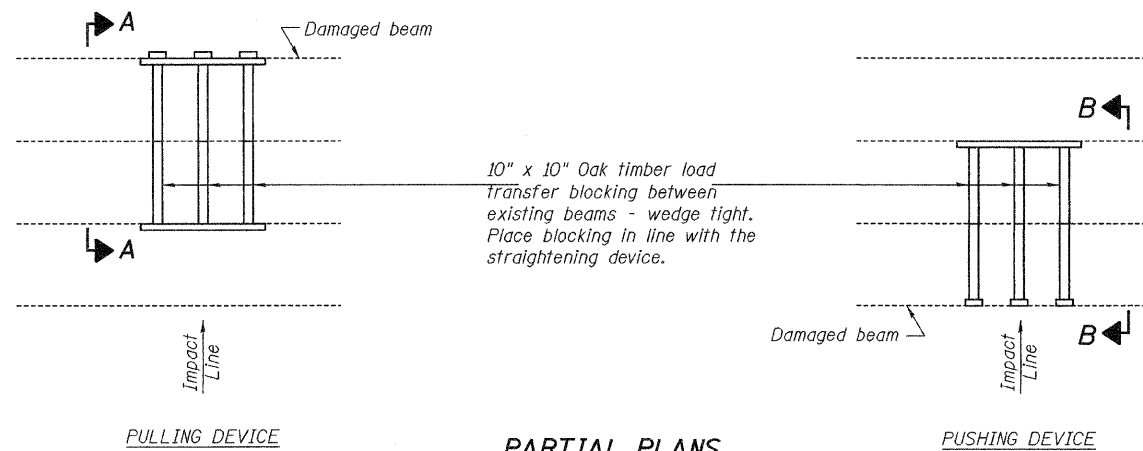
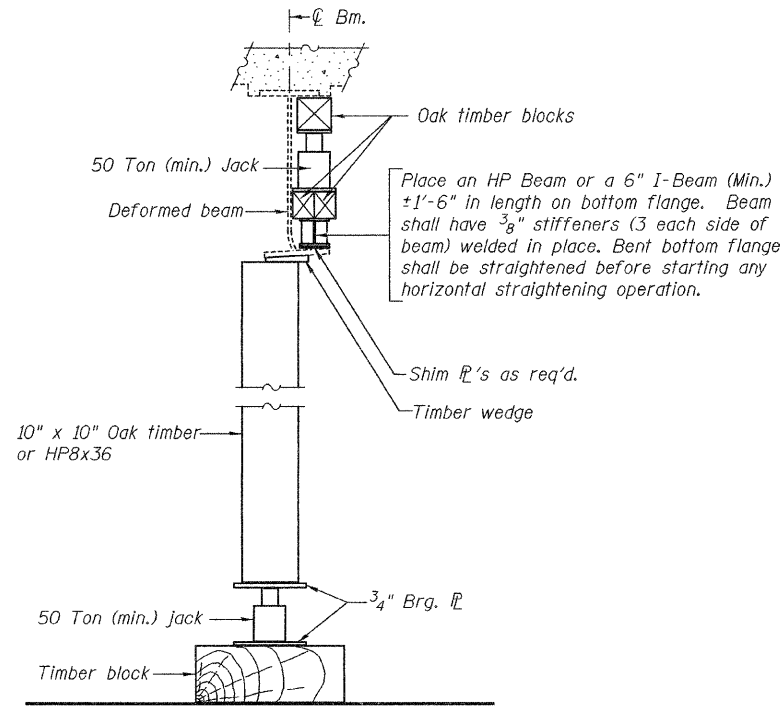


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

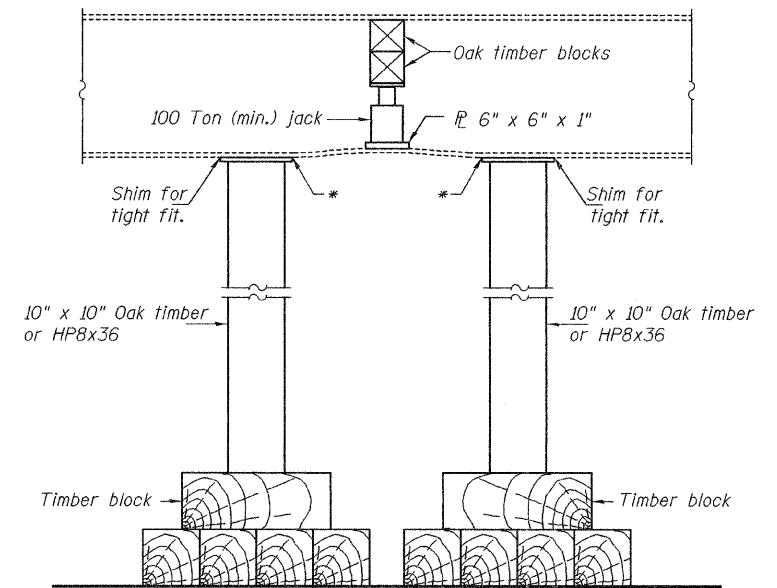


**PARTIAL PLANS**  
**SUGGESTED BEAM STRAIGHTENING METHODS**

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



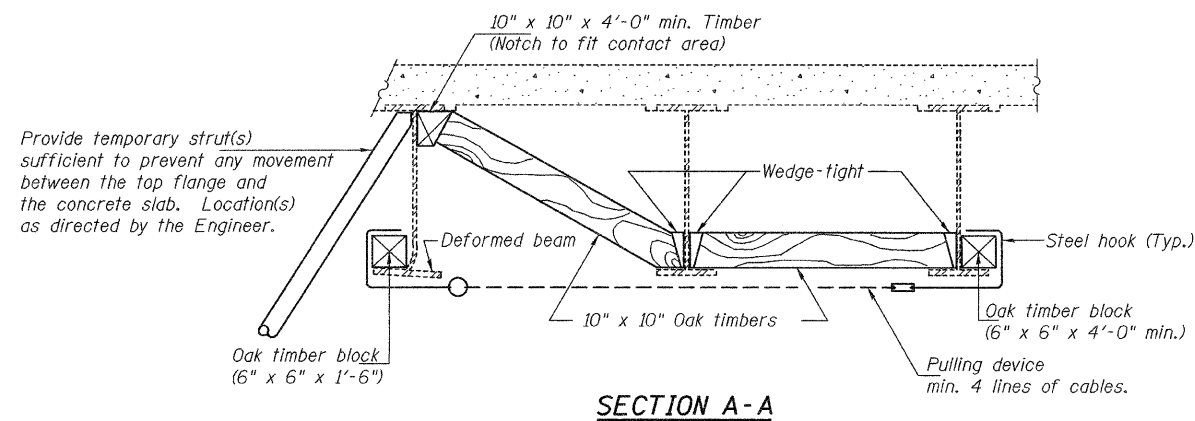
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct flange rotation.)



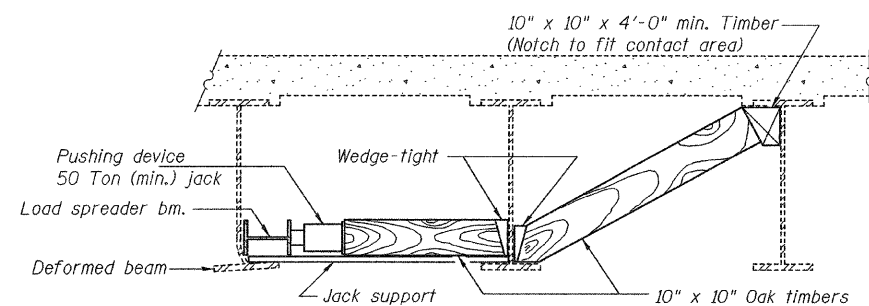
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
(To correct localized vertical flange deformations.)

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

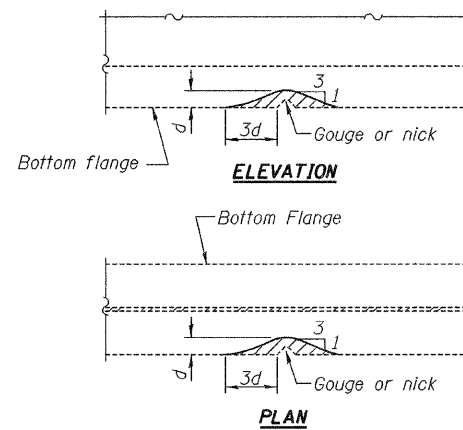
Note:  
Braces and jack assembly shall be placed on same side of web.  
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



**SECTION A-A**

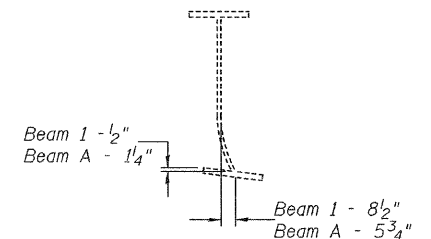


**SECTION B-B**



**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 East)  
(Approximate max. deflections)  
Deflected length of beam to be straightened is approximately 6'-0".

DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

EXAMINED	April 10, 2009
PASSED	Carl Pavesy ENGINEER OF STRUCTURAL SERVICES
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

**BEAM STRAIGHTENING DETAILS**  
**SN 060-0139**

SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	70	60-10HB-4R	Madison	420	207B
5 SHEETS	FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 76709

REP-1 1-14-2005  
SLT-98-001-09

Added Sheet 04/10/09 V.H.V. M.A.C.