

August 30, 2019

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION  
DEPARTMENT OF ADMINISTRATION

DIVISION OF PURCHASES BID NO. 7598901

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

RHODE ISLAND CONTRACT NO.2019-CB-077

FEDERAL-AID PROJECT NO. FAP Nos: BRO-0257(003)

**Bridge Group 12A - Sandy Bottom**

200 feet east and 200 feet west of Sandy Bottom Bridge No. 257.

CITY/TOWN OF Coventry

COUNTY OF KENT

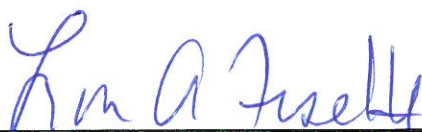
NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 4 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

**A. Contract Reference Documents**

1. Kent County Water Authority - Gantry Plans

Plans for the Kent County Water Authority (KCWA) gantry structure are attached to this Addendum No. 4. The plans were received from KCWA in September 2018 and are provided for informational purposes only. The stage of these drawings is unknown and they may not reflect or be the final construction documents and therefore it is the responsibility of the users of these files to verify their accuracy, no guarantee to their accuracy is expressed, written or implied.



Rt Department of Transportation

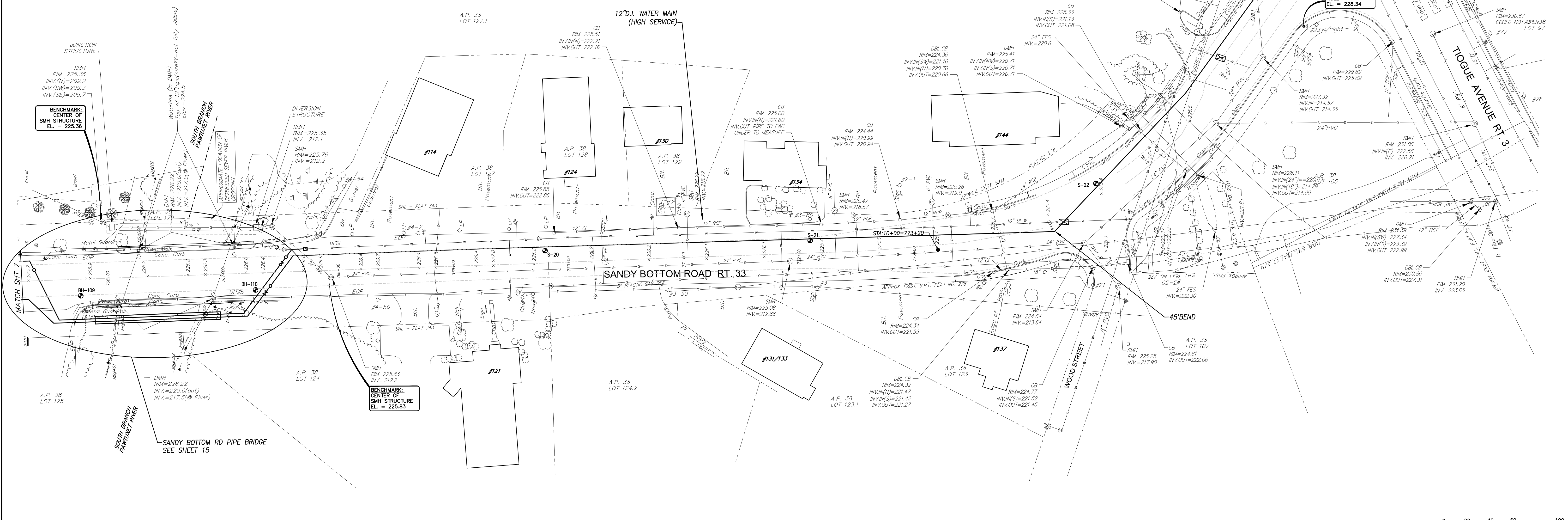
Administrator, Division of Project Management

ADDENDUM NO. 4

ATTACHMENTS



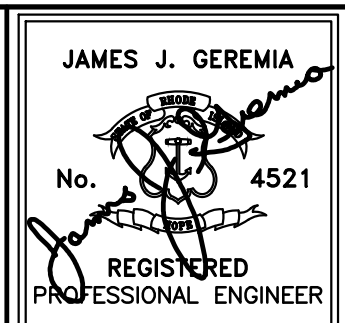
- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
  2. THE CONTRACTOR SHALL PERFORM A TEST PIT AT ALL EXISTING UTILITY CROSSINGS.
  3. ON TIOGUE AVE ALL SERVICES, HYDRANTS, AND SIDE STREETS TIE-INS HAVE TO BE RELOCATED TO THE 16" D.I. WATER MAIN INCLUDING THE INSTALLATION OF THE 12" GATE VALVE AT PILGRIM AVE AS SHOWN ON SHEET T1 BEFORE THE 12" D.I. WATER MAIN (HIGH SERVICE) CAN BE INSTALLED.
  4. WORK FROM STA 9+00 TO STA 5+00 ON SANDY BOTTOM RD AND FROM STA 102+00 TO STA 99+00 ON TIOGUE AVE SHALL BE BETWEEN 9PM TO 5AM.
  5. THE CONTRACTOR SHALL MAINTAIN ADA ACCESSIBILITY AND PROVIDE TEMPORARY PEDESTRIAN ROUTES AS REQUIRED
- TIOGUE AVE SEQUENCE:**
1. CONTRACTOR SHALL INSTALL LINE STOP AND VALVE ON 12" A.C. FIRST.
  2. PILGRIM AVE TO GILLES ST NEW 12" D.I. (LOW SERVICE) HAS TO BE INSTALLED AND IN SERVICE PRIOR TO ANY OTHER WORK ON TIOGUE AVE.
  3. INSTALL 16x16 TS&V AND CONNECT BOTH MAINS.
  4. ALL SERVICES FROM SANDY BOTTOM RD BERNARD ST SHALL BE TRANSFERRED TO 16" D.I. WATER MAIN.



Scale: 1"=40'

Z:\Projects\KCVIA\North & South 500' 16-004 N&S 500' Sht 1-14 & 20-26.dwg

DESIGNED BY:	RH
DRAWN BY:	OL
CHECKED BY:	JG
SCALE:	1"=40'
NO.:	BY: DATE: REMARKS:
1	RH 10/17 DOT REVIEW COMMENTS
2	RH 2/18 NATIONAL GRID REVIEW COMMENTS
DATE: MAR 2017	
CADD FILE: 16-004 N&S 500' Sht 1-14 & 20-26.dwg	
DATE PRINTED: 8/22/18	

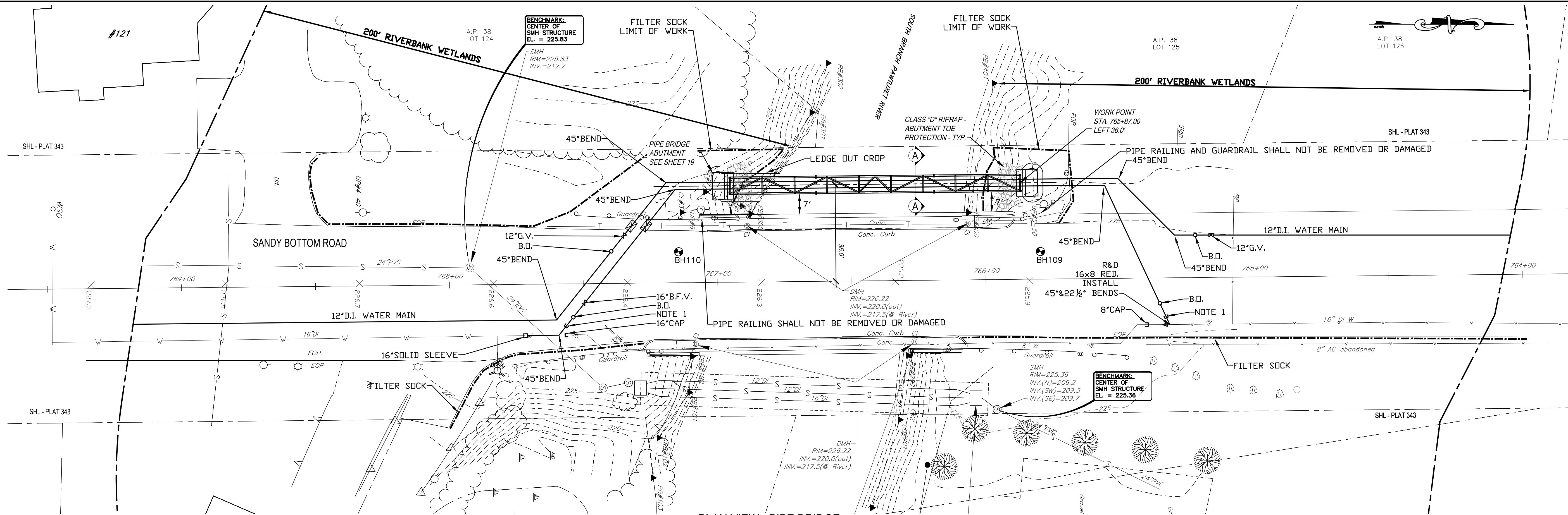
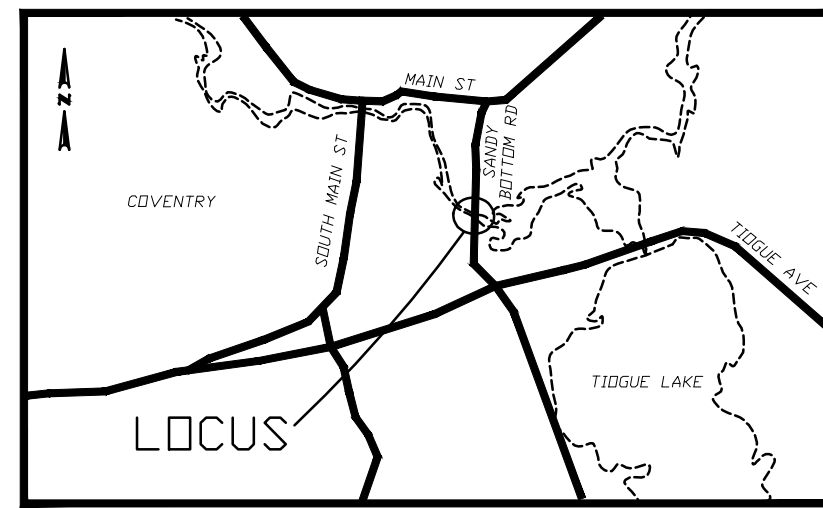


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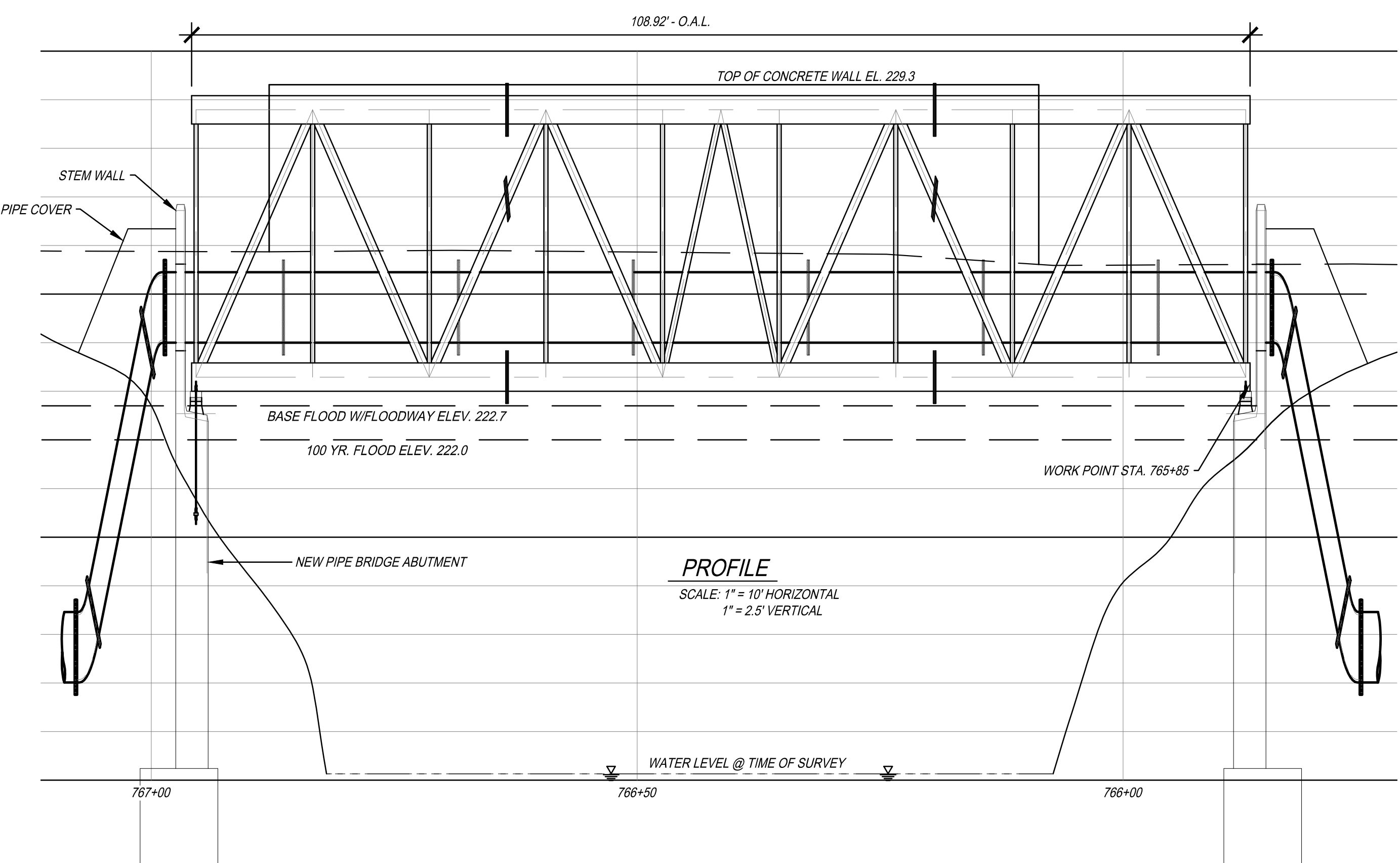
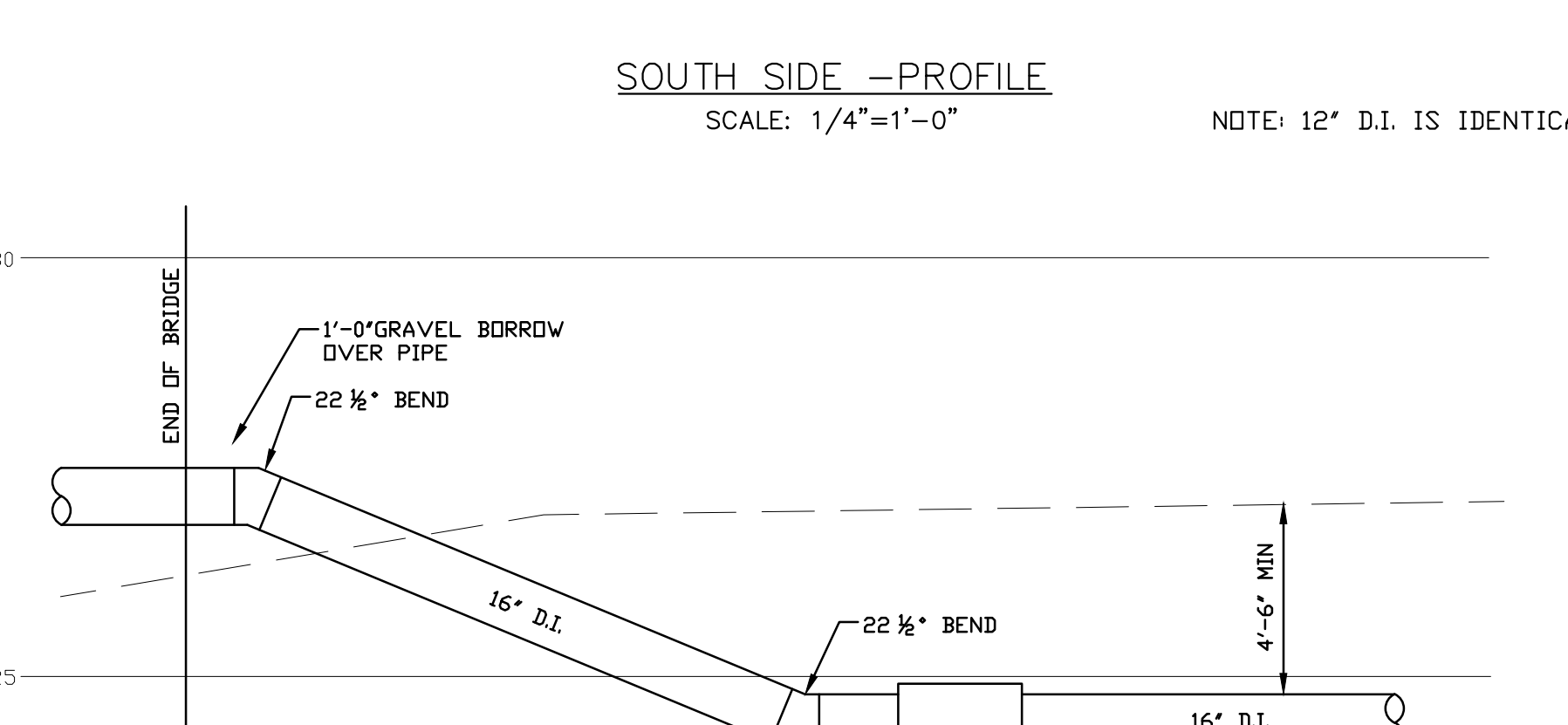
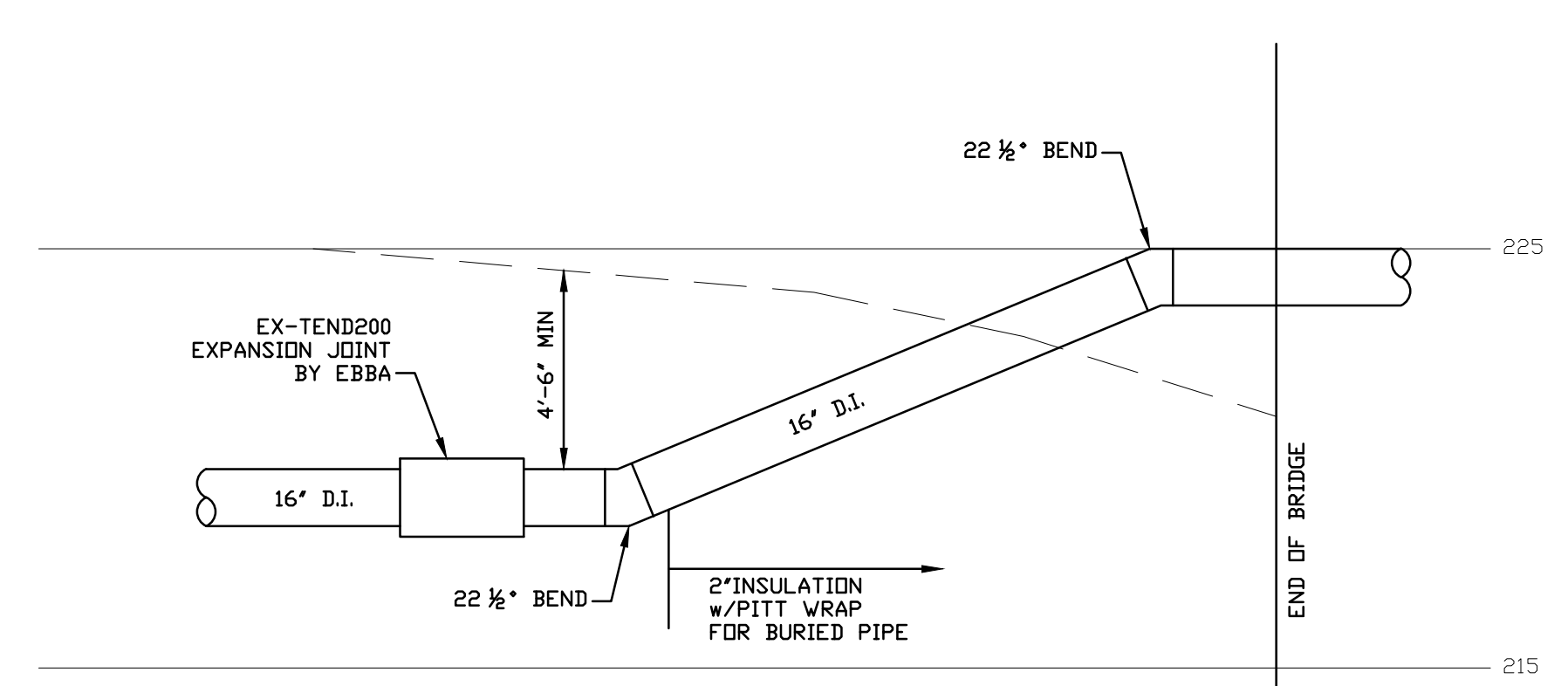
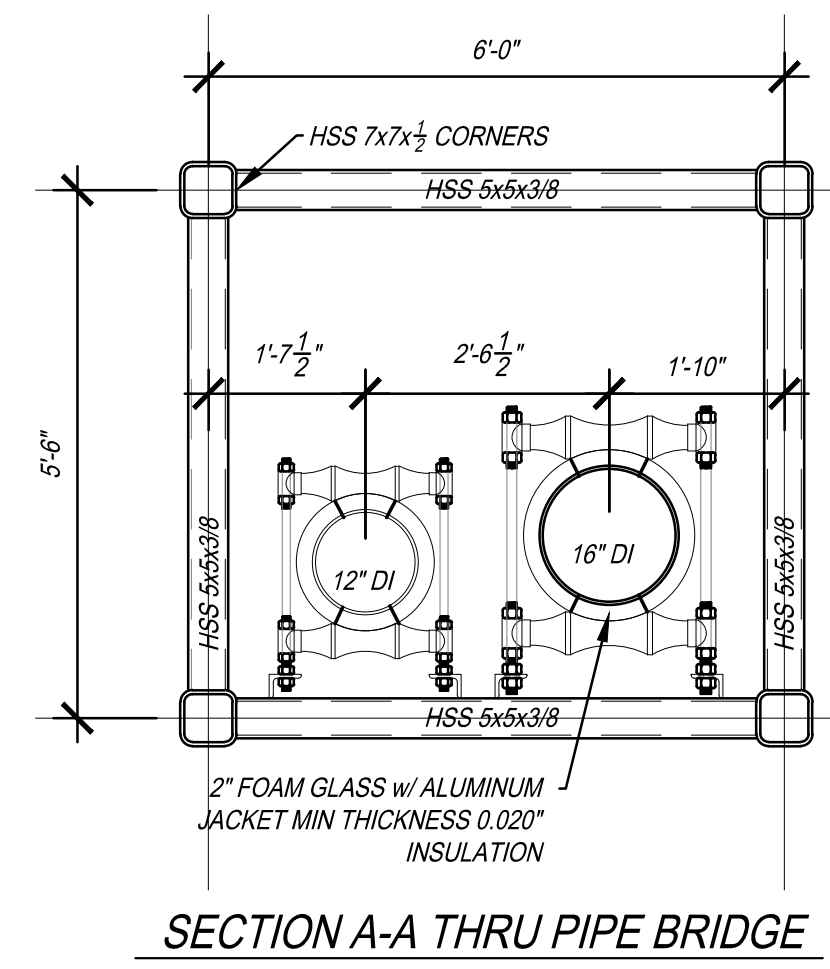
**KENT COUNTY WATER AUTHORITY**  
 NORTH AND SOUTH 500 FEET  
 GRADIENT TRANSMISSION  
 AND INFRASTRUCTURE REPLACEMENT

**PLAN**  
 SANDY BOTTOM RD STA 765+00 TO STA 5+00  
 TIOGUE AVE STA 102+09 TO STA 99+77  
 COVENTRY, RI

SHEET NO.  
**8**



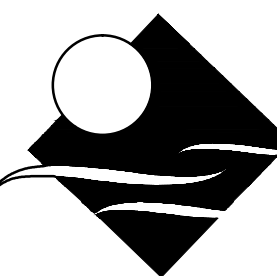
- NOTES:**
1. INSTALL CAP AND THRUST BLOCK AFTER NEW PIPE HAS BEEN TESTED AND DISINFECTED REMOVE CAP AND T.B. AND COMPLETE CONNECTION WITH PIPING, FITTINGS, AND SOLID SLEEVE DISINFECT PER K.W.C.A. REQUIREMENTS.
  2. NATIONAL GRID WILL DE-ENERGIZE THE POWER BETWEEN POLE 4-40 AND POLE 5-50.
  3. REMOVAL OF ROCK ON THE SOUTH SIDE SHALL BE BY A HYDRAULIC SPLITTING AS REQUIRED.
  4. ON THE NORTH AND SOUTH SIDE WITHIN THE DISTURBED AREAS THE CONTRACTOR SHALL INSTALL CLASS B RIP-RAP
  5. IF IT IS REQUIRED TO CLOSE SANDY BOTTOM RD TO SET THE BRIDGE THE WORK SHALL BE DONE BETWEEN 9PM AND 5AM.
  6. THE EXISTING SANDY BOTTOM RD BRIDGE HAS A NO BLANKET PERMIT VEHICLES ALLOWED.
  7. THE STATE HIGHWAY LINE SHALL BE LOCATED IN THE FIELD BY A R.I. REGISTERED LAND SURVEYOR.
  8. ALL PIPE AND FITTING JOINTS TO BE MECHANICAL JOINT WITH RESTRAINED JOINTS FROM STA 788+50 TO STA 765+00 INCLUDING PIPE BRIDGE.



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**KENT COUNTY WATER AUTHORITY**  
 NORTH AND SOUTH 500 FEET GRADIENT TRANSMISSION AND INFRASTRUCTURE REPLACEMENT

**PLAN**  
 SANDY BOTTOM RD PIPE BRIDGE  
 COVENTRY, RI

SHEET NO. 15

Z:\Projects\KCWA\North & South 500\16-004 N&S 500' Sht 15.dwg

NO.: BY: DATE: REMARKS: CADD FILE: 16-004 N&S 500' SH 15.dwg DATE PRINTED: 8/22/18

Addendum No. 4

**GENERAL NOTES:**

- THIS PLAN WAS PRODUCED FOR PURPOSE OF THE CONSTRUCTION OF A BRIDGE TO SUPPORT A 12" AND A 16" DUCTILE IRON WATER MAIN OVER THE SOUTH BRANCH OF THE PAWTUCKET RIVER. USE OF THIS PLAN FOR ANY OTHER WORK IS AT THE SOLE RISK OF THE END USER.
- ALL WORK SHALL COMPLY WITH LOCAL LAWS AND STATUTES AND THE REQUIREMENTS AND CONDITIONS OF ALL REGULATORY PERMITS ISSUED FOR THE WORK.
- THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS REGULATORY PERMITS AND ALL CONDITIONS OF THOSE PERMITS. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS FOR THIS PROJECT MAY CONTAIN ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT IN THE CASE OF ANY DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE CONSTRUCTION, THE FINAL DECISION AS TO WHAT INFORMATION TAKES PRECEDENCE WILL BE MADE BY THE ENGINEER OF RECORD ON THE BASIS OF THAT INTENT.
- ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE LAYOUT, CONSTRUCTION AND FABRICATION OR ORDERING OF ANY CONSTRUCTION MATERIALS.
- ALL SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
- DAMAGE TO ANY PROPERTY, PRIVATE OR OF PUBLIC TRUST, OCCURRING DURING THE CONSTRUCTION BY THE CONTRACTOR, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
- THE CONTRACTOR SHALL USE EQUIPMENT ADEQUATE IN SIZE, CAPACITY, AND NUMBERS, AND PROPERLY MAINTAINED WITH REGARD TO THE SAFETY OF OPERATOR, OTHER WORKMEN, AND GENERAL PUBLIC.
- THE CONTRACTOR SHALL PROTECT ALL WETLANDS AND COASTAL RESOURCES FROM INTRUSION BY TURBID WATERS, CONSTRUCTION DEBRIS, CONSTRUCTION EQUIPMENT, OR PERSONNEL DURING ALL WORK ACTIVITIES.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF INSPECTION, AND PAY ALL LEGAL FEES IN CONNECTION WITH THE WORK OF THIS CONTRACT. THE OWNER HAS OBTAINED NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN REGULATED AREAS. THE CONTRACTOR SHALL REQUEST COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISION IN THIS WORK AND IN THE COST OF THE WORK FOR ALL APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO CONSIDER ANY CONDITION OF THE REGULATORY PERMITS AS A PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO APPLY THOSE CONDITIONS TO HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT FROM DAMAGE ALL ABOVE AND BELOW GROUND UTILITIES AND UTILITY STRUCTURES. PRIOR TO ANY WORK, THE CONTRACTOR SHALL NOTIFY DIG SAFE AND LOCAL UTILITIES TO VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO START OF ANY CONSTRUCTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE ALL LANDSCAPING, INCLUDING BUT NOT LIMITED TO LAWN, TREES, PLANTINGS, ETC. DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT & POSITIONING OF ALL PROPOSED STRUCTURES AS SHOWN ON THE PROJECT DRAWINGS.

**CAST-IN-PLACE / PRE-CAST CONCRETE:**

- CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301 AND ACI 318, LATEST EDITION.
- CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 4,000 PSI, IN ACCORDANCE WITH ASTM STANDARDS.
- PORTLAND CEMENT: ASTM C150, TYPE II
- AIR ENTRAIN ALL CONCRETE TO 5-6%.
- NO CHLORIDES SHOULD INTENTIONALLY BE ADDED. TOTAL WATER SOLUBLE CHLORIDE ION (C) CONTENT OF THE CONCRETE PRIOR TO EXPOSURE SHOULD NOT EXCEED 0.10 PERCENT BY WEIGHT OF THE CEMENT FOR NORMAL REINFORCED CONCRETE AND 0.06 PERCENT BY WEIGHT FOR PRESTRESSED CONCRETE.
- WATER-CEMENT RATIOS AND COMPRESSIVE STRENGTHS FOR THE THREE (3) EXPOSURE ZONES SHALL BE AS FOLLOWS:  

ZONE	MAX. W/C RATIO	MIN. 28 DAY CYLINDER COMPRESSIVE STRENGTH
SUBMERGED	0.45	4000 PSI
ATMOSPHERIC	0.40	4000 PSI

MAXIMUM SLUMP SHALL BE 4".
- REINFORCING STEEL SHALL BE ASTM A615 GR. 60 HOT DIPPED GALVANIZED. REINFORCING STEEL SCHEDULED FOR WELDING SHALL BE ASTM A706. NOMINAL CONCRETE COVER FOR CAST-IN-PLACE CONCRETE OVER REINFORCEMENT SHALL BE AS FOLLOWS:  

ZONE	COVER OVER PRIMARY REINFORCING STEEL	COVER OVER STIRRUPS, SPIRALS, AND TIES
SUBMERGED	3 in. (76 mm)	2.5 in. (64 mm)
ATMOSPHERIC	2.5 in. (64 mm)	2 in. (51 mm)
- CONSTRUCTION JOINTS SHALL BE PREPARED WITH EXTRA CARE AS FOLLOWS:  
  - CAREFUL PREPARATION OF THE SURFACE BY HEAVY WET ABRASIVE BLASTING OR HIGH-PRESSURE WATER JET TO REMOVE LAITANCE AND TO EXPOSE THE COARSE AGGREGATE. THE MAXIMUM SIZE AGGREGATE SHOULD BE EXPOSED TO ABOUT 25 PERCENT OF ITS NORMAL DIAMETER.
  - USE AN EPOXY-RESIN BONDING COMPOUND SPRAYED ON JUST BEFORE CONCRETING. APPLY IN STRICT CONFORMANCE TO MANUFACTURER'S RECOMMENDATIONS. SUPPLY MANUFACTURER, PRODUCT INFORMATION AND APPLICATION LITERATURE TO ENGINEER FOR APPROVAL PRIOR TO USE.
  - INCREASING THE CEMENT CONTENT OF THE CONCRETE AT THE START OF THE NEXT PLACEMENT.
- HOT DIPPED GALVANIZED REINFORCING BAR SPLICES SHALL OVERLAP A MINIMUM OF 56 BAR DIAMETERS FOR #7 AND LARGER BARS, 36 DIAMETERS FOR #6 AND SMALLER BARS, AND 28 BAR DIAMETERS FOR STIRRUPS, SPIRALS AND TIES, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL SUBMIT PLACING DRAWINGS AND SHOP DRAWINGS FOR ALL REINFORCEMENT USED IN THE PROJECT.
- IN HOT WEATHER CONCRETE SHALL BE PROTECTED IN ACCORDANCE WITH ACI 305R-89.
- THE REPAIRING OF DAMAGED OR ABRADED SURFACES OF THE HOT DIPPED GALVANIZED COATING SHALL BE DONE WITH MATERIALS RECOMMENDED FOR THIS PURPOSE BY THE MANUFACTURER OF THE COATING MATERIALS AND APPROVED BY THE OWNER. REPAIR COATINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND DIRECTIONS.

**STRUCTURAL STEEL**

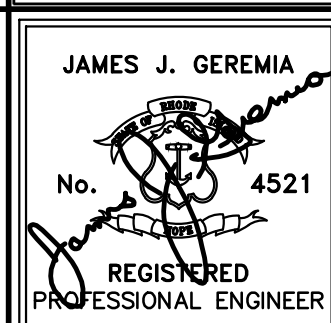
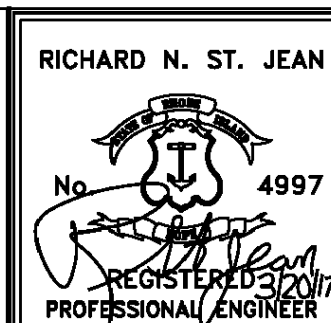
- DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "MANUAL OF STEEL CONSTRUCTION - ASD", THIRTEENTH EDITION, AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
- ALL WELDING SHALL CONFORM TO THE "STRUCTURAL WELDING CODE FOR STEEL" (AWS D1.1) LATEST EDITION, AS ADOPTED BY THE AMERICAN WELDING SOCIETY (AWS). ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH AWS STANDARDS.
- ALL CONNECTIONS SHALL BE DESIGNED BY A STEEL FABRICATOR EXCEPT THOSE SPECIFICALLY DETAILED ON THE CONTRACT DOCUMENTS.
- OPEN ENDS OF ALL TUBE STEELS SHALL BE CLOSED WITH A 1/2" STEEL PLATE AND SEALED WELDED.
- STRUCTURAL STEEL MATERIALS SHALL MEET THE FOLLOWING REQUIREMENTS:
- STEEL SECTIONS AND MISC: ASTM A572 GRADE 50 UNLESS OTHERWISE NOTED
- BOLTS: ASTM A325 WITH HEAVY HEXAGONAL HEADS
- NUTS: ASTM A563 WITH HEAVY HEXAGONAL HEADS
- WASHERS: ASTM F436 OVERSIZED WASHERS
- WELD RODS: ASTM A233, E70XX SERIES ELECTRODES AS REQ'D FOR CONDITIONS OF INTENDED USE
- BOLTS, NUTS, & WASHERS: ALL BOLTS, NUTS, AND WASHERS SHALL BE HOT DIPPED GALVANIZED FOR EXTREME SERVICE (MIN. 4 MIL THICKNESS U.O.N.) IN ACCORDANCE WITH ASTM A153 AND MEET MINIMUM TESTS OF ASTM A239.

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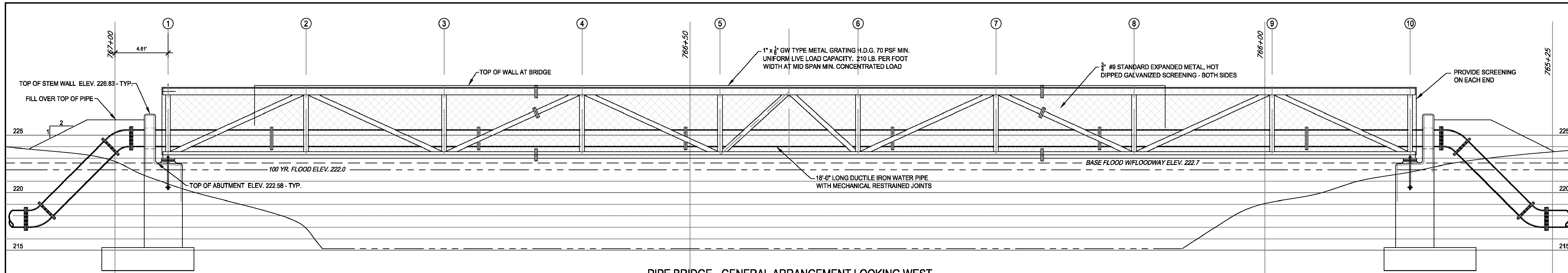
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KENT COUNTY WATER AUTHORITY  
 NORTH AND SOUTH 500 FOOT GRADIENT  
 TRANSMISSION INTERCONNECTION AND  
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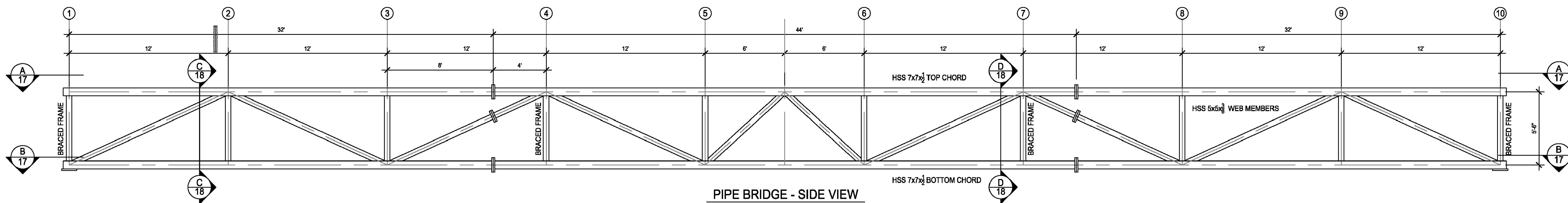
PIPE BRIDGE CONSTRUCTION NOTES  
 SANDY BOTTOM RD. PIPE BRIDGE  
 COVENTRY, RI

SHEET NO.  
 16

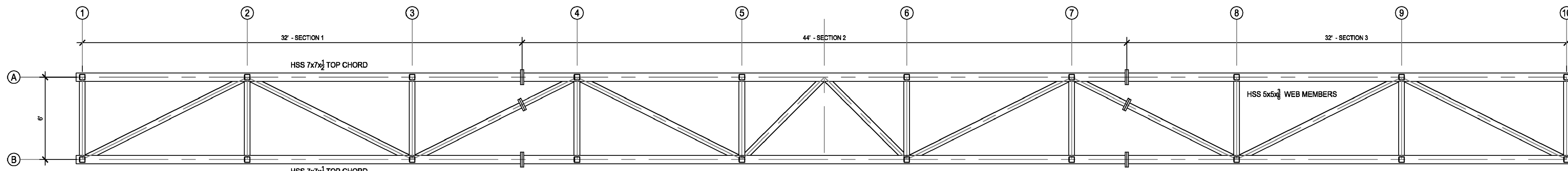
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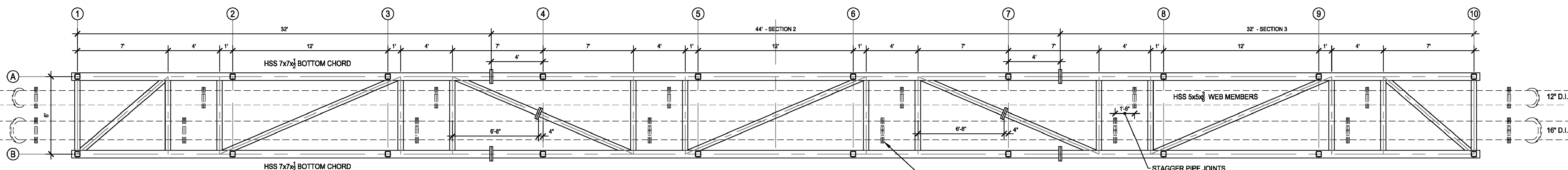
PIPE BRIDGE - GENERAL ARRANGEMENT LOOKING WEST  
SCALE: 1/4" = 1'-0"



PIPE BRIDGE - SIDE VIEW  
SCALE: 1/4" = 1'-0"



PLAN VIEW A-A - TOP CHORD  
SCALE: 1/4" = 1'-0"



PLAN VIEW B-B - BOTTOM CHORD  
SCALE: 1/4" = 1'-0"

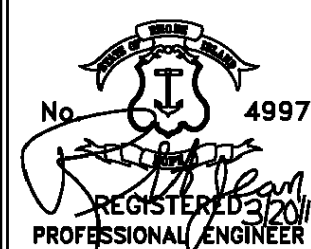
APPROXIMATE LIFTING WEIGHTS: (NO PIPES)  
END SECTIONS: 10,900 LBS  
MIDDLE SECTION: 15,000 LBS

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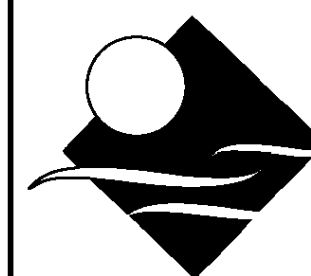
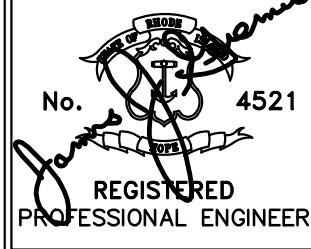
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**PIPE BRIDGE**  
SANDY BOTTOM RD. PIPE BRIDGE  
COVENTRY, RI

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17

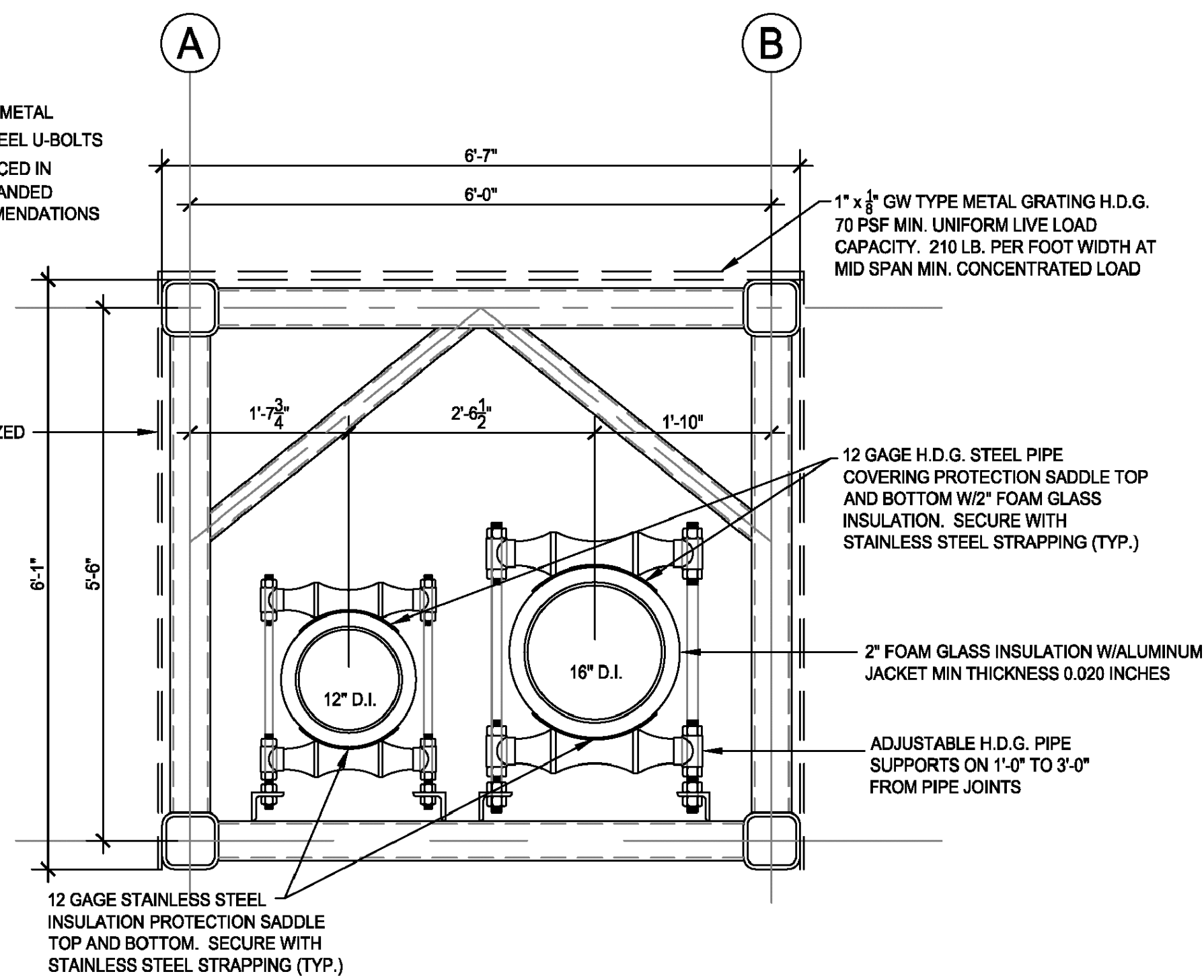
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Addendum No. 4

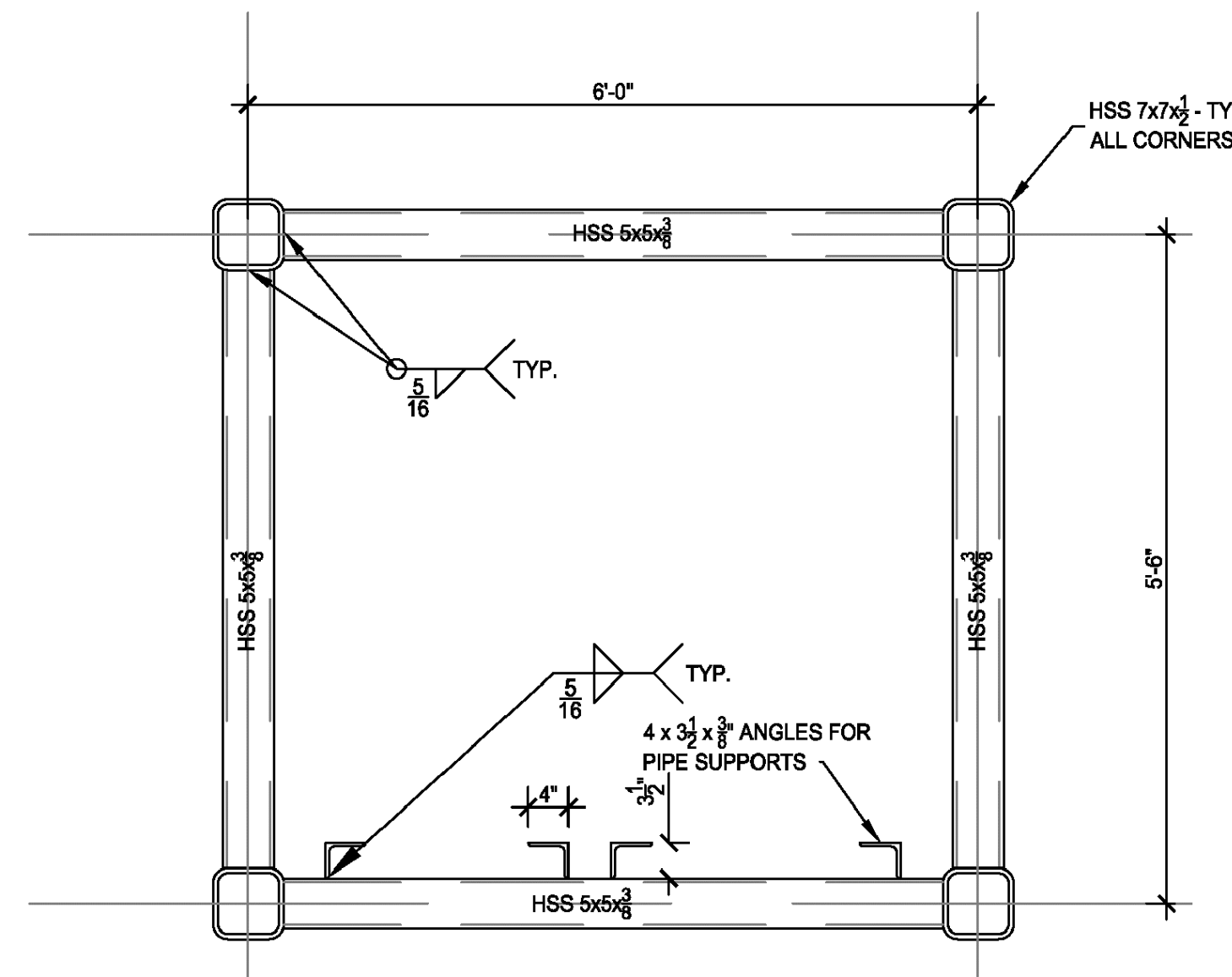
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ATTACH GRATING AND EXPANDED METAL SCREENING WITH  $\frac{1}{4}$ " STAINLESS STEEL U-BOLTS AROUND HSS 7x7x $\frac{1}{2}$  MEMBERS SPACED IN ACCORDANCE WITH GRATING/EXPANDED METAL MANUFACTURER'S RECOMMENDATIONS

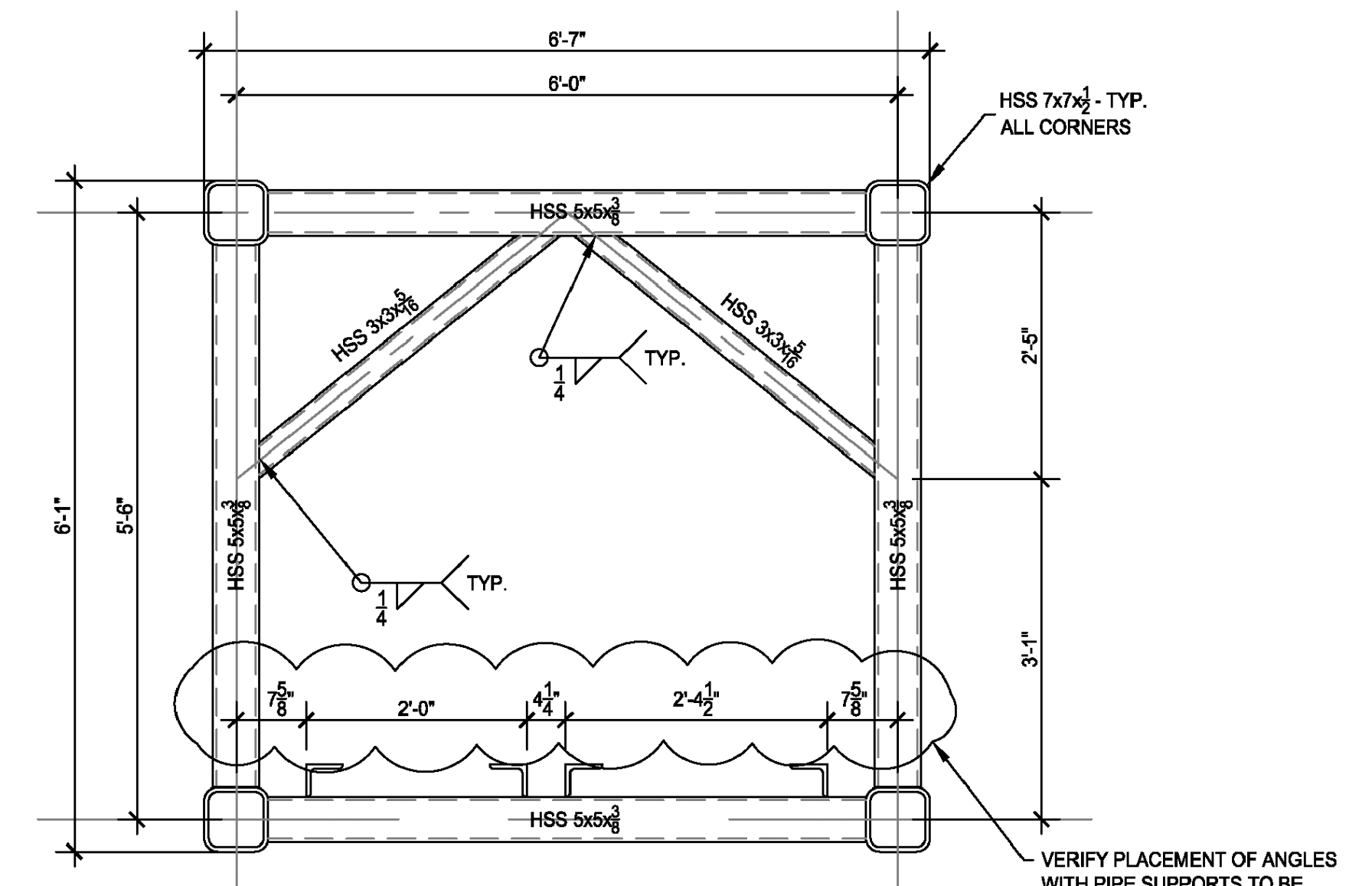
$\frac{3}{8}$ " #9 STANDARD EXPANDED METAL, HOT DIPPED GALVANIZED SCREENING - BOTH SIDES



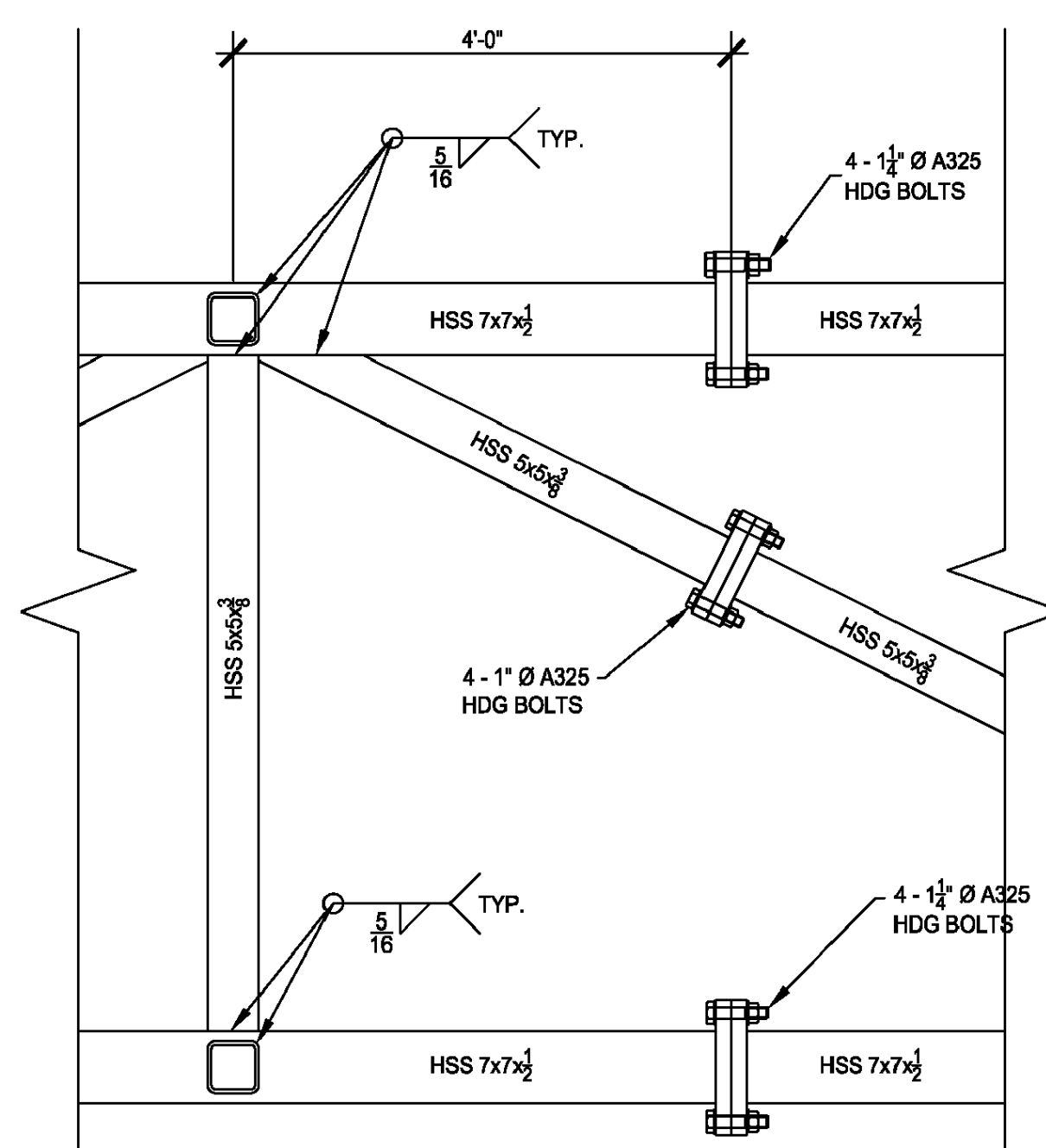
**CROSS SECTION BENT 1 - GENERAL ARRANGEMENT @ END**  
SCALE:  $\frac{3}{8}$ " = 1'-0"



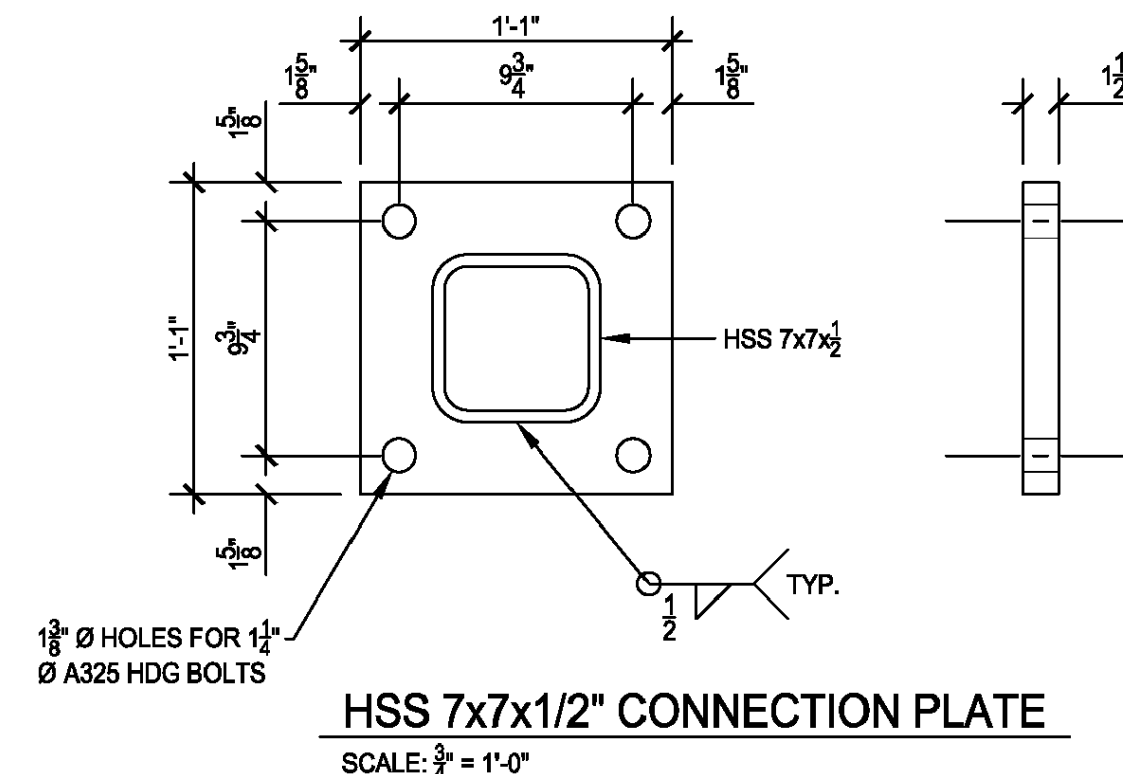
**CROSS SECTION - C-C**  
SCALE:  $\frac{3}{8}$ " = 1'-0"  
TYPICAL @ BENTS 2, 3, 5, 6, 8, 9



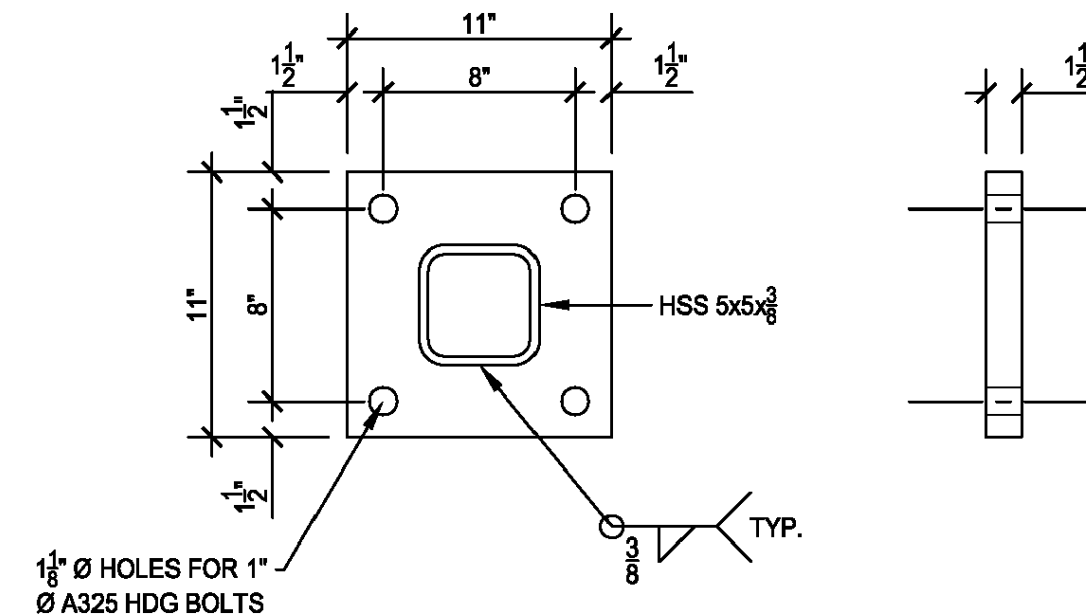
**CROSS SECTION - D-D - BRACED BENT**  
SCALE:  $\frac{3}{8}$ " = 1'-0"  
TYPICAL @ BENTS 1, 4, 7 & 10



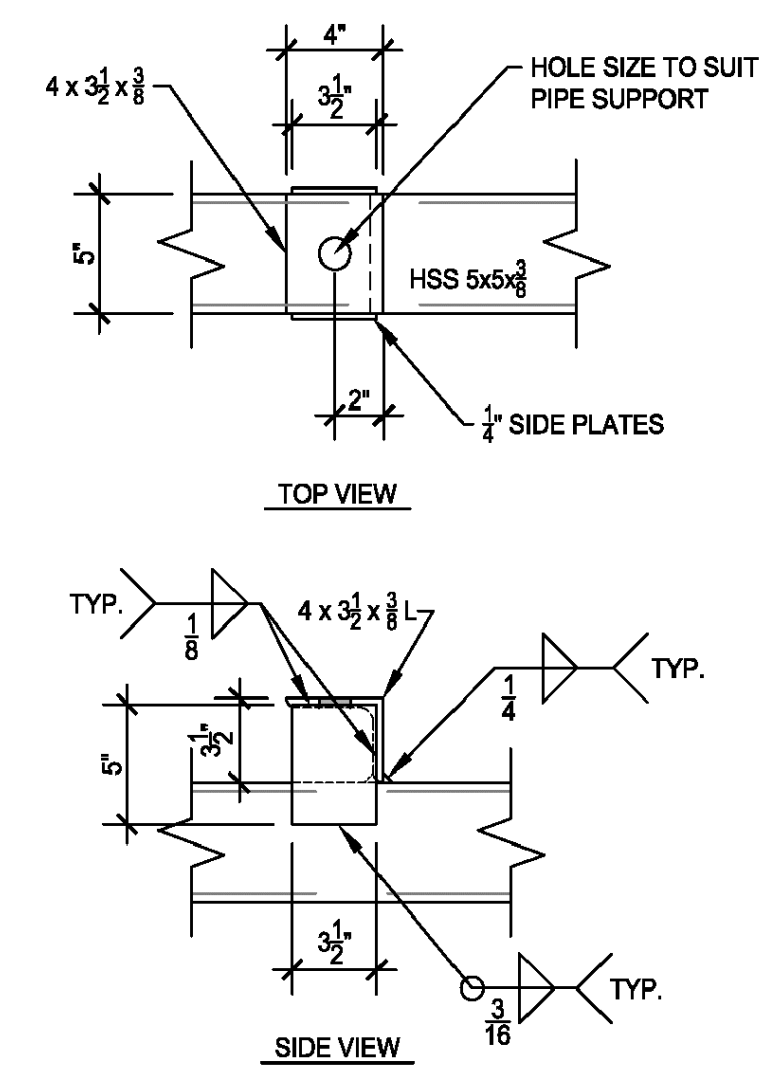
**TYPICAL TRUSS SPLICE CONNECTION**  
SCALE:  $\frac{3}{8}$ " = 1'-0"



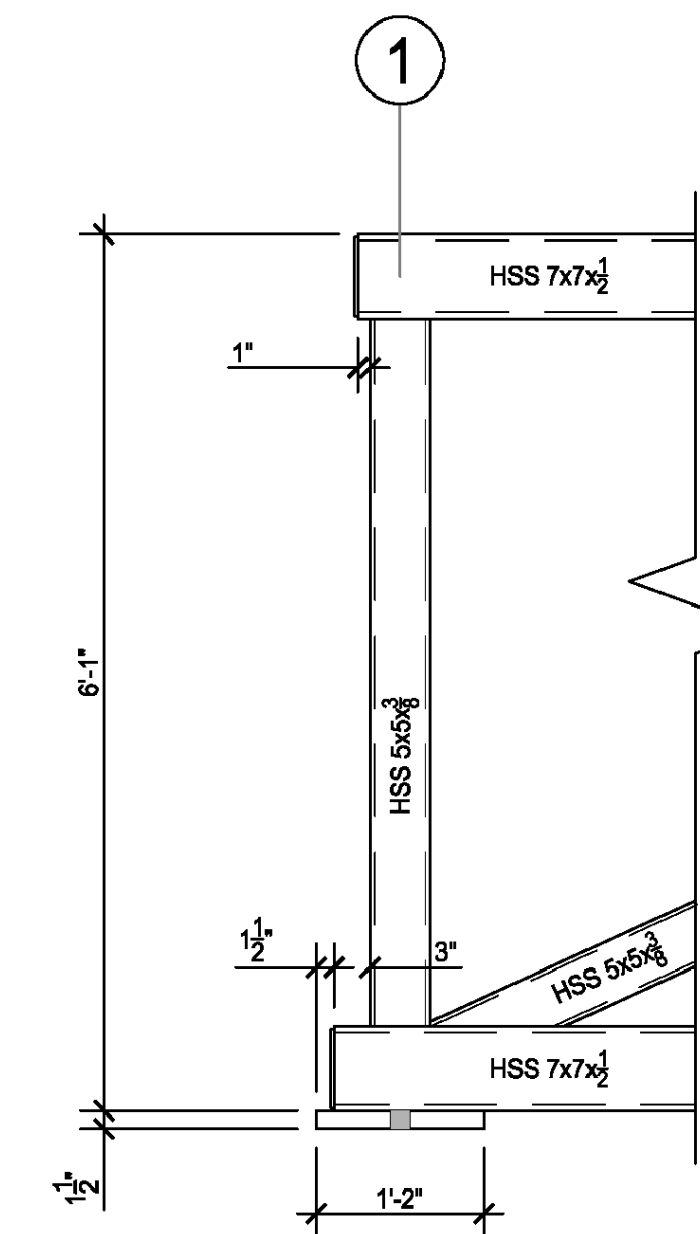
**HSS 7x7x1/2" CONNECTION PLATE**  
SCALE:  $\frac{3}{8}$ " = 1'-0"



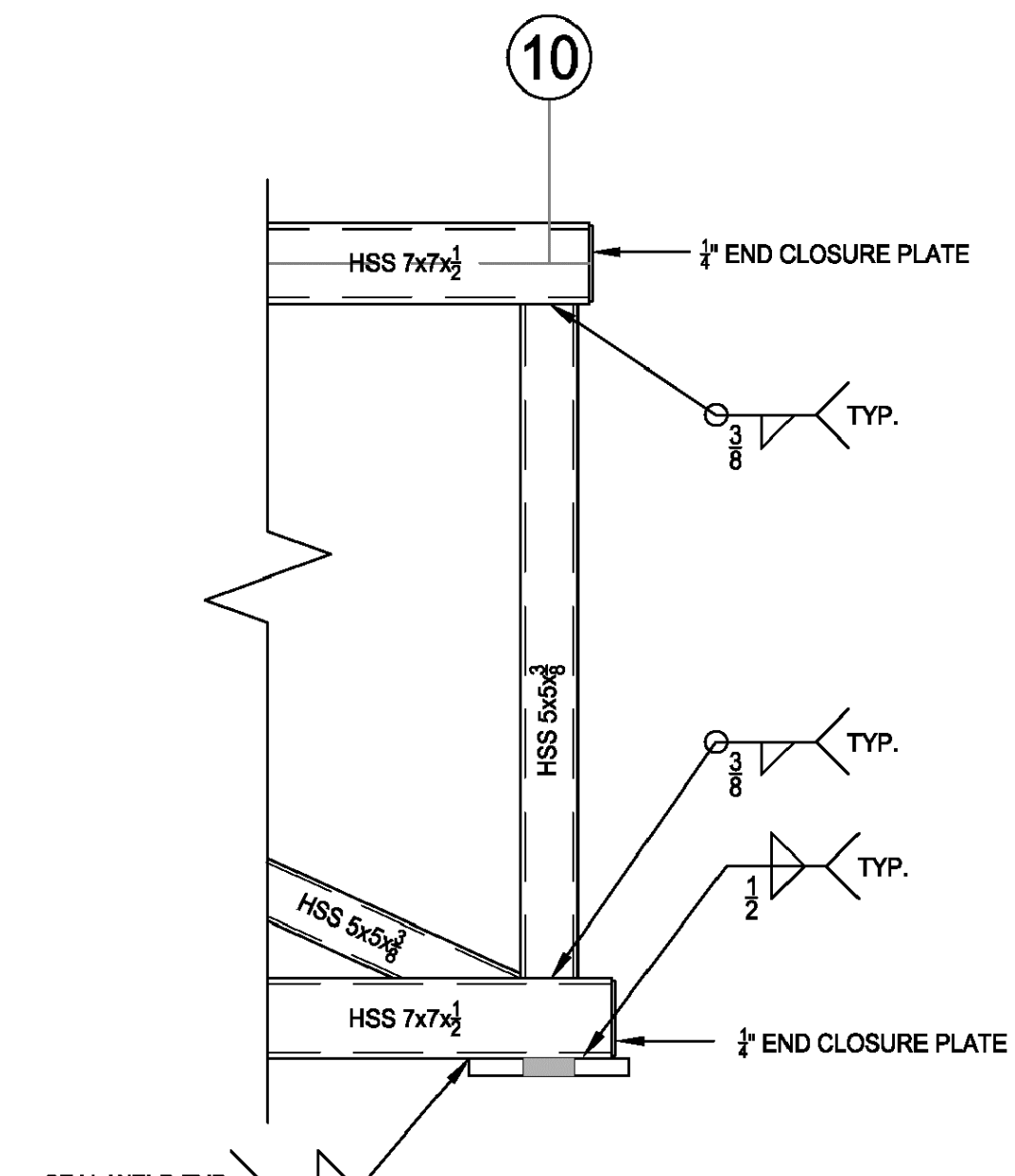
**HSS 5x5x3/8" CONNECTION PLATE**  
SCALE:  $\frac{1}{2}$ " = 1'-0"



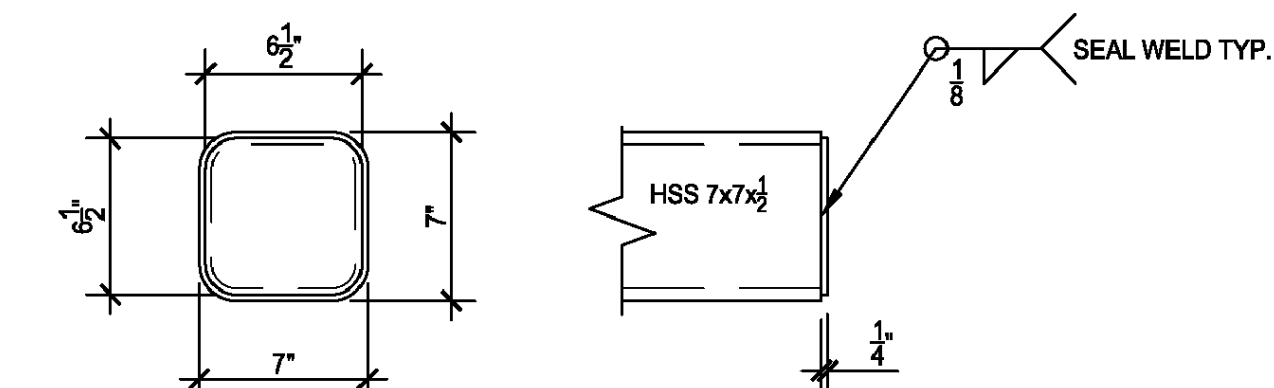
**PIPE SUPPORT ANGLE - ARRANGEMENT**  
SCALE:  $\frac{1}{2}$ " = 1'-0"



**BRIDGE END SUPPORT**  
SCALE:  $\frac{3}{8}$ " = 1'-0"



**BRIDGE END EXPANSION SUPPORT**  
SCALE:  $\frac{3}{8}$ " = 1'-0"



**END CLOSURE PLATE**  
SCALE:  $\frac{1}{2}$ " = 1'-0"

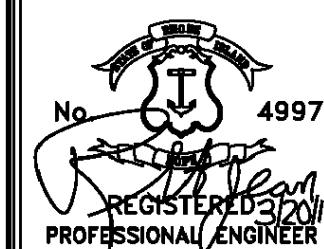
**ST. JEAN ENGINEERING, LLC**

CIVIL, MARINE AND STRUCTURAL CONSULTING ENGINEERING

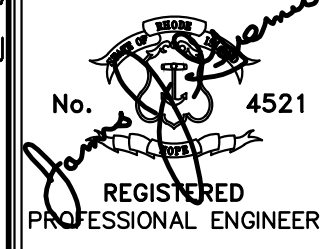
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272 W. Exchange Street Suite 201 Providence, RI 02903-1061  
Phone: 401-454-7000 Fax: 401-454-7415

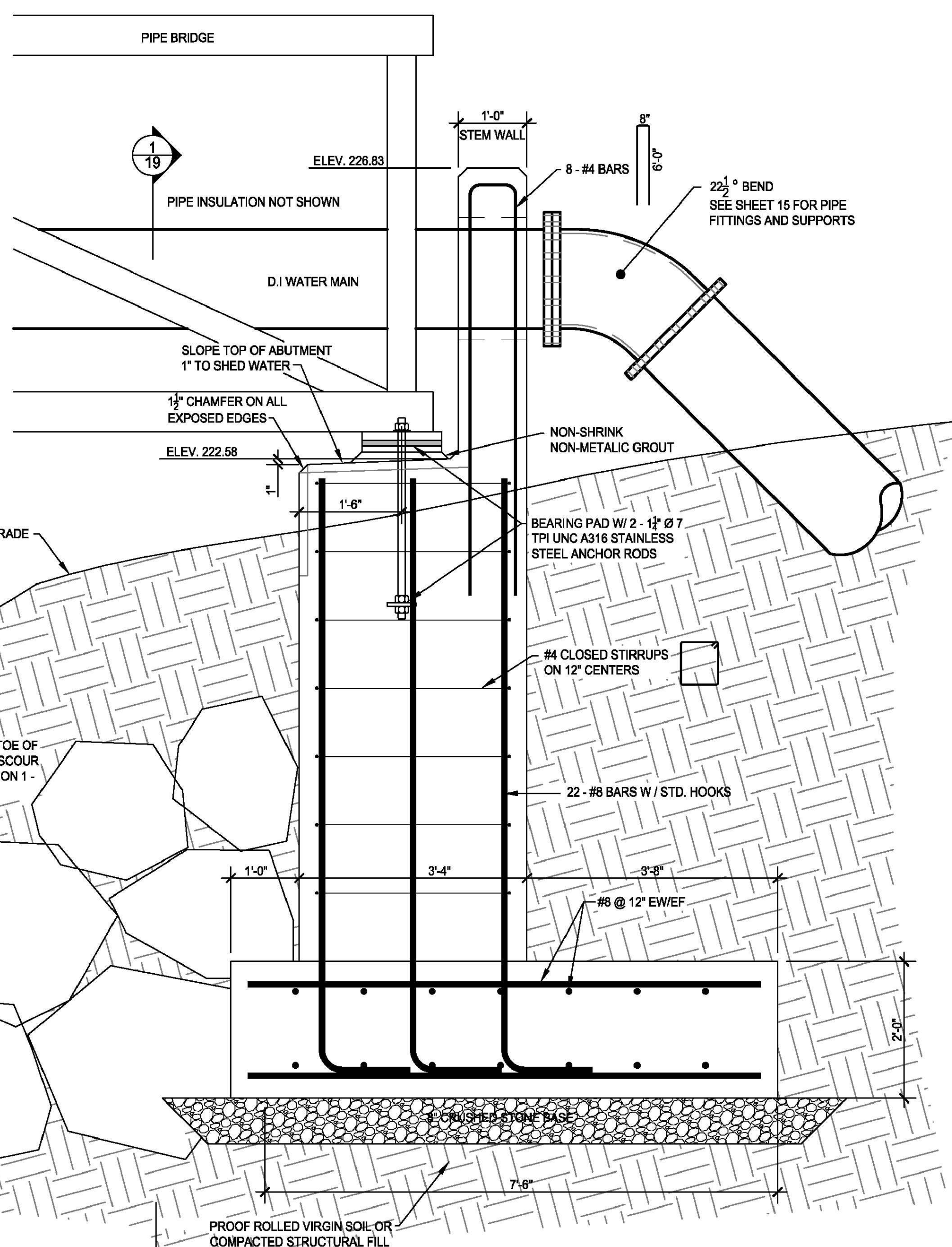
**KENT COUNTY WATER AUTHORITY**  
NORTH AND SOUTH 500 FOOT GRADIENT TRANSMISSION INTERCONNECTION AND INFRASTRUCTURE REPLACEMENTS

**PIPE BRIDGE DETAILS**

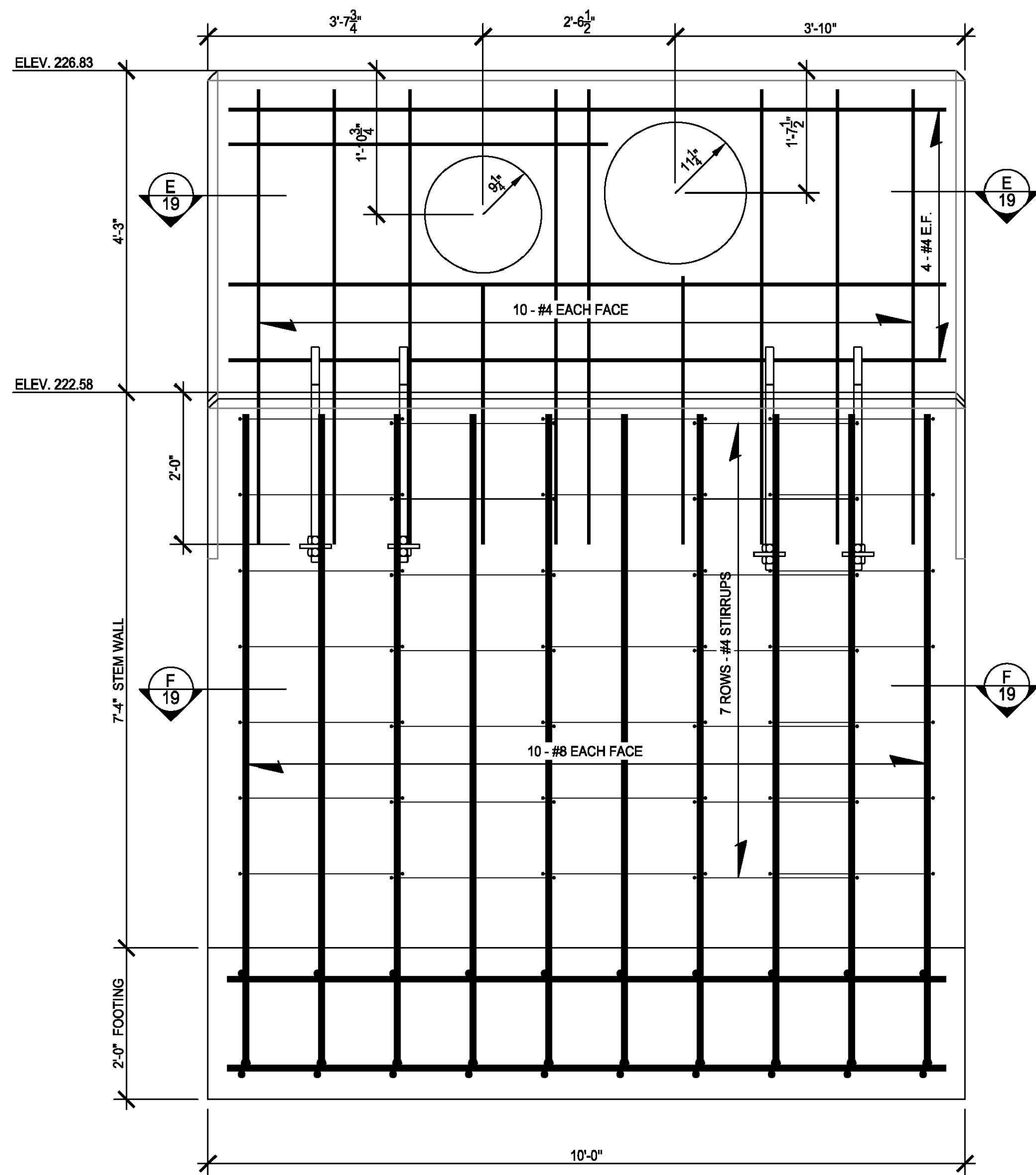
SANDY BOTTOM RD. PIPE BRIDGE  
COVENTRY, RI

SHEET NO.  
**18**

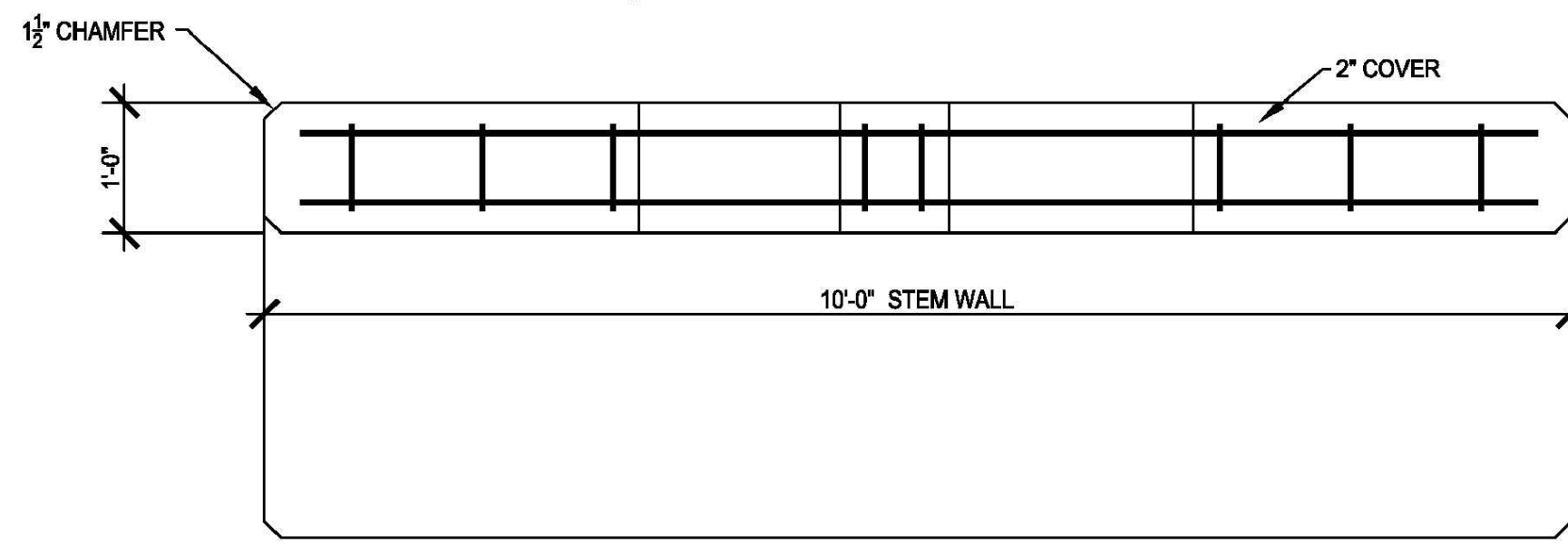
C:\CadFiles\Geremia Associates\Sandy Bottom Road\Pipe Bridge.dwg



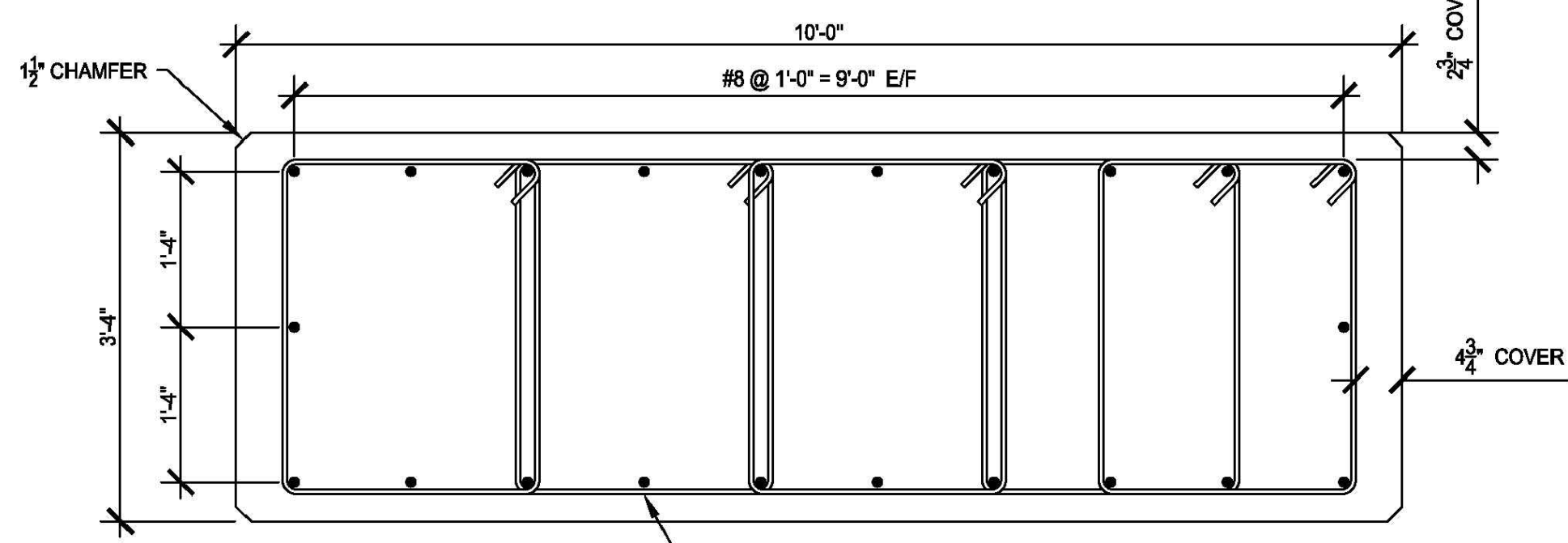
**END VIEW - PIPE BRIDGE ABUTMENT**  
SCALE: 3/8" = 1'-0"



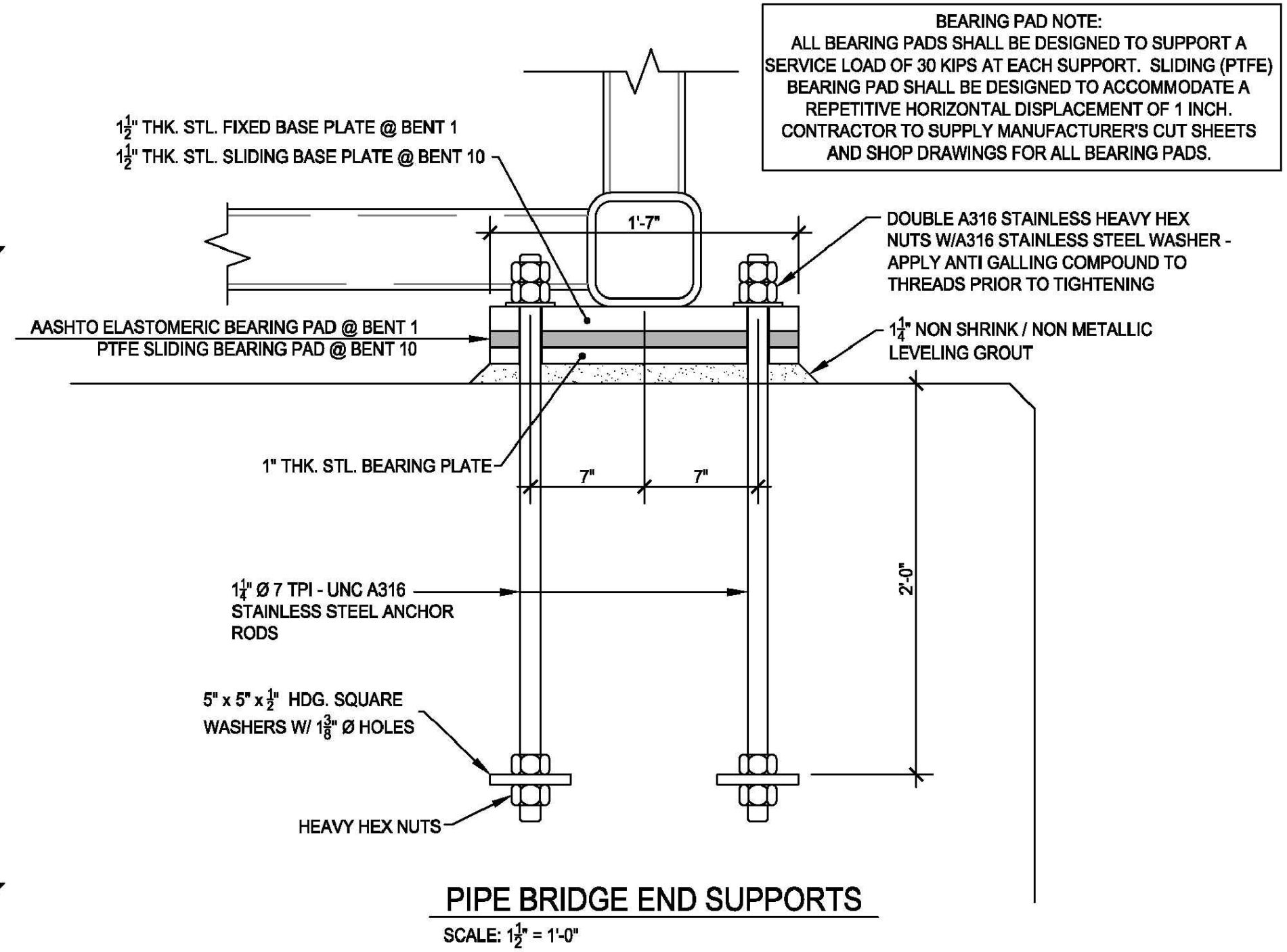
**ELEVATION 1-1 - PIPE BRIDGE ABUTMENT**  
SCALE: 3/8" = 1'-0"



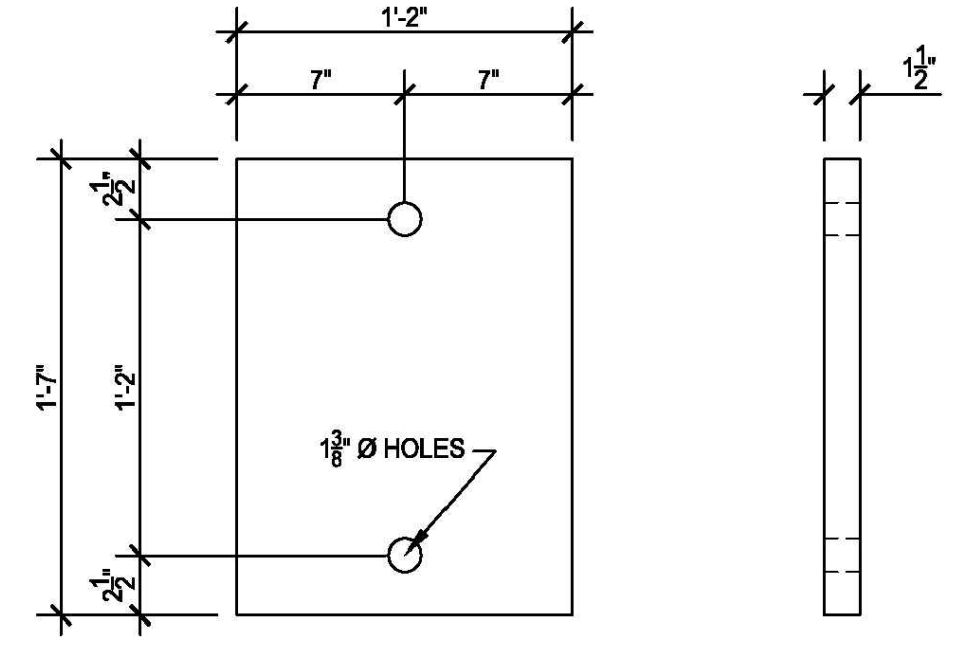
**SECTION E-E - PIPE BRIDGE ABUTMENT**  
SCALE: 3/8" = 1'-0"



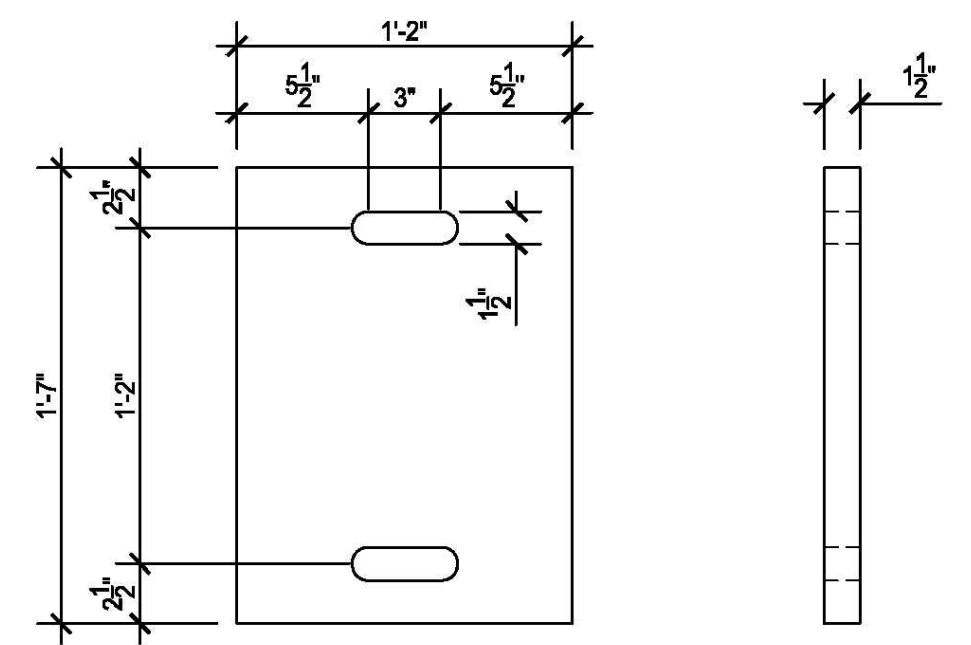
**SECTION F-F - PIPE BRIDGE ABUTMENT**  
SCALE: 3/8" = 1'-0"



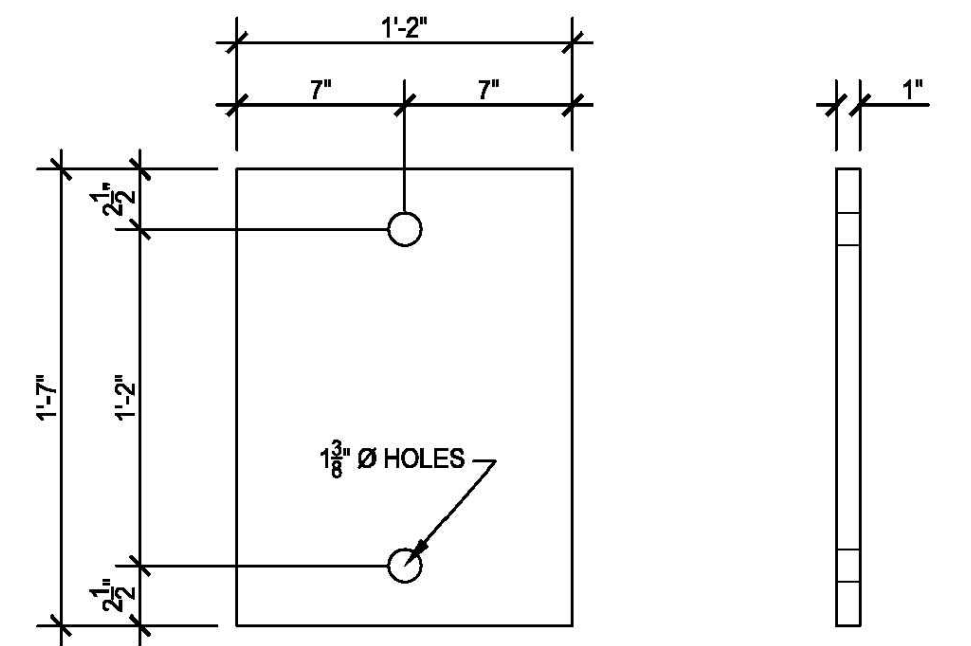
**PIPE BRIDGE END SUPPORTS**  
SCALE: 1/2" = 1'-0"



**FIXED BASE PLATE**  
SCALE: 1/2" = 1'-0" - 2 REQUIRED



**SLIDING BASE PLATE - BENT 10**  
SCALE: 1/2" = 1'-0" - 2 REQUIRED



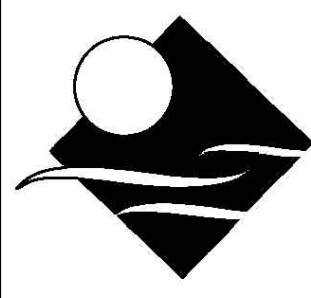
**BEARING PLATE**  
SCALE: 1/2" = 1'-0" - 4 REQUIRED

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**KENT COUNTY WATER AUTHORITY**  
NORTH AND SOUTH 500 FOOT GRADIENT TRANSMISSION INTERCONNECTION AND INFRASTRUCTURE REPLACEMENTS

**PIPE BRIDGE ABUTMENT**  
SANDY BOTTOM RD. PIPE BRIDGE  
COVENTRY, RI

SHEET NO.  
**19**

NO.: BY: DATE: REMARKS:  
CADD FILE: Pipe Bridge.dwg DATE PRINTED: 3/20/17

Addendum No. 4