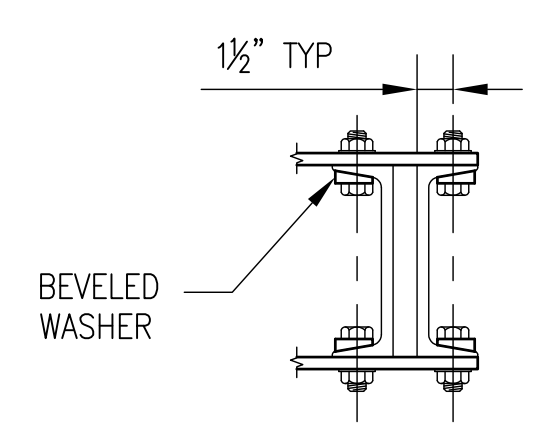
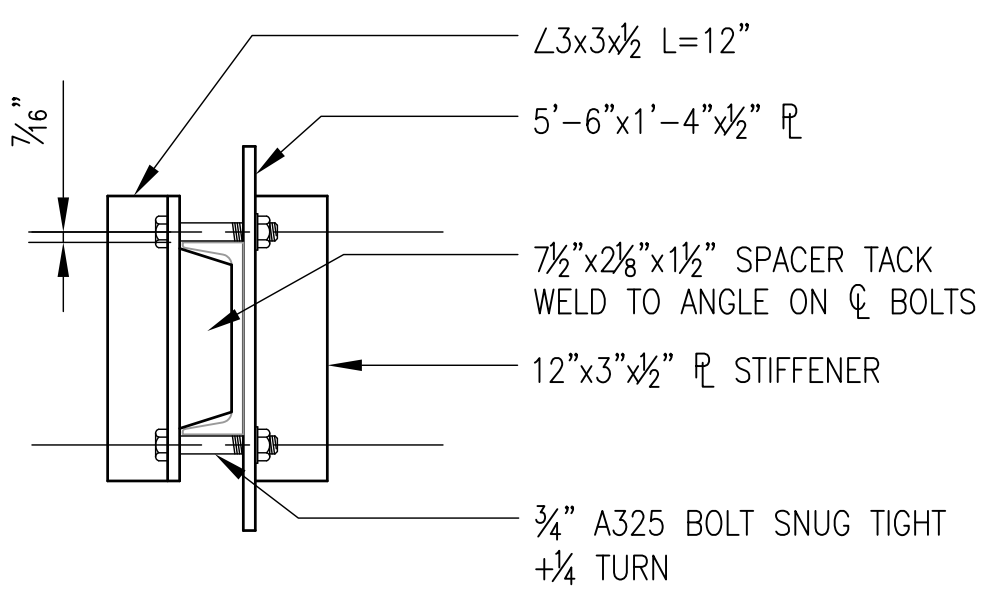


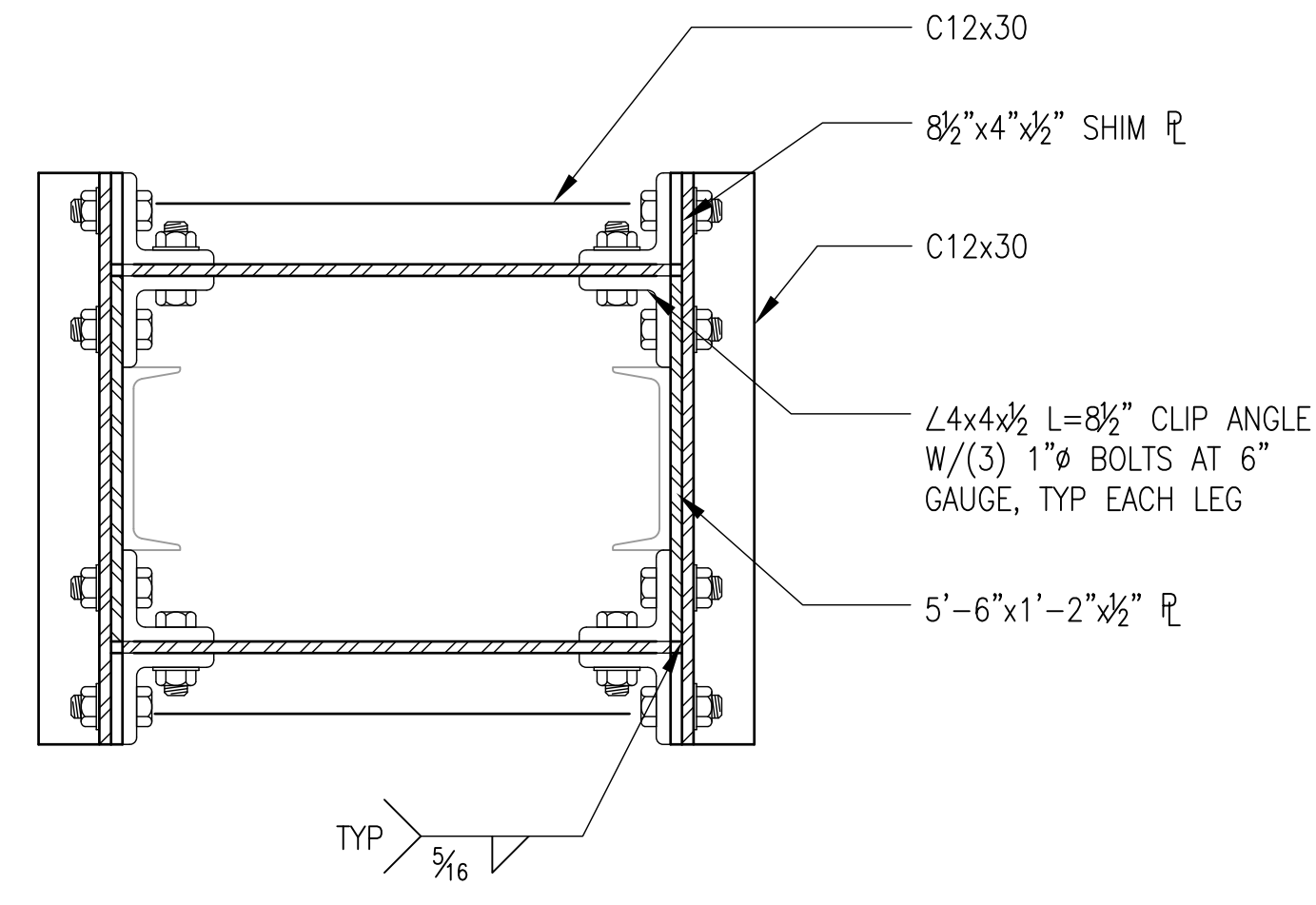
**A ELEVATION**  
SCALE: 1"=1'-0"



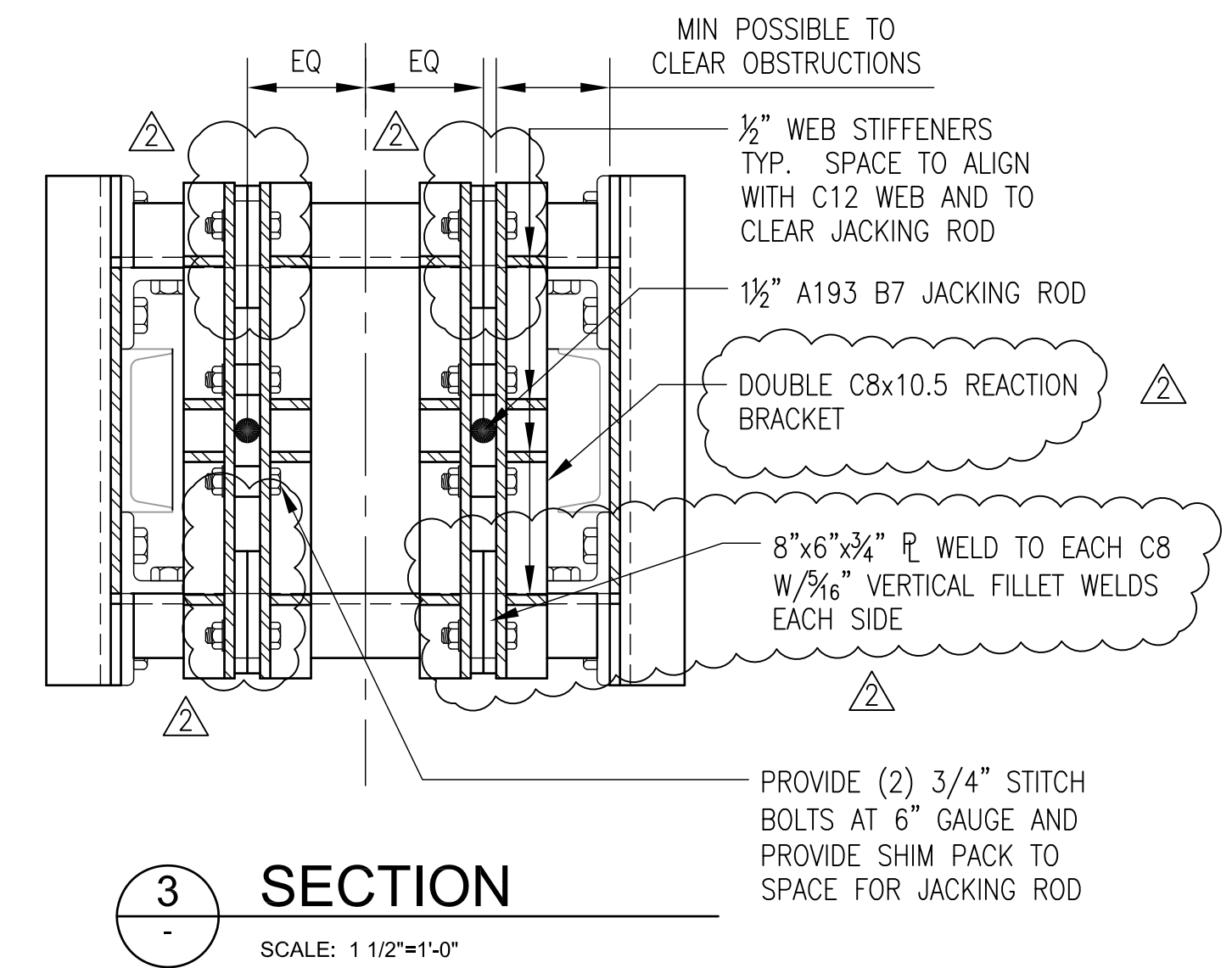
**1 SECTION**  
SCALE: 1 1/2"=1'-0"



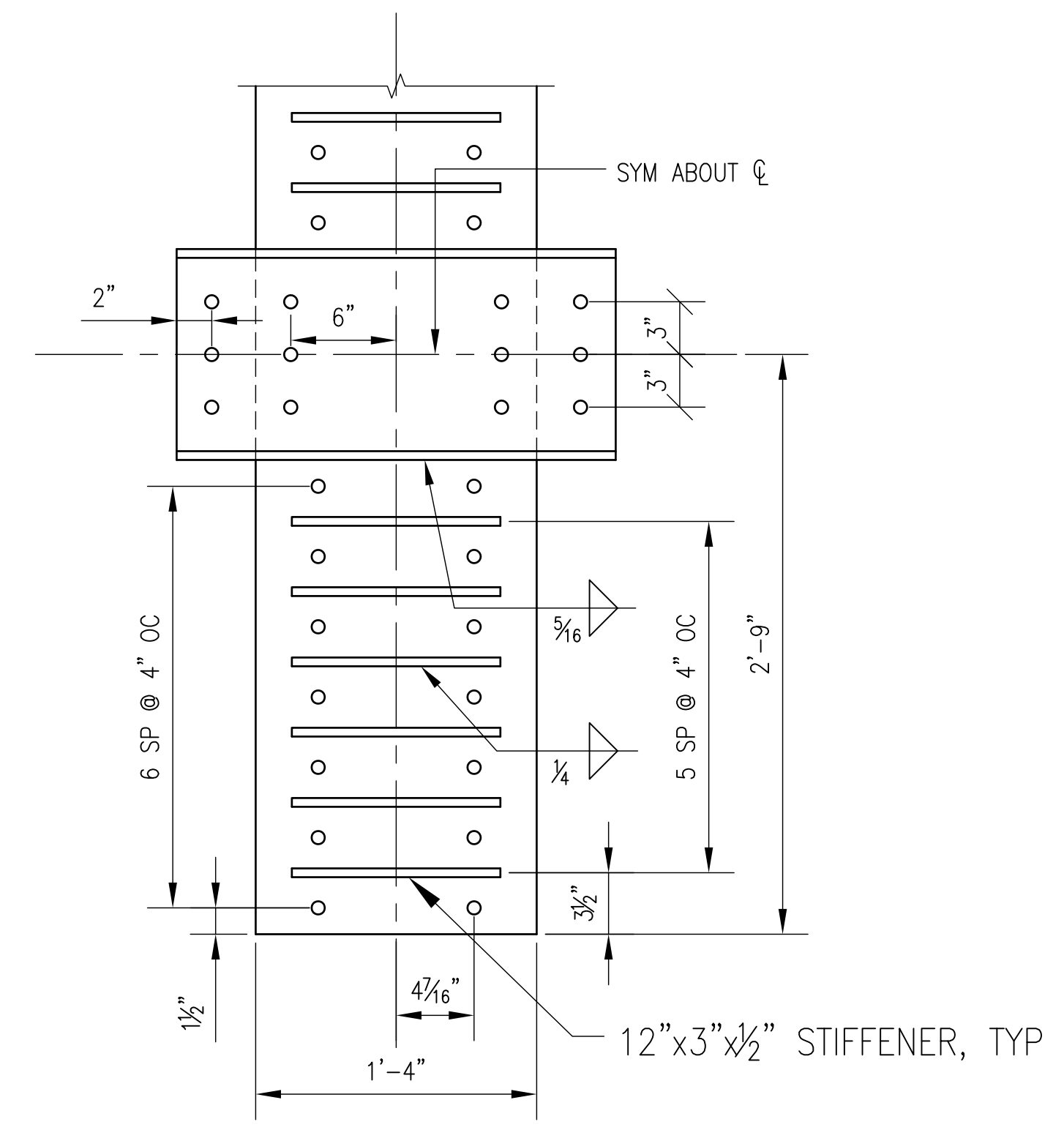
**4 SECTION**  
SCALE: 1 1/2"=1'-0"



**2 SECTION**  
SCALE: 1 1/2"=1'-0"



**3 SECTION**  
SCALE: 1 1/2"=1'-0"



**5 EXTERIOR PLATE FABRICATION DETAIL**  
SCALE: 1 1/2"=1'-0"

**PROPOSED REPAIR PROCEDURE**

1. PRIOR TO REPAIR, POSITION FEED ARM, GREGORIAN AND TENSION TIE DOWNS PER AMMANN & WHITNEY DIRECTION.
2. REMOVE PAINT FROM SURFACES THAT WILL BE EITHER WELDED, BOLTED OR CLAMPED AGAIN.
3. DRILL FLANGE HOLES FOR LOWER PLATE AND INSTALL LOWER PLATE. FULLY TORQUE BOLTS.
4. INSTALL TONGUE PLATE AND INSTALL BOLTS IN LOWER PLATE AND STITCH BOLTS TO EXISTING GUSSET. FULLY TORQUE BOLTS IN LOWER PLATE. LEAVE TONGUE PLATE BOLTS FINGER TIGHT.
5. INSTALL UPPER JACKING BRACKETS AND FULLY TORQUE BOLTS.
6. INSTALL JACKING REACTION BEAMS, RODS AND JACKS AT UPPER AND LOWER LOCATIONS. BRING TO SNUG TIGHT.
7. INSTALL UPPER REPAIR PLATE BY BOLTING TO TONGUE PLATE. BOLTS TO BE FINGER TIGHT.
8. REPLACE BOLTS AT BROKEN CONNECTION AND PROVIDE 6X3X1/2 PLATE WASHER. INSTALL PLATE WASHER AND BOLTS LOOSE SO AS TO AVOID INTERFERENCE WHEN THE BREAK IS CLOSED.
9. MONITORING JACKING TENSION, SLOWLY JACK BROKEN MEMBER BACK INTO PLACE. DO NOT EXCEED 50 KIPS OF FORCE. AS JOINT CLOSES, MONITOR EMERGENCY REPAIR RODS AND TURN NUTS TO MAINTAIN A SNUG TIGHT CONDITION. MONITOR JACK INSTALLED OPPOSITE THE BROKEN MEMBER AND MAINTAIN IN A SNUG TIGHT CONDITION.
10. WHEN BREAK IN MEMBER HAS CLOSED, JACK THE UNBROKEN SIDE TO AN EQUAL PRESSURE.
11. WELD PLATES TO CHANNELS PER DRAWING.
12. FULLY TORQUE ALL BOLTS THAT WERE INSTALLED FINGER TIGHT.
13. RELEASE JACKS SLOWLY AND DISSASSEMBLE JACKS AND JACKING BRACKETS.
14. RESTORE ANY LACING REMOVED FOR CLEARANCE.
15. CAULK AND PAINT ALL JOINTS AND BARE METAL.

- △ 3-8/10 REVISE WELD DETAIL TO INCLUDE RETURN
- △ 3-8/10 REVISE REACTION BEAMS FOR MATERIALS ON HAND

NATIONAL ASTRONOMY AND IONOSPHERE CENTER  
CORNELL UNIVERSITY  
ARECIBO RADIO OBSERVATORY

**PROPOSED REPAIR**

**AMMANN & WHITNEY**  
CONSULTING ENGINEERS, NEW YORK, NY

DRAWN BY: JLS	APPROVED	DATE: 18 FEB 2010
DESIGNED BY: JLS		SCALE: AS NOTED
CHECKED BY: JPC		DWG. NO. S-1