

<u>Design Stresses</u>

FIELD UNITS (New Construction)

f'c = 3.500 psi

fy = 60,000 psi (reinforcement)

fy = 36,000 psi (AASHTO M270 Gr. 36))

FIELD UNITS (Existing Construction)

f'c = 1,400 psi

fy = 20,000 psi (reinforcement)

Expires 11-30-2010



REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

		GENERAL		PLAN AN		D ELEVATION		
				SN 077-0027				
-	SHEET	NO.	OF	SH	EETS	STA.		

TOTAL SHEE SHEETS NO. COUNTY JOHNSON/PULASKI 20 24/57 D9 BSMART FY09-1 CONTRACT NO. 78095

BRIDGE REPAIRS F.A.S. ROUTE 939 OVER FAI 57 PULASKI COUNTY STA. 108+00.95

S.N. 077-0027 SECTION

TO STA.

Controlled Low-Strength Material

DESIGNED -USER NAME = \$USER\$ DRAWN REVISED PLOT SCALE = #SCALE# CHECKED REVISED PLOT DATE = \$DATE\$ DATE REVISED

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FILE NAME :

\$FILEL\$

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts - 34" \$\phi\$, holes - 1516" \$\phi\$, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 36 unless otherwise noted. No field welding is permitted except as specified in the contract documents. 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 section, 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 I4 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.

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

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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

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 4/8. See Special Provisions for "Cleaning and Painting New Metal Structures".

Deck Slab Repair (Partial Depth) quantity is estimated at 139.4 Sq. Yd. (info only). Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

TOTAL BILL OF MATERIAL

ITEM	UNIT (DUANTIT
Concrete Removal	Cu. Yd.	19.4
Concrete Superstructures	Cu. Yd.	20.8
Bridge Deck Grooving	Sq. Yd.	1018
Furnishing and Erecting Structural Steel	Pound	1920
Jack and Remove Existing Bearings	Each	18
Reinforcement Bars, Epoxy Coated	Pound	2550
Protective Shield	Sq Yd.	482
Silicone Joint Sealer	Foot	127
Elastomeric Bearing Assembly, Type II	Each	18
Anchor Bolts, 1"	Each	36
Controlled Low-Strength Material	Cu. Yd.	6.7
Bridge Deck Microsilica Concrete Overlay 214''	Sq. Yd.	1127
Bridge Deck Hydro-Scarification '2''	Sq. Yd.	1127
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	34
Floor Drains	Each	20
Protective Coat	Sq. Yd.	1156
Polymer Concrete	Cu. Ft.	9.9