

**REFERENCES:**

REFERENCE SHALL BE MADE TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 1, 2010.

REFERENCE SHALL BE MADE TO SPECIAL PROVISION FOR: ULTRASONIC IMPACT TREATMENT DATED 6-22-2004.

**UTILITIES**

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

**ELECTRIC**

DUKE ENERGY (ELECTRIC)  
139 EAST 4TH STREET,  
ROOM 467A  
CINCINNATI, OHIO 45202  
513-287-3674  
(AARON WRIGHT)

**TELEPHONE**

CINCINNATI BELL TELEPHONE  
201 EAST 4TH STREET,  
BUILDING 343  
CINCINNATI, OHIO 45202  
513-565-7043  
(MARK CONNER)

**WATER**

GREATER CINCINNATI WATER WORKS  
4747 SPRING GROVE AVENUE  
CINCINNATI, OHIO 45232  
513-591-6856  
(JON HUNSEDER)

**TRAFFIC**

CITY OF CINCINNATI  
TRAFFIC ENGINEERING  
801 PLUM STREET, ROOM 320  
CINCINNATI, OHIO 45202  
513-352-3730  
(LINDA KISER)

**SEWER**

METROPOLITAN SEWER DISTRICT  
1600 GEST STREET  
CINCINNATI, OHIO 45204  
513-557-7188  
(ROB FRANKLIN)

**TRAFFIC**

ARTIMIS  
508 W. THIRD STREET  
CINCINNATI, OHIO 43202  
513-933-6597  
(ANDY FLUEGEMANN)

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE INTERIM SPECIFICATIONS AND THE ODOT 2004 BRIDGE DESIGN MANUAL WITH 10-19-07 INTERIMS.

**DESIGN DATA:**

STRUCTURAL STEEL - ASTM A709, GRADE 50  
- 50,000 PSI YIELD STRENGTH

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. IT IS THE INTENT OF THESE PLANS THAT THE PROPOSED ADDITIONS TO THESE STRUCTURES MATCH EXISTING CONDITIONS. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

**SCOPE OF WORK:**

THE SCOPE OF WORK TO BE PERFORMED INCLUDES:

**BRIDGE NO. HAM-71-0248R**

**WORK REQUIRED:**

1. BOTTOM FLANGE TIE PLATES - INTERIOR (PIER CAPS 9, 10, 11, & 12)
  - A) NON-DESTRUCTIVE TESTING
  - B) ULTRASONIC IMPACT TREATMENT
2. STRESS RELIEF HOLES (PIER CAPS 9, 10, 11, & 12)
  - A) DRILL HOLES AND SAWCUT BETWEEN
  - B) PLUG HOLES AND SEAL CUTS BETWEEN HOLES
3. REMOVE DIAPHRAGM KNEE BRACE - INTERIOR (PIER CAPS 9, 10, 11, & 12)
4. RETROFIT LATERAL BRACE (PIER CAPS 9, 10, 11, & 12)
  - A) GRIND AND REMOVE WELDED GUSSET PLATE
  - B) ADD BOLTED ANGLE DETAIL AS PER PLAN
5. RETROFIT DRAINAGE ATTACHMENTS (PIER CAPS 9, 10, & 11)
  - A) REMOVE WELDED CONNECTION OF DRAINAGE BRACKET
  - B) ATTACH BOLTED ANGLE CONNECTION AS PER PLAN
6. GIRDER KNEE BRACKET - EXTERIOR (PIER CAPS 9, 10, 11, & 12)
7. WELD INTERMEDIATE CROSSFRAME STIFFENERS (SPANS 9-13).
8. GRIND AS DIRECTED BY ENGINEER.
9. ULTRASONIC IMPACT TREATMENT, AS PER PLAN.
10. CLEAN AND PAINT STEEL PIER CAP INTERIORS, AS PER PLAN.
11. CLEAN AND PAINT SUPERSTRUCTURE AND STEEL PIER CAP EXTERIORS.
12. SEAL THE SUPERSTRUCTURE, ABUTMENTS AND PIERS.
13. PAINT ALL ABUTMENT BEARINGS. REFURBISH FORWARD ABUTMENT BEARINGS ONLY. INCLUDE AN ADDITIONAL CONTINGENCY QUANTITY TO REPLACE 2 BEARINGS WITH ROCKERS PER ORIGINAL DESIGN. LOCATIONS TO BE "AS DIRECTED BY THE ENGINEER."

**ITEM 512 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)**

THIS ITEM INCLUDES SEALING FOLLOWING SURFACES AS SHOWN ON THE PLANS:

1. THE CONCRETE SUPERSTRUCTURES OF SPECIFIED BRIDGES SHOWN ON THE PLANS.
2. THE PORTIONS OF SUBSTRUCTURES OF SPECIFIED BRIDGES SHOWN ON THE PLANS.

THE COLOR OF THE URETHANE COATING SHALL BE FEDERAL COLOR STANDARD NO. 17778 (LIGHT NEUTRAL).

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE PER SQUARE YARD.

**ITEM 513 STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN:**

THIS ITEM INCLUDES THE WORK NECESSARY TO RETROFIT THE WELDED CONNECTIONS OF THE LATERAL BRACES AND DRAINAGE BRACKETS TO THE STEEL PIER CAP BY PROVIDING NEW BOLTED CONNECTIONS AT THE SPECIFIED LOCATIONS ON THE PLANS. THIS ITEM ALSO INCLUDES GRINDING THE CONNECTION WELDS SMOOTH AT THESE LOCATIONS ON THE PIER CAP. INCIDENTAL TO THIS ITEM IS THE SUPPLYING AND TIGHTENING OF PIER CAP ANCHOR BOLT NUTS. ALSO INCLUDED UNDER THIS ITEM AS INCIDENTAL WORK IS THE REEMING OF PLUG WELDS AND BOLTING THE NEW HOLES AS SHOWN ON THE PLANS.

STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE PROJECT ENGINEER SHALL HAVE THE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED TO THE ENGINEER, IF REQUESTED, BY THE OFFICE OF STRUCTURAL ENGINEERING. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING STEEL ITEMS INTO THE WORK, AS REQUIRED BY 501.06. AFTER FABRICATION, THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND ONE APPROVED SET TO THE OFFICE OF STRUCTURAL ENGINEERING FOR INFORMATION. PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH 513 OF THE CMS AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIALS AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT FOR WELDING, CUTTING, GRINDING, DRILLING AND BOLTING SHALL BE DEEMED TO BE INCLUDED FOR PAYMENT UNDER THIS ITEM. PAYMENT FOR FIELD DRILLING HOLES IN EXISTING MATERIAL IN-SITU AS PART OF THE REPAIR SHALL ALSO BE INCLUDED FOR PAYMENT UNDER THIS ITEM. PAYMENT SHALL BE MADE AT A UNIT BID PRICE OF POUNDS.

**ITEM 513 STRUCTURAL STEEL, MISC.: GRINDING PER FOOT:**

THIS ITEM INCLUDES GRINDING MISCELLANEOUS TACK WELDS AS DIRECTED BY THE ENGINEER, GRINDING THE INTERMITTENT TACK WELDS AT BACKER BARS BETWEEN THE PIER CAP WEB AND PIER CAP BOTTOM FLANGE PLATES, GRINDING THE INTERMITTENT TACK WELDS AT BACKER BARS BETWEEN THE PIER CAP WEB AND GIRDER TIE PLATES, GRINDING THE INTERSECTING WELDS BETWEEN THE WEB STIFFENER WELDS AND THE PIER CAP FLANGE WELDS, AND GRINDING AND REMOVING ABANDONED DRAIN BRACKETS AND OTHER ATTACHMENTS AS SHOWN ON THE PLANS.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK AND WHERE NOT INCIDENTAL TO THE COMPLETION OF OTHER WORK PAID FOR UNDER THIS CONTRACT. PAYMENT SHALL BE MADE AT THE BID PRICE PER FOOT.

**ITEM 513 STRUCTURAL STEEL, MISC.: WELDING STRUCTURAL STEEL, AS PER PLAN:**

THIS ITEM INCLUDES WELDING ALL INTERMEDIATE CROSS-FRAME WEB STIFFENERS TO THE GIRDER FLANGES (SEE OUT-OF-PLANE BENDING CRACK REPAIR DETAILS).

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIAL, AND LABOR NECESSARY TO PERFORM THIS TASK AND WHERE NOT INCIDENTAL TO THE COMPLETION OF OTHER WORK PAID FOR UNDER THIS CONTRACT. PAYMENT SHALL BE MADE AT THE BID PRICE PER FOOT.

**ITEM 513 STRUCTURAL STEEL, MISC.: ULTRASONIC IMPACT TREATMENT (UIT)**

THIS ITEM CONSISTS OF INSPECTING THE EXISTING AND NEWLY PLACED WELDS AT THE GIRDER TIE PLATE CONNECTIONS TO THE PIER CAP WEBS, AND PERFORMING THE ULTRASONIC IMPACT TREATMENT IN ACCORDANCE WITH THE SPECIAL PROVISION AT THE LOCATIONS SHOWN ON THE PLANS.

**ITEM 513 STRUCTURAL STEEL, MISC.: 1/2" STRESS RELIEF HOLE RETROFIT:**

THIS ITEM INCLUDES THE STRESS RELIEF RETROFITS AT THE LOCATIONS SPECIFIED IN THE PLANS.

EACH RETROFIT INCLUDES THE DRILLING OF TWO 1/2" DIAMETER HOLES AND AN 1/8" MAXIMUM SAWCUT BETWEEN THE HOLES, ON EACH SIDE OF THE GIRDER TIE PLATES AT THE PIER CAP LOCATIONS SPECIFIED IN THE PLANS. IT ALSO INCLUDES PLUGGING THE DRILLED HOLES WITH CATCH BUMPER PLUGS AND CAULKING THE SAWCUT.

THE PLUGS SHALL BE 1/2" QUICK SEAL RUBBER EXPANSION PLUGS, ITEM NUMBER 02603, AS MANUFACTURED BY:

DORMAN PRODUCTS  
CENTRAL DISTRIBUTION FACILITY  
25 DORMAN DRIVE  
WARSAW, KENTUCKY 410985

OR AN APPROVED EQUAL. THE CAULK SHALL BE AN EXTERIOR GRADE SILICON BASED CAULKING.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE FOR EACH RETROFIT.

**PROTECTION OF EXISTING UTILITIES**

ALL EXISTING CONDUIT(S) ON THE BRIDGE SHALL REMAIN IN PLACE AND THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE CONDUIT(S). ANY DAMAGE INCURRED ON THE CONDUIT(S) DURING WORK SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR. ALL COST OF PROTECTION IS INCIDENTAL TO ITEM 514.

**PROTECTION OF ARTIMIS UTILITIY**

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE CONDUIT OR DISRUPT THE SERVICE OF THE EXISTING ARTIMIS FIBER OPTIC CONDUIT ON BRIDGE NO. HAM-71-0248R. IF DAMAGED OR DISRUPTED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARTIMIS POINT OF CONTACT. A PLAN OF CORRECTIVE ACTION SHALL THEN BE COORDINATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIR COSTS.

IF THE FIBER OPTIC CABLE LOCATED WITHIN THE CONDUIT IS DAMAGED, THE CONTRACTOR SHALL REPAIR THE FIBER OPTIC CABLE AS DIRECTED BY THE ARTIMIS POINT OF CONTACT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH ARTIMIS REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIR COSTS.

THE PRIMARY ARTIMIS POINT OF CONTACT IS DENNY GRAY, 513-615-3766; JEFF SPADAFORÉ IS A SECONDARY ARTIMIS CONTACT, 513-564-6102.

BRIDGE NUMBER	STRUCTURE FILE NUMBER	INTERSECTED FEATURE	EXISTING PLANS BRIDGE NUMBER
HAM-71-0248R	3106802	EDEN PARK ENTRANCE; FLORENCE AVE.	HAM-71-0224

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DESIGN AGENCY: STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.

DATE: 06-08-10

REVISIONS: SCS STRUCTURE FILE NUMBER 3106802

DRAWN: P.J.L. CHECKED: CAH

DESIGNED: P.J.L.

STRUCTURE GENERAL NOTES 1

HAM-71-0248R

OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE

HAM-71-2.48

PID No. 24954

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PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE FOR EACH RETROFIT.

**ITEM 513 STRUCTURAL STEEL, MISC.: 2" STRESS RELIEF HOLES, AS PER PLAN:**

THIS ITEM INCLUDES THE DRILLING OF 2" DIAMETER HOLES IN THE GIRDER WEBS OF BRIDGE HAM-71-02484, AND ANY NECESSARY CLIPPING OF CROSSFRAME ANGLES TO PERFORM THIS WORK, AT THE LOCATIONS SPECIFIED IN THE PLANS. THE ENDS OF THE CRACKS SHALL BE LOCATED AS DESCRIBED IN ITEM 516 STRUCTURAL STEEL, MISC.: PENCIL ABRASIVE BLASTING, GRINDING AND NDT, AS PER PLAN. WEB CRACKS SHALL BE TREATED BY REMOVING THE CRACK TIP BY DRILLING THE 2" DIAMETER HOLE LOCATED AS DETERMINED BY AND UNDER THE DIRECTION OF THE ENGINEER.

**ITEM 516 JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN**

THIS WORK FOR THIS ITEM CONSISTS OF RAISING OR REPOSITIONING EXISTING STRUCTURES TO DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

**ITEM 514 PAINTING OF EXISTING STRUCTURAL STEEL FOR PIER CAPS AND SUPERSTRUCTURE**

PAINT ALL SUPERSTRUCTURE STEEL, BEARINGS, AND STEEL PIER CAPS USING SYSTEM OZEU. COLOR SHALL BE FEDERAL COLOR 14277 (GREEN).

**ITEM 514 FIELD PAINTING, MISC.: FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)**

THIS ITEM INCLUDES PAINTING THE STEEL PIER CAP INTERIORS BEING RETROFITTED AS SHOWN IN THE PLANS.

THE INTERIOR OF EACH PIER CAP IS CONSIDERED AS A CONFINED SPACE AND MAY REQUIRE EXTRA PRECAUTIONS TO ACCOMPLISH THE CONTRACT WORK. THIS MAY INCLUDE SPECIAL METHODS OF VENTILATION, PAINT REMOVAL, PAINT APPLICATION AND/OR OTHER PRECAUTIONS DEEMED NECESSARY BY THE CONTRACTOR. ANY SPECIAL EQUIPMENT OR PROCEDURES NECESSARY TO COMPLETE THIS WORK SHALL BE AT NO ADDITIONAL COST TO THE STATE AND SHALL BE INCLUDED IN THE APPROPRIATE BID ITEMS. THE PAINT MAY BE APPLIED TO THE INTERIOR SURFACES BY BRUSHES OR ROLLERS. AIRLESS SPRAY IS ALLOWED ONLY IF OVERSPRAY IS CONTAINED BY END CLOSURES.

INTERIOR PAINT AT THE EXISTING STEEL PIER CAPS SHALL BE PAINTED WHITE, FEDERAL COLOR NUMBER 27295 AS SHOWN IN THE PLANS. FOR BRIDGES THAT ARE NOT TO BE PAINTED IN THEIR ENTIRETY, THE EXTERIOR AREAS OF THE PIER CAPS ARE TO BE SPOT PAINTED AND SHALL MATCH EXISTING PAINT COLOR.

THIS ITEM SHALL CONSIST OF:

1. A COMPLETE WASHDOWN OF ALL STEEL USING A POWER WASHER WITH 7,000 PSI MINIMUM AT NOZZLE WITH A FLOW RATE OF 3-4 GAL/MIN. THE NOZZLE IS TO BE HELD PERPENDICULAR TO AND NO MORE THAN 12" FROM THE STEEL SURFACE.
2. SOLVENT CLEANING AS NEEDED.
3. SPOT CLEANING TO REMOVE ALL RUST, MILL SCALE, UNSOUND PAINT, ETC., USING POWER TOOLS SUCH AS: NEEDLE GUNS, DESCALERS, ABRASIVE WHEELS, DISCS, ROTARY IMPACT FLAPS, WIRE BRUSHES, ETC. (SEE SSPC-SP 11) THE APPEARANCES OF THE SURFACE AFTER POWER TOOL CLEANING SHALL CORRESPOND TO THE PICTORIAL STANDARDS OF SSPC-SP 11.
4. A TEST SECTION TO VERIFY COMPATIBILITY OF PRIMER WITH EXISTING PAINT.
5. A SPOT PRIME USING AN APPROVED EPOXY MASTIC (5 MILS MINIMUM).
6. A FULL PRIME (5 MILS MIN.) USING EPOXY MASTIC OVER ALL AREAS OF THE BRIDGE INCLUDING OVER THE SPOT PRIME. SPOT PRIME OR FULL PRIME SHALL BE TINTED TO CONTRAST WITH PREVIOUS COAT.
7. A COMPLETE TOP COAT USING A URETHANE (3 MILS MIN.).
8. ALL PROVISIONS OF OZEU PROPOSAL NOTE WILL APPLY TO THIS PROJECT, EXCEPT THOSE WHICH DIRECTLY CONFLICT WITH THIS NOTE.
9. THE FOLLOWING EXCEPTIONS APPLY TO THIS PROJECT:
  - a. AREAS OF RUST, UNSOUND (I.E., PEELING, FLAKING) PAINT, ETC. SHALL BE REMOVED BY HAND TOOL OR POWER TOOL CLEANING. THE REMOVAL SHALL EXTEND OUT ADEQUATELY TO LEAVE ONLY SOUND, WELL-BONDED EXISTING PAINT, AND SHALL BE FEATHER-EDGED 2" MINIMUM FROM THE BARE STEEL TO

THE SOUND TOP COAT AROUND THE PERIMETER OF EACH SPOT CLEANED.

THE INTENT OF THIS SPECIFICATION IS TO PROVIDE FOR CLEANING AND PAINTING OF THE BRIDGE(S) WITHOUT THE USE OF ABRASIVE BLASTING. THE CONTRACTOR MAY CHOOSE TO USE SELECTIVE ABRASIVE BLASTING ON THIS PROJECT IN CONJUNCTION WITH HAND TOOL CLEANING. HOWEVER, ANY ABRASIVE BLASTING MUST BE ACCOMPANIED WITH CONTAINMENT, COLLECTION, STORAGE, TESTING, AND DISPOSAL OF ALL BLASTING DEBRIS IN ACCORDANCE WITH THE PROVISIONS OF OZEU AND WASTE CONTROL PROPOSAL NOTES, EXCEPT NO SEPARATE PAYMENT WILL BE MADE FOR WASTE CONTROL. VACUUM BLASTING WILL ALSO BE CONSIDERED ACCEPTABLE, PROVIDING ALL ABRASIVE MATERIAL IS RECYCLED.

b. MINIMUM MIL THICKNESS OF EACH COAT OF PAINT SHALL BE VERIFIED WITH A POSITECTOR.

PAINT COMPATIBILITY TEST SECTION:

BEFORE ANY PAINTING CAN BEGIN ON THIS BRIDGE (AND AT LEAST 24 HOURS PRIOR TO PAINTING), A 2' x 2' SECTION OF EXISTING SOUND PAINT SHALL BE REMOVED DOWN TO BARE METAL. THE PRIMER TO BE USED SHALL BE APPLIED TO THE TEST SECTION MAKING SURE THAT PRIMER OVERLAPS EXPOSED EDGES OF SOUND PAINT. ANY LIFTING, WRINKLING, OR OTHER DETRIMENTAL EFFECTS ON THE SURROUNDING SOUND PAINT WITHIN THE FIRST 24 HOURS SHALL BE GROUNDS FOR DISAPPROVAL OF THE SELECTED PRIMER AND ANOTHER PRIMER SHALL BE SELECTED FOLLOWED BY ANOTHER TEST SECTION. THE COST OF THESE SECTIONS SHALL BE INCLUDED FOR PAYMENT WITH SURFACE PREPARATION.

THE FOLLOWING COATINGS OR APPROVED EQUAL WHICH WILL BE ACCEPTABLE (PENDING ACCEPTABILITY OF TEST SECTIONS) ARE:

THE CARBOLINE CO.  
350 HANLEY INDUSTRIAL CT.  
ST. LOUIS, MO 63144  
(314) 644-1000

PRIMER - CARBOMASTIC 15  
TOP COAT - CARBOTHANE 134 HS

AMERON PROTECTIVE LINING DIV.  
201 N BERRY STREET  
BREA, CA 92821  
(714) 256-9344

PRIMER - AMERLOCK 400 OR 400 AL  
TOP COAT - AMERCOAT 450 HS

POLY-CARB, INC.  
33095 BAINBRIDGE ROAD  
SOLON, OH 44139  
(440) 248-1223

PRIMER - MARK 60.1: ULTRAPOX II  
TOP COAT - MARK 73: ULTRAKOTE

VALSPAR CORP.  
901 NORTH GREENWOOD AVE.  
KANKAKEE, IL 60901  
(815) 933-5561

PRIMER - ALUMAPOXY V75A1  
TOP COAT - V40 SERIES URETHANE

THE SHERWIN - WILLIAMS CO.  
101 PROSPECT AVENUE NW  
CLEVELAND, OH 44115  
(216) 566-2000

PRIMER - EPOXY MASTIC ALUMINUM II  
B62S100/B60V100  
TOP COAT - POLYURETHANE B65 SERIES/B60 V2

PRIMER AND TOP COAT MUST BE BY SAME MANUFACTURER.

**BASIS OF PAYMENT:**

ITEM	UNIT	DESCRIPTION
514	SQUARE FOOT	FIELD PAINTING, MISC.: SURFACE PREPARATION (EEU)
514	SQUARE FOOT	FIELD PAINTING, MISC.: SPOT PRIME (EPOXY)
514	SQUARE FOOT	FIELD PAINTING, MISC.: FULL PRIME (EPOXY)
514	SQUARE FOOT	FIELD PAINTING, MISC.: COMPLETE COAT FINISH (URETHANE)

**CONSTRUCTION NOTIFICATION**

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES, AND ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (513)932-7651 OR EMAIL AT [D08.PIO.Form@dot.state.oh.us](mailto:D08.PIO.Form@dot.state.oh.us). THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

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<b>HAM-71-2.48</b>	<b>PID No. 24954</b>	<b>STRUCTURE GENERAL NOTES 2</b>	<b>HAM-71-0248R</b>	<b>OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE</b>												
2 / 14		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">DESIGNED P.J.L.</td> <td style="width: 25%; text-align: center;">CHECKED CAH</td> <td style="width: 25%; text-align: center;">DRAWN P.J.L.</td> <td style="width: 25%; text-align: center;">REVISED</td> </tr> <tr> <td colspan="2" style="text-align: center;">REVIEWED SCS</td> <td colspan="2" style="text-align: center;">DATE 06-08-10</td> </tr> <tr> <td colspan="2" style="text-align: center;">STRUCTURE FILE NUMBER</td> <td colspan="2" style="text-align: center;">3106802</td> </tr> </table>			DESIGNED P.J.L.	CHECKED CAH	DRAWN P.J.L.	REVISED	REVIEWED SCS		DATE 06-08-10		STRUCTURE FILE NUMBER		3106802	
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		DESIGN AGENCY STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.														



**ITEM 513 - STRUCTURAL STEEL, MISC.:  
PENCIL ABRASIVE BLASTING, GRINDING AND  
NON-DESTRUCTIVE TESTING, AS PER PLAN:**

THIS ITEM INCLUDES THE FOLLOWING SEQUENCE OF OPERATIONS PERFORMED AT LOCATIONS SPECIFIED IN THE PLANS AND DIRECTED BY THE ENGINEER.

1. CLEAN THE AREAS BY PENCIL ABRASIVE BLASTING TO REMOVE PAINT, RUST AND ANY OTHER FOREIGN MATERIAL FROM THE SURFACE OF THE PLATES AND ADJACENT WELDS, OR AS DESIGNATED IN THE PLANS.

2. THE ENGINEER SHALL CAREFULLY VISUALLY INSPECT THE CLEANED AREA. GRINDING MAY BE DIRECTED BY THE ENGINEER TO ENHANCE THE INVESTIGATION FOR CRACK PRESENCE. ALL GRINDING MUST BE DONE CAUTIOUSLY ESPECIALLY IN TENSION ZONES.

3. THE CONTRACTOR SHALL PERFORM NON-DESTRUCTIVE TESTING (NDT) IN THE AREAS USING MAGNETIC PARTICLE EXAMINATION OR DYE PENETRANT SO THAT THE ENGINEER MAY FURTHER INSPECT FOR CRACKS. CONTRACTORS' PERSONNEL PERFORMING NDT SHALL BE QUALIFIED AS PER 513.25 OF THE CMS.

THE PENCIL ABRASIVE BLASTING SHALL CONFORM TO THE FOLLOWING:

THE DESIGNATED NDT AREAS SHALL BE CLEANED TO A SURFACE QUALITY EQUAL TO PREPARATION GRADE SA 2 1/2. SINCE INTENT OF THE PENCIL BLASTING IS TO ENHANCE THE VISUAL AND NDT DETECTION, A GENTLE BLAST SHALL BE USED SUCH THAT THE SURFACE IS NOT PEENED OR OTHERWISE COLD WORKED. SILICA SAND SHALL NOT BE USED. THE BLASTING SHALL BE PERFORMED USING A MAXIMUM COMPRESSED AIR PRESSURE OF 100 PSI, A HOSE NOZZLE DIAMETER OF 1/4" ± 1/16" AND A GRADE 30/60 COAL SLAG ABRASIVE OR EQUIVALENT. BLASTERS USED FOR SURFACE PREPARATION OF STRUCTURAL STEEL PAINTING SHALL NOT BE USED FOR PENCIL BLASTING. AFTER ABRASIVE BLASTING IS COMPLETE, THE CLEANED AREA SHALL BE AIR BLOWN CLEAN.

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER PRIOR TO THE START OF THE WORK THAT HE CAN SATISFACTORILY PERFORM PENCIL ABRASIVE BLASTING ACCORDING TO THESE SPECIFICATIONS.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE ON A LUMP SUM BASIS.

**ITEM 530 - STRUCTURAL STEEL, MISC.: KNEE BRACE  
RETROFIT:**

THIS ITEM INCLUDES ALL WORK NECESSARY TO RETROFIT THE STEEL PIER CAP EXTERIOR KNEE BRACES AS SHOWN ON THE PLANS.

THE RETROFIT INCLUDES THE DRILLING OF A 1" DIAMETER HOLE AND THE NECESSARY GRINDING TO COPE THE PIER CAP KNEE BRACES UNDER THE GIRDER TIE PLATES AT THE LOCATIONS SPECIFIED IN THE PLANS. GRIND THE COPINGS UNTIL THEY ARE SMOOTH. CARE SHALL BE TAKEN NOT TO HARM THE EXISTING WELDS TO REMIAN.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE FOR EACH KNEE BRACE RETROFITTED.

**ITEM 513 - STRUCTURAL STEEL, MISC.: REMOVAL  
OF DIAPHRAGM KNEE BRACE:**

THIS ITEM INCLUDES ALL WORK NECESSARY TO REMOVE THE PIER CAP INTERIOR DIAPHRAGM KNEE BRACES AS SHOWN ON THE PLANS. FLAME CUTTING THE KNEES IS PROHIBITED. CUTTING OF THE KNEES SHALL BE PERFORMED WITH CARE TO AVOID DAMAGING OR NOTCHING OF THE MATERIAL THAT IS TO REMAIN. THE FILLET WELDS ON THE CAP WEB OR FLANGE AND THE FILLET WELDS ON THE TIE PLATE SHALL BE GROUND SMOOTH. CARE SHALL BE TAKEN NOT TO HARM THE EXISTING WELDS TO REMIAN.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE FOR EACH REMOVED KNEE BRACE.

**ITEM 516 - REFURBISHING BEARING DEVICE,  
AS PER PLAN**

THIS ITEM APPLIES TO BEARINGS AT THE FORWARD ABUTMENT LOCATION ONLY.

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), REPLACEMENT OF ANY MISSING OR DAMAGED KEEPER PLATES, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60° F [15° C], LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARING. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". CONCRETE BEARING SEAT SHALL BE CLEANED PRIOR TO RESET OF BEARINGS. CARE SHALL BE TAKEN DURING REMOVAL OF THE TOP PLATE WELDS TO NOT GOUGE OR OTHERWISE DAMAGE THE EXISTING BEAM FLANGE. ANY REMAINING WELD METAL SHALL BE REMOVED BY GRINDING FLUSH WITH THE EXISTING FLANGE SURFACE.

PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516, REFURBISH BEARING DEVICE, AS PER PLAN.

**ITEM 516 - BEARING DEVICE, MISC.: REPLACING  
BEARING DEVICE, AS PER PLAN**

PRIOR TO OR DURING THE REFURBISHMENT AT THE BEARINGS, THE ENGINEER MAY DIRECT THE CONTRACTOR TO REPLACE BEARINGS DEEMED BY THE ENGINEER TO BE BEYOND REFURBISHMENT DUE TO DETERIORATED CONDITIONS. A QUANTITY OF TWO (2) BEARINGS HAS BEEN INCLUDED FOR THIS PURPOSE. THIS QUANTITY SHALL BE PAID FOR IN ADDITION TO THE REFURBISHING ITEM IF THE BEARING HAS ALREADY BEEN DISASSEMBLED WHEN THE ENGINEER DIRECTS THE CONTRACTOR TO REPLACE THE BEARING. ALL NEW BEARINGS SHALL BE OF THE SAME TYPE AS THE EXISTING.

**ITEM 530 SPECIAL - STRUCTURE, MISC.:  
STEEL PIER CAP SEAL, AS PER PLAN**

SEAL PIER CAP HATCH COVER PLATE USING 1/4" NEOPRENE SHEET, ATTACHED TO INSIDE OF COVER PLATE. SIZE TO FIT COVER PLATE AND SECURE TO INSIDE FACE OF COVER PLATE, USING NEOPRENE MANUFACTURER APPROVED ADHESIVE.

THE NEOPRENE SHEETING SHALL BE 1/4" THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE.

THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D 751	0.25 ± 0.01
BREAKING STRENGTH, GRAB, LBS., MINIMUM (LONG. X TRANS.)	D 751	700 X 700
BURST STRENGTH, PSI, MINIMUM	D 751	1400
HEAT AGING 70 HR, 212°F, 180°BEND WITHOUT CRACKING	D 2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLNESS, 1 HR, -40°F, BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

NEOPRENE TO BE APPLIED AFTER OZEU PAINT HAS BEEN APPLIED AND PAINT HAS HAD ADEQUATE CURE TIME.

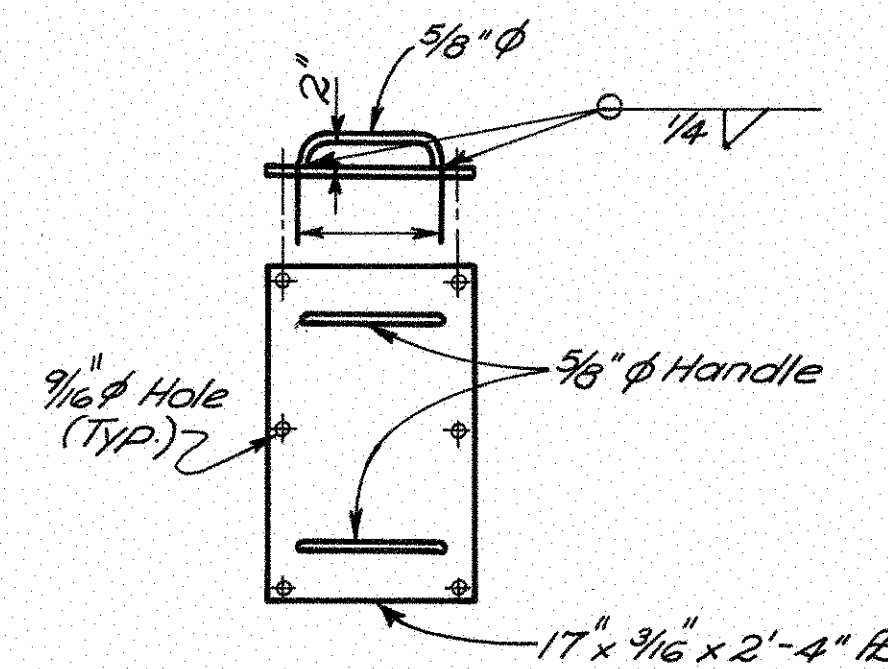
AFTER PIER CAP HATCH COVER PLATE HAS BEEN REINSTALLED TO PIER CAP, THE HATCH COVER SHALL BE SEALED USING A BEAD OF 100% SILICONE SEALANT TO PREVENT WATER FROM ENTERING PIER CAP.

THIS ITEM SHALL INCLUDE ALL MATERIALS, ADHESIVE, AND WORK NECESSARY TO INSTALL THE SEAL AND SILICONE.

**ITEM 530 SPECIAL - STRUCTURE, MISC.:  
STEEL PIER CAP HATCH COVER PLATE, AS PER PLAN**

REPLACE EXISTING STEEL HATCH COVER PLATE AT EACH END OF PIER CAP. PAINT COVER PLATE WITH SYSTEM OZEU TO MATCH STEEL PIER CAP. CONTRACTOR SHALL VERIFY DIMENSIONS OF EXISTING COVER PLATE PRIOR TO FABRICATION.

THIS ITEM SHALL INCLUDE ALL MATERIALS AND WORK NECESSARY TO INSTALL STEEL PIER CAP HATCH COVER PLATE.



**COVER PLATE**  
(FOR PIER CAP ACCESS)

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED,  
OVER 20' SPAN, AS PER PLAN:**

REMOVAL OF ITEMS NOT SPECIFICALLY COVERED IN THE PLANS SHALL BE PAID FOR UNTER THIS ITEM.

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STRUCTURE GENERAL NOTES 3 HAM-71-0248R OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE	DESIGN AGENCY STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.
DESIGNED P.J.L. CHECKED CAH	DRAFT P.J.L. REVISIONS 3106802
REVISIONS SCS	DATE 06-08-10 STRUCTURE FILE NUMBER 3106802
HAM-BH-VAR PID No. 24954	3 / 14 7 / 18

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HAM-71-02.48R ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	GENERAL	SUPERSTR.	PIERS	ABUT.
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN	LUMP			
512	10100	5625	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		2772	2571	282
513	21600	3574	POUND	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN		3574		
513	95000	60	FT	STRUCTURAL STEEL, MISC.: GRINDING PER FOOT			60	
513	95000	906	FT	STRUCTURAL STEEL, MISC.: WELDING STRUCTURAL STEEL		906		
513	95020	LUMP		STRUCTURAL STEEL, MISC.: ULTRASONIC IMPACT TREATMENT	LUMP			
513	95020	LUMP		STRUCTURAL STEEL, MISC.: PENCIL ABRASIVE BLASTING, GRINDING, AND NON-DESTRUCTIVE TESTING, AS PER PLAN	LUMP			
513	95030	16	EACH	STRUCTURAL STEEL, MISC.: 1/2" DRAINAGE HOLE			16	
513	95030	72	EACH	STRUCTURAL STEEL, MISC.: 1/2" STRESS RELIEF HOLE RETROFIT			72	
513	95030	42	EACH	STRUCTURAL STEEL, MISC.: 2" STRESS RELIEF HOLE RETROFIT		42		
513	95030	58	EACH	STRUCTURAL STEEL, MISC.: REMOVAL OF DIAPHRAGM KNEE BRACE		58		
514	27700	8265	SQ FT	FIELD PAINTING, MISC: SURFACE PREPARATION (EEU)			8265	
514	27700	34	SQ FT	FIELD PAINTING, MISC: SPOT PRIME (EPOXY)			34	
514	27700	8265	SQ FT	FIELD PAINTING, MISC: FULL PRIME (EPOXY)			8265	
514	27700	8265	SQ FT	FIELD PAINTING, MISC: COMPLETE COAT FINISH (URETHANE)			8265	
514	00050	19140	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL		18473	6697	
514	00056	18473	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT		18473		
514	00060	18473	SQ FT	FIELD PAINTING OF STRUCTURAL STEEL, INTERMEDIATE COAT		18473		
514	00066	18473	SQ FT	FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT		18473		
514	00504	540	MAN HOUR	GRINDING FINIS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL		540		
514	10000	117	EACH	FINAL INSPECTION REPAIR		117		
516	45305	7	EACH	REFURBISH BEARING DEVICE, AS PER PLAN		7		
516	46900	2	EACH	BEARING DEVICE, MISC.: REPLACE BEARING DEVICE, AS PER PLAN		2		
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	LUMP			
SPECIAL	53000400	144	EACH	STRUCTURE, MISC.: KNEE BRACE RETROFIT			144	
SPECIAL	53000400	8	EACH	STRUCTURE, MISC.: STEEL PIER CAP SEAL, AS PER PLAN			8	
SPECIAL	53000400	8	EACH	STRUCTURE, MISC.: STEEL PIER CAP HATCH COVER PLATE, AS PER PLAN			8	

DESIGN AGENCY  
STATE OF OHIO  
DEPT. OF TRANSPORTATION  
DISTRICT 8 BRIDGE DEPT.

DATE  
06-08-10  
REVIEWED  
SCS  
STRUCTURE FILE NUMBER  
3106802

DRAWN  
P.JL  
REVISIONS  
CHECKED  
CAH

BRIDGE ESTIMATED QUANTITIES  
BRIDGE NO. HAM-71-0248R  
OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE

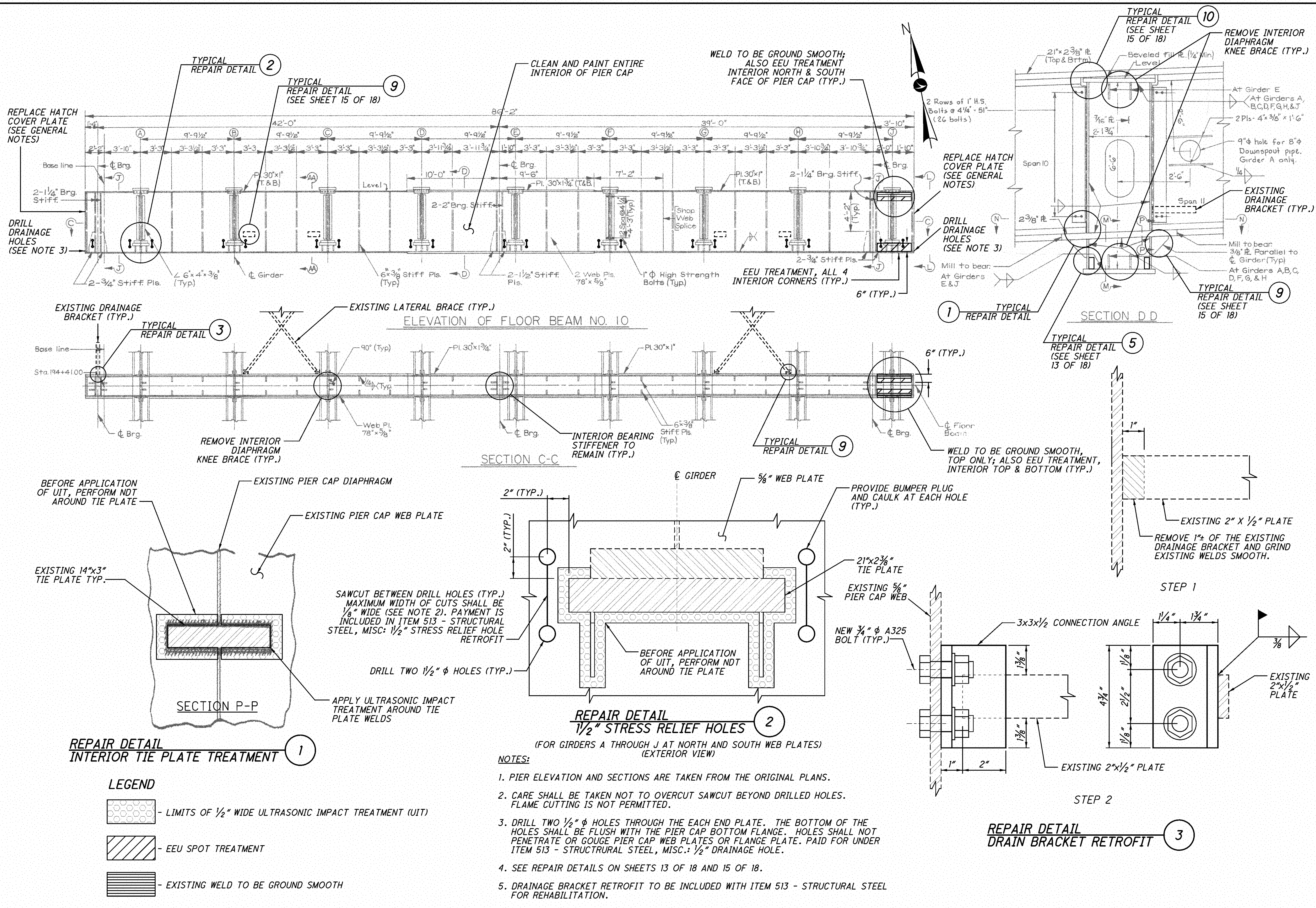
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PID No. 24594







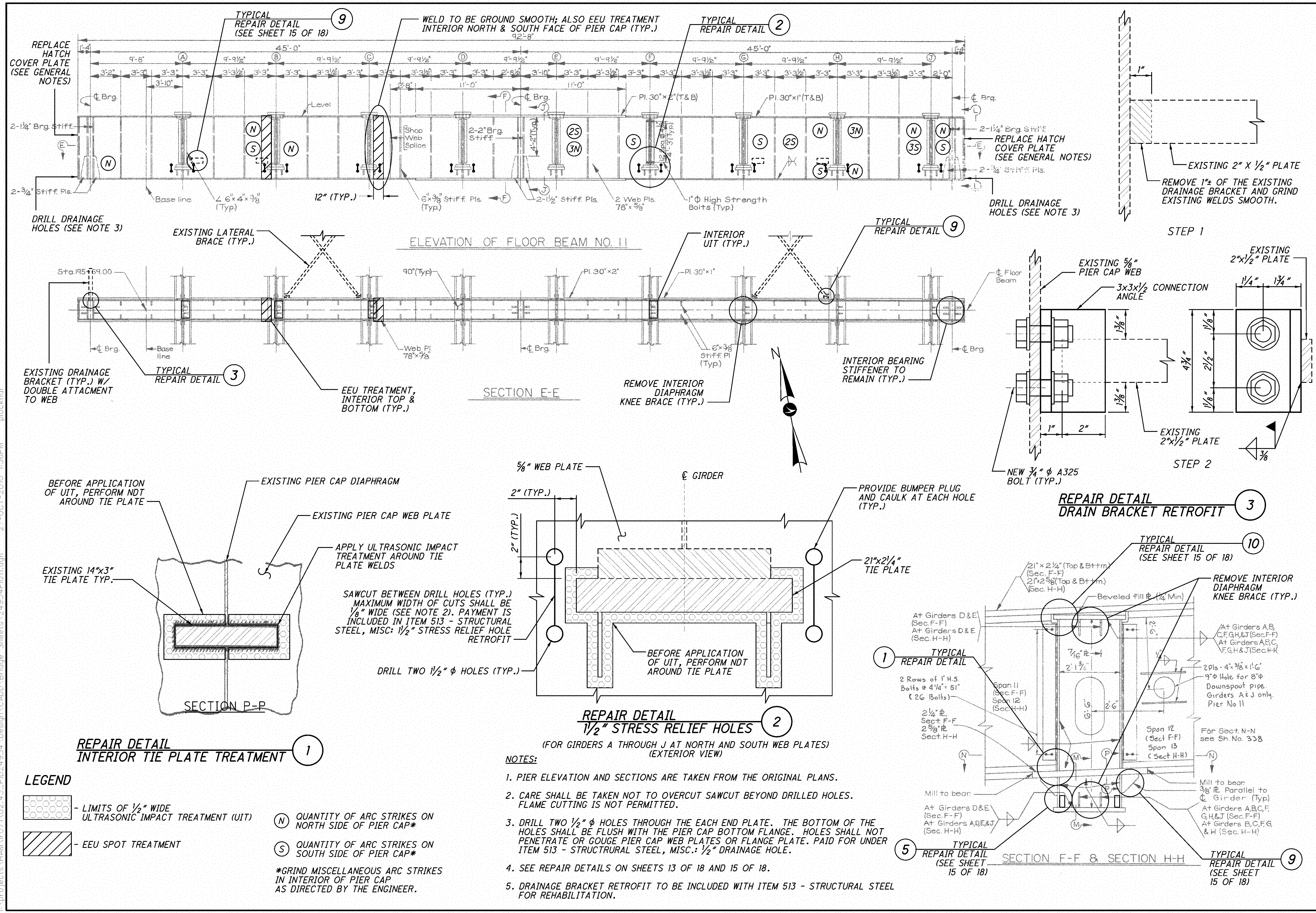
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DESIGN/ENGINEER	STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.
DATE	06-08-10
REVISION	SCS
STRUCTURE FILE NUMBER	3106802
DESIGNED	P.J.L.
CHECKED	CAH
PROJECT	PIER 10 CAP RETROFIT DETAILS
BRIDGE NO.	HAM-71-0248R
LOCATION	OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE
PROJECT NO.	HAM-71-2.48
PID NO.	24954
SHEET NO.	6 / 14
SCALE	10 / 18



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**LEGEND**

- LIMITS OF 1/2" WIDE ULTRASONIC IMPACT TREATMENT (UIT)

- EEU SPOT TREATMENT

(N) QUANTITY OF ARC STRIKES ON NORTH SIDE OF PIER CAP\*

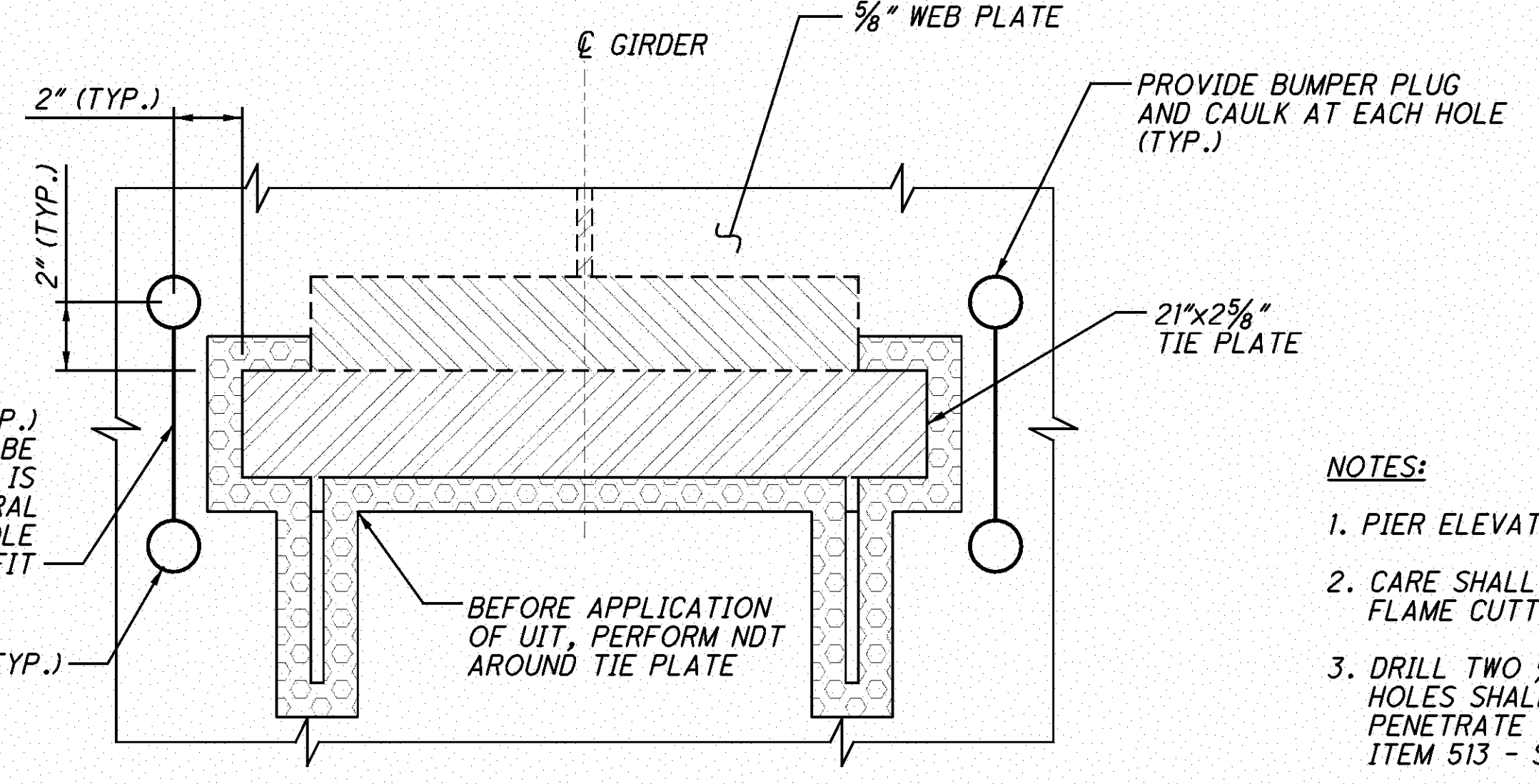
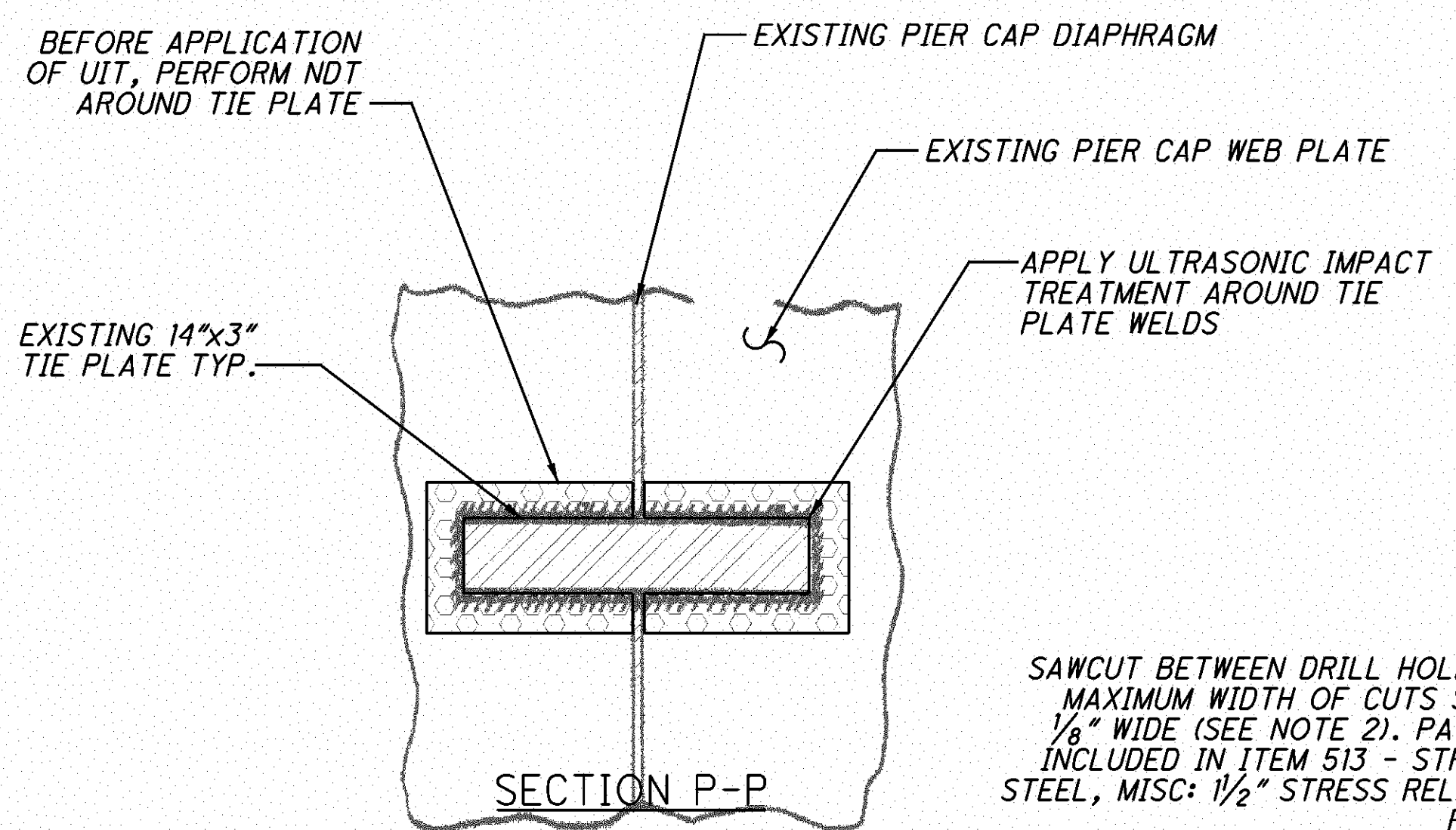
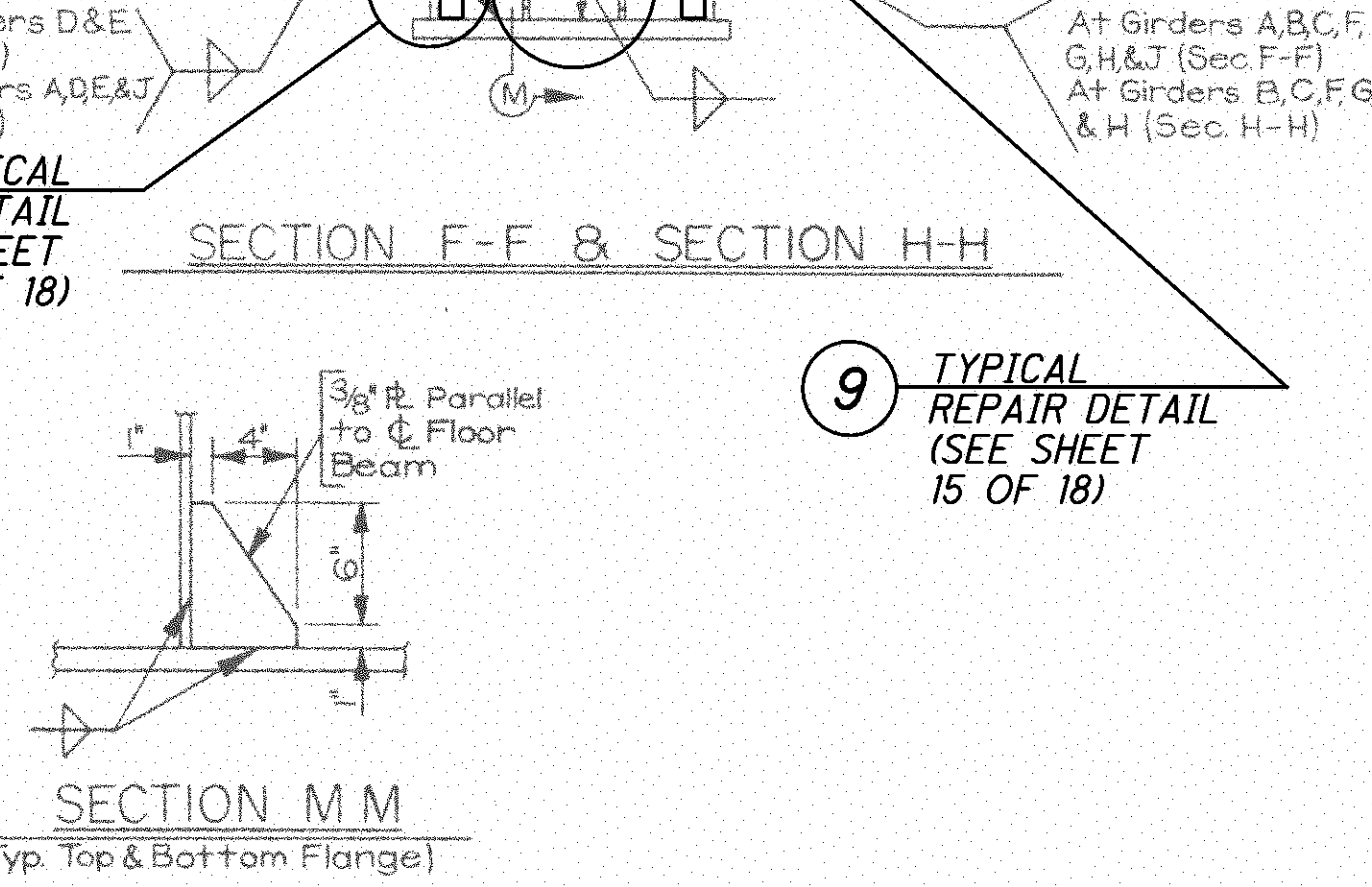
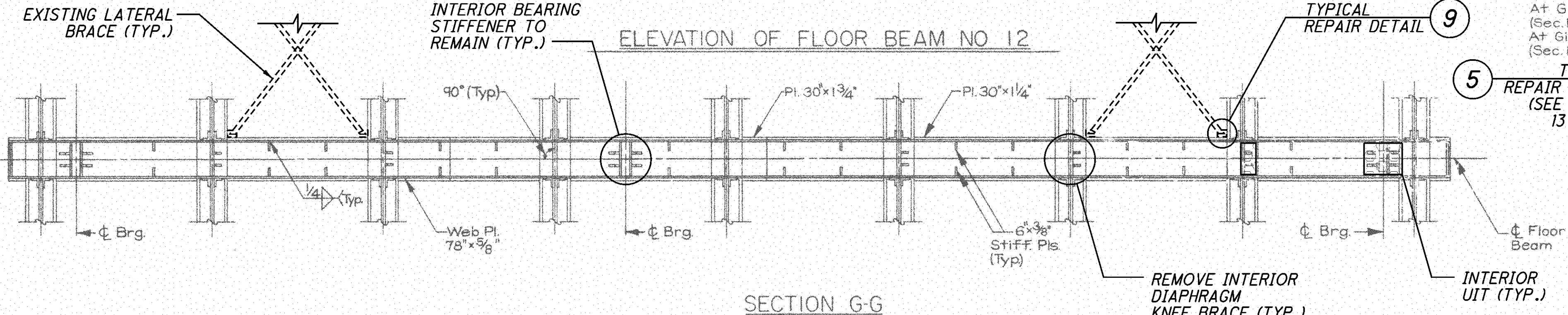
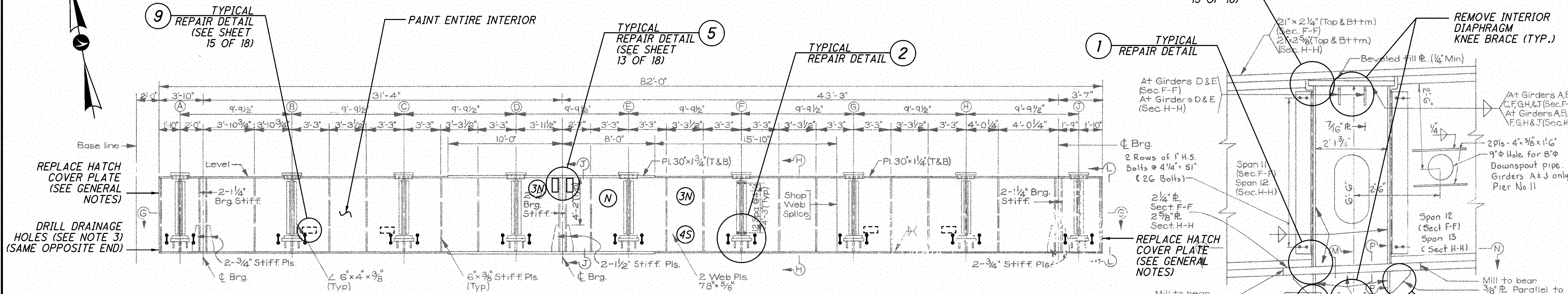
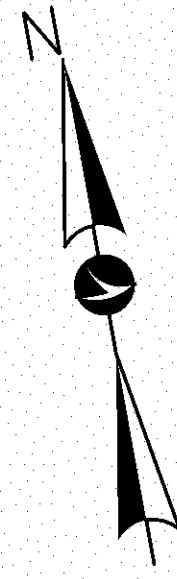
(S) QUANTITY OF ARC STRIKES ON SOUTH SIDE OF PIER CAP\*

\*GRIND MISCELLANEOUS ARC STRIKES IN INTERIOR OF PIER CAP AS DIRECTED BY THE ENGINEER.

- NOTES:**
- PIER ELEVATION AND SECTIONS ARE TAKEN FROM THE ORIGINAL PLANS.
  - CARE SHALL BE TAKEN NOT TO OVERCUT SAWCUT BEYOND DRILLED HOLES. FLAME CUTTING IS NOT PERMITTED.
  - DRILL TWO 1/2"  $\phi$  HOLES THROUGH THE EACH END PLATE. THE BOTTOM OF THE HOLES SHALL BE FLUSH WITH THE PIER CAP BOTTOM FLANGE. HOLES SHALL NOT PENETRATE OR GOUGE PIER CAP WEB PLATES OR FLANGE PLATE. PAID FOR UNDER ITEM 513 - STRUCTURAL STEEL, MISC.: 1/2" DRAINAGE HOLE.
  - SEE REPAIR DETAILS ON SHEETS 13 OF 18 AND 15 OF 18.
  - DRAINAGE BRACKET RETROFIT TO BE INCLUDED WITH ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION.

DESIGNED BY	DATE	DESIGNED BY	DATE
STATE OF OHIO	06-08-10	STATE OF OHIO	06-08-10
DEPT. OF TRANSPORTATION	P.J.L.	DEPT. OF TRANSPORTATION	P.J.L.
DISTRICT 8 BRIDGE DEPT.	STRUCTURE FILE NUMBER	DISTRICT 8 BRIDGE DEPT.	STRUCTURE FILE NUMBER
	3106802		3106802
DESIGNED BY	CHECKED	DESIGNED BY	CHECKED
SCS	CAH	SCS	CAH
P.J.L.		P.J.L.	
<b>PIER 11 CAP RETROFIT DETAILS</b>			
BRIDGE NO. HAM-71-0248R			
OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE			
<b>HAM-71-2.48</b>		<b>PID No. 24954</b>	
7 / 14		11 / 18	





- NOTES:**
1. PIER ELEVATION AND SECTIONS ARE TAKEN FROM THE ORIGINAL PLANS.
  2. CARE SHALL BE TAKEN NOT TO OVERCUT SAWCUT BEYOND DRILLED HOLES. FLAME CUTTING IS NOT PERMITTED.
  3. DRILL TWO 1/2"  $\phi$  HOLES THROUGH THE EACH END PLATE. THE BOTTOM OF THE HOLES SHALL BE FLUSH WITH THE PIER CAP BOTTOM FLANGE. HOLES SHALL NOT PENETRATE OR GOUGE PIER CAP WEB PLATES OR FLANGE PLATE. PAID FOR UNDER ITEM 513 - STRUCTURAL STEEL, MISC.: 1/2" DRAINAGE HOLE.
  4. SEE REPAIR DETAILS ON SHEETS 13 OF 18 AND 15 OF 18.

**LEGEND**

LIMITS OF 1/2" WIDE ULTRASONIC IMPACT TREATMENT (UIT)

- (N) NORTH SIDE ARC STRIKE\*
- (S) SOUTH SIDE ARC STRIKE\*

\*GRIND MISCELLANEOUS ARC STRIKES IN INTERIOR OF PIER CAP AS DIRECTED BY THE ENGINEER.

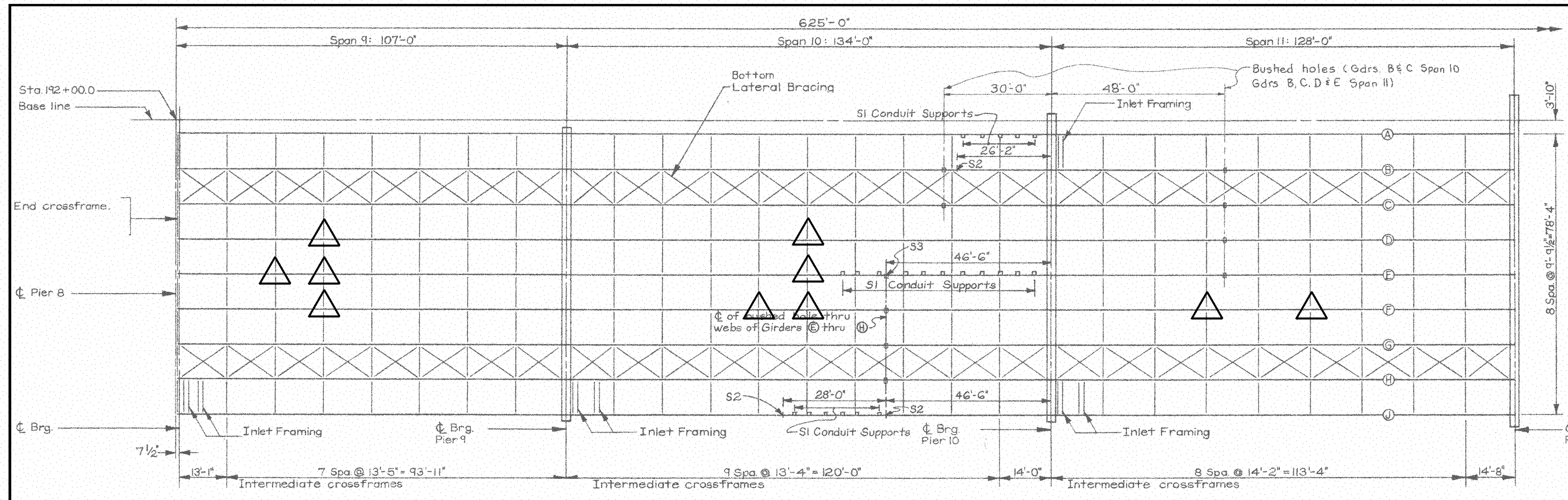
**REPAIR DETAIL 1/2" STRESS RELIEF HOLES (EXTERIOR VIEW)**

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DESIGN/ENGINEER	STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.
DATE	06-08-10
REVISED	SCS
DESIGNED	P.J.L.
CHECKED	CAH
STRUCTURE FILE NUMBER	3106802
PROJECT NAME	PIER 12 CAP RETROFIT DETAILS
BRIDGE NO.	HAM-71-0248R
LOCATION	OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE
PROJECT NO.	HAM-71-2.48
PID NO.	24954
8 / 14	
12 / 18	



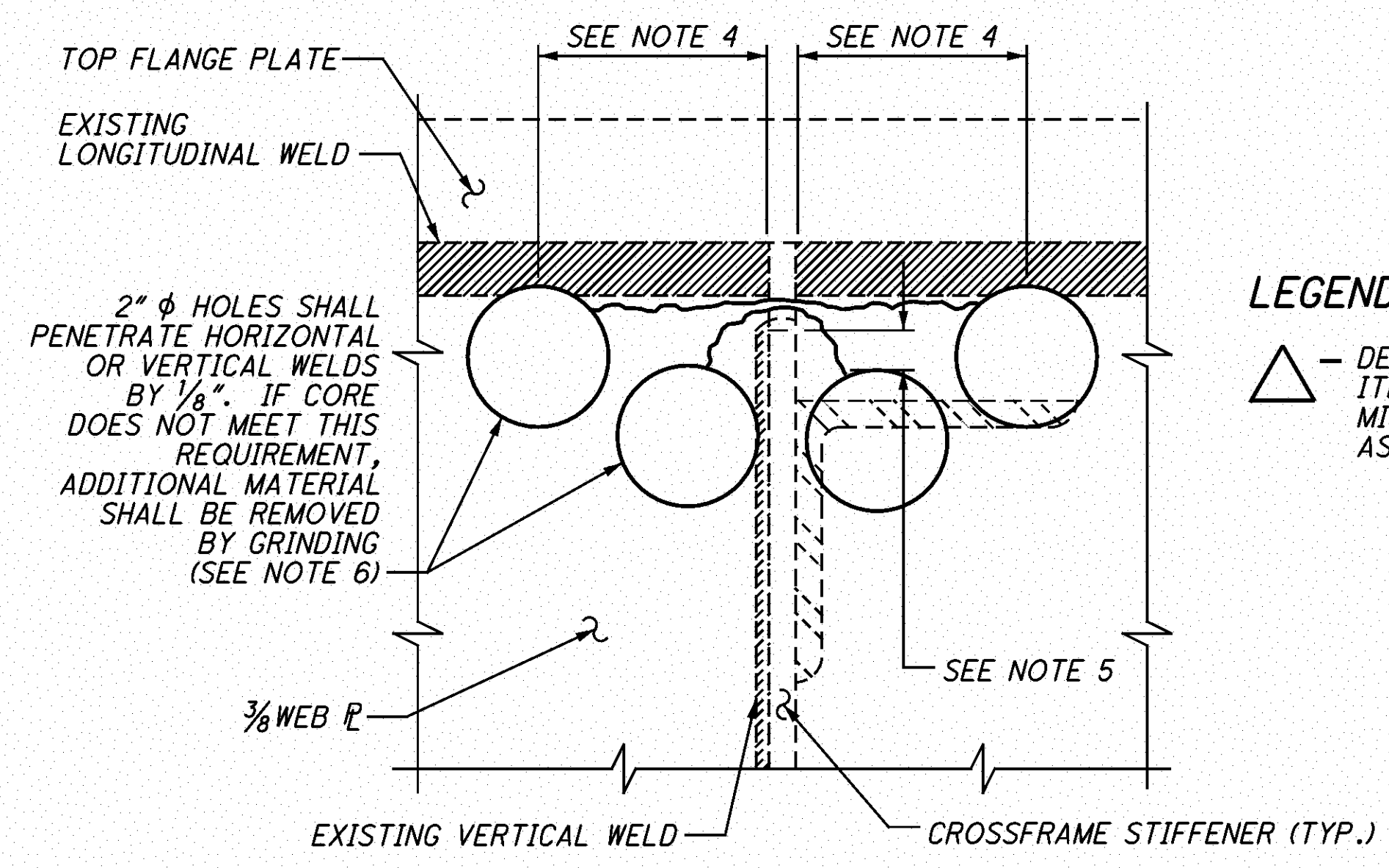
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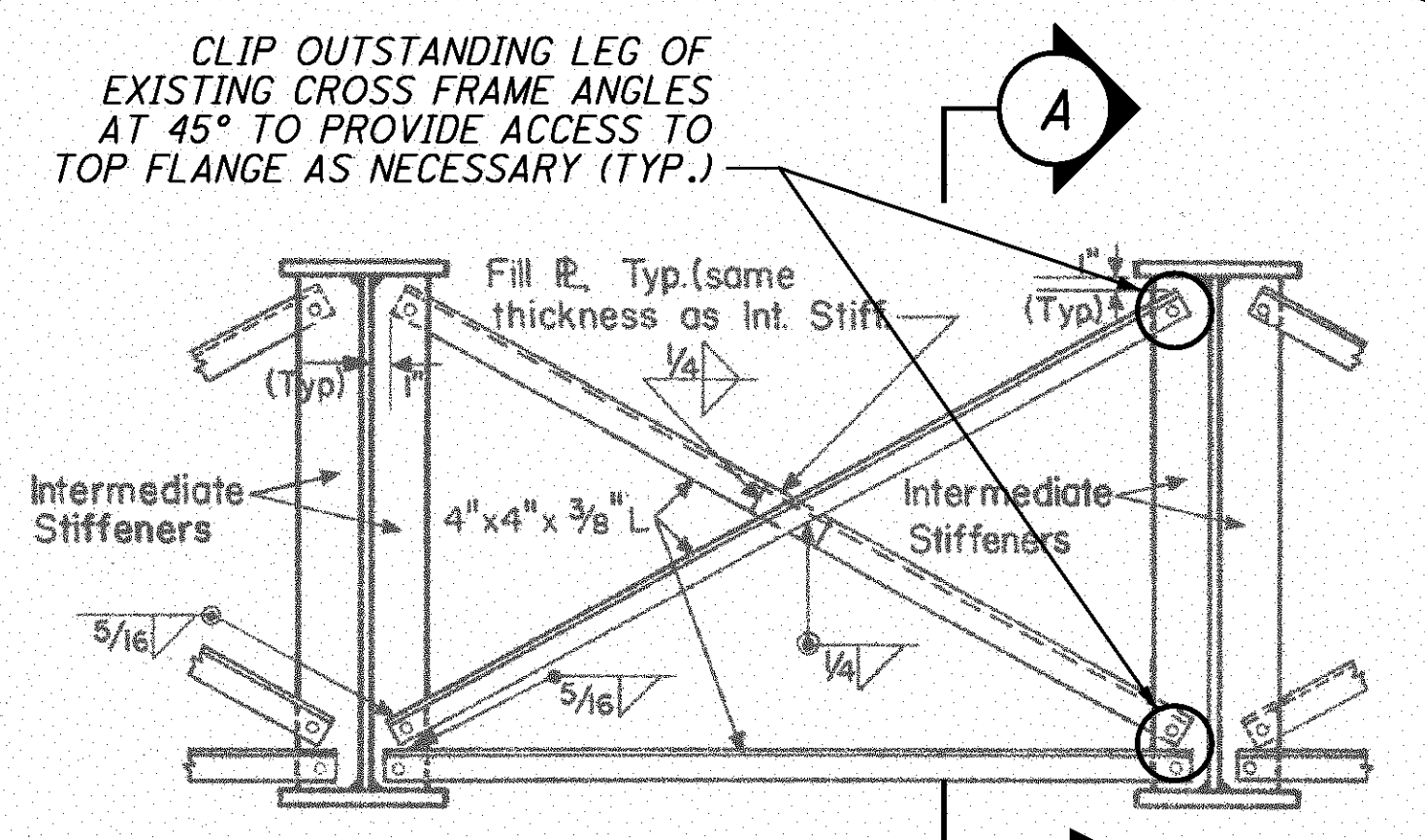
FRAMING PLAN

**NOTES:**

1. WELDS SHALL BE IN ACCORDANCE WITH 513.13, 513.21 AND 513.25 OF THE CMS.
2. THE FRAMING PLAN AND CROSS FRAME ELEVATION ARE TAKEN FROM THE ORIGINAL PLANS.
3. BEFORE DRILLING HOLES, PERFORM ITEM 513 PENCIL ABRASIVE BLASTING, GRINDING, AND NON-DESTRUCTIVE TESTING TO DETERMINE LOCATION OF CRACK TIP TO THE SATISFACTION OF THE ENGINEER.
4. THE 2" HOLE SHALL BE CENTERED SUCH THAT THE HOLE SHALL PENETRATE 1/8" OF THE CRACK TIP, AS DETERMINED BY THE ENGINEER. IF CRACK LENGTH IS NOT SUFFICIENT TO PENETRATE 1/8", AS DETERMINED BY THE ENGINEER, THEN THE CENTER OF THE DRILL HOLE SHALL BE 3 1/2" FROM THE FACE OF THE STIFFENER.
5. THE 2" HOLE SHALL BE CENTERED SUCH THAT THE HOLE SHALL PENETRATE 1/8" OF THE CRACK TIP, AS DETERMINED BY THE ENGINEER. IF CRACK LENGTH IS NOT SUFFICIENT TO PENETRATE 1/8", AS DETERMINED BY THE ENGINEER, THEN THE CENTER OF THE DRILL HOLE SHALL BE 2" FROM THE CHAMFER OF THE STIFFENER.
6. A MINIMUM OF 1/4" OF STEEL SHALL REMAIN BETWEEN ALL 2" DIAMETER HOLES.
7. WELD ALL INTERMEDIATE CROSSFRAME WEB STIFFENERS TO TOP & BOTTOM FLANGES. STOP STIFFENER WELDS AS REQUIRED TO MISS FLANGE/WEB WELDS.



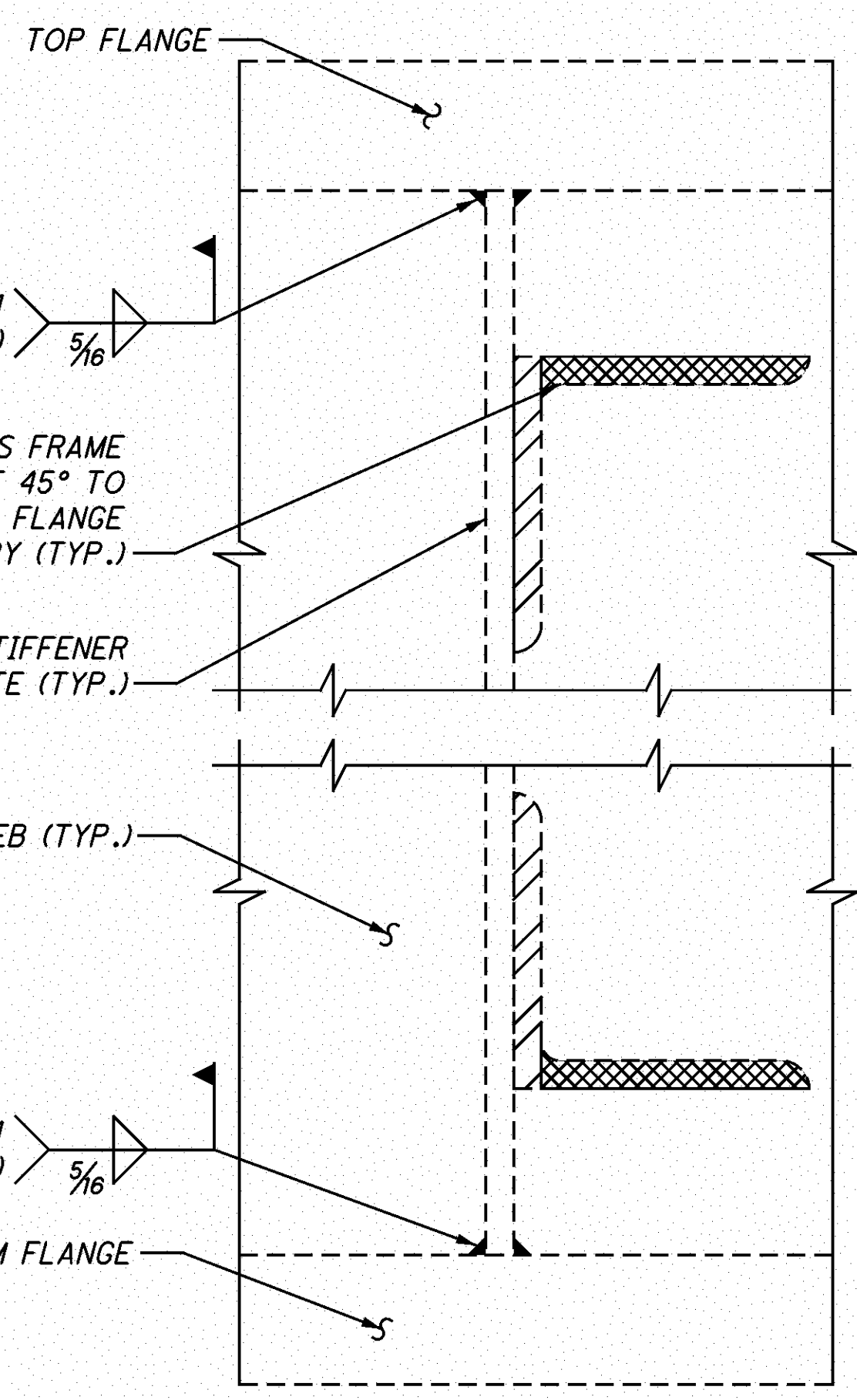
WEB CRACK REPAIR DETAIL  
2" STRESS RELIEF HOLES (6)



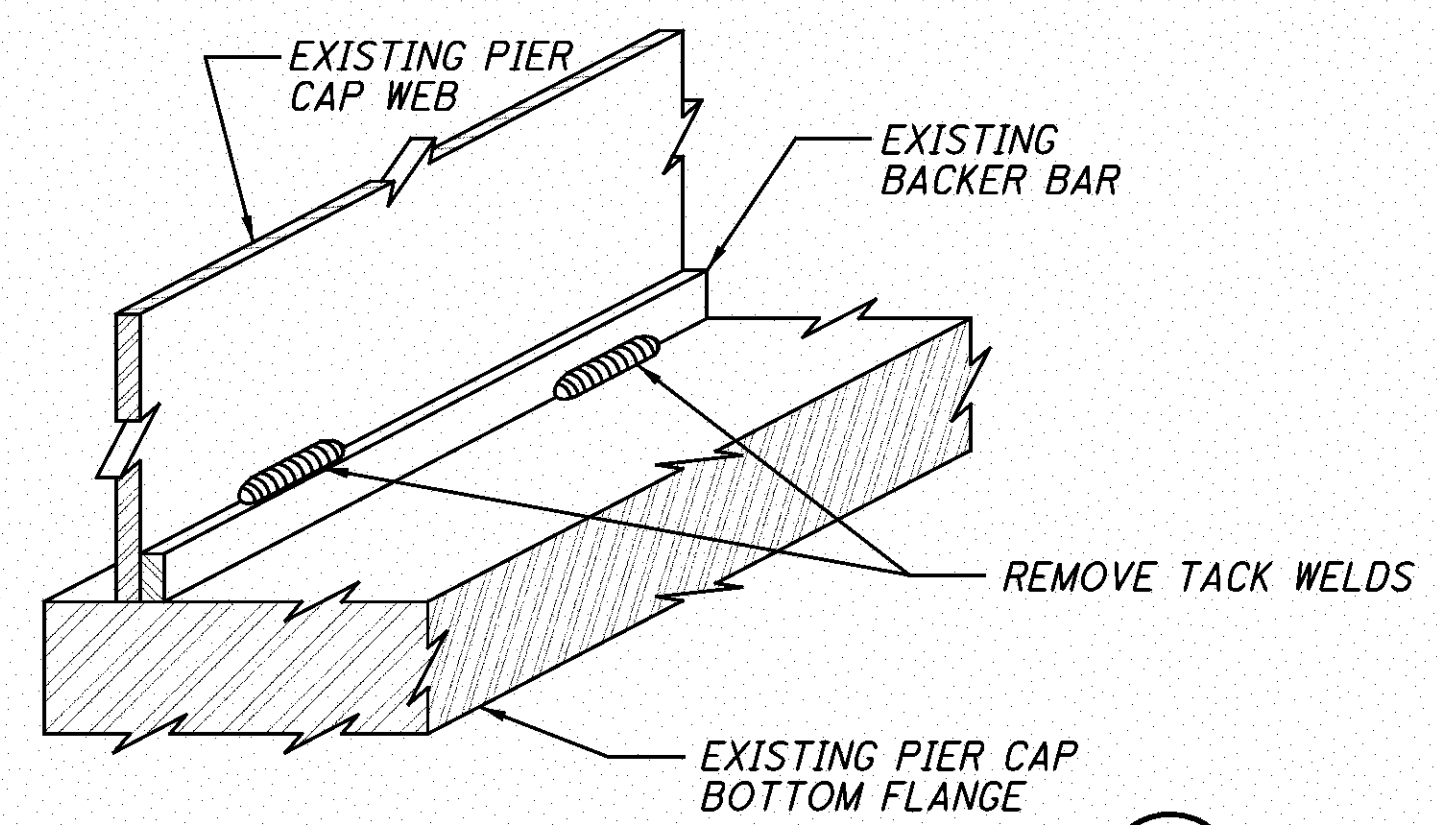
REPAIR DETAIL CROSSFRAME  
STIFFENER RETROFIT (7)

**LEGEND**

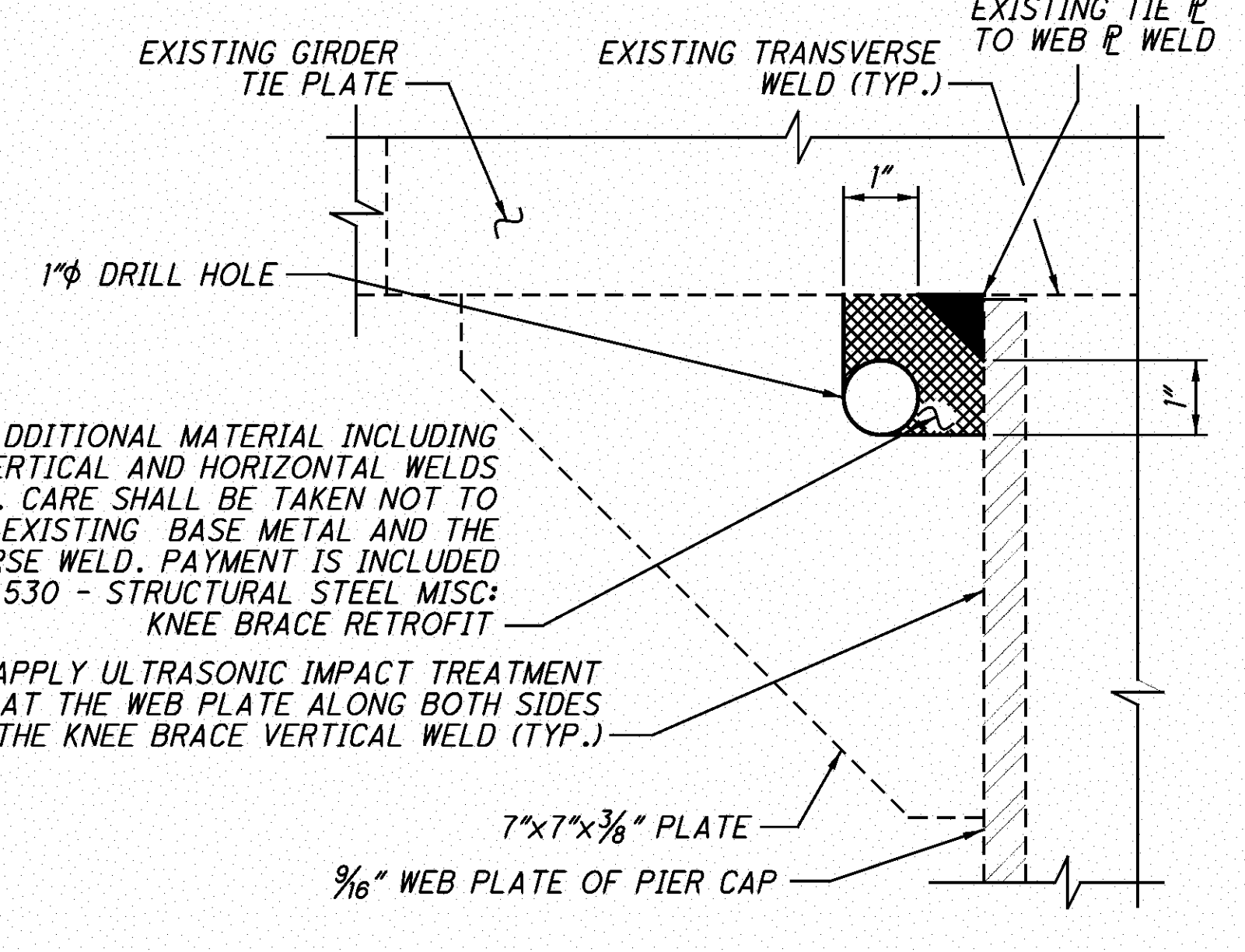
△ - DENOTES LOCATIONS OF ITEM 513-STRUCTURAL STEEL, MISC.: 2" STRESS RELIEF HOLES, AS PER PLAN (SEE GENERAL NOTES).



SECTION  
A (SEE NOTES)



REPAIR DETAIL  
BACKING BAR WELD REMOVAL DETAIL (5)



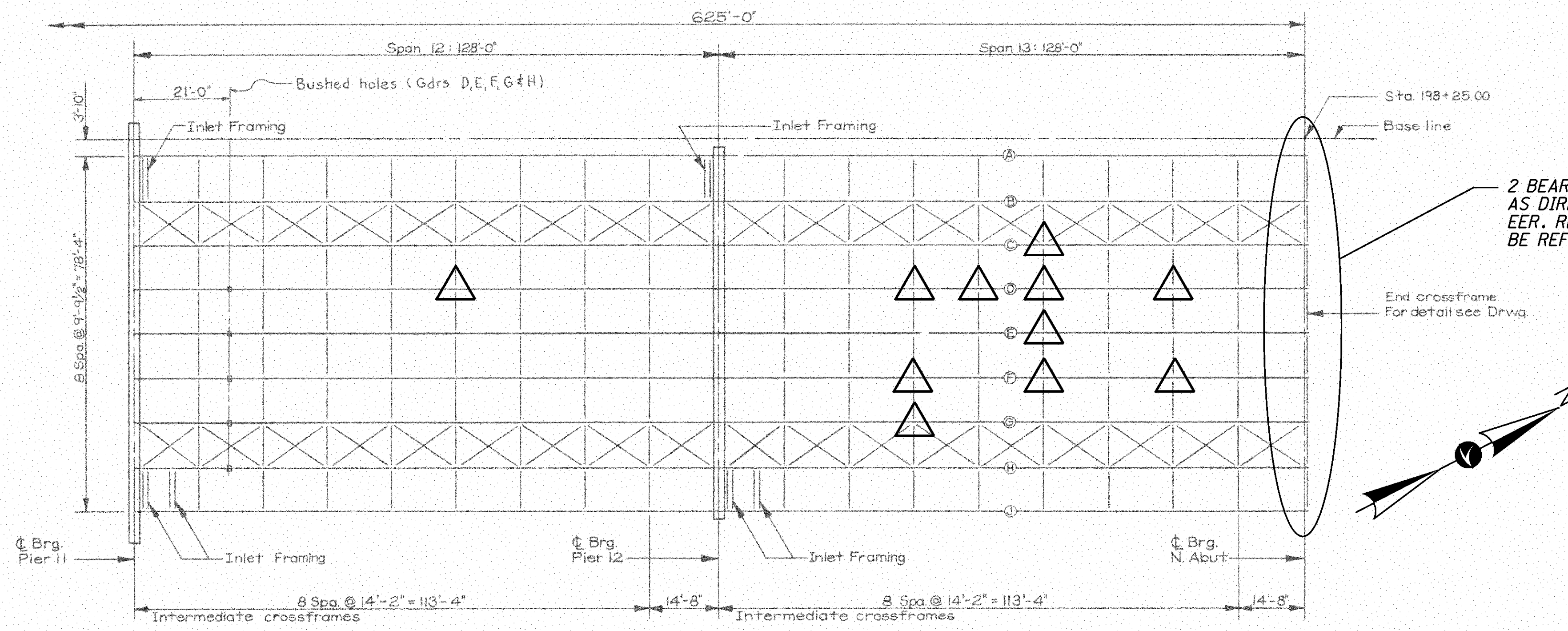
REPAIR DETAIL  
EXTERIOR KNEE BRACE RETROFIT (4)

**LEGEND**

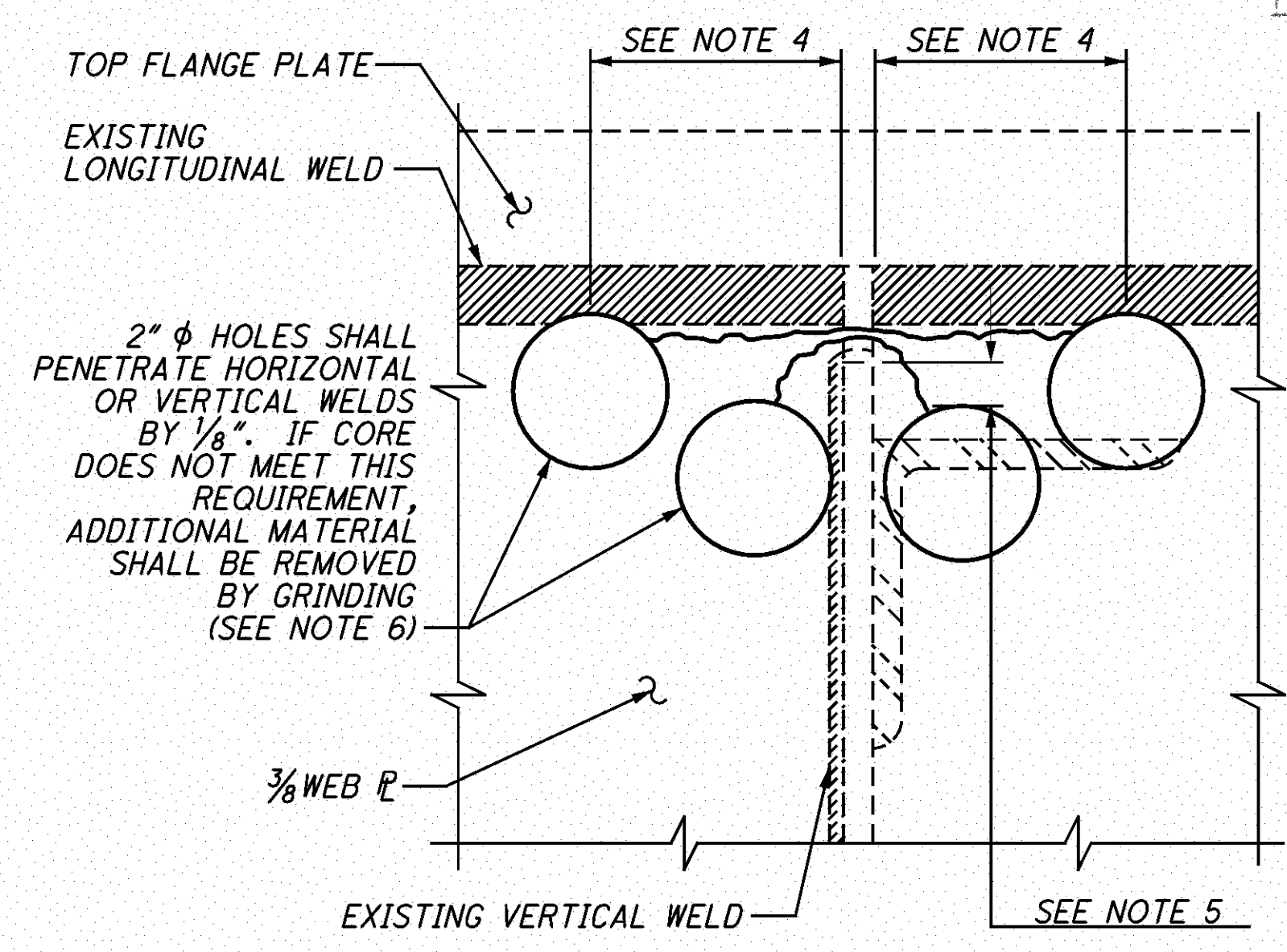
▨ - LIMITS OF STEEL REMOVAL ON EXTERNAL KNEE BRACES BY GRINDING

DESIGN AGENCY	STATE OF OHIO
DEPT. OF TRANSPORTATION	DISTRICT 8 BRIDGE DEPT.
DATE	06-08-10
REVISED	PJL
STRUCTURE FILE NUMBER	3106802
DESIGNED	PJL
CHECKED	CAH
OUT-OF-PLANE BENDING CRACK REPAIR DETAILS	BRIDGE NO. HAM-71-0248R
	OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE
HAM-71-2.48	PID No. 24954
9 / 14	13 / 18

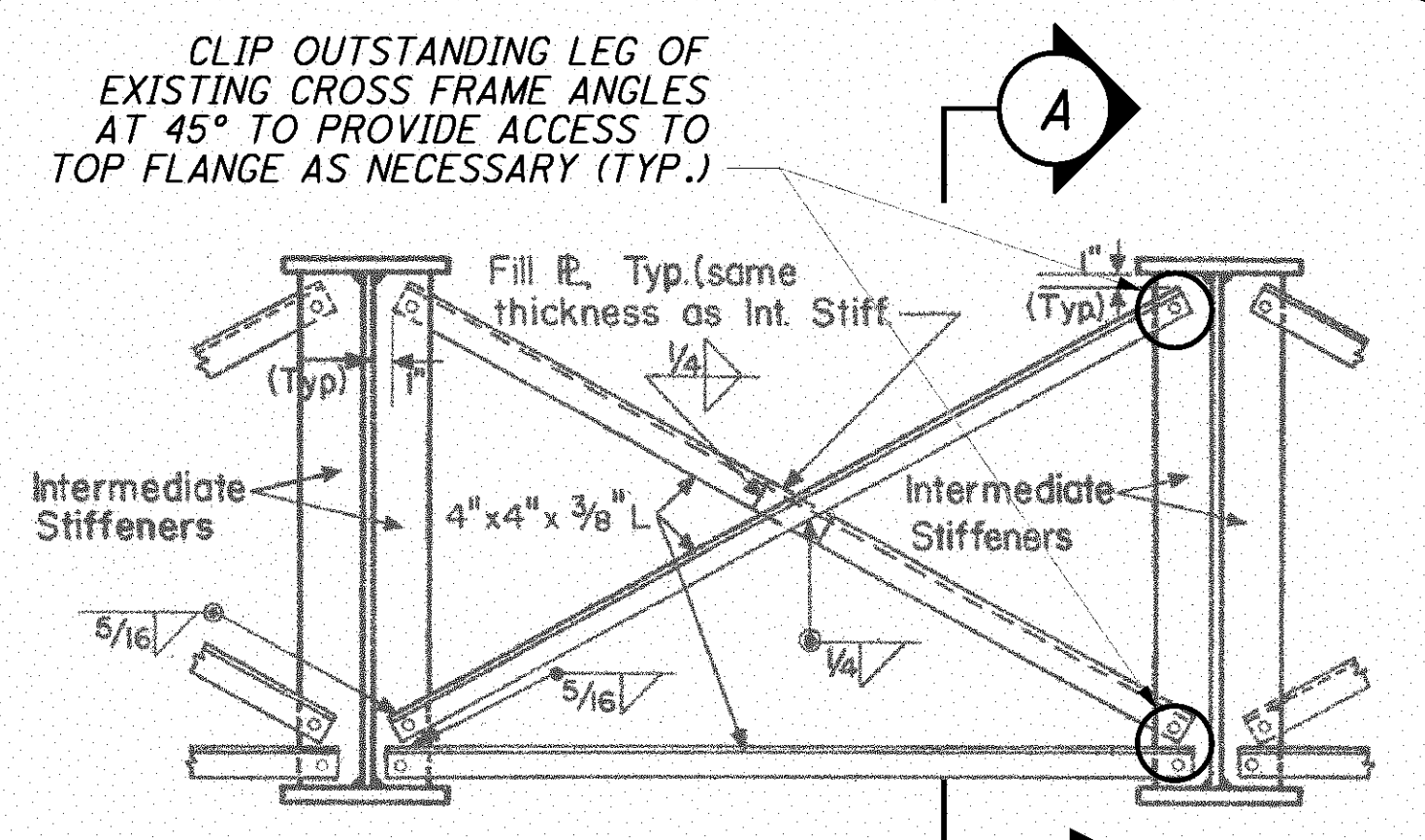




FRAMING PLAN

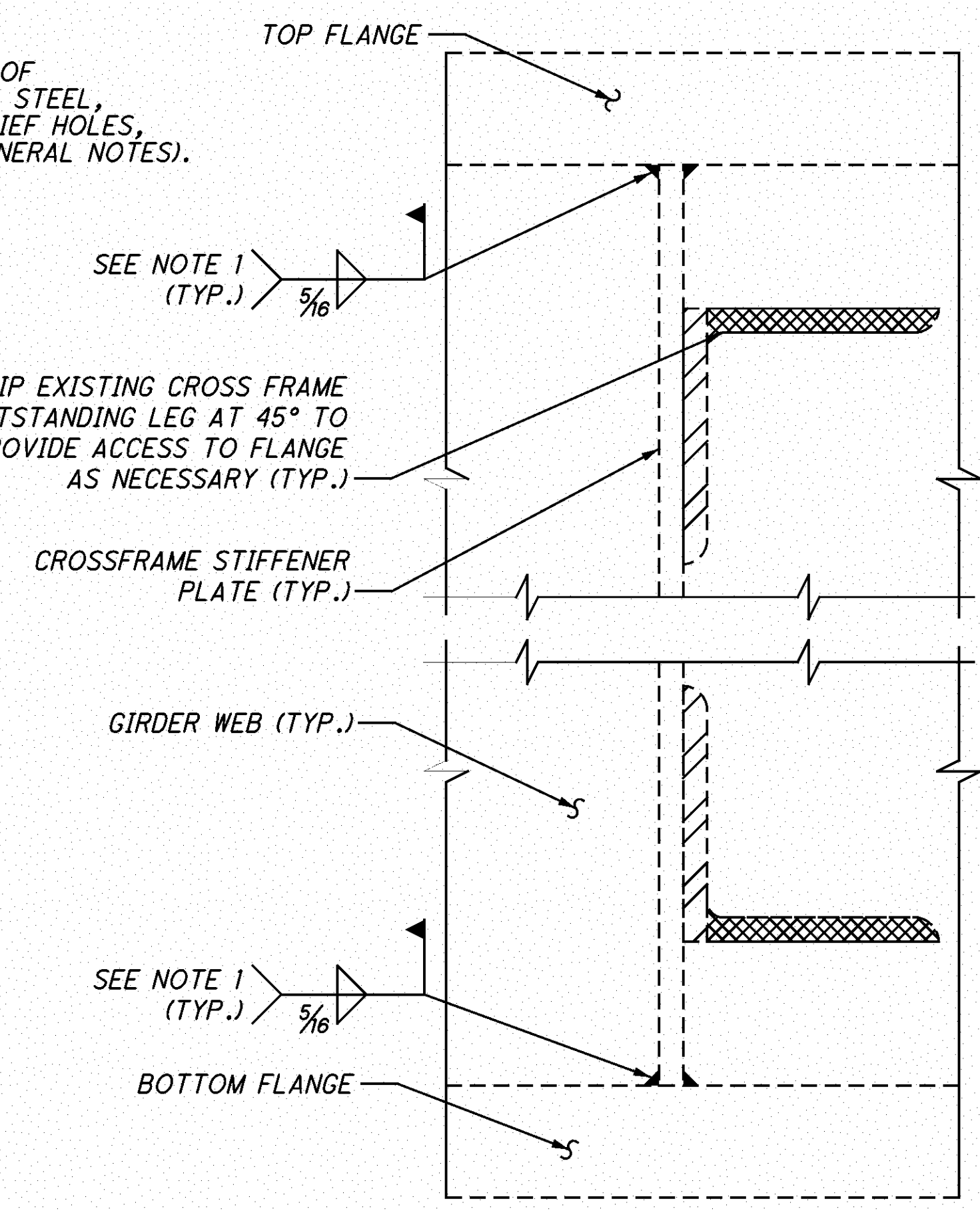


WEB CRACK REPAIR DETAIL  
2" STRESS RELIEF HOLES (6)

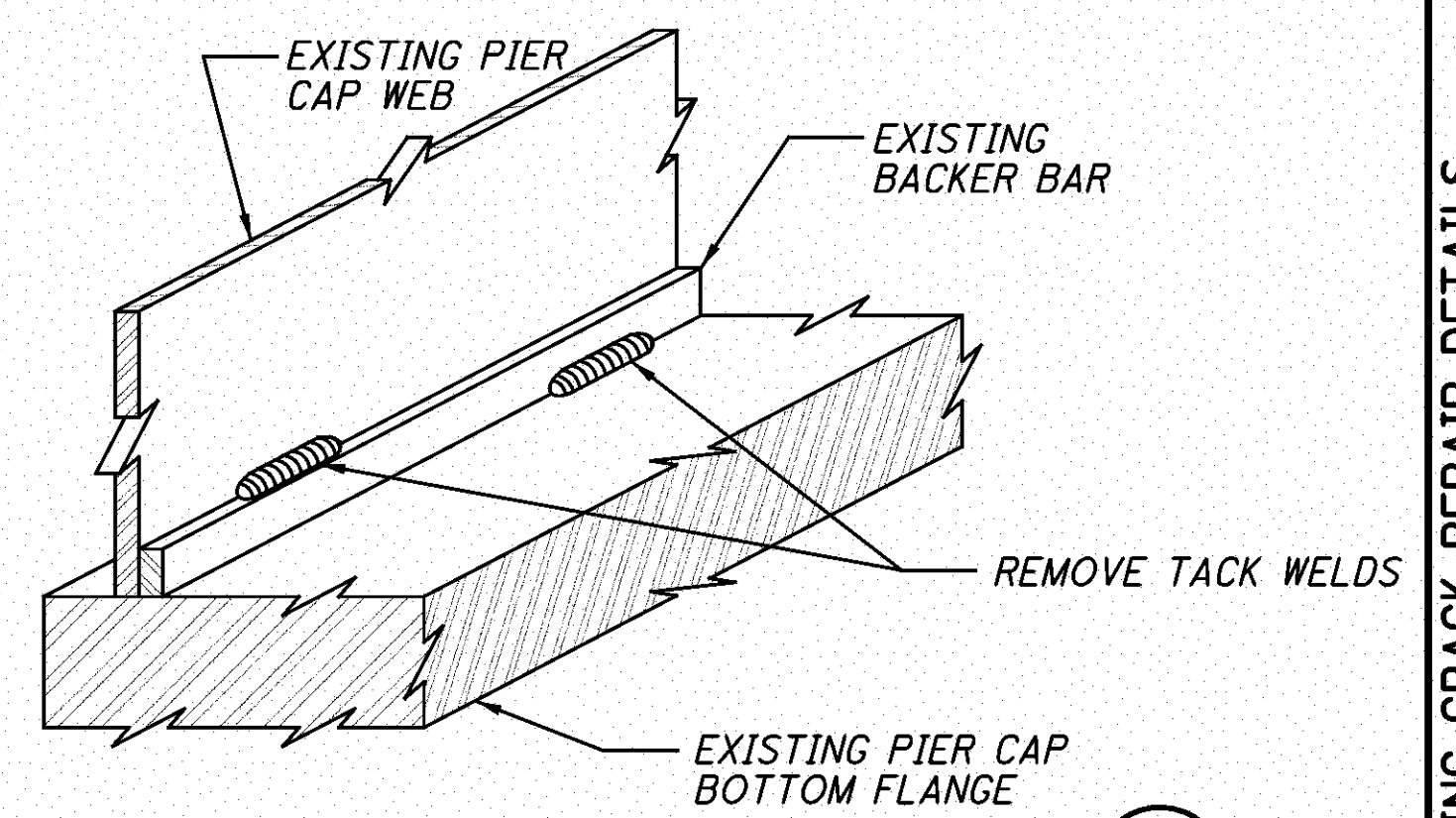


REPAIR DETAIL CROSSFRAME  
STIFFENER RETROFIT (7)

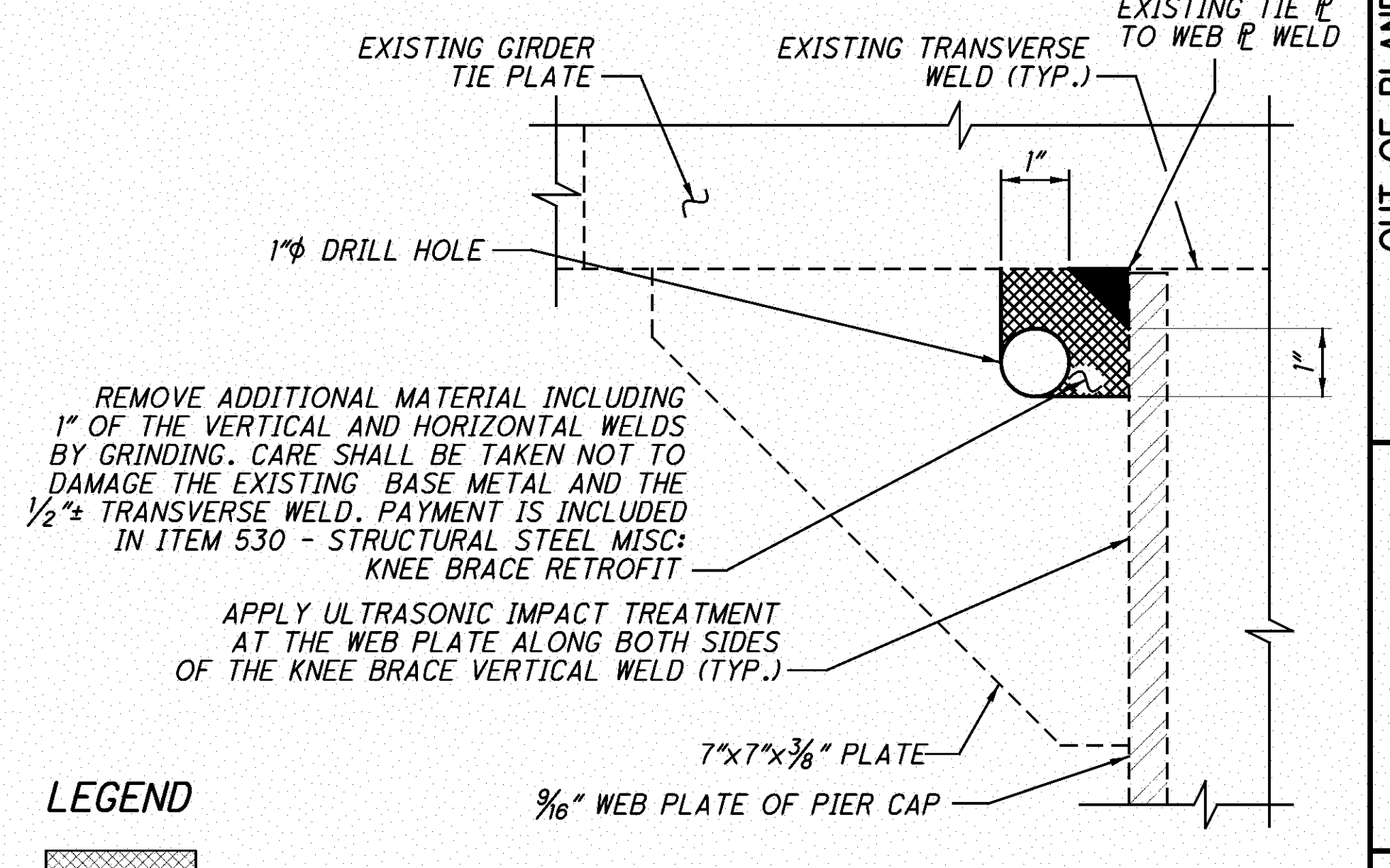
**LEGEND**  
 △ - DENOTES LOCATIONS OF ITEM 513-STRUCTURAL STEEL, MISC.: 2" STRESS RELIEF HOLES, AS PER PLAN (SEE GENERAL NOTES).



SECTION A  
(SEE NOTES)



REPAIR DETAIL  
BACKING BAR WELD REMOVAL DETAIL (5)



**LEGEND**  
 [Hatched Area] - LIMITS OF STEEL REMOVAL ON EXTERNAL KNEE BRACES BY GRINDING

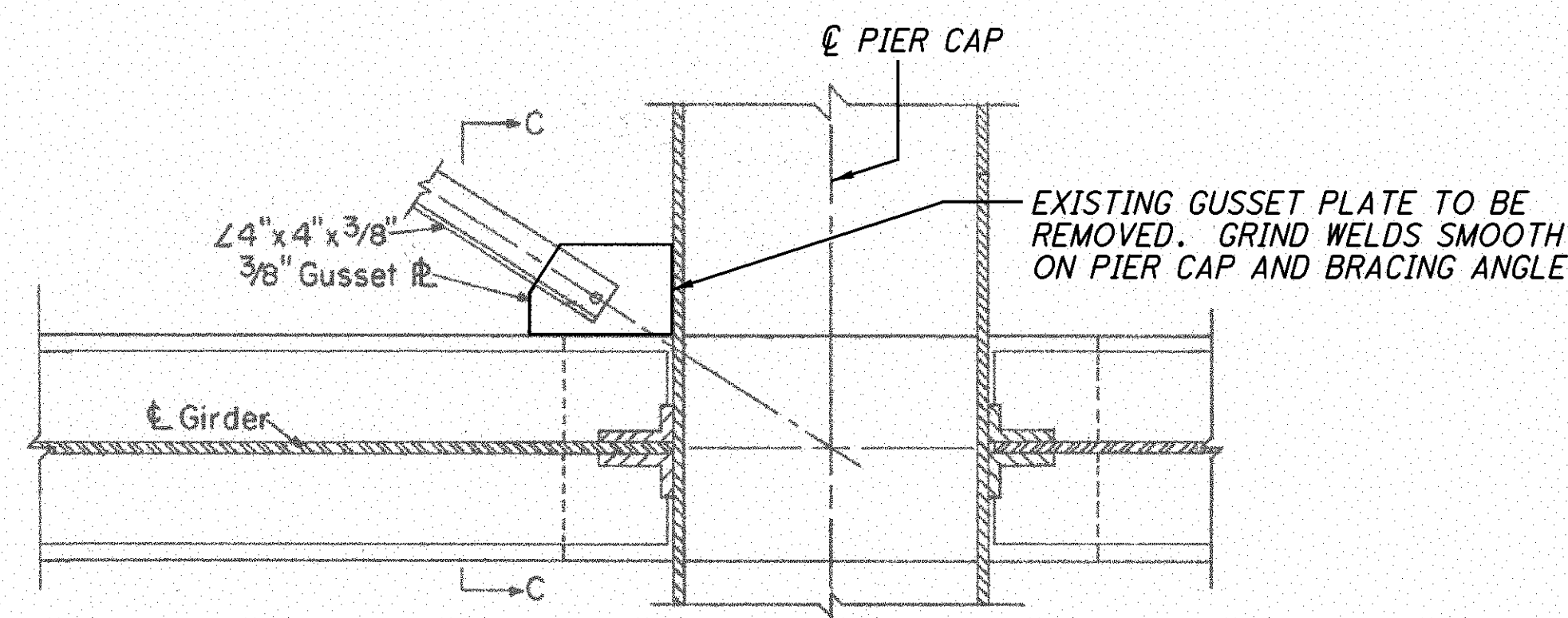
REPAIR DETAIL  
EXTERIOR KNEE BRACE RETROFIT (4)

- NOTES:**
1. WELDS SHALL BE IN ACCORDANCE WITH 513.13, 513.21 AND 513.25 OF THE CMS.
  2. THE FRAMING PLAN AND CROSS FRAME ELEVATION ARE TAKEN FROM THE ORIGINAL PLANS.
  3. BEFORE DRILLING HOLES, PERFORM ITEM 513 PENCIL ABRASIVE BLASTING, GRINDING, AND NON-DESTRUCTIVE TESTING TO DETERMINE LOCATION OF CRACK TIP TO THE SATISFACTION OF THE ENGINEER.
  4. THE 2" HOLE SHALL BE CENTERED SUCH THAT THE HOLE SHALL PENETRATE 1/8" OF THE CRACK TIP, AS DETERMINED BY THE ENGINEER. IF CRACK LENGTH IS NOT SUFFICIENT TO PENETRATE 1/8", AS DETERMINED BY THE ENGINEER, THEN THE CENTER OF THE DRILL HOLE SHALL BE 3 1/2" FROM THE FACE OF THE STIFFENER.
  5. THE 2" HOLE SHALL BE CENTERED SUCH THAT THE HOLE SHALL PENETRATE 1/8" OF THE CRACK TIP, AS DETERMINED BY THE ENGINEER. IF CRACK LENGTH IS NOT SUFFICIENT TO PENETRATE 1/8", AS DETERMINED BY THE ENGINEER, THEN THE CENTER OF THE DRILL HOLE SHALL BE 2" FROM THE CHAMFER OF THE STIFFENER.
  6. A MINIMUM OF 1/4" OF STEEL SHALL REMAIN BETWEEN ALL 2" DIAMETER HOLES.
  7. WELD ALL INTERMEDIATE CROSSFRAME WEB STIFFENERS TO TOP & BOTTOM FLANGES. STOP STIFFENER WELDS AS REQUIRED TO MISS FLANGE/WEB WELDS.

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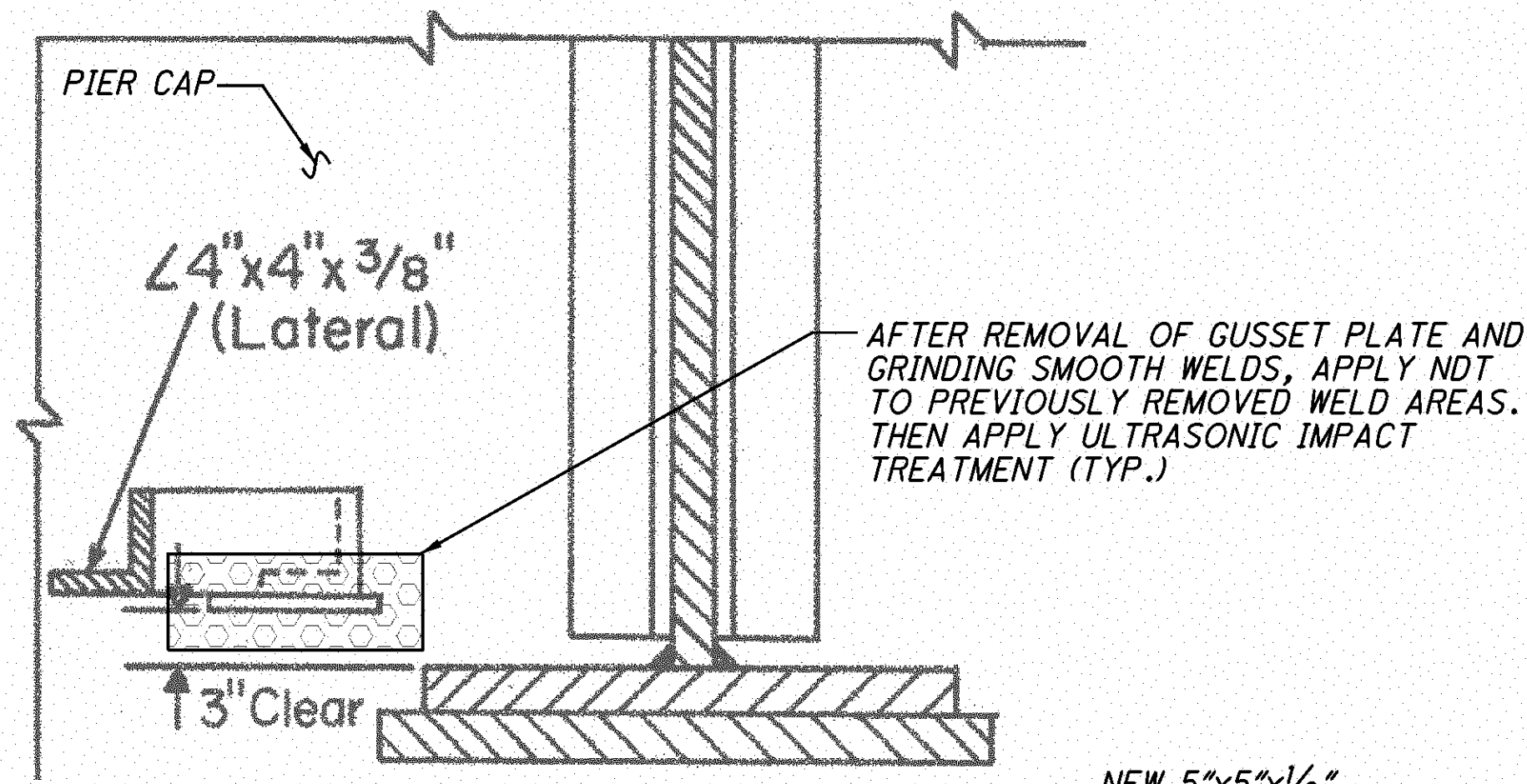
DESIGN AGENCY	STATE OF OHIO
DEPT. OF TRANSPORTATION	DISTRICT 8 BRIDGE DEPT.
DATE	06-08-10
REGISTERED	SCS
STRUCTURE FILE NUMBER	3106802
DRAWN	P.J.L.
CHECKED	CAH
DESIGNED	P.J.L.
CHECKED	CAH
OUT-OF-PLANE BENDING CRACK REPAIR DETAILS	
BRIDGE NO. HAM-71-0248R	
OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE	
HAM-71-2.48	PID No. 24954
10 / 14	14 / 18





**BOTTOM LATERALS AT FLOORBEAM**

(PLAN VIEW)

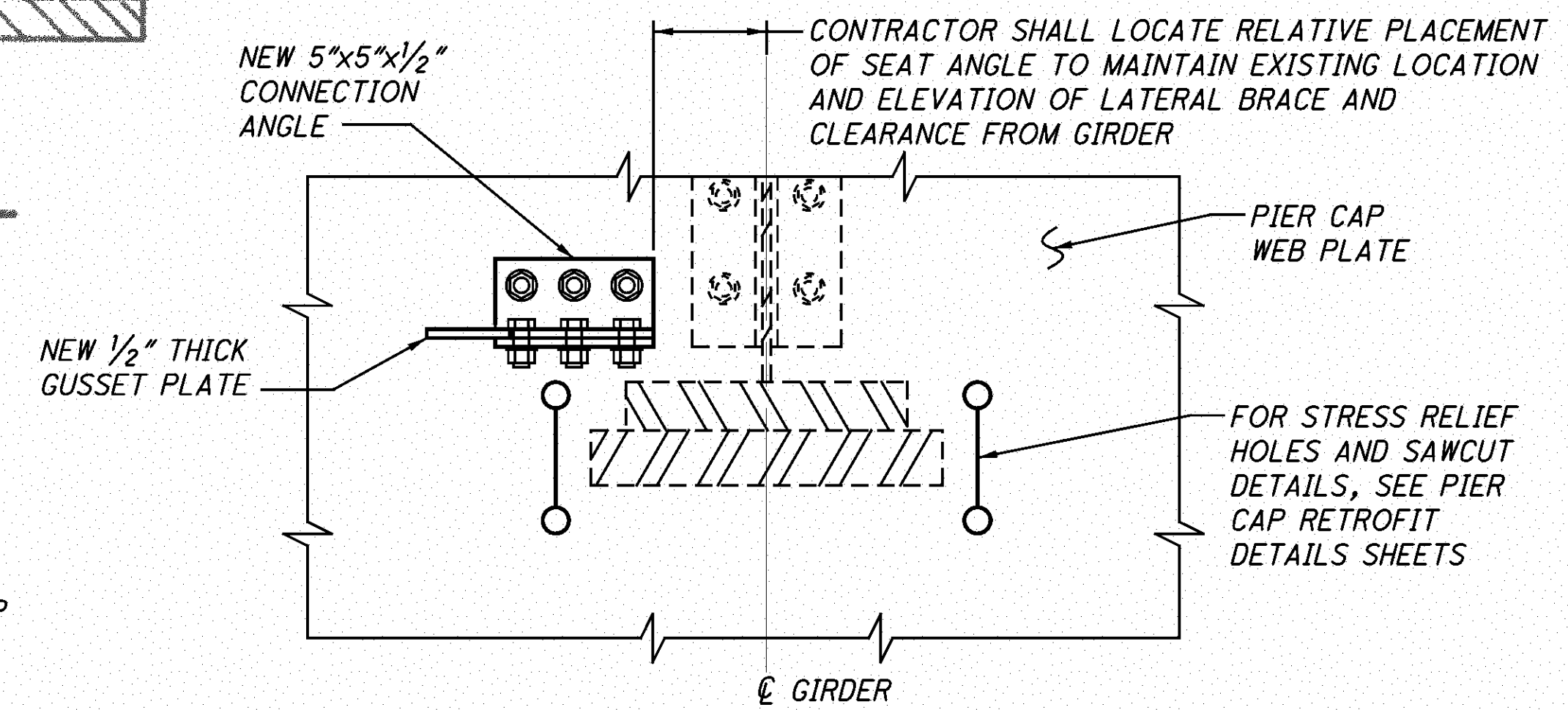


**SECTION C-C**

LOCATIONS OF LATERAL BRACE RETROFITS			
BRIDGE	PIER	SPAN	BAYS
HAM-71-0248R	9	10	BETWEEN GIRDERS B&C AND G&H
	10	11	BETWEEN GIRDERS B&C AND G&H
	11	12	BETWEEN GIRDERS B&C AND G&H
	12	13	BETWEEN GIRDERS B&C AND G&H

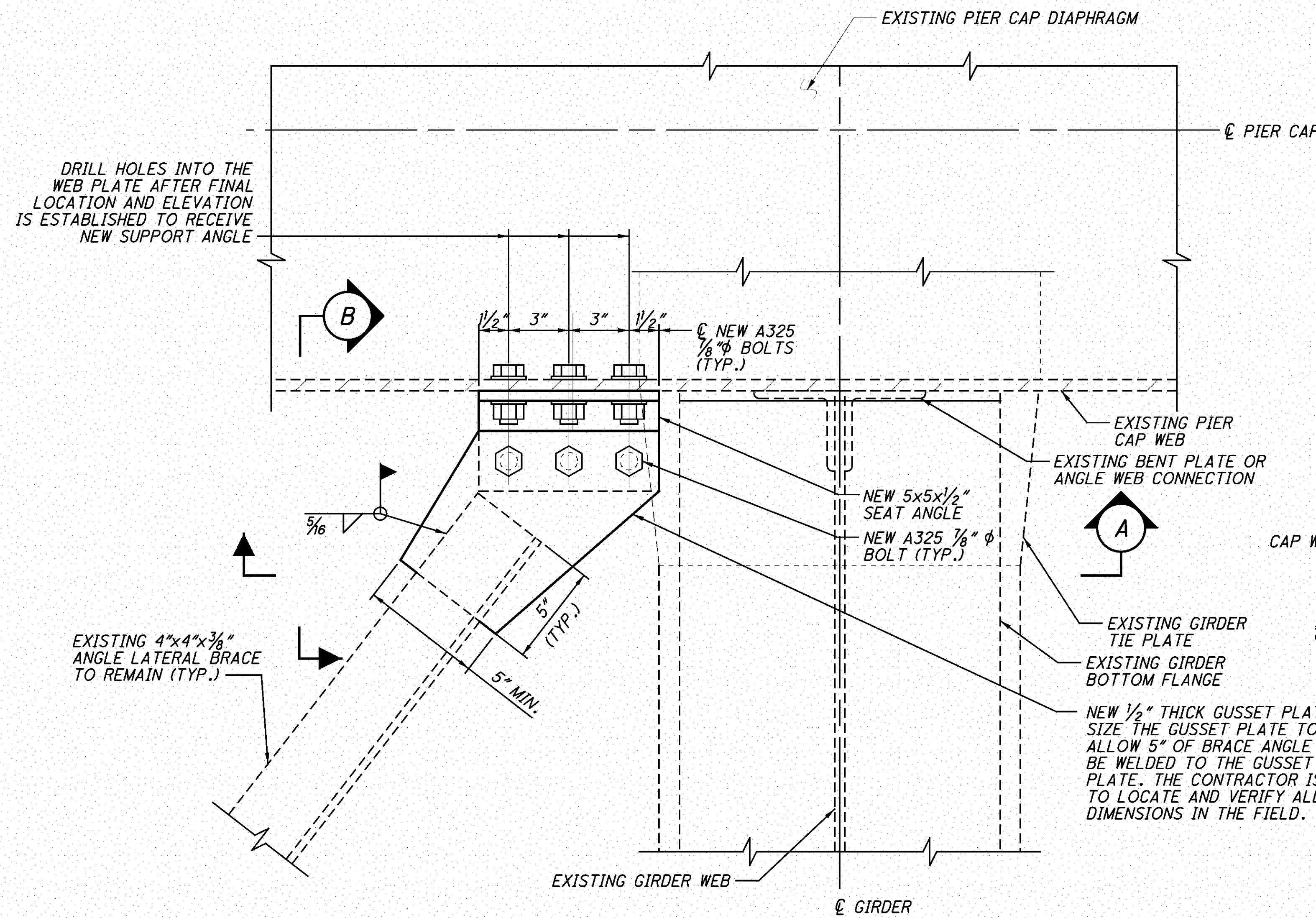
NOTE: FOR PIER AND SPAN LOCATIONS, SEE EXISTING PLANS.

**EXISTING BOTTOM LATERALS AT PIER CAP**



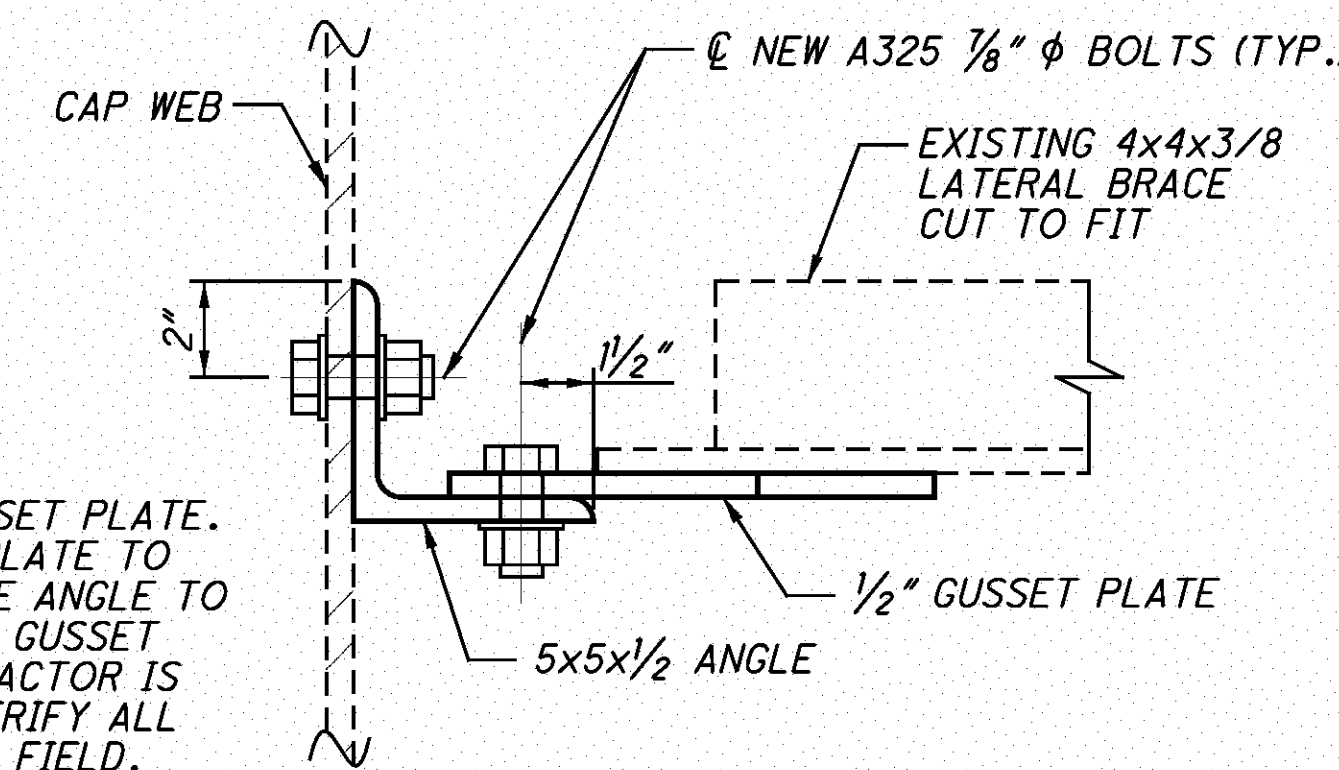
**SECTION A**  
(ELEVATION)

(EXISTING LATERAL BRACE NOT SHOWN FOR CLARITY)

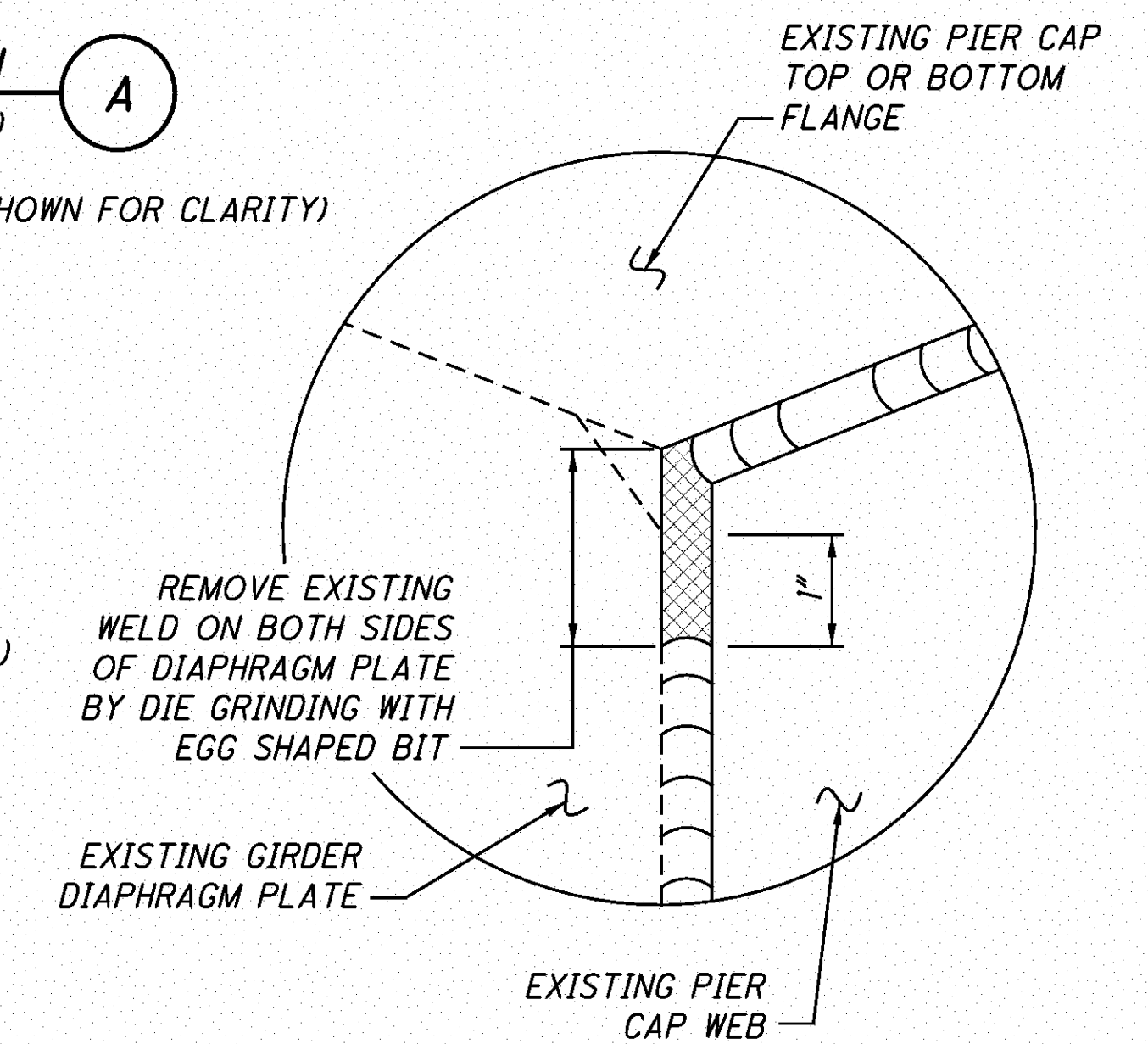


**REPAIR DETAIL PARTIAL PLAN OF LATERAL BRACING CONNECTION**  
ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN

9



**SECTION B**  
(ELEVATION)



**REPAIR DETAIL - ISOMETRIC VIEW**  
DIAPHRAGM WELD CRACK REMOVAL

10

NOTES:

1. BOTTOM LATERALS SKETCH AND SECTION C-C ARE TAKEN FROM THE ORIGINAL PLANS.

LIMITS OF 1/2" WIDE ULTRASONIC IMPACT TREATMENT (UIT)

TYPICAL LATERAL BRACE RETROFIT DETAILS

BRIDGE NO. HAM-71-0248R

OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE

HAM-71-2.48

PID No. 24954

DESIGN AGENCY  
STATE OF OHIO  
DEPT. OF TRANSPORTATION  
DISTRICT 8 BRIDGE DEPT.

DATE  
06-08-10

DESIGNED BY  
P.J.L.  
CHECKED BY  
CAH

REVIEWED BY  
SCS

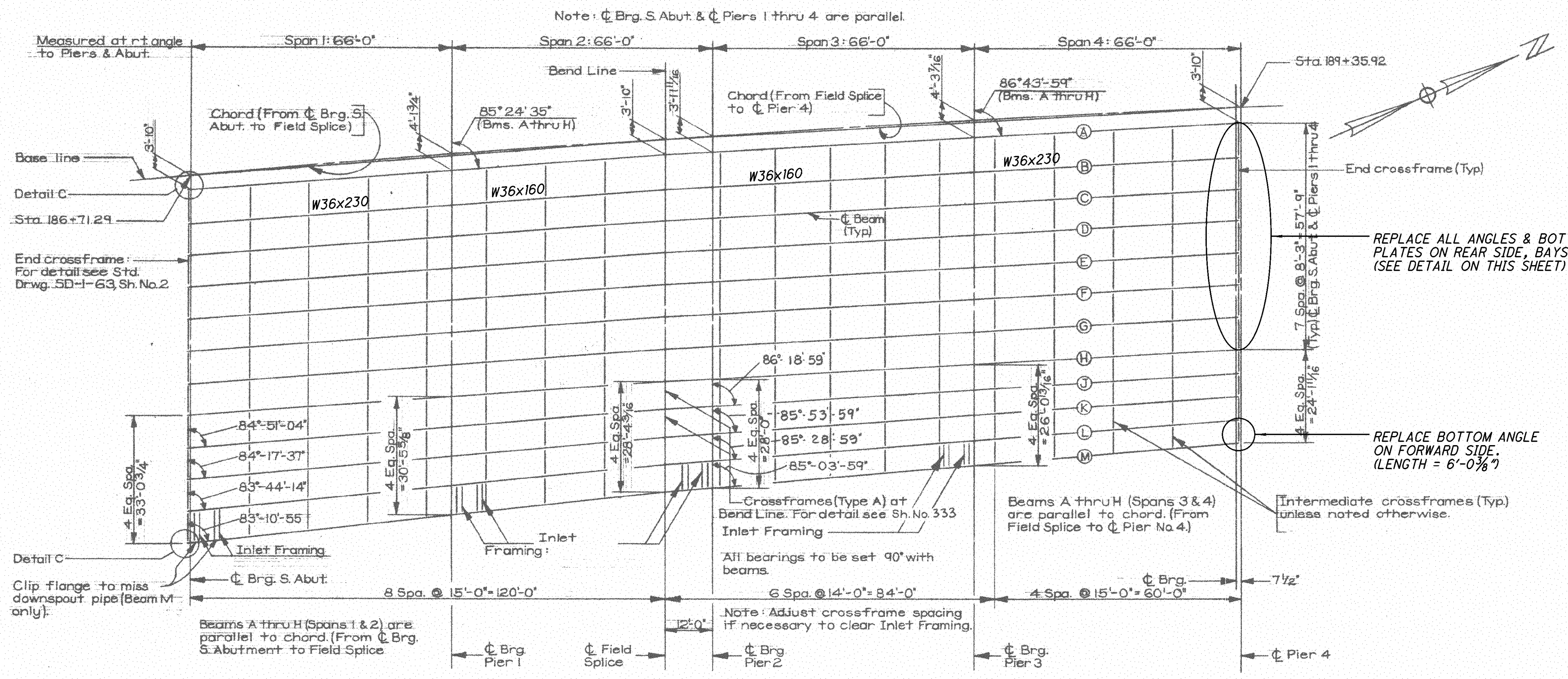
STRUCTURE FILE NUMBER  
3106802

11 / 14

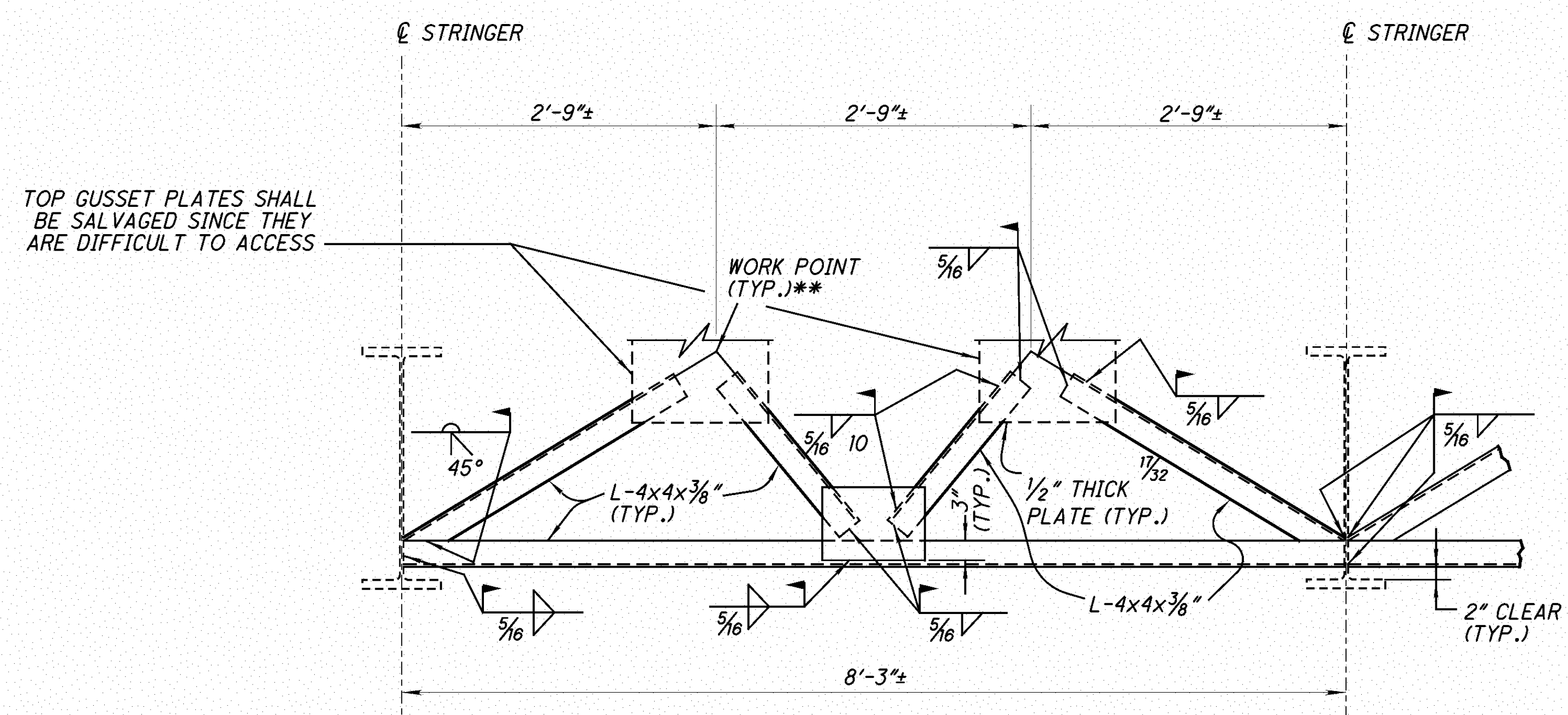
15  
18



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FRAMING PLAN



CROSSFRAME REPLACEMENT DETAIL

DESIGN AGENCY STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.
DATE 06-08-10
DESIGNED BY P.J.L.
CHECKED BY CAH
REVISIONS SCS 06-08-10 STRUCTURE FILE NUMBER 3106802
DESIGNED BY P.J.L.
CHECKED BY CAH
DRAWN BY P.J.L.
REVISIONS SCS 06-08-10 STRUCTURE FILE NUMBER 3106802
DATE 06-08-10
DESIGN AGENCY STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.

**SUPERSTRUCTURE DETAILS**  
BRIDGE NO. HAM-71-0248R  
OVER EDEN PARK ENTRANCE AND FLORENCE DRIVE

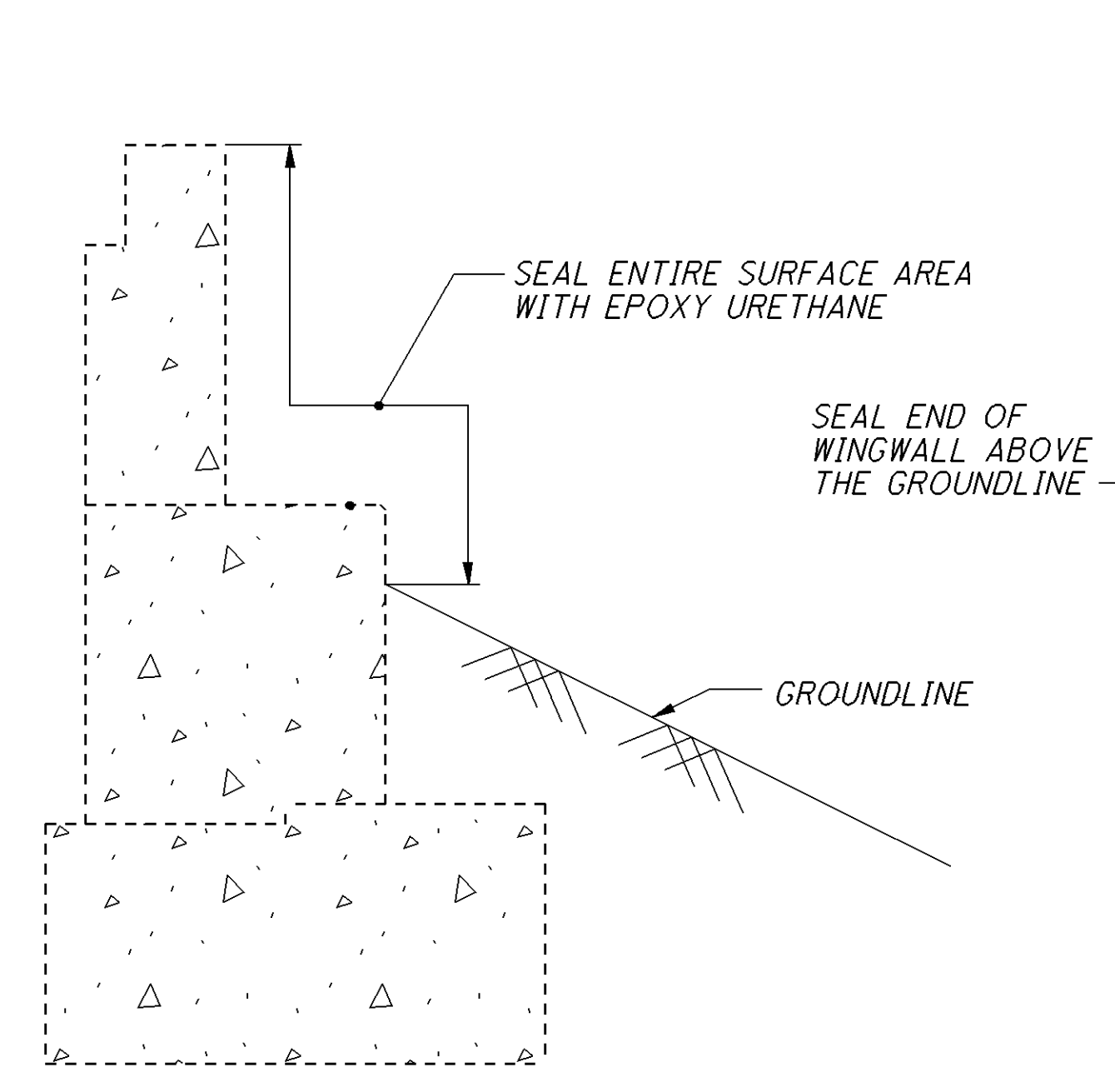
HAM-71-2.48  
PID No. 24954



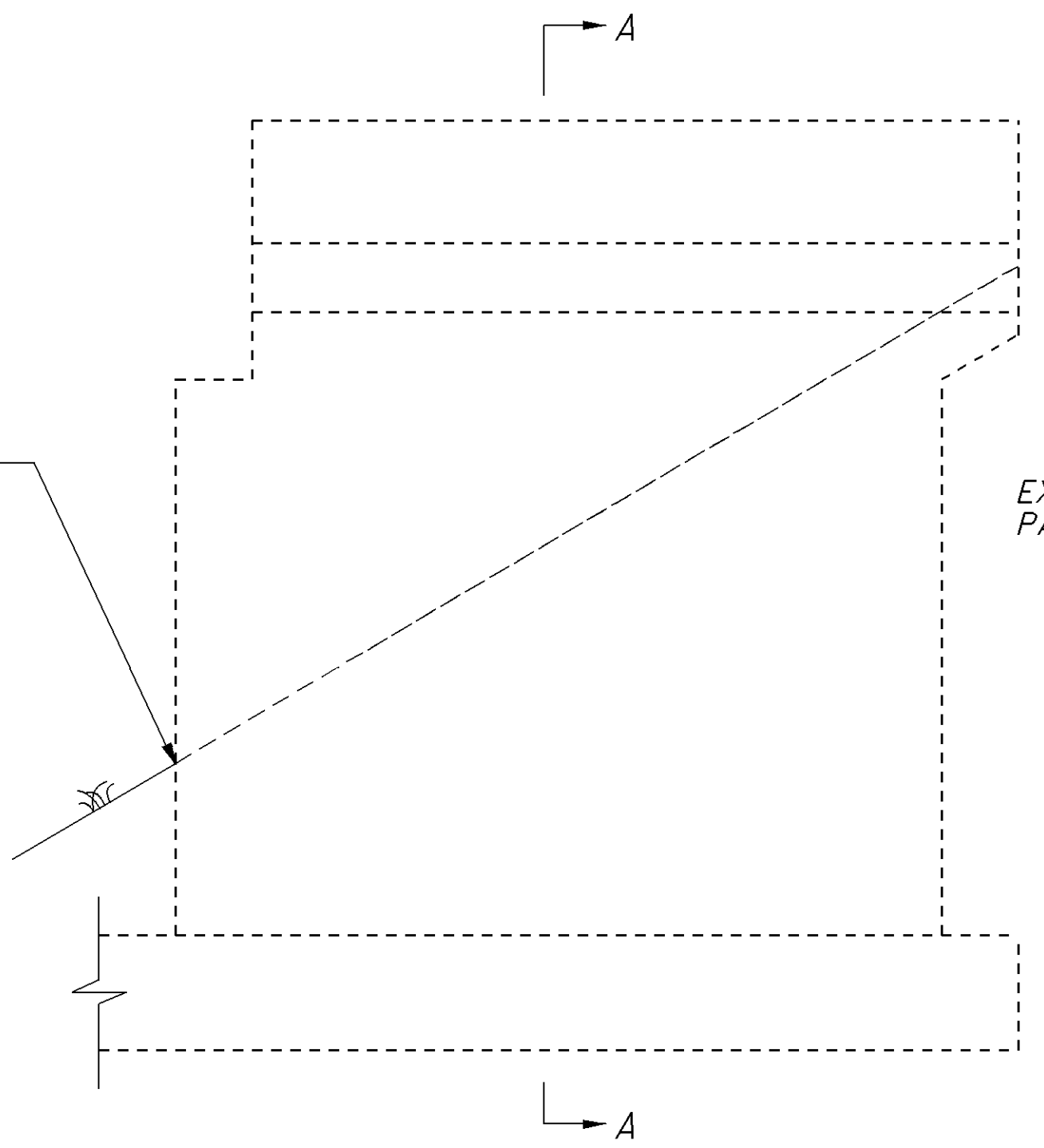




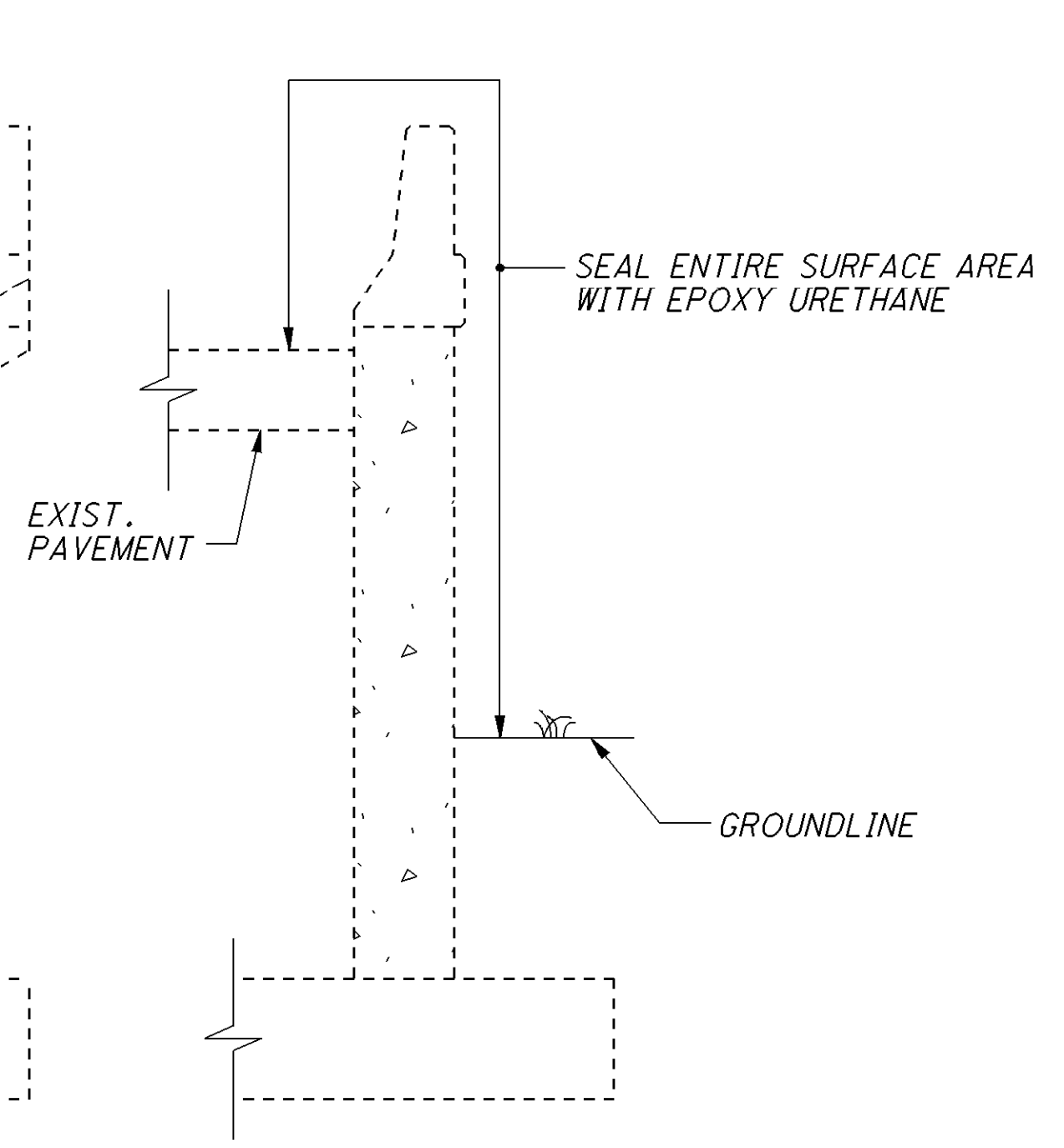
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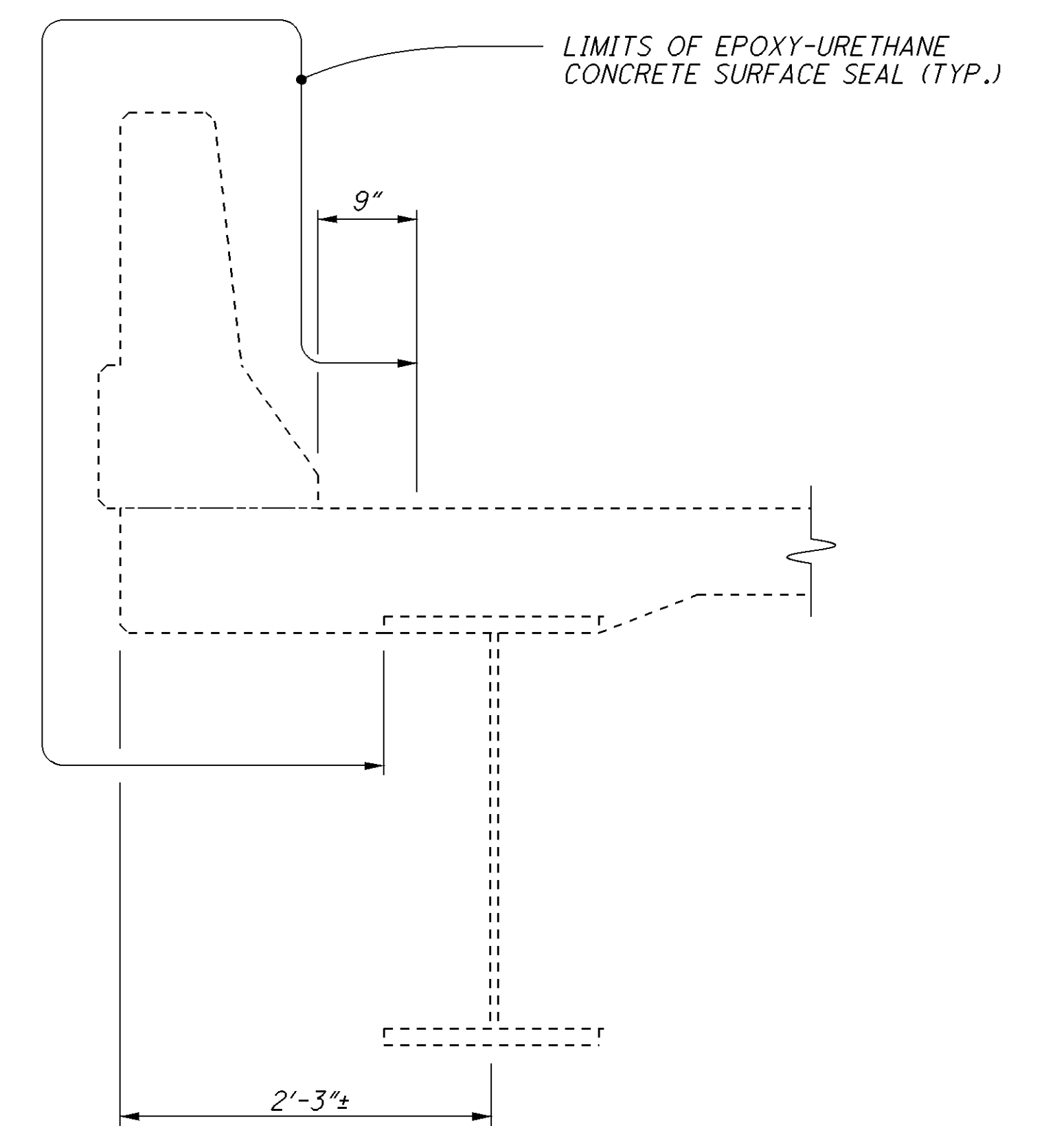
TYPICAL ABUTMENT SEALING LIMITS



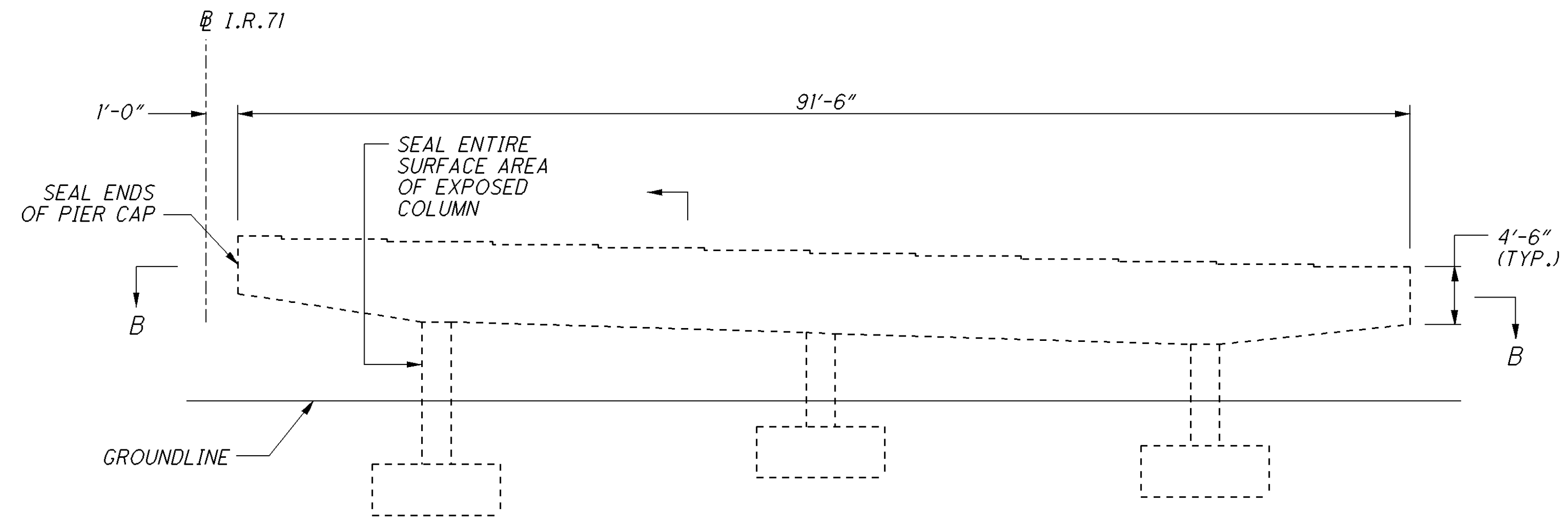
TYPICAL WINGWALL SEALING LIMITS



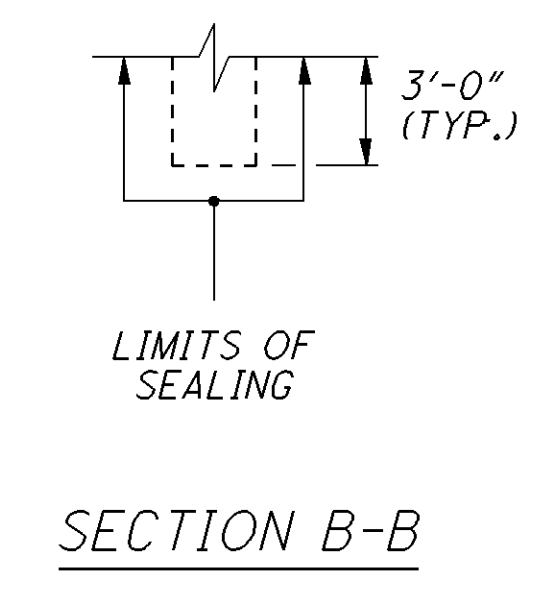
SECTION A-A



LIMITS OF SUPERSTRUCTURE CONCRETE SEALING



TYPICAL PIER SEALING DETAILS  
(PIER 1 SHOWN)



SECTION B-B

**NOTES:**

1. SEE THE ORIGINAL PLANS FOR DIMENSIONS AND DETAILS OF THE STRUCTURES TO BE SEALED.

DESIGNED P.J.L. CHECKED CAH		DRAWN P.J.L. REVISED		REVIEWED SCS	DATE 06-08-10	STRUCTURE FILE NUMBER 3106802	DESIGN AGENCY STATE OF OHIO DEPT. OF TRANSPORTATION DISTRICT 8 BRIDGE DEPT.
<b>SEALING DETAILS</b>							
HAM-71-2.48 PID No. 24954							
14 / 14							
18 18							