

DESIGNED - MJP

CHECKED - KWB

CHECKED - TON

- RFZ

DRAWN

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

### INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3, 4 & 5, Top of Bridge Slab Elevations
  - 6. Top of West Approach Pavement Slab Elevations
  - 7. Top of East Approach Pavement Slab Elevations
  - 8. Superstructure
  - 9. Superstructure Details
- 10 & 11. Bridge Approach Slab Details
  - 12. Preformed Joint Strip Seal Details
  - 13. Structural Steel
  - 14. Structural Steel Details
  - 15. Bearing Details West Abutment
  - 16. Bearing Details East Abutment
  - 17. Concrete Removal & Repair Details West Abutment
  - 18. Concrete Removal & Repair Details East Abutment
- 19 & 20. West Abutment
- 21 & 22. East Abutment
  - 23. Drainage Scupper Detail
  - 24. Bar Splicer Detail

# SCOPE OF WORK

- 1) Remove and replace existing non-composite concrete deck.
- 2) Make new deck composite in positive moment regions.
- 3) Replace existing bearings with elastomeric bearings at abutments.
- 4) Modify existing wing walls and replace top of backwalls.
- 5) Remove and replace slopewalls.
- 6) Repair deteriorated areas of substructure.

## TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		89	89
Concrete Removal	Cu. Yd.		9.9	9.9
Slopewall Removal	Sq. Yd.		360	360
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	224		224
Structure Excavation	Cu. Yd.		89	89
Concrete Structures	Cu, Yd,		31.4	31.4
Concrete Superstructure	Cu. Yd.	270.9		270.9
Bridge Deck Grooving	Sq. Yd.	626		626
Protective Coat	Sq. Yd.	881		881
Furnishing and Erecting Structural Steel	Pounds	1470	1240	2710
Stud Shear Connectors	Each	2005		2005
Jack and Remove Existing Bearings	Each		10	10
Structural Steel Removal	Pounds	1470		1470
Reinforcement Bars, Epoxy Coated	Pounds	60490	3210	63700
Bar Splicers	Each		68	68
Slopewall, 4 Inch	Sq. Yd.		447	447
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	72		72
Elastomeric Bearing Assembly, Type I	Each		5	5 5
Elastomeric Bearing Assembly, Type II	Each		5	
Anchor Bolts, 1"	Each		20	20
Epoxy Crack Injection	Foot		16	16
Geocomposite Wall Drain	Sq. Yd.		47	47
Pipe Underdrains For Structure 4"	Foot		253	253
Drainage Scuppers, DS-11	Each	2		2
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		5	5

#### GENERAL NOTES

Fasteners shall be AASHTO MI64 Type 1, mechanically galvanized bolts. Bolts  $^3_4$  in,  $\phi$ , holes  $^{13}_{16}$  in,  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 2710 lbs.

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

The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.

Reinforcement bars shall conform to the requirements of ASTM A 706 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 cannot be removed by grinding  $^{l}_{4}$  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.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

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

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell 10B 3/6. See Special Provision for "Cleaning and Painting New Metal Structures".

Two  $^{\prime}_{8}$  in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Slopewall shall be reinforced with welded wire fabric,  $6'' \times 6''$  - W4.0  $\times$  W4.0, weighing 58 lbs. per 100 sq. ft.

Existing Structural Steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."

Slipforming of the parapets is not allowed.

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.

GENERAL DATA

FAS ROUTE 1807 SECTION (51-23HB)-6B-1

LAWRENCE COUNTY

STATION 94A+66.74

STRUCTURE NO. 051-0031

URS
345 E. ASH AVE., SUITE F
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SHEET NO.2	F.A.S. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.	
	1807	(51-23HB)-6B-1			LAWRENCE	60	18
24 SHEETS					CONTRACT	NO. 74	115
	FFD. RO	NAD DIST. NO.	TH INOTS	EED. Al	D PROJECT		