

**BENCHMARK:**

**EXISTING STRUCTURE:** 29' long single span bridge with 6" thick concrete deck with 6" concrete curbs on 7-8" I-beams with concrete mudwalls and concrete wingwalls. Structure closed to traffic.

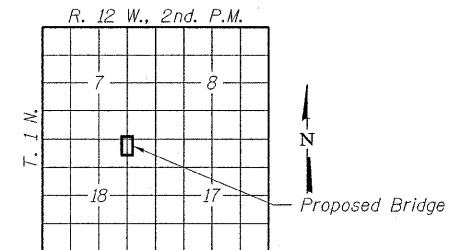
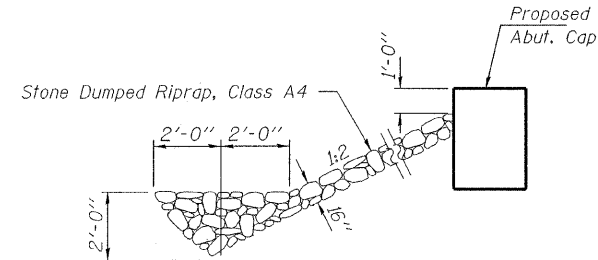
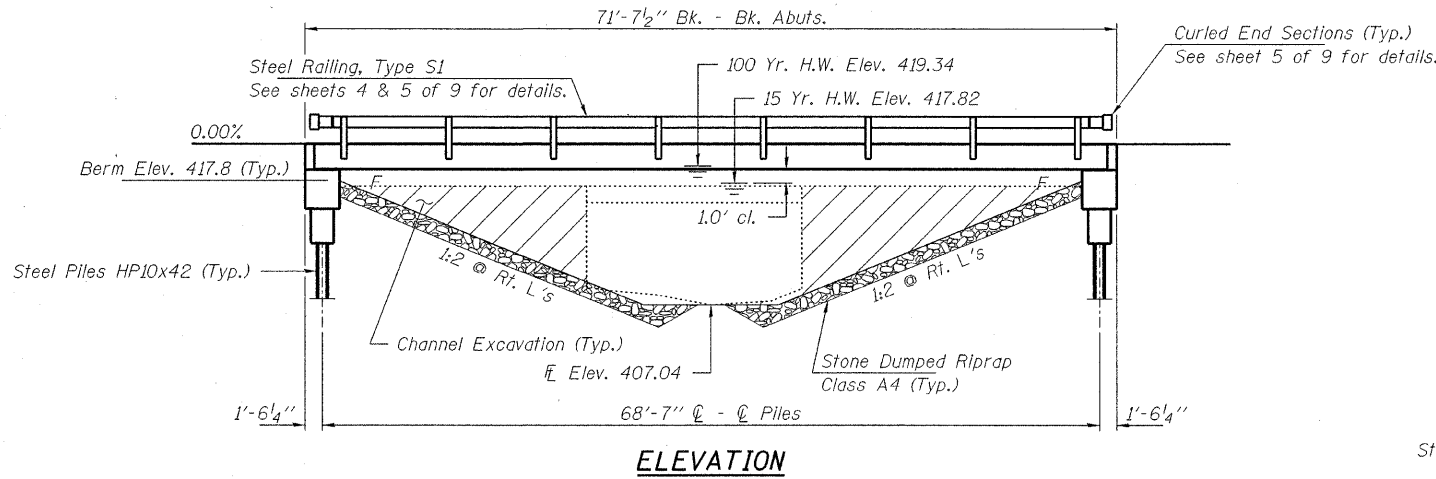
No Salvage

**GENERAL NOTES**

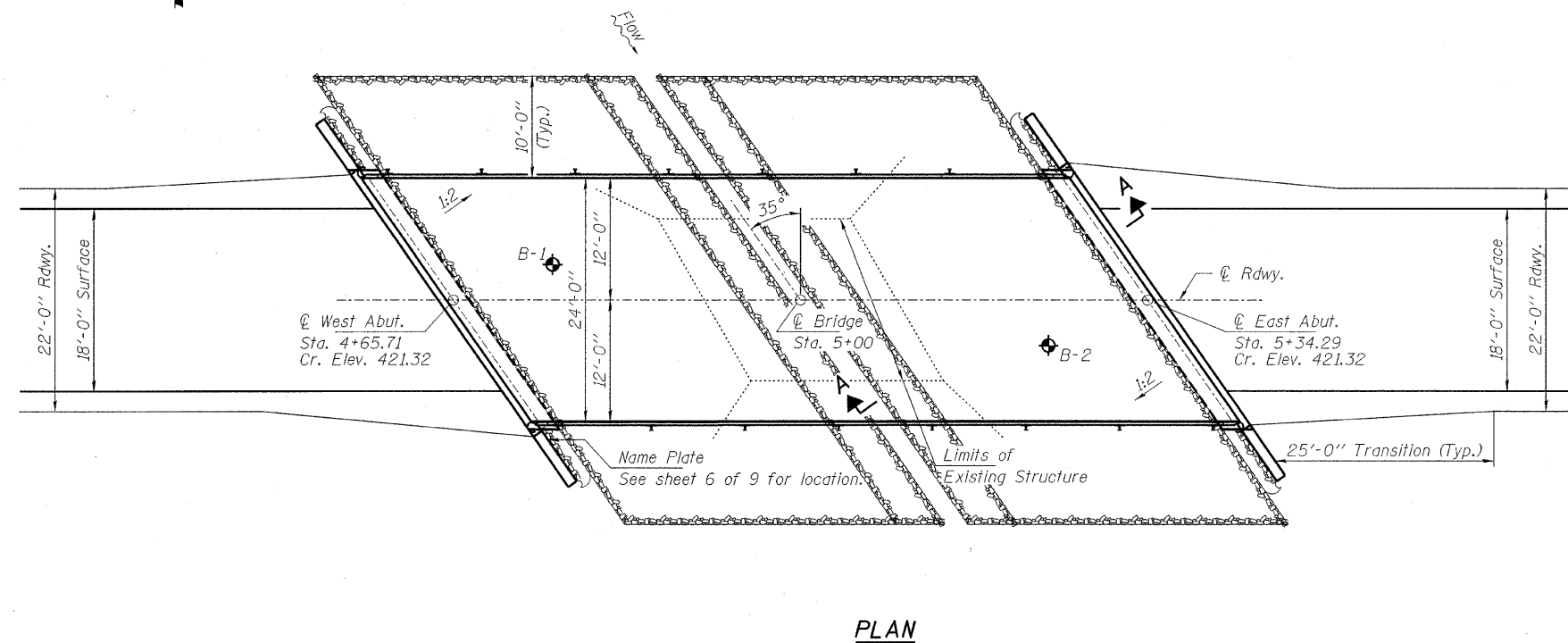
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.  
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment or approved by the Engineer before ordering the remainder of piles.  
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.  
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.  
 Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.  
 All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions. See Sheets 8 & 9 of 9 for Borings.

CRAWFISH CREEK  
 BUILT 200\_ BY  
 WABASH COUNTY  
 SEC. 06-06109-00-BR  
 ROAD DISTRICT #6  
 STR. NO. 093-3133  
 LOADING HL-93

**NAME PLATE**  
 See Std. 515001



**SECTION A-A**  
 Note: See Special Provisions for Stone Dumped Riprap, Class A4.



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			-
Stone Dumped Riprap, Class A4	Ton			260
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		28.6	28.6
Concrete Encasement	Cu. Yd.		3.4	3.4
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,680		1,680
Reinforcement Bars	Pound		3,210	3,210
Steel Railing, Type S1	Foot	136		136
Furnishing Steel Piles HP10x42	Foot		513	513
Driving Piles	Foot		513	513
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
 fy = 60,000 psi (Reinf.)

**PRECAST PRESTRESSED UNITS**

f'c = 6,000 psi  
 f'ci = 5,000 psi  
 fpu = 270,000 psi (1/2" low lax. strands)  
 fpbt = 201,960 psi (1/2" low lax. strands)  
 fy = 60,000 psi (Reinf.)

**LOADING HL-93**

Design Specifications: 2007 AASHTO LRFD with all applicable Interims.  
 50#/Sq. Ft. included in dead load for future wearing surface.

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 2  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.247g  
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.577g  
 Soil Site Class = D

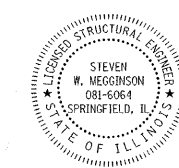
**WATERWAY DATA**

Drainage Area..... 8.6 Sq. Mi.  
 Existing Opening (15 yr)..... 233 Sq. Ft.  
 Req'd Opening (15 yr)..... 447 Sq. Ft.  
 Proposed Opening (15 yr)..... 447 Sq. Ft.  
 Design Discharge (15 yr)..... 2,460 C.F.S.  
 Created Head (15 yr)..... 0.0 Ft.  
 100 Yr. Discharge..... 4,317 C.F.S.  
 100 Yr. Created Head..... 0.0 Ft.

DESIGNED - S.M.S.
CHECKED - S.W.M.
DRAWN - D.T.M.
CHECKED - D.A.B.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

*Steven W. Megginson 3/31/2009*  
 ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2010

**GENERAL PLAN AND ELEVATION**  
**STRUCTURE NO. 093-3133**

<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS <b>HLR</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 08.0207.130 DATE: 03/31/09	SHEET NO. 1	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		37	06-06109-00-BR	WABASH	14	5
		9 SHEETS		CONTRACT NO. 95584		
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		