

GENERAL NOTES:

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8" φ, holes 1" φ, unless otherwise noted.

Calculated weight of Structural Steel = 530,834 lbs.

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

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimmed the bearings.

Concrete Sealer shall be applied to the designated areas of Pier #2.

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 final finish coat for all interior steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4. 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".

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The deck pour of Spans 1 & 2 shall begin at Pier #2 and end at the South Abutment in order to prevent uplift of the two-span steel girders at Pier #2.

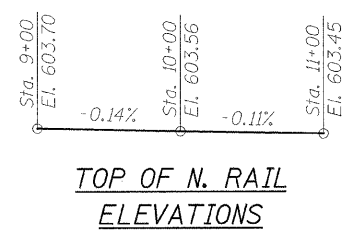
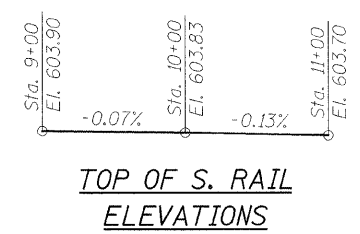
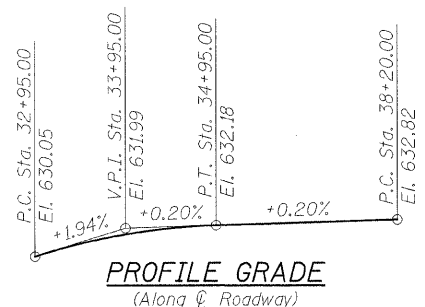
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BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUB	SUPER	TOTAL
Channel Excavation	Cu. Yd.	77	---	77
* Porous Granular Embankment	Ton	466	---	466
* Stone Riprap, Class A4 (Special)	Ton	137	---	137
* Removal of Existing Structures No. 1	Each	---	---	1
* Removal of Existing Concrete Deck	L. Sum	---	1	1
*** Protective Shield	Sq. Yd.	---	593	593
Structure Excavation	Cu. Yd.	287	---	287
Floor Drains	Each	---	28	28
Concrete Structures	Cu. Yd.	295.1	20.6	315.7
Concrete Superstructure	Cu. Yd.	---	531.6	531.6
Bridge Deck Grooving	Sq. Yd.	---	1322	1322
** Protective Coat	Sq. Yd.	---	1728	1728
Furnishing and Erecting Structural Steel	L. Sum	---	1	1
Stud Shear Connectors	Each	---	3,830	3,830
Reinforcement Bars, Epoxy Coated	Pound	35,980	128,090	164,070
Bar Splicers	Each	---	62	62
Furnishing Metal Shell Piles 12" x 0.25"	Foot	1,734	---	1,734
Furnishing Metal Shell Piles 14" x 0.312"	Foot	1,236	---	1,236
Driving Piles	Foot	2,970	---	2,970
Test Pile Metal Shells	Each	4	---	4
* Temporary Sheet Piling	Sq. Ft.	2,505	---	2,505
Name Plates	Each	---	1	1
Preformed Joint Strip Seal	Foot	---	34	34
Elastomeric Bearing Assembly, Type I	Each	---	5	5
Elastomeric Bearing Assembly, Type II	Each	---	5	5
Anchor Bolts, 5/8"	Each	---	10	10
Anchor Bolts, 1"	Each	---	20	20
Anchor Bolts, 1 1/4"	Each	---	20	20
End Sections 12"	Each	---	2	2
Concrete Sealer	Sq. Ft.	215	---	215
Geocomposite Wall Drain	Sq. Yd.	112	---	112
Pipe Drains 12"	Foot	---	16	16
* Pipe Underdrains for Structures 4"	Foot	209	---	209
Type B Inlet Box, Standard 609006	Each	---	2	2
Concrete Thrust Blocks	Each	---	2	2
* High Load Multi-Rotation Bearings, Guided Expansion, 400k	Each	---	5	5
* Stone Riprap, Class A3 (Special)	Ton	900	---	900
* Relocate Existing Bridge	L. Sum	---	1	1

* See Special Provisions.
 ** Includes Deck, Approach Pavement, and Top & Inside Face of Parapet only.
 *** Protective Shield shall be placed in historic truss span and bridge span over the railroad tracks.



DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (M270 Grade 50)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = I
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.015g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.11g
 Soil Site Class = B

GENERAL DATA
 C.H. 8 OVER IOWA INTERSTATE RAILROAD
 & THE HENNEPIN CANAL
 STATION 36+00
 S.N. 006-3247

WHA JOB NUMBER 1066D05	WILLETT, HOFMANN & ASSOCIATES, INC. CONSULTING ENGINEERS Land Surveying - Transportation - Structural Environmental - Architecture 809 East Second Street Dixon, Illinois 61021 Phone 815.284.3351 Fax 815.284.3385 Design Firm #184-000918 www.willett-hofmann.com		Designed By: B. K. Converse Date: 1/10	
			Checked By: M. A. Cackley Date: 1/10	
		Drawn By: F. D. Lachat Date: 1/10		
STRUCTURAL SHEET NO. 2B OF 33B SHEETS	F.A.S. RTE. 188	SECTION 05-00195-00-BR	COUNTY BUREAU 127	TOTAL SHEETS 68
CONTRACT NO. 87380				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0188(118)				

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