

S.N. 059-0044 was originally built in 1973. It is a two-span, steel continuous structure with vaulted PPC I-beam concrete approaches. The structure length is 254'-0" back-to-back approach bents and the width is 46'-0" out-to-out. The two steel span lengths are both 100'-5" and the PPC I-beam spans are both 26'-7" with a 10 deg skew.

Structure to be repaired using staged construction. Bridge deck joints, abutment bearings and wearing surface to be replaced.

No Salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

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

All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
HMA Surface Course, Mix "C", N50	Ton	115.0
HMA Surface Removal (Deck)	Sq. Yd.	1170
Concrete Removal	Cu. Yd.	9.5
Concrete Superstructure	Cu. Yd.	10.8
Protective Coat	Sq. Yd.	31
Jack and Remove Existing Bearings	Each	12
Reinforcement Bars, Epoxy Coated	Pound	2070
Bar Splicers	Each	28
Preformed Joint Strip Seal	Foot	91
Elastomeric Bearing Assembly, Type I	Each	12
Waterproofing Membrane System	Sq. Yd.	1174
Concrete Sealer	Sq. Ft.	2260
Structural Repair of Concrete		
Depth equal to or less than 5 inches	Sq. Ft.	93
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10.5
Deck Slab Repair (Partial)	Sq. Yd.	54.2
Protective Shield	Sq. Yd.	380
Anchor Bolts, 1"	Each	48
Furnishing & Erecting Structural Steel	Pound	2320

INDEX OF SHEETS

- 1 General Plan
- 2 Staging Typical
- 3&4 Deck Joint Repairs
- 5 Preformed Joint Strip Seal
- 6 Bearing Details
- 7 Deck Patching Plan
- 8 Abutment Patching Plan
- 9 Bar Splicer Assembly and Mechanical Splicer Details
- 10 Temporary Concrete Barrier

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

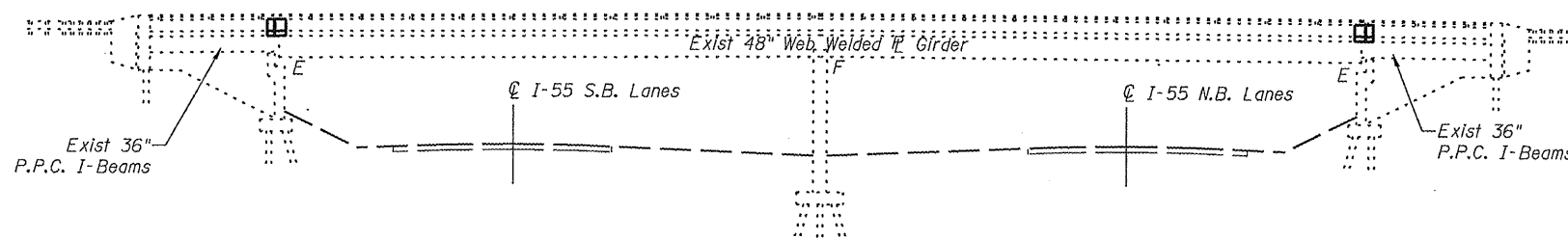
2002 AASHTO

DESIGN STRESSES

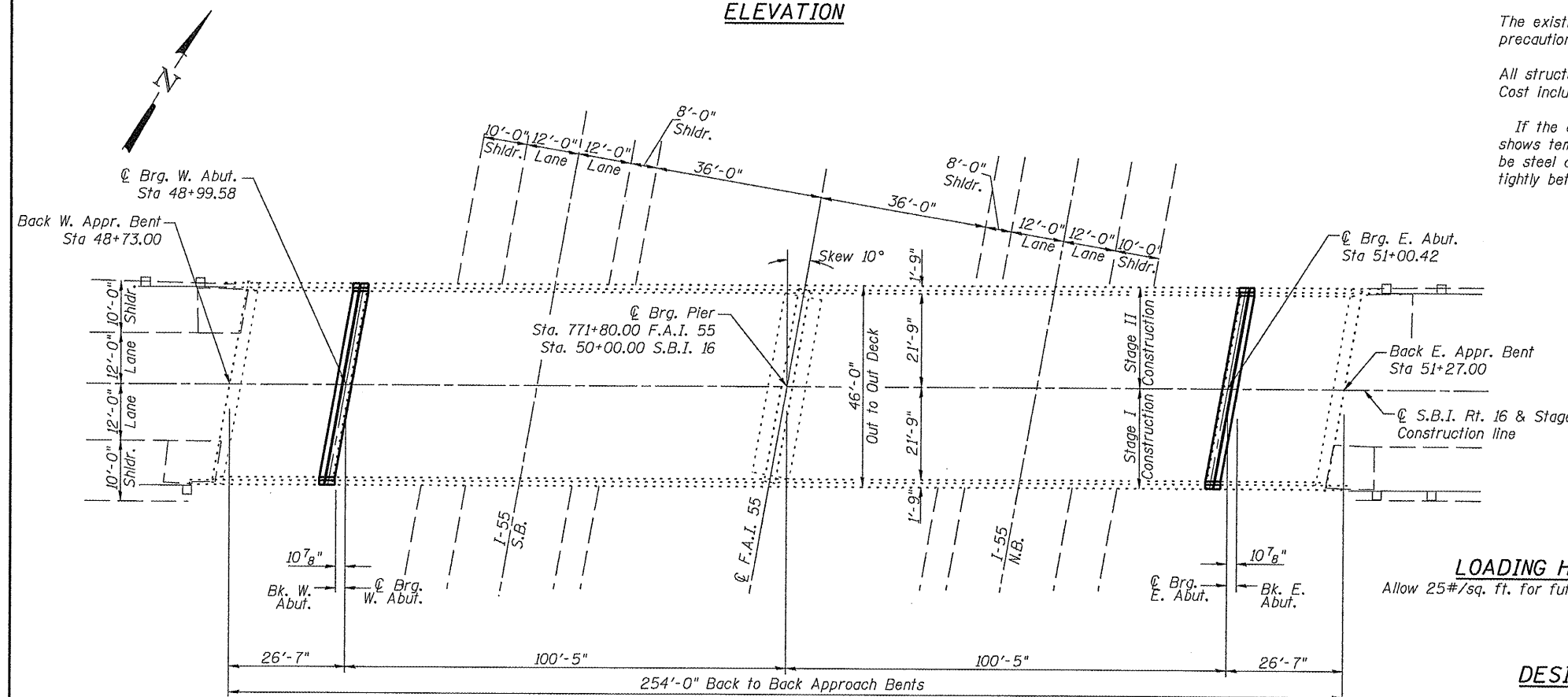
FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 36,000$  psi (structural steel)

GENERAL PLAN  
 WILLIAMSON RD OVER I-55  
 S.B.I. RTE. 16 OVER F.A.I. 55  
 SECTION 59RS-2, BR  
 MACOUPIN COUNTY  
 STATION 30+00.00  
 STRUCTURE NO. 059-0044

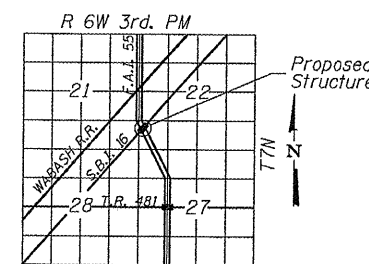
SHEET NO. 1 10 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	59RS-2, BR	Macoupin	100	81
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		



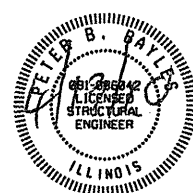
ELEVATION



PLAN



LOCATION SKETCH



Peter B. Boyles, P.E., S.E.  
 Structural Engineer License No. 081-006042  
 Expiration Date: 11/30/2010