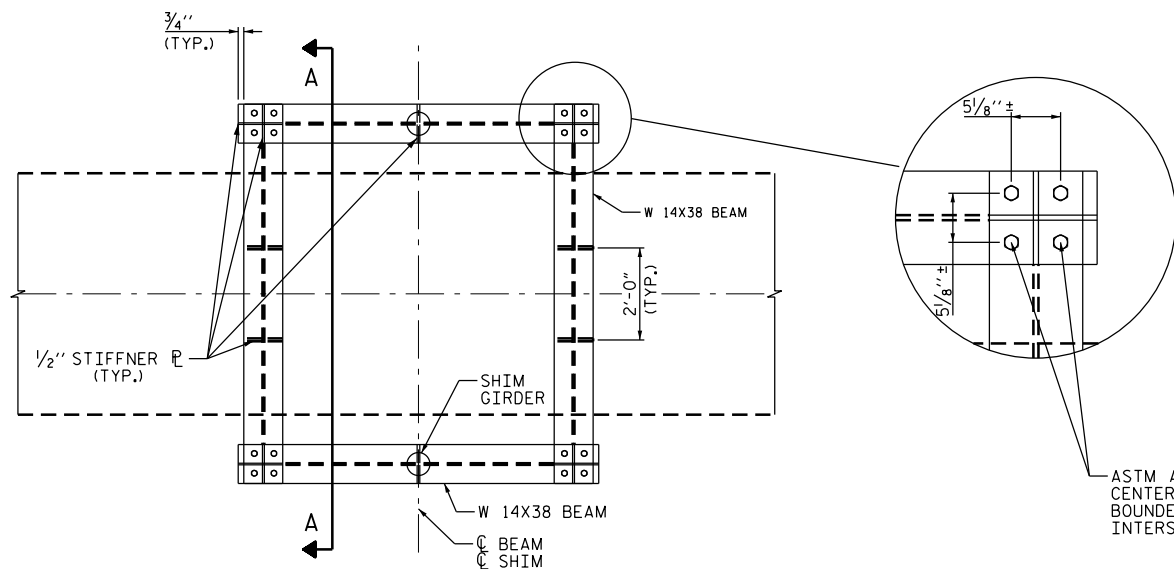


PARTIAL SECTION



PARTIAL PLAN
SUPPLEMENTAL BEAM BRACE DETAILS -
PILE BENT CAPS

ASTM A325 BOLTS WITH OVERSIZE HOLES
CENTERED WITHIN EACH QUADRANT
BOUNDED BY STEEL MEMBER WEB-FLANGE
INTERSECTIONS.

REPAIR NOTES:

1. WITH THE BEAMS SHIMMED AND SECURED, THE CONTRACTOR SHALL REMOVE AND REPAIR ALL UNSOUND CONCRETE IN ACCORDANCE WITH CONTRACT DOCUMENTS.
2. CRACKS IN OTHERWISE SOUND CONCRETE (AS APPROVED BY THE ENGINEER) SHALL BE INJECTED WITH EPOXY IN ACCORDANCE WITH THE CONCRETE RESTORATION DETAILS SHEET.
3. UPON CURING REPAIR CONCRETE TO A MINIMUM OF 3.4 KSI, REMOVE SHIMS, AND RETURN BEAMS TO ORIGINAL BEARING CONDITION.
4. USE SUPPLEMENTAL BEAM BRACE DETAIL WHEN CAP CONCRETE REPAIR IS ANTICIPATED TO EXPOSE 10% OR MORE OF THE MASONRY PLATE, OR WHEN INSTABILITY OF THE BEARING IS ANTICIPATED. THE ENGINEER SHALL APPROVE USAGE OF THE FRAME IN COORDINATION WITH THE CONTRACTOR.

SHIM NOTES:

1. SHIMMING OF THE SUPERSTRUCTURE AT PILE BENTS MAY BE NECESSARY TO FACILITATE CAP CONCRETE REPAIR.
2. IF AS-BUILT CONDITIONS OF THE PEDESTALS INDICATE THAT THE FRAME AS DETAILED WILL NOT CLEAR THE PEDESTALS, THE CONTRACTOR SHALL USE SHIM PLATES OR EXTEND BOLTS TO ADJUST FOR CLEARANCE. LOOSEN ANCHOR BOLTS WHERE REQUIRED.
3. SHIM SHALL BE PLACED SYMMETRICALLY AT THE CENTERLINE OF EACH GIRDER.

FRAME NOTES:

1. ALL BOLTS SHALL BE 7/8" A325 HIGH STRENGTH FRICTION TYPE BOLTS AND ALL HOLES SHALL BE 1/16".
2. DAMAGED BOLTS FOUND DURING RELOCATION OF THE FRAME SHALL NOT BE REUSED.
3. A HALF INCH MINIMUM SHIM PLATE SHALL BE USED. A THICKER SHIM PLATE SHALL BE REQUIRED TO LOWER THE ELEVATION OF THE W BEAM FOR JACKING CLEARANCE.
4. ALL STEEL SECTIONS, BEARING PLATES, STIFFENERS, AND BRACINGS SHALL BE ASTM A709 GRADE 50 STEEL.
5. THE SHIMS SHALL BE CONCENTRICALLY PLACED ABOUT THE WEB OF THE W BEAMS, AND THE CONTRACTOR SHALL DETERMINE THE NEED FOR A CONNECTION BETWEEN THE SHIMS AND THE W BEAMS SO THAT THE GIRDERS DO NOT SHIFT DURING THE REPAIR PROCEDURE.
6. BEARING STRIP SHALL BE PLAIN ELASTOMERIC PADS.

PAY ITEM NOTES:

STEEL SHIMS, TIMBER LAGGING & WEDGES, BEARING STRIPS, AND ALL LABOR AND MATERIALS NECESSARY TO INSTALL AND REMOVE BEAM BRACE FRAMES SHALL BE INCIDENTAL TO THE STRUCTURAL STEEL PAY ITEM.

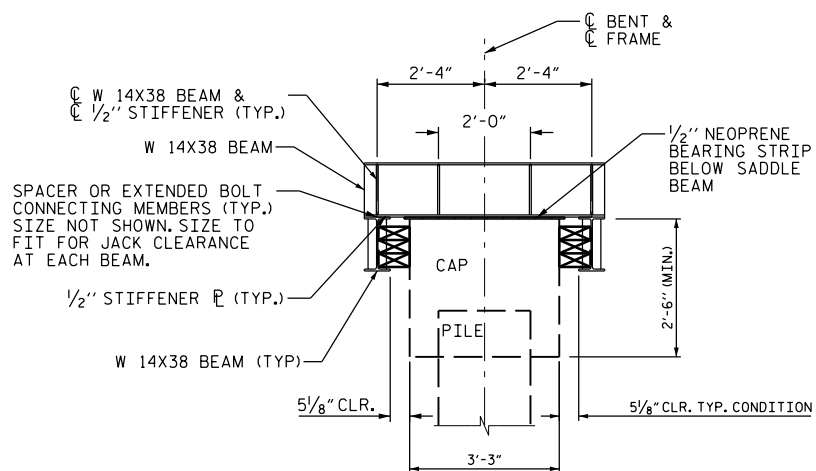
TYPICAL INTERIOR BEAM BILL OF MATERIALS (SINGLE FRAME)

W14X38 BEAM	W14X38 BEAM	STIFF. WEIGHT	ROD/BOLTS/ NUTS/WASHER	TOTAL STEEL
LIN. FT.	LBS.	LBS.	LBS.	LBS.
19.9	754	168	128	1050

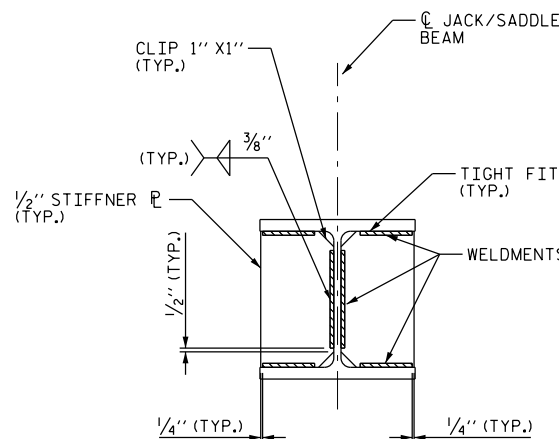
LEGEND:

- TIMBER LAGGING TO BE PLACED BETWEEN FACE OF PILE CAP AND WEB OF BEAMS. TIMBER SHALL BE SECURED TO PREVENT ROTATION OF FRAMES UNDER LIVE LOAD. ADD TIMBER AND WEDGES AS NEEDED TO PROVIDE A TIGHT FIT BETWEEN CAP AND FRAME.

PROJECT NO. B-5937
CURRITUCK/DARE COUNTY
STATION: BRIDGE NO. 16



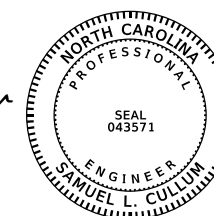
SECTION A-A



WELD TERMINATION DETAIL

DocuSigned by:
Samuel Cullum
19C97095C75A467...

3/8/2017



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPPLEMENTAL BEAM BRACE
DETAIL- PILE BENTS

DRAWN BY : TSC DATE : 10-16
CHECKED BY : SLC DATE : -
DESIGN ENGINEER OF RECORD: SLC DATE : -

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-284
1			3			TOTAL SHEETS
2			4			