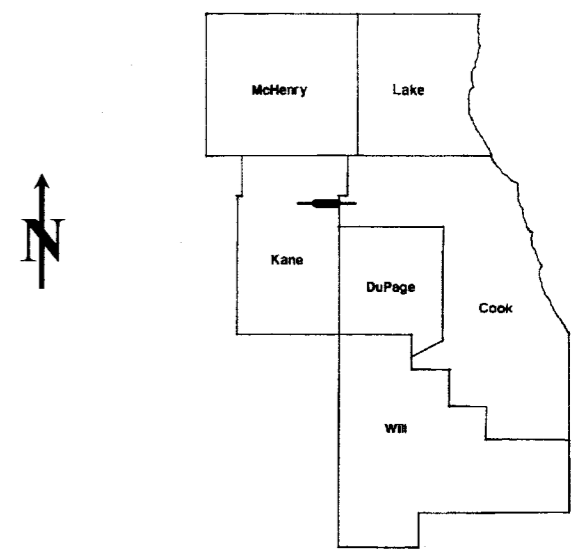


FA ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
	2009-DL	KANE	5	1

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

FOR INDEX OF SHEETS SEE SHEET 2

US 20
OVER ST CHARLES ST
SECTION 2009-DL
SN 045-0006
MCHD #679228
STEEL REPAIR
KANE COUNTY

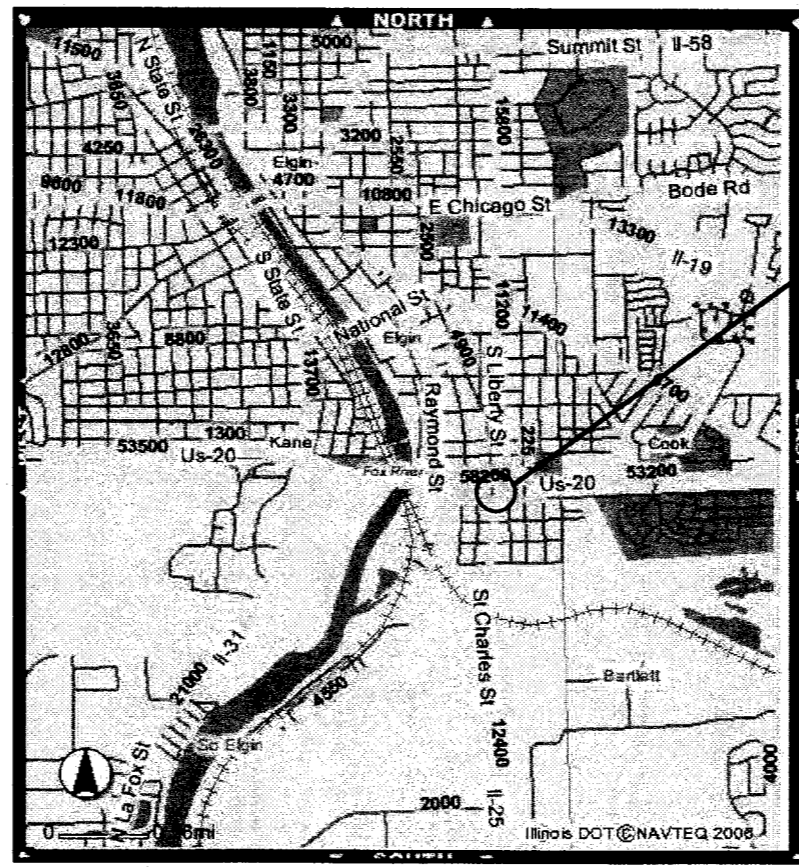


LOCATION OF IMPROVEMENT INDICATED THUS:

TRAFFIC DATA

US20 ADT = 58,200
 US 20 POSTED SPEED LIMIT = 55 MPH

 ST CHARLES ST POSTED SPEED = 35 MPH



Location of Work

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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

DAY LABOR NO.

DISTRICT ONE BUREAU OF MAINTENANCE

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
	2008-DL	KANE	5	2

SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	TOTAL QUANTITY
BEAM STRAIGHTENING	L SUM	1
STRUCTURAL STEEL REPAIR	POUND	740
TRAFFIC CONTROL & PROTECTION STD 701501	L. SUM	1

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	INDEX OF SHEETS AND STATE STANDARDS
3-6	REPAIR PLANS
7	STD 701501

STATE STANDARDS

701501 URBAN LANE CLOSURE 2L 2W UNDIVIDED

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS
STATE STANDARDS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
		Kane	5	3
SHEET NO. 1 3 SHEETS				

GENERAL NOTES

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

Fasteners shall be high strength bolts. Bolts 7/8"φ, open holes 5/16"φ, 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/or 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 in the cost of Structural Steel Repair.

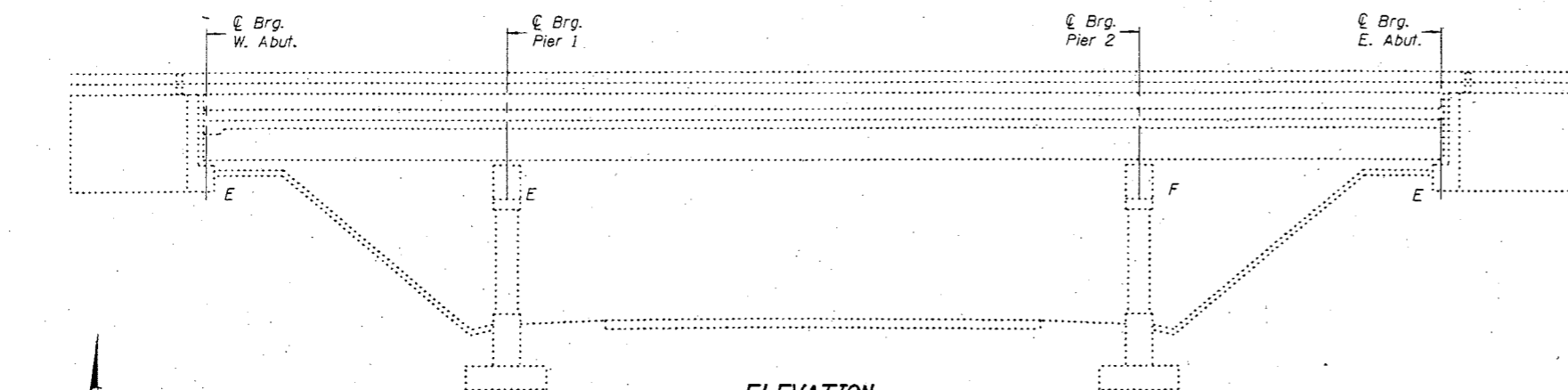
The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision "Cleaning and Painting New Metal Structures".

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".

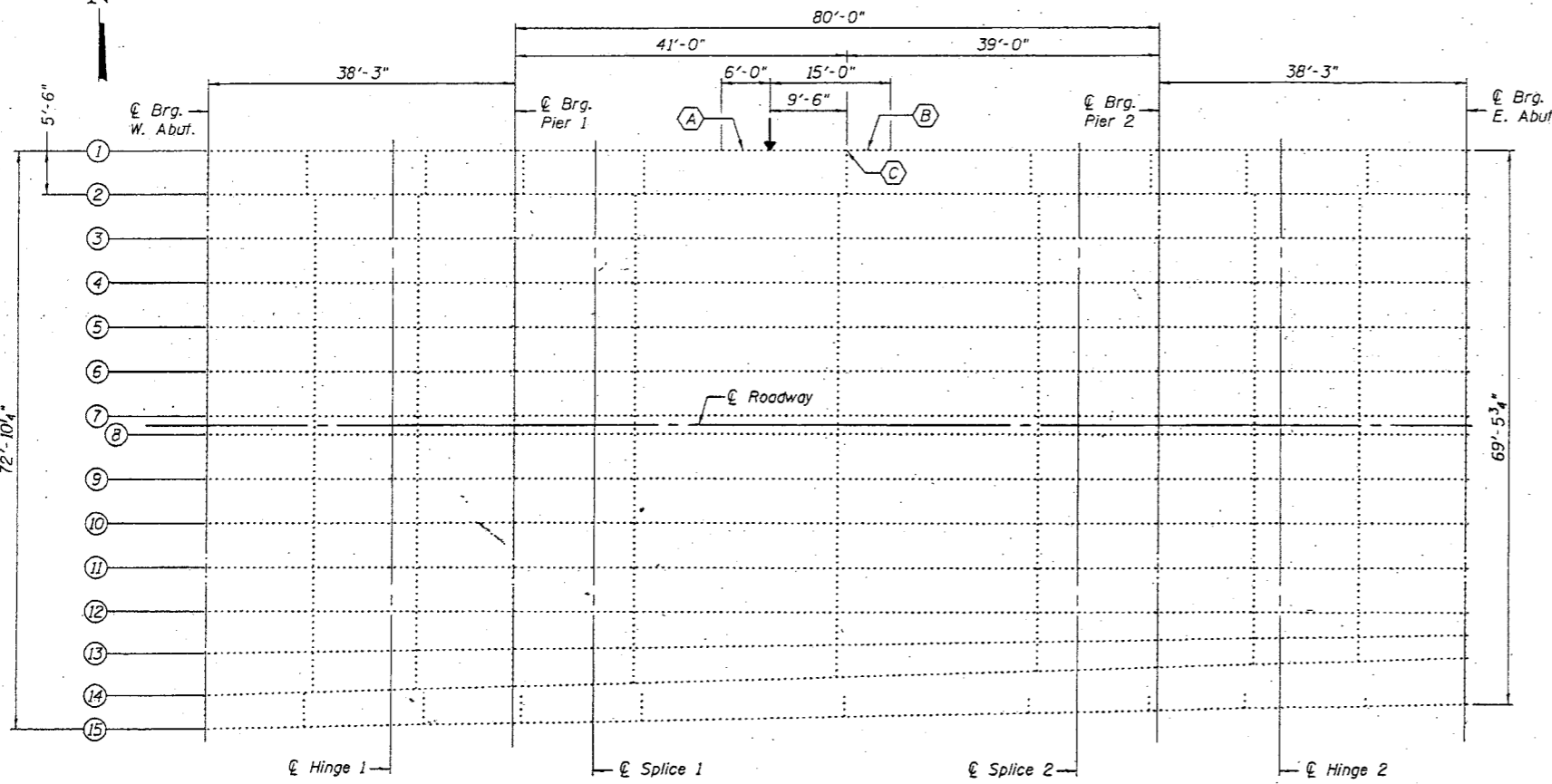
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the bottom flange strengthening plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Beam Straightening	L.S.	1
Structural Steel Repair	Pound	740



ELEVATION



PLAN

- (A) Straightening fascia beam.
- (B) Strengthening fascia beam.
- (C) Remove and Replace existing bottom clip angle.

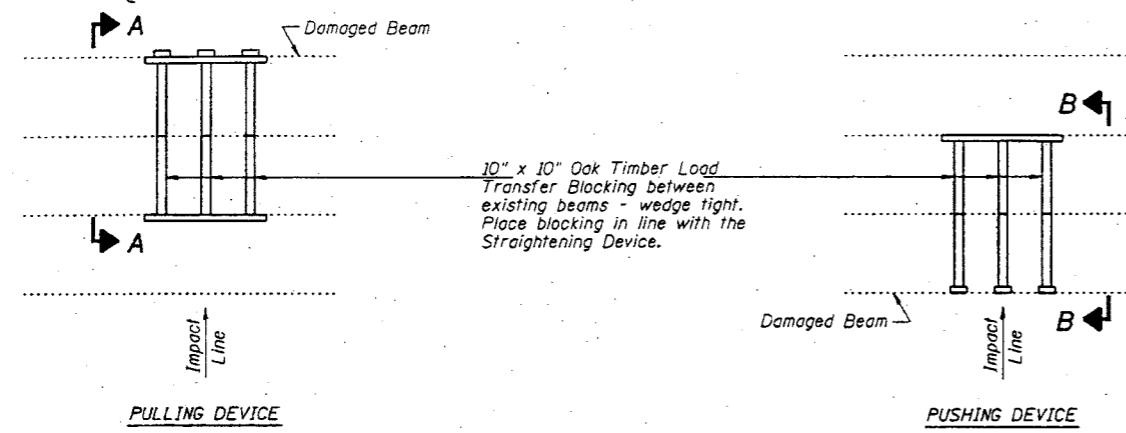
Impact
Line →

DESIGNED	A.T.H.	October 24, 2003
CHECKED	J.S.B.	EXAMINED <i>John A. Morris</i>
DRAWN	Drew Christopher	PASSED
CHECKED	A.T.H. J.S.B.	ENGINEER OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
F.A.P. RT. 426
OVER ST. CHARLES STREET
KANE COUNTY
SN.045-0006

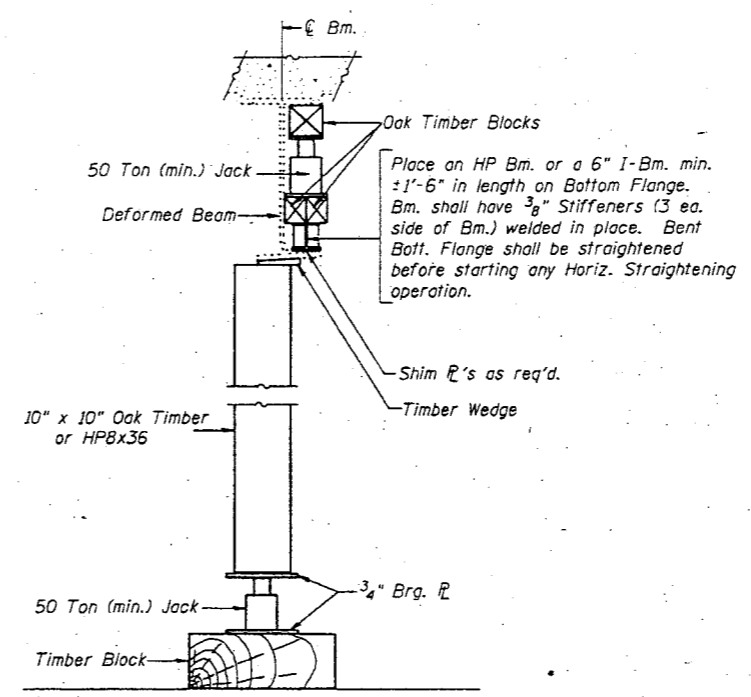
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUANT.	DATE	NO.	SHEET NO. 2
					3 SHEETS
Kane		5	4		
FED. AID DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

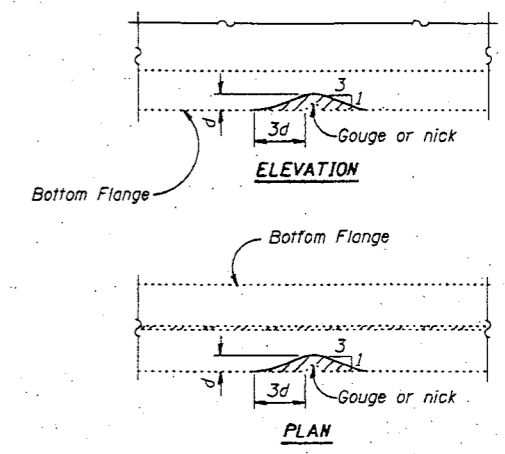


PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

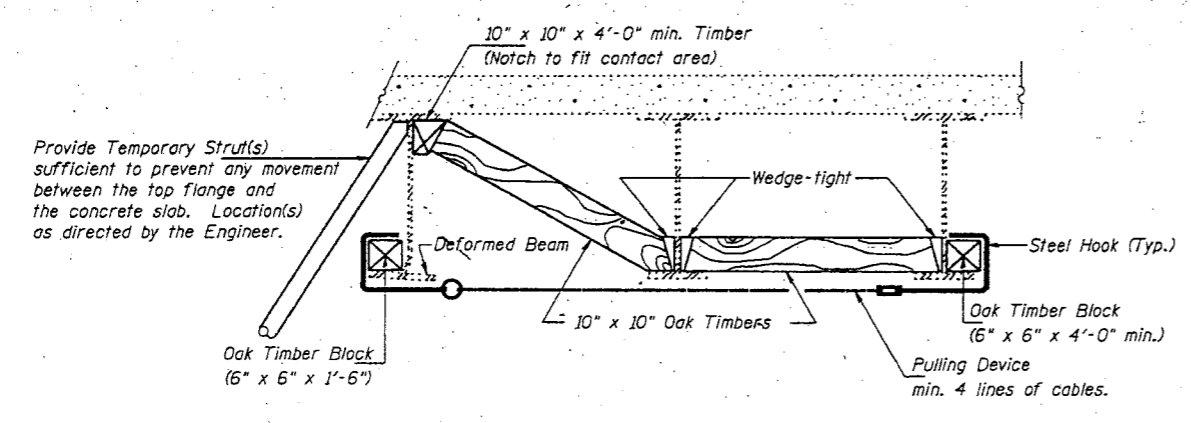
Straightening force shall be maintained on all load transfer blocking during beam straightening.



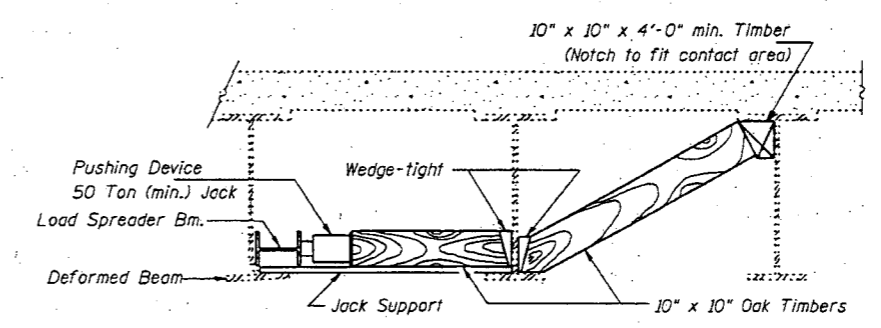
VERTICAL STRAIGHTENING DETAIL



GRINDING DETAIL



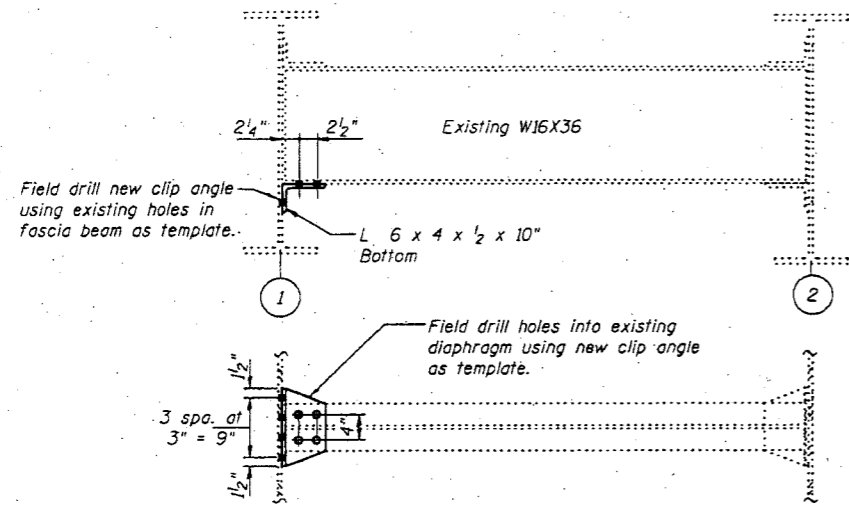
SECTION A-A



SECTION B-B

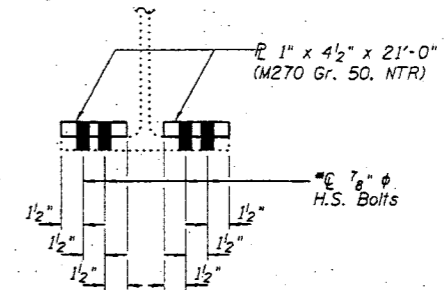
DESIGNED A.T.H.	October 24, 2003
CHECKED J.S.B.	EXAMINED <i>John A. Morris</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN Drew Christopher	PASSED
CHECKED A.T.H. J.S.B.	ENGINEER OF BRIDGES AND STRUCTURES
REP-1 1-27-2000	

BEAM STRAIGHTENING DETAILS
F.A.P. RT. 426
OVER ST. CHARLES STREET
KANE COUNTY
SN.045-0006



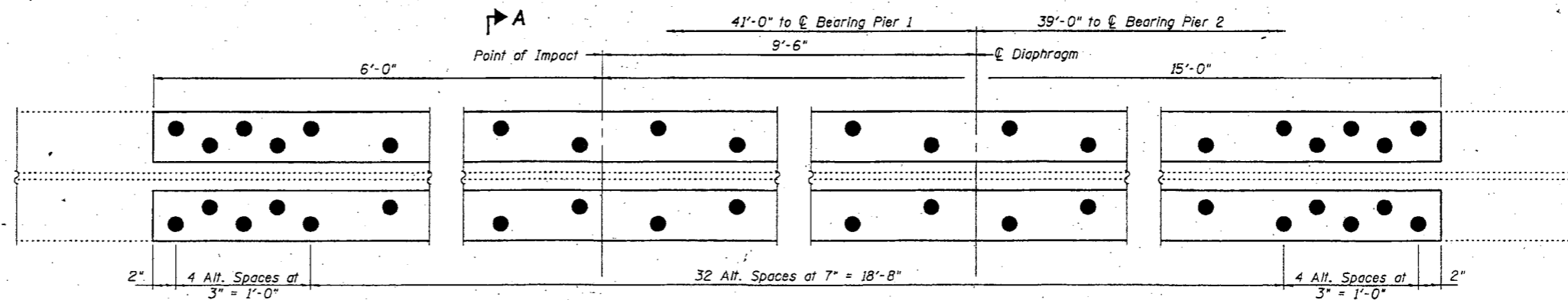
CLIP ANGLE REPLACEMENT DETAIL

Notes: Diaphragm connection holes shall be 5/16" φ for 3/4" φ bolts. Two hardened washers shall be required at diaphragm connections.



SECTION A-A

*Field drill 5/16" φ holes in beam using R as template after straightening beam.



**BEAM 1 PLAN
BEAM STRENGTHENING DETAIL**

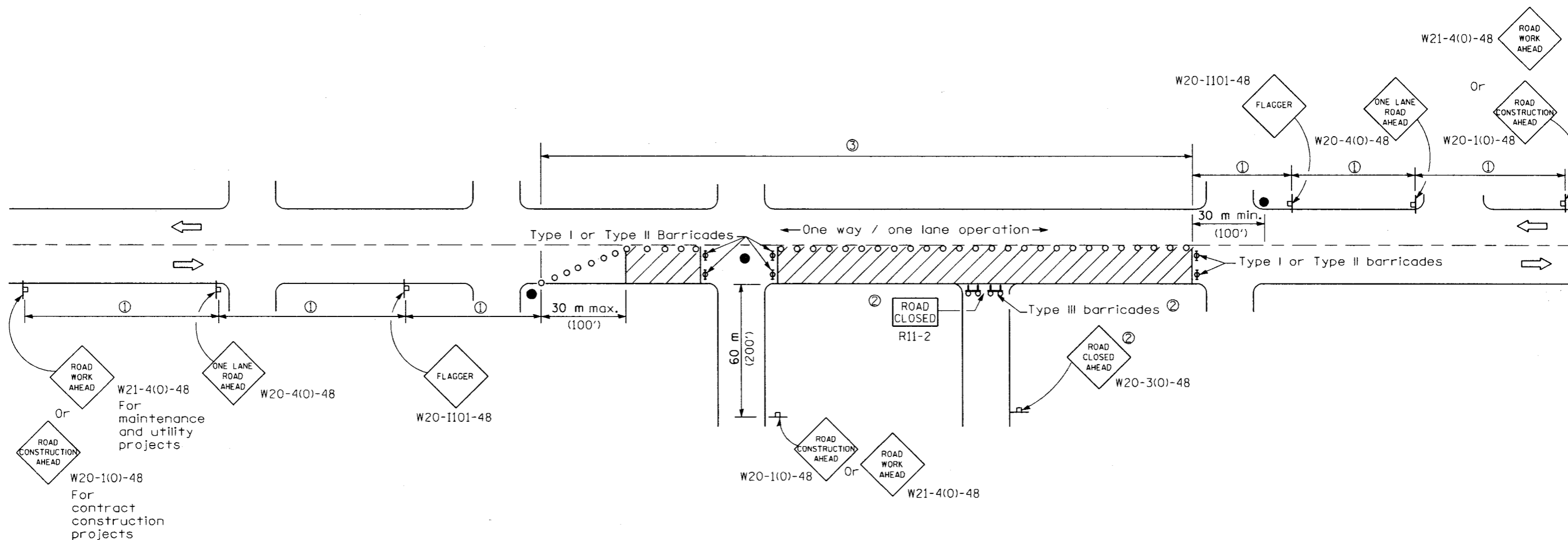
DESIGNED	A.T.H.
CHECKED	J.S.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. J.S.B.

October 24, 2003

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES







PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BEAM REPAIR DETAILS
F.A.P. RT. 426
OVER ST. CHARLES STREET
KANE COUNTY
SN.045-0006



SIGN SPACING	
Posted Speed	Sign Spacing
55	164 m (500')
50-45	115 m (350')
<45	60 m (200')

SYMBOLS

-  Work area
-  Cone, drum or barricade (not required for moving operations)
-  Sign on portable or permanent support
-  Flagger with traffic control sign
-  Barricade or drum with flashing light
-  Type III barricade with flashing lights

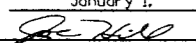
- ① Refer to SIGN SPACING TABLE for distances.
- ② For approved sideroad closures.
- ③ Cones at 8 m (25') centers for 75 m (250'). Additional cones may be placed at 15 m (50') centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

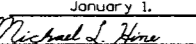
GENERAL NOTES

This Standard is used where at any-time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

Illinois Department of Transportation

APPROVED January 1, 2005

 ENGINEER OF OPERATIONS

APPROVED January 1, 1999

 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-05	Deleted FLAGGER SYMBOL sign and repositioned flaggers.
1-1-99	Rev. barr. or drum w/ flashing light sym. & add Type III barr. sym.

**URBAN LANE CLOSURE,
2L, 2W, UNDIVIDED**

STANDARD 701501-03