

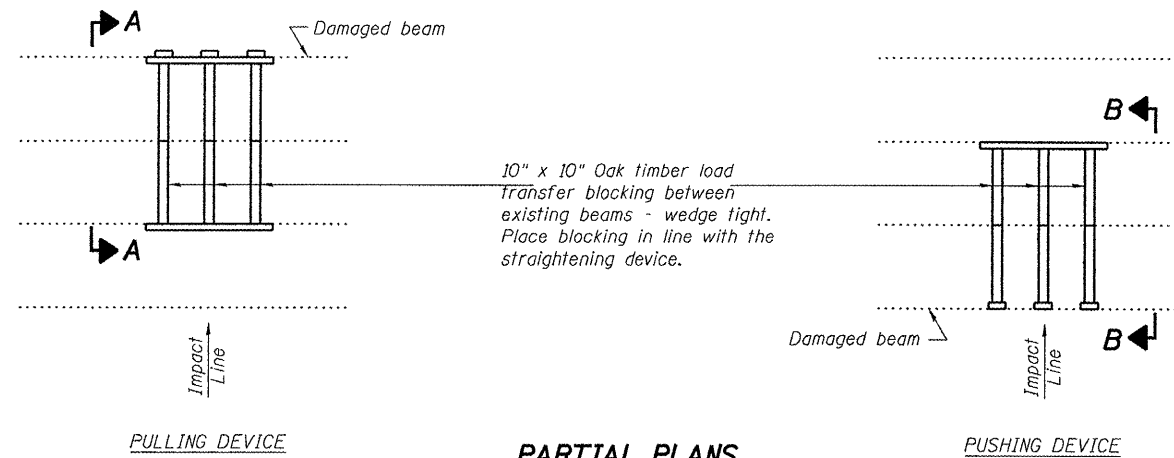
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAI 74	ΔΔ	Tazewell	14	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2

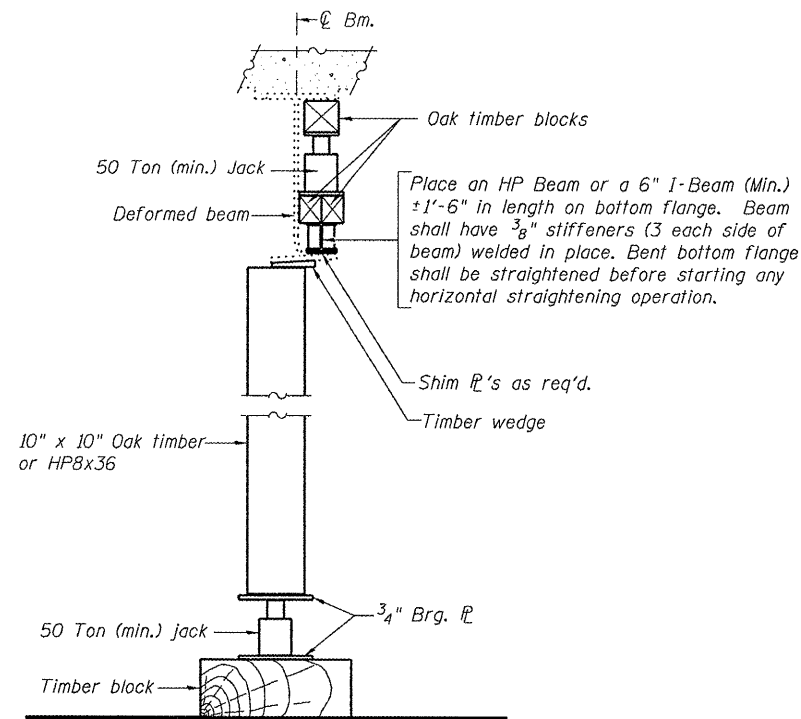
4 SHEETS

Contract Number: 68803  
ΔΔ D4MCHD2008

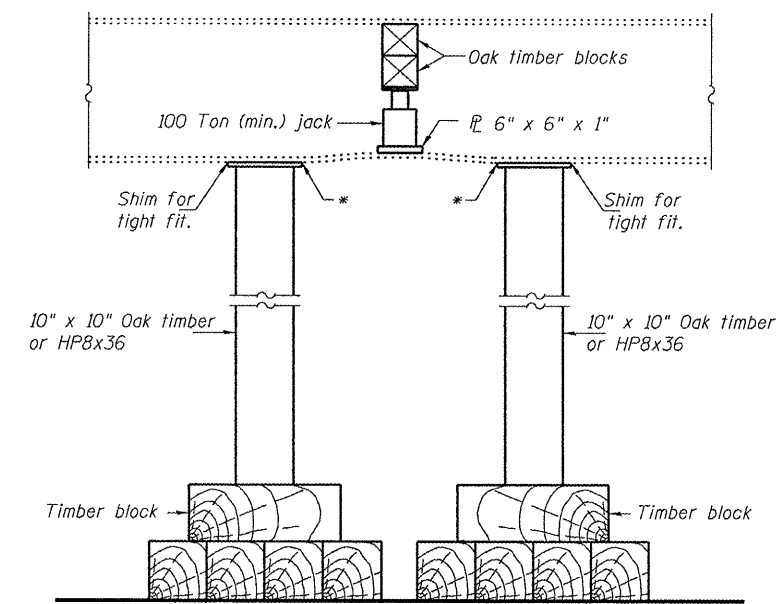


**PARTIAL PLANS**  
**SUGGESTED BEAM STRAIGHTENING METHODS**

Straightening force shall be maintained on all load transfer blocking during beam straightening.



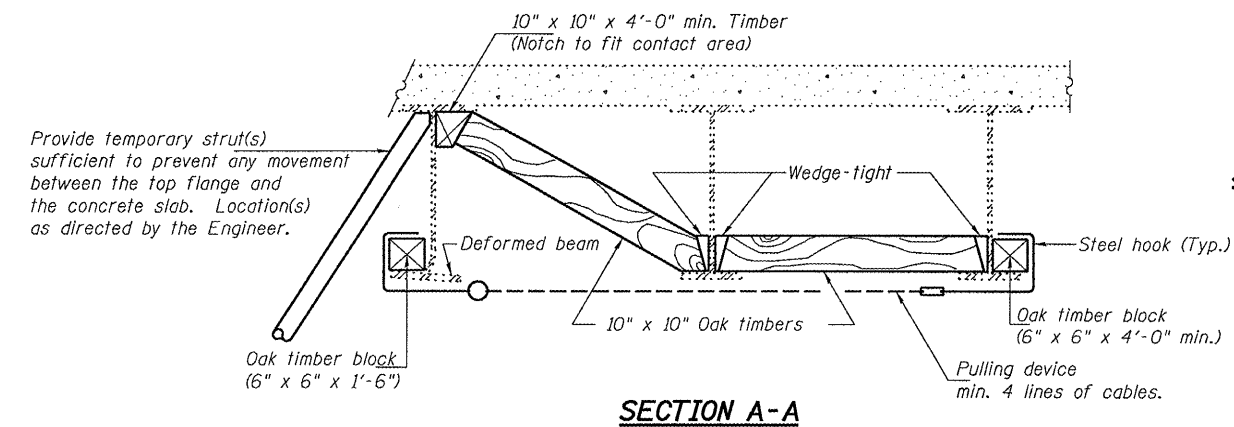
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct flange rotation.)



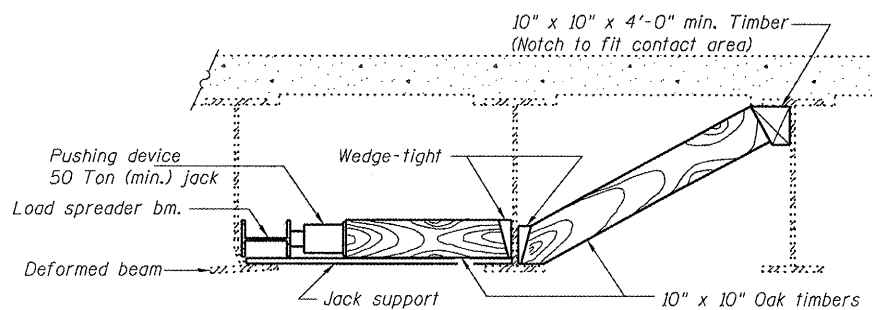
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct localized vertical flange deformations.)

\* Edge of plate shall line up with edge of deformation.

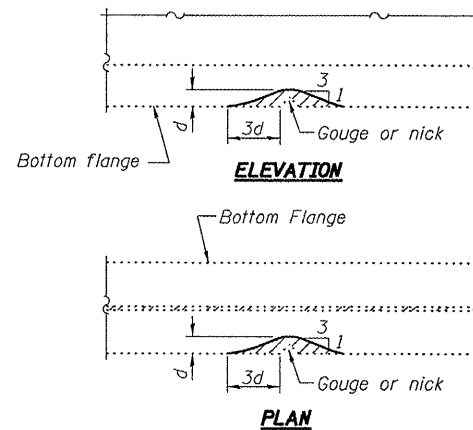
Note:  
Braces and jack assembly shall be placed on same side of web.  
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



**SECTION A-A**

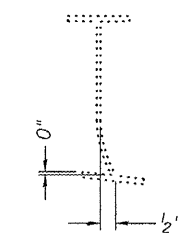


**SECTION B-B**



**GRINDING DETAIL**

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.



**EXISTING DEFORMATION TO BE STRAIGHTENED**

(Looking)  
(Approximate max. deflections)  
Deflected length of beam to be straightened is approximately .

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

April 15, 2008  
EXAMINED *Carl Kuyper*  
ENGINEER OF STRUCTURAL SERVICES  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**BEAM STRAIGHTENING DETAILS**

F.A.I. RT. 74  
TAZEWELL COUNTY  
SN 090-0091