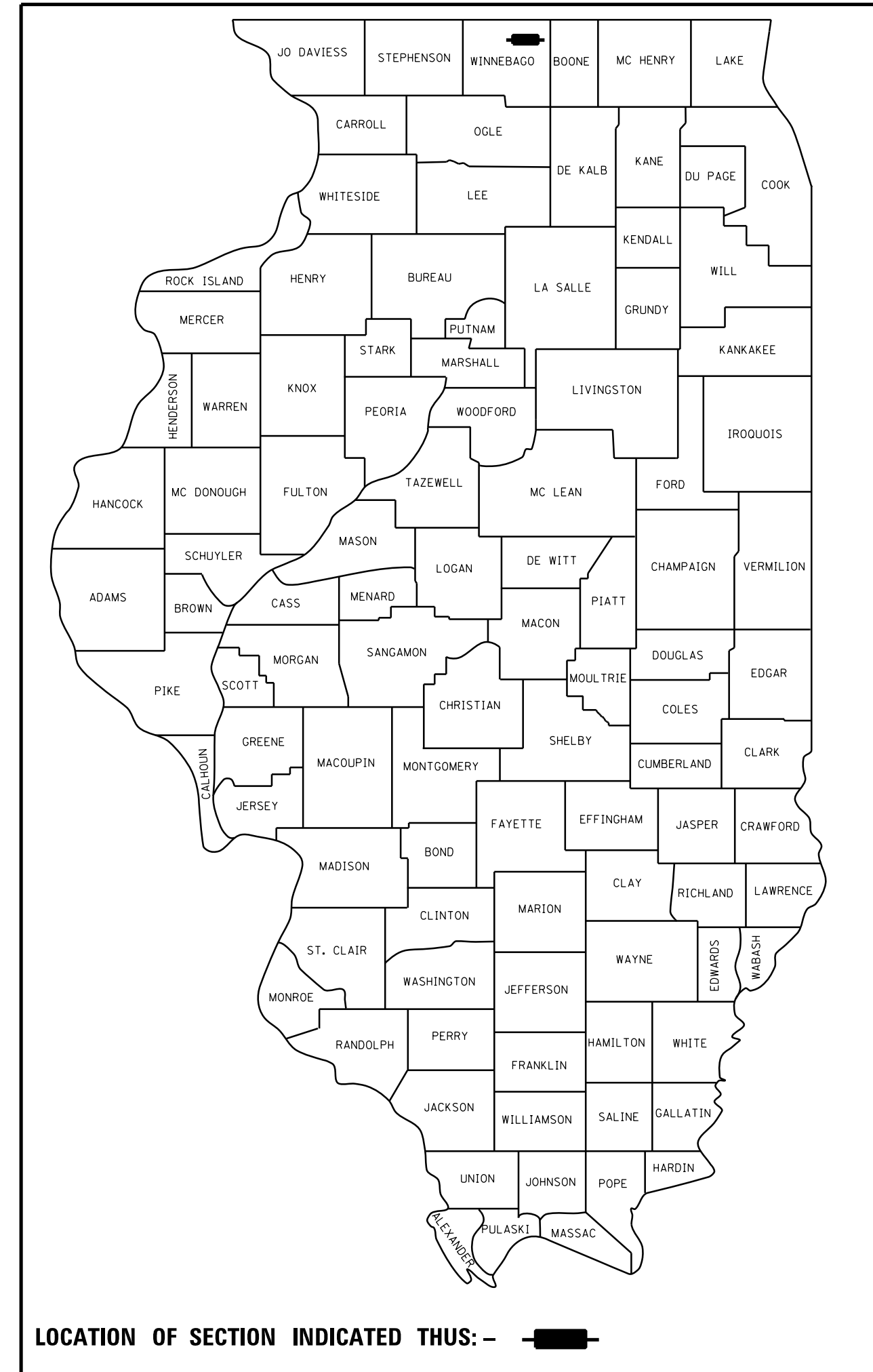


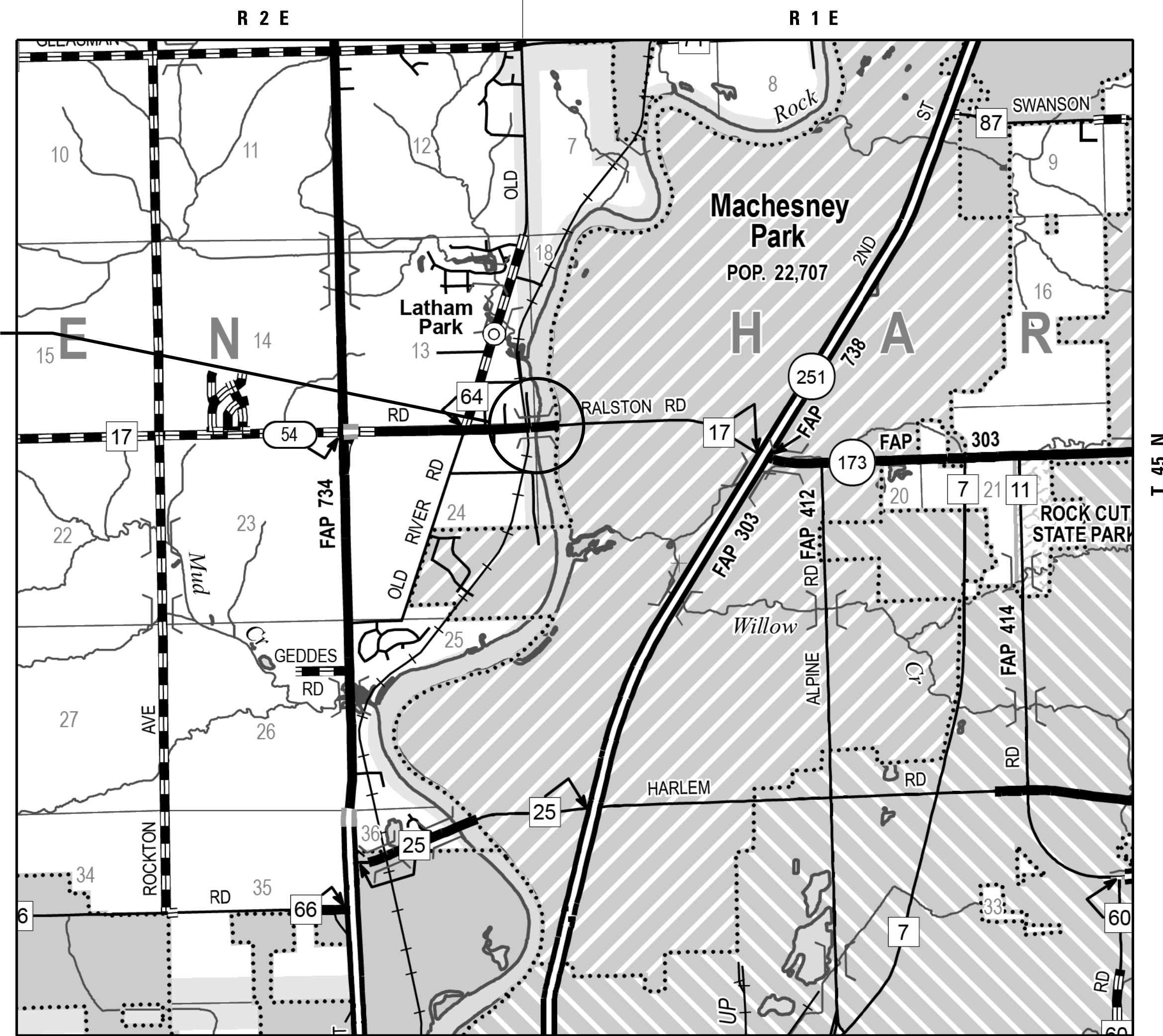
**PLANS FOR THE
PROPOSED IMPROVEMENT
OF
SECTION 15-00598-00-BR
COUNTY HIGHWAY 17
STRUCTURE NUMBER 101-3017
WINNEBAGO COUNTY**

INDEX OF SHEETS

1. TITLE SHEET
2. FRAMING REPAIR PLAN
3. GENERAL NOTES AND SUMMARY OF QUANTITIES
4. GIRDER REPAIR DETAILS
5. WEST ABUTMENT DIAPHRAGM REPAIR DETAILS
6. EAST ABUTMENT DIAPHRAGM REPAIR DETAILS
7. INTERIOR CROSS FRAME REPAIR DETAILS
- 8.-9. EXISTING BRIDGE PLANS (FOR REFERENCE).

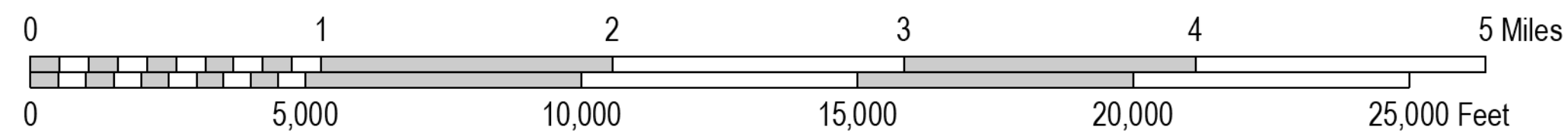


**PROJECT LOCATION
S.N. 101-3017**



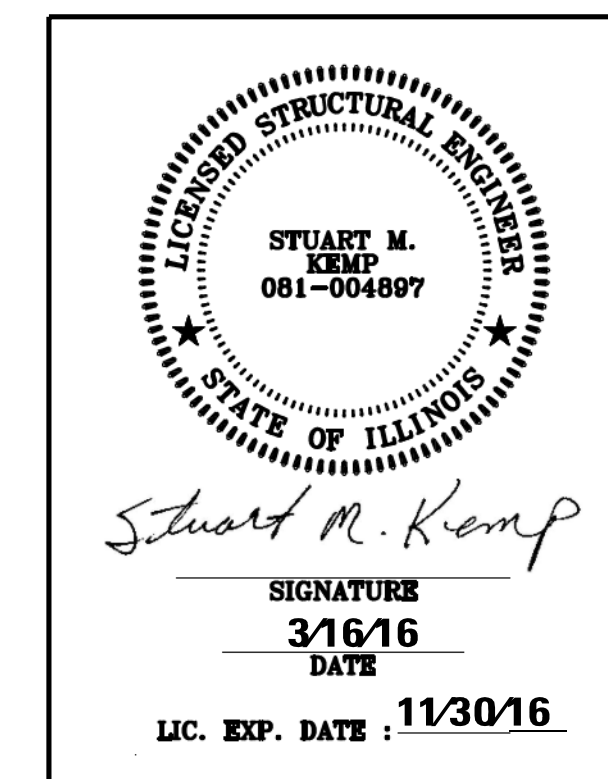
LOCATION MAP

SCALE FOR MAIN MAP



UTILITY NOTE

THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

NUMBER	REVISION	DATE	DRAWN/DESIGNED	REVIEWED

WINNEBAGO COUNTY

Hanson No.	15L0073A
Filename	S001-TITLE.dgn
Scale	N.T.S.
Date	03/16/2016
DESIGNED	SMK 03/16/2016
DRAWN	MGM 03/16/2016
REVIEWED	SMK 03/16/2016

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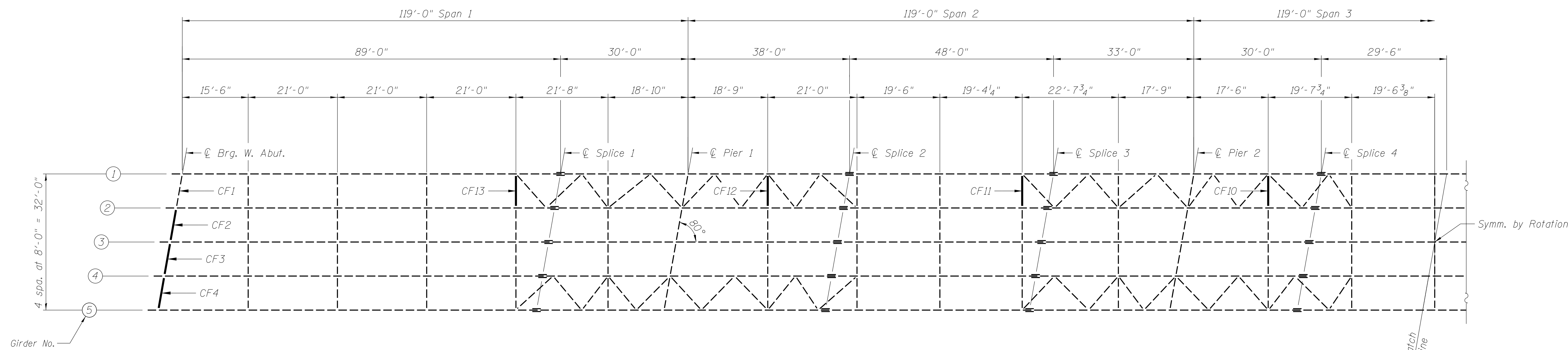


TITLE SHEET
STRUCTURE NUMBER 101-3017
RALSTON ROAD BRIDGE
OVER ROCK RIVER
WINNEBAGO COUNTY

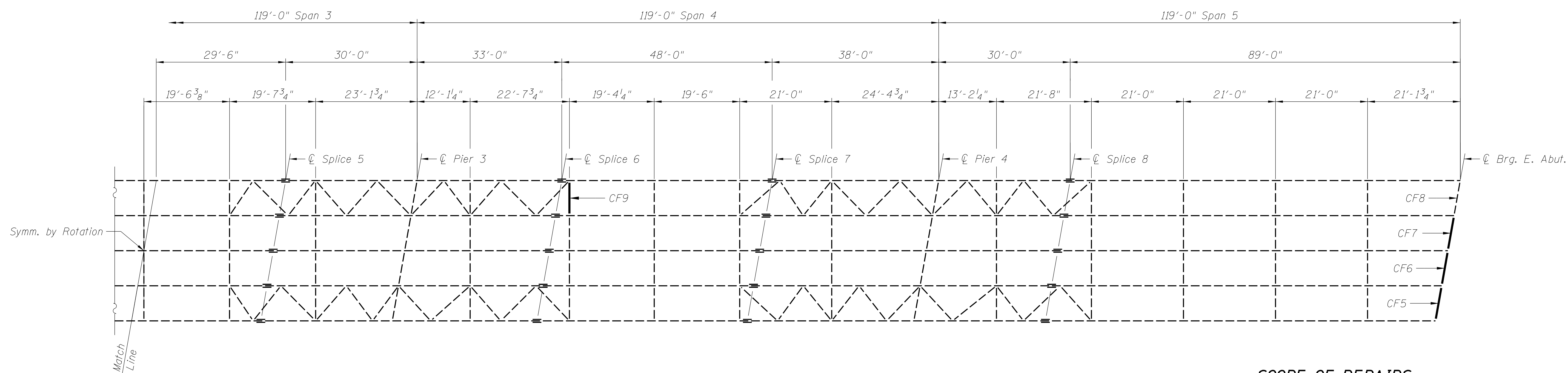
S-01

1 of 9 sheets

3/16/2016
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mrcy02259



FRAMING REPAIR PLAN



FRAMING REPAIR PLAN



SCOPE OF REPAIRS

1. Remove and replace bottom horizontal member and both diagonals of cross frames CF2, CF3, CF4, CF5, CF6, & CF7. See Sheets S-03, S-05 and S-06.
2. Remove and replace bottom and top horizontal members and both diagonals of cross frame CF13. See Sheets S-03, and S-07.
3. Perform steel repairs to west end of Girders 2, 3 & 4. See Sheet S-04.
4. Add steel plate to east side of north bearing stiffener at west end of Girder 5. See Sheet S-05.
5. Remove and replace bolt as indicated on Sheet S-07 for CF9, CF10, CF11 and CF12.

NUMBER	REVISION	DATE	DRAWN	DESIGNED	REVIEWED

WINNEBAGO COUNTY

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Scale	N.T.S.
Date	03/16/2016

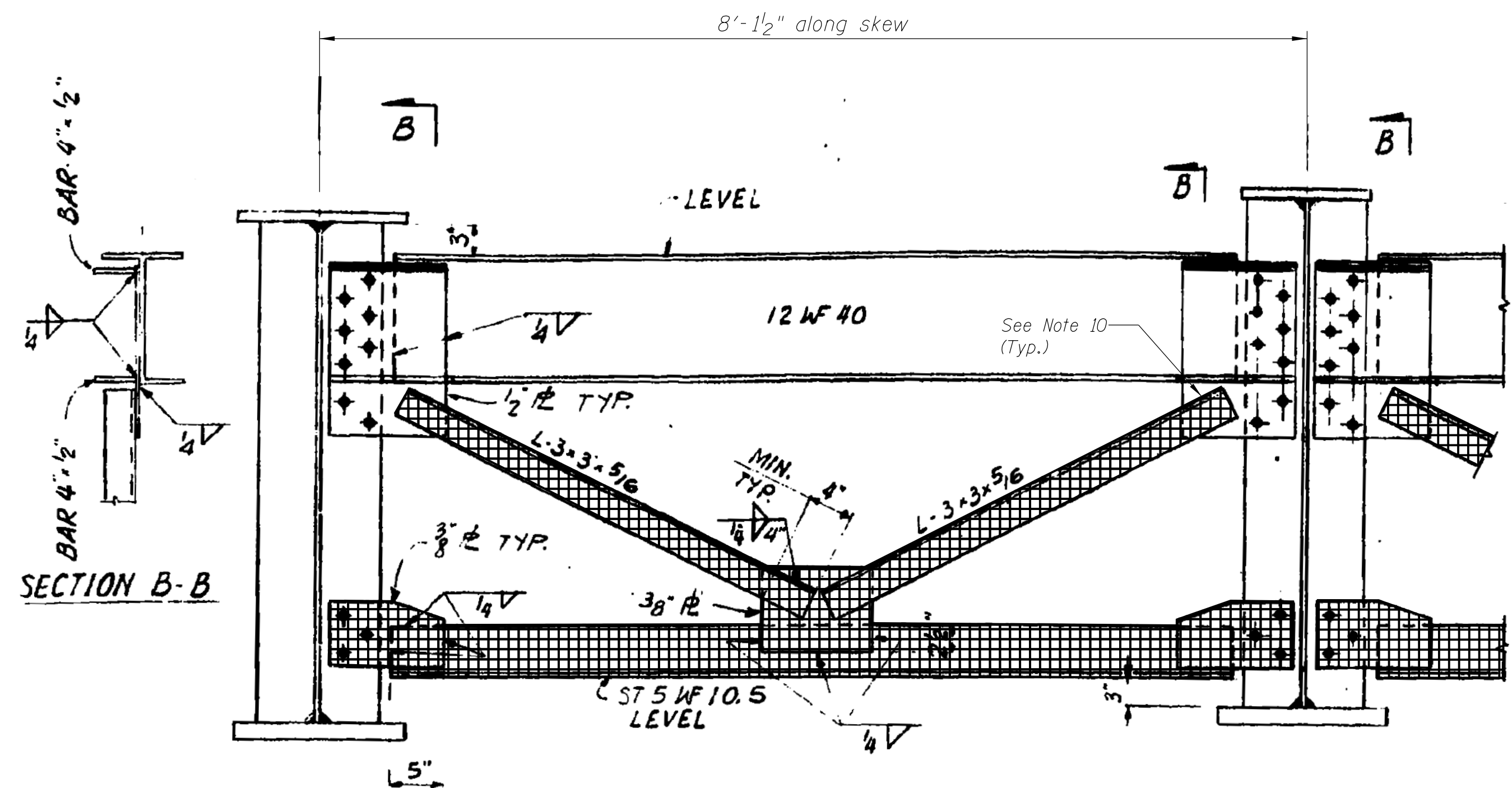
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DRAWN	MGM	03/16/2016
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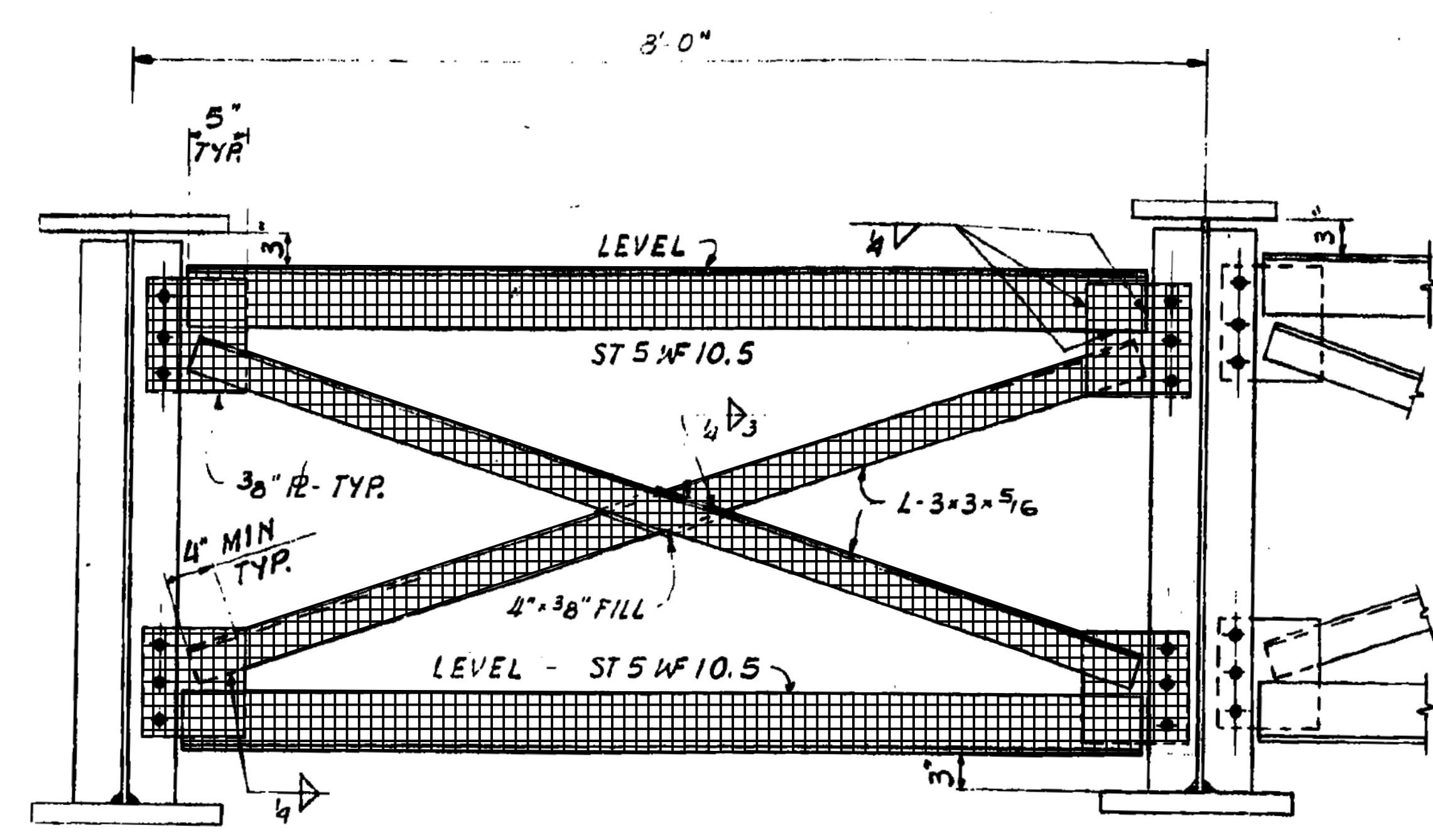
FRAMING REPAIR PLAN
 STRUCTURE NUMBER 101-3017
 RALSTON ROAD BRIDGE
 OVER ROCK RIVER
 WINNEBAGO COUNTY

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TYP. END CROSS FRAME

(Showing Limits of Removal for CF2, CF3, CF4, CF5, CF6 & CF7)



TYP. END CROSS FRAME

(Showing Limits of Removal for CF13)

STEEL REPAIR PROCEDURES AND SEQUENCE

1. Remove and properly dispose of all loose material that has collected on the bearing seats and/or the structural steel elements at the East and West abutments. This includes dirt, spalled concrete, pack rust, and litter.
2. Surfaces of existing structural steel to which new steel will be attached shall be cleaned and primed in accordance with GBSP 21, Cleaning and Painting Contact Surface Areas of Existing Steel Structures.
3. Contractor shall field verify plan dimensions and notify the Engineer of any discrepancies. Contractor shall evaluate the constructability of the proposed repairs. Any proposed deviations to the details shown on the plans shall be submitted to the Engineer for review and approval.
4. Remove and dispose of portions of existing end diaphragms that will be replaced. Only two diaphragms can be removed at any one time.
5. Perform steel repairs to girders from which diaphragms have been removed.
6. Repeat steps 4 and 5 as required to complete the repairs.

SUMMARY OF QUANTITIES

CODED PAY ITEM NUMBER	NAME	UNIT	TOTAL QUANTITY
50500405	Furnish and Erect Structural Steel	Pound	2660
67100100	Mobilization	L. Sum	1
X0322559	Bolt Replacement	Each	17
X7010216	Traffic Control and Protection (Special)	L. Sum	1
Z0001903	Structural Steel Removal	Pound	1200
Z0010400	Cleaning Bridge Seats	Sq. Ft.	260

GENERAL NOTES:

1. The following General notes supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2016, which apply to and govern the construction of Section 12-00598-00-BR in Winnebago County, and in case of conflict with any part or parts of said Specifications, the said General Notes shall take precedence and shall govern.
2. The word "Engineer" as used herein shall be taken to mean the Winnebago County Highway Department or its designated representative.
3. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.
4. Calculated weight of Structural Steel = 2660 pounds.
5. All structural steel shall conform to AASHTO M 270 Grade 36, unless otherwise noted.
6. No field welding is permitted except as authorized by the Engineer.
7. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
8. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
9. All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnish and Erect Structural Steel.
10. Existing diagonal angles to be removed using the air-arc method and grind smooth all weld material remaining on the connection plate.
11. Bolt removal and replacement in CF2, CF3, CF4, CF5, CF6, CF7, and CF13 shall be paid for as STRUCTURAL STEEL REMOVAL and FURNISH AND ERECT STRUCTURAL STEEL. Bolt removal and replacement in CF9, CF10, CF11 and CF12 shall be paid for as BOLT REPLACEMENT.

NUMBER	REVISION	DATE	DRAWN	DESIGNED	REVIEWED

WINNEBAGO COUNTY

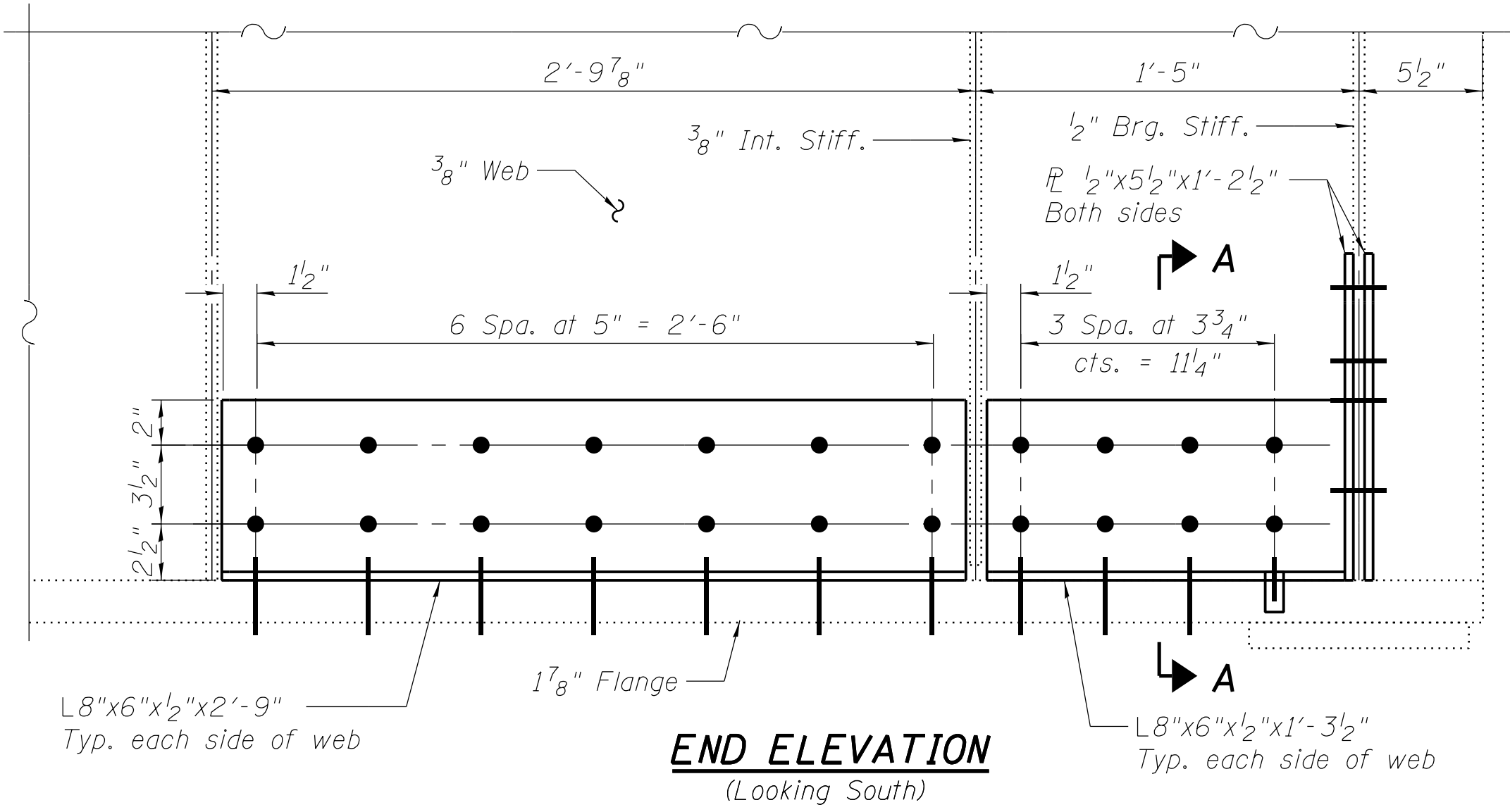
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REVIEWED SMK	03/16/2016		

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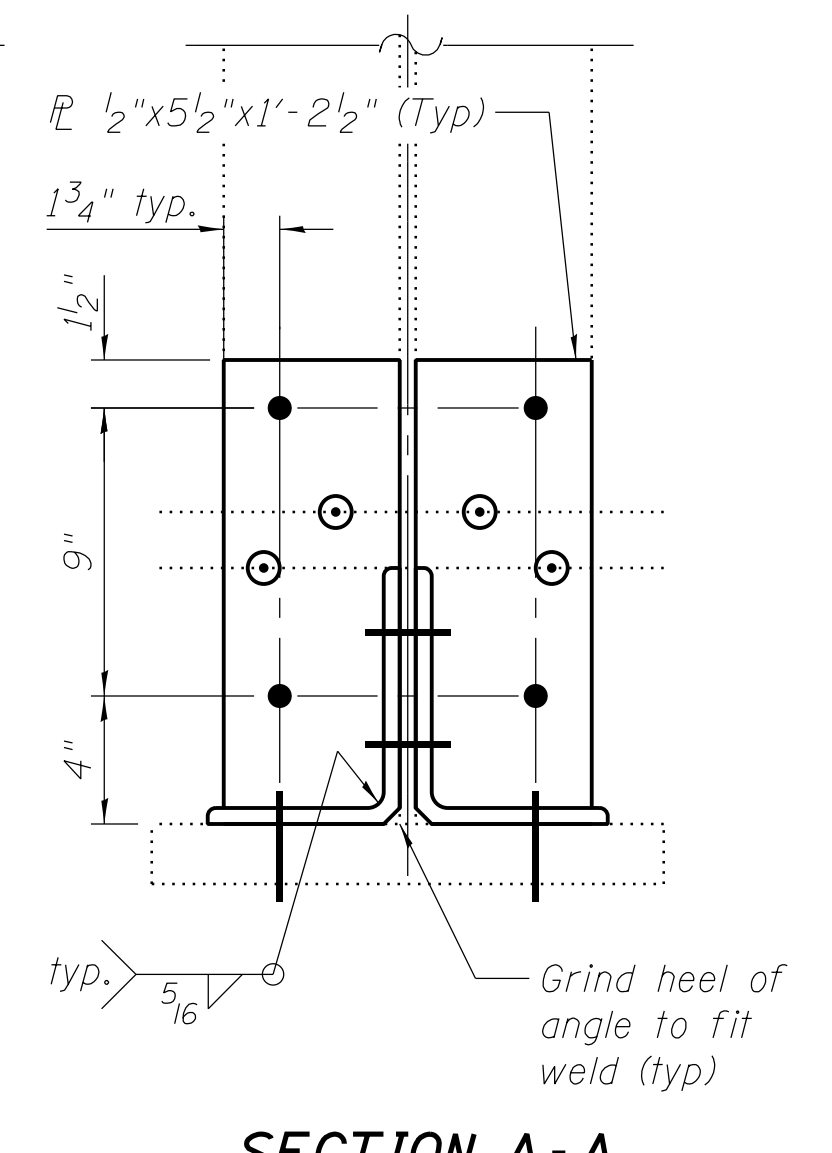
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GENERAL NOTES AND SUMMARY OF QUANTITIES
 STRUCTURE NUMBER 101-3017
 RALSTON ROAD BRIDGE
 OVER ROCK RIVER
 WINNEBAGO COUNTY

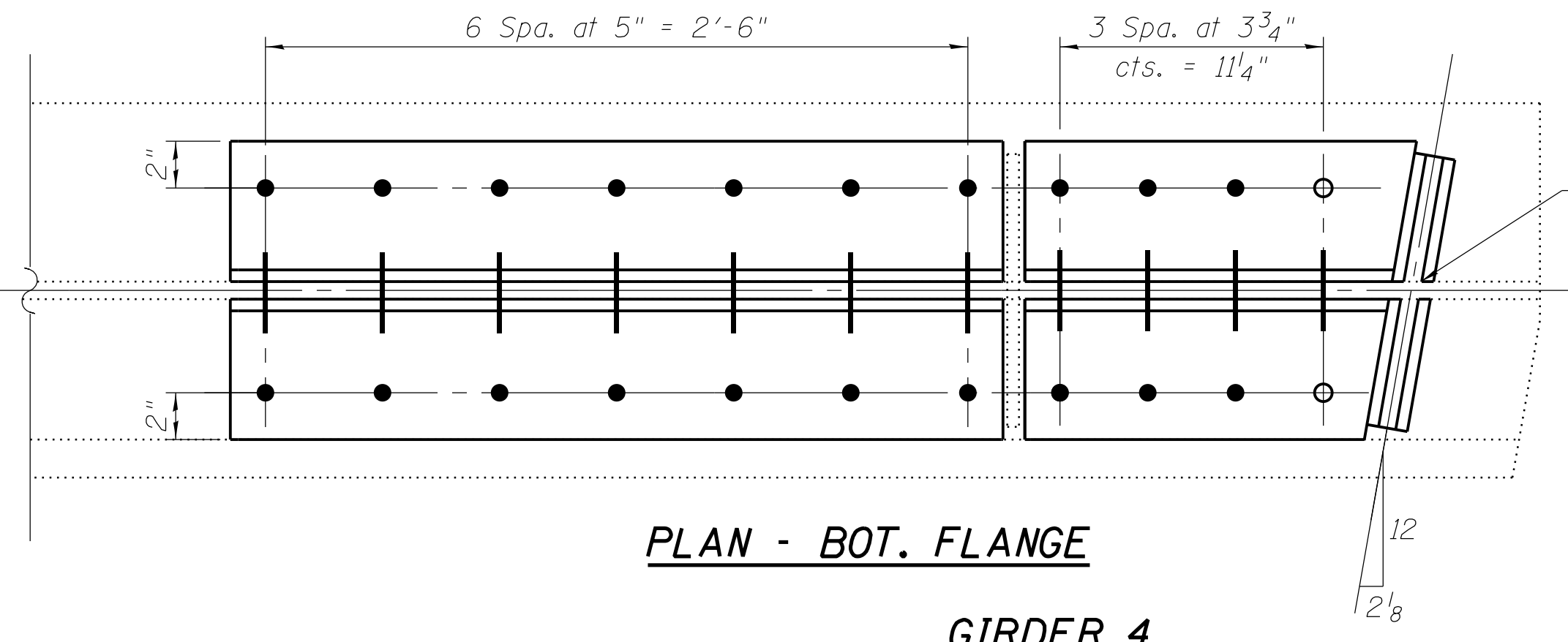
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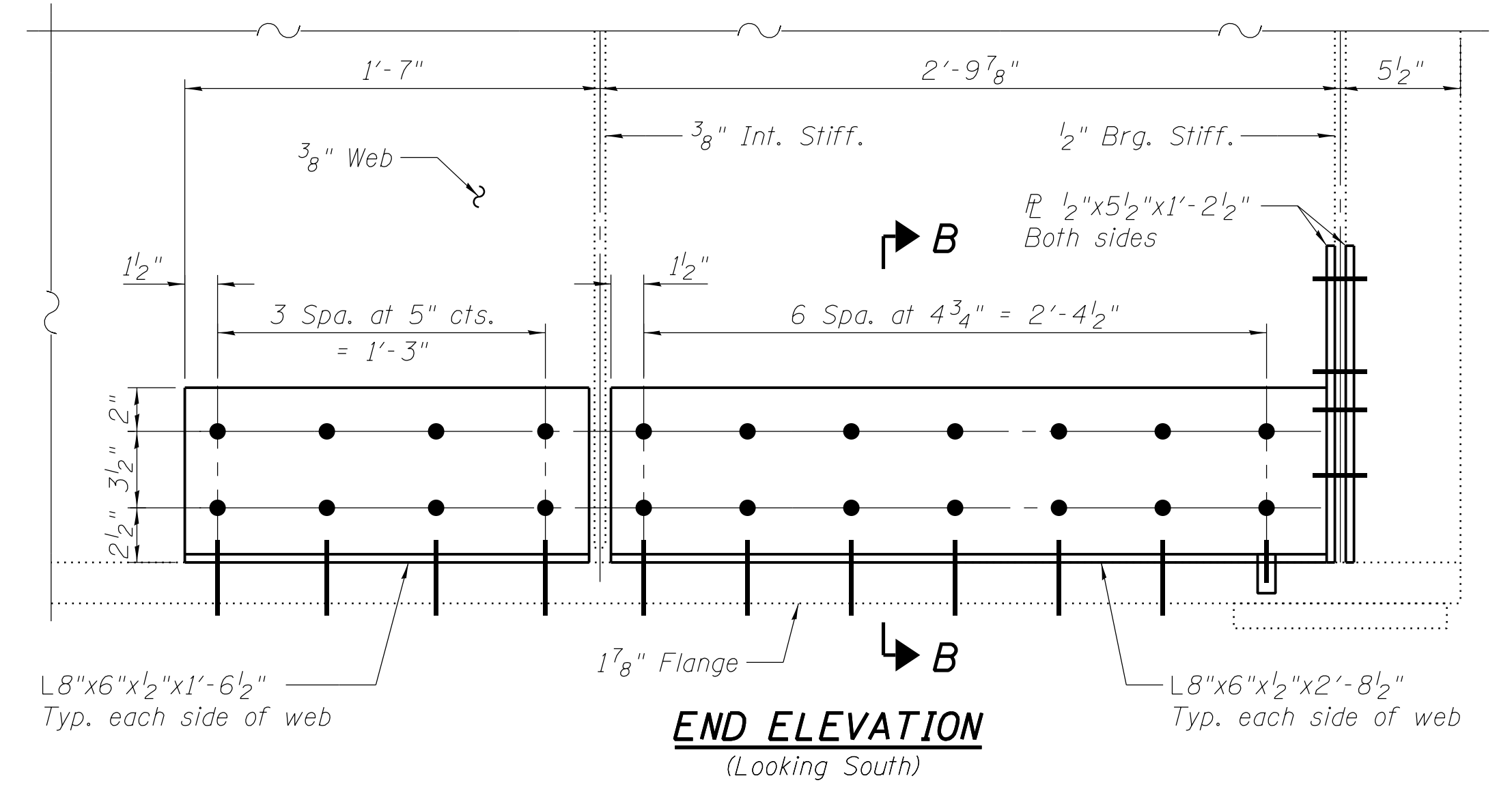
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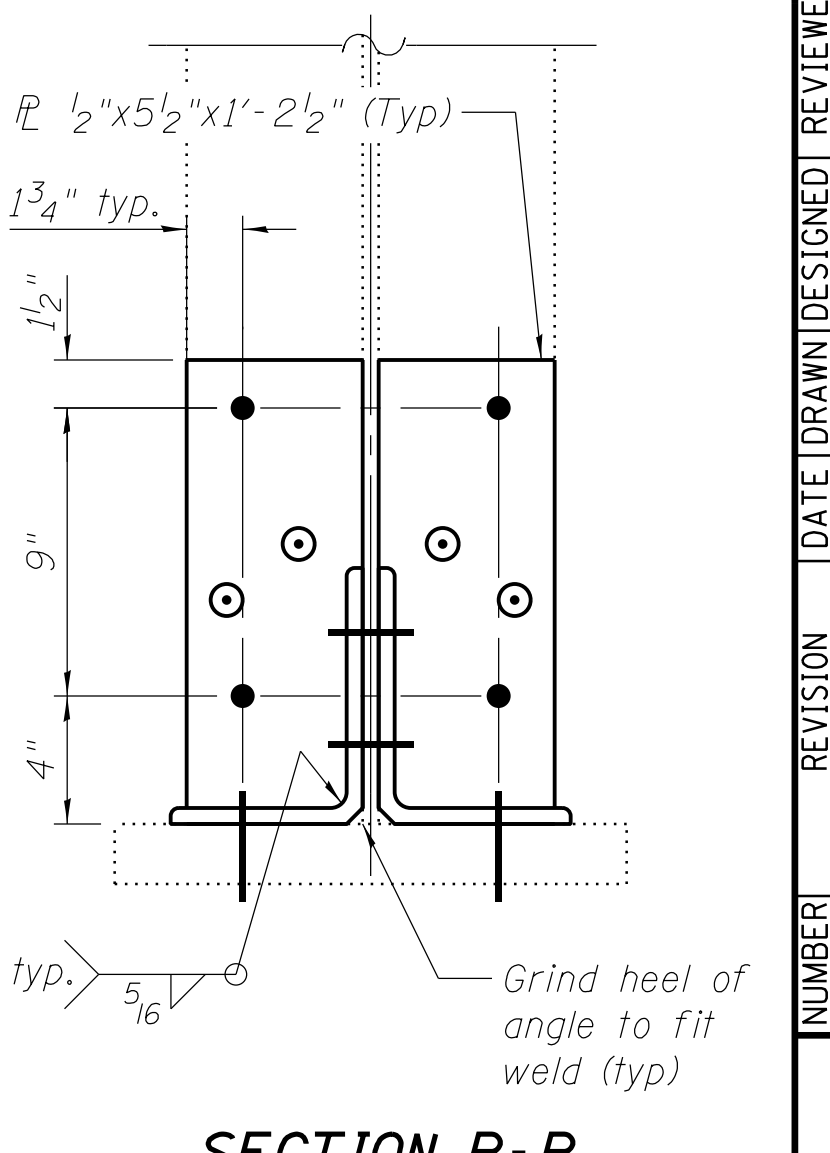
SECTION A-A



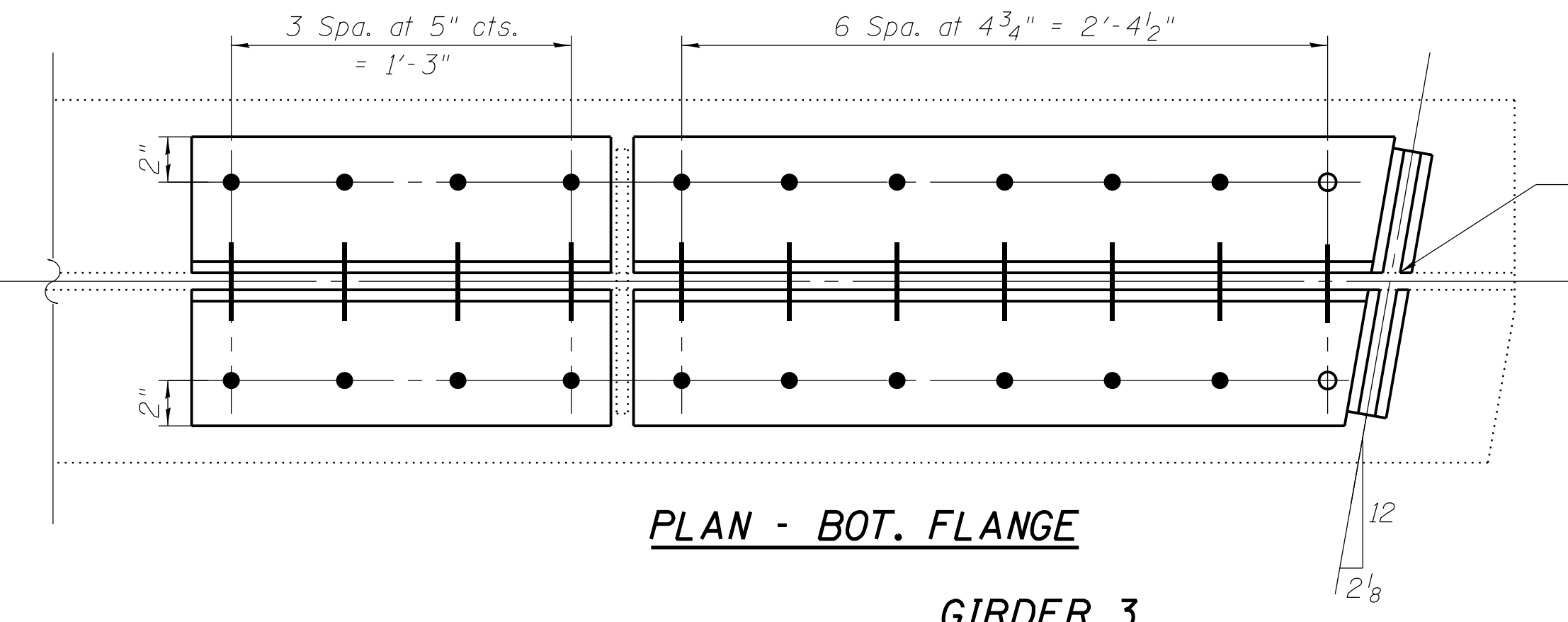
PLAN - BOT. FLANGE
GIRDER 4



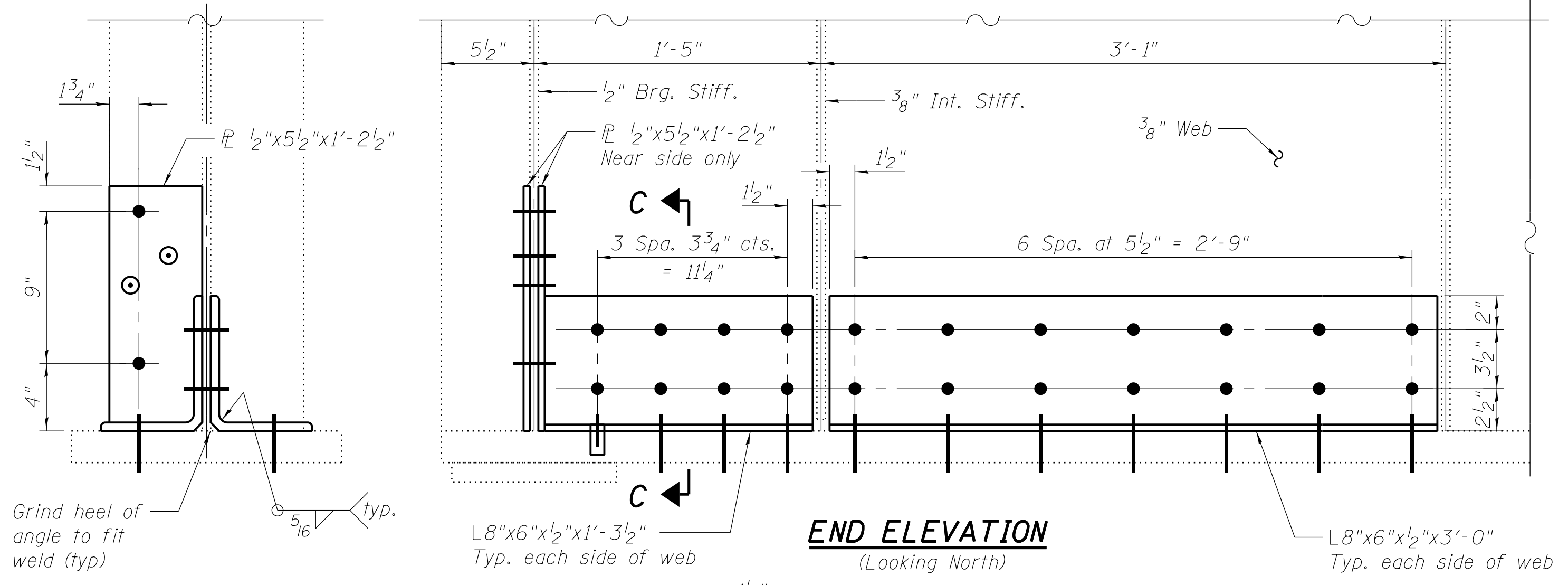
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(Looking South)



SECTION B-B

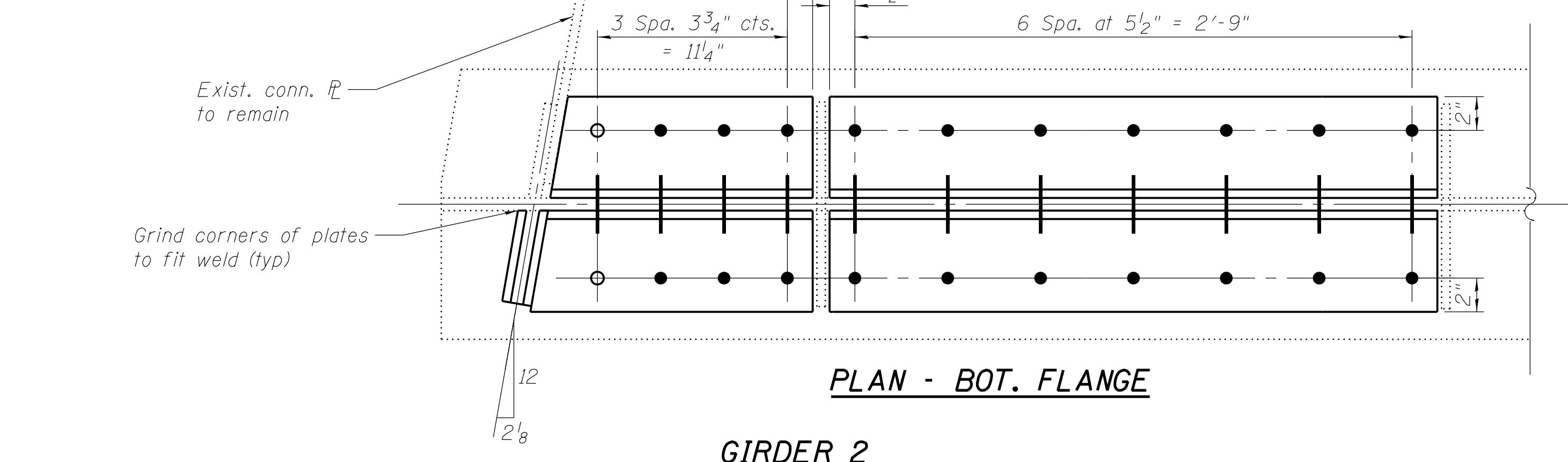


PLAN - BOT. FLANGE
GIRDER 3

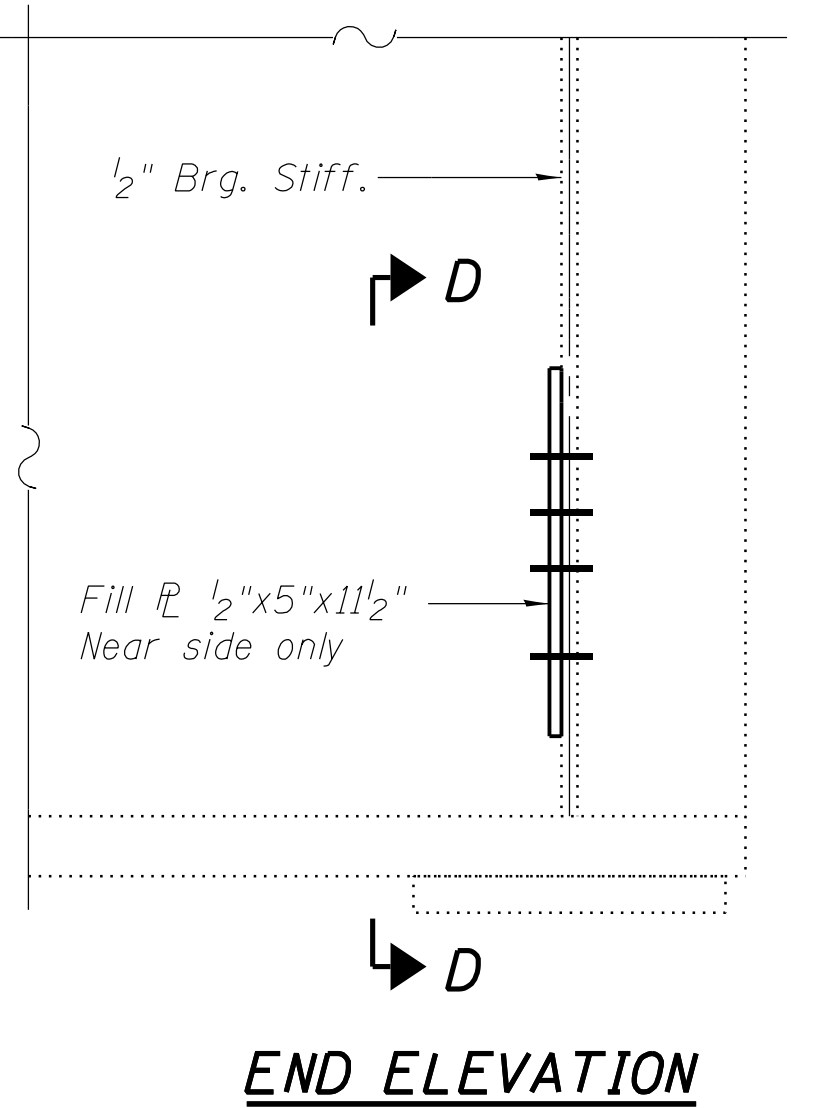


END ELEVATION
(Looking North)

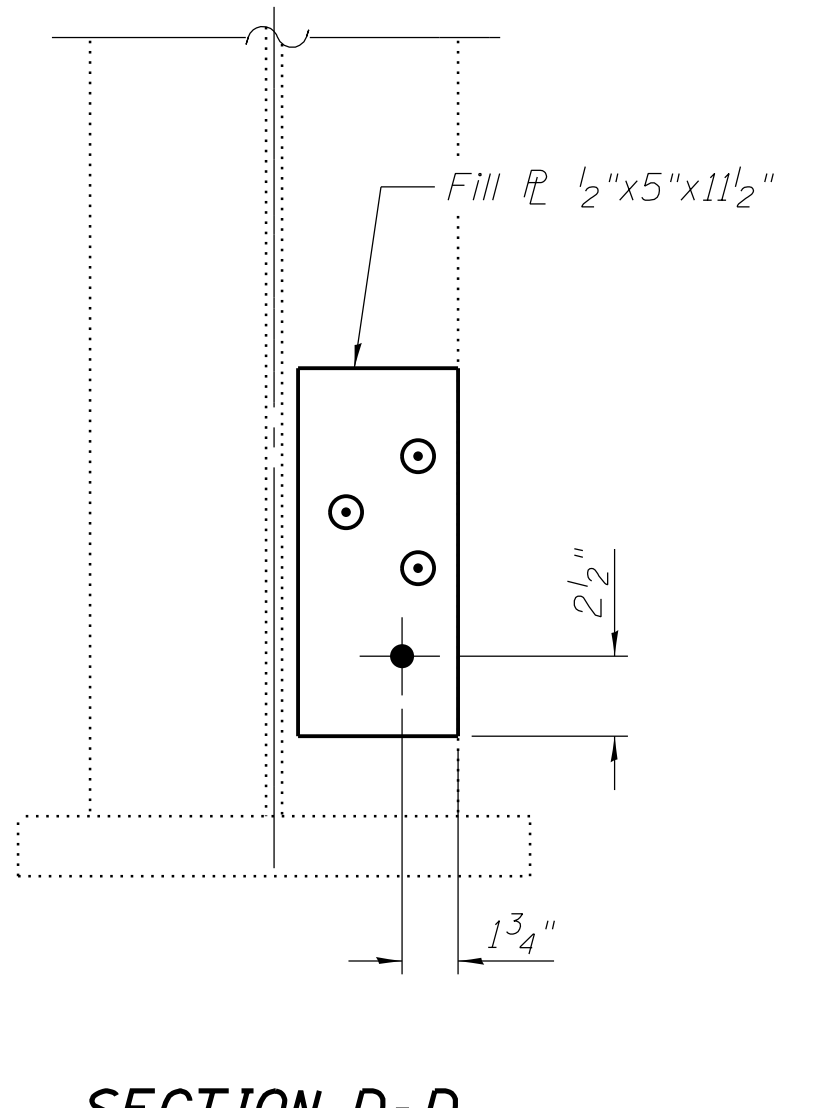
SECTION C-C



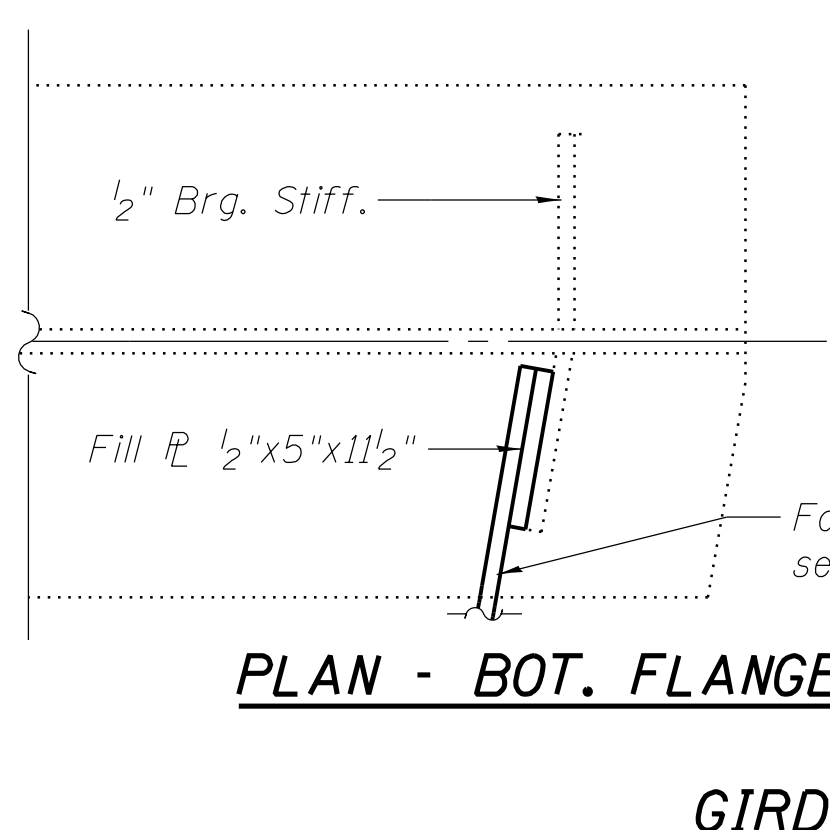
PLAN - BOT. FLANGE
GIRDER 2



END ELEVATION
(Looking South)



SECTION D-D



PLAN - BOT. FLANGE
GIRDER 5

LEGEND

- - Denotes 15/16" φ holes for 7/8" φ H.S. bolts field drilled in new or existing plates using new plate or shape as template.
- - Denotes 1" φ holes in angle for 7/8" φ threaded studs drilled and tapped 1/4" into bottom flange. Provide one nut and washer per stud.
- ⊙ - Denotes 15/16" φ holes field drilled in new plates using existing holes in bearing stiffeners as template. Ream existing holes in bearing stiffeners to accept 7/8" φ bolts.

3/16/2016
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 mery0259

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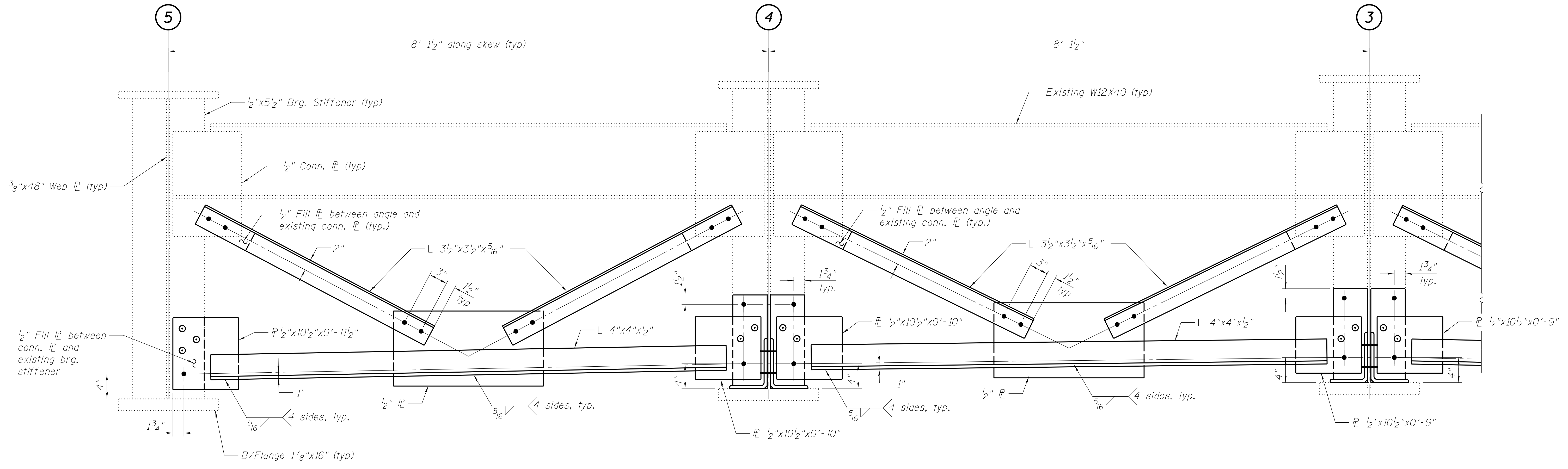
WINNEBAGO COUNTY

Hanson No.	15L0073A
Filename	S-003-Details.dgn
Scale	N.T.S.
Date	03/16/2016
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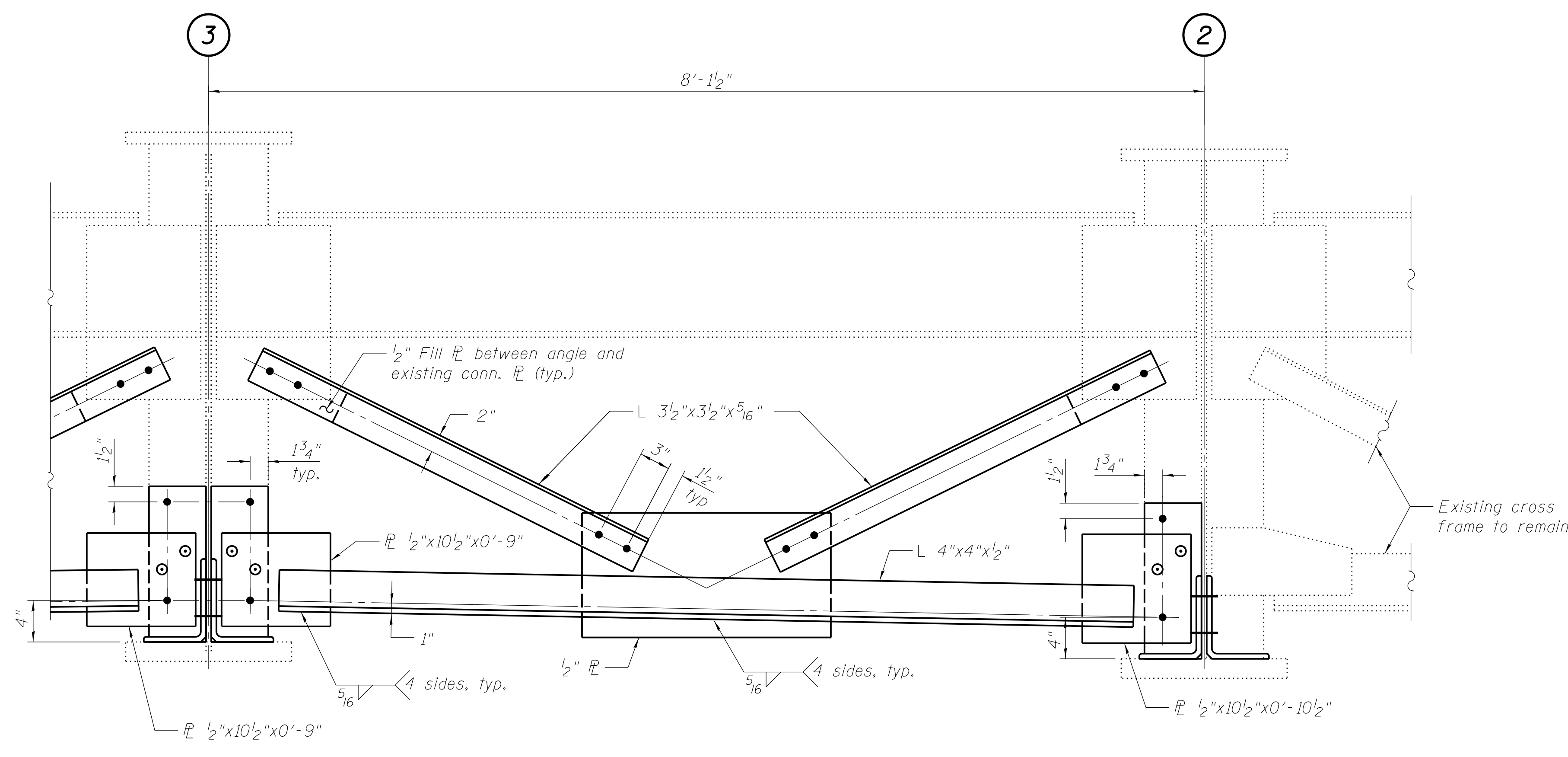
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GIRDER REPAIR DETAILS
 STRUCTURE NUMBER 101-3017
 RALSTON ROAD BRIDGE
 OVER ROCK RIVER
 WINNEBAGO COUNTY



SECTION THRU WEST END OF GIRDERS (WEST ABUTMENT)
(Looking West)



SECTION THRU WEST END OF GIRDERS (WEST ABUTMENT)
(Looking West)

- LEGEND**
- - Denotes $\frac{15}{16}$ " ϕ holes for $\frac{7}{8}$ " ϕ H.S. bolts field drilled in new or existing plates using new plate or shape as template.
 - ⊙ - Denotes $\frac{15}{16}$ " ϕ holes field drilled in new plates using existing holes in bearing stiffeners as template. Ream existing holes in bearing stiffeners to accept $\frac{7}{8}$ " ϕ bolts.

NUMBER	REVISION	DATE	DRAWN	DESIGNED	REVIEWED

WINNEBAGO COUNTY

Hanson No.	15L0073A	DESIGNED	SMK	03/16/2016
Filename	S-004-Details.dgn	DRAWN	MGM	03/16/2016
Scale	N.T.S.	REVIEWED	SMK	03/16/2016
Date	03/16/2016			

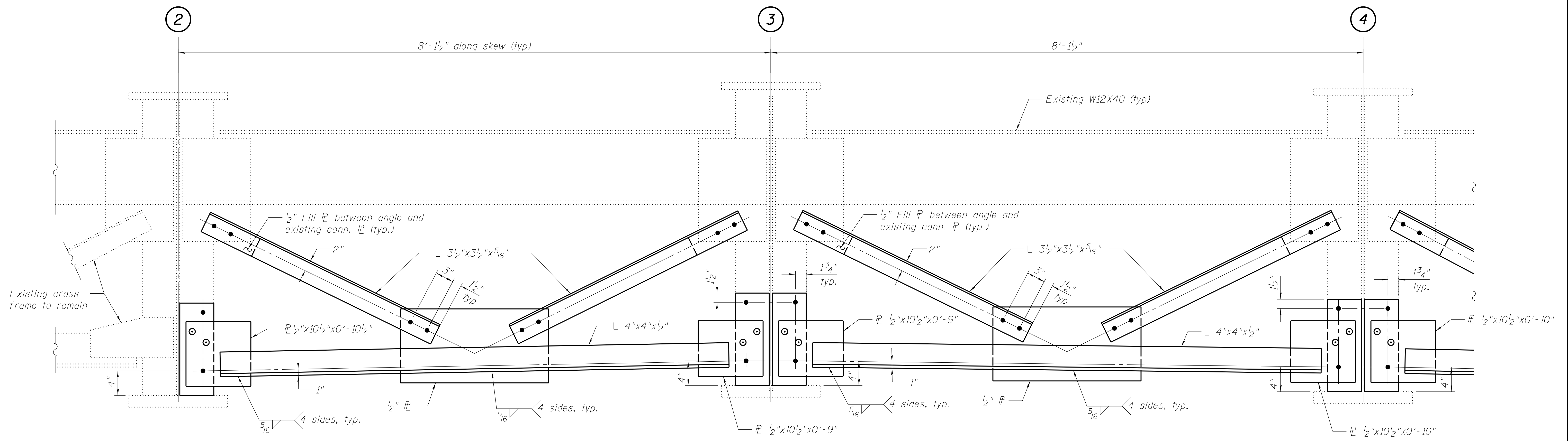
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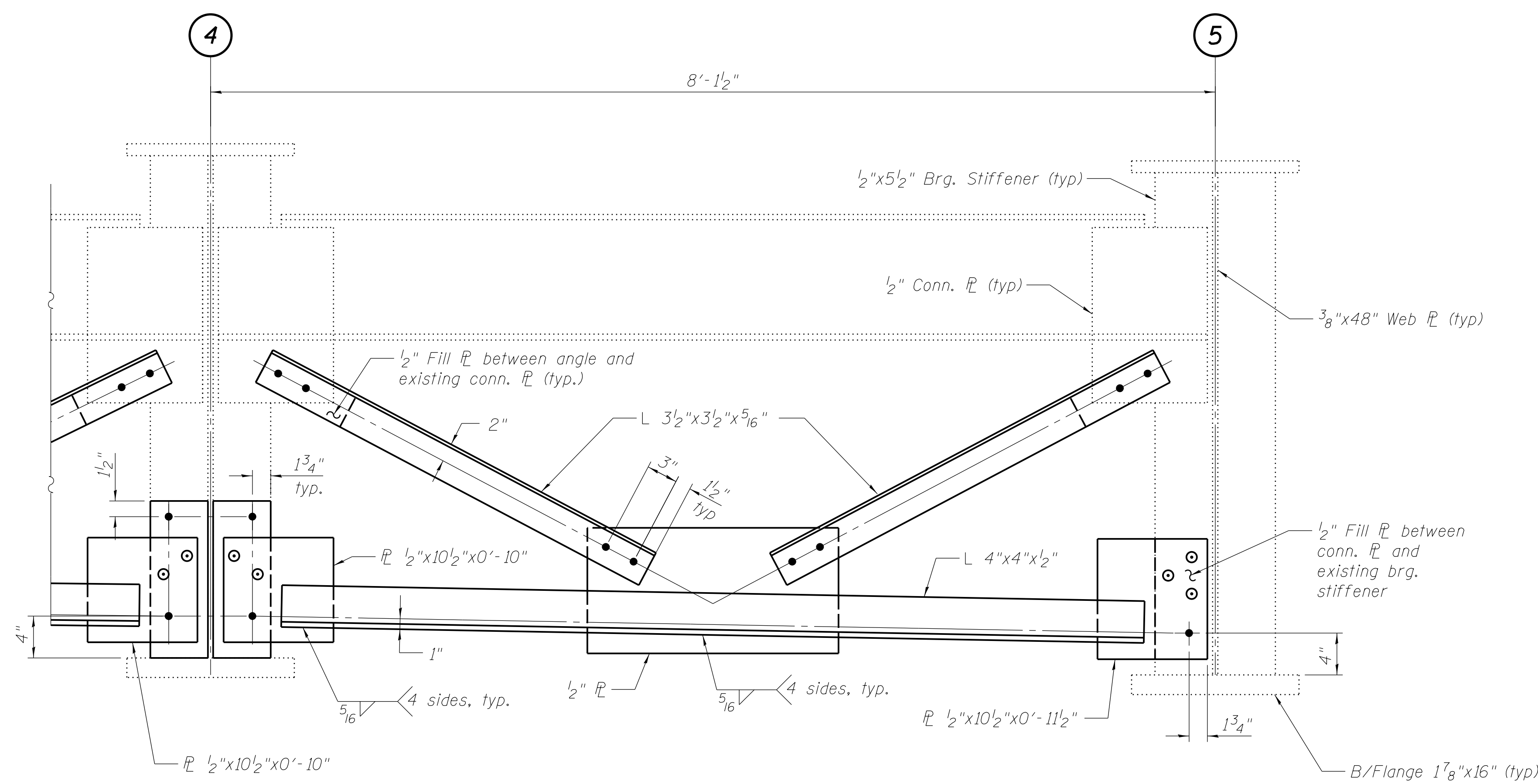
WEST ABUTMENT DIAPHRAGM REPAIR DETAILS
 STRUCTURE NUMBER 101-3017
 RALSTON ROAD BRIDGE
 OVER ROCK RIVER
 WINNEBAGO COUNTY

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I:\510073\CAD\Struct\Steel\506-East Diaphragm - Details.dgn 3/16/2016 mery0259



SECTION THRU EAST END OF GIRDERS (EAST ABUTMENT)
(Looking East)



SECTION THRU WEST END OF GIRDERS (EAST ABUTMENT)
(Looking East)

- LEGEND**
- - Denotes ¹⁵/₁₆" ϕ holes for ⁷/₈" ϕ H.S. bolts field drilled in new or existing plates using new plate or shape as template.
 - - Denotes ¹⁵/₁₆" ϕ holes field drilled in new plates using existing holes in bearing stiffeners as template. Ream existing holes in bearing stiffeners to accept ⁷/₈" ϕ bolts.

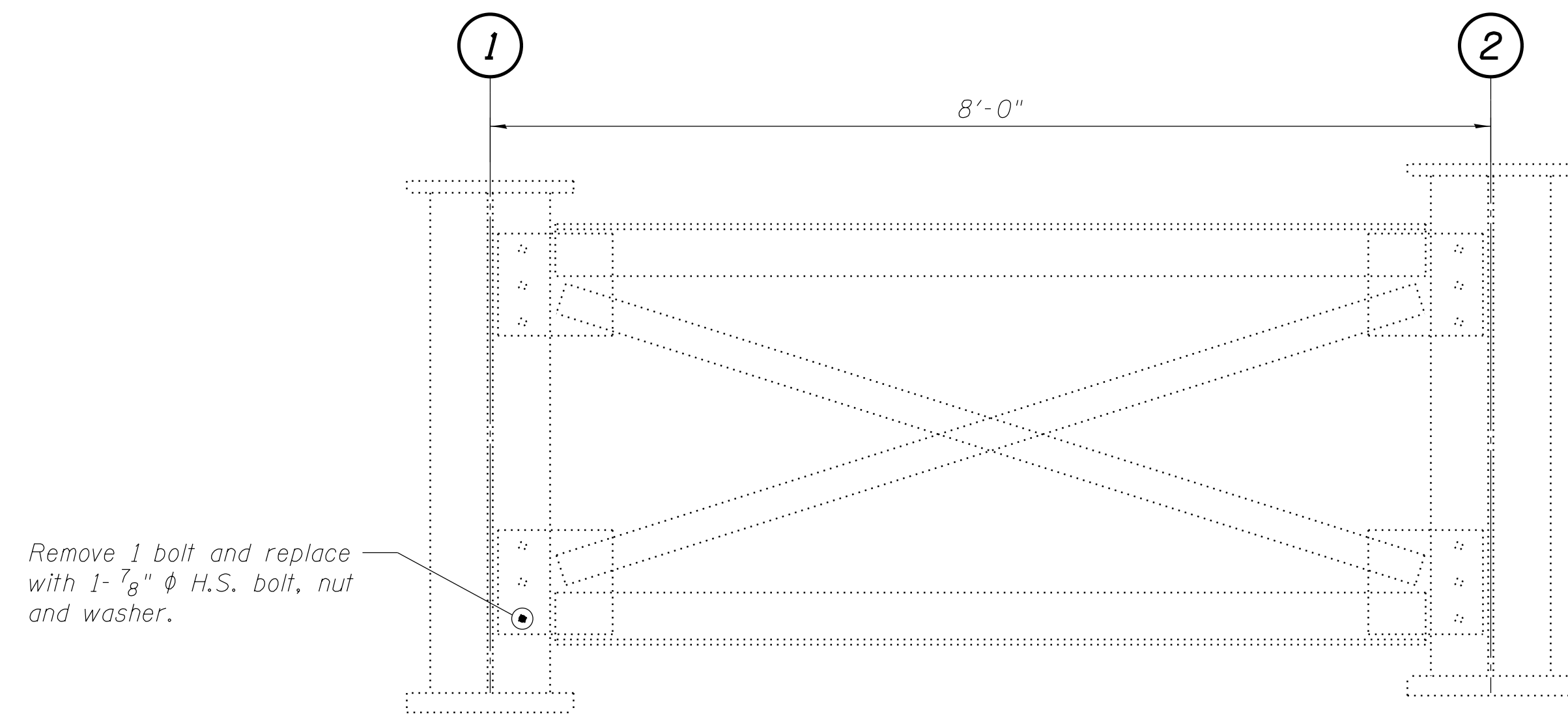
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WINNEBAGO COUNTY					
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				REVIEWED	SMK

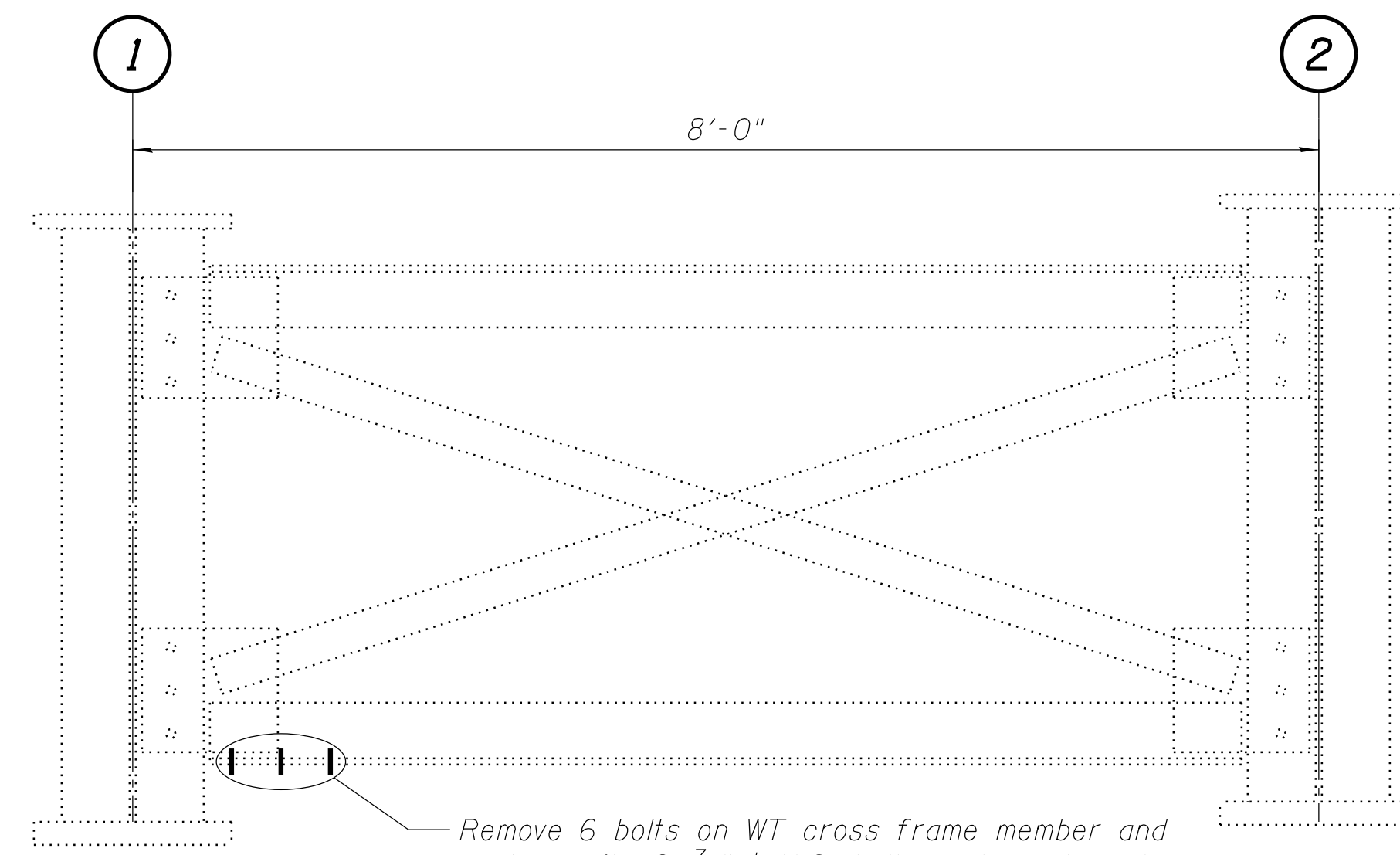
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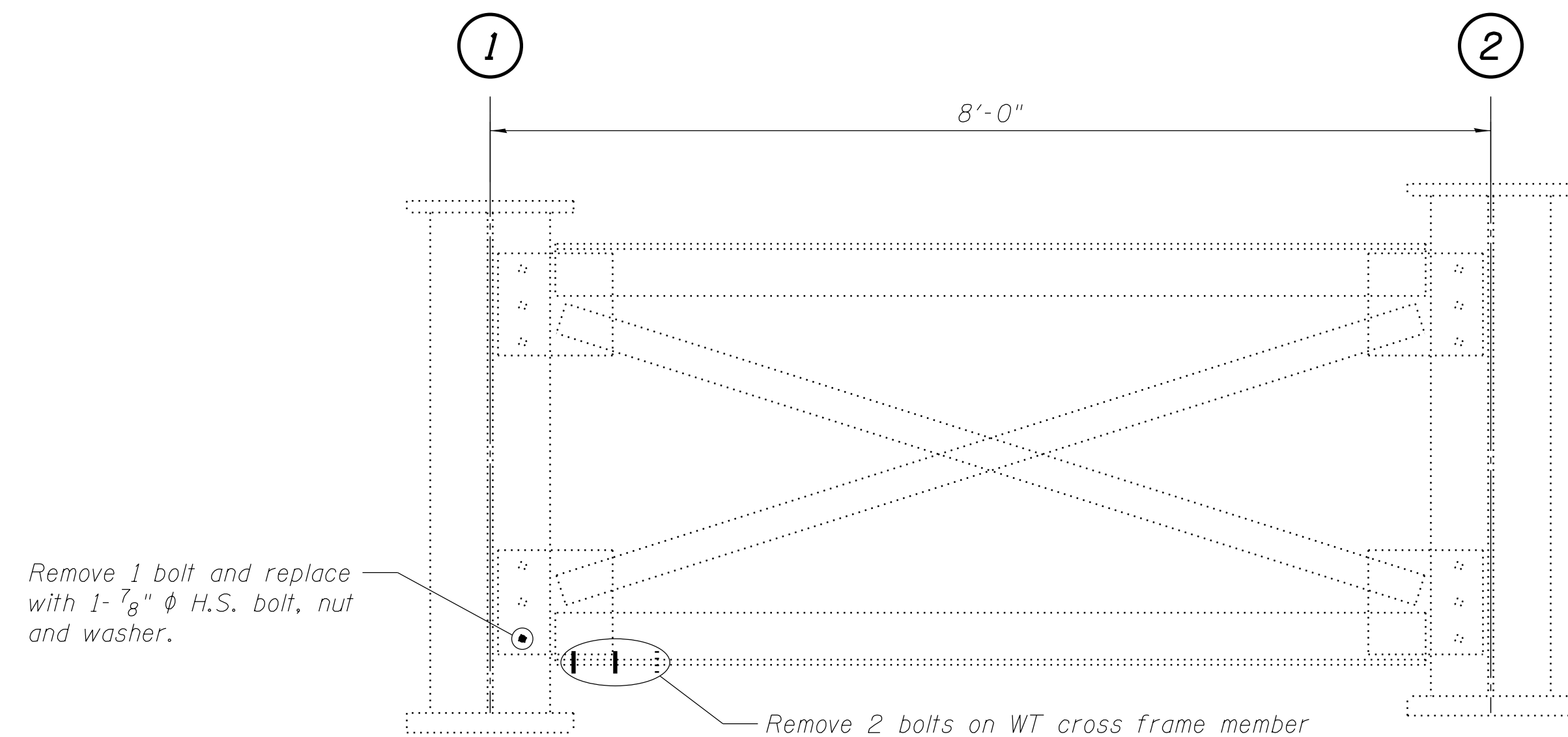
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 REPAIR DETAILS**
 STRUCTURE NUMBER 101-3017
 RALSTON ROAD BRIDGE
 OVER ROCK RIVER
 WINNEBAGO COUNTY



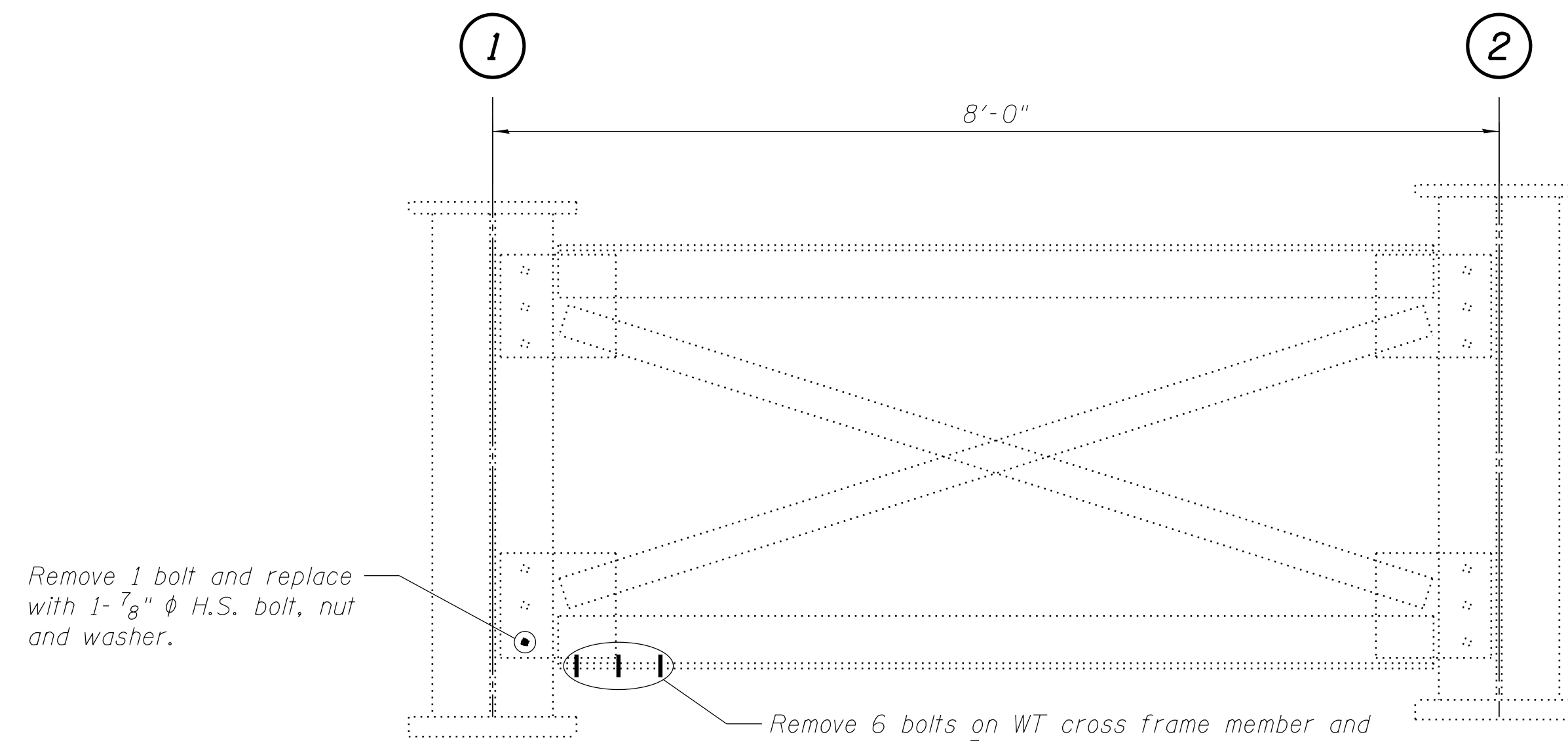
CF9 - SPAN 4
(Looking East)



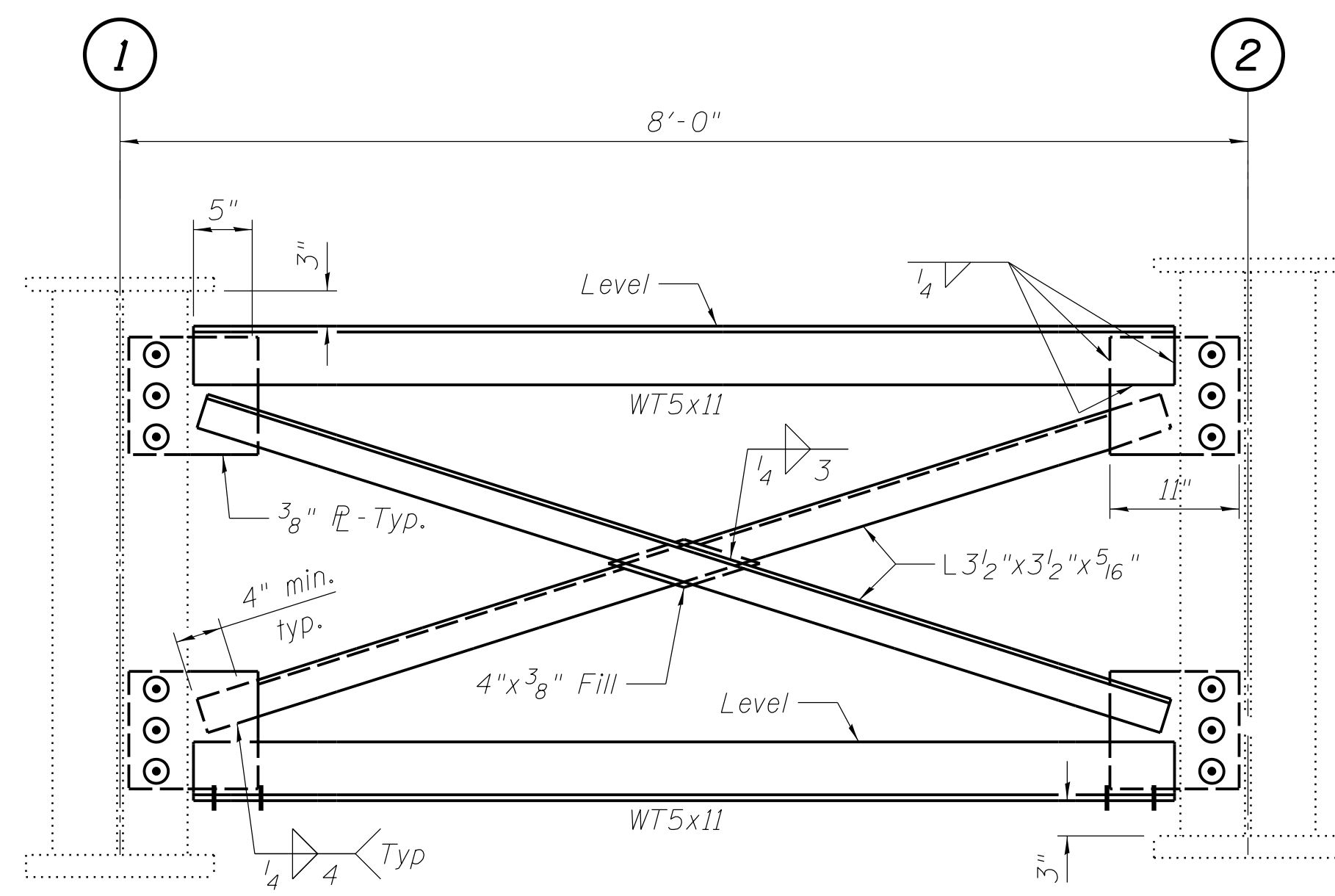
CF10 - SPAN 3
(Looking East)



CF11 - SPAN 2
(Looking East)



CF12 - SPAN 2
(Looking East)



CF13 - SPAN 1
(Looking East)

BOLT REPLACEMENT SCHEDULE

FRAME	QUANTITY
CF9	1
CF10	6
CF11	3
CF12	7
TOTAL	17

LEGEND

○ - Denotes 1 5/16" φ holes field drilled in new plates using existing holes in bearing stiffeners as template. Ream existing holes in bearing stiffeners to accept 7/8" φ bolts.

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NUMBER	REVISION	DATE	DRAWN	DESIGNED	REVIEWED

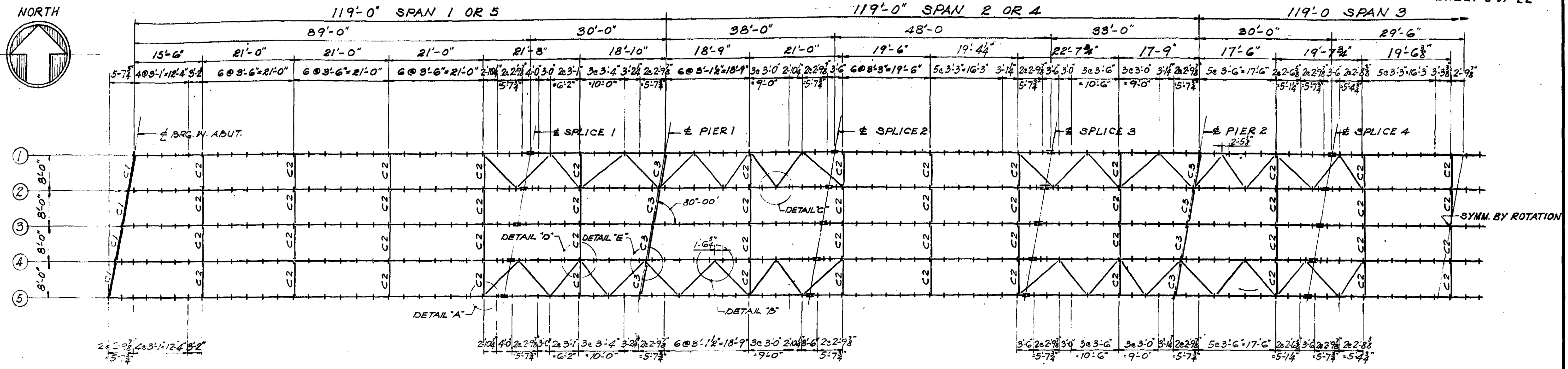
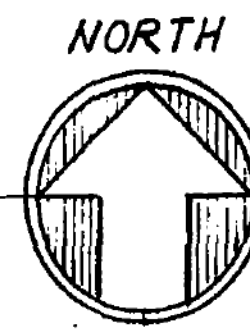
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Scale	N.T.S.
Date	03/16/2016
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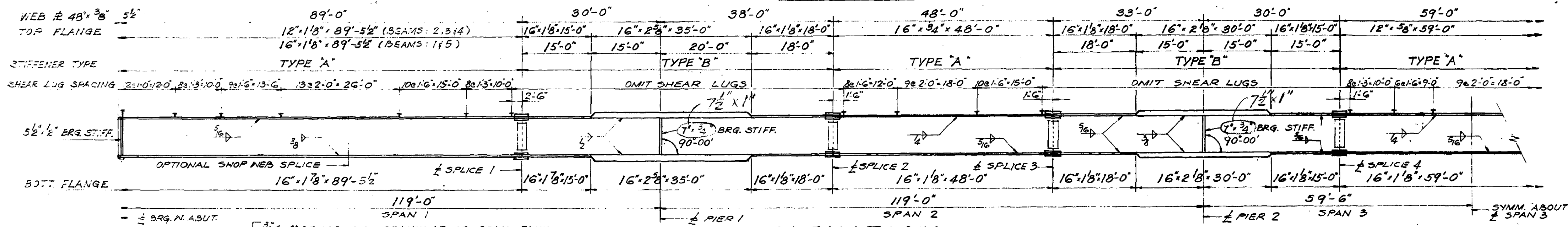
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**INTERIOR CROSS FRAME
REPAIR DETAILS**
STRUCTURE NUMBER 101-3017
RALSTON ROAD BRIDGE
OVER ROCK RIVER
WINNEBAGO COUNTY



FRAMING PLAN
SCALE: 3/32" = 1'-0"



ELEVATION

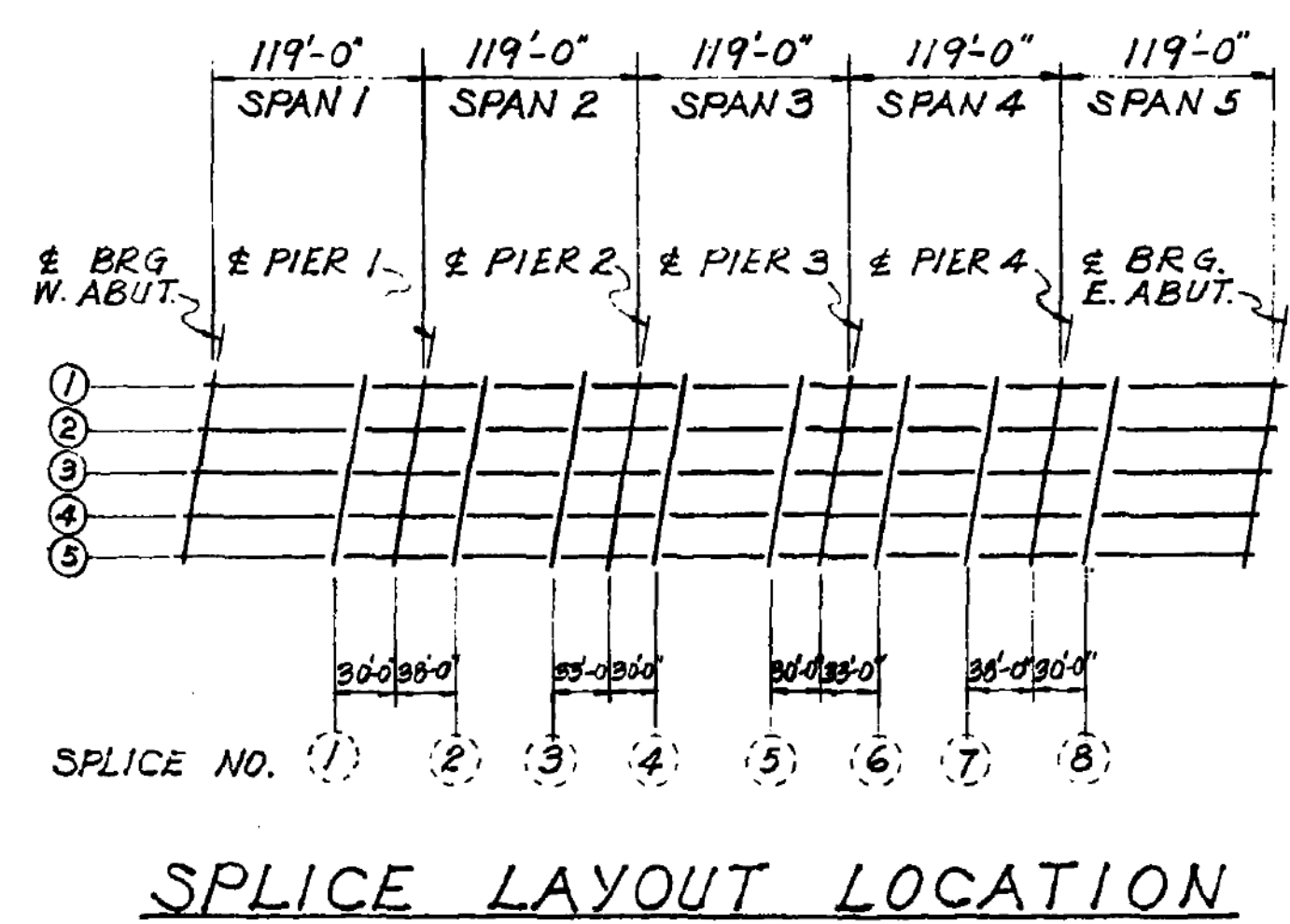
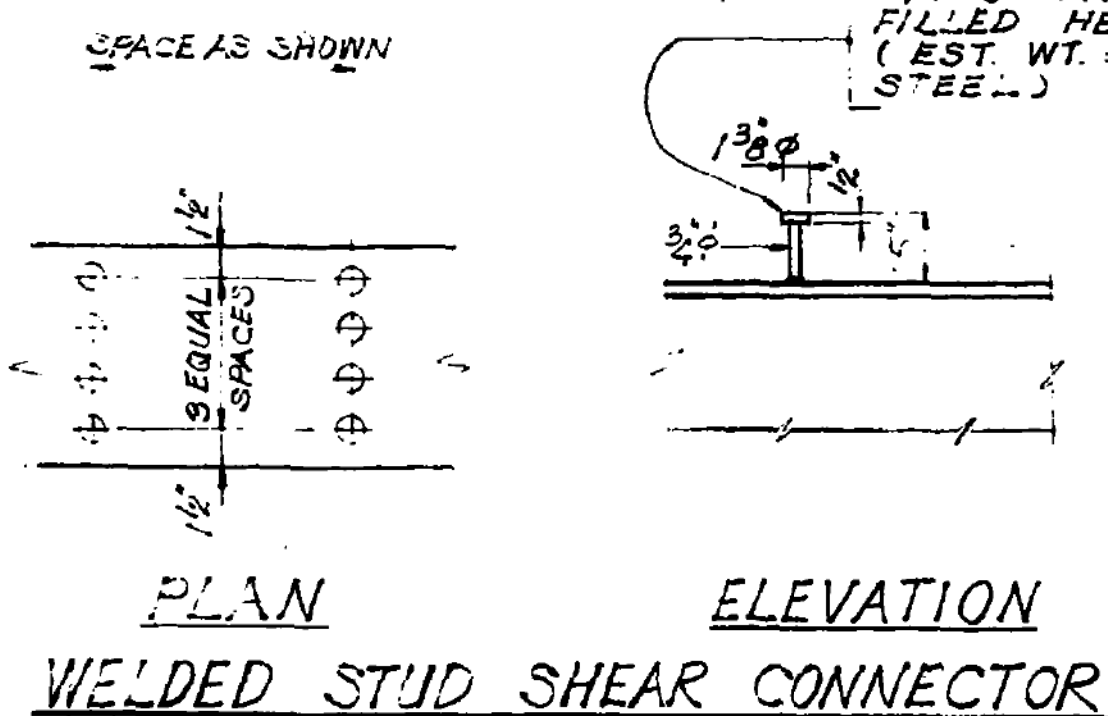
TOP OF WEB ELEVATION FOR FABRICATION ONLY

LOCATION	BEAM 1	2	3	4	5
± BRG. W. ABUT.	723.594	723.756	723.893	723.810	723.680
± SPLICE #1	722.965	723.127	723.264	723.181	723.051
± PIER #1	722.654	722.816	722.953	722.870	722.740
± SPLICE #2	722.342	722.504	722.640	722.558	722.428
± SPLICE #3	721.970	722.132	722.269	722.186	722.056
± PIER #2	721.714	721.876	722.012	721.930	721.800
± SPLICE #4	721.526	721.688	721.824	721.741	721.612
± SPLICE #5	721.059	721.222	721.358	721.275	721.146
± PIER #3	720.774	720.936	721.072	720.990	720.860
± SPLICE #6	720.508	720.671	720.807	720.724	720.594
± SPLICE #7	720.122	720.284	720.421	720.338	720.208
± PIER #4	719.833	719.996	720.132	720.049	719.920
± SPLICE #8	719.671	719.833	719.969	719.887	719.757
± BRG. E. ABUT.	718.894	719.056	719.192	719.109	718.980

STUD SHEAR CONNECTORS ON THE BEAM FLANGES SHALL BE PLACED IN THE FIELD AFTER ALL THE STEEL HAS BEEN ERECTED AND THE DECK FORMS ARE IN PLACE. FLANGE SHEAR CONNECTORS ARE INCLUDED IN THE QUANTITY FOR STRUCTURAL STEEL.

Number Required = 4320 L.T. WT = 3200 #

NOTE: TOP OF WEB ELEVATIONS ARE BASED ON A DIMENSION OF 70' SUBTRACTED FROM ELEVATIONS OF SLAB ADJUSTED FOR DEADLOAD DEFLECTION.



SPLICE LAYOUT LOCATION

APPROVED COUNTY SUPERINTENDENT OF HIGHWAYS
 EXAMINED ENGINEER OF BRIDGE & TRAFFIC STRUCTURES
 PASSED ENGINEER OF DESIGN
 APPROVED CHIEF HIGHWAY ENGINEER

FRAMING PLAN
LATHAM-RALSTON ROAD
OVER ROCK RIVER
SECTION 143-B-CF
WINNEBAGO COUNTY
STATION 123+00.00

ALFRED BENESECH & COMPANY CONSULTING ENGINEERS
 10 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

NUMBER	REVISION	DATE	DRAWN	DESIGNED	REVIEWED

WINNEBAGO COUNTY

DESIGNED	DRAWN	REVIEWED
SMK	MGM	SMK

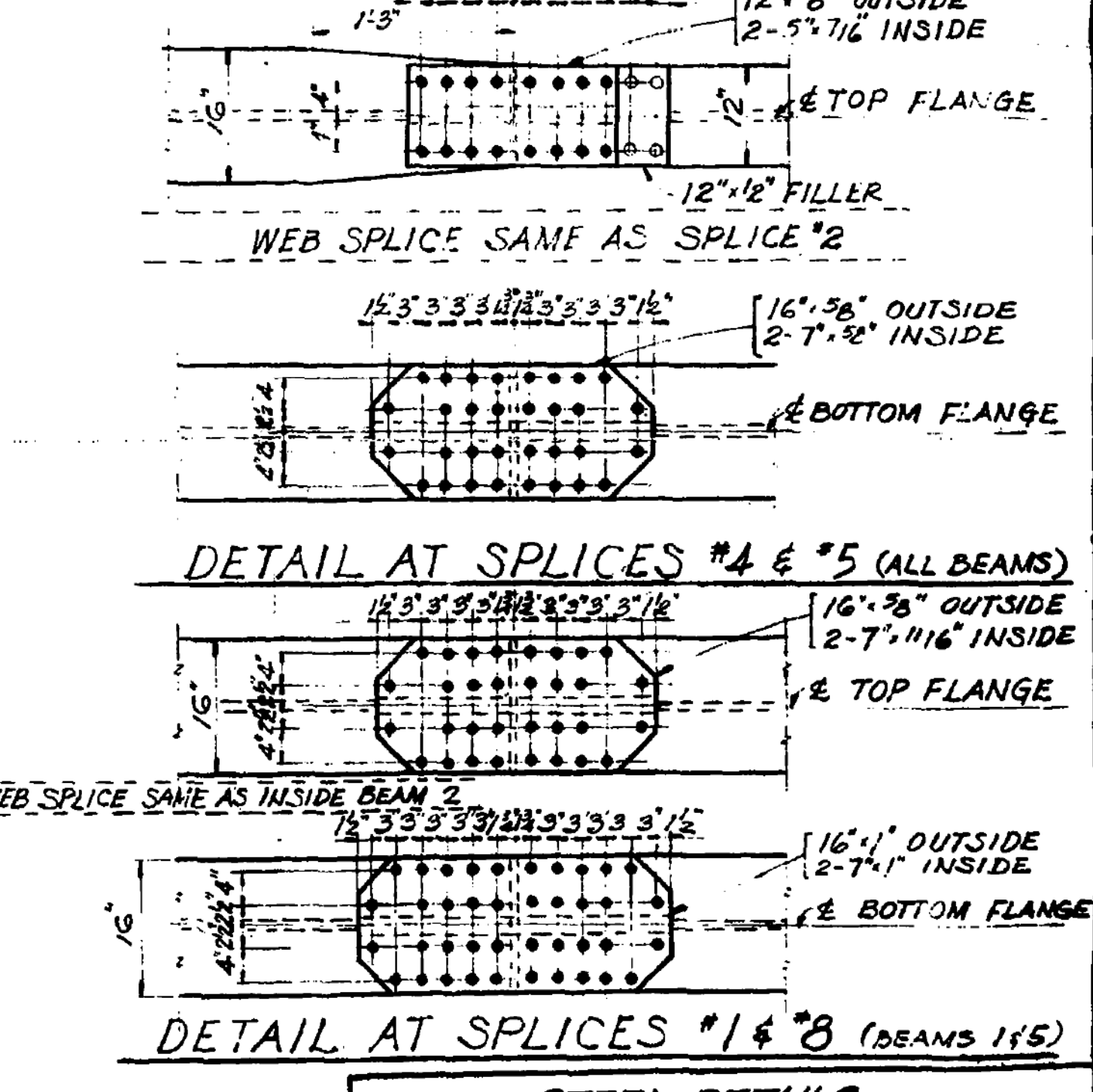
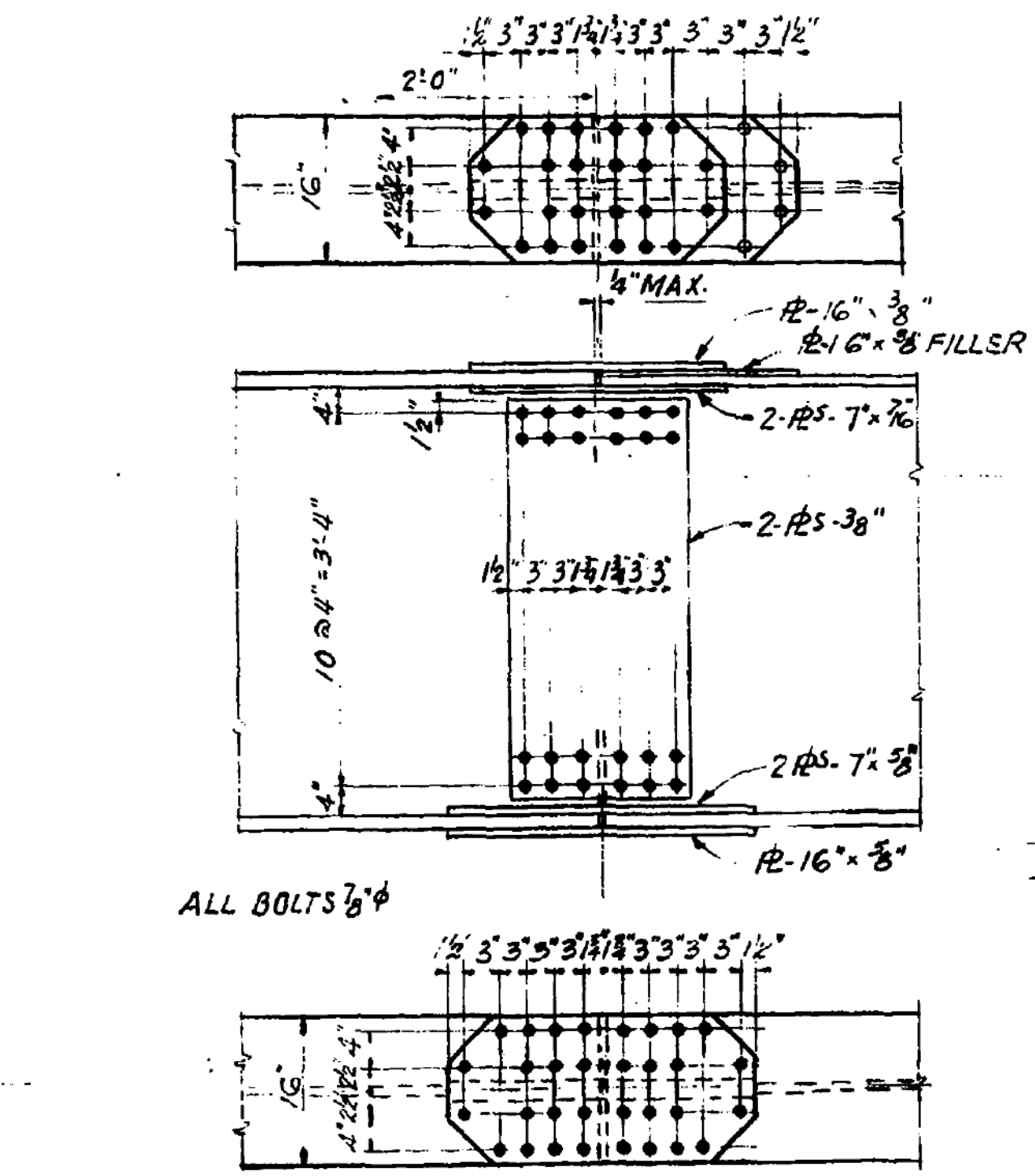
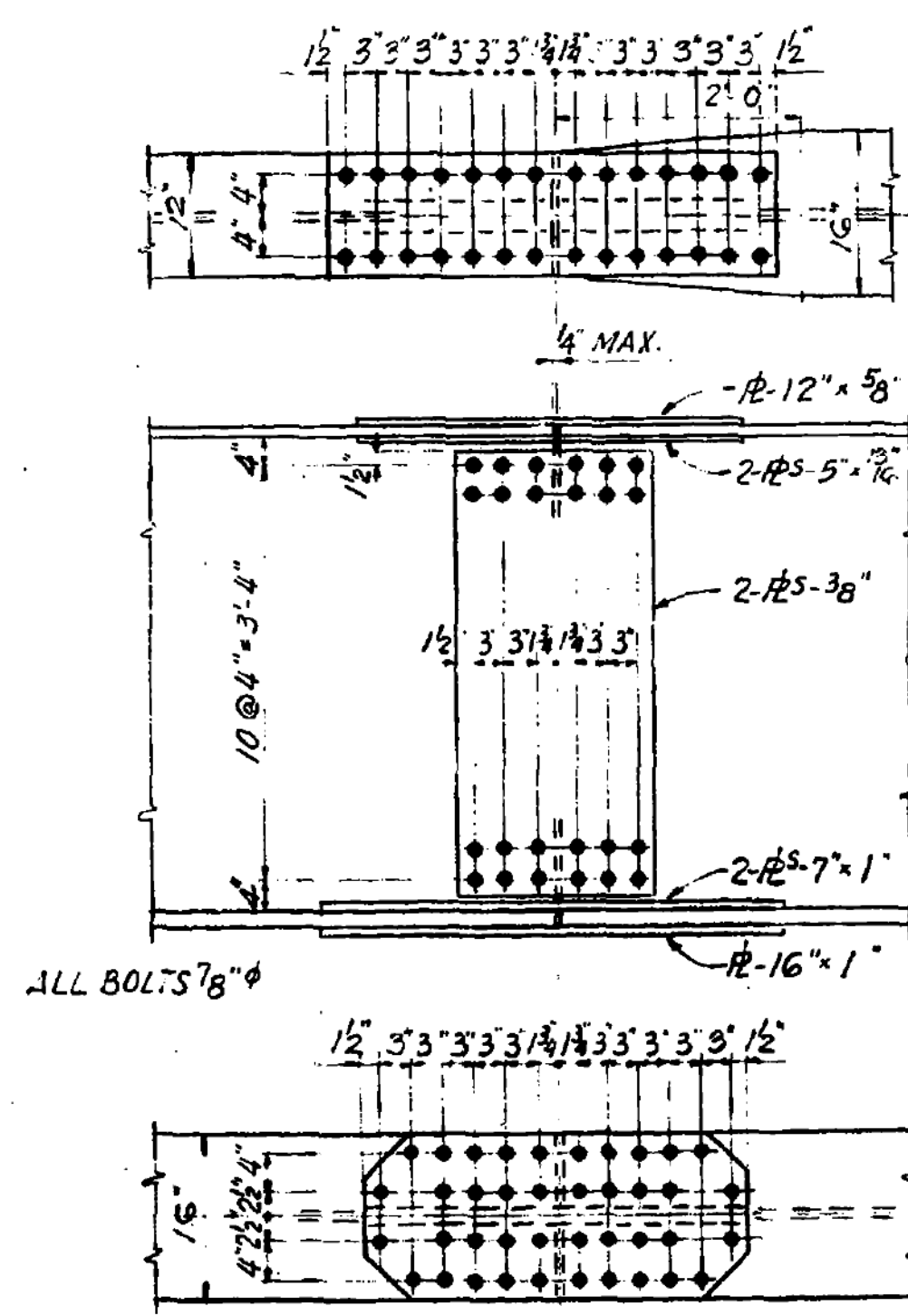
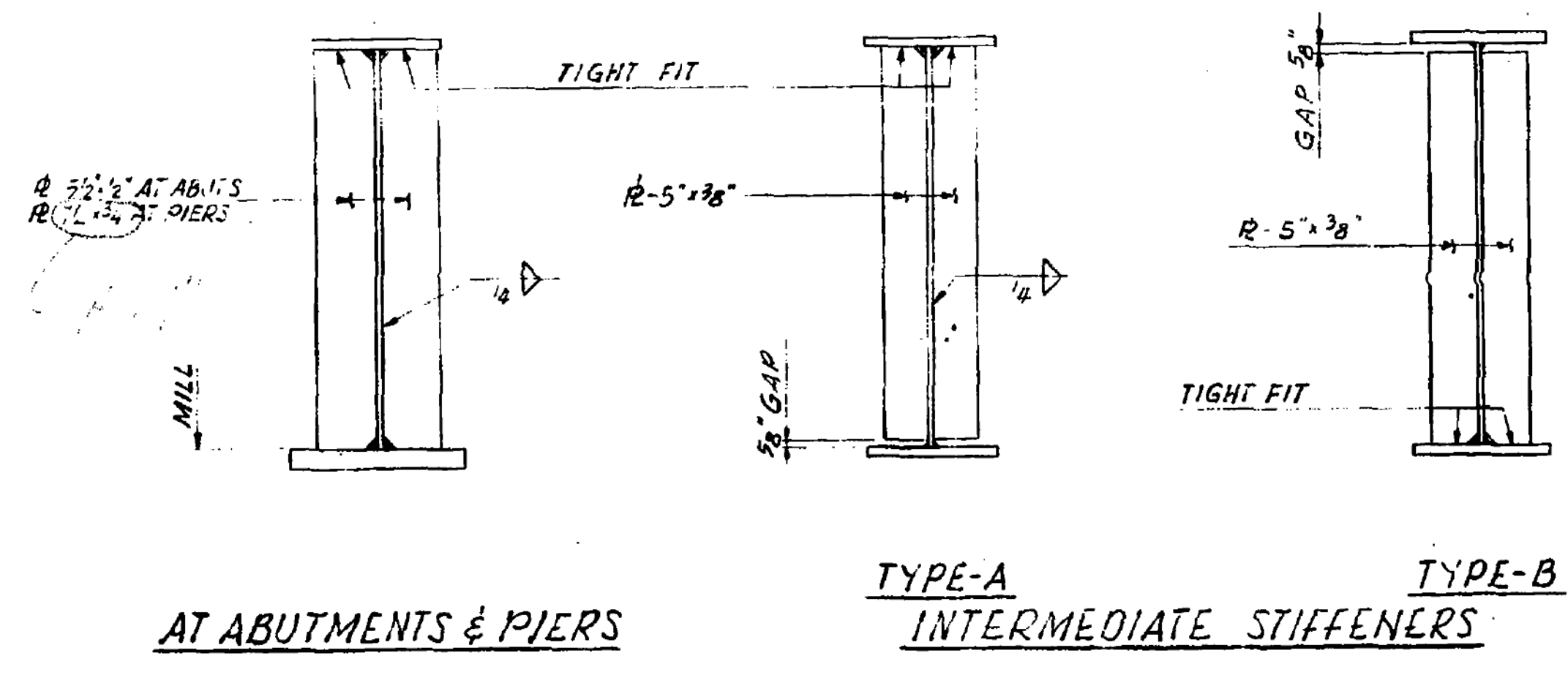
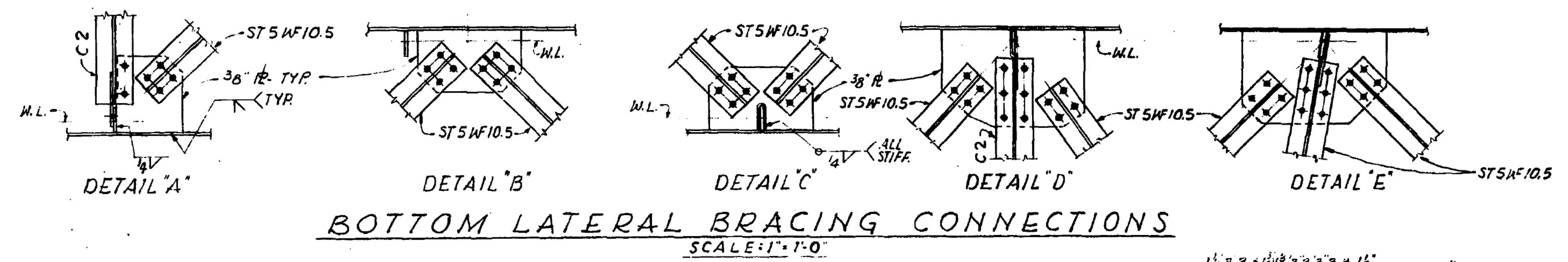
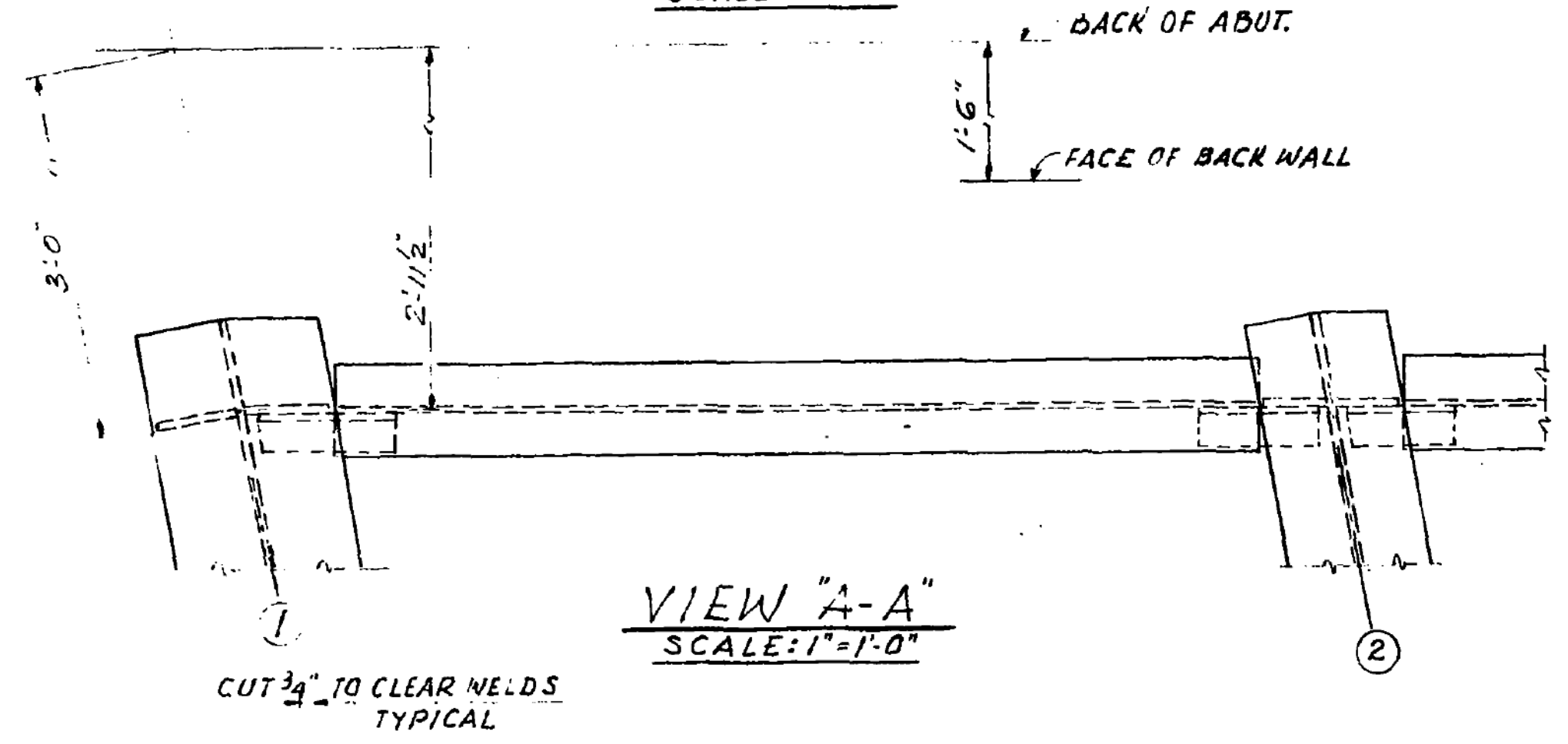
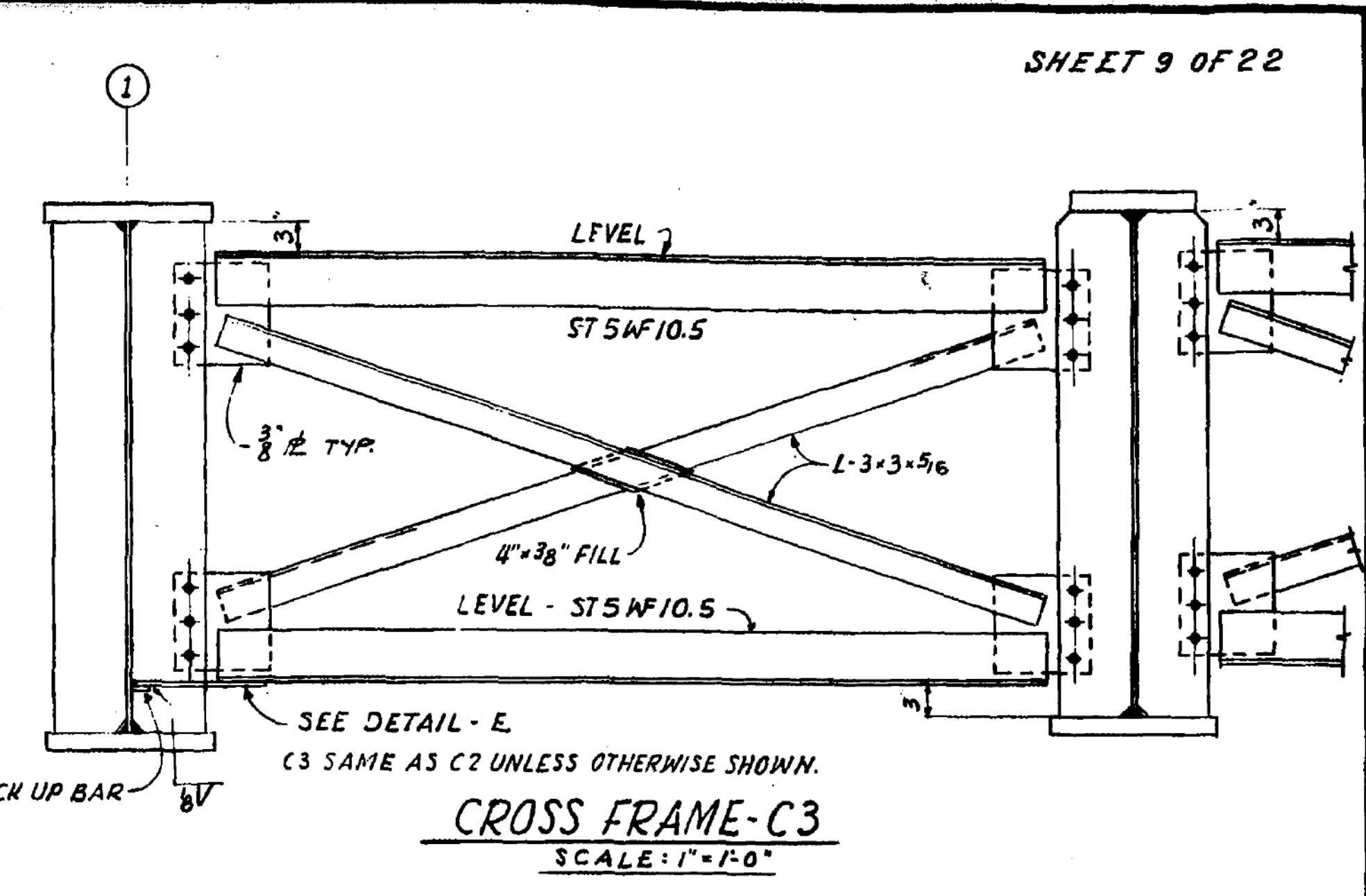
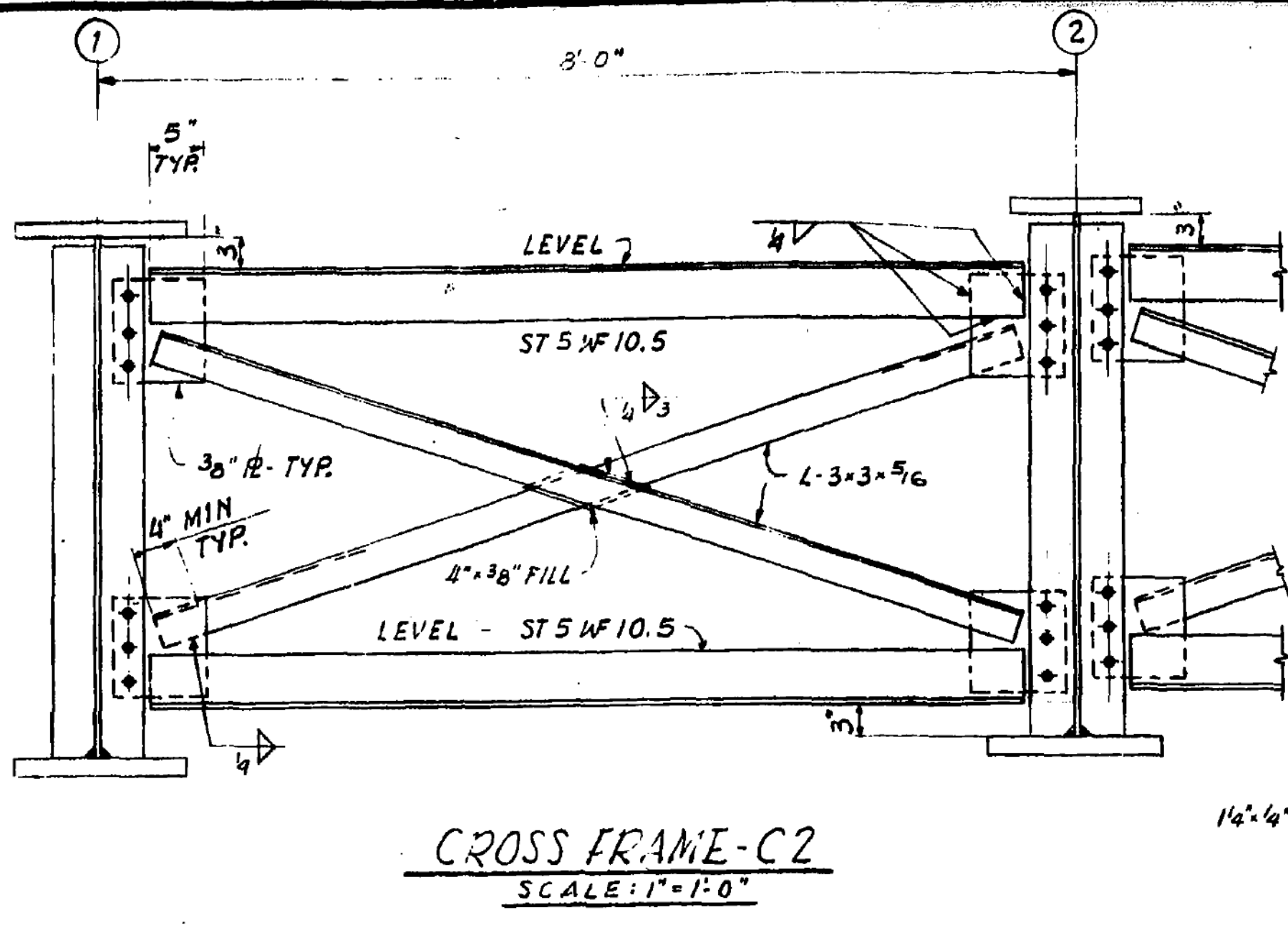
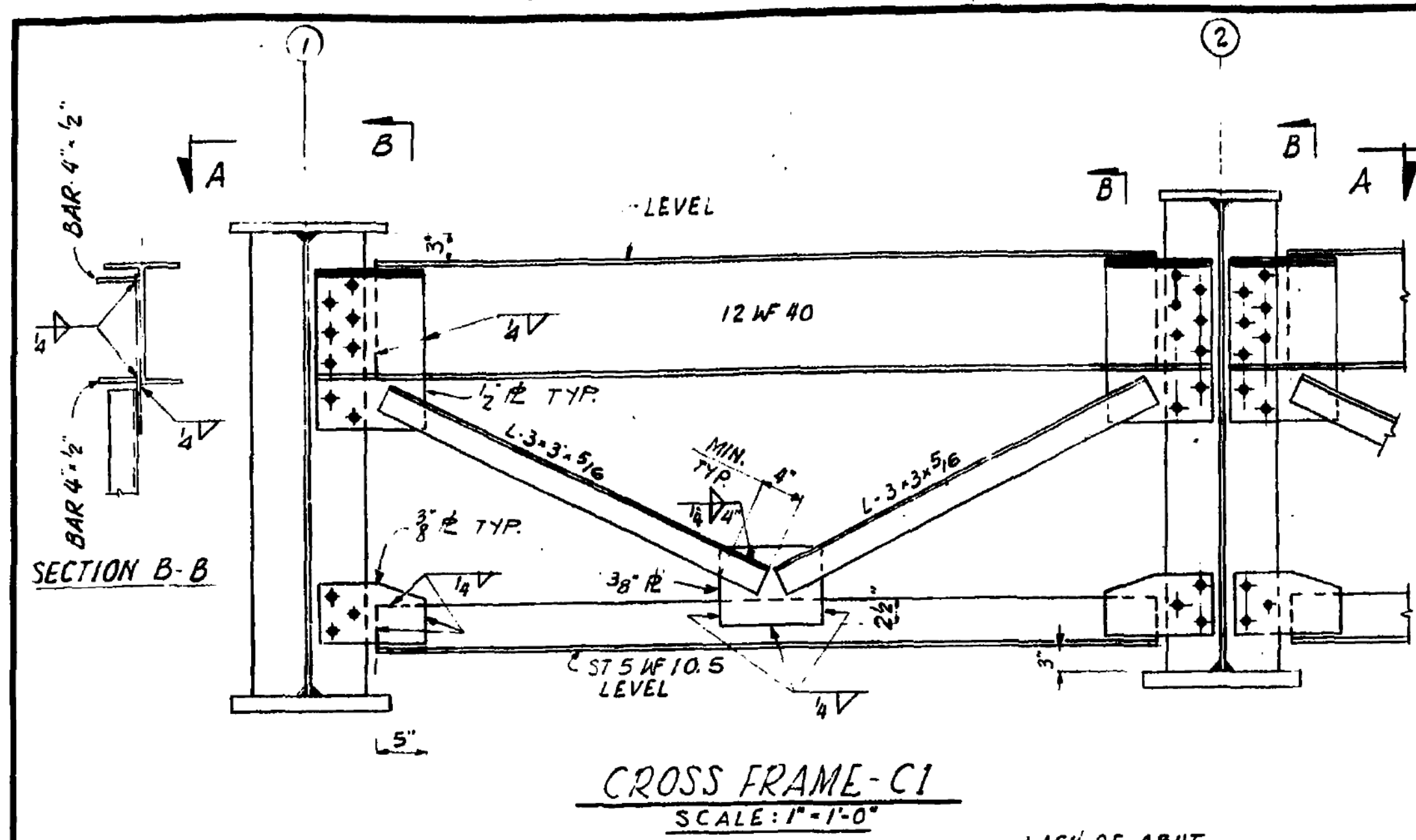
Phone: (815) 398-4600
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 Offices Nationwide

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 6775 Fitchman Drive
 Rockford, Illinois 61108-3001

EXISTING BRIDGE PLANS
 (FOR REFERENCE)
 STRUCTURE NUMBER 101-3017
 RALSTON ROAD BRIDGE
 OVER ROCK RIVER
 WINNEBAGO COUNTY

FOR REFERENCE

S-08



APPROVED COUNTY SUPERINTENDENT OF HIGHWAYS
EXAMINED ENGINEER OF BRIDGES & TRAFFIC STRUCTURES
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

ALFRED BENESH & COMPANY, CONSULTING ENGINEERS
19 SOUTH WABASH AVENUE CHICAGO, ILLINOIS

STEEL DETAILS
LATHAM - RALSTON ROAD
OVER ROCK RIVER
SECTION 143-B-CF
WINNEBAGO COUNTY
STATION 123+00.00

NUMBER	REVISION	DATE	DRAWN	DESIGNED	REVIEWED

WINNEBAGO COUNTY

DESIGNED	SMK	03/16/2016
DRAWN	MGM	03/16/2016
REVIEWED	SMK	03/16/2016

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Rockford, Illinois 61108-3001

EXISTING BRIDGE SECTIONS
(FOR REFERENCE)
RALSTON ROAD BRIDGE
OVER ROCK RIVER
WINNEBAGO COUNTY

FOR REFERENCE