

TOTAL BILL OF MATERIAL

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF DRAWINGS

ITEM	UNIT	SUPER	SUB	TOTAL
STONE DUMPED RIPRAP, CLASS A6	TON	---	11,200	11,200
CONCRETE REMOVAL	CU YD	3	---	3
BRIDGE RAIL REMOVAL	FOOT	5,409	---	5,409
CONCRETE SUPERSTRUCTURE	CU YD	3	---	3
FURNISHING & ERECTING STRUCTURAL STEEL	POUND	366,400	---	366,400
REINFORCEMENT BARS, EPOXY COATED	POUND	245	---	245
STEEL RAILING, TYPE 2399	FOOT	10,818	---	10,818
CONCRETE SEALER	SQ YD	33,634	---	33,634
REMOVE OVERHEAD SIGN STRUCTURE - SPAN	EACH	1	---	1
MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	276	---	276
BOLT REPLACEMENT	EACH	72	---	72
LOG JAM REMOVAL	L SUM	---	1	1
TRAFFIC BARRIER TERMINAL TYPE 6, SPECIAL	EACH	2	---	2
JACK AND REPOSITION BEARINGS	EACH	1	---	1
STRUCTURAL STEEL REPAIR	POUND	515	---	515
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES, LOCATION 1	L SUM	1	---	1
CLEANING AND PAINTING STEEL BRIDGE, LOCATION 1	L SUM	1	---	1
CLEANING DRAINAGE SYSTEM	L SUM	1	---	1
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN.)	SQ FT	2,230	---	2,230
DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	11	---	11
DECK SLAB REPAIR (PARTIAL)	SQ YD	97	---	97
EXPANSION JOINT REPAIR	FOOT	66	---	66
SUBSTRUCTURE REPAIR (GROUT BAGS)	L SUM	---	1	1
DOWNSPOUT ADJUSTMENT	EACH	38	---	38

LIST OF STATE STANDARDS

STD. NO.	STD. NAME
630001-09	Steel Plate Beam Guardrail
631033-04	Traffic Barrier Terminal, Type 6B
606001-04	Concrete Curb Type B and Combination Concrete Curb and Gutter
635006-03	Reflector and Terminal Marker Placement
635011-02	Reflector Marker and Mounting Details

1	General Plan & Elevation	19	Steel Repair Details - 4
2	General Data	20	Bearing Modification
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4	Concrete Deck Slab Repair-1	22	Catch Beam Details - 2
5	Concrete Deck Slab Repair-2	23	Seismic Restrainer - Near Pier 7
6	Median Concrete Repair	24	Seismic Restrainer - Near Pier 28
7	Steel Railing, Type 2399	25	Seismic Restrainer Near Piers 7 & 28 - 1
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9	Expansion Joint and Drainage Repair Details	27	Seismic Restrainer Near Piers 7 & 28 - 3
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12	Framing Plans Spans 11 thru 18	30	Seismic Restrainer Near Piers 19 & 24 - 1
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14	Framing Plans Spans 24 thru 31	32	Seismic Restrainer Near Piers 19 & 24 - 3
15	Framing Plans Spans 32 thru 43	33	Substructure Plan (Partial)
16	Steel Repair Details - 1	34	Scour Protection Piers 5 & 6
17	Steel Repair Details - 2	35	Scour Protection Pier 18
18	Steel Repair Details - 3	36	Pier 18 Inspection Notes (reference)

GENERAL NOTES

"Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

Existing plans of the structure will be provided upon request to the Engineer.

Plan dimensions and details relative to existing plans are subject to routine variations. The contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering 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 based at the unit price bid for the work.

The Engineer shall determine the extent, location and type of deck slab repairs beyond those listed in the plans in the field.

The use of shotcrete is not allowed for DECK SLAB REPAIR (FULL DEPTH, TYPE II), DECK SLAB REPAIR(PARTIAL) or STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5IN.)

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose 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 of this work 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  $\frac{1}{4}$  in deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welding accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

The Contractor shall submit calculations and details demonstrating the structural integrity of the bridge is maintained under the additional imposed loads of the containment system. See Special Provisions.

If the Contractor's procedures for rehabilitation to the bridge involves placement by cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams.

Cost of removal and/or reinstallation 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.

All expansion joint troughs and downspouts shall be cleaned of debris. See Special Provisions for CLEANING DRAINAGE SYSTEM.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number.

All new structural steel shall be AASHTO M 270 Grade 50.

Design Stresses

Concrete  
 $f'c = 3,500$  psi

Reinforcement bars shall conform to the requirements of ASTM A706 Gr. 60. See Sec 1006.10.

Reinforcement bars designated (E) shall be epoxy coated.

Material: Pin = ASTM A688 (Class F)  
Nut = ASTM A709 Grade 36

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

Fasteners shall be high strength bolts. Bolts  $\frac{3}{4}$ "  $\phi$ , open holes  $\frac{13}{16}$ "  $\phi$ , unless otherwise noted.

Fasteners shall be high strength bolts. Bolts  $\frac{7}{8}$ "  $\phi$ , open holes  $\frac{15}{16}$ "  $\phi$ , unless otherwise noted.

Fasteners shall be high strength bolts. Bolts 1"  $\phi$ , open holes 1  $\frac{1}{16}$ "  $\phi$ , unless otherwise noted.

Traffic:

Maintain one lane of traffic during construction (see Roadway Traffic Control Plans).

The Contractor shall apply the CONCRETE SEALER on the deck once all deck repairs are completed.

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

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Guide Bridge Special Provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

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

Cleaning and painting of existing structural steel shall be as specified in the Guide Bridge Special Provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 10 ft (measured along the beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SP 10.

The designated areas cleaned per Near White Blast Cleaning - SSPC-SP 10 shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all steel surfaces shall be Gray, Munsell No 5B 7/1.

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 steel surfaces shall be Gray, Munsell No. 5B 7/1. See Guide Bridge Special Provisions.

Location 1 for Cleaning and Painting Steel Bridge and Containment and Disposal of Lead Paint Cleaning Residues includes all beams, bearings and other structural steel within 10 ft (measured along the beam) of either side of deck joints.

The seismic restraint systems near Piers 7, 11, 15, 19, 24 and 28 were developed from the criteria contained in the Seismic Retrofitting Manual for Highway Bridges, Publication No. FHWA-RD-95-052 May 1995.

Existing pavement markings shall be temporarily covered prior to application of the deck surface treatment, to prevent the material from being applied to the markings. The temporary covering shall be removed after application of the deck surface treatment and prior to opening to traffic. Cost included with Concrete Sealer.

GENERAL DATA  
STRUCTURE NO. 060-0035

DESIGNED	TMB
CHECKED	TSB
DRAWN	JGC / TMB
CHECKED	TSB



**PARSONS**  
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CHESTERFIELD, MO. 63017  
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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	270	60B-I-8	MADISON	49	15
36 SHEETS			CONTRACT NO. 76A92		
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT					