

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.
- Calculated weight of Structural Steel =
Grade 50 = 4,418,700 lbs.
Grade 36 = 405,950 lbs.
- 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 the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated 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 Reddish Brown - Munsell No 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- Materials, fabrication welding, and non-destructive testing for the members identified as Fracture Critical Member and member components (F.C.M.) in the contract plans shall conform to the requirements of Section 12 of the current ANSI / AASHTO / AWS / D 1.5 Bridge Welding Code.
- 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.

FABRICATION AND SHOP ASSEMBLY

- The steel girders are to be supported during shop assembly at all falsework locations shown in the Framing Key Plan and Shoring Layout. The support locations shall be held at locations shown, except for minor adjustments to provide clearance for splices and connections. Any locations requiring adjustment over 5 feet shall be approved by the Engineer. If any support needs adjustment over 5 feet, alternate dual supports on either side of the subject locations may be considered.
- Structure units or portions thereof, as described below shall be assembled together in the shop with all beams and/or girders across the entire deck cross-section including all floor beams, cross-frames, diaphragms, splices and connections. Such additional shop assembly work, performed according to the requirements specified herein, shall be paid for as part of the item FURNISHING STRUCTURAL STEEL.

Ramp 1: Complete steel framing for the flared portion of Ramp 1 between the Abutment and the fascia girder G22, including the fascia girder and all beams, girders, cross-heads, floor beams, cross-frames, diaphragms, splices and connections.

Ramp 2: Complete steel framing for the flared portion of Ramp 2 between the Abutment and the fascia girder G22, including the fascia girder and all beams, girders, cross-heads, floor beams, cross-frames, diaphragms, splices and connections.

Ramp 3: Complete steel framing for the flared portion of Ramp 3 between the Abutment and the fascia girder G1, including the fascia girder and all beams, girders, cross-heads, floor beams, cross-frames, diaphragms, splices and connections.

Ramp 4: Complete steel framing for the flared portion of Ramp 4 between the Abutment and the fascia girder G1, including the fascia girder and all beams, girders, cross-heads, floor beams, cross-frames, diaphragms, splices and connections.

FABRICATION AND SHOP ASSEMBLY CONT'D

- The framing designated for complete shop assembly shall be shop assembled over properly designed supports at the permanent support locations, such as piers, and at the temporary falsework supports locations as shown in the contract plans. Falsework supports shall be designed to adequately support the weight of steel framing and other construction loads. The steel shall be assembled such that the relative elevations of the beams and girders are the same as for field erection. The supports shall be designed considering the actual support conditions and levels/elevations. The supports shall have provisions for vertical adjustment of the girders. Individual girders shall be temporarily blocked or braced as required to provide lateral and torsional stability during the assembly procedure.
- The shop assembly shall be extended until all members and components of a particular shop assembly unit are fully assembled. All parts of each continuous member shall be assembled, pinned, and firmly drawn together with temporary bolts before reaming or tightening of fasteners is commenced. For shop assembly purposes, bolted splices and connections shall only be snug tightened and are not required to be fully torqued. The bolt holes in girder splices and the connections of the ramp girders to the fascia girders shall be either subpunched or subdrilled, and reamed full size during shop assembly. Assembled framing for each unit shall not be disassembled until after shop inspection has been made by the Engineer.
- The Contractor shall submit for Engineer's review complete fabrication and shop assembly plan and procedures. The submittal shall include, but not be limited to, geometric controls, support locations and details, and sequence of member erection and bolt tightening. The Engineer's review of such plan and procedures shall include review by the Department's Bureau of Bridges and Structures. The Contractor's shop assembly plan and procedures shall be sealed and signed by a Structural Engineer licensed in the State of Illinois. Engineer's approval of such plans and procedures does not relieve the Contractor of any responsibility.

TOTAL BILL OF MATERIAL

ITEM	UNIT	MAINLINE		
		SUPER	SUB	TOTAL
FURNISHING STRUCTURAL STEEL	L SUM	0.81	-	0.81
SHOP ASSEMBLY, RAMP 1	L SUM	1	-	1
SHOP ASSEMBLY, RAMP 2	L SUM	1	-	1
SHOP ASSEMBLY, RAMP 3	L SUM	1	-	1
SHOP ASSEMBLY, RAMP 4	L SUM	1	-	1
FURNISHING MODULAR EXPANSION JOINT-SWIVEL 6"	FOOT	186	-	186
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED, 250K	EACH	20	-	20
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED, 500K	EACH	2	-	2
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 150K	EACH	40	-	40
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 250K	EACH	40	-	40
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 350K	EACH	4	-	4
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 900K	EACH	4	-	4
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 150K	EACH	34	-	34
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 800K	EACH	4	-	4
FURNISHING HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 1500K	EACH	4	-	4
FIELD MEASUREMENTS	L SUM	0.34	-	0.34
STORAGE OF STRUCTURAL STEEL	CAL DA	60	-	60
STORAGE OF HIGH LOAD MULTI-ROTATIONAL BEARINGS	CAL DA	60	-	60
STORAGE OF MODULAR EXPANSION JOINTS	CAL DA	60	-	60

GENERAL NOTES &
BILL OF MATERIAL
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - EKH, PK	REVISIONS		SHEET NO. 2	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR
	DRAWN - EKH, JMA				137 SHEETS	CONTRACT NO. 60L39				
	CHECKED - AMD,					FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
	DATE - 08/02/10									

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