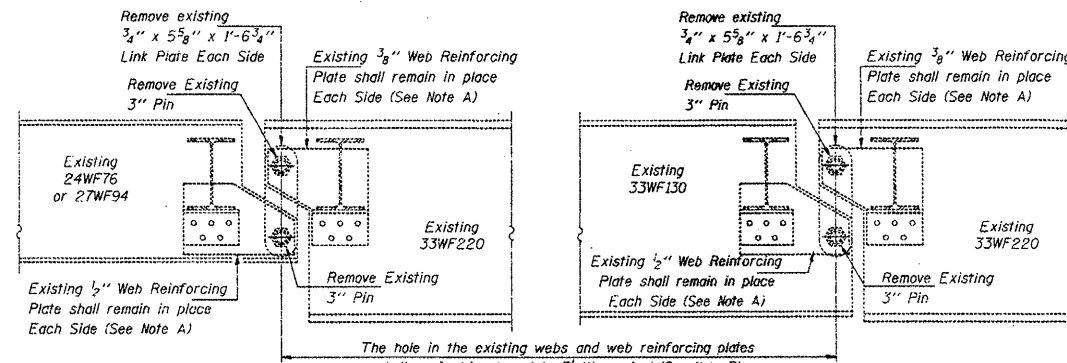


084-0083, 0082

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\* FAI 55 & FAI 55 (FRANTAGE RD)  
\*\* (84-3HB-2)I-1 & (110x-3VB)I

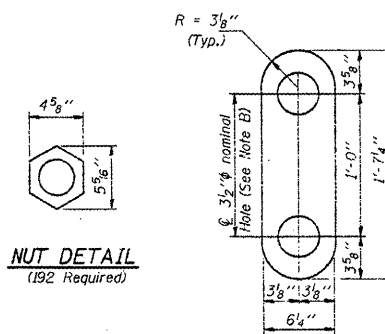
|                |          |                    |    |       |        |             |
|----------------|----------|--------------------|----|-------|--------|-------------|
| NO. 1          | SECTION  | DATE               | BY | CHKD. | APP'D. | SHEET NO. 1 |
| 1              | 1        | 11                 | 11 | 11    | 11     | 4 SHEETS    |
| PREPARED BY: 1 | ILLINOIS | PREL. DES. PROJECT |    |       |        |             |



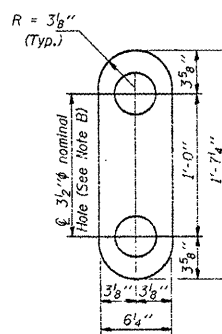
ELEVATION AT EXISTING PIN ASSEMBLY  
FOR INTERIOR BEAMS

ELEVATION AT EXISTING PIN ASSEMBLY  
FOR EXTERIOR BEAMS

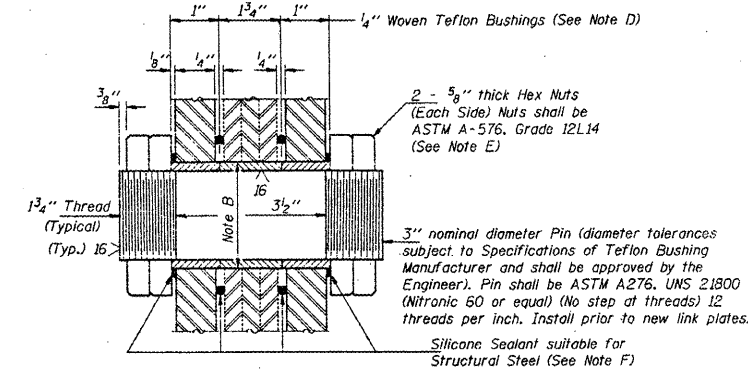
Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".



NUT DETAIL  
(192 Required)



LINK PLATE DETAIL  
(48 Required)



SECTION THRU PIN  
(48 Required)

GENERAL NOTES

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

The Contractor shall provide support and/or shoring systems for the beam in the area of existing pin and link plate replacement. See Special Provision "Temporary Support System."

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/B. See Special Provisions "Cleaning and Painting New Metal Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".

Existing Structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement". All existing steel surfaces behind link plates shall be cleaned and primed before installation of new link plates. Cost shall be included in the cost of "Pin and Link Plate Replacement."

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, except the pin diameters, 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.

The Pins and Link Plates shall conform to the minimum Charpy V-Notch Toughness of 25 ft.-lbs. at 40° F.

The pins, link plates, bushings, nuts and silicone sealant are the items included in "Pin and Link Plate Replacement".

BILL OF MATERIAL

| ITEM                           | UNIT | QUANTITY |
|--------------------------------|------|----------|
| Temporary Support System       | Each | 24       |
| Pin and Link Plate Replacement | Each | 24       |

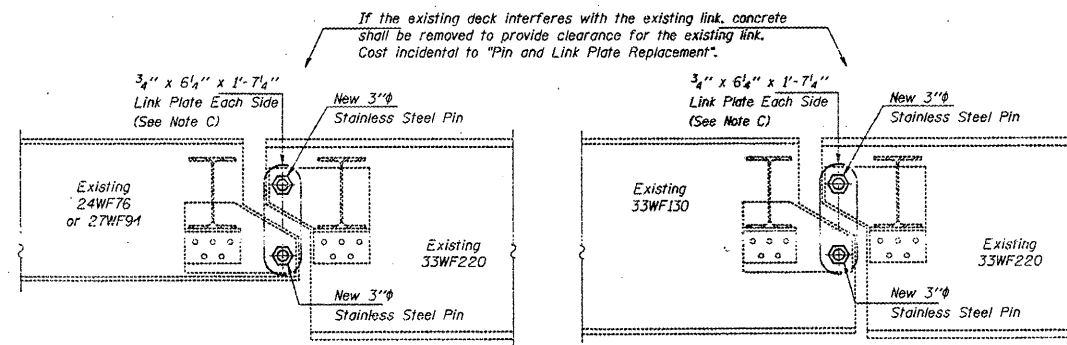
PIN AND LINK PLATE REPLACEMENT

F.A.I. RT. 55 SEC. 84-3HB-2I

SANGAMON COUNTY

STA. 172+01.81

STR. No. 084-0082 AND 084-0083



ELEVATION AT NEW PIN ASSEMBLY  
FOR INTERIOR BEAMS

ELEVATION AT NEW PIN ASSEMBLY  
FOR EXTERIOR BEAMS

MAXIMUM REACTIONS AT PIN

|         |     |      |
|---------|-----|------|
| RP      | (K) | 15.5 |
| RL      | (K) | 27.3 |
| Imo.    | (K) | 8.3  |
| R Total | (K) | 51.6 |

Note A:  
Existing welds shall be inspected for cracks using liquid dye penetrant or magnetic particle testing. Any cracks that are found shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new link plates.

Note B:  
Bore diameter for bushing in link plate, existing webs and web reinforcement plates shall correspond to bushing manufacturer's allowable tolerances for proper functioning. Hole diameter may be adjusted to allow use of stock bushings.

Note C:  
Inside face of new link plates shall receive first field coat in shop. The primer shall pass the M.E.K. Rub Test before the first field coat is applied.

Note D:  
Actual bushing thickness per manufacturer's specifications, 1/4" is approximate. Bushings shall be a self lubricating filament wound epoxy matrix backed Duralon Bearing, metal backed Fiber Glide Bearing or equivalent. No primer or grease shall be allowed on bushings. Bushings shall be suitable for dynamic loads of 20,000 psi.

Note E:  
Tighten inside nuts to bring all bushings into firm contact, then back off 1/4 turn and tighten outer nuts.

Note F:  
Apply 3/8" bead to face of the web reinforcing plates approximately 1/2" from bushing immediately before installing new link plates. Place sealant around nuts after installation. Sealant shall be suitable for prolonged exterior exposure without losing flexibility or adhesion to painted steel surfaces. Proposed products shall be subject to Department's acceptance based on documented testing or other evidence.

|          |                              |                              |
|----------|------------------------------|------------------------------|
| DESIGNED | <i>Handwritten Signature</i> | APRIL 17, 1997               |
| CHECKED  | <i>Handwritten Signature</i> | <i>Handwritten Signature</i> |
| DRAWN    | <i>Handwritten Signature</i> | PASSED                       |
| CHECKED  | <i>Handwritten Signature</i> | <i>Handwritten Signature</i> |

FOR INFORMATION ONLY

EXISTING PLANS SN084-0082,0083  
FAI 55 (I-55)  
D-6 REHAB BDGE PAINTING 2010  
SANGAMON COUNTY