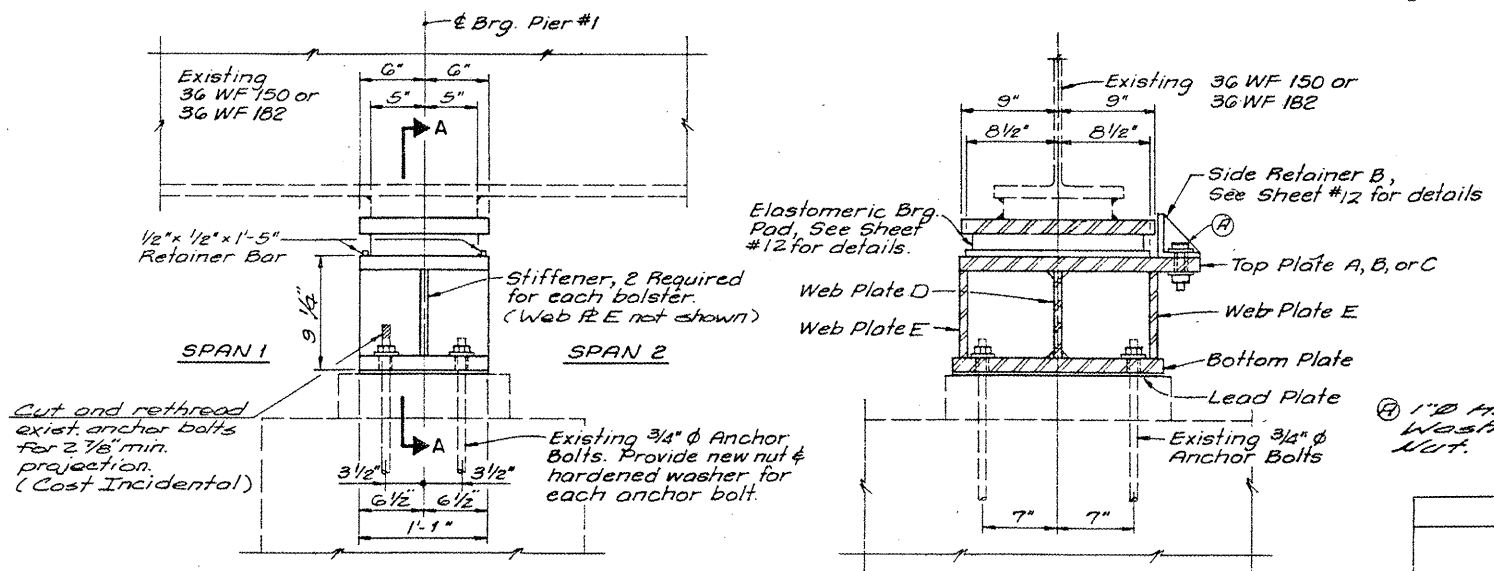


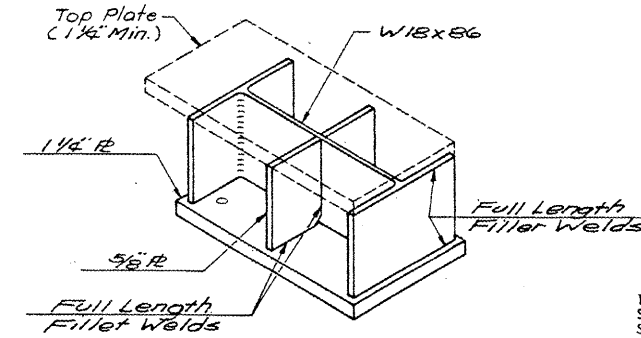
ROUTE VARIOUS	SECTION 2008-051 BP	COUNTY COOK	TOTAL SHEETS 38	SHEET NUMBER 30B
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CONTRACT NO. 60F02



ELEVATION

SECTION A-A



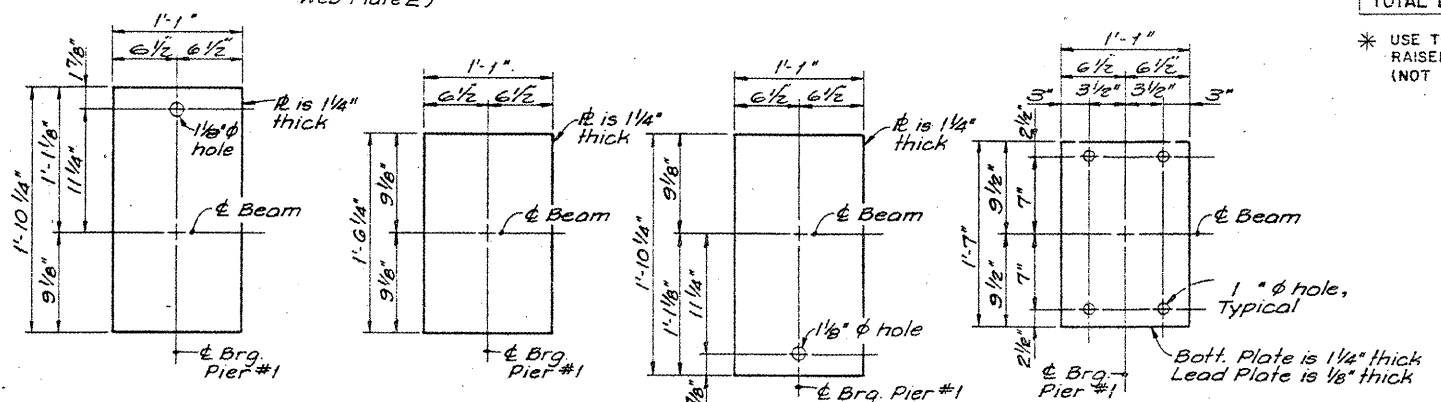
ALTERNATE BOLSTER

JACKING PROCEDURE

1. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESIGN OF THE BRIDGE STRINGER LIFTING PROCEDURES, METHODS AND MATERIALS USED. THE CONTRACTOR WILL SUBMIT THE JACKING PROCEDURE TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE ANY MATERIALS ARE ORDERED OR USED.
2. THE CRIBBING AND JACKS SHALL BE DESIGNED FOR THE BRIDGE DEAD LOAD AS GIVEN IN THE TABLES. NO LIVE LOAD WILL BE PERMITTED ON THE PORTION OF THE BRIDGE BEING RAISED.
3. THE BEARING AREA FOR THE JACKING TOWERS, IF USED, WILL BE DETERMINED BY THE CONTRACTOR AFTER PENETROMETER TESTS.
4. DUE TO THE UNYIELDING NATURE OF THE UNDERBRIDGE ASBESTOS-CEMENT UTILITY CONDUITS, THE MAXIMUM ALLOWABLE BEAM RISE AT THE ABUTMENTS TO CLEAR THE BEARINGS IS 1/4 INCH. WITH THIS LIMITATION, REMOVAL OF THE BEARING ROLLER CAN BE ACCOMPLISHED BY SIDWARD EXTRACTION, AS DETAILED. THE ROCKER BEARINGS AT PIER 1 CAN BE REMOVED BY CUTTING THE ROCKER TOP-PINTLES BY A SUITABLE METHOD WHICH WILL NOT DAMAGE THE BEARING TOP PLATE. THE CONTRACTOR MAY SUBMIT AN ALTERNATE REMOVAL METHOD FOR APPROVAL WHICH MUST INCLUDE PROPOSED TREATMENT FOR THE UTILITY CONDUITS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF THE EXISTING UTILITY CONDUITS AND SHALL REPAIR OR REPLACE ANY CONDUIT DAMAGED BY HIS OPERATIONS AT NO ADDITIONAL EXPENSE TO THE STATE.
6. DURING THE JACKING OF THE BRIDGE STRINGERS, THE DIFFERENCE IN RAISED HEIGHT IN THE TRANSVERSE DIRECTION BETWEEN ANY TWO ADJACENT BEAMS SHALL NOT EXCEED 1/8 INCH.
7. JACKING TOWERS, HYDRAULIC JACKS, GAUGES, STEEL SHIMPLATES, BLOCKING AND CRIBBING AND ALL EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE BRIDGE RAISING TO REPLACE THE BEARINGS ARE INCLUDED IN THE SPECIAL PROVISION "RAISING THE BRIDGE TO ALLOW BEARING REPLACEMENT" AND PAID FOR AS "JACKING EXISTING STRINGERS."
8. To eliminate jacking towers and disruption to traffic, the recommended lifting procedure is to install jacks on the abutments and the pier. Use hardwood blocking between the diaphragm flanges and jack against the diaphragms while the bridge deck is removed.

	STRINGER REACTIONS (KIPS)					
	BEAM 1, 16		BEAM 2, 15		INTERIOR BEAMS	
	ABUT.	PIER	ABUT.	PIER	ABUT.	PIER
STEEL DEAD LOAD	4.4	12.3	4.7	13.0	6.3	17.5
CONC. DL *	26.4	73.8	23.5	65.6	19.0	52.9
CONST. DL (50PSF) *	4.3	11.9	8.1	22.7	9.7	27.0
TOTAL DL *	35.1	98.0	36.3	101.3	35.0	97.4

* USE THESE REACTIONS ONLY IF BEAMS ARE RAISED BEFORE DECK IS REMOVED (NOT RECOMMENDED)

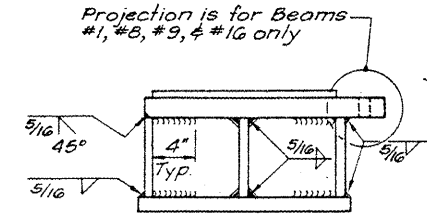


TOP PLATE A
1 Each Required for Bm.#1 & Bm.#9

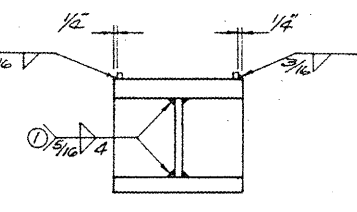
TOP PLATE B
1 Each Required for Beams #2 thru #7 & Beams #10 thru #15

TOP PLATE C
1 Each Required for Bm.#8 & Bm.#16

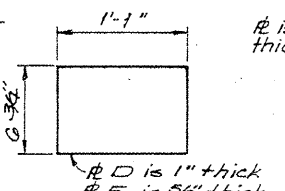
BOTTOM PLATE & LEAD PLATE
1 Bottom R & 1 Lead R Required for Each Bolster



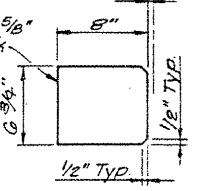
DETAIL "A"
(Shown with Top Plate A)



DETAIL "B"
① Typical for both Stiffeners (Shown w/o Side Retainer or Web Plate E)

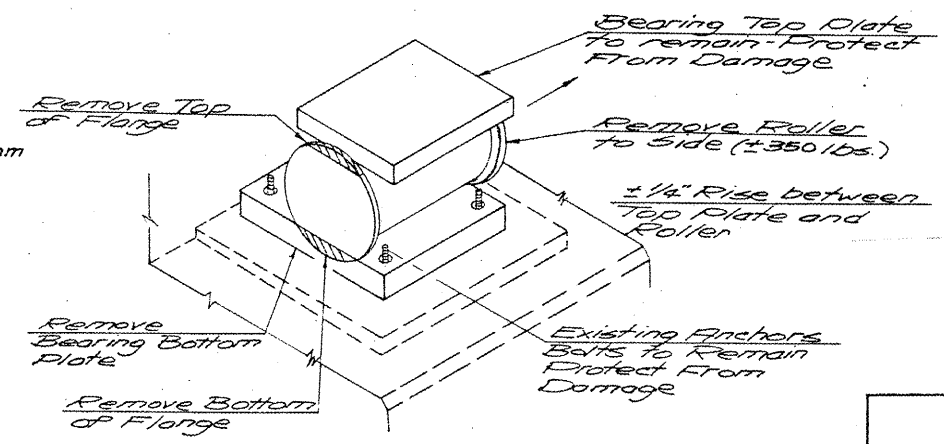


WEB PLATES D & E
1 Web Plate A & 2 Web Plates B Required for each Bolster

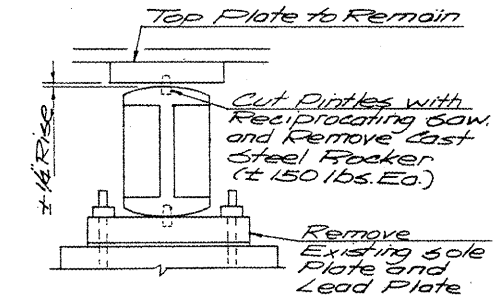


STIFFENER
2 Required for each bolster

PIER 1 BOLSTER DETAILS



BEARING REMOVAL DETAIL AT ABUTMENT



BEARING REMOVAL DETAIL

Note: Work this sheet with sheets #12 & #13.

LOCATION NO.6
EXIST. BRIDGE PLANS
IL-50 OVER I-290
SN 016-0406