

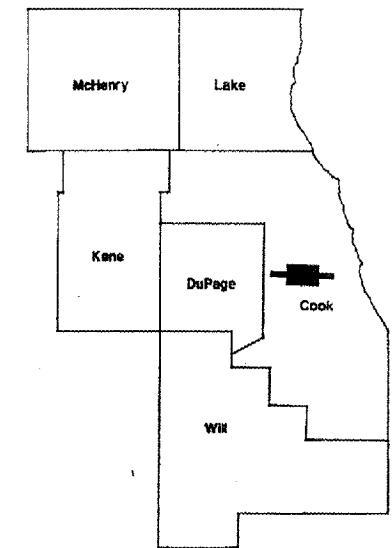
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 290	3333-212 VB-I	COOK	6	1

FOR INDEX OF SHEETS SEE SHEET 2

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT ONE
PROPOSED HIGHWAY PLANS**

CONTRACT NO. 62875

D-91-059-05



LOCATION OF IMPROVEMENT INDICATED THUS:

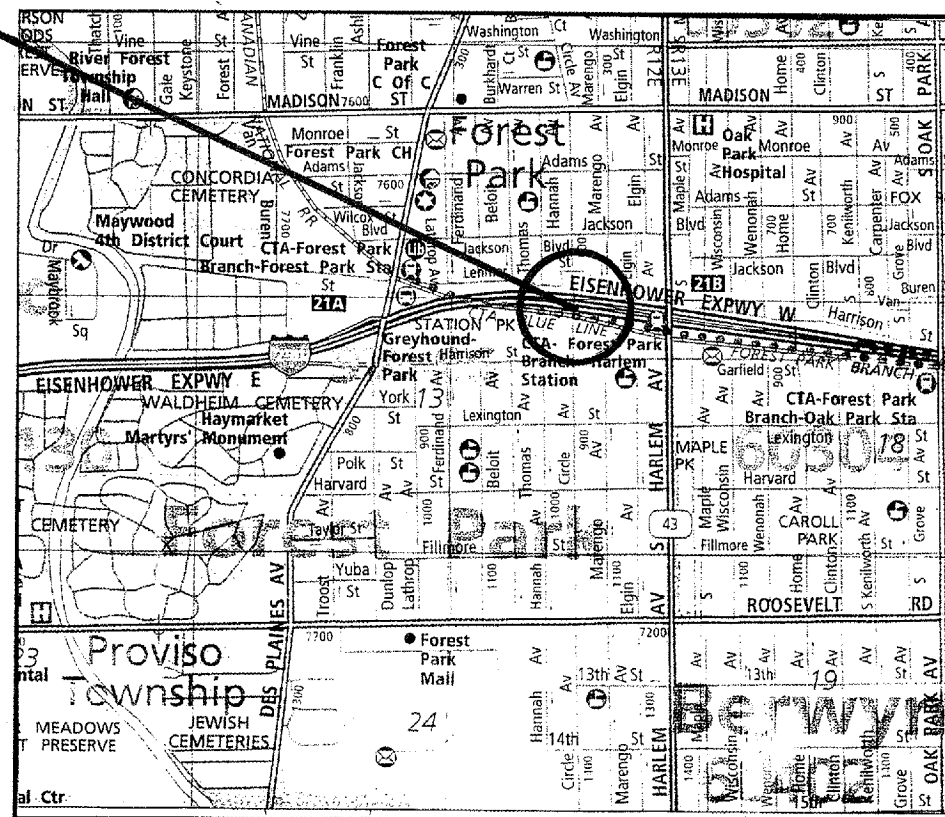
**IMPROVEMENT IS
LOCATED IN THE VILLAGE
OF FOREST PARK**

FAI 290: INTERSTATE 290
CIRCLE AVE. OVER I-290, RAILROAD, CTA
SECTION: 3333-212 VB-I
BRIDGE BEAM STRAIGHTENING & REPAIR
COOK COUNTY
C-91-059-05

**LOCATION OF
IMPROVEMENT AT
LOC. 1: SN 016-0995**

TRAFFIC DATA:

CIRCLE AVE.
SPEED LIMIT = 25 MPH



PROVISO TOWNSHIP

DISTRICT ONE - DESIGN - PLAN PREPARATION ENGINEER:
KEN ENG / ROBERT BORO (847) 705-4178

CONTRACT NO. 62875

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

SUBMITTED: March 23, 20 05
Dina O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13, 20 05
Mike Hene
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 20 05
Victor Modere
DIRECTOR, DIVISION OF HIGHWAYS

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

J.U.L.I.E.: JOINT UTILITY LOCATION
INFORMATION FOR EXCAVATION
(800) 892-0123

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 290	3333-212 VB-I	COOK	6	2

INDEX OF SHEETS

CONTRACT NO. 62875

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4 -5	BRIDGE BEAMS STRAIGHTENING PLANS
6	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

STATE STANDARDS

<u>STANDARDS</u>	<u>DESCRIPTION</u>
701301 - 02	LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
701501 - 03	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, I.D.O.T.'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UPMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

ILLINOIS DEPARTMENT OF TRANSPORTATION INDEX OF SHEETS STATE STANDARDS GENERAL NOTES
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ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 290	3333-212 VB-I	COOK	6	3

SUMMARY OF QUANTITIES			URBAN 100% MCHD TOTAL QUANTITIES	CONSTRUCTION TYPE CODE SFTY - 2A				
CODE NO	ITEM	UNIT		COOK COUNTY				
				SN 016-0995				
50501130	STRUCTURAL STEEL REPAIR	POUND	1600	1600				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	1	1				
67100100	MOBILIZATION	L SUM	1	1				
70102670	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1				
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE	SQ FT	48	48				
Z0003600	BEAM STRAIGHTENING	L SUM	1	1				
Z0048665	RAILROAD PROTECTION LIABILITY INSURANCE	L SUM	1	1				

ILLINOIS DEPARTMENT OF
TRANSPORTATION
SUMMARY OF QUANTITIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 90		COOK	6 4	1
FED. ROAD DIST. NO. 7	ALLIANCE	FED. AID PROJECT	2 SHEETS	

Contract No. 62875

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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. Cost included with Beam Straightening. 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.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

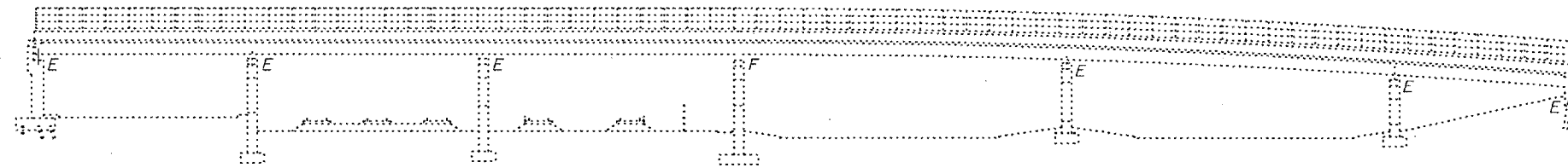
Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Structural Steel Repair.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

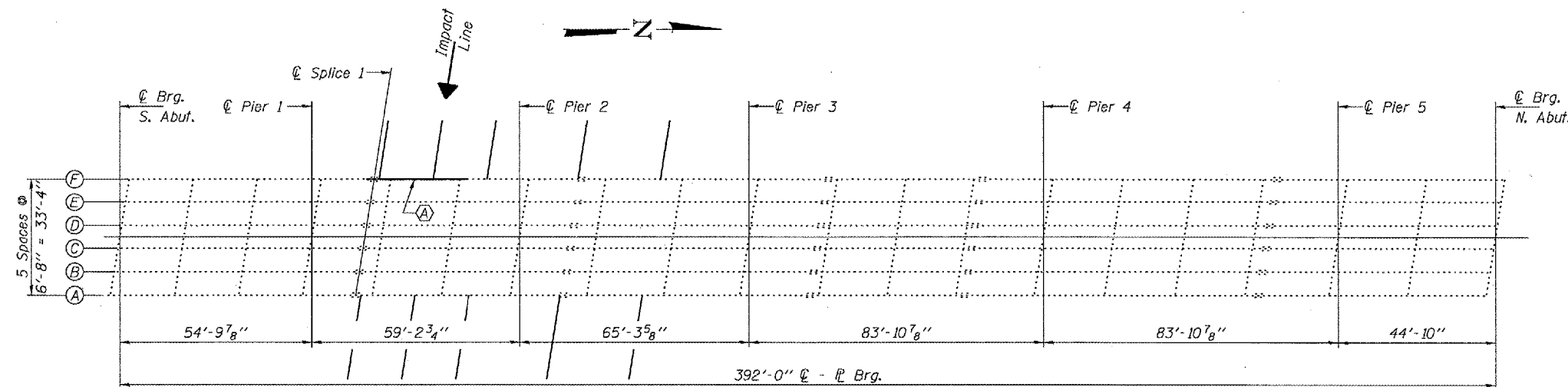
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision "Cleaning and Painting New Metal Structures".



ELEVATION



PLAN

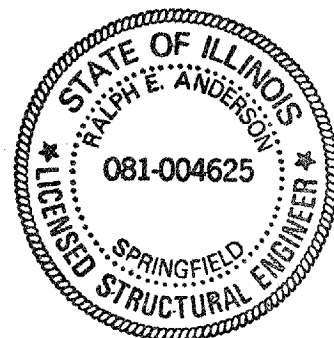
(A) Straighten & Strengthen existing beam.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	1600
Beam Straightening	L.S.	1

DESIGNED	<i>Henry S. Ryke</i>
CHECKED	<i>Donald Johnson</i>
DRAWN	baliva
CHECKED	<i>LJB / PJ</i>

APRIL 11, 2005
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

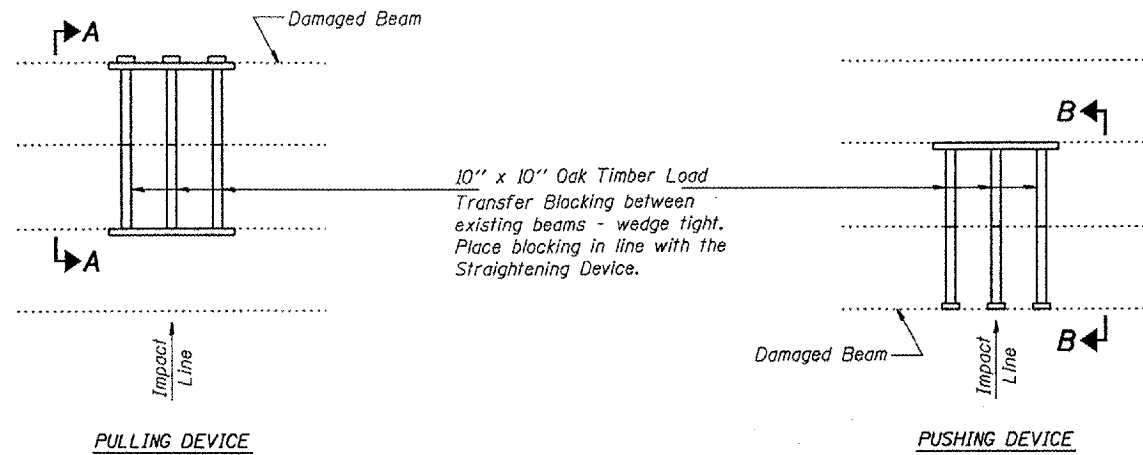


EXPIRES 11-30-06

PLAN AND ELEVATION
CIRCLE AVE. OVER I-290, CSX & CTA
COOK COUNTY
S.N. 016-0995

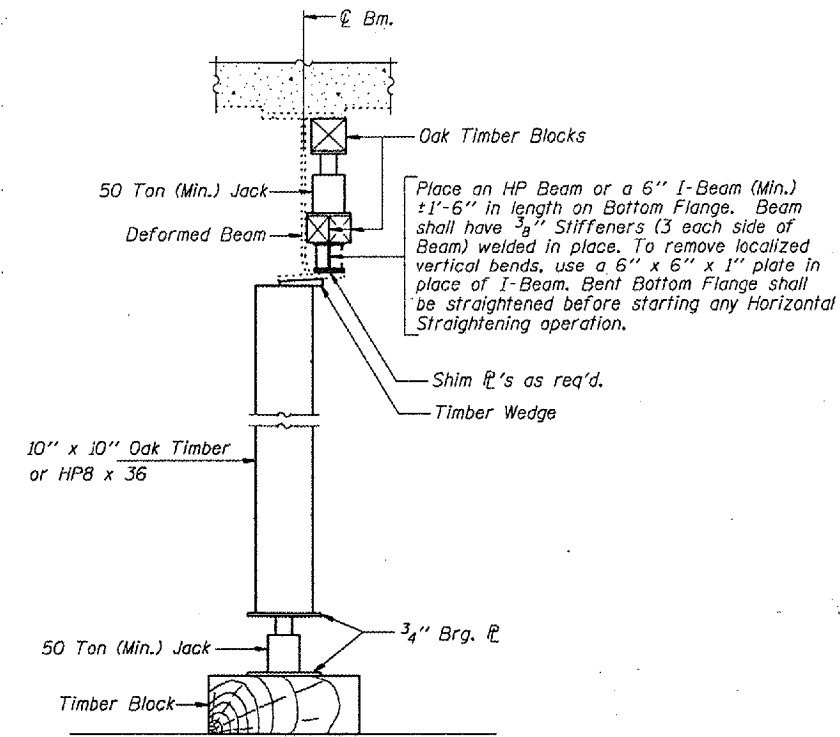
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	JOBS	SHEET	SHEET NO. 2
FAI 90		COOK	6	5	2 SHEETS
FED. ROAD DIST. NO. 7					Contract No. 62875

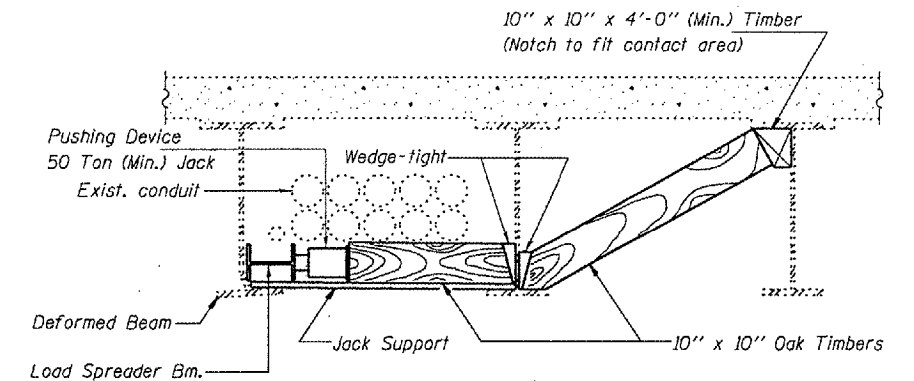


PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

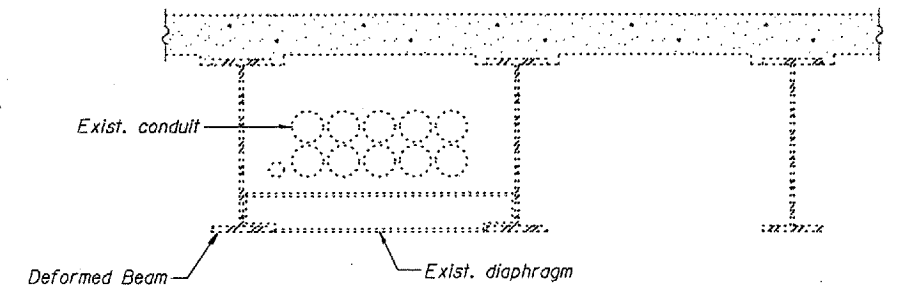
Straightening force shall be maintained on all load transfer blocking during beam straightening.



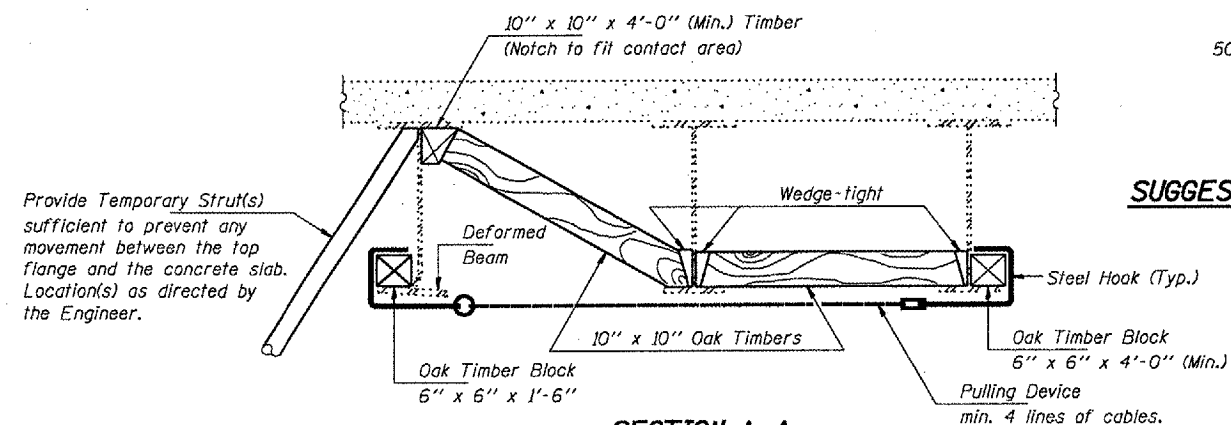
SUGGESTED VERTICAL STRAIGHTENING DETAIL



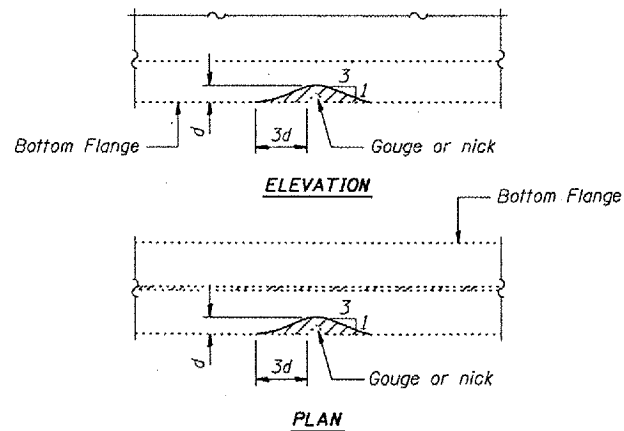
SECTION B-B
(At location of straightening procedure)



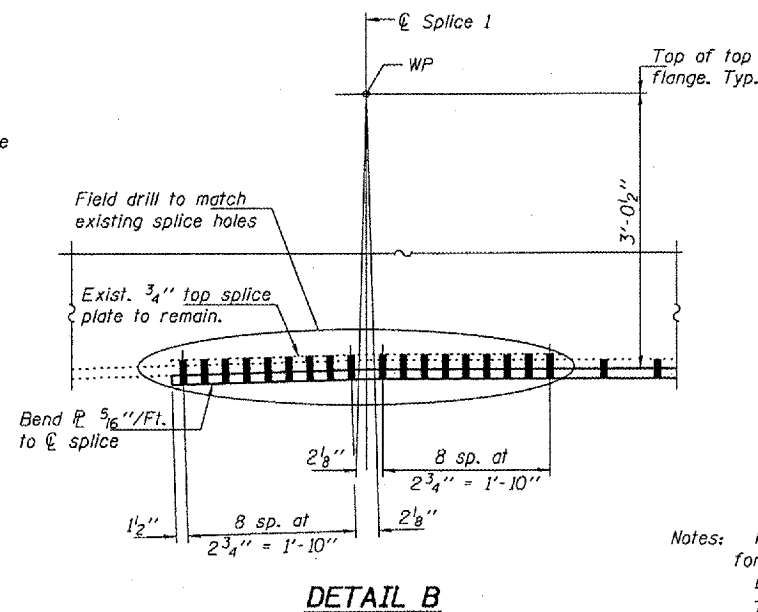
SECTION B-B
(At diaphragm location)



SECTION A-A



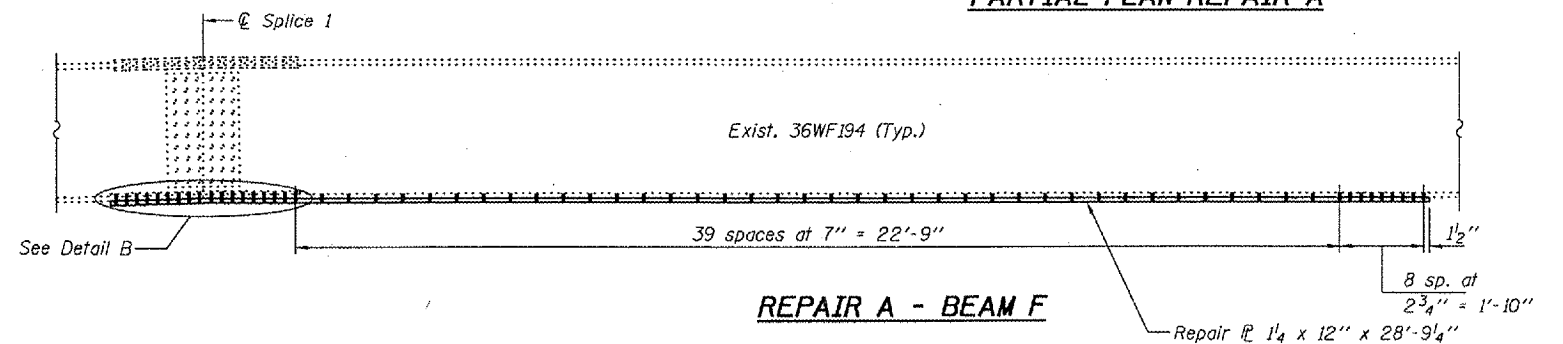
GRINDING DETAIL



DETAIL B

EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking South)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 24'-6".



REPAIR A - BEAM F

PARTIAL PLAN REPAIR A

DESIGNED	JSB
CHECKED	PSJ
DRAWN	baliva
CHECKED	JSB PSJ

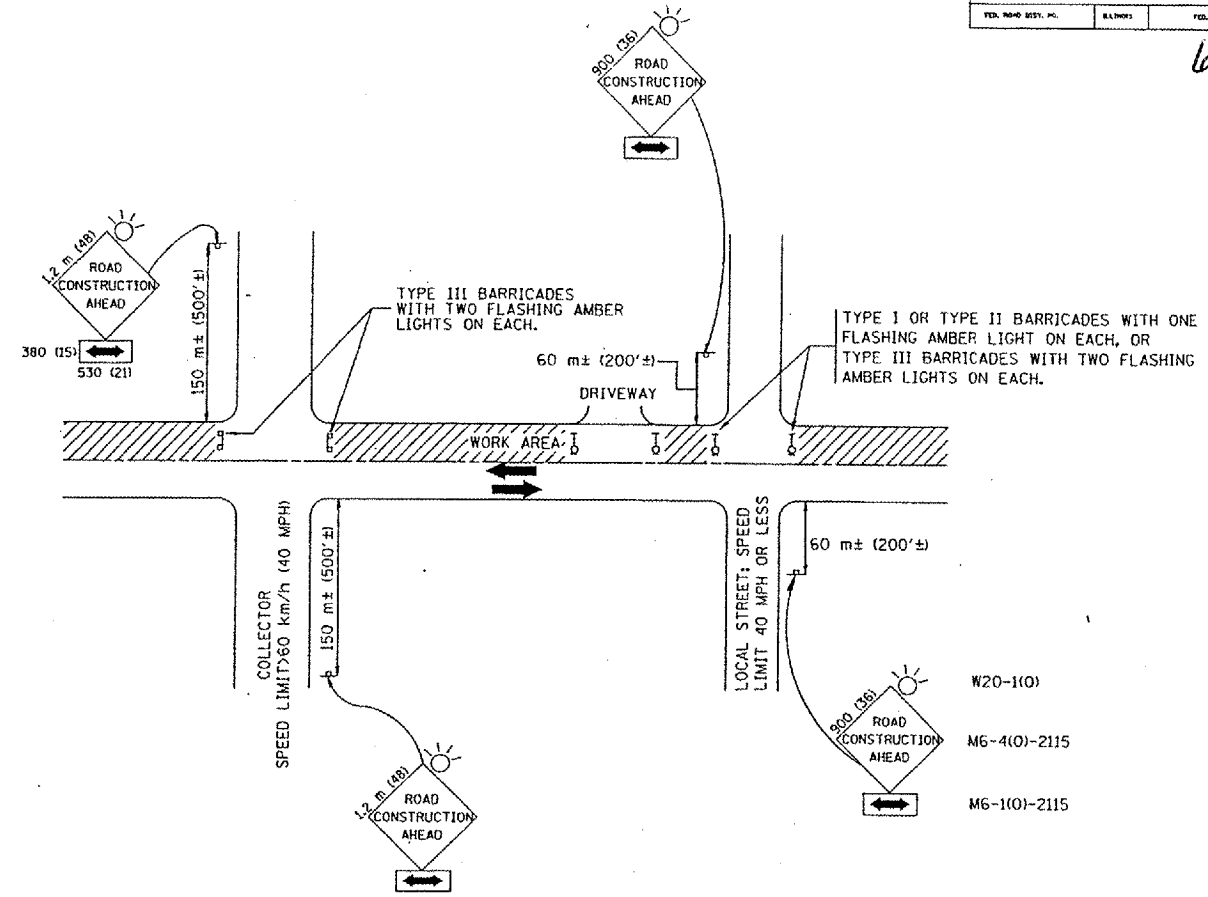
EXAMINED	John A. Morris	APRIL 11, 2005
PASSED	Ralph E. Anderson	

Notes: Fasteners shall be high strength bolts. Holes for Repair A shall be 5/16" φ for 7/8" φ bolts.
Existing bolts shall not be re-used.
The cost of field drilling required for installation of the steel members is included with Structural Steel Repair.

BEAM STRAIGHTENING
CIRCLE AVE. OVER I-290, CSX & CTA
COOK COUNTY
S.N. 016-0995

F. A. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-70		COOK	6	6
STA.	TO STA.			
FED. ROAD DIST. NO.	RAILROAD	FED. AID PROJECT		

62875



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).**
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

All dimensions are in millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

SCALE: NONE
 DATE: 01/21/00
 DRAWN BY
 CHECKED BY