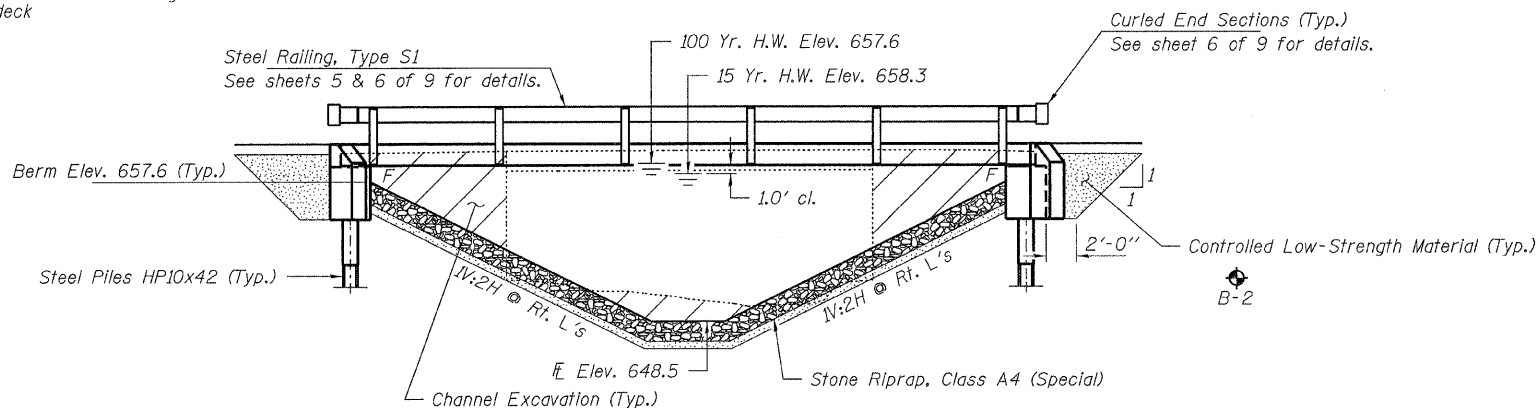


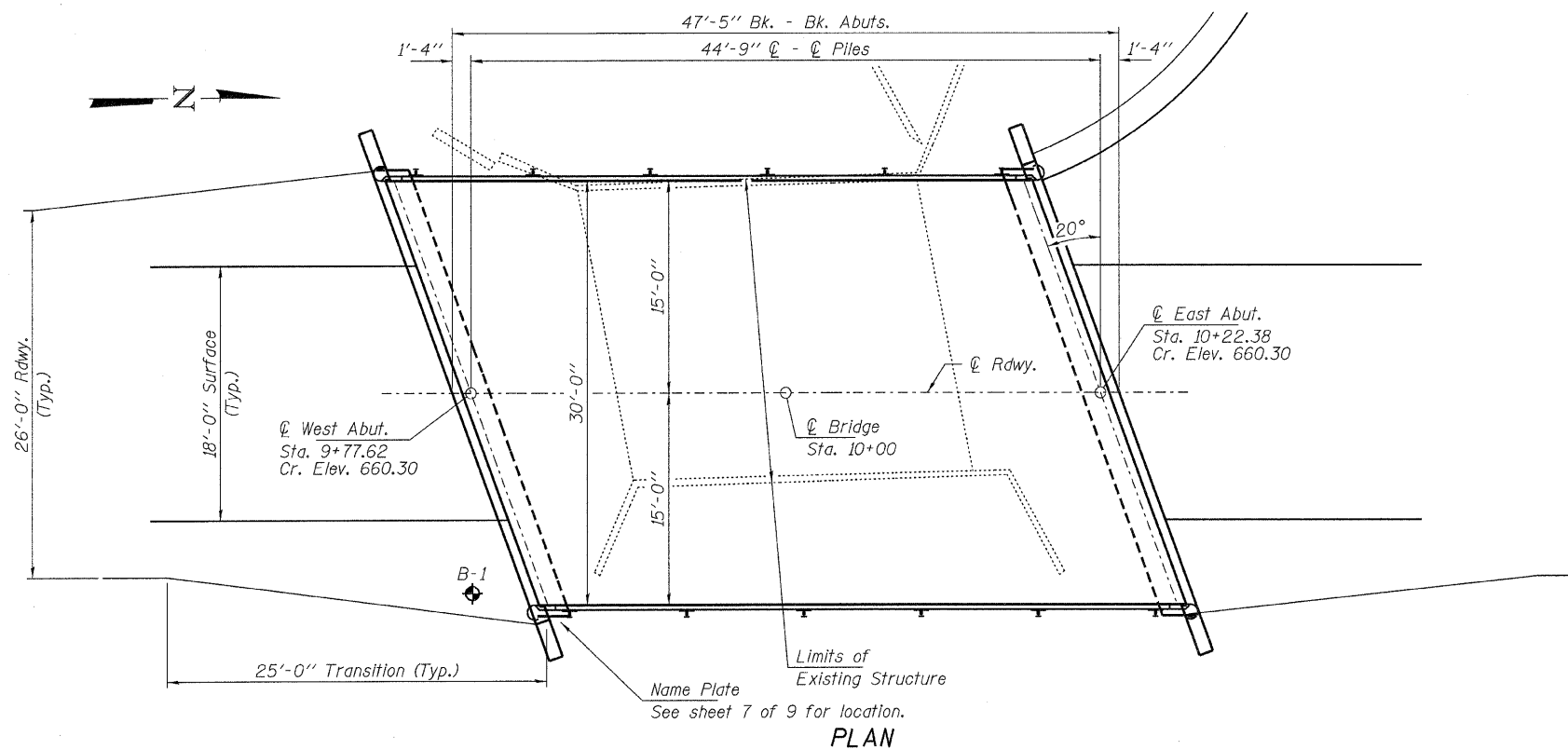
BENCHMARK: Chiseled "□" on wingwall; 18' Lt. Sta. 10+11; Elev. 660.89

EXISTING STRUCTURE NO. 092-3079: Sta. 10+00 - Single span steel I-beam bridge with concrete deck on closed concrete abutments and wingwalls. 23.2' fc.-fc. abutts.; 21.6' o.-o. deck Structure closed to traffic.

No Salvage



ELEVATION



PLAN

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: 2010 AASHTO LRFD with all applicable Interims.
50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.132g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.226g
Soil Site Class = D

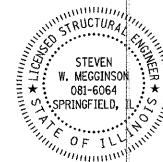
Flood	Frequency Year	Discharge (cfs)	Waterway Opening (sq. ft.)		Natural H.W.E	Head (ft.)		Headwater Elev.	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
DESIGN	10	747	150	190	657.16	0.00	0.00	657.16	657.16
OVERTOP	15	860	160	210	657.55	0.00	0.02	657.55	657.57
BASE	50	1230	170	230	658.11	0.78	0.74	658.89	658.85
	100	1440	180	240	658.32	0.66	0.60	658.98	658.92

10 Year Velocity Through Existing Bridge (fps) = 5.0

10 Year Velocity Through Proposed Bridge (fps) = 3.9

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 3/2/2011
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



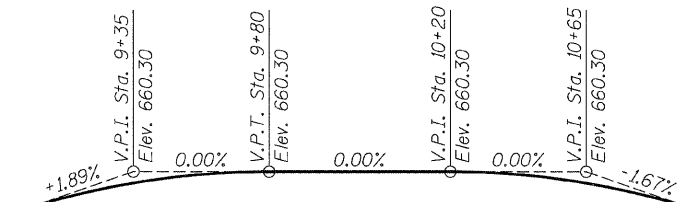
Expires 11-30-2012

GENERAL NOTES

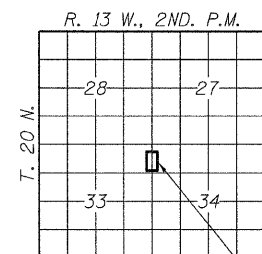
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at each Abutment or approved by the Engineer before ordering the remainder of piles. 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 3 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.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. Riprap Layout
3. 17" x 36" PPC Deck Beam
4. 17" x 36" PPC Deck Beam Details
5. Superstructure Details
6. Steel Railing, Type S-1
7. Abutments
8. Pile Details
9. Borings



PROFILE GRADE



LOCATION SKETCH

BUILT 201 BY
VERMILION COUNTY
SEC. 09-14138-00-BR
OAKWOOD ROAD DISTRICT
STR. NO. 092-3517
LOADING HL-93

NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			120
Controlled Low-Strength Material	Cu. Yd.			50
Stone Riprap, Class A4 (Special)	Ton			250
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		27.4	27.4
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1,380		1,380
Reinforcement Bars	Pound		2,730	2,730
Steel Railing, Type S1	Foot	88		88
Furnishing Steel Piles HP10x42	Foot		240	240
Driving Piles	Foot		240	240
Test Pile Steel HP10x42	Each		2	2
Pile Shoes	Each		10	10
Name Plates	Each		1	1
Concrete Cut-Off Wall	Cu. Yd.		7.4	7.4