGE OF DECK | | |
| | STATION | ELEV. | STATION | OFFSET | ELEV. | STATION | ELEV. | |
| ⊕ PIER 10 | -- | -- | 972+90.59 | 20.63 RT. | 667.39 | 972+89.76 | 667.34 | |
| SPAN 11 | 0.1L | -- | 973+02.82 | 20.63 RT. | 667.32 | 973+01.99 | 667.27 | |
| | 0.2L | -- | 973+15.04 | 20.63 RT. | 667.25 | 973+14.21 | 667.20 | |
| | 0.3L | -- | 973+27.27 | 20.63 RT. | 667.21 | 973+26.44 | 667.16 | |
| | 0.4L | -- | 973+39.49 | 20.63 RT. | 667.19 | 973+38.66 | 667.14 | |
| | 0.5L | -- | 973+51.72 | 20.63 RT. | 667.18 | 973+50.89 | 667.12 | |
| | 0.6L | -- | 973+63.94 | 20.63 RT. | 667.16 | 973+63.11 | 667.10 | |
| | 0.7L | -- | 973+76.17 | 20.63 RT. | 667.14 | 973+75.34 | 667.09 | |
| | 0.8L | -- | 973+88.39 | 20.63 RT. | 667.12 | 973+87.56 | 667.07 | |
| | 0.9L | -- | 974+00.62 | 20.63 RT. | 667.10 | 973+99.79 | 667.05 | |
| ⊕ PIER 11 | -- | -- | 974+12.84 | 20.63 RT. | 667.08 | 974+12.01 | 667.03 | |
| SPAN 12 | 0.1L | -- | 974+24.95 | 20.63 RT. | 667.07 | 974+24.13 | 667.01 | |
| | 0.2L | -- | 974+37.07 | 20.63 RT. | 667.05 | 974+36.25 | 666.99 | |
| | 0.3L | 974+50.94 | 667.41 | 974+49.19 | 20.63 RT. | 667.21 | 974+48.36 | 667.16 |
| | 0.4L | 974+63.06 | 667.40 | 974+61.30 | 20.63 RT. | 667.21 | 974+60.48 | 667.15 |
| | 0.5L | 974+75.17 | 667.38 | 974+73.42 | 20.63 RT. | 667.19 | 974+72.60 | 667.14 |
| | 0.6L | 974+87.22 | 667.37 | 974+85.44 | 20.65 RT. | 667.18 | 974+84.62 | 667.13 |
| | 0.7L | 974+99.29 | 667.35 | 974+97.45 | 20.74 RT. | 667.16 | 974+96.63 | 667.11 |
| | 0.8L | 975+11.38 | 667.32 | 975+09.45 | 20.89 RT. | 667.13 | 975+08.67 | 667.08 |
| | 0.9L | 975+23.49 | 667.30 | 975+21.46 | 21.11 RT. | 667.10 | 975+20.73 | 667.07 |
| ⊕ BRG. F.A. | 975+35.62 | 667.20 | 975+33.46 | 21.39 RT. | 667.01 | 975+32.80 | 666.99 | |

NOTES:

- FOR NOTES, LEGEND, KEY PLAN AND TYPICAL CROSS SECTION, SEE SHEET 34/55.
- FOR SCREED AND TOP OF HAUNCH ELEVATIONS, SEE SHEETS 35/55 THRU 39/55.
- FOR HAUNCH THICKNESSES, SEE SHEETS 43/55 THRU 45/55.
- OFFSETS SHOWN ARE GIVEN FROM ⊕ CONSTRUCTION SR 109.
- FOR OFFSETS NOT SHOWN, SEE TYPICAL SECTION ON SHEET 34/55.



DATE: 08/2014
 REVIEWED: DFT
 STRUCTURE FILE NUMBER: 3502392

DRAWN: BMG
 CHECKED: MRV

FINAL DECK ELEVATIONS (3 OF 3)
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

HAUNCH THICKNESS TABLE

| LOCATION | BEAM LINE 1 | | | BEAM LINE 2 | | | BEAM LINE 3 | | | BEAM LINE 4 | | | BEAM LINE 5 | | | BEAM LINE 6 | | | |
|-------------|-------------|-----------|-----------|-------------|-----------|-----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|-----------|-------------|-----------|-----------|-------|
| | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | |
| ⊕ BRG. R.A. | 960+81.00 | 20.63 LT. | 5.19" | 960+78.63 | 12.38 LT. | 5.19" | 960+76.27 | 4.13 LT. | 5.19" | 960+73.90 | 4.13 RT. | 5.19" | 960+71.54 | 12.38 RT. | 5.19" | 960+69.17 | 20.63 RT. | 5.19" | |
| SPAN 1 | 0.1L | 960+93.12 | 20.63 LT. | 3.82" | 960+90.75 | 12.38 LT. | 3.83" | 960+88.39 | 4.13 LT. | 3.83" | 960+86.02 | 4.13 RT. | 3.83" | 960+83.66 | 12.38 RT. | 3.83" | 960+81.29 | 20.63 RT. | 3.83" |
| | 0.2L | 961+05.23 | 20.63 LT. | 2.92" | 961+02.86 | 12.38 LT. | 2.95" | 961+00.50 | 4.13 LT. | 2.95" | 960+98.13 | 4.13 RT. | 2.95" | 960+95.77 | 12.38 RT. | 2.95" | 960+93.40 | 20.63 RT. | 2.93" |
| | 0.3L | 961+17.35 | 20.63 LT. | 2.37" | 961+14.98 | 12.38 LT. | 2.39" | 961+12.62 | 4.13 LT. | 2.39" | 961+10.25 | 4.13 RT. | 2.39" | 961+07.89 | 12.38 RT. | 2.39" | 961+05.52 | 20.63 RT. | 2.37" |
| | 0.4L | 961+29.47 | 20.63 LT. | 2.07" | 961+27.10 | 12.38 LT. | 2.09" | 961+24.73 | 4.13 LT. | 2.09" | 961+22.37 | 4.13 RT. | 2.09" | 961+20.00 | 12.38 RT. | 2.09" | 961+17.64 | 20.63 RT. | 2.07" |
| | 0.5L | 961+41.59 | 20.63 LT. | 2.00" | 961+39.22 | 12.38 LT. | 2.00" | 961+36.85 | 4.13 LT. | 2.00" | 961+34.49 | 4.13 RT. | 2.00" | 961+32.12 | 12.38 RT. | 2.00" | 961+29.76 | 20.63 RT. | 2.00" |
| | 0.6L | 961+53.70 | 20.63 LT. | 2.13" | 961+51.33 | 12.38 LT. | 2.10" | 961+48.97 | 4.13 LT. | 2.09" | 961+46.60 | 4.13 RT. | 2.09" | 961+44.24 | 12.38 RT. | 2.09" | 961+41.87 | 20.63 RT. | 2.13" |
| | 0.7L | 961+65.82 | 20.63 LT. | 2.48" | 961+63.45 | 12.38 LT. | 2.40" | 961+61.08 | 4.13 LT. | 2.39" | 961+58.72 | 4.13 RT. | 2.39" | 961+56.35 | 12.38 RT. | 2.39" | 961+53.99 | 20.63 RT. | 2.47" |
| | 0.8L | 961+77.94 | 20.63 LT. | 3.09" | 961+75.57 | 12.38 LT. | 2.96" | 961+73.20 | 4.13 LT. | 2.95" | 961+70.84 | 4.13 RT. | 2.95" | 961+68.47 | 12.38 RT. | 2.95" | 961+66.11 | 20.63 RT. | 3.09" |
| | 0.9L | 961+90.05 | 20.63 LT. | 4.05" | 961+87.68 | 12.38 LT. | 3.84" | 961+85.31 | 4.13 LT. | 3.84" | 961+82.95 | 4.13 RT. | 3.84" | 961+80.58 | 12.38 RT. | 3.84" | 961+78.22 | 20.63 RT. | 4.04" |
| ⊕ PIER 1 | 962+02.17 | 20.63 LT. | 5.47" | 961+99.80 | 12.38 LT. | 5.20" | 961+97.43 | 4.13 LT. | 5.19" | 961+95.07 | 4.13 RT. | 5.19" | 961+92.70 | 12.38 RT. | 5.19" | 961+90.34 | 20.63 RT. | 5.46" | |
| SPAN 2 | 0.1L | 962+14.40 | 20.63 LT. | 4.05" | 962+12.03 | 12.38 LT. | 3.84" | 962+09.66 | 4.13 LT. | 3.84" | 962+07.30 | 4.13 RT. | 3.84" | 962+04.93 | 12.38 RT. | 3.84" | 962+02.57 | 20.63 RT. | 4.04" |
| | 0.2L | 962+26.62 | 20.63 LT. | 3.09" | 962+24.25 | 12.38 LT. | 2.95" | 962+21.88 | 4.13 LT. | 2.95" | 962+19.52 | 4.13 RT. | 2.95" | 962+17.15 | 12.38 RT. | 2.95" | 962+14.79 | 20.63 RT. | 3.09" |
| | 0.3L | 962+38.85 | 20.63 LT. | 2.48" | 962+36.48 | 12.38 LT. | 2.40" | 962+34.11 | 4.13 LT. | 2.39" | 962+31.75 | 4.13 RT. | 2.39" | 962+29.38 | 12.38 RT. | 2.39" | 962+27.02 | 20.63 RT. | 2.48" |
| | 0.4L | 962+51.07 | 20.63 LT. | 2.13" | 962+48.70 | 12.38 LT. | 2.10" | 962+46.33 | 4.13 LT. | 2.09" | 962+43.97 | 4.13 RT. | 2.09" | 962+41.60 | 12.38 RT. | 2.09" | 962+39.24 | 20.63 RT. | 2.13" |
| | 0.5L | 962+63.30 | 20.63 LT. | 2.00" | 962+60.93 | 12.38 LT. | 2.00" | 962+58.56 | 4.13 LT. | 2.00" | 962+56.20 | 4.13 RT. | 2.00" | 962+53.83 | 12.38 RT. | 2.00" | 962+51.47 | 20.63 RT. | 2.00" |
| | 0.6L | 962+75.52 | 20.63 LT. | 2.07" | 962+73.15 | 12.38 LT. | 2.09" | 962+70.78 | 4.13 LT. | 2.09" | 962+68.42 | 4.13 RT. | 2.09" | 962+66.05 | 12.38 RT. | 2.09" | 962+63.69 | 20.63 RT. | 2.08" |
| | 0.7L | 962+87.75 | 20.63 LT. | 2.37" | 962+85.38 | 12.38 LT. | 2.39" | 962+83.01 | 4.13 LT. | 2.39" | 962+80.65 | 4.13 RT. | 2.39" | 962+78.28 | 12.38 RT. | 2.39" | 962+75.92 | 20.63 RT. | 2.37" |
| | 0.8L | 962+99.97 | 20.63 LT. | 2.93" | 962+97.60 | 12.38 LT. | 2.95" | 962+95.23 | 4.13 LT. | 2.95" | 962+92.87 | 4.13 RT. | 2.95" | 962+90.50 | 12.38 RT. | 2.95" | 962+88.14 | 20.63 RT. | 2.93" |
| | 0.9L | 963+12.20 | 20.63 LT. | 3.82" | 963+09.83 | 12.38 LT. | 3.83" | 963+07.46 | 4.13 LT. | 3.84" | 963+05.10 | 4.13 RT. | 3.84" | 963+02.73 | 12.38 RT. | 3.84" | 963+00.37 | 20.63 RT. | 3.83" |
| ⊕ PIER 2 | 963+24.42 | 20.63 LT. | 5.19" | 963+22.05 | 12.38 LT. | 5.19" | 963+19.68 | 4.13 LT. | 5.19" | 963+17.32 | 4.13 RT. | 5.19" | 963+14.95 | 12.38 RT. | 5.19" | 963+12.59 | 20.63 RT. | 5.20" | |
| SPAN 3 | 0.1L | 963+36.65 | 20.63 LT. | 3.82" | 963+34.28 | 12.38 LT. | 3.83" | 963+31.91 | 4.13 LT. | 3.84" | 963+29.55 | 4.13 RT. | 3.84" | 963+27.18 | 12.38 RT. | 3.84" | 963+24.82 | 20.63 RT. | 3.83" |
| | 0.2L | 963+48.87 | 20.63 LT. | 2.92" | 963+46.50 | 12.38 LT. | 2.95" | 963+44.13 | 4.13 LT. | 2.95" | 963+41.77 | 4.13 RT. | 2.95" | 963+39.40 | 12.38 RT. | 2.95" | 963+37.04 | 20.63 RT. | 2.93" |
| | 0.3L | 963+61.10 | 20.63 LT. | 2.37" | 963+58.73 | 12.38 LT. | 2.39" | 963+56.36 | 4.13 LT. | 2.40" | 963+54.00 | 4.13 RT. | 2.39" | 963+51.63 | 12.38 RT. | 2.39" | 963+49.27 | 20.63 RT. | 2.37" |
| | 0.4L | 963+73.32 | 20.63 LT. | 2.07" | 963+70.95 | 12.38 LT. | 2.09" | 963+68.58 | 4.13 LT. | 2.10" | 963+66.22 | 4.13 RT. | 2.09" | 963+63.85 | 12.38 RT. | 2.09" | 963+61.49 | 20.63 RT. | 2.07" |
| | 0.5L | 963+85.55 | 20.63 LT. | 2.00" | 963+83.18 | 12.38 LT. | 2.00" | 963+80.81 | 4.13 LT. | 2.00" | 963+78.45 | 4.13 RT. | 2.00" | 963+76.08 | 12.38 RT. | 2.00" | 963+73.72 | 20.63 RT. | 2.00" |
| | 0.6L | 963+97.77 | 20.63 LT. | 2.12" | 963+95.40 | 12.38 LT. | 2.10" | 963+93.03 | 4.13 LT. | 2.10" | 963+90.67 | 4.13 RT. | 2.09" | 963+88.30 | 12.38 RT. | 2.09" | 963+85.94 | 20.63 RT. | 2.12" |
| | 0.7L | 964+10.00 | 20.63 LT. | 2.47" | 964+07.63 | 12.38 LT. | 2.40" | 964+05.26 | 4.13 LT. | 2.40" | 964+02.90 | 4.13 RT. | 2.39" | 964+00.53 | 12.38 RT. | 2.39" | 963+98.17 | 20.63 RT. | 2.47" |
| | 0.8L | 964+22.22 | 20.63 LT. | 3.09" | 964+19.85 | 12.38 LT. | 2.95" | 964+17.48 | 4.13 LT. | 2.96" | 964+15.12 | 4.13 RT. | 2.95" | 964+12.75 | 12.38 RT. | 2.95" | 964+10.39 | 20.63 RT. | 3.08" |
| | 0.9L | 964+34.45 | 20.63 LT. | 4.04" | 964+32.08 | 12.38 LT. | 3.84" | 964+29.71 | 4.13 LT. | 3.84" | 964+27.35 | 4.13 RT. | 3.83" | 964+24.98 | 12.38 RT. | 3.83" | 964+22.62 | 20.63 RT. | 4.03" |
| ⊕ PIER 3 | 964+46.67 | 20.63 LT. | 5.46" | 964+44.30 | 12.38 LT. | 5.20" | 964+41.93 | 4.13 LT. | 5.20" | 964+39.57 | 4.13 RT. | 5.19" | 964+37.20 | 12.38 RT. | 5.19" | 964+34.84 | 20.63 RT. | 5.45" | |
| SPAN 4 | 0.1L | 964+58.90 | 20.63 LT. | 4.04" | 964+56.53 | 12.38 LT. | 3.84" | 964+54.16 | 4.13 LT. | 3.84" | 964+51.80 | 4.13 RT. | 3.83" | 964+49.43 | 12.38 RT. | 3.83" | 964+47.07 | 20.63 RT. | 4.03" |
| | 0.2L | 964+71.12 | 20.63 LT. | 3.09" | 964+68.75 | 12.38 LT. | 2.95" | 964+66.38 | 4.13 LT. | 2.95" | 964+64.02 | 4.13 RT. | 2.95" | 964+61.65 | 12.38 RT. | 2.95" | 964+59.29 | 20.63 RT. | 3.08" |
| | 0.3L | 964+83.35 | 20.63 LT. | 2.48" | 964+80.98 | 12.38 LT. | 2.39" | 964+78.61 | 4.13 LT. | 2.40" | 964+76.25 | 4.13 RT. | 2.40" | 964+73.88 | 12.38 RT. | 2.39" | 964+71.52 | 20.63 RT. | 2.47" |
| | 0.4L | 964+95.57 | 20.63 LT. | 2.13" | 964+93.20 | 12.38 LT. | 2.09" | 964+90.83 | 4.13 LT. | 2.09" | 964+88.47 | 4.13 RT. | 2.10" | 964+86.10 | 12.38 RT. | 2.09" | 964+83.74 | 20.63 RT. | 2.13" |
| | 0.5L | 965+07.80 | 20.63 LT. | 2.00" | 965+05.43 | 12.38 LT. | 2.00" | 965+03.06 | 4.13 LT. | 2.00" | 965+00.70 | 4.13 RT. | 2.00" | 964+98.33 | 12.38 RT. | 2.00" | 964+95.97 | 20.63 RT. | 2.00" |
| | 0.6L | 965+20.02 | 20.63 LT. | 2.08" | 965+17.65 | 12.38 LT. | 2.09" | 965+15.28 | 4.13 LT. | 2.09" | 965+12.92 | 4.13 RT. | 2.10" | 965+10.55 | 12.38 RT. | 2.09" | 965+08.19 | 20.63 RT. | 2.08" |
| | 0.7L | 965+32.25 | 20.63 LT. | 2.38" | 965+29.88 | 12.38 LT. | 2.39" | 965+27.51 | 4.13 LT. | 2.39" | 965+25.15 | 4.13 RT. | 2.40" | 965+22.78 | 12.38 RT. | 2.39" | 965+20.42 | 20.63 RT. | 2.38" |
| | 0.8L | 965+44.47 | 20.63 LT. | 2.93" | 965+42.10 | 12.38 LT. | 2.94" | 965+39.73 | 4.13 LT. | 2.95" | 965+37.37 | 4.13 RT. | 2.96" | 965+35.00 | 12.38 RT. | 2.94" | 965+32.64 | 20.63 RT. | 2.94" |
| | 0.9L | 965+56.70 | 20.63 LT. | 3.83" | 965+54.33 | 12.38 LT. | 3.82" | 965+51.96 | 4.13 LT. | 3.83" | 965+49.60 | 4.13 RT. | 3.85" | 965+47.23 | 12.38 RT. | 3.83" | 965+44.87 | 20.63 RT. | 3.84" |
| ⊕ PIER 4 | 965+68.92 | 20.63 LT. | 5.14" | 965+66.55 | 12.38 LT. | 5.13" | 965+64.18 | 4.13 LT. | 5.15" | 965+61.82 | 4.13 RT. | 5.18" | 965+59.45 | 12.38 RT. | 5.17" | 965+57.09 | 20.63 RT. | 5.20" | |
| SPAN 5 | 0.1L | 965+81.15 | 20.63 LT. | 3.89" | 965+78.78 | 12.38 LT. | 3.90" | 965+76.41 | 4.13 LT. | 3.92" | 965+74.05 | 4.13 RT. | 3.94" | 965+71.68 | 12.38 RT. | 3.94" | 965+69.32 | 20.63 RT. | 3.94" |
| | 0.2L | 965+93.37 | 20.63 LT. | 3.06" | 965+91.00 | 12.38 LT. | 3.09" | 965+88.63 | 4.13 LT. | 3.11" | 965+86.27 | 4.13 RT. | 3.13" | 965+83.90 | 12.38 RT. | 3.12" | 965+81.54 | 20.63 RT. | 3.10" |
| | 0.3L | 966+05.60 | 20.63 LT. | 2.52" | 966+03.23 | 12.38 LT. | 2.56" | 966+00.86 | 4.13 LT. | 2.57" | 965+98.50 | 4.13 RT. | 2.58" | 965+96.13 | 12.38 RT. | 2.58" | 965+93.77 | 20.63 RT. | 2.55" |
| | 0.4L | 966+17.82 | 20.63 LT. | 2.19" | 966+15.45 | 12.38 LT. | 2.22" | 966+13.08 | 4.13 LT. | 2.23" | 966+10.72 | 4.13 RT. | 2.24" | 966+08.35 | 12.38 RT. | 2.24" | 966+05.99 | 20.63 RT. | 2.21" |
| | 0.5L | 966+30.05 | 20.63 LT. | 2.02" | 966+27.68 | 12.38 LT. | 2.04" | 966+25.31 | 4.13 LT. | 2.05" | 966+22.95 | 4.13 RT. | 2.05" | 966+20.58 | 12.38 RT. | 2.05" | 966+18.22 | 20.63 RT. | 2.03" |
| | 0.6L | 966+42.27 | 20.63 LT. | 2.00" | 966+39.90 | 12.38 LT. | 2.00" | 966+37.53 | 4.13 LT. | 2.00" | 966+35.17 | 4.13 RT. | 2.00" | 966+32.80 | 12.38 RT. | 2.00" | 966+30.44 | 20.63 RT. | 2.00" |
| | 0.7L | 966+54.50 | 20.63 LT. | 2.15" | 966+52.13 | 12.38 LT. | 2.10" | 966+49.76 | 4.13 LT. | 2.10" | 966+47.40 | 4.13 RT. | 2.10" | 966+45.03 | 12.38 RT. | 2.10" | 966+42.67 | 20.63 RT. | 2.14" |
| | 0.8L | 966+66.72 | 20.63 LT. | 2.51" | 966+64.35 | 12.38 LT. | 2.41" | 966+61.98 | 4.13 LT. | 2.41" | 966+59.62 | 4.13 RT. | 2.40" | 966+57.25 | 12.38 RT. | 2.41" | 966+54.89 | 20.63 RT. | 2.49" |
| | 0.9L | 966+78.95 | 20.63 LT. | 3.15" | 966+76.58 | 12.38 LT. | 3.00" | 966+74.21 | 4.13 LT. | 2.99" | 966+71.85 | 4.13 RT. | 2.98" | 966+69.48 | 12.38 RT. | 2.98" | 966+67.12 | 20.63 RT. | 3.12" |
| ⊕ PIER 5 | 966+91.17 | 20.6 | | | | | | | | | | | | | | | | | |

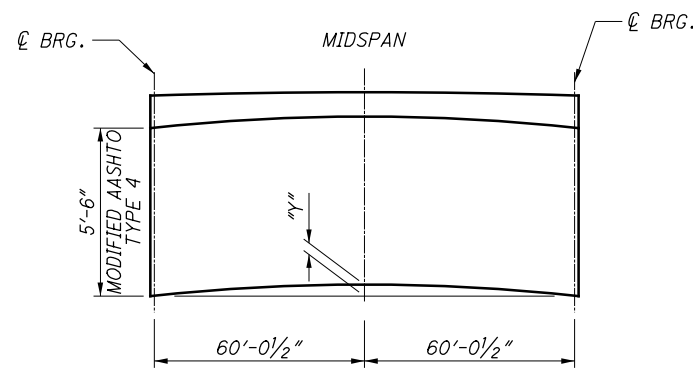
HAUNCH THICKNESS TABLE

| LOCATION | BEAM LINE 1 | | | BEAM LINE 2 | | | BEAM LINE 3 | | | BEAM LINE 4 | | | BEAM LINE 5 | | | BEAM LINE 6 | | | |
|-----------|-------------|-----------|-----------|-------------|-----------|-----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|-----------|-------------|-----------|-----------|-------|
| | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | |
| ☉ PIER 5 | 966+91.17 | 20.63 LT. | 4.21" | 966+88.80 | 12.38 LT. | 4.00" | 966+86.43 | 4.13 LT. | 3.99" | 966+84.07 | 4.13 RT. | 3.97" | 966+81.70 | 12.38 RT. | 3.98" | 966+79.34 | 20.63 RT. | 4.17" | |
| SPAN 6 | 0.1L | 967+03.40 | 20.63 LT. | 3.15" | 967+01.03 | 12.38 LT. | 3.00" | 966+98.66 | 4.13 LT. | 2.99" | 966+96.30 | 4.13 RT. | 2.98" | 966+93.93 | 12.38 RT. | 2.98" | 966+91.57 | 20.63 RT. | 3.12" |
| | 0.2L | 967+15.62 | 20.63 LT. | 2.51" | 967+13.25 | 12.38 LT. | 2.41" | 967+10.88 | 4.13 LT. | 2.41" | 967+08.52 | 4.13 RT. | 2.40" | 967+06.15 | 12.38 RT. | 2.41" | 967+03.79 | 20.63 RT. | 2.49" |
| | 0.3L | 967+27.85 | 20.63 LT. | 2.15" | 967+25.48 | 12.38 LT. | 2.10" | 967+23.11 | 4.13 LT. | 2.10" | 967+20.75 | 4.13 RT. | 2.10" | 967+18.38 | 12.38 RT. | 2.10" | 967+16.02 | 20.63 RT. | 2.14" |
| | 0.4L | 967+40.07 | 20.63 LT. | 2.00" | 967+37.70 | 12.38 LT. | 2.00" | 967+35.33 | 4.13 LT. | 2.00" | 967+32.97 | 4.13 RT. | 2.00" | 967+30.60 | 12.38 RT. | 2.00" | 967+28.24 | 20.63 RT. | 2.00" |
| | 0.5L | 967+52.30 | 20.63 LT. | 2.02" | 967+49.93 | 12.38 LT. | 2.04" | 967+47.56 | 4.13 LT. | 2.05" | 967+45.20 | 4.13 RT. | 2.06" | 967+42.83 | 12.38 RT. | 2.05" | 967+40.47 | 20.63 RT. | 2.03" |
| | 0.6L | 967+64.52 | 20.63 LT. | 2.19" | 967+62.15 | 12.38 LT. | 2.22" | 967+59.78 | 4.13 LT. | 2.23" | 967+57.42 | 4.13 RT. | 2.25" | 967+55.05 | 12.38 RT. | 2.24" | 967+52.69 | 20.63 RT. | 2.21" |
| | 0.7L | 967+76.75 | 20.63 LT. | 2.53" | 967+74.38 | 12.38 LT. | 2.56" | 967+72.01 | 4.13 LT. | 2.57" | 967+69.65 | 4.13 RT. | 2.59" | 967+67.28 | 12.38 RT. | 2.58" | 967+64.92 | 20.63 RT. | 2.55" |
| | 0.8L | 967+88.97 | 20.63 LT. | 3.07" | 967+86.60 | 12.38 LT. | 3.09" | 967+84.23 | 4.13 LT. | 3.11" | 967+81.87 | 4.13 RT. | 3.13" | 967+79.50 | 12.38 RT. | 3.12" | 967+77.14 | 20.63 RT. | 3.10" |
| | 0.9L | 968+01.20 | 20.63 LT. | 3.90" | 967+98.83 | 12.38 LT. | 3.90" | 967+96.46 | 4.13 LT. | 3.92" | 967+94.10 | 4.13 RT. | 3.95" | 967+91.73 | 12.38 RT. | 3.94" | 967+89.37 | 20.63 RT. | 3.94" |
| ☉ PIER 6 | 968+13.42 | 20.63 LT. | 5.15" | 968+11.05 | 12.38 LT. | 5.13" | 968+08.68 | 4.13 LT. | 5.15" | 968+06.32 | 4.13 RT. | 5.19" | 968+03.95 | 12.38 RT. | 5.17" | 968+01.59 | 20.63 RT. | 5.20" | |
| SPAN 7 | 0.1L | 968+25.65 | 20.63 LT. | 3.90" | 968+23.28 | 12.38 LT. | 3.90" | 968+20.91 | 4.13 LT. | 3.92" | 968+18.55 | 4.13 RT. | 3.95" | 968+16.18 | 12.38 RT. | 3.94" | 968+13.82 | 20.63 RT. | 3.94" |
| | 0.2L | 968+37.87 | 20.63 LT. | 3.07" | 968+35.50 | 12.38 LT. | 3.09" | 968+33.13 | 4.13 LT. | 3.11" | 968+30.77 | 4.13 RT. | 3.13" | 968+28.40 | 12.38 RT. | 3.12" | 968+26.04 | 20.63 RT. | 3.10" |
| | 0.3L | 968+50.10 | 20.63 LT. | 2.53" | 968+47.73 | 12.38 LT. | 2.56" | 968+45.36 | 4.13 LT. | 2.57" | 968+43.00 | 4.13 RT. | 2.59" | 968+40.63 | 12.38 RT. | 2.58" | 968+38.27 | 20.63 RT. | 2.55" |
| | 0.4L | 968+62.32 | 20.63 LT. | 2.19" | 968+59.95 | 12.38 LT. | 2.22" | 968+57.58 | 4.13 LT. | 2.23" | 968+55.22 | 4.13 RT. | 2.24" | 968+52.85 | 12.38 RT. | 2.24" | 968+50.49 | 20.63 RT. | 2.21" |
| | 0.5L | 968+74.55 | 20.63 LT. | 2.02" | 968+72.18 | 12.38 LT. | 2.04" | 968+69.81 | 4.13 LT. | 2.05" | 968+67.45 | 4.13 RT. | 2.05" | 968+65.08 | 12.38 RT. | 2.05" | 968+62.72 | 20.63 RT. | 2.03" |
| | 0.6L | 968+86.77 | 20.63 LT. | 2.00" | 968+84.40 | 12.38 LT. | 2.00" | 968+82.03 | 4.13 LT. | 2.00" | 968+79.67 | 4.13 RT. | 2.00" | 968+77.30 | 12.38 RT. | 2.00" | 968+74.94 | 20.63 RT. | 2.00" |
| | 0.7L | 968+99.00 | 20.63 LT. | 2.15" | 968+96.63 | 12.38 LT. | 2.10" | 968+94.26 | 4.13 LT. | 2.10" | 968+91.90 | 4.13 RT. | 2.09" | 968+89.53 | 12.38 RT. | 2.10" | 968+87.17 | 20.63 RT. | 2.14" |
| | 0.8L | 969+11.22 | 20.63 LT. | 2.51" | 969+08.85 | 12.38 LT. | 2.41" | 969+06.48 | 4.13 LT. | 2.41" | 969+04.12 | 4.13 RT. | 2.39" | 969+01.75 | 12.38 RT. | 2.41" | 968+99.39 | 20.63 RT. | 2.49" |
| | 0.9L | 969+23.45 | 20.63 LT. | 3.15" | 969+21.08 | 12.38 LT. | 3.00" | 969+18.71 | 4.13 LT. | 2.99" | 969+16.35 | 4.13 RT. | 2.97" | 969+13.98 | 12.38 RT. | 2.98" | 969+11.62 | 20.63 RT. | 3.12" |
| ☉ PIER 7 | 969+35.67 | 20.63 LT. | 4.21" | 969+33.30 | 12.38 LT. | 4.00" | 969+30.93 | 4.13 LT. | 3.99" | 969+28.57 | 4.13 RT. | 3.96" | 969+26.20 | 12.38 RT. | 3.98" | 969+23.84 | 20.63 RT. | 4.17" | |
| SPAN 8 | 0.1L | 969+47.90 | 20.63 LT. | 3.10" | 969+45.53 | 12.38 LT. | 2.95" | 969+43.16 | 4.13 LT. | 2.95" | 969+40.80 | 4.13 RT. | 2.93" | 969+38.43 | 12.38 RT. | 2.95" | 969+36.07 | 20.63 RT. | 3.09" |
| | 0.2L | 969+60.12 | 20.63 LT. | 2.42" | 969+57.75 | 12.38 LT. | 2.33" | 969+55.38 | 4.13 LT. | 2.33" | 969+53.02 | 4.13 RT. | 2.33" | 969+50.65 | 12.38 RT. | 2.35" | 969+48.29 | 20.63 RT. | 2.44" |
| | 0.3L | 969+72.35 | 20.63 LT. | 2.08" | 969+69.98 | 12.38 LT. | 2.04" | 969+67.61 | 4.13 LT. | 2.04" | 969+65.25 | 4.13 RT. | 2.03" | 969+62.88 | 12.38 RT. | 2.04" | 969+60.52 | 20.63 RT. | 2.09" |
| | 0.4L | 969+84.57 | 20.63 LT. | 2.00" | 969+82.20 | 12.38 LT. | 2.00" | 969+79.83 | 4.13 LT. | 2.00" | 969+77.47 | 4.13 RT. | 2.00" | 969+75.10 | 12.38 RT. | 2.00" | 969+72.74 | 20.63 RT. | 2.00" |
| | 0.5L | 969+96.80 | 20.63 LT. | 2.15" | 969+94.43 | 12.38 LT. | 2.17" | 969+92.06 | 4.13 LT. | 2.16" | 969+89.70 | 4.13 RT. | 2.17" | 969+87.33 | 12.38 RT. | 2.16" | 969+84.97 | 20.63 RT. | 2.13" |
| | 0.6L | 970+09.02 | 20.63 LT. | 2.49" | 970+06.65 | 12.38 LT. | 2.53" | 970+04.28 | 4.13 LT. | 2.52" | 970+01.92 | 4.13 RT. | 2.53" | 969+99.55 | 12.38 RT. | 2.50" | 969+97.19 | 20.63 RT. | 2.46" |
| | 0.7L | 970+21.25 | 20.63 LT. | 3.06" | 970+18.88 | 12.38 LT. | 3.09" | 970+16.51 | 4.13 LT. | 3.08" | 970+14.15 | 4.13 RT. | 3.09" | 970+11.78 | 12.38 RT. | 3.06" | 970+09.42 | 20.63 RT. | 3.02" |
| | 0.8L | 970+33.47 | 20.63 LT. | 3.89" | 970+31.10 | 12.38 LT. | 3.91" | 970+28.73 | 4.13 LT. | 3.90" | 970+26.37 | 4.13 RT. | 3.91" | 970+24.00 | 12.38 RT. | 3.87" | 970+21.64 | 20.63 RT. | 3.83" |
| | 0.9L | 970+45.70 | 20.63 LT. | 5.06" | 970+43.33 | 12.38 LT. | 5.06" | 970+40.96 | 4.13 LT. | 5.04" | 970+38.60 | 4.13 RT. | 5.06" | 970+36.23 | 12.38 RT. | 5.01" | 970+33.87 | 20.63 RT. | 4.99" |
| ☉ PIER 8 | 970+57.92 | 20.63 LT. | 6.70" | 970+55.55 | 12.38 LT. | 6.68" | 970+53.18 | 4.13 LT. | 6.66" | 970+50.82 | 4.13 RT. | 6.68" | 970+48.45 | 12.38 RT. | 6.62" | 970+46.09 | 20.63 RT. | 6.62" | |
| SPAN 9 | 0.1L | 970+70.15 | 20.63 LT. | 5.06" | 970+67.78 | 12.38 LT. | 5.06" | 970+65.41 | 4.13 LT. | 5.04" | 970+63.05 | 4.13 RT. | 5.06" | 970+60.68 | 12.38 RT. | 5.01" | 970+58.32 | 20.63 RT. | 4.99" |
| | 0.2L | 970+82.37 | 20.63 LT. | 3.89" | 970+80.00 | 12.38 LT. | 3.91" | 970+77.63 | 4.13 LT. | 3.90" | 970+75.27 | 4.13 RT. | 3.91" | 970+72.90 | 12.38 RT. | 3.87" | 970+70.54 | 20.63 RT. | 3.84" |
| | 0.3L | 970+94.60 | 20.63 LT. | 3.06" | 970+92.23 | 12.38 LT. | 3.09" | 970+89.86 | 4.13 LT. | 3.08" | 970+87.50 | 4.13 RT. | 3.09" | 970+85.13 | 12.38 RT. | 3.06" | 970+82.77 | 20.63 RT. | 3.02" |
| | 0.4L | 971+06.82 | 20.63 LT. | 2.49" | 971+04.45 | 12.38 LT. | 2.53" | 971+02.08 | 4.13 LT. | 2.52" | 970+99.72 | 4.13 RT. | 2.53" | 970+97.35 | 12.38 RT. | 2.50" | 970+94.99 | 20.63 RT. | 2.46" |
| | 0.5L | 971+19.05 | 20.63 LT. | 2.14" | 971+16.68 | 12.38 LT. | 2.17" | 971+14.31 | 4.13 LT. | 2.17" | 971+11.95 | 4.13 RT. | 2.17" | 971+09.58 | 12.38 RT. | 2.16" | 971+07.22 | 20.63 RT. | 2.13" |
| | 0.6L | 971+31.27 | 20.63 LT. | 2.00" | 971+28.90 | 12.38 LT. | 2.00" | 971+26.53 | 4.13 LT. | 2.00" | 971+24.17 | 4.13 RT. | 2.00" | 971+21.80 | 12.38 RT. | 2.00" | 971+19.44 | 20.63 RT. | 2.00" |
| | 0.7L | 971+43.50 | 20.63 LT. | 2.07" | 971+41.13 | 12.38 LT. | 2.04" | 971+38.76 | 4.13 LT. | 2.04" | 971+36.40 | 4.13 RT. | 2.04" | 971+34.03 | 12.38 RT. | 2.04" | 971+31.67 | 20.63 RT. | 2.09" |
| | 0.8L | 971+55.72 | 20.63 LT. | 2.41" | 971+53.35 | 12.38 LT. | 2.33" | 971+50.98 | 4.13 LT. | 2.34" | 971+48.62 | 4.13 RT. | 2.33" | 971+46.25 | 12.38 RT. | 2.35" | 971+43.89 | 20.63 RT. | 2.44" |
| | 0.9L | 971+67.95 | 20.63 LT. | 3.09" | 971+65.58 | 12.38 LT. | 2.96" | 971+63.21 | 4.13 LT. | 2.96" | 971+60.85 | 4.13 RT. | 2.96" | 971+58.48 | 12.38 RT. | 2.98" | 971+56.12 | 20.63 RT. | 3.14" |
| ☉ PIER 9 | 971+80.17 | 20.63 LT. | 4.24" | 971+77.80 | 12.38 LT. | 4.05" | 971+75.43 | 4.13 LT. | 4.06" | 971+73.07 | 4.13 RT. | 4.05" | 971+70.70 | 12.38 RT. | 4.08" | 971+68.34 | 20.63 RT. | 4.30" | |
| SPAN 10 | 0.1L | 971+92.40 | 20.63 LT. | 3.09" | 971+90.03 | 12.38 LT. | 2.96" | 971+87.66 | 4.13 LT. | 2.96" | 971+85.30 | 4.13 RT. | 2.96" | 971+82.93 | 12.38 RT. | 2.98" | 971+80.57 | 20.63 RT. | 3.14" |
| | 0.2L | 972+04.62 | 20.63 LT. | 2.41" | 972+02.25 | 12.38 LT. | 2.33" | 971+99.88 | 4.13 LT. | 2.34" | 971+97.52 | 4.13 RT. | 2.33" | 971+95.15 | 12.38 RT. | 2.35" | 971+92.79 | 20.63 RT. | 2.44" |
| | 0.3L | 972+16.85 | 20.63 LT. | 2.07" | 972+14.48 | 12.38 LT. | 2.04" | 972+12.11 | 4.13 LT. | 2.04" | 972+09.75 | 4.13 RT. | 2.04" | 972+07.38 | 12.38 RT. | 2.04" | 972+05.02 | 20.63 RT. | 2.09" |
| | 0.4L | 972+29.07 | 20.63 LT. | 2.00" | 972+26.70 | 12.38 LT. | 2.00" | 972+24.33 | 4.13 LT. | 2.00" | 972+21.97 | 4.13 RT. | 2.00" | 972+19.60 | 12.38 RT. | 2.00" | 972+17.24 | 20.63 RT. | 2.00" |
| | 0.5L | 972+41.30 | 20.63 LT. | 2.14" | 972+38.93 | 12.38 LT. | 2.17" | 972+36.56 | 4.13 LT. | 2.16" | 972+34.20 | 4.13 RT. | 2.17" | 972+31.83 | 12.38 RT. | 2.16" | 972+29.47 | 20.63 RT. | 2.13" |
| | 0.6L | 972+53.52 | 20.63 LT. | 2.49" | 972+51.15 | 12.38 LT. | 2.53" | 972+48.78 | 4.13 LT. | 2.51" | 972+46.42 | 4.13 RT. | 2.52" | 972+44.05 | 12.38 RT. | 2.50" | 972+41.69 | 20.63 RT. | 2.46" |
| | 0.7L | 972+65.75 | 20.63 LT. | 3.06" | 972+63.38 | 12.38 LT. | 3.09" | 972+61.01 | 4.13 LT. | 3.07" | 972+58.65 | 4.13 RT. | 3.08" | 972+56.28 | 12.38 RT. | 3.06" | 972+53.92 | 20.63 RT. | 3.02" |
| | 0.8L | 972+77.97 | 20.63 LT. | 3.89" | 972+75.60 | 12.38 LT. | 3.91" | 972+73.23 | 4.13 LT. | 3.89" | 972+70.87 | 4.13 RT. | 3.90" | 972+68.50 | 12.38 RT. | 3.87" | 972+66.14 | 20.63 RT. | 3.83" |
| | 0.9L | 972+90.20 | 20.63 LT. | 5.06" | 972+87.83 | 12.38 LT. | 5.06" | 972+85.46 | 4.13 LT. | 5.03" | 972+83.10 | 4.13 RT. | 5.05" | 972+80.73 | 12.38 RT. | 5.01" | 972+78.37 | 20.63 RT. | 4.99" |
| ☉ PIER 10 | 973+02.42 | 20.63 LT. | | | | | | | | | | | | | | | | | |

HAUNCH THICKNESS TABLE

| LOCATION | BEAM LINE 1 | | | BEAM LINE 2 | | | BEAM LINE 3 | | | BEAM LINE 4 | | | BEAM LINE 5 | | | BEAM LINE 6 | | | |
|-------------|-------------|-----------|-----------|-------------|-----------|-----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|-----------|-------------|-----------|-----------|-------|
| | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | STATION | OFFSET | THICK. | |
| ⊕ PIER 10 | 973+02.42 | 20.63 LT. | 6.70" | 973+00.05 | 12.38 LT. | 6.68" | 972+97.68 | 4.13 LT. | 6.65" | 972+95.32 | 4.13 RT. | 6.67" | 972+92.95 | 12.38 RT. | 6.62" | 972+90.59 | 20.63 RT. | 6.62" | |
| SPAN 11 | 0.1L | 973+14.65 | 20.63 LT. | 5.06" | 973+12.28 | 12.38 LT. | 5.06" | 973+09.91 | 4.13 LT. | 5.03" | 973+07.55 | 4.13 RT. | 4.90" | 973+05.18 | 12.38 RT. | 4.59" | 973+02.82 | 20.63 RT. | 4.60" |
| | 0.2L | 973+26.87 | 20.63 LT. | 3.89" | 973+24.50 | 12.38 LT. | 3.91" | 973+22.13 | 4.13 LT. | 3.89" | 973+19.77 | 4.13 RT. | 3.62" | 973+17.40 | 12.38 RT. | 3.04" | 973+15.04 | 20.63 RT. | 3.06" |
| | 0.3L | 973+39.10 | 20.63 LT. | 3.06" | 973+36.73 | 12.38 LT. | 3.09" | 973+34.36 | 4.13 LT. | 3.08" | 973+32.00 | 4.13 RT. | 2.88" | 973+29.63 | 12.38 RT. | 2.43" | 973+27.27 | 20.63 RT. | 2.34" |
| | 0.4L | 973+51.32 | 20.63 LT. | 2.49" | 973+48.95 | 12.38 LT. | 2.52" | 973+46.58 | 4.13 LT. | 2.52" | 973+44.22 | 4.13 RT. | 2.38" | 973+41.85 | 12.38 RT. | 2.12" | 973+39.49 | 20.63 RT. | 2.06" |
| | 0.5L | 973+63.55 | 20.63 LT. | 2.15" | 973+61.18 | 12.38 LT. | 2.17" | 973+58.81 | 4.13 LT. | 2.17" | 973+56.45 | 4.13 RT. | 2.10" | 973+54.08 | 12.38 RT. | 2.00" | 973+51.72 | 20.63 RT. | 2.00" |
| | 0.6L | 973+75.77 | 20.63 LT. | 2.00" | 973+73.40 | 12.38 LT. | 2.00" | 973+71.03 | 4.13 LT. | 2.00" | 973+68.67 | 4.13 RT. | 2.00" | 973+66.30 | 12.38 RT. | 2.08" | 973+63.94 | 20.63 RT. | 2.12" |
| | 0.7L | 973+88.00 | 20.63 LT. | 2.08" | 973+85.63 | 12.38 LT. | 2.03" | 973+83.26 | 4.13 LT. | 2.04" | 973+80.90 | 4.13 RT. | 2.10" | 973+78.53 | 12.38 RT. | 2.36" | 973+76.17 | 20.63 RT. | 2.47" |
| | 0.8L | 974+00.22 | 20.63 LT. | 2.42" | 973+97.85 | 12.38 LT. | 2.33" | 973+95.48 | 4.13 LT. | 2.34" | 973+93.12 | 4.13 RT. | 2.47" | 973+90.75 | 12.38 RT. | 2.90" | 973+88.39 | 20.63 RT. | 3.08" |
| | 0.9L | 974+12.45 | 20.63 LT. | 2.61" | 974+10.08 | 12.38 LT. | 2.59" | 974+07.71 | 4.13 LT. | 2.89" | 974+05.35 | 4.13 RT. | 3.16" | 974+02.98 | 12.38 RT. | 3.76" | 974+00.62 | 20.63 RT. | 4.03" |
| ⊕ PIER 11 | 974+24.67 | 20.63 LT. | 3.11" | 974+22.30 | 12.38 LT. | 3.02" | 974+19.93 | 4.13 LT. | 3.76" | 974+17.57 | 4.13 RT. | 4.32" | 974+15.20 | 12.38 RT. | 5.10" | 974+12.84 | 20.63 RT. | 5.45" | |
| SPAN 12 | 0.1L | 974+36.78 | 20.63 LT. | 2.32" | 974+34.42 | 12.38 LT. | 2.28" | 974+32.05 | 4.13 LT. | 2.71" | 974+29.68 | 4.13 RT. | 3.16" | 974+27.32 | 12.38 RT. | 3.70" | 974+24.95 | 20.63 RT. | 3.64" |
| | 0.2L | 974+48.90 | 20.63 LT. | 2.02" | 974+46.53 | 12.38 LT. | 2.00" | 974+44.17 | 4.13 LT. | 2.21" | 974+41.80 | 4.13 RT. | 2.48" | 974+39.44 | 12.38 RT. | 2.78" | 974+37.07 | 20.63 RT. | 2.29" |
| | 0.3L | 974+61.02 | 20.63 LT. | 2.02" | 974+58.65 | 12.38 LT. | 2.05" | 974+56.28 | 4.13 LT. | 2.00" | 974+53.92 | 4.13 RT. | 2.12" | 974+51.55 | 12.38 RT. | 2.51" | 974+49.19 | 20.63 RT. | 3.46" |
| | 0.4L | 974+73.13 | 20.63 LT. | 2.05" | 974+70.77 | 12.38 LT. | 2.30" | 974+68.40 | 4.13 LT. | 2.00" | 974+66.03 | 4.13 RT. | 2.00" | 974+63.67 | 12.38 RT. | 2.17" | 974+61.30 | 20.63 RT. | 2.85" |
| | 0.5L | 974+85.34 | 20.60 LT. | 2.00" | 974+82.93 | 12.36 LT. | 2.73" | 974+80.53 | 4.12 LT. | 2.18" | 974+78.14 | 4.13 RT. | 2.04" | 974+75.78 | 12.38 RT. | 2.00" | 974+73.42 | 20.63 RT. | 2.40" |
| | 0.6L | 974+97.57 | 20.51 LT. | 2.15" | 974+95.11 | 12.28 LT. | 3.33" | 974+92.67 | 4.05 LT. | 2.54" | 974+90.24 | 4.18 RT. | 2.26" | 974+87.83 | 12.41 RT. | 2.00" | 974+85.44 | 20.65 RT. | 2.13" |
| | 0.7L | 975+09.80 | 20.36 LT. | 2.54" | 975+07.29 | 12.14 LT. | 4.15" | 975+04.80 | 3.93 LT. | 3.13" | 975+02.33 | 4.29 RT. | 2.70" | 974+99.88 | 12.51 RT. | 2.21" | 974+97.45 | 20.74 RT. | 2.00" |
| | 0.8L | 975+22.02 | 20.14 LT. | 3.21" | 975+19.47 | 11.94 LT. | 5.26" | 975+16.94 | 3.74 LT. | 3.99" | 975+14.43 | 4.47 RT. | 3.41" | 975+11.93 | 12.68 RT. | 2.70" | 975+09.45 | 20.89 RT. | 2.06" |
| | 0.9L | 975+34.24 | 19.86 LT. | 5.25" | 975+31.65 | 11.67 LT. | 7.16" | 975+29.07 | 3.48 LT. | 5.30" | 975+26.52 | 4.71 RT. | 4.42" | 975+23.98 | 12.91 RT. | 3.51" | 975+21.46 | 21.11 RT. | 2.40" |
| ⊕ BRG. F.A. | 975+46.45 | 19.51 LT. | 7.88" | 975+43.82 | 11.34 LT. | 9.75" | 975+41.20 | 3.16 LT. | 7.20" | 975+38.60 | 5.02 RT. | 5.73" | 975+36.02 | 13.20 RT. | 4.15" | 975+33.46 | 21.39 RT. | 2.48" | |

| BEAM CAMBER AT MIDSPAN | |
|---|--------|
| | γγ" |
| CAMBER AT TIME OF RELEASE (SEE NOTE 6) | 3" |
| CAMBER AT TIME OF ERECTION (SEE NOTE 7) | 5 1/4" |
| LONG-TERM CAMBER (SEE NOTE 8) | 7 3/8" |



CAMBER DIAGRAM
(TYPICAL EACH SPAN)

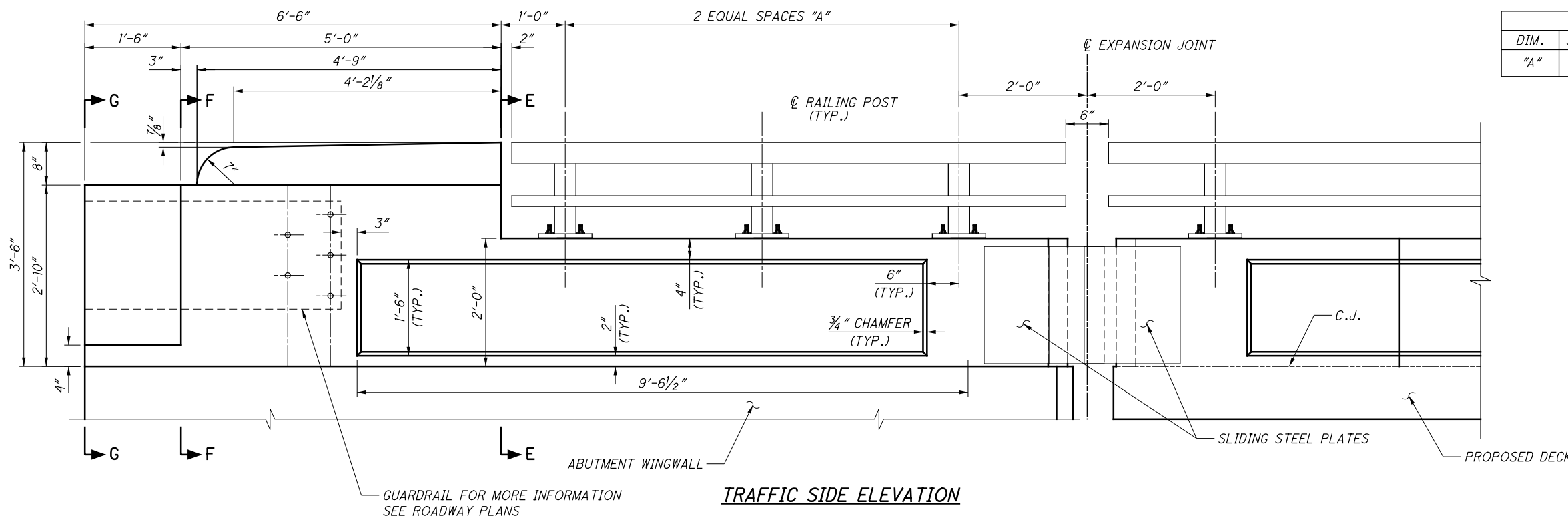
NOTES:

1. FOR DECK KEY PLAN, SEE SHEET 34/55.
2. FOR FINAL DECK ELEVATIONS, SCREED ELEVATIONS, AND TOP OF HAUNCH ELEVATIONS SEE SHEETS 35/55 THRU 42/55.
3. FOR HAUNCH THICKNESSES FOR SPANS 1 THRU 5, SEE SHEET 43/55.
4. FOR HAUNCH THICKNESSES FOR SPANS 6 AND 10, SEE SHEET 44/55.
5. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STANDARD DRAWING PSID-1-13 AND SHEET 23/55.
6. CAMBER AT TIME OF RELEASE = 1.00 x (PRESTRESS CAMBER AT RELEASE) - 1.00 x (BEAM SELF-WEIGHT DEFLECTION)
7. CAMBER AT ERECTION = 1.80 x (PRESTRESS CAMBER AT RELEASE) - 1.85 x (BEAM SELF-WEIGHT DEFLECTION)
8. LONG-TERM CAMBER = 2.45 x (PRESTRESS CAMBER AT RELEASE) - 2.40 x (BEAM SELF-WEIGHT DEFLECTION)
9. DECK SLAB THICKNESS FOR CONCRETE QUANTITY: THE TOPPING THICKNESSES SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE TOP FLANGE ALONG THE CENTERLINE OF THE I-BEAM ARE THEORETICAL DIMENSIONS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. THE DEPARTMENT WILL PAY FOR SUPERSTRUCTURE CONCRETE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE THEORETICAL HAUNCH DEPTHS AT MID-SPAN AND AT EACH BEAM BEARING EVEN THOUGH DEVIATION FROM THE DIMENSIONS SHOWN MAY BE NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE ACTUAL CAMBER FOR EACH MEMBER WILL BE THE TOP OF BEAM ELEVATION AT MID-SPAN MINUS THE AVERAGE TOP OF BEAM ELEVATION AT EACH BEARING. THE ACTUAL TOPPING THICKNESS AT MID-SPAN WILL BE THE THEORETICAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.

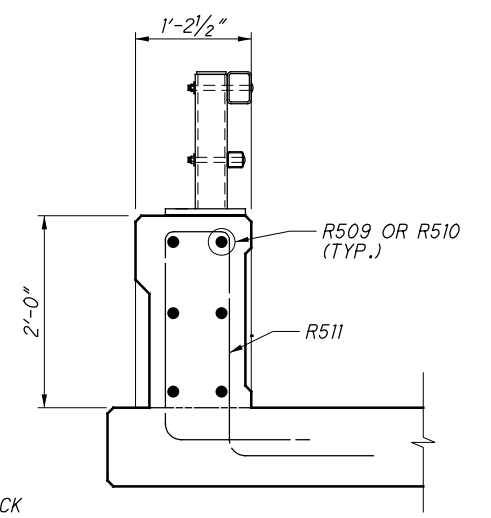
HAUNCH AND CAMBER DETAILS (3 OF 3)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

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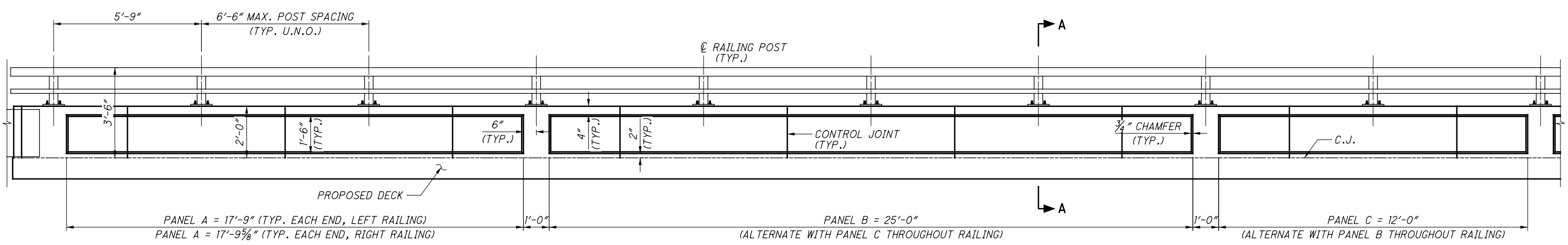


| DIMENSIONS | | | | |
|------------|-----------|-----------|-----------|-----------|
| DIM. | SOUTHWEST | SOUTHEAST | NORTHWEST | NORTHEAST |
| "A" | 3'-0 3/8" | 3'-2 3/4" | 3'-3 1/8" | 3'-6 3/8" |

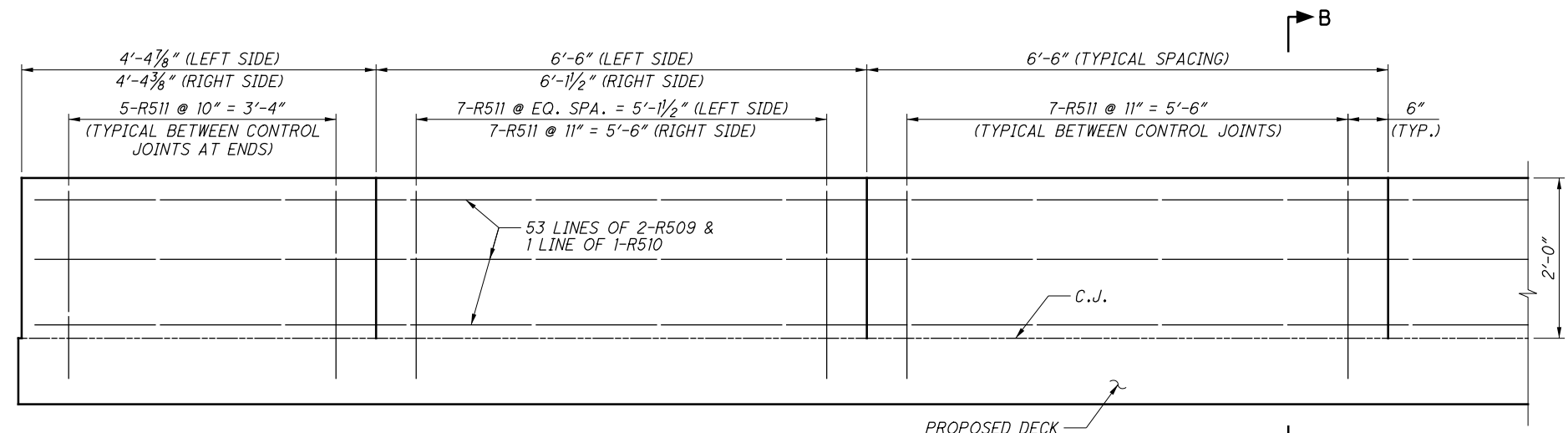


TRAFFIC SIDE ELEVATION

SECTION B-B



TRAFFIC SIDE ELEVATION



TYPICAL PARAPET

- NOTES:**
1. FOR WINGWALL DETAILS, SEE SHEET [12/55](#) AND [16/55](#).
 2. FOR EXPANSION JOINT DETAILS, SEE SHEETS [50/55](#) THRU [51/55](#).
 3. FOR SECTION A-A, SEE SHEET [47/55](#).
 4. FOR SECTIONS E-E, F-F, AND G-G, SEE SHEET [48/55](#).
 5. FOR MORE INFORMATION, SEE STD. DWG. BR-2-98.
 6. FOR RAIL PLAN VIEW, SEE SHEET [31/55](#) AND [32/55](#).

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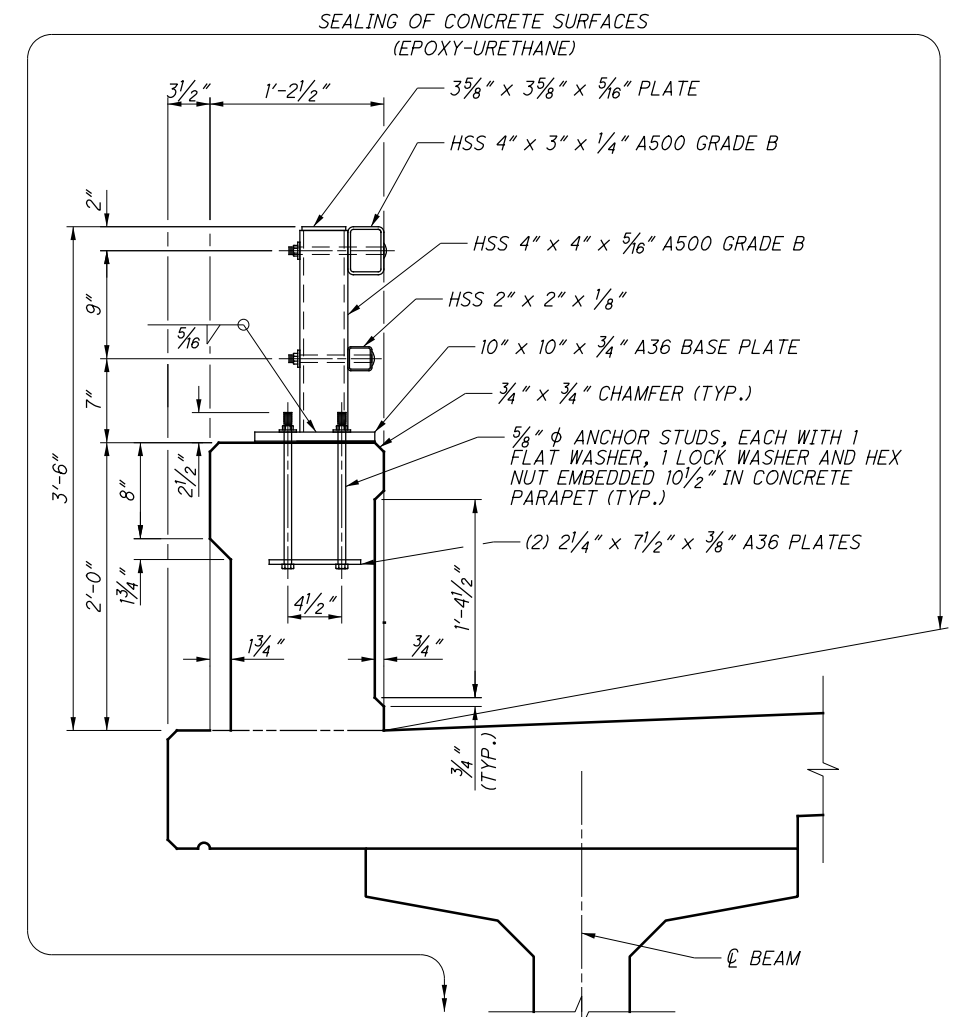
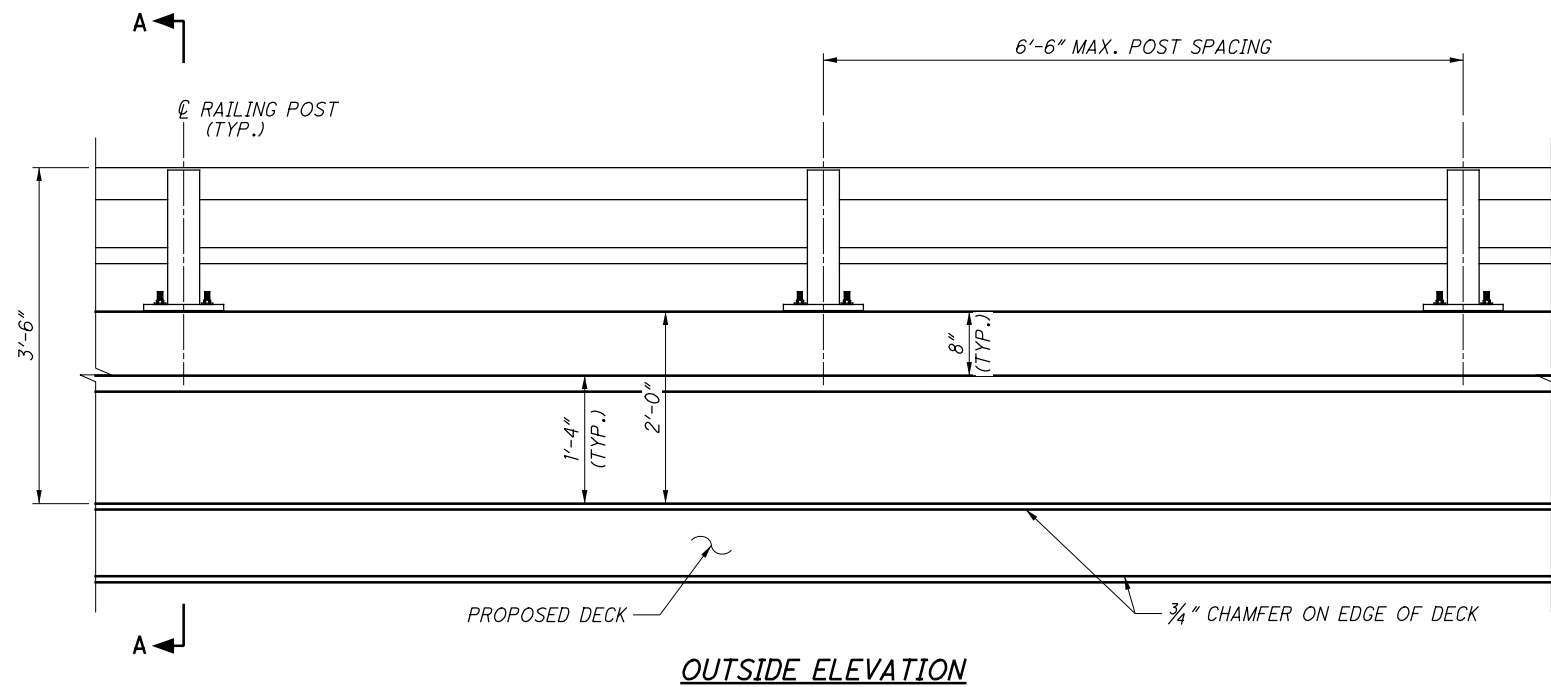
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| DESIGNED | CJW | CHECKED | DFT |
| DRAWN | BMG/DTA | REVIEWED | MRV |
| DATE | 08/2014 | STRUCTURE FILE NUMBER | 3502392 |

RAILING DETAILS
 BRIDGE NO. HEN-109-1820
 OVER THE MAUMEE RIVER

HEN-109-18.02
 PID No. 90991

46 / 55

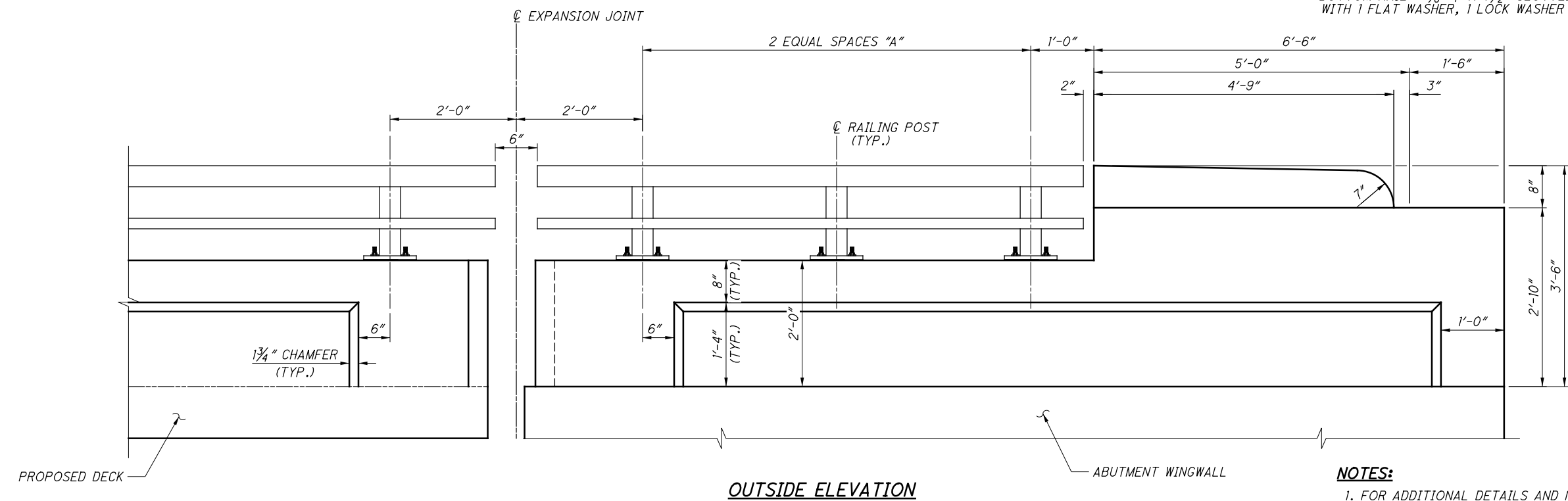
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133



SECTION A-A

TOP RAIL - 3/4" φ x 8 1/2" SLOTTED ROUND HEAD A 307 BOLTS, WITH 1 PLATE WASHER, 1 LOCK WASHER AND HEX. NUT (TYP.)

BOTTOM RAIL - 5/8" φ x 7 1/2" SLOTTED ROUND HEAD BOLTS, WITH 1 FLAT WASHER, 1 LOCK WASHER AND HEX. NUT. (TYP.)



NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STANDARD DRAWING BR-2-98.

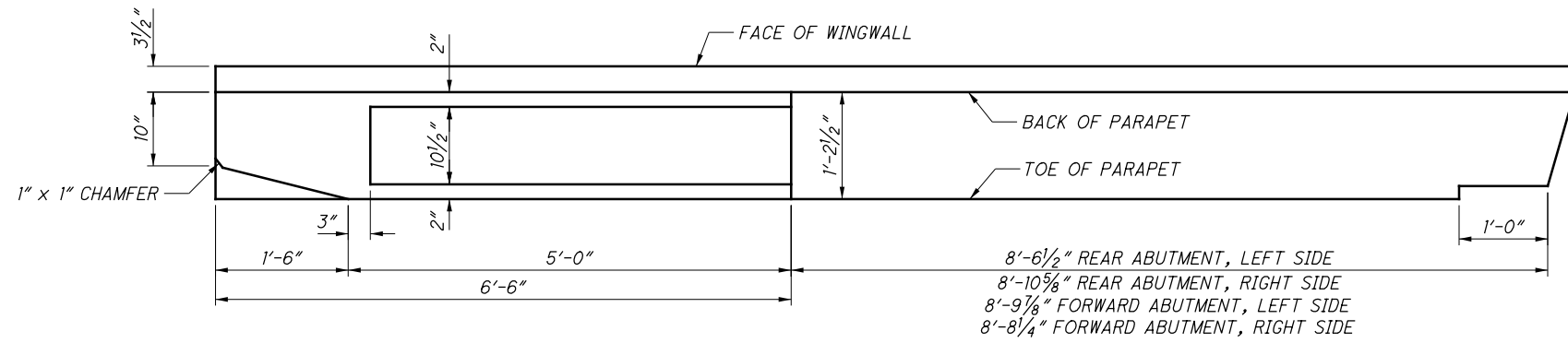
2. FOR DIMENSION "A", SEE SHEET 46/55.

| | | | |
|----------|---------|-----------------------|---------|
| DESIGNED | CJW | CHECKED | DFT |
| DRAWN | DTA/BMG | REVIEWED | MRV |
| DATE | 08/2014 | STRUCTURE FILE NUMBER | 3502392 |

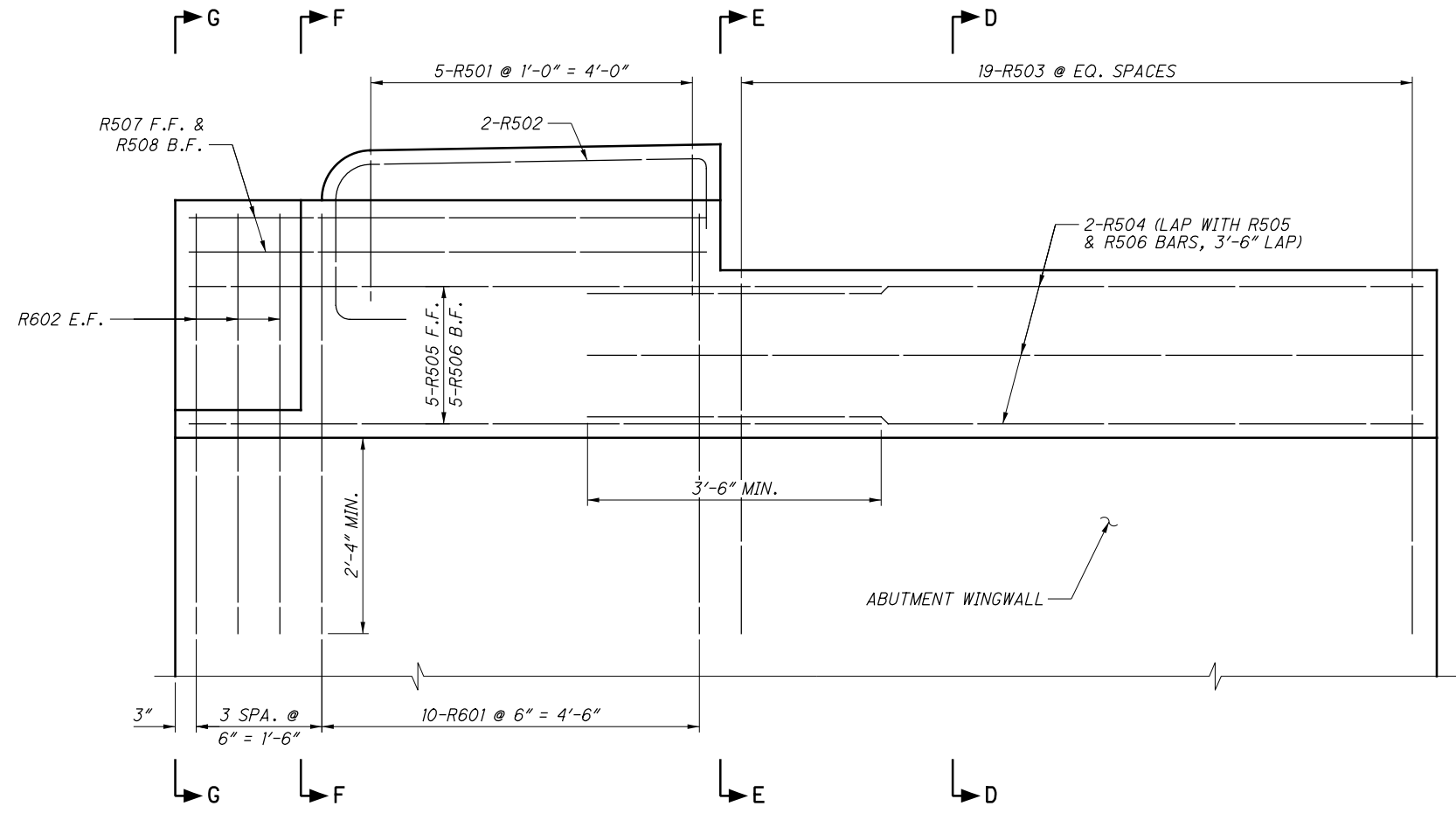
RAILING DETAILS
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

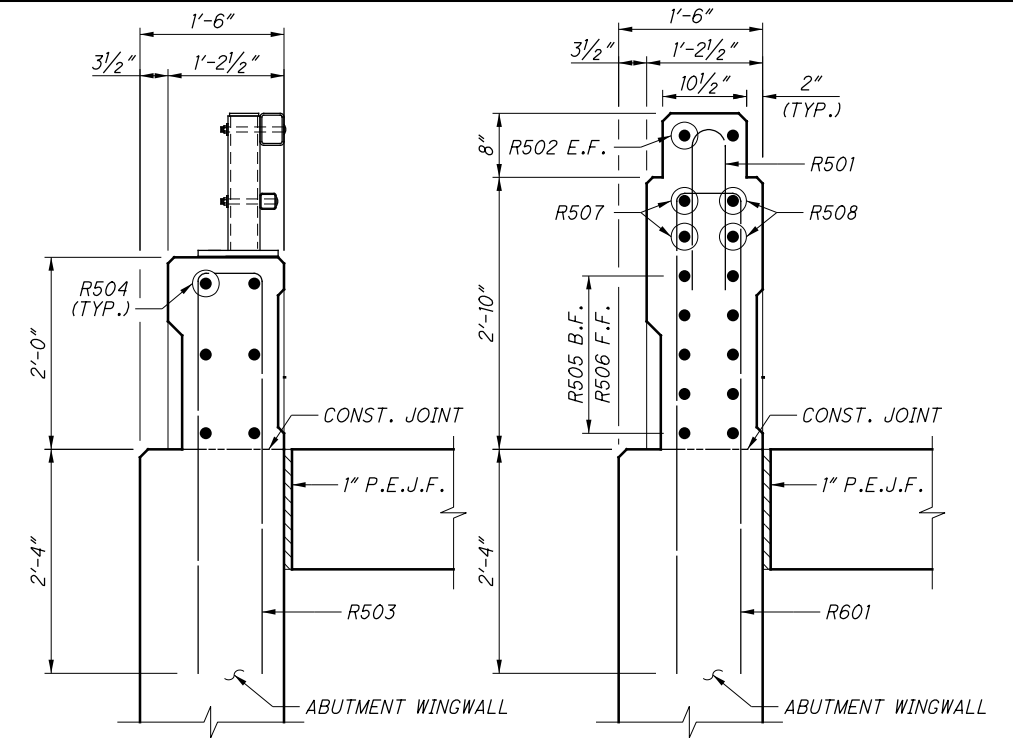
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TYPICAL PARAPET PLAN ON WINGWALL
REAR ABUTMENT - LEFT SIDE SHOWN, OTHER LOCATIONS SIMILAR

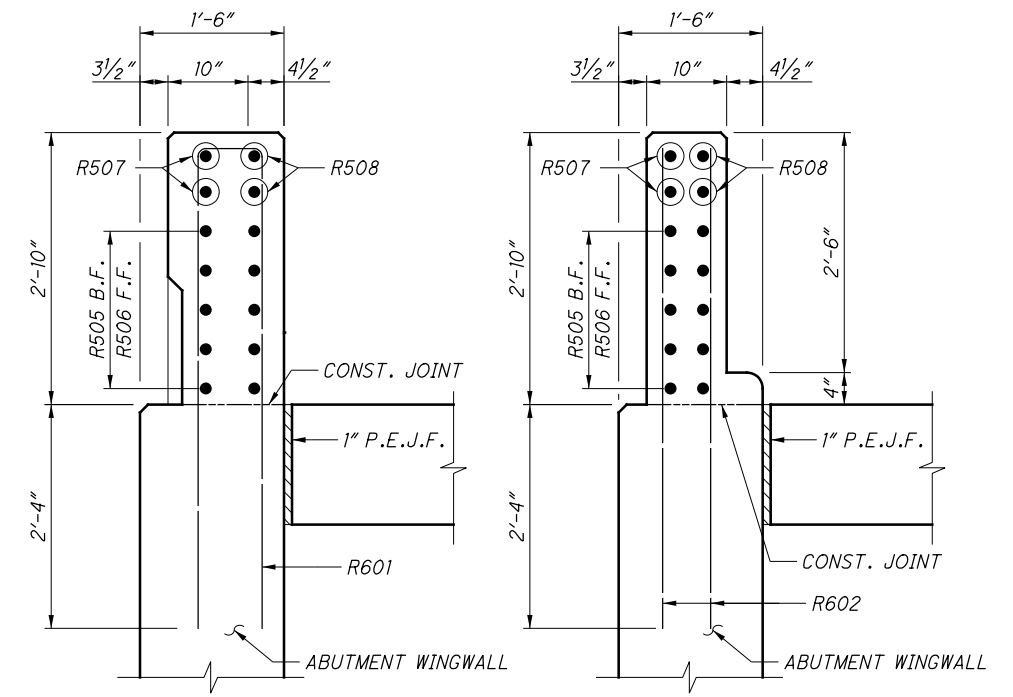


TYPICAL PARAPET ELEVATION ON WINGWALL
REAR ABUTMENT - LEFT SIDE SHOWN, OTHER LOCATIONS SIMILAR



SECTION D-D

SECTION E-E



SECTION F-F

SECTION G-G

NOTES:

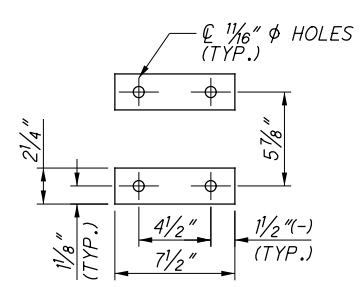
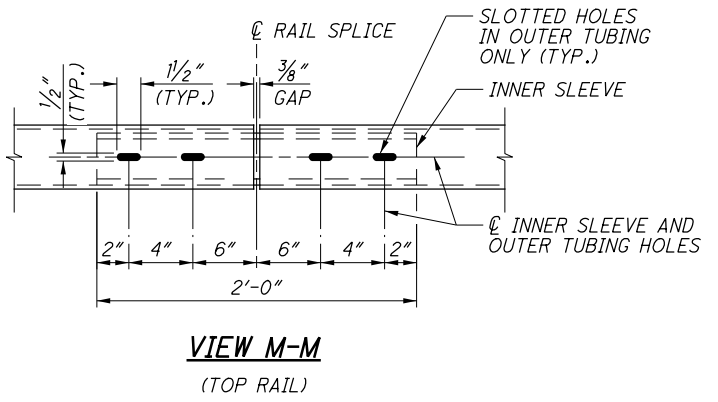
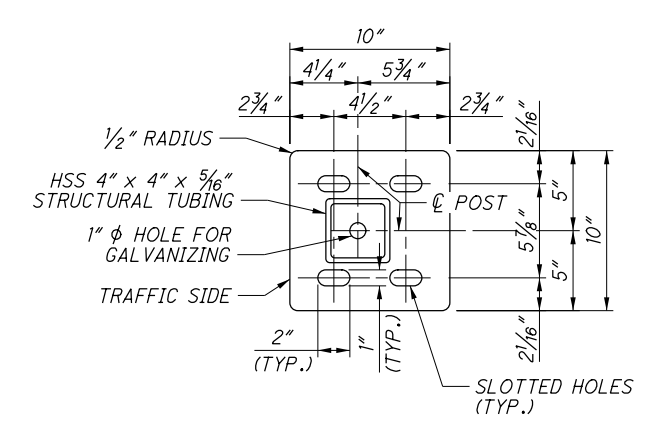
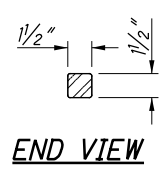
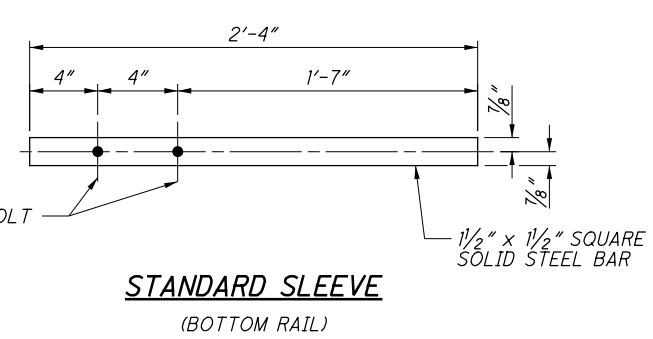
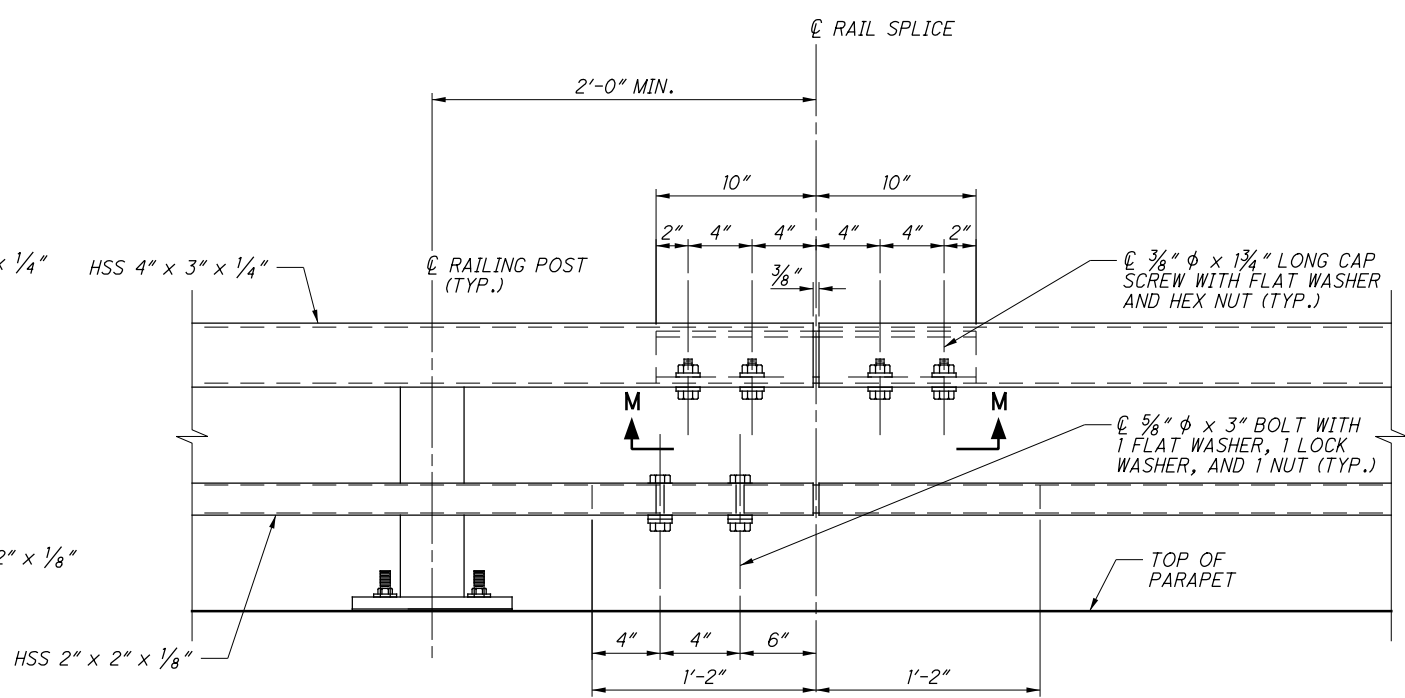
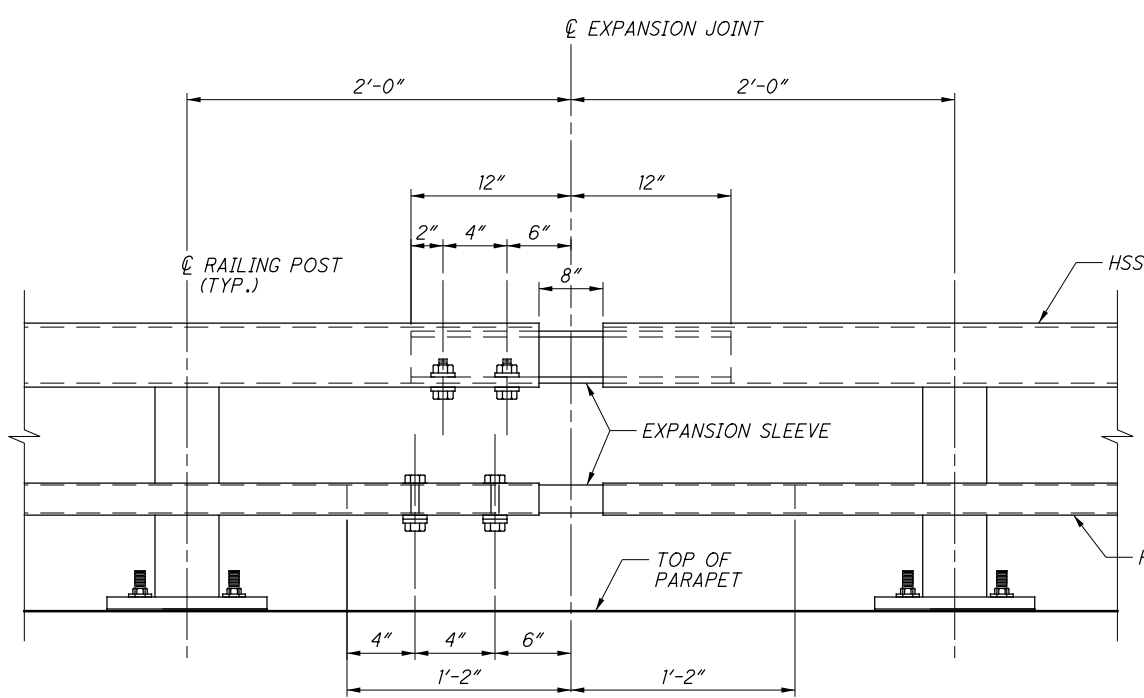
1. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STANDARD DRAWING BR-2-98.

| | | | |
|--|---------|-----------------------|---------|
| | | | |
| DESIGNED | BMG | CHECKED | DFT |
| DRAWN | DTA | REVIEWED | |
| DATE | 08/2014 | STRUCTURE FILE NUMBER | 3502392 |
| RAILING DETAILS BRIDGE NO. HEN-109-1820 OVER THE MAUMEE RIVER | | | |
| HEN-109-18.02 | | PID No. 90991 | |
| 48 / 55 | | 117 133 | |

| | |
|-----------------------|---------|
| DATE | 08/2014 |
| REVIEWED | MRV |
| DRAWN | DTA |
| DESIGNED | BMG |
| CHECKED | DFT |
| STRUCTURE FILE NUMBER | 3502392 |

RAILING DETAILS
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

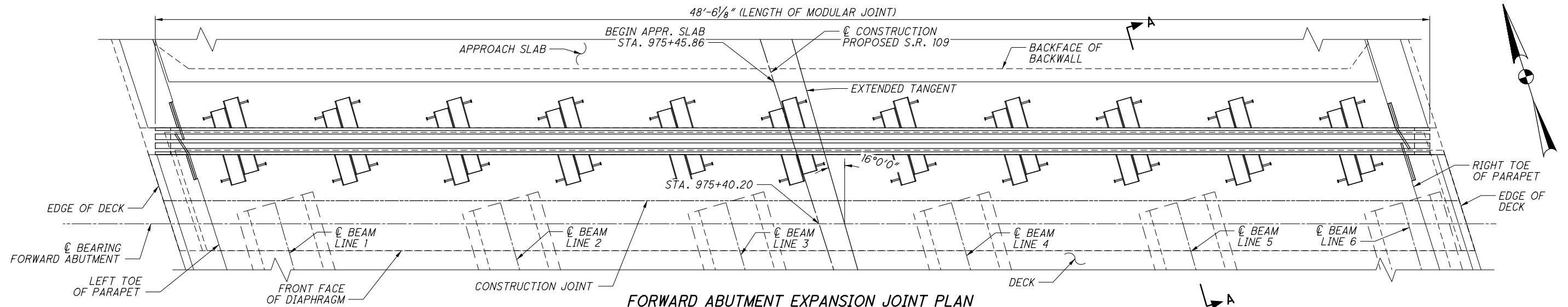
HEN-109-18.02
PID No. 90991



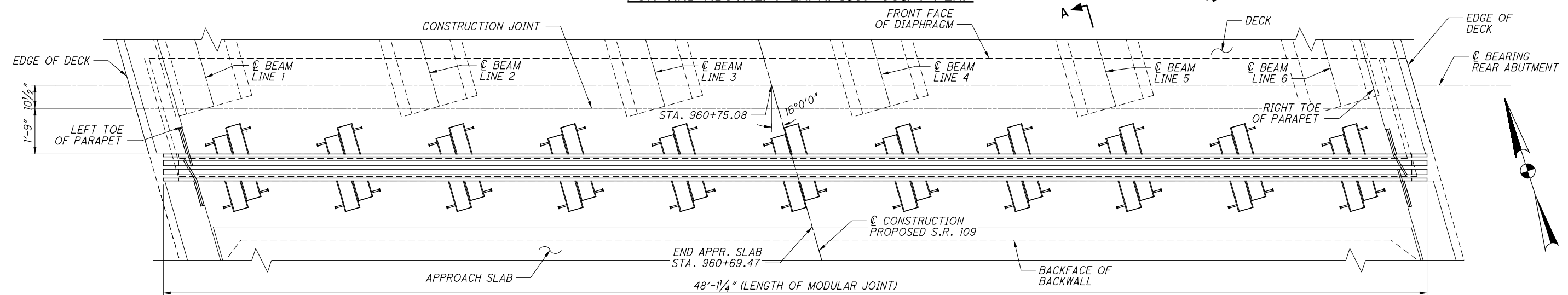
NOTES:
1. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STANDARD DRAWING BR-2-98.

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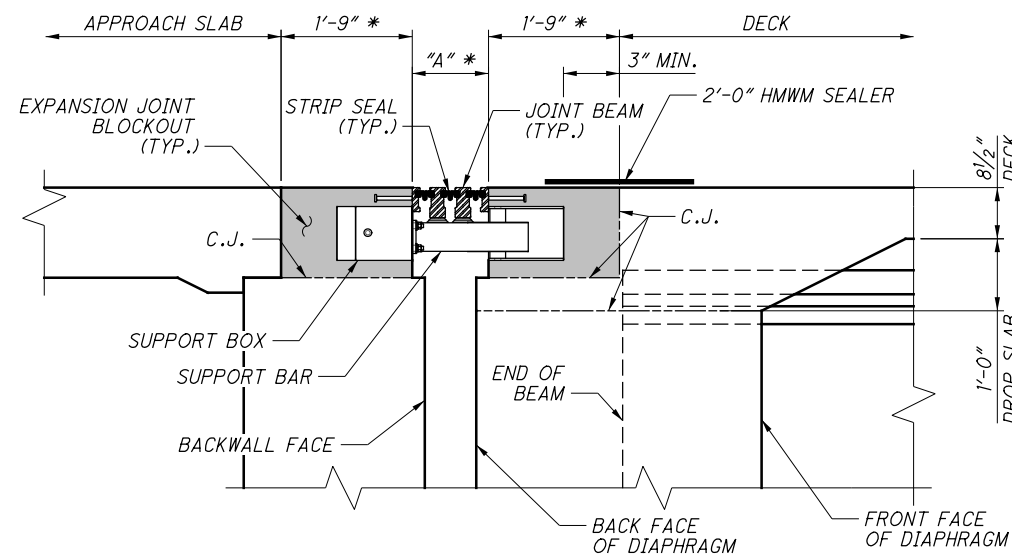
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FORWARD ABUTMENT EXPANSION JOINT PLAN



REAR ABUTMENT EXPANSION JOINT PLAN



SECTION A-A

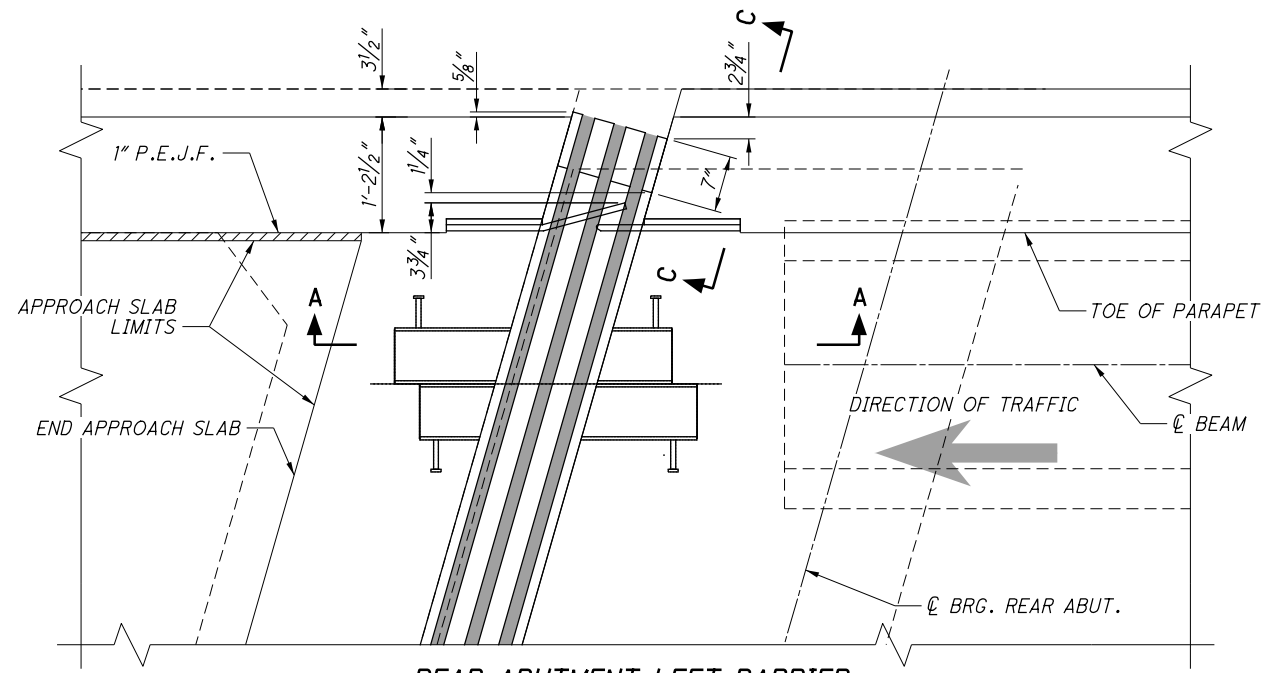
* - DIMENSION MEASURED PERPENDICULAR TO MODULAR JOINT

| TEMP | MODULAR EXPANSION JOINT OPENINGS | |
|------|----------------------------------|----------|
| | DIMENSION "A" (INCHES) | |
| | REAR ABUT | FWD ABUT |
| 15°F | 16 | 16 |
| 20°F | 15 9/16 | 15 9/16 |
| 30°F | 14 3/4 | 14 3/4 |
| 40°F | 13 15/16 | 13 15/16 |
| 50°F | 13 1/16 | 13 1/16 |
| 60°F | 12 1/4 | 12 1/4 |
| 70°F | 11 5/8 | 11 5/8 |
| 80°F | 11 | 11 |
| 90°F | 10 3/8 | 10 3/8 |
| 95°F | 10 | 10 |

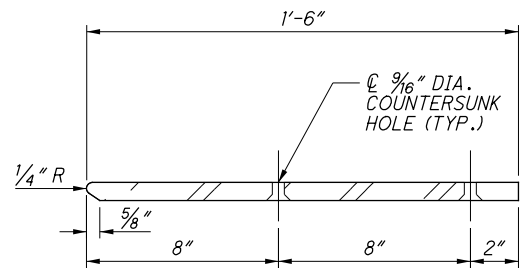
NOTES:

1. SEAL TRANSVERSE DECK CONSTRUCTION JOINT WITH 2'-0" HMWM, CENTERED ABOUT JOINT
2. THE MODULAR JOINT SPECIFIED SHALL BE A D.S. BROWN "D240-PV-S" STEELFLEX MODULAR EXPANSION JOINT SYSTEM OR EQUIVALENT. IF AN ALTERNATE JOINT IS USED, THE PLANS SHALL BE MODIFIED TO ACCOMMODATE THE NEW JOINT SYSTEM.
3. FOR DECK PLANS, SEE SHEETS 31/55 AND 32/55.
4. FOR END DIAPHRAGM DETAILS, SEE SHEET 29/55.
5. DROP SLAB SHALL EXTEND THE ENTIRE WIDTH OF DECK.
6. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINT

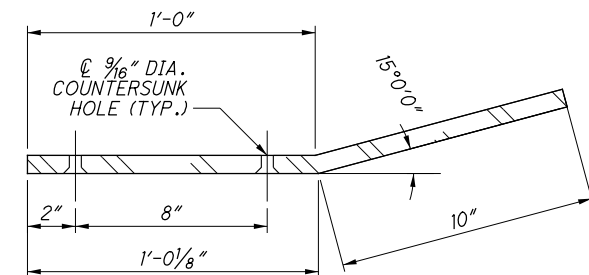
P:\90991\structures\sheets\109_1820EX002.dgn 8/15/2014 3:15:26 PM mcornett



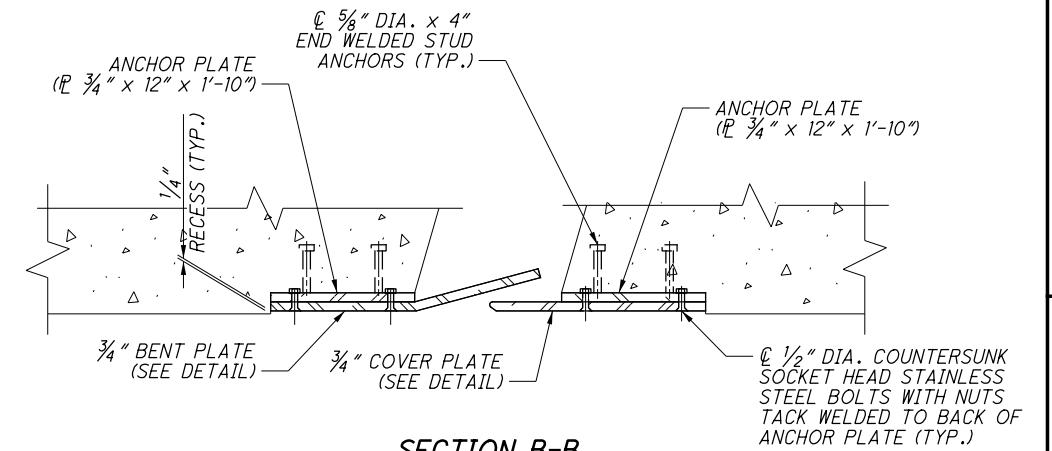
**REAR ABUTMENT LEFT BARRIER
PART PLAN**



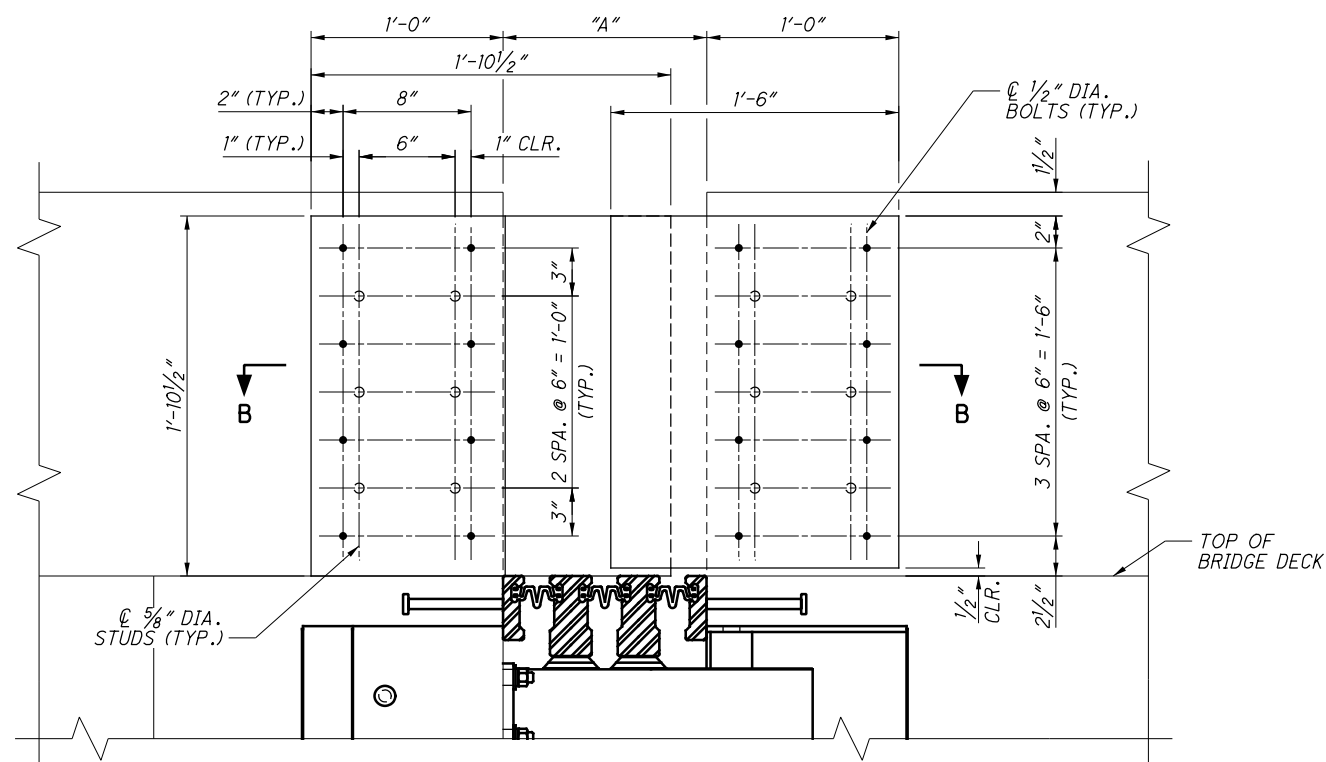
3/4" COVER PLATE



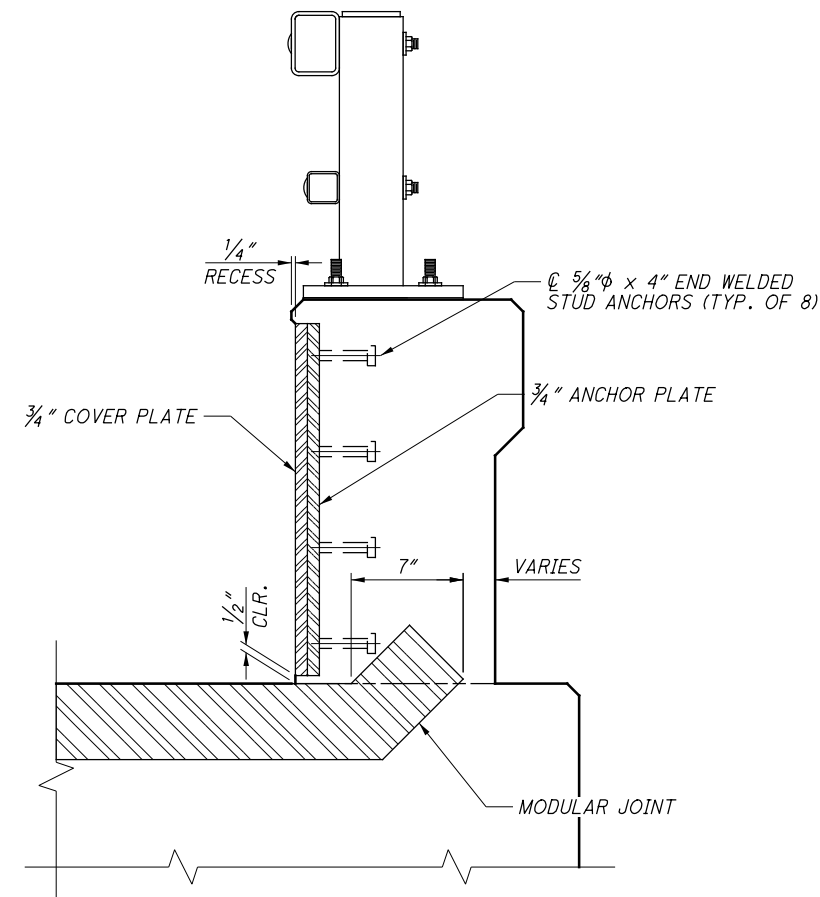
3/4" BENT PLATE



**SECTION B-B
(REAR ABUTMENT LEFT BARRIER SHOWN)
(ALL OTHER PLATES SIMILAR)**



VIEW A-A



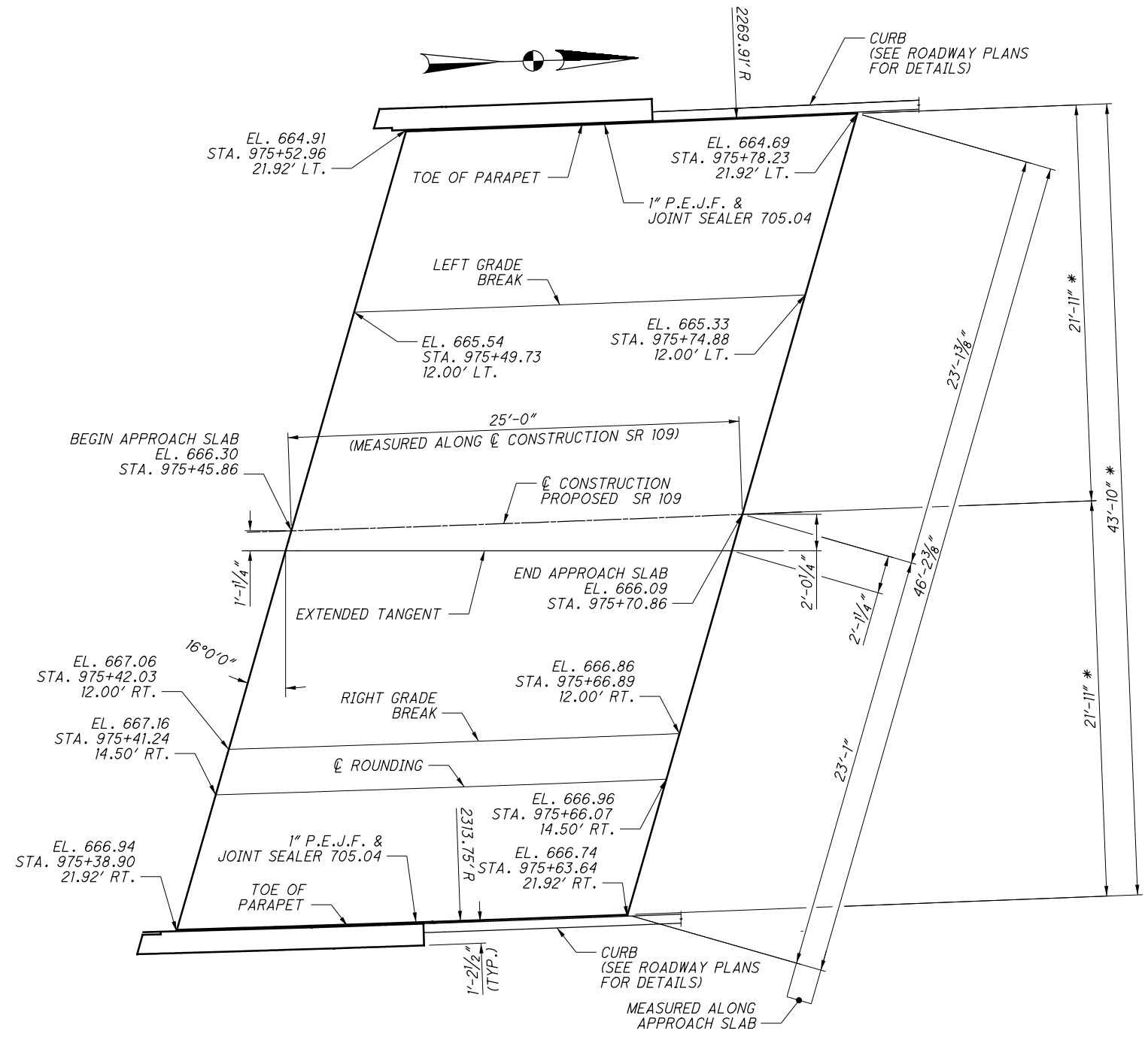
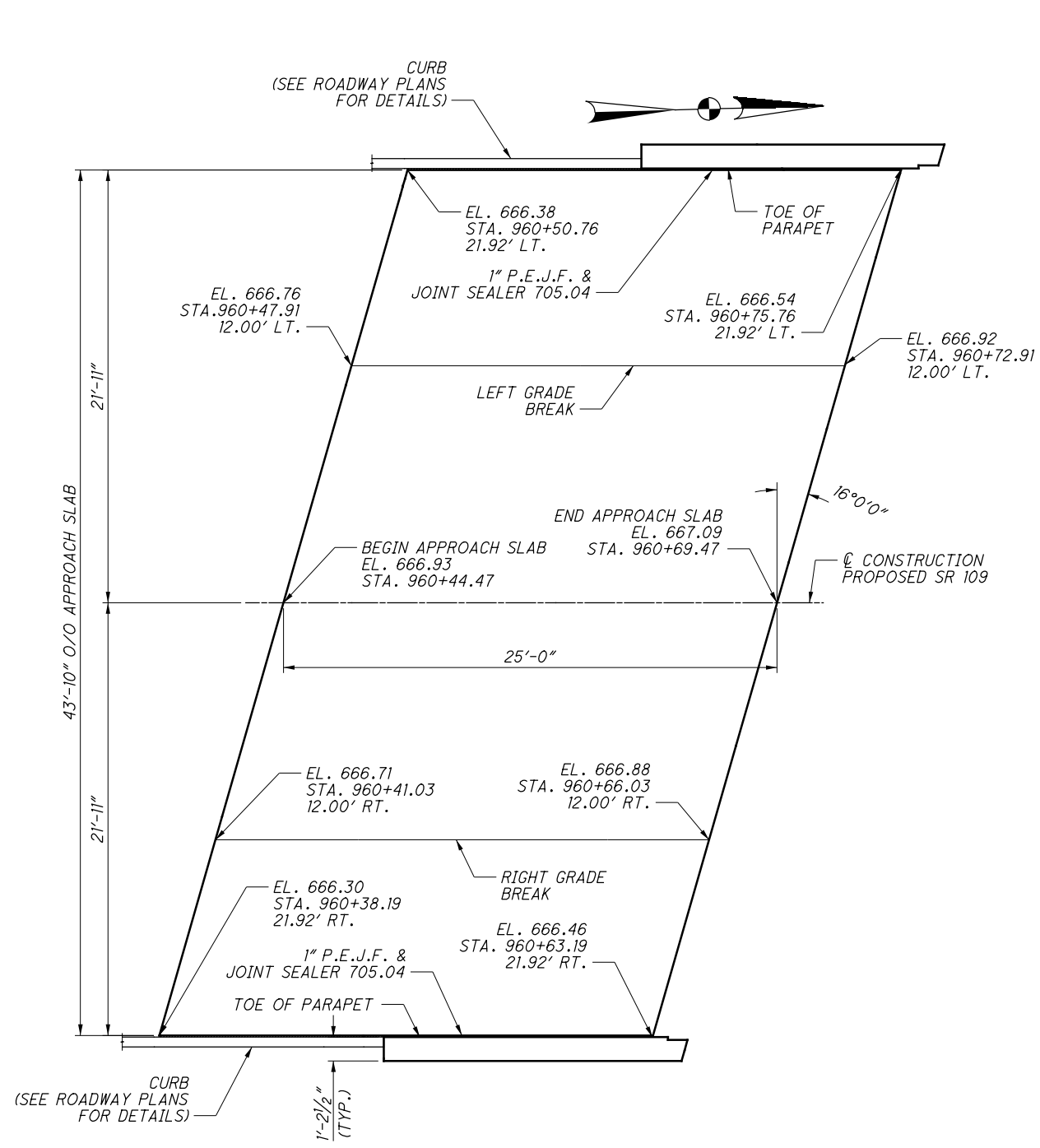
SECTION C-C

NOTES:

1. FOR DIMENSIONS "A", SEE SHEET 50/55.
2. CONCRETE PARAPETS TO BE INSTALLED AFTER INSTALLATION OF MODULAR EXPANSION JOINTS.

| | |
|-----------------------|---------|
| DATE | 08/2014 |
| REVIEWED | DFT |
| DRAWN | MRV |
| DESIGNED | MRV |
| CHECKED | CJW |
| STRUCTURE FILE NUMBER | 3502392 |
| REVISED | |

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APPROACH SLAB PLAN

LEGEND:

* - MEASURED PERPENDICULAR TO CENTERLINE OF SR 109.

NOTES:

1. SEE ODOT STD. DWG. AS-1-81 FOR ADDITIONAL APPROACH SLAB DETAILS.
2. THE CONCRETE AND REINFORCING STEEL FOR THE PARAPETS IS INCLUDED WITH ITEM 517, RAILING, MISC.: CONCRETE PARAPET WITH STEEL RAILING.
3. FOR PARAPET AND RAILING DETAILS, SEE SHEETS 46/55 THRU 49/55.

| | | | |
|----------|---------|-------------|---------|
| DESIGNED | BMG | CHECKED | MRV |
| DRAWN | BMG | REVIEWED | |
| DATE | 08/2014 | FILE NUMBER | 3502392 |

APPROACH SLAB DETAILS
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

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| MARK | NUMBER | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|----------------------|--------|---------|--------|------|------------|--------|--------|---|---|-------|-----------|
| | TOTAL | | | | A | B | C | D | E | R | INC |
| REAR ABUTMENT | | | | | | | | | | | |
| RA401 | 24 | 7'-6" | 120 | STR | | | | | | | |
| RA402 | 28 | 6'-0" | 112 | STR | | | | | | | |
| RA501 | 34 | 10'-0" | 355 | 2 | 0'-10" | 8'-7" | 0'-10" | | | | |
| RA502 | 34 | 6'-8" | 236 | 1 | 0'-10" | 6'-0" | | | | | |
| RA503 | 35 | 9'-4" | 341 | 2 | 1'-6" | 6'-7" | 1'-6" | | | | |
| RA504 | 1 | 9'-7" | 10 | 2 | 1'-6" | 6'-10" | 1'-6" | | | | |
| RA505 | 25 | 48'-6" | 1265 | STR | | | | | | | |
| RA506 | 49 | 4'-8" | 238 | 24 | 0'-4" | 2'-1" | | | | 0'-2" | |
| RA507 | 28 | 12'-2" | 355 | 3 | 3'-2" | 2'-7" | | | | | |
| RA508 | 2 | 14'-8" | 31 | STR | | | | | | | |
| RA509 | 2 | 14'-11" | 31 | STR | | | | | | | |
| RA510 | 6 | 11'-6" | 72 | STR | | | | | | | |
| RA511 | 6 | 11'-10" | 74 | STR | | | | | | | |
| RA512 | 2 | 15'-8" | 33 | 19 | 7'-1" | 7'-9" | 3'-9" | | | | |
| RA513 | 2 | 16'-0" | 33 | 19 | 7'-5" | 7'-9" | 3'-9" | | | | |
| RA514 | 2 | 9'-11" | 21 | STR | | | | | | | |
| RA515 | 2 | 10'-2" | 21 | STR | | | | | | | |
| RA516 | 2 | 12'-8" | 26 | STR | | | | | | | |
| RA517 | 2 | 12'-11" | 27 | STR | | | | | | | |
| RA518 | 6 | 14'-9" | 92 | STR | | | | | | | |
| RA519 | 6 | 15'-0" | 94 | STR | | | | | | | |
| RA601 | 34 | 16'-10" | 860 | 2 | 6'-0" | 8'-7" | 2'-7" | | | | |
| RA602 | 98 | 13'-11" | 2048 | 2 | 6'-1" | 2'-1" | 6'-1" | | | | |
| RA603 | 12 | 21'-4" | 385 | 2 | 10'-3" | 1'-2" | 10'-3" | | | | |
| RA604 | 24 | 7'-2" | 258 | STR | | | | | | | |
| RA605 | 4 SR | 3'-3" | | | | | | | | | |
| RA605 | OF | TO | 176 | STR | | | | | | | 0'-7 3/4" |
| RA606 | 6 | 6'-6" | | | | | | | | | |
| RA606 | 6 | 16'-6" | 149 | 33 | 4'-4" | 3'-4" | | | | | |
| RA607 | 4 | 4'-9" | 29 | 1 | 1'-7" | 3'-4" | | | | | |
| RA801 | 11 | 50'-7" | 1486 | STR | | | | | | | |
| RA802 | 5 | 14'-5" | 192 | STR | | | | | | | |
| RA803 | 1 | 14'-11" | 40 | STR | | | | | | | |
| RA804 | 5 | 15'-1" | 201 | STR | | | | | | | |
| RA805 | 1 | 14'-8" | 39 | STR | | | | | | | |
| RA901 | 22 | 4'-8" | 349 | 1 | 1'-7" | 3'-4" | | | | | |
| RA902 | 4 | 6'-10" | 93 | STR | | | | | | | |
| SUB-TOTAL | | | 9,892 | | | | | | | | |

| MARK | NUMBER | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|-------------------------|--------|---------|--------|------|------------|--------|--------|---|---|-------|-----|
| | TOTAL | | | | A | B | C | D | E | R | INC |
| FORWARD ABUTMENT | | | | | | | | | | | |
| FA401 | 24 | 7'-3" | 116 | STR | | | | | | | |
| FA402 | 28 | 6'-0" | 112 | STR | | | | | | | |
| FA501 | 34 | 10'-0" | 355 | 2 | 0'-10" | 8'-7" | 0'-10" | | | | |
| FA502 | 8 | 6'-9" | 56 | 1 | 0'-10" | 6'-1" | | | | | |
| FA503 | 6 | 7'-1" | 44 | 1 | 0'-10" | 6'-5" | | | | | |
| FA504 | 6 | 7'-10" | 49 | 1 | 0'-10" | 7'-2" | | | | | |
| FA505 | 6 | 8'-6" | 53 | 1 | 0'-10" | 7'-10" | | | | | |
| FA506 | 8 | 9'-1" | 76 | 1 | 0'-10" | 8'-5" | | | | | |
| FA507 | 35 | 9'-4" | 341 | 2 | 1'-6" | 6'-7" | 1'-6" | | | | |
| FA508 | 1 | 9'-7" | 10 | 2 | 1'-6" | 6'-10" | 1'-6" | | | | |
| FA509 | 23 | 48'-11" | 1173 | STR | | | | | | | |
| FA510 | 20 | 11'-3" | 235 | STR | | | | | | | |
| FA511 | 7 | 29'-2" | 213 | STR | | | | | | | |
| FA512 | 7 | 12'-0" | 88 | STR | | | | | | | |
| FA513 | 2 | 10'-10" | 23 | STR | | | | | | | |
| FA514 | 49 | 4'-8" | 238 | 24 | 0'-4" | 2'-1" | | | | 0'-2" | |
| SUB-TOTAL | | | 10,625 | | | | | | | | |

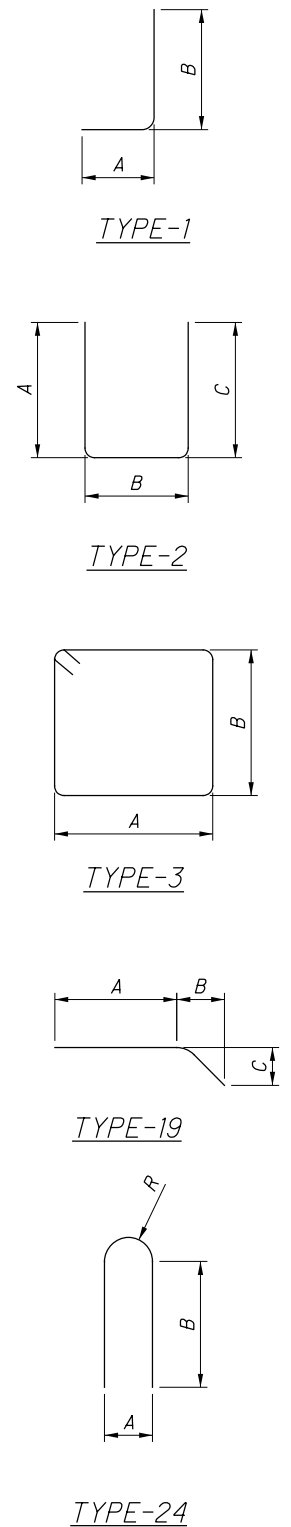
| MARK | NUMBER | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | | |
|-------------------------|--------|---------|--------|------|------------|-------|--------|---|---|---|-----------|
| | TOTAL | | | | A | B | C | D | E | R | INC |
| FORWARD ABUTMENT | | | | | | | | | | | |
| FA515 | 1 | 14'-9" | 15 | STR | | | | | | | |
| FA516 | 1 | 15'-0" | 16 | STR | | | | | | | |
| FA517 | 29 | 12'-2" | 368 | 3 | 3'-2" | 2'-7" | | | | | |
| FA518 | 3 | 11'-7" | 36 | STR | | | | | | | |
| FA519 | 3 | 11'-11" | 37 | STR | | | | | | | |
| FA520 | 1 | 15'-7" | 16 | 19 | 7'-3" | 7'-6" | 3'-9" | | | | |
| FA521 | 1 | 15'-11" | 17 | 19 | 7'-7" | 7'-6" | 3'-9" | | | | |
| FA522 | 1 | 10'-0" | 10 | STR | | | | | | | |
| FA523 | 1 | 10'-4" | 11 | STR | | | | | | | |
| FA524 | 1 | 12'-9" | 13 | STR | | | | | | | |
| FA525 | 1 | 13'-1" | 14 | STR | | | | | | | |
| FA526 | 3 | 14'-7" | 46 | STR | | | | | | | |
| FA527 | 3 | 14'-11" | 47 | STR | | | | | | | |
| FA528 | 1 | 15'-6" | 16 | STR | | | | | | | |
| FA529 | 1 | 15'-3" | 16 | STR | | | | | | | |
| FA530 | 5 | 12'-6" | 65 | STR | | | | | | | |
| FA531 | 5 | 12'-1" | 63 | STR | | | | | | | |
| FA532 | 1 | 16'-5" | 17 | 19 | 8'-1" | 7'-7" | 3'-6" | | | | |
| FA533 | 1 | 16'-1" | 17 | 19 | 7'-9" | 7'-7" | 3'-6" | | | | |
| FA534 | 1 | 10'-10" | 11 | STR | | | | | | | |
| FA535 | 1 | 10'-6" | 11 | STR | | | | | | | |
| FA536 | 1 | 13'-7" | 14 | STR | | | | | | | |
| FA537 | 1 | 13'-3" | 14 | STR | | | | | | | |
| FA538 | 3 | 15'-7" | 49 | STR | | | | | | | |
| FA539 | 3 | 15'-2" | 47 | STR | | | | | | | |
| FA601 | 8 | 16'-11" | 203 | 2 | 6'-1" | 8'-7" | 2'-7" | | | | |
| FA602 | 6 | 17'-3" | 155 | 2 | 6'-5" | 8'-7" | 2'-7" | | | | |
| FA603 | 6 | 18'-0" | 162 | 2 | 7'-2" | 8'-7" | 2'-7" | | | | |
| FA604 | 6 | 18'-8" | 168 | 2 | 7'-10" | 8'-7" | 2'-7" | | | | |
| FA605 | 8 | 19'-3" | 231 | 2 | 8'-5" | 8'-7" | 2'-7" | | | | |
| FA606 | 49 | 14'-9" | 1086 | 2 | 6'-6" | 2'-1" | 6'-6" | | | | |
| FA607 | 49 | 13'-5" | 987 | 2 | 5'-10" | 2'-1" | 5'-10" | | | | |
| FA608 | 6 | 21'-6" | 194 | 2 | 10'-4" | 1'-2" | 10'-4" | | | | |
| FA609 | 12 | 7'-2" | 129 | STR | | | | | | | |
| FA610 | 2 SR | 3'-3" | | | | | | | | | |
| FA610 | OF | TO | 89 | STR | | | | | | | 0'-8" |
| FA611 | 6 | 6'-7" | | | | | | | | | |
| FA611 | 6 | 26'-2" | 236 | 2 | 12'-8" | 1'-2" | 12'-8" | | | | |
| FA612 | 12 | 6'-11" | 125 | STR | | | | | | | |
| FA613 | 2 SR | 3'-4" | | | | | | | | | |
| FA613 | OF | TO | 88 | STR | | | | | | | 0'-7 1/2" |
| FA614 | 6 | 6'-5" | | | | | | | | | |
| FA614 | 6 | 16'-6" | 149 | 33 | 4'-4" | 3'-4" | | | | | |
| FA615 | 4 | 4'-9" | 29 | 1 | 1'-7" | 3'-4" | | | | | |
| FA801 | 11 | 51'-0" | 1498 | STR | | | | | | | |
| FA802 | 2 | 14'-5" | 77 | STR | | | | | | | |
| FA803 | 1 | 14'-7" | 39 | STR | | | | | | | |
| FA804 | 1 | 15'-0" | 40 | STR | | | | | | | |
| FA805 | 2 | 15'-4" | 82 | STR | | | | | | | |
| FA806 | 2 | 15'-10" | 85 | STR | | | | | | | |
| FA807 | 1 | 15'-8" | 42 | STR | | | | | | | |
| FA808 | 1 | 15'-3" | 41 | STR | | | | | | | |
| FA809 | 2 | 14'-11" | 80 | STR | | | | | | | |
| RA901 | 22 | 4'-8" | 349 | 1 | 1'-7" | 3'-4" | | | | | |
| RA902 | 4 | 6'-10" | 93 | STR | | | | | | | |
| SUB-TOTAL | | | 10,625 | | | | | | | | |

NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGIT WHERE FOUR ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, S601:

S: LOCATION OF THE BARS IN THE STRUCTURE (SUPERSTRUCTURE)
6: BAR SIZE DIMENSION NO. 6
01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT ARE INDICATED BY "STR".



E.L. ROBINSON
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1801 Walmark Drive, Suite 310 - Columbus, Ohio 43215
www.elrobinsonengineering.com

| | | | |
|-----------------------|---------|----------|---------|
| DESIGNED | FIB | CHECKED | BMG |
| DRAWN | BMG | REVIEWED | |
| REVIEWED | DFT | DATE | 08/2014 |
| STRUCTURE FILE NUMBER | 3502392 | | |

REINFORCING STEEL LIST (1 OF 3)
BRIDGE NO. HEN-109-1820
OVER THE MAUMEE RIVER

HEN-109-18.02
PID No. 90991

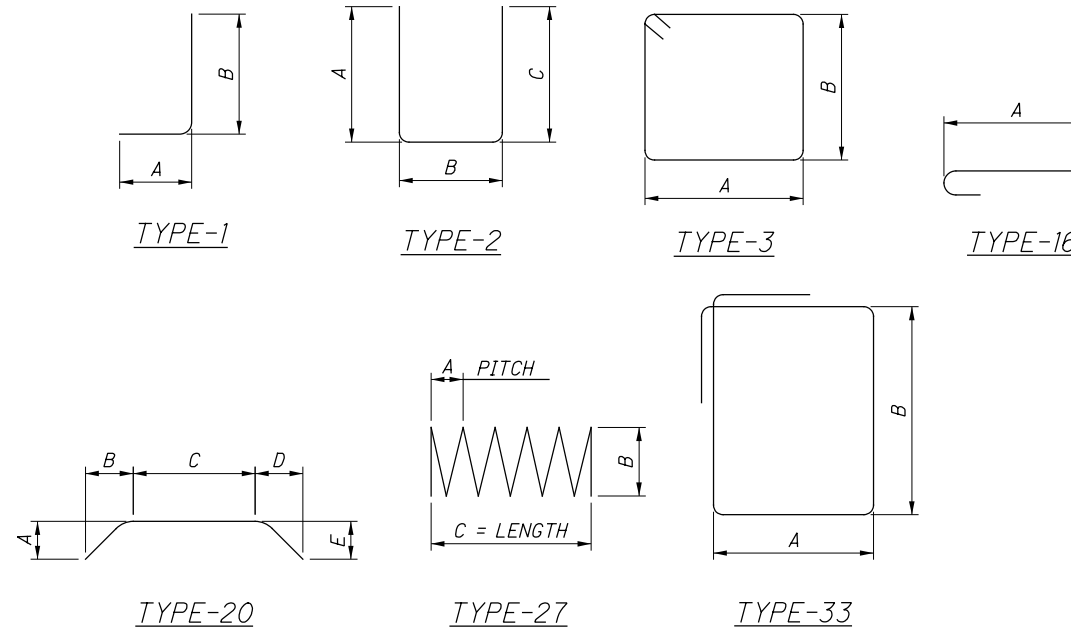
53 / 55

122
133

| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | |
|--------------|-----------------|---------|--------|------|------------|--------|---------|---|---|-------|
| | | | | | A | B | C | D | E | R |
| PIERS | | | | | | | | | | |
| DS401 | 3 | 43'-0" | *1011 | 27 | 1'-0" | 3'-6" | 43'-0" | | | |
| DS402 | 3 | 42'-0" | *989 | 27 | 1'-0" | 3'-6" | 42'-0" | | | |
| DS403 | 6 | 44'-6" | *2089 | 27 | 1'-0" | 3'-6" | 44'-6" | | | |
| DS404 | 6 | 47'-6" | *2220 | 27 | 1'-0" | 3'-6" | 47'-6" | | | |
| DS405 | 6 | 45'-6" | *1066 | 27 | 1'-0" | 3'-6" | 45'-6" | | | |
| DS406 | 3 | 54'-0" | *1253 | 27 | 1'-0" | 3'-6" | 54'-0" | | | |
| DS407 | 3 | 49'-0" | *1143 | 27 | 1'-0" | 3'-6" | 49'-0" | | | |
| DS408 | 3 | 47'-0" | *1099 | 27 | 1'-0" | 3'-6" | 47'-0" | | | |
| DS1101 | 51 | 53'-6" | *14497 | STR | | | | | | |
| DS1102 | 51 | 52'-6" | *14226 | STR | | | | | | |
| DS1103 | 102 | 55'-0" | *29806 | STR | | | | | | |
| DS1104 | 102 | 58'-0" | *31432 | STR | | | | | | |
| DS1105 | 102 | 56'-0" | *30348 | STR | | | | | | |
| DS1106 | 51 | 64'-6" | *17477 | STR | | | | | | |
| DS1107 | 51 | 59'-6" | *16122 | STR | | | | | | |
| DS1108 | 51 | 57'-6" | *15580 | STR | | | | | | |
| SP401 | 6 | 15'-1" | 2157 | 27 | 0'-4 1/2" | 4'-0" | 15'-1" | | | |
| SP402 | 3 | 15'-10" | 1128 | 27 | 0'-4 1/2" | 4'-0" | 15'-10" | | | |
| SP403 | 6 | 16'-7" | 2356 | 27 | 0'-4 1/2" | 4'-0" | 16'-7" | | | |
| SP404 | 6 | 17'-6" | 2478 | 27 | 0'-4 1/2" | 4'-0" | 17'-6" | | | |
| SP405 | 6 | 18'-0" | 2545 | 27 | 0'-4 1/2" | 4'-0" | 18'-0" | | | |
| SP406 | 3 | 16'-0" | 1139 | 27 | 0'-4 1/2" | 4'-0" | 16'-0" | | | |
| SP407 | 3 | 14'-6" | 1039 | 27 | 0'-4 1/2" | 4'-0" | 14'-6" | | | |
| P401 | 264 | 3'-0" | 529 | STR | | | | | | |
| P402 | 264 | 4'-0" | 705 | STR | | | | | | |
| P403 | 88 | 46'-2" | 2714 | STR | | | | | | |
| P404 | 22 | 42'-5" | 623 | STR | | | | | | |
| | 16 SR | 11'-6" | | | | 2'-10" | | | | |
| P601 | OF | TO | 1154 | 3 | 2'-6" | TO | | | | 0'-2" |
| | 4 | 12'-6" | | | | 3'-4" | | | | |
| | 16 SR | 12'-10" | | | | 3'-6" | | | | |
| P602 | OF | TO | 3264 | 3 | 2'-6" | TO | | | | 0'-1" |
| | 10 | 14'-4" | | | | 4'-3" | | | | |
| P603 | 630 | 14'-10" | 14036 | 3 | 2'-6" | 4'-6" | | | | |
| P604 | 588 | 15'-2" | 13395 | 3 | 2'-6" | 4'-8" | | | | |
| P605 | 28 | 15'-6" | 652 | 3 | 2'-6" | 4'-10" | | | | |
| P606 | 30 | 15'-8" | 706 | 3 | 2'-6" | 4'-11" | | | | |
| | 26 SR | 12'-8" | | | | 3'-5" | | | | |
| P607 | OF | TO | 5239 | 3 | 2'-6" | TO | | | | 0'-1" |
| | 10 | 14'-2" | | | | 4'-2" | | | | |
| | 26 SR | 11'-4" | | | | 2'-9" | | | | |
| P608 | OF | TO | 1848 | 3 | 2'-6" | TO | | | | 0'-2" |
| | 4 | 12'-4" | | | | 3'-3" | | | | |
| | 2 SR | 13'-4" | | | | 3'-9" | | | | |
| P609 | OF | TO | 423 | 3 | 2'-6" | TO | | | | 0'-1" |
| | 10 | 14'-10" | | | | 4'-6" | | | | |
| | 2 SR | 12'-2" | | | | 3'-2" | | | | |
| P610 | OF | TO | 152 | 3 | 2'-6" | TO | | | | 0'-2" |
| | 4 | 13'-2" | | | | 3'-8" | | | | |
| P611 | 22 | 8'-11" | 295 | 1 | 3'-4" | 5'-9" | | | | |
| P612 | 143 | 16'-6" | 3544 | 33 | 4'-4" | 3'-4" | | | | |

* - FOR INFORMATION ONLY

| MARK | NUMBER TOTAL | LENGTH | WEIGHT | TYPE | DIMENSIONS | | | | | |
|------------------|-----------------|--------|---------|------|------------|--------|--------|--------|-----------|---|
| | | | | | A | B | C | D | E | R |
| PIERS | | | | | | | | | | |
| P901 | 110 | 50'-9" | 18980 | 2 | 2'-7" | 46'-2" | 2'-7" | | | |
| P902 | 110 | 46'-7" | 17422 | 20 | 1'-5 1/2" | 3'-10" | 38'-5" | 3'-10" | 1'-5 1/2" | |
| P903 | 121 | 8'-10" | 3634 | 1 | 3'-4" | 5'-9" | | | | |
| P904 | 22 | 4'-4" | 324 | STR | | | | | | |
| P1101 | 42 | 21'-3" | 4742 | 16 | 19'-8" | | | | | |
| P1102 | 84 | 22'-1" | 9856 | 16 | 20'-6" | | | | | |
| P1103 | 84 | 22'-9" | 10153 | 16 | 21'-2" | | | | | |
| P1104 | 42 | 23'-7" | 5263 | 16 | 22'-0" | | | | | |
| P1105 | 84 | 24'-2" | 10785 | 16 | 22'-7" | | | | | |
| P1106 | 42 | 23'-9" | 5300 | 16 | 22'-2" | | | | | |
| P1107 | 42 | 21'-1" | 4705 | 16 | 19'-6" | | | | | |
| P1108 | 42 | 20'-8" | 4612 | 16 | 19'-1" | | | | | |
| SUB-TOTAL | | | 157,897 | | | | | | | |



NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGIT WHERE FOUR ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, S601:

S: LOCATION OF THE BARS IN THE STRUCTURE (SUPERSTRUCTURE)
 6: BAR SIZE DIMENSION NO. 6
 01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT ARE INDICATED BY "STR".

