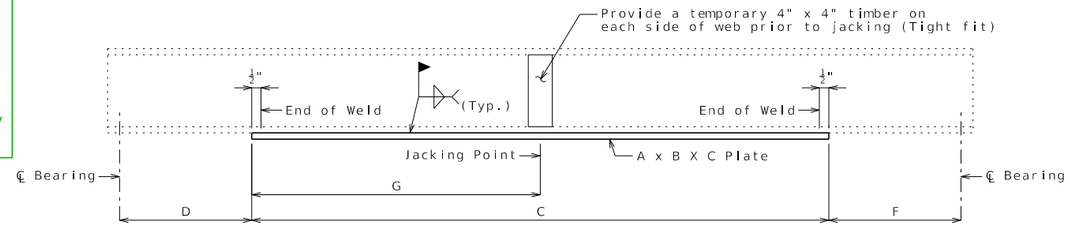
SEC/SUR * TWP * RGE *

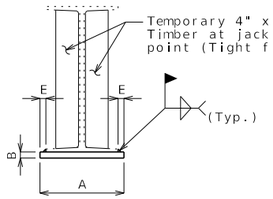
U.I.P., STRENGTHEN AND REHABILITATE EXISTING (X', X', X') WIDE FLANGE BEAM SPANS (SKEW: X)

STANDARD DETAILING GUIDANCE
(do not show on plans):
Use for adding welded cover plates and applying a jacking load to increase capacity.

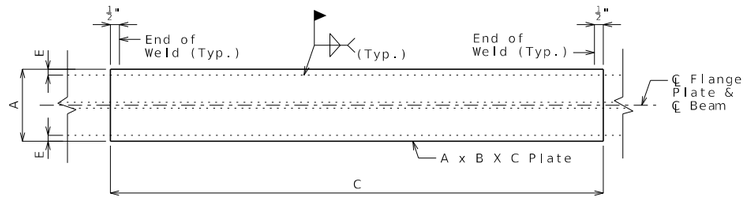
A "no jack" option may be used by designer in lieu of "jacking" option. Welding in both cases should not be performed under live load, especially direct live load.



TYPICAL ELEVATION OF BEAM
Span (-) and (-)



SECTION THRU BEAM



DETAIL OF FLANGE PLATE

Table of Variables

Beam Location		Dimensions								Load
		A	B	C	D	E	F	G	H	J

Estimated Quantities

Item		Total
Strengthening Existing Beams	Lump Sum	1

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications

Design Loading:

1993 Missouri Posting Loads (H20 & 3S2)
No Future Wearing Surface

Design Unit Stresses:

Structural Carbon Steel Fy= 36,000 psi (New Steel)
Existing Steel Fy = psi
Working Stress Design = 68% of Fy (Existing)

Paint:

Calcium Sulfonate (2 coats)

Beam Support:

All existing beams in the span being strengthened shall be raised simultaneously Dimension H at jacking point and supported during welding of new steel plates.

The temporary supports must be capable of safely supporting a service load of approximately Load J tons per beam (factor of safety not included). See special provisions.

Traffic Handling:

One lane of traffic shall be maintained on structure during construction. See roadway plans for traffic control.

Miscellaneous:

Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

Longitudinal dimensions are based on the original design plans.

Contractor shall verify all dimensions in field before finalizing the shop drawings.

REPAIRS TO BRIDGE: ROUTE * OVER *

ROUTE * FROM * TO *
ABOUT * MILES * OF *
STA. _____± (Match Existing)

DATE PREPARED 3/7/2024
ROUTE | STATE MO
DISTRICT | SHEET NO. 27
COUNTY
JOB NO.
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Detailed
Checked

Note: This drawing is not to scale. Follow dimensions.