

**STATE OF MAINE
DEPARTMENT OF TRANSPORTATION**



**ARROWSIC
SAGADAHOC COUNTY
MAX L. WILDER
MEMORIAL BRIDGE
OVER
SASANOA RIVER
STATE ROUTE 127**

**PROJECT LENGTH 0.000 mile
BRIDGE MAINTENANCE
BRIDGE NO. 2026**

SIGNATURE

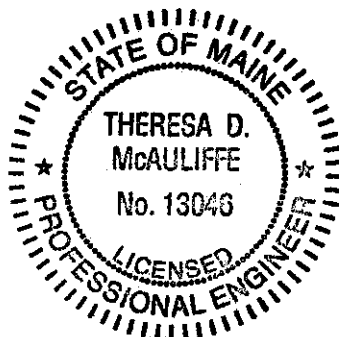
Theresa D. McAuliffe

P.E. NUMBER

13046

DATE

5/15/23



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 027080.00

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ARROWSIC
SAGADAHOC COUNTY

WIN 027080.00

TITLE SHEET

SHEET NUMBER

1

OF 27

GENERAL CONSTRUCTION NOTES

1. Dimensions and details shown in these plans have been obtained from limited field measurements and may not accurately reflect actual field conditions. Accordingly, the Contractor shall take field measurements of all existing components impacted by the proposed work to ensure consistency with the proposed work. Any discrepancies in dimensions, character or extent of the existing features that affect the proposed work shall be brought to the attention of the Resident before advancing work.
2. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
3. Project information referred to below may be accessed at the following MaineDOT web address:
<http://www.maine.gov/mdot/contractors/>
4. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
5. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:
 - a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.
 - b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.
 - c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
202.10	REMOVE EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) 5 CY	1	LS
504.70	STRUCTURAL STEEL FABRICATED AND DELIVERED 2041 LB	1	LS
504.71	STRUCTURAL STEEL ERECTION 2041 LB	1	LS
506.144	FIELD PAINTING OF EXISTING STRUCTURAL STEEL 1000 LB	1	LS
506.17	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL 1000 LB	1	LS
506.9103	GALVANIZING 2041 LB	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT	1	LS
526.301	PORTABLE CONCRETE BARRIER, TYPE I 40 LF	1	LS
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	20	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	20	HR
639.18	FIELD OFFICE TYPE A	1	EA
652.38	FLAGGERS	300	HR
652.39	WORK ZONE TRAFFIC CONTROL	1	LS
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STATE ROUTE 127 ARROWSIC
MAX L. WILDER MEMORIAL BRIDGE

SHEET NUMBER

2

BRIDGE NO. 2026

GENERAL CONST. NOTES & ESTIMATED QUANTITIES

OF 27

<i>List of Steel Components</i>			
<i>Item Description</i>	<i>Weight (LBS)</i>	<i>Quantity (EA)</i>	<i>Total Weight (LBS)</i>
<i>504.702 Structural Steel, Fabricated and Delivered, Welded (Roll-Up)</i>			<i>2041</i>
<i>FB0/FB26 Angles A1 - A4 (See Note 1)</i>	<i>33</i>	<i>8 (8*)</i>	<i>0</i>
<i>FB1/FB25 Angles A5 - A8 (See Note 1)</i>	<i>34</i>	<i>8 (8*)</i>	<i>0</i>
<i>FB2/FB24 Angles A9 - A12 (See Note 1)</i>	<i>34</i>	<i>8 (8*)</i>	<i>0</i>
<i>Support Angles (FB0 & FB26)</i>	<i>32</i>	<i>8</i>	<i>254</i>
<i>Top Steel Seat Plates</i>	<i>4</i>	<i>8</i>	<i>32</i>
<i>Fill Plate</i>	<i>12</i>	<i>4</i>	<i>50</i>
<i>Support Angles (FB1 & FB25)</i>	<i>26</i>	<i>8</i>	<i>210</i>
<i>Top Steel Seat Plates</i>	<i>4</i>	<i>8</i>	<i>32</i>
<i>Fill Plate</i>	<i>35</i>	<i>4</i>	<i>142</i>
<i>Support Angles (FB2 & FB24)</i>	<i>21</i>	<i>8</i>	<i>165</i>
<i>Top Steel Seat Plates</i>	<i>4</i>	<i>8</i>	<i>32</i>
<i>Fill Plate</i>	<i>5</i>	<i>4</i>	<i>22</i>
<i>Temporary Hanger Bracket</i>	<i>57</i>	<i>16 (8*)</i>	<i>456</i>
<i>Temporary HP Spreader Beam</i>	<i>81</i>	<i>8</i>	<i>648</i>
<i>Temporary Threaded Rod Assembly**</i>	<i>N/A</i>	<i>32 (16*)</i>	<i>N/A</i>

* Of the total quantity, number in () are to be supplied by the Department and are not included in the Roll-Up.

**Each assembly shall consist of one threaded rod, two washers, two nuts, and two jam nuts. See Sheet I7.

NOTES:

1. Steel Members Shall Meet the Requirements of Section 713.01 of the Standard Specifications for Fracture Critical Steel.
2. Shim plates required for Support Angle installation not included in list but shall be paid for incidental to related Contract items.
3. Weights are for planning purposes.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STATE ROUTE 127 MAX L. WILDER MEMORIAL BRIDGE	ARROWSIC	SHEET NUMBER
BRIDGE NO. 2026	LIST OF STEEL COMPONENTS		3
			OF 27

Permanent Bolt Location and Identification Table				
Bolt ID	Location	Bolt Dia. (in)	Bolt Length (in)	Quantity (EA)
FB0W	FB 0 & 26, Floorbeam Web Connection	7/8	3 1/4	32
FB0WF	FB 0 & 26, Fill Bolts Thru FB Web	7/8	2 1/4	8
FB0GU	FB 0 & 26, Floorbeam-to-Truss Connection (Chord)	7/8	2 3/4	32
FB0GL	FB 0 & 26, Floorbeam-to-Truss Connection (Vertical)	7/8	3	40
FB0C	FB 0 & 26, Thru Sidewalk Channel Plate	1/2	3 1/4	16
FB0RS	FB 0 & 26, Support Angle Thru Sway Gusset	7/8	2 3/4	16
FB0RV	FB 0 & 26, Support Angle Thru Vertical	7/8	3	64
FB0SG	FB 0 & 26, Seat Angle Hole Fill Thru Gusset	7/8	1 3/4	8
FB0SF	FB 0, Seat Hole Fill Thru Flange (FB0 ONLY)	7/8	3 3/4	12
FB26SF	FB 26, Seat Hole Fill Thru Flange (FB26 ONLY)	7/8	3	12
FB0LG	FB 0& 26, Bolts to fill Lateral Gusset	7/8	1 3/4	8
FB1W	FB 1 & 25, Floorbeam Web Connection	7/8	3	24
FB1WF	FB 1 & 25, Fill Bolts Thru FB Web	7/8	2	8
FB1GU	FB 1 & 25, Floorbeam-to-Truss Connection (Chord)	7/8	3	32
FB1GL	FB 1 & 25, Floorbeam-to-Truss Connection (Vertical)	7/8	3	32
FB1CN	FB 1 & 25, Thru Sidewalk Channel Plate, North (South) side of FB1 (FB25)	1/2	2 3/4	16
FB1CS	FB 1 & 25, Thru Sidewalk Channel Plate, South (North) side of FB1 (FB25)	1/2	3	16
FB1H	FB 1 & 25, Hanger Bracket Thru Vertical	1	3 1/4	32
FB1RS	FB 1 & 25, Support Angle Thru Sway Gusset	7/8	2 3/4	12
FB1RV	FB 1 & 25, Support Angle Thru Vertical	7/8	3	48
FB1LG	FB 1 & 25, Bolts for Lateral Gusset Angle Reconnection, Thru Lat. Gusset	7/8	2	24
FB1LF	FB 1 & 25, Bolts for Lateral Gusset Angle Reconnection, Thru Lat. Gusset/Flange	7/8	2 3/4	8
FB1MG	FB 1 & 25, Bolts for Lateral Gusset Angle Reconnection, Thru Truss Gusset	7/8	2 1/4	32
FB2W	FB 2 & 24, Floorbeam Web Connection	7/8	3	24
FB2WF	FB 2 & 24, Fill Bolts Thru FB Web	7/8	2	8
FB2GU	FB 2 & 24, Floorbeam-to-Truss Connection (Chord)	7/8	3	32
FB2GL	FB 2 & 24, Floorbeam-to-Truss Connection (Vertical)	7/8	3	32
FB2CN	FB 2 & 24, Thru Sidewalk Channel Plate, North side of FB2	1/2	2 3/4	16
FB2CS	FB 2 & 24, Thru Sidewalk Channel Plate, South side of FB2	1/2	3	16
FB2H	FB 2 & 24, Hanger Bracket Thru Vertical	1	3 1/4	32
FB2RS	FB 2 & 24, Support Angle Thru Sway Gusset	7/8	2 3/4	16
FB2RV	FB 2 & 24, Support Angle Thru Vertical	7/8	3	48
FB2SF	FB 2 & 24, Seat Hole Fill Thru Flange	7/8	2 3/4	16
FB2SL	FB 2 & 24, Seat Hole Fill Thru Lateral Bracing	7/8	1 3/4	16

NOTES:

1. Bolt lengths and quantities are based on record plans and is the responsibility of the Contractor to verify.

2. Temporary bolts needed for construction are not included in table.

3. Extra bolts are not included in table.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STATE ROUTE 127 ARROWSIC MAX L. WILDER MEMORIAL BRIDGE	SHEET NUMBER 4
BRIDGE NO. 2026	PERMANENT BOLT QUANTITIES	OF 27

MATERIALS:

Structural Steel:

All Material (except as noted).....ASTM A 709, Grade 50 (H.D.G. After Fabrication)

High Strength Bolts.....ASTM F 3125, Grade A 325, Type 1 H.D.G.

Unless otherwise noted, the requirements of MaineDOT Standard Specifications Section 504 apply. Structural steel shall be treated as HIGHWAY BRIDGE FABRICATION.

GENERAL NOTES:

1. The construction floorbeam support shown on Sheets 14 thru 19 has been designed to support the following:

Live Load: MaineDOT Legal Loads.

Access Platform Dead Load = 500 lbs

Live Load on Access Platform = 3,000 lbs

2. In the event of a storm with wind gusts in excess of 25 mph, no sway bracing nor floorbeam-to-truss connections shall be disconnected until after the storm has subsided.

3. During the construction for the retrofit, use temporary bolts to maintain hole alignment at the connections. The bridge is susceptible to the thermal changes caused by the steel truss heating and cooling at different rates than the concrete deck. Minimize the time duration where the floorbeam connection angles are fully removed to mitigate the potential for mis-alignment of the holes.

4. Provide a 1.5" minimum edge distance from the center of any standard bolt hole to the edge of any steel plate unless otherwise specified.

5. Use care when removing portions of steel to prevent damage to existing members. Any damage made to existing steel shall be brought to the attention of the Engineer. All work must be suspended until notice from the Engineer to continue work.

6. Grind all cut edges of existing steel around field drilled holes and field cut steel. Perform final grinding with a stone wheel and remove all remaining imperfections with a sandpaper type flapper wheel with grit roughness no rougher than grade 120 to achieve a smooth surface.

7. Only one sway bracing gusset plate at a floorbeam shall be detached at a time. Prior to detaching the next sway bracing gusset plate, the prior sway bracing gusset plate reconnection should be installed, inspected, and accepted.

8. Only 50% of the existing holes connecting the sway bracing gusset plate-to-truss may be oversized. If during construction this is exceeded, contact the Engineer for direction.

9. Up to two floorbeam connections may be disconnected to retrofit at a time, however they must not be on the same floorbeam or on an adjacent floorbeam. Prior to disconnecting the next floorbeam connection, the prior floorbeam connection should be reinstalled, inspected, complete and accepted.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STATE ROUTE 127 ARROWSIC MAX L. WILDER MEMORIAL BRIDGE	SHEET NUMBER 5
BRIDGE NO. 2026	GENERAL NOTES	OF 27

GENERAL NOTES (CONTINUED):

10. Timber blocking shall be placed in the web of the floorbeam as close to the existing floorbeam to truss connection angles as possible, and fit tight to the top and bottom flange. The blocking may be removed from one side at a time to conduct the work. The blocking shall not be removed from both sides of the web until the new retrofit angles are installed, inspected, complete and accepted.

11. The nearest bridge rail post connection channel on the approach spans will need to be disconnected and removed in order to complete the retrofit at FB0 and FB26. Appropriate protection shall be provided for the traveling public while this bridge rail post is disconnected.

12. After the completion of the floorbeam connection retrofit work, floorbeams shall be inspected for cracks. Additional cracks shall be reported to the Engineer, and crack arrest holes shall be installed.

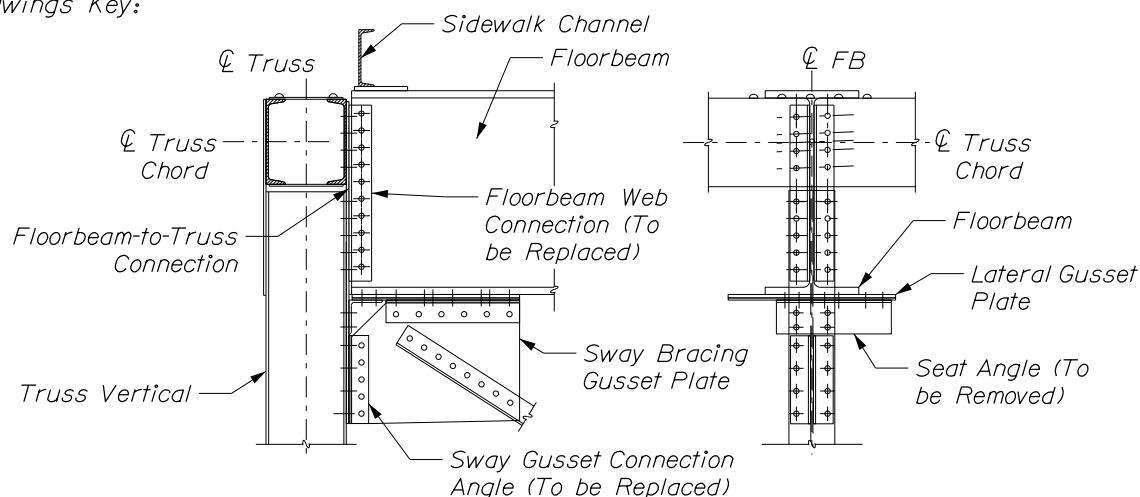
13. After completion of the project, open holes shall be filled with $\frac{7}{8}$ " dia. bolts. If a hole diameter is greater than $\frac{5}{16}$ ", it shall be filled with a 1" dia. bolt.

14. If the floorbeam retrofit is not complete at the end of the work day, the angles shall be installed with temporary A325 bolts fully tensioned per specification.

15. Floorbeam Retrofit Drawings-to-Existing Shop Drawings Key:

Retrofit Drawings: Existing Shops:

FB0	=	FB400
FB1	=	FB401
FB2	=	FB402
FB24	=	FB507
FB25	=	FB508
FB26	=	FB509



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STATE ROUTE 127 ARROWSIC
MAX L. WILDER MEMORIAL BRIDGE

SHEET NUMBER

6

BRIDGE NO. 2026

GENERAL NOTES

OF 27

GENERAL SEQUENCE OF CONSTRUCTION

1. Using keel or other appropriate methods, mark the existing locations and orientation of the floorbeam relative to the truss.
2. Install steel hanger support. Ensure hanger brackets are level in both directions. See Sheet 18 for detailed sequence of construction.
3. Remove sidewalk channel rivets connecting to top flange of floorbeam and replace with $\frac{1}{2}$ " dia. bolts.
4. Remove sway gusset connection angles. Only one sway bracing location may be removed at a time. Cut sway bracing gusset plate as shown on the drawings (FBI and FB25 locations only).
5. Install new support angles to the truss vertical. See Sheet 18 for support installation sequence of construction.
6. Install Access Platform.
7. Complete temporary hanger and construction support installation prior to beginning floorbeam retrofit sequence. See Sheet 13 for more information. Commence floorbeam retrofit sequence.
8. During floorbeam retrofit, inspect the horizontal and vertical position of the floorbeam connection a minimum of three times per day (beginning, during and at the end of the work day).
9. During work, if the floorbeam moves more than $\frac{1}{4}$ " relative to the truss, immediately stop work, reinstall the connection angle and contact the Engineer for further instruction.

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STATE ROUTE 127 ARROWSIC
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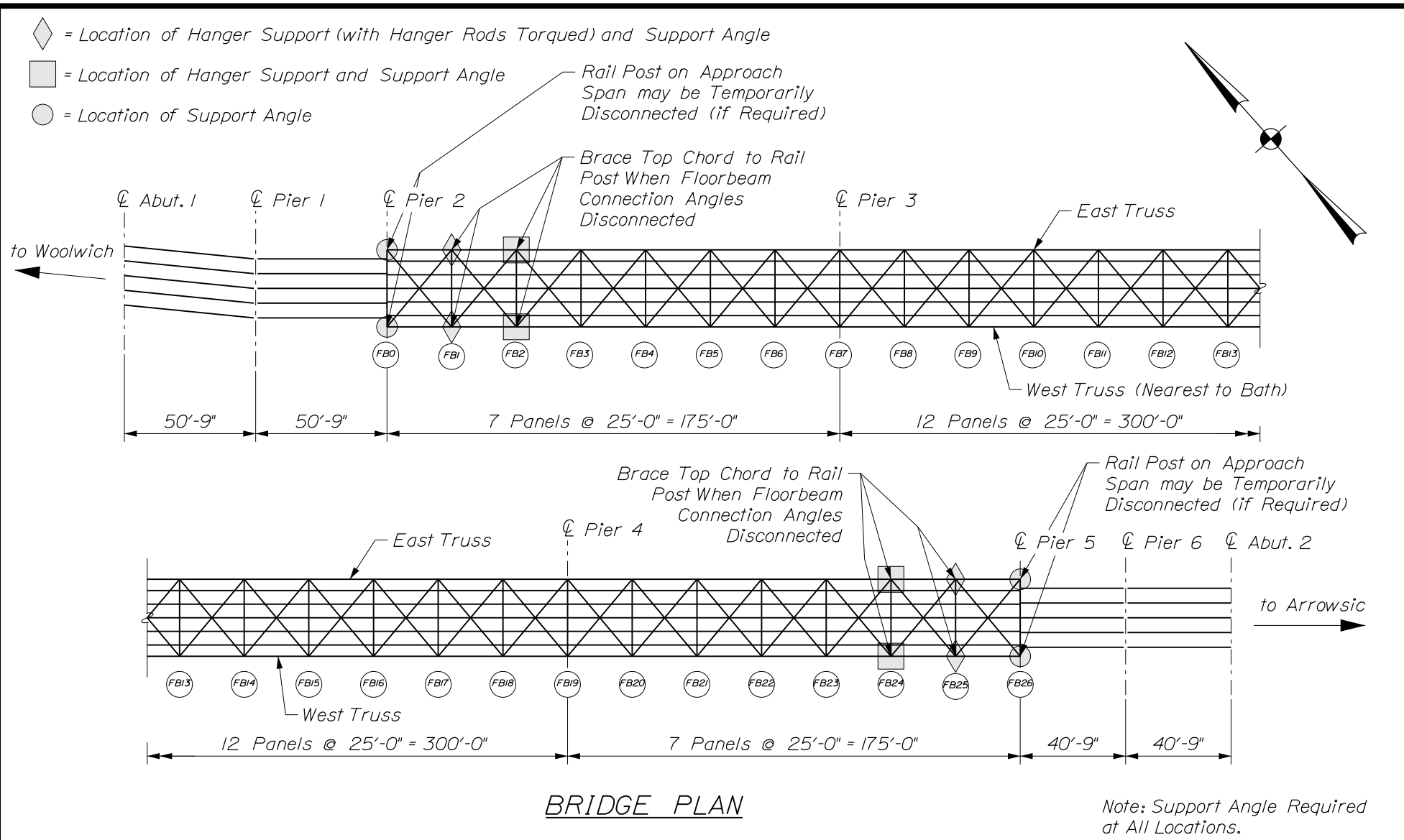
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BRIDGE NO. 2026

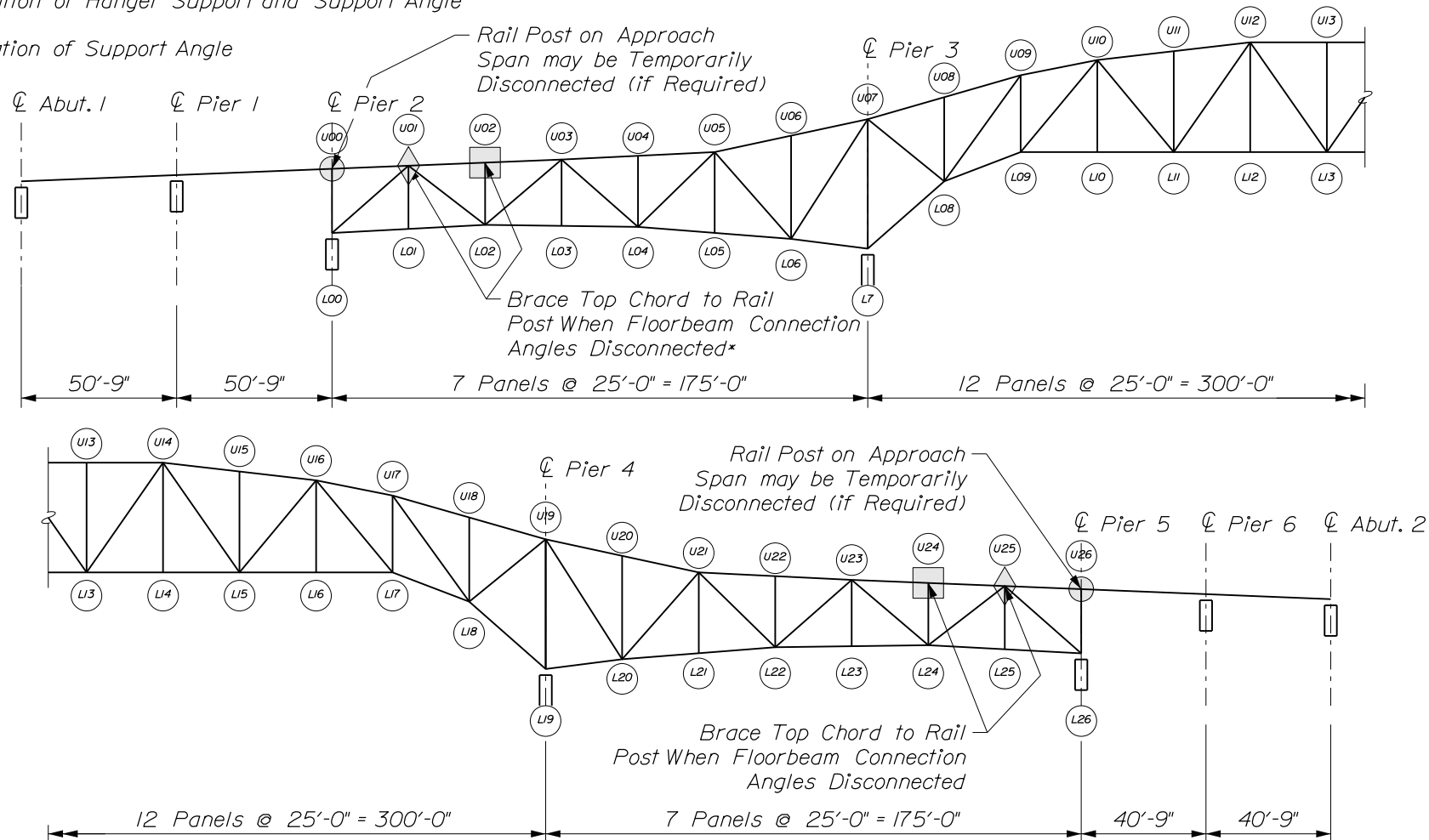
GENERAL CONSTRUCTION SEQUENCE

OF 27



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STATE ROUTE 127 MAX L. WILDER MEMORIAL BRIDGE	SHEET NUMBER 8
BRIDGE NO. 2026	GENERAL PLAN	OF 27

- ◆ = Location of Hanger Support (with Hanger Rods Torqued) and Support Angle
 ■ = Location of Hanger Support and Support Angle
 ○ = Location of Support Angle



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MAX L. WILDER MEMORIAL BRIDGE

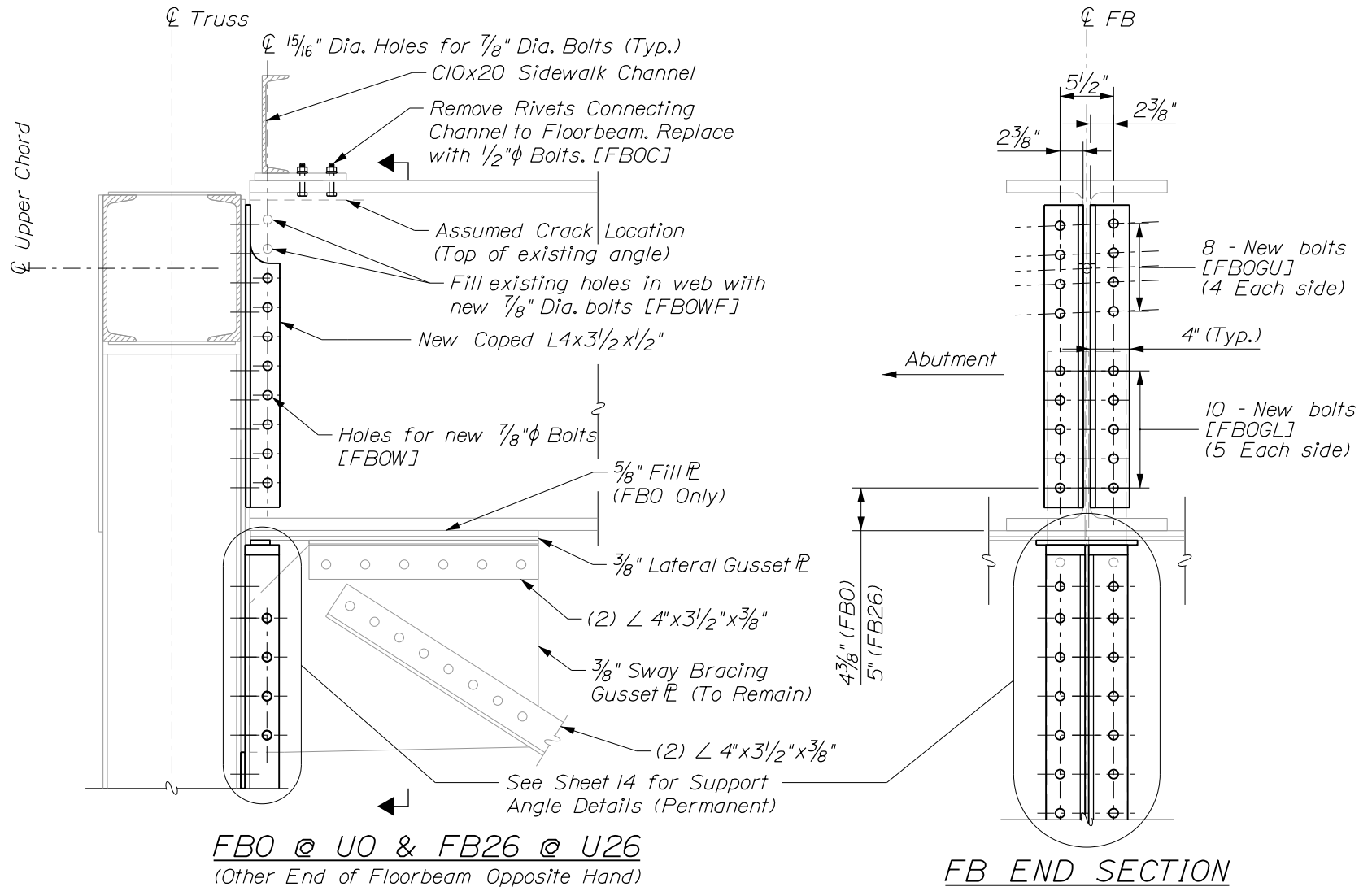
SHEET NUMBER

9

BRIDGE NO. 2026

ELEVATION

OF 27



Note: [FB###] denotes bolt number. See Table on Sht. 4

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MAX L. WILDER MEMORIAL BRIDGE

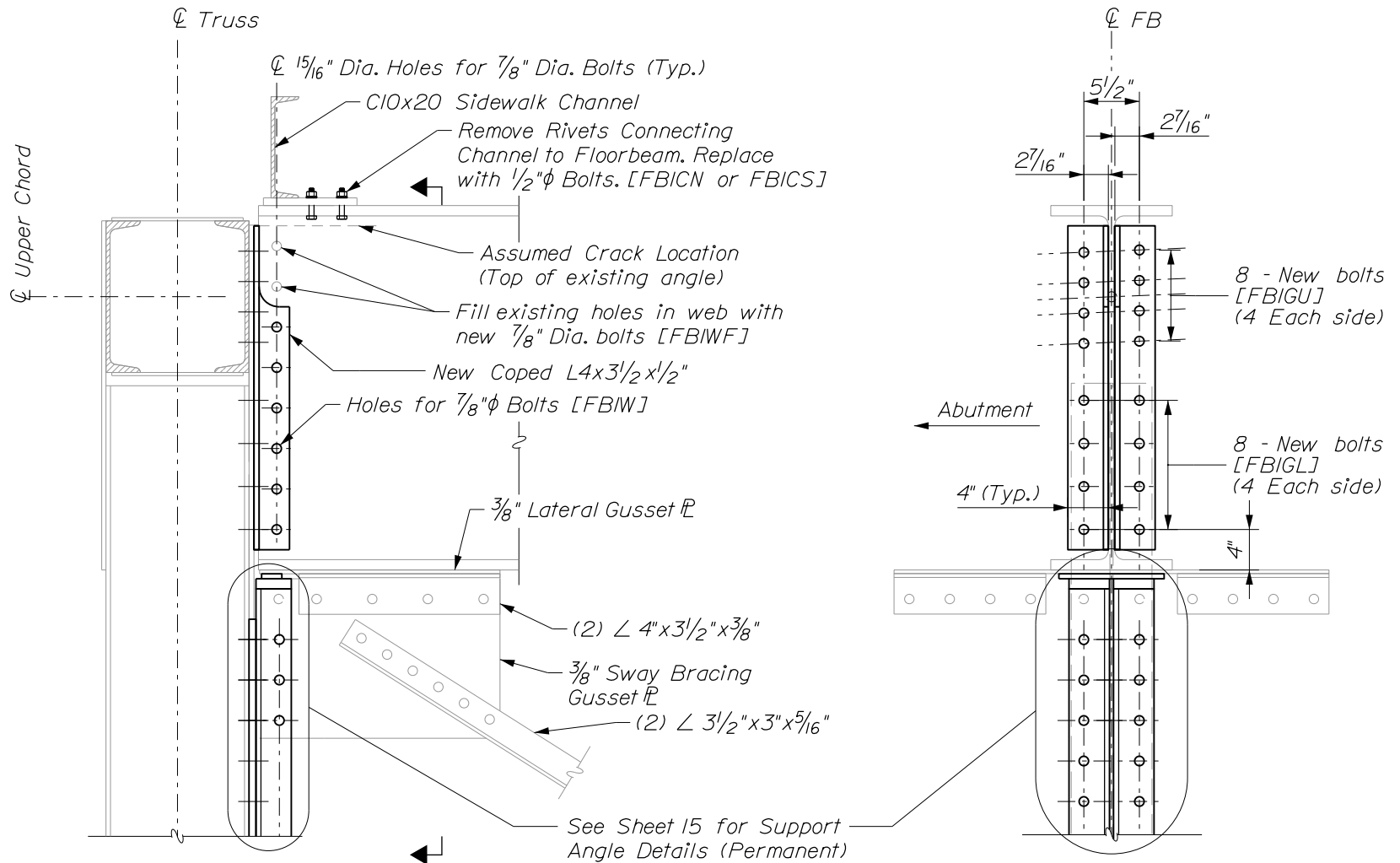
SHEET NUMBER

10

BRIDGE NO. 2026

FB0/FB26 CONNECTION DETAIL

OF 27



FB1 @ U1 & FB25 @ U25
 (Other End of Floorbeam Opposite Hand)

FB END SECTION

Note: [FB****] denotes bolt number. See Table on Sht. 4

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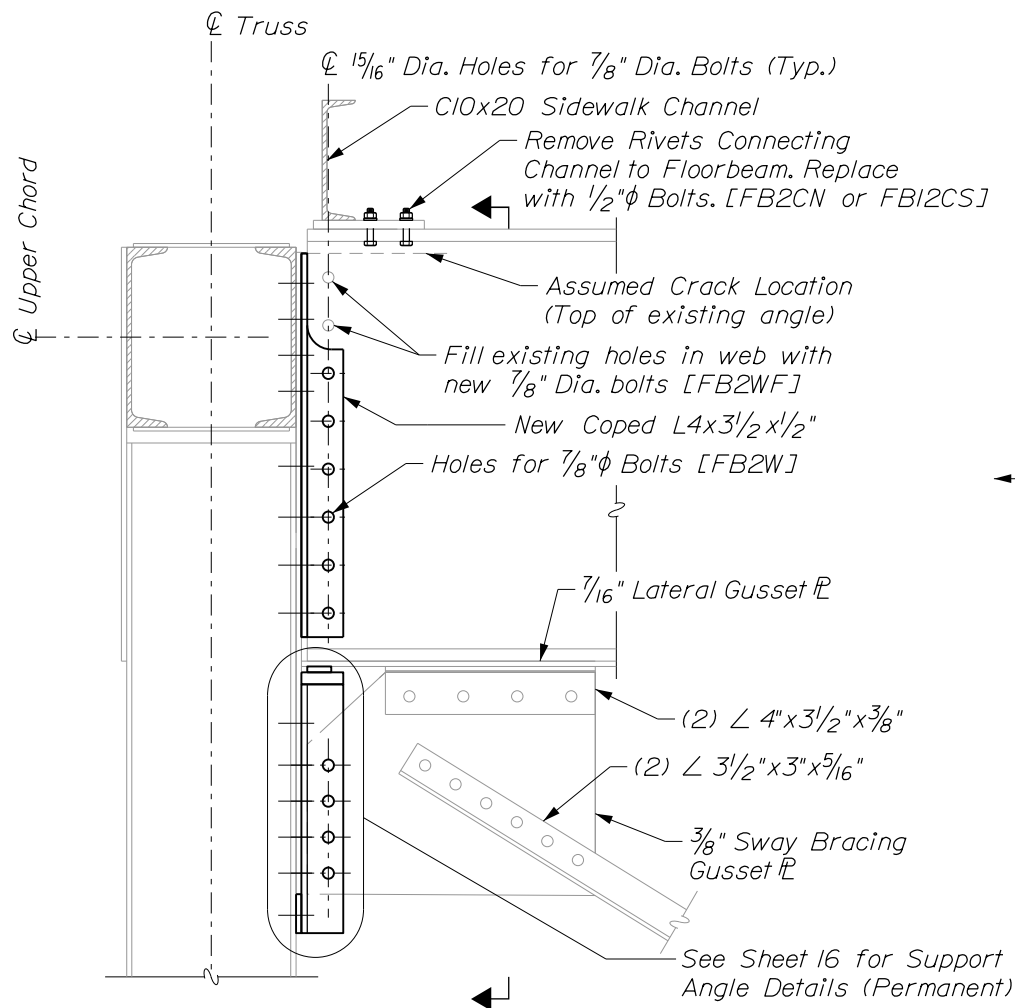
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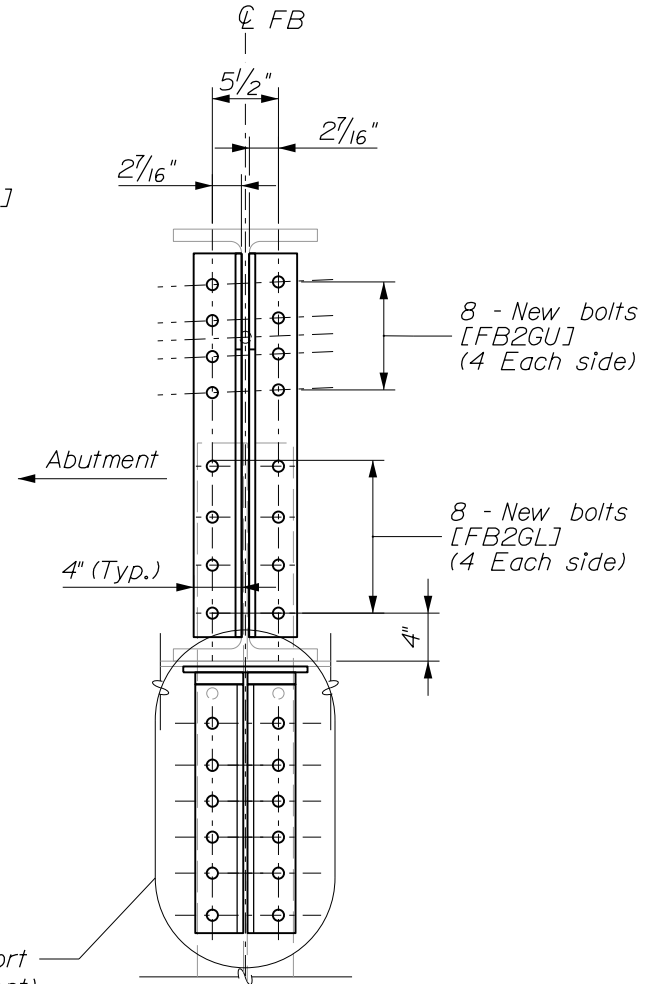
BRIDGE NO. 2026

FB1/FB25 CONNECTION DETAIL

OF 27



FB2 @ U2 & FB24 @ U24
 (Other End of Floorbeam Opposite Hand)



FB END SECTION

Note: [FB###] denotes bolt number. See Table on Sht. 4

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STATE ROUTE 127 ARROWSIC
MAX L. WILDER MEMORIAL BRIDGE

SHEET NUMBER

12

BRIDGE NO. 2026

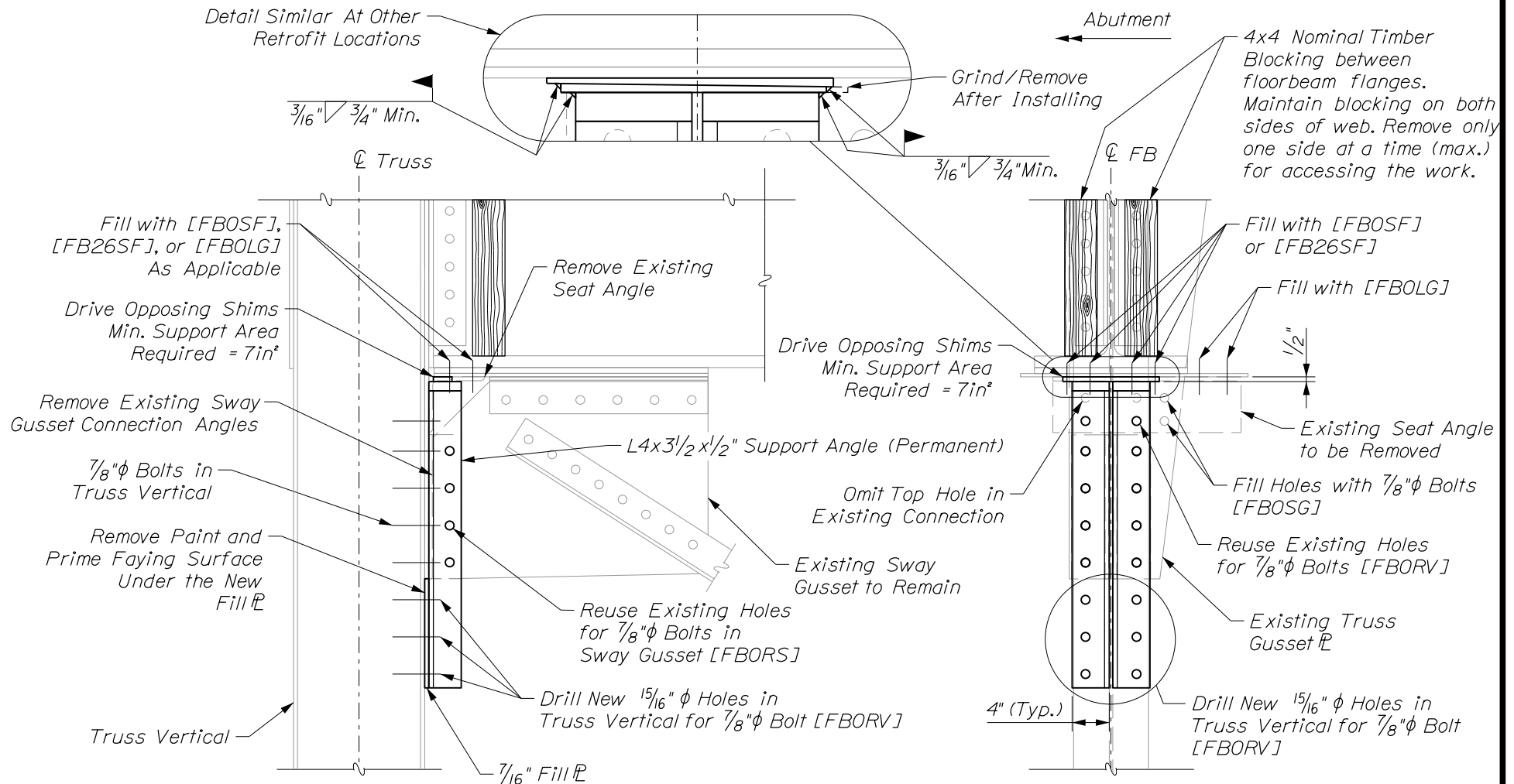
FB2/FB24 CONNECTION DETAIL

OF 27

FLOORBEAM RETROFIT SUGGESTED SEQUENCE OF CONSTRUCTION:

1. Complete construction support sequence (see Sheet 18) prior to commencement of the retrofit installation.
2. Up to two floorbeam locations can be worked on at a time but they must not be on the same floorbeam or on an adjacent floorbeam.
3. Complete installation of temporary hanger. Install steel shim blocking in gap between the truss vertical and the top chord.
4. Torque top heavy hex nuts on threaded rods to the following requirements:
 FBI & FB25: Torque to 289 lb-ft (217 lb-ft if lubricated)
 FB2 & FB24: Draw nuts snug tight.
5. Complete installation of support angles. Install timber blocking in floorbeam web (See General Notes 7 & 10 for additional sway bracing and timber blocking requirements).
6. Install shims between support angle welded end plates and floorbeam bottom flange. Ensure shims remain permanently.
7. Begin floorbeam retrofit. Starting with the middle rivet and alternating up and down, remove rivets in floorbeam web connection. Install temporary bolts.
8. Starting at the middle rivet and alternating up and down, remove rivets on one side of the floorbeam-to-truss connection. Install temporary bolts.
9. Starting at the middle rivet and alternating up and down, remove rivets on the other side of the floorbeam-to-truss connection. Install temporary bolts.
10. Remove temporary bolts and angles. Fill all corrosion craters or pitting in the faying areas of the floorbeam web and truss gusset plate with approved epoxy. Ensure that epoxy only occupies the pits and craters.
11. Primer paint the faying surface of the floorbeam web and truss gusset plate in accordance with Special Provision 506. Allow to cure in accordance with manufacturer recommendations. Reattach old angles with temp. bolts until ready for next step.
12. Install new connection angles. Ensure a clean, dry mating surface between steel surfaces before installation. Hold one new coped angle in place with temporary bolts near the top and bottom in the connection to the truss. Repeat for other side. Align angles with existing holes in floorbeam web. Hold in place with temporary bolts at top and bottom of connection. Using new coped angles as a template, ream holes in existing steel as needed for the permanent galvanized $\frac{7}{8}$ " dia. H.S. bolts. Torque bolts to the required specifications. Bolts shall be torqued starting at the middle bolt and systematically alternating up and down along the connection.
13. If at end of any workday not all permanent bolts are installed, ensure floorbeam is connected to the truss using temporary bolts installed in any remaining holes of the floorbeam connection angles before leaving.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STATE ROUTE 127 MAX L. WILDER MEMORIAL BRIDGE	ARROWSIC	SHEET NUMBER
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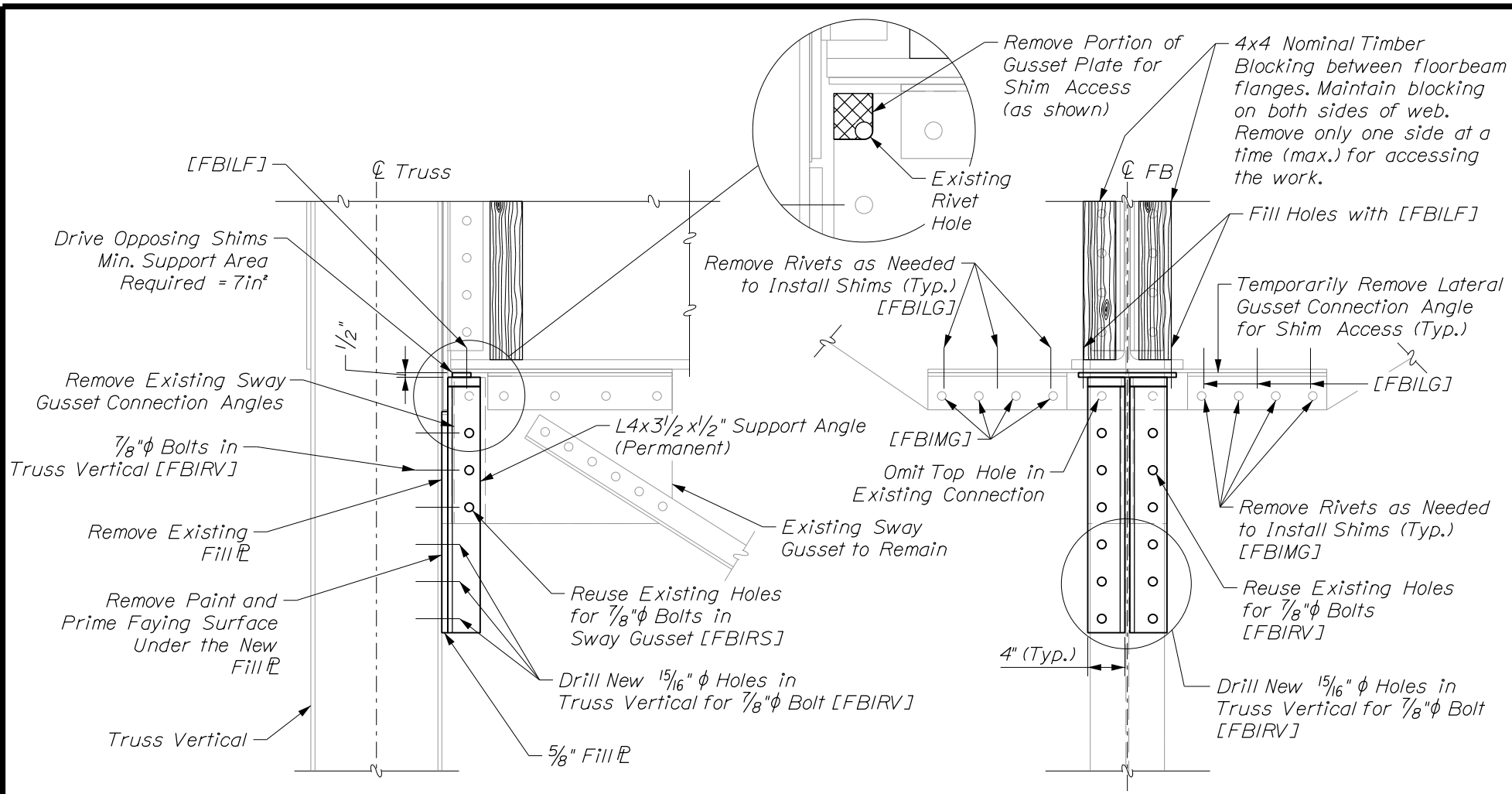
FLOORBEAM CONSTRUCTION SUPPORT DETAIL

FB0 @ U0 & FB26 @ U26

FB END SECTION

Note: [FB###] denotes bolt number. See Table on Sht. 4

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BRIDGE NO. 2026	FB0/FB26 CONSTRUCTION SUPPORT DETAIL	OF 27



FLOORBEAM CONSTRUCTION SUPPORT DETAIL

FBI @ U1 & FB25 @ U25

(Hanger Support not shown for clarity, see Sht. 17)

FB END SECTION

Note: [FB***] denotes bolt number. See Table on Sht. 4

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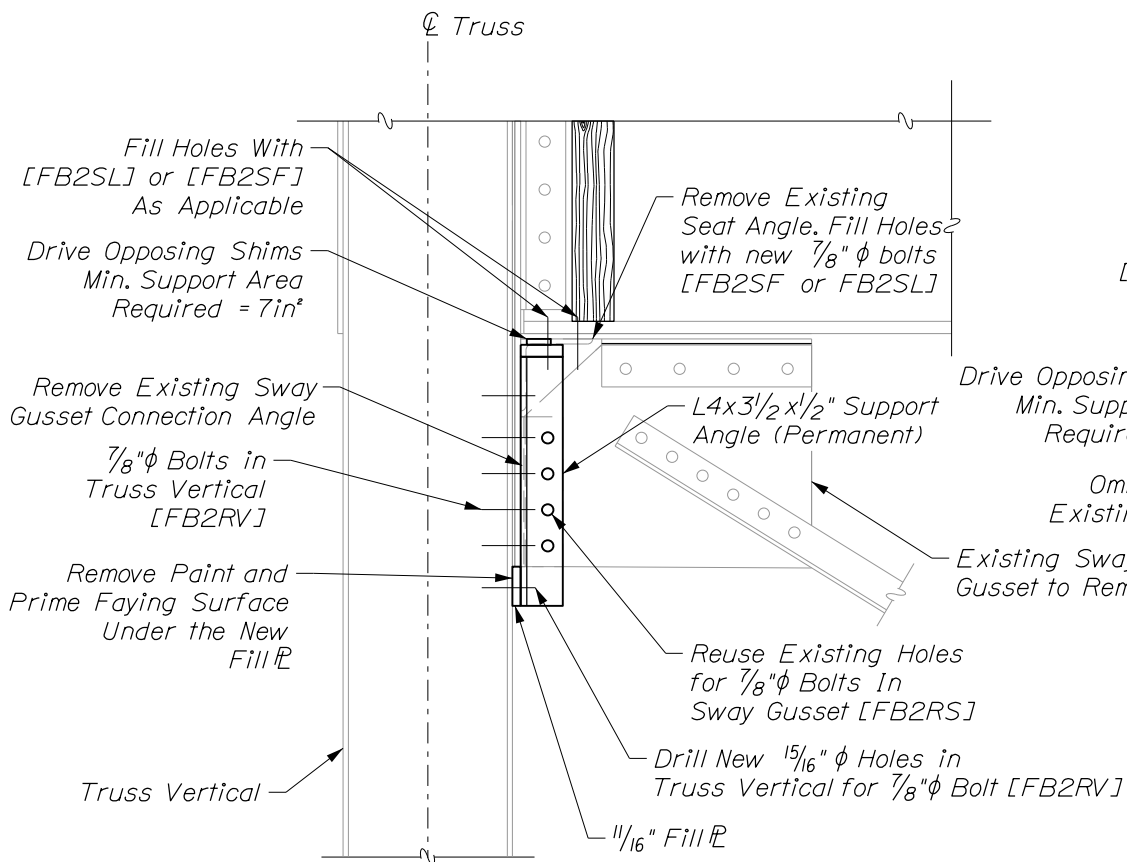
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BRIDGE NO. 2026

FB1/FB25 CONSTRUCTION SUPPORT DETAIL

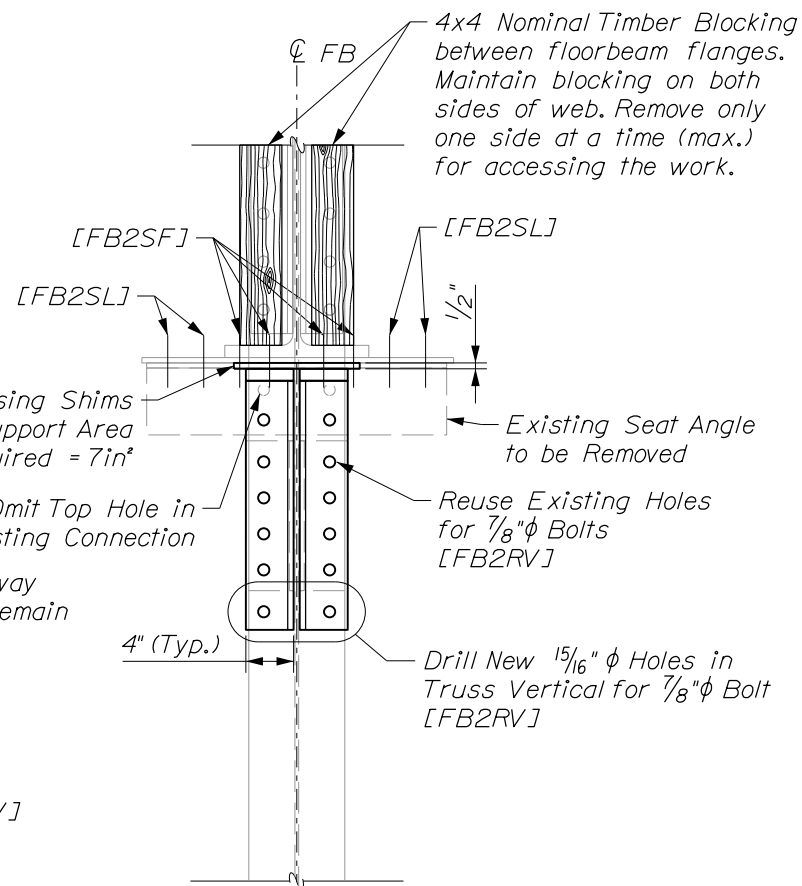
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FLOORBEAM CONSTRUCTION SUPPORT DETAIL

FB2 @ U2 & FB24 @ U24

(Hanger Support not shown for clarity, see Sht. 17)



FB END SECTION

Note: [FB****] denotes bolt number. See Table on Sht. 4

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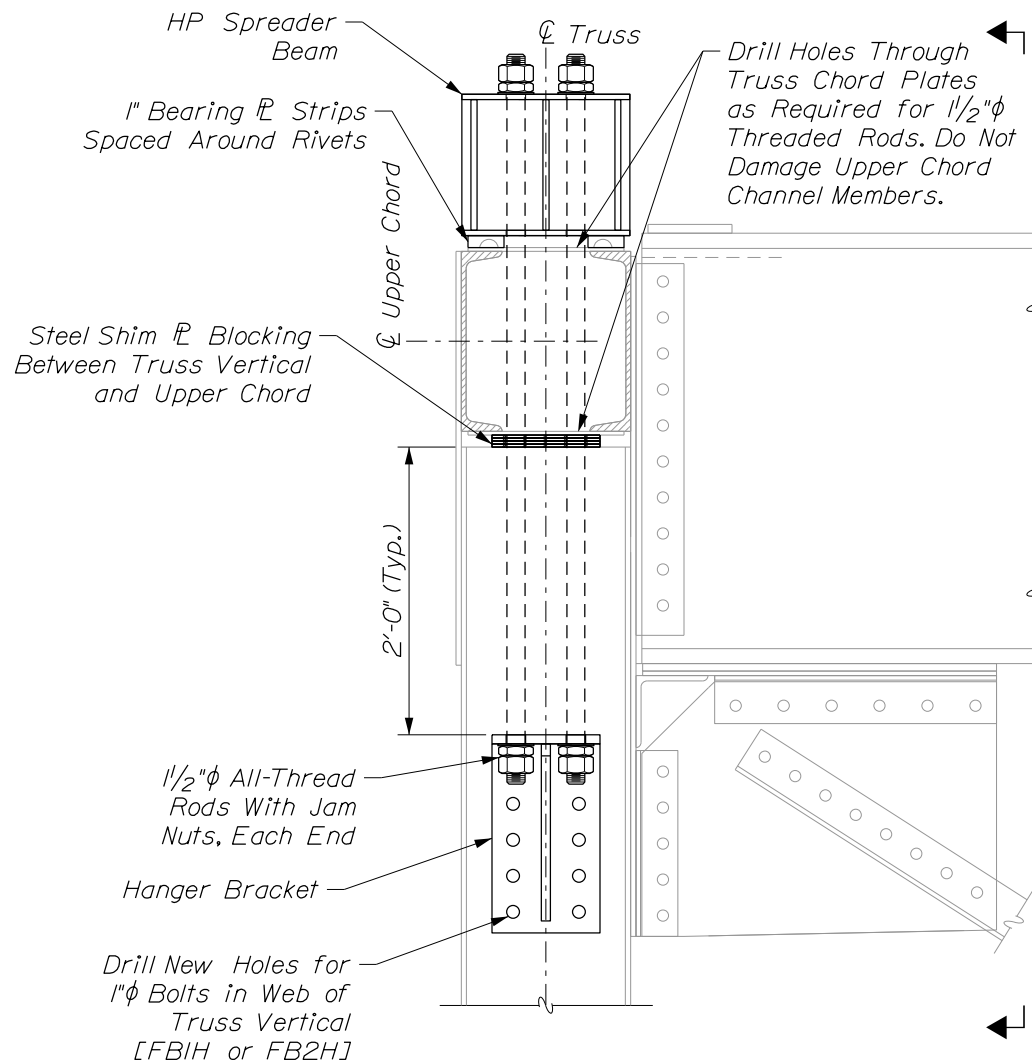
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BRIDGE NO. 2026

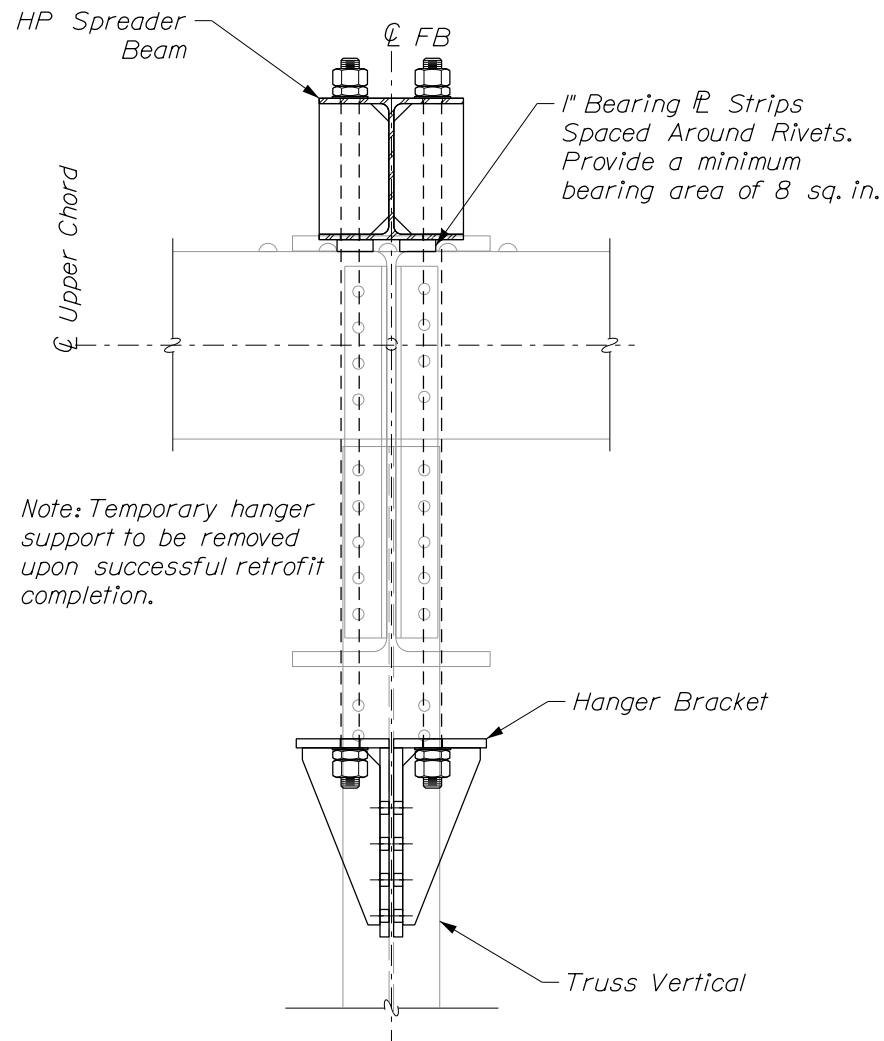
FB2/FB24 CONSTRUCTION SUPPORT DETAIL

OF 27



TYPICAL FLOORBEAM HANGER DETAIL

Install at FBI, FB2, FB24, & FB25



FB END SECTION

Note: [FB***] denotes bolt number. See Table on Sht. 4

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STATE ROUTE 127 ARROWSIC
MAX L. WILDER MEMORIAL BRIDGE

SHEET NUMBER

17

BRIDGE NO. 2026

TEMPORARY HANGER SUPPORT

OF 27

CONSTRUCTION SUPPORT SUGGESTED SEQUENCE OF CONSTRUCTION:

From UBIT:

1. Install temporary hanger. Drill standard size holes for 1.5" dia. all-thread rods in top chord plates where applicable. Smooth all edges of the field drilled holes. Do not drill into the upper chord channel members.
2. Using the steel hanger bracket template, drill holes for 1" dia. bolts in the web of the truss vertical. Smooth all edges of the field drilled holes.
3. Install hanger bracket. Ensure a clean dry mating surface between steel surfaces before installation. Draw nuts finger tight.
4. Ensure the hanger bracket is level in both directions. Torque heavy hex nuts.
5. Install HP-support beam and all-thread rods. All-thread rods require a heavy hex nut and jam nut, each end. Bottom heavy hex nut shall be fully torqued against the jam nut prior to installing rod. Top nuts shall be installed finger tight.
6. The rivets connecting the sidewalk channel to the floorbeam shall be removed and replaced with $\frac{1}{2}$ " dia. bolts. Heavy hex nuts shall be drawn finger tight, then backed off one-quarter turn. Upset remaining threads of bolt.
7. Remove rivets in seat angles and remove seat angle. NOTE: At FBI and FB25 lateral gusset plate angle(s) to be removed temporarily for installation of steel shims.
8. Remove rivets in the angles connecting the sway bracing gusset plate and truss vertical. Remove the angles. Fill all corrosion craters or pitting in the faying areas of the truss vertical to sway angles with welded endplates with approved epoxy. Ensure that epoxy only occupies the pits and craters. (See General Note 6 for additional sway bracing requirements).
9. Remove portion of sway bracing gusset plate (at FBI and FB25 locations only) by grinding as shown in the details. The portions of the sway bracing gusset plate to remain are to be free of nicks, gouges, or undulations from the grinding and cutting operations.
10. Primer paint the faying surface of the truss vertical in accordance with Section 506.12 of the Standard Specifications. Allow to cure in accordance with manufacturer recommendations. Reattach old angles with temporary bolts until ready for next step.
11. Using the support angle as a template, drill holes for $\frac{7}{8}$ " dia. bolts in the flange of the truss vertical. Smooth all edges of the field drilled holes. Primer paint the exposed surfaces of steel in accordance with the Primer specifications.
12. Install the support angles with welded endplates. Ensure a clean dry mating surface between steel surfaces before installation. Draw nuts finger tight.

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CONSTRUCTION SUPPORT SUGGESTED SEQUENCE OF CONSTRUCTION (CONTINUED):

13. Ensure the support angles with welded endplates are level in both directions and with each other. Torque heavy hex nuts.

14. Install Access Platforms.

After floorbeam connection angle retrofit is complete, from UBIT:

15. Remove all-thread rods and HP Spreader Beam.

16. Remove 1" bearing strips and steel shim blocking used for Temporary Hanger.

17. Remove wood blocking from floorbeam web.

18. Clean all surfaces around open bolt holes with a wire brush to remove all contaminants.

19. Install new H. S. bolts in open bolt holes of floorbeam web, truss top chord, and in vertical truss members. Torque bolts to the required specification.

20. Holes that cannot have bolt installed to be cleaned and primer painted per Specifications.

21. Clean and primer paint the shims that remain permanently atop the support angles.

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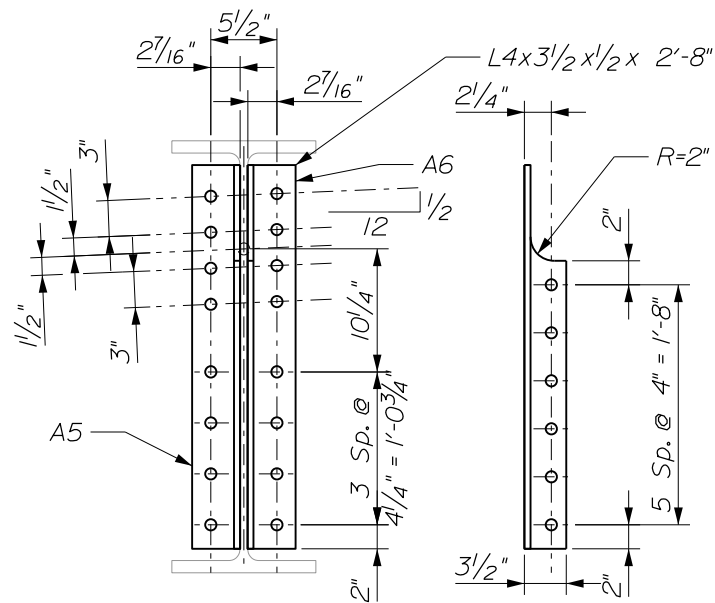
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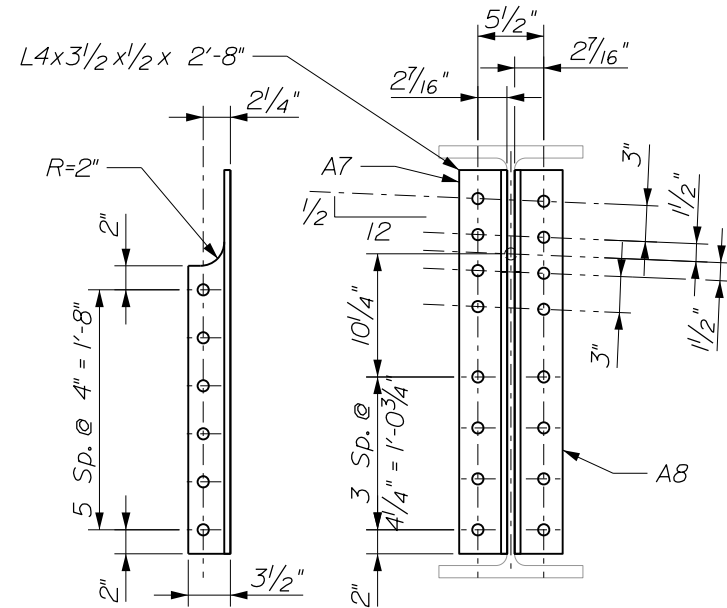


FB0 & FB26 COPED ANGLE DETAILS (PERMANENT)



Truss Connection FB Web Connection

FB1 EAST END
FB25 WEST END



FB Web Connection Truss Connection

FB25 WEST END
FB25 EAST END

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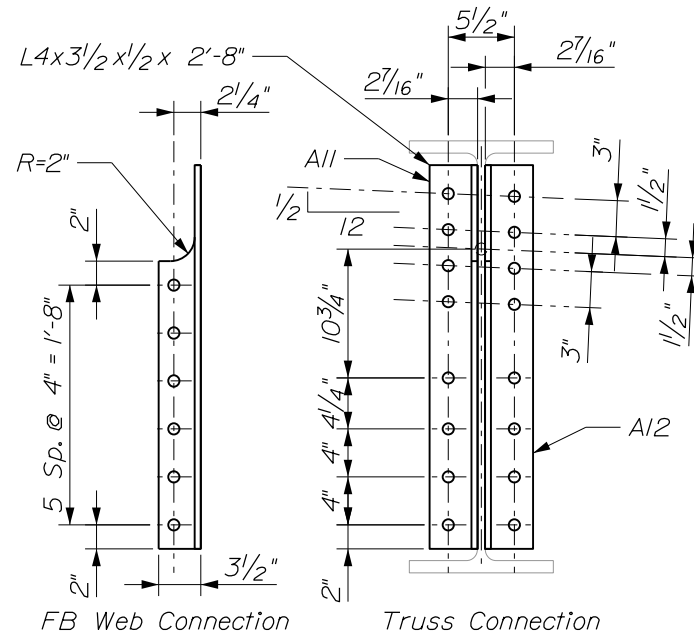
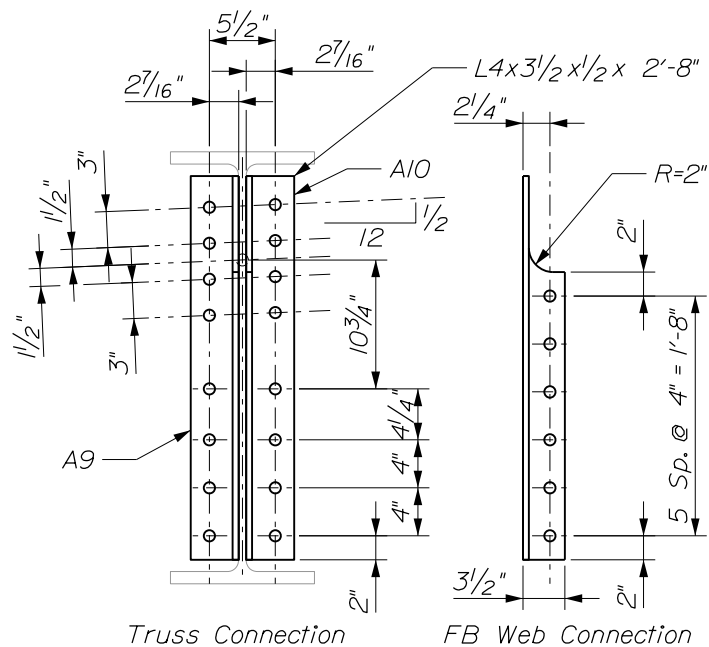
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FB1 & FB25 COPED ANGLE DETAILS (PERMANENT)

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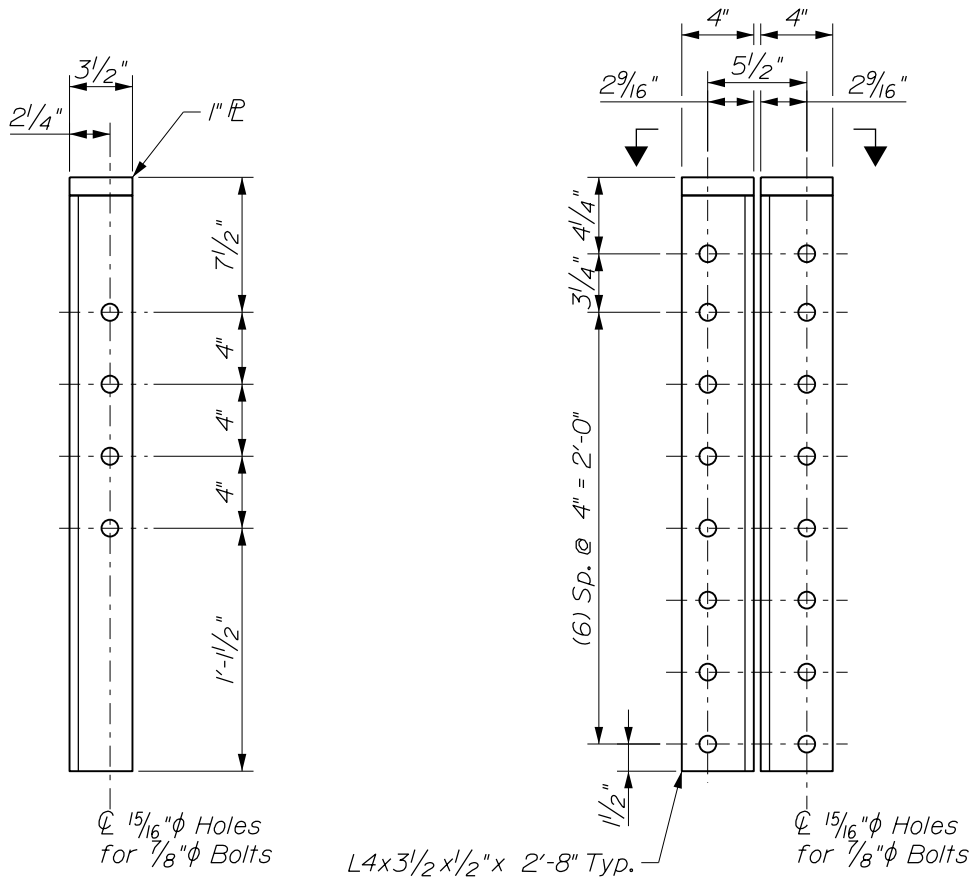
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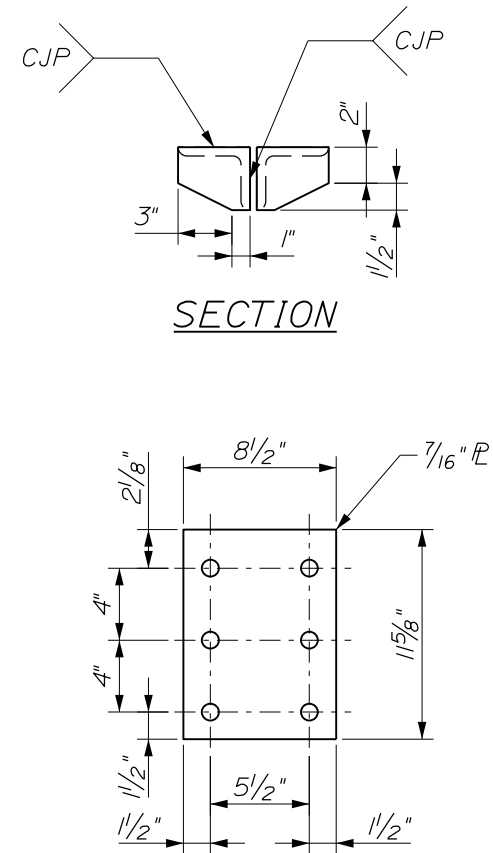
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FB2 & FB24 COPED ANGLE DETAILS (PERMANENT)

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FB0 & FB26 STEEL SUPPORT ANGLE DETAILS



FILL PLATE DETAIL

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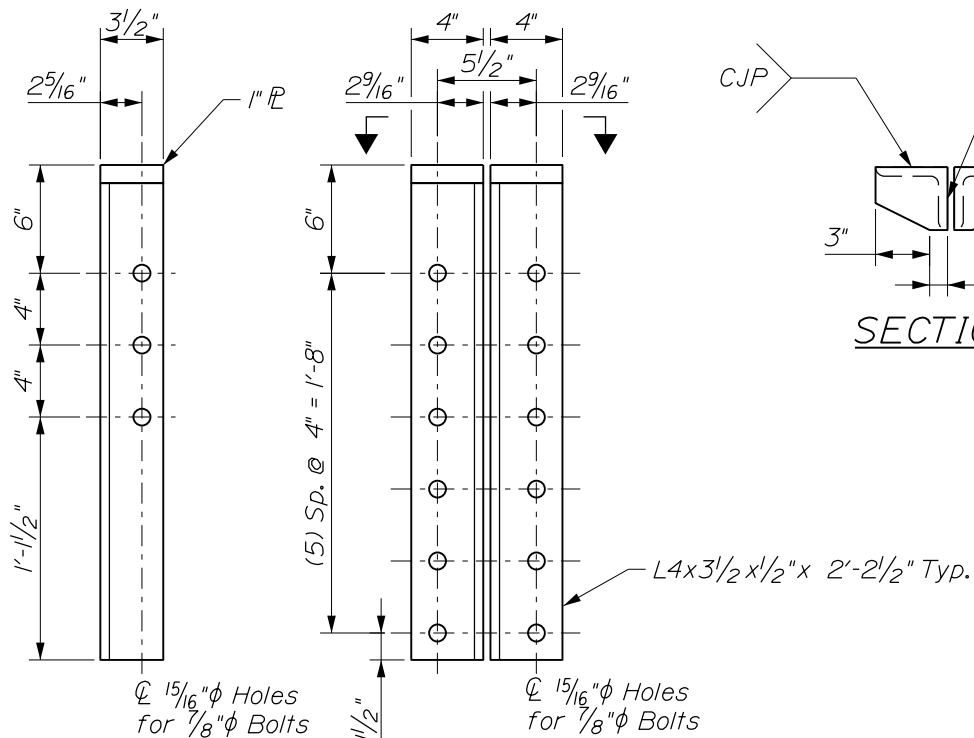
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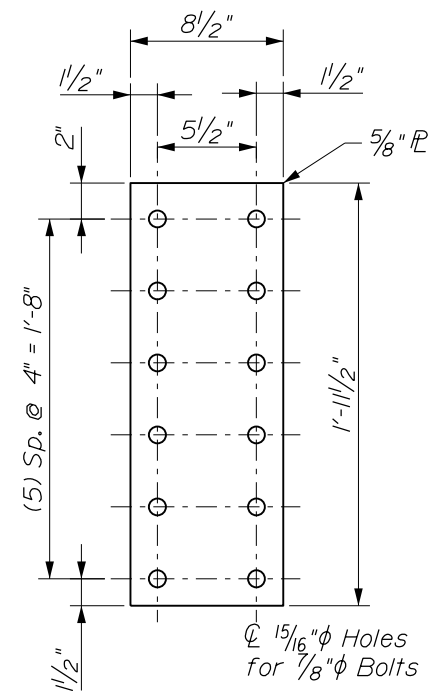
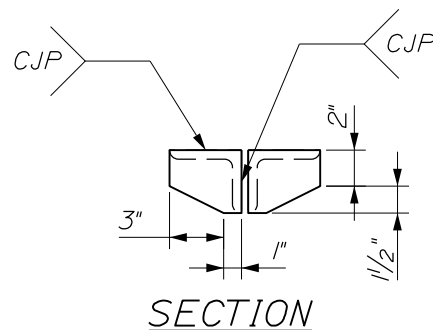
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FB0/FB26 SUPPORT ANGLE DETAILS (PERMANENT)

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FB1 & FB25 STEEL SUPPORT ANGLE DETAILS



FILL PLATE DETAIL

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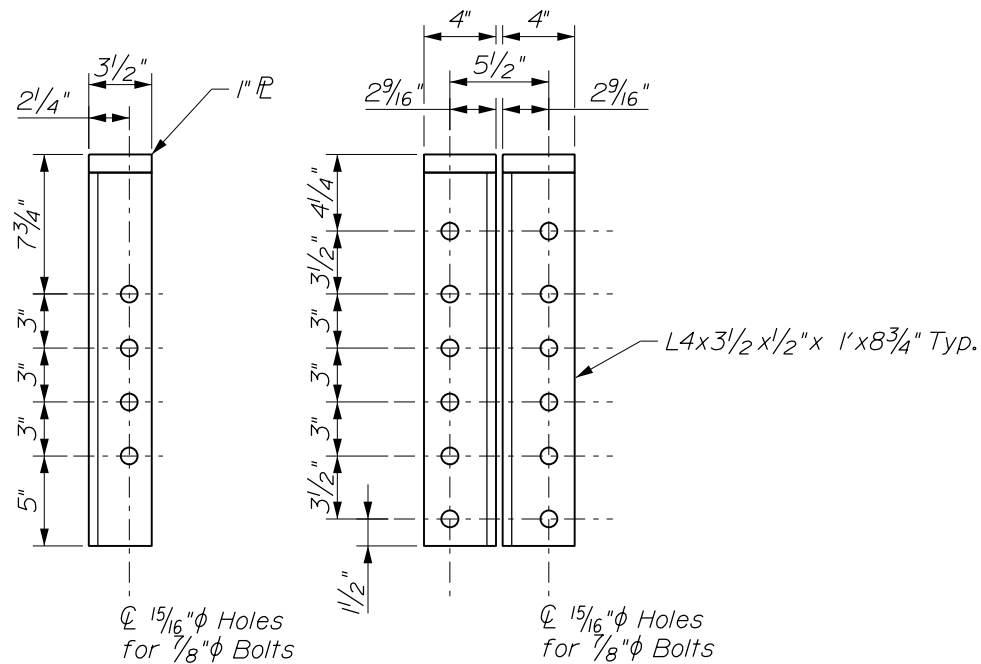
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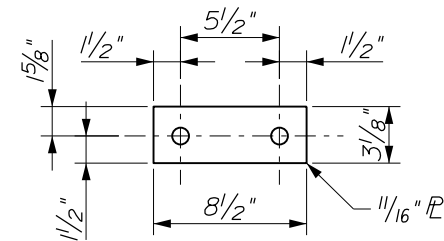
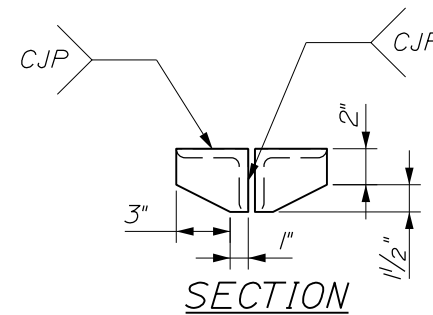
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FB1/FB25 SUPPORT ANGLE DETAILS (PERMANENT)

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FB2 & FB24 STEEL SUPPORT ANGLE DETAILS



FILL PLATE DETAIL

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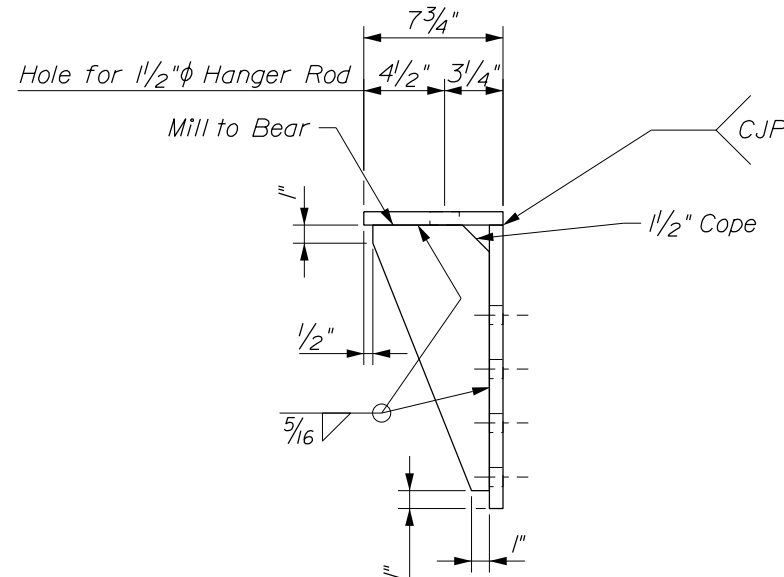
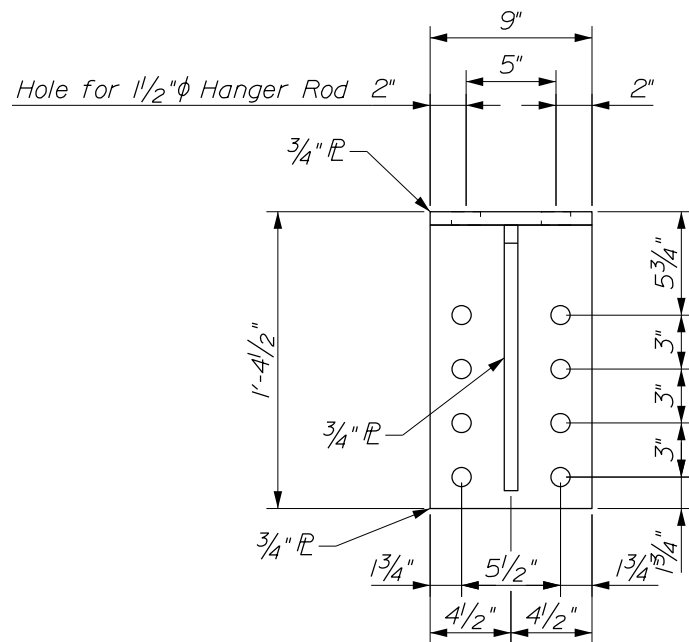
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FB2/FB24 SUPPORT ANGLE DETAILS (PERMANENT)

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STEEL HANGER BRACKET DETAIL

Notes:

1. Threaded rods shall conform to ASTM F1554, Grade 55.
Minimum Threaded Rod Length for FB1 & FB25: 5'-0"
Minimum Threaded Rod Length for FB2 & FB24: 5'-0 1/4"
2. Holes for threaded rods may be oversized or slotted (slot length $\leq 2"$) to allow for field adjustment.

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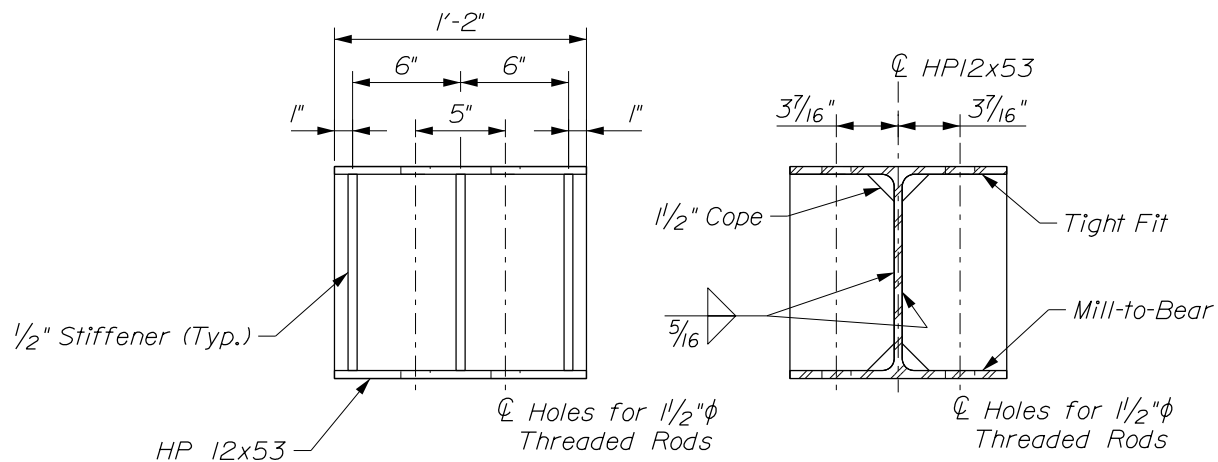
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TEMPORARY HANGER BRACKET DETAILS

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HP SPREADER BEAM DETAIL

Notes:

1. HP-Shape shall conform to ASTM A572, Grade 50 and shall be primer painted after fabrication.
2. Holes for threaded rods may be oversized or slotted (slot length $\leq 2"$) to allow for field adjustment.

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