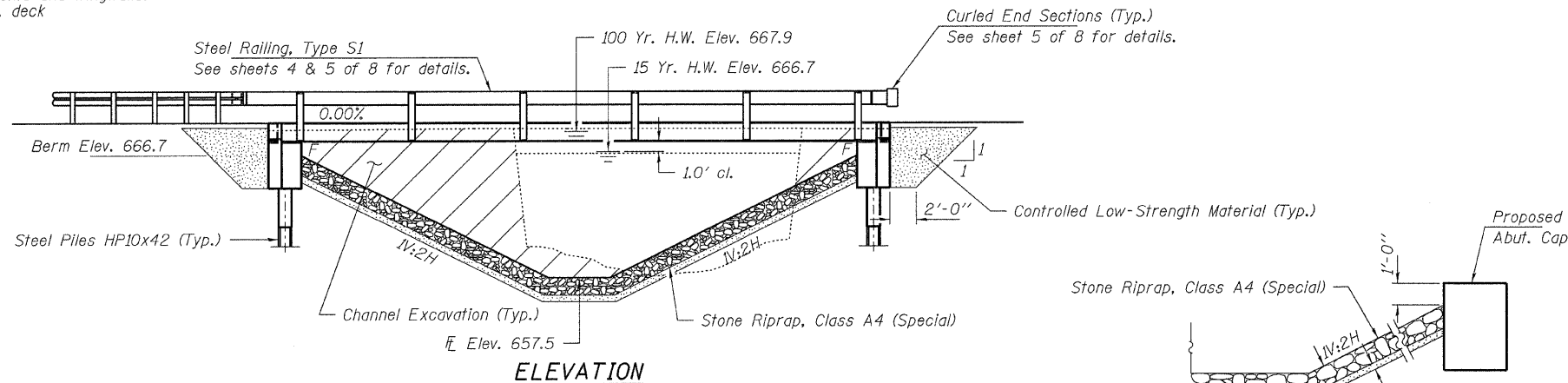


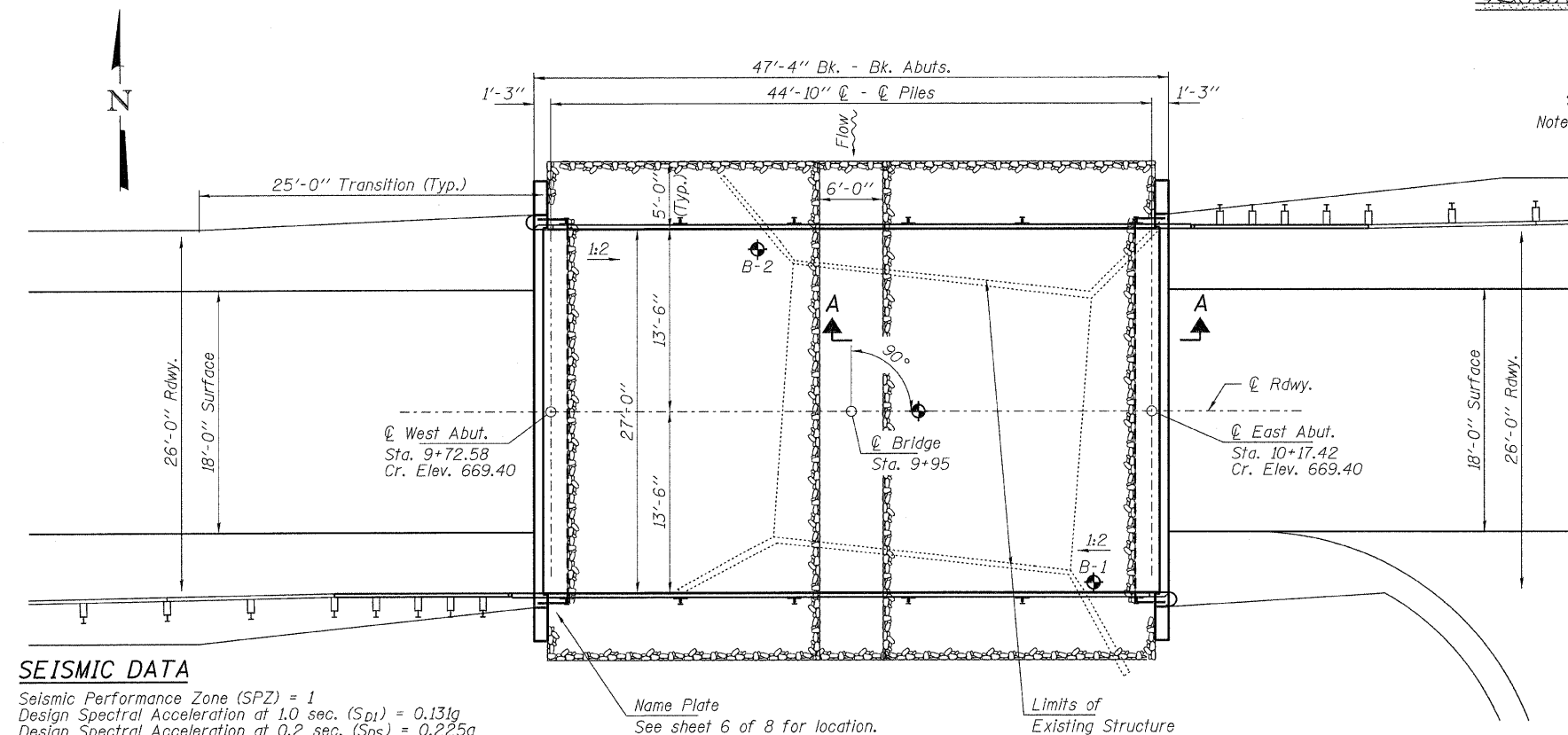
BENCHMARK: Chiseled "□" on wingwall; 10' Rt. Sta. 9+87; Elev. 670.58

EXISTING STRUCTURE NO. 092-3157 :Sta. 10+00 - Single span steel I-Beam bridge with concrete deck on closed concrete abutments and wingwalls.
21.8' fc.-fc. abuts; 21.2' o.-o. deck
Structure closed to traffic.

No Salvage



ELEVATION



PLAN

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.131g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.225g
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
 f'_ci = 5,000 psi
 f_{pu} = 270,000 psi ($\frac{1}{2}$ " ϕ low lax. strands)
 f_{pbt} = 201,960 psi ($\frac{1}{2}$ " ϕ low lax. strands)
 f_y = 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.

WATERWAY INFORMATION

Drainage Area = 3.3 sq. mi.		Existing Low Grade Elevation = 667.2 ft. at Sta. 5+50		Proposed Low Grade Elevation = 667.2 ft. at Sta. 5+50		
Flood	Frequency Year	Discharge (cfs)	Waterway Opening (sq. ft.)	Natural H.W.E	Head (ft.)	Headwater Elev.
			Existing	Proposed	Existing	Proposed
DESIGN	15	850	170	200	666.21	0.07
BASE	100	1430	190	260	667.86	0.54
EXIST OVERTOP	50	1210	190		667.52	0.52
PROP OVERTOP	500	1960	260		668.37	0.90
			10 Year Velocity T through Existing Bridge (fps) = 4.3		10 Year Velocity T through Proposed Bridge (fps) = 3.7	

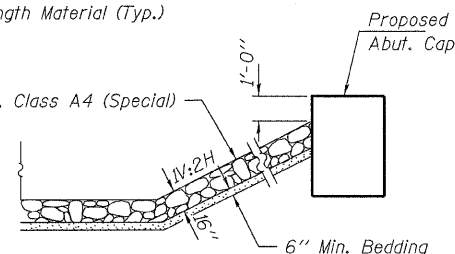
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Michael G. Berry 3/2/11
ILLINOIS STRUCTURAL NO. 081-4622



SECTION A-A

Note: See Special Provisions for Stone Riprap, Class A4 (Special)

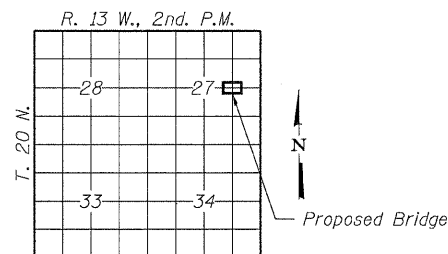


GENERAL NOTES

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. 17" x 36" PPC Deck Beam
3. 17" x 36" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
8. Borings



LOCATION SKETCH

BUILT 201 BY
VERMILION COUNTY
SEC. 08-14136-00-BR
OAKWOOD ROAD DISTRICT
STR. NO. 092-3513
LOADING HL-93

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			165
Controlled Low-Strength Material	Cu. Yd.			44
Stone Riprap, Class A4 (Special)	Ton			150
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		23.3	23.3
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1,242		1,242
Reinforcement Bars	Pound		2,400	2,400
Steel Railing, Type S1	Foot	96		96
Furnishing Steel Piles HP10x42	Foot		420	420
Driving Piles	Foot		420	420
Test Pile Steel HP10x42	Each		2	2
Pile Shoes	Each		8	8
Name Plates	Each		1	1
Concrete Cuf-Off Wall	Cu. Yd.		6.4	6.4