STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

 $B \blacktriangleleft_1$

 $B \blacktriangleleft$

—Steel hook (Typ.)

Oak timber block

min. 4 lines of cables.

Pulling device

10" x 10" Oak timbers

(6" x 6" x 4'-0" min.)

PUSHING DEVICE



SHEET NO. 2 TOTAL Kane 14 5 ILLINOIS FED. ALD PROJECT

Shim for

tight fit.

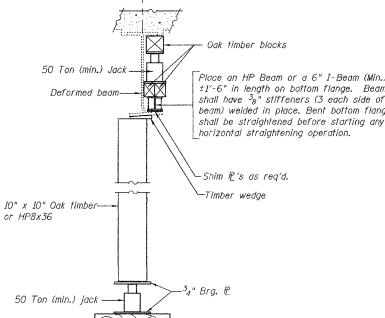
or HP8x36

10" x 10" Oak timber

Timber block

5 SHEETS

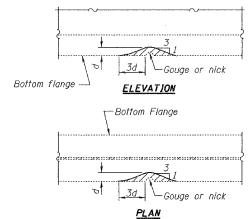
Contract Number: 60E17



SUGGESTED VERTICAL STRAIGHTENING DETAIL

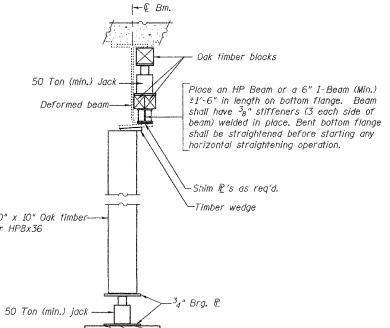
(To correct flange rotation.)

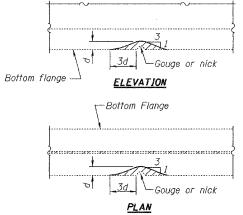
Timber block-

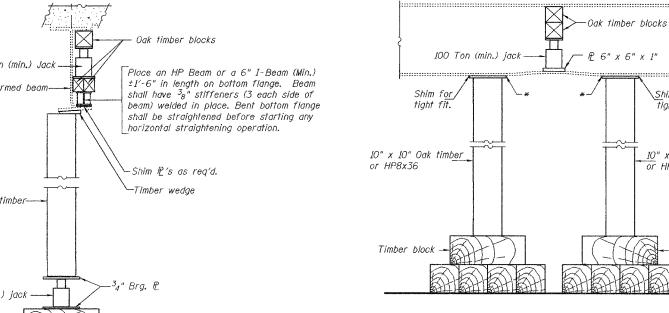


GRINDING DETAIL

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 \(\frac{1}{4} \)' 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.







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.



EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking West) (Approximate max, deflections) Deflected length of beam to be straightened is approximately ±23'-0".

BEAM STRAIGHTENING DETAILS F.A. RT. 365 KANE COUNTY SN.045-0081

DESIGNED J.S.B. CHECKED P.S.J. DRAWN Drew Christopher CHECKED J.S.B. P.S.J.

Oak timber blo<u>ck</u>

(6" x 6" x 1'-6")

Pushing device

Load spreader bm.

Deformed beam-

50 Ton (min.) jack

EXAMINED PASSED

□ Damaged beam

PULLING DEVICE

Provide temporary strut(s)

between the top flange and the concrete slab. Location(s)

as directed by the Engineer.

sufficient to prevent any movement

10" x 10" Oak timber load

Transfer blocking between existing beams - wedge tight.

straightening device.

Place blocking in line with the

PARTIAL PLANS

SUGGESTED BEAM STRAIGHTENING METHODS

10" x 10" x 4'-0" min. Timber

10" x 10" Oak timbers

SECTION A-A

SECTION B-B

(Notch to fit contact area)

Wedge-tight

∠ Jack support

Deformed beam

Straightening force shall be maintained on all load

transfer blocking during beam straightening.

Damaged beam ightharpoonup

-Wedge-tight —

10" x 10" x 4'-0" min, Timber-(Notch to fit contact area)

REP-1 1-14-2005 SLT-91-001-08