

Existing Structure: S.N. 084-0151 was originally built under FAI 72, Section (84-10-1HB-1) in 1974. It is a two-span, steel continuous structure with vaulted approaches. The structure length is 264'-3" back-to-back approach bents and the width is 36'-0" out-to-out. The two steel span lengths are 110'-0" and 118'-3", respectively moving up-station. In 1998, the expansion joints and overlay were removed and replaced.

Structure to be repaired using staged construction. Silicone Joints will be replaced. One lane to remain open during construction.

GENERAL NOTES

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

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.

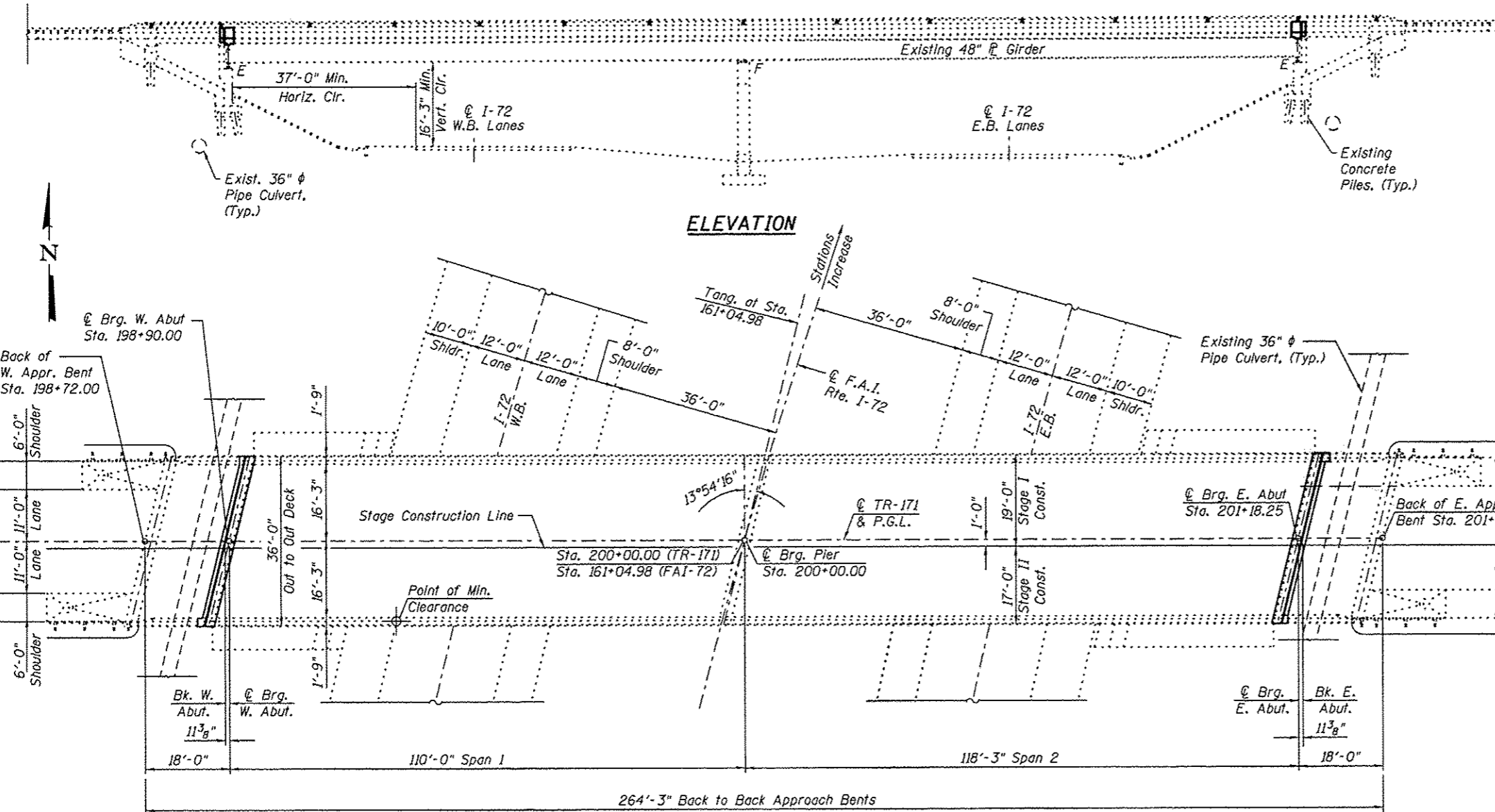
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding 1/4 inch 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.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

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



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	5.4	-	5.4
Protective Shield	Sq. Yd.	313	-	313
Concrete Superstructure	Cu. Yd.	5.4	-	5.4
Protective Coat	Sq. Yd.	26.0	-	26.0
Reinforcement Bars, Epoxy Coated	Pound	1,330	-	1,330
Bar Splicers	Each	20	-	20
Preformed Joint Strip Seal	Foot	72	-	72
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	20	-	20
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	10	-	10
Deck Slab Repair (Partial)	Sq. Yd.	50	-	50

* Apply on top and inside surfaces of new Concrete only.

DESIGN STRESSES

FIELD UNITS (NEW)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

FIELD UNITS (EXISTING)

f'c = 1,400 psi (Substructure)
f'c = 1,200 psi (Deck slab)
fs = 20,000 psi (Reinforcement)
fs = 27,000 psi (Steel)

INDEX OF SHEETS

1. General Plan & Elevation
2. Staging Typical
3. Deck Joint Repairs (1 of 2)
4. Deck Joint Repairs (2 of 2)
5. Preformed Joint Strip Seal
6. Deck Patching Plan
7. Bar Splicer/Mechanical Splicer Details
8. Temporary Concrete Barrier

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO "Standard Specifications for Highway Bridges"

EXISTING LOADING HS 20-44

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

GENERAL PLAN & ELEVATION

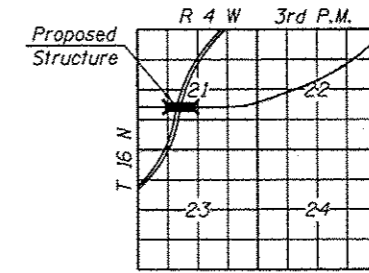
TR-171 OVER F.A.I. RTE. 72

SECTION (84-10-1.2) RS-3

SANGAMON COUNTY

STATION 200+00.00

STRUCTURE NO. 084-0151



LOCATION SKETCH



Michael T. Haley 9-5-13
Date

Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2014

FILE NAME * Oak Crest Rd. over I-72.dgn	USER NAME *	DESIGNED - SAL	REVISED -
		CHECKED - MTH	REVISED -
		DRAWN - TJW	REVISED -
		CHECKED - MTH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
OAK CREST RD. (TR-171) OVER F.A.I.-72 - S.N. 084-0151**

SHEET NO. 1 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
72	(84-10-1.2)RS-3	SANGAMON	194/140
FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT			CONTRACT NO. 72C90