

BENCHMARK: Iron Pin, 12' Lt., Sta. 8+50, Elev. 381.82

EXISTING STRUCTURE: Sta. 4+94.2, Single span Precast Concrete Deck Beam Bridge on timber piles and wingwalls.
24'-0" long.
Structure closed to traffic.

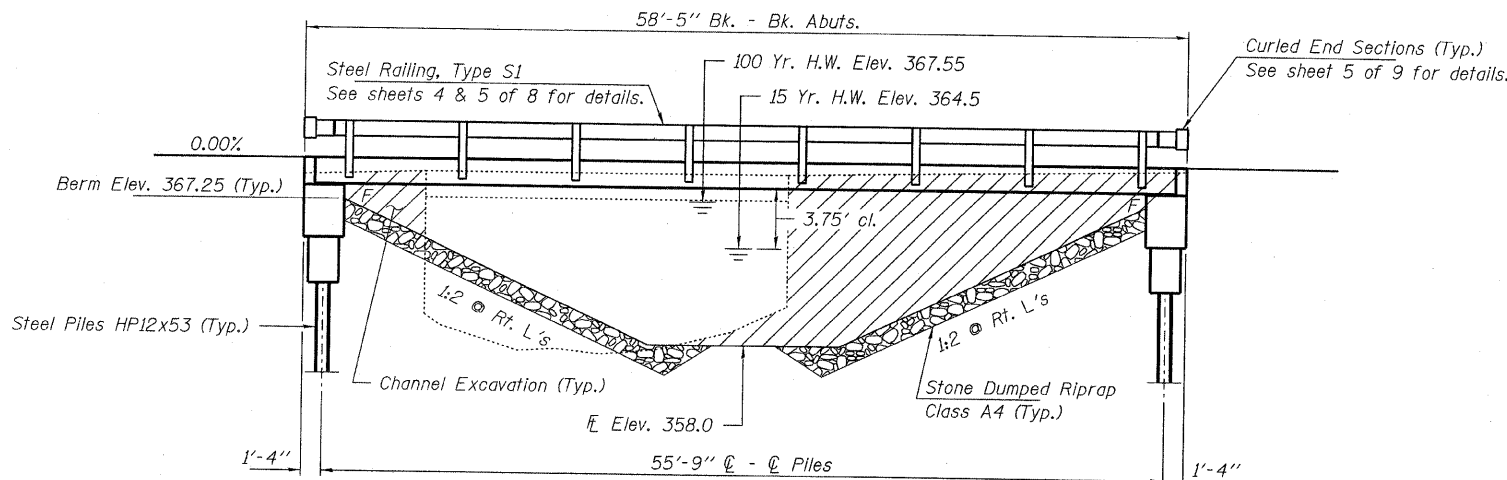
No Salvage

GENERAL NOTES

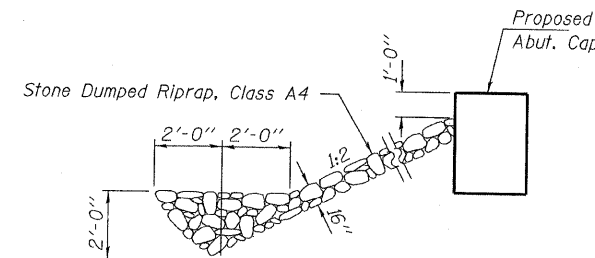
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
Excavation required to construct the Abutments shall be included in the 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 of 8 for Borings.

BUILT 200_ BY
WHITE COUNTY
SEC. 06-02123-00-BR
CARM ROAD DISTRICT
STR. NO. 097-3255
LOADING HL-93

NAME PLATE
See Std. 515001

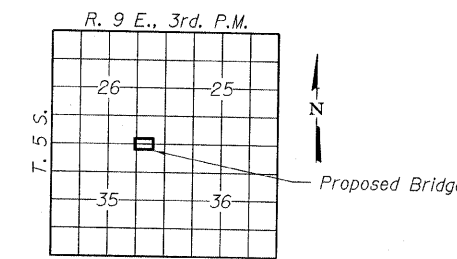


ELEVATION

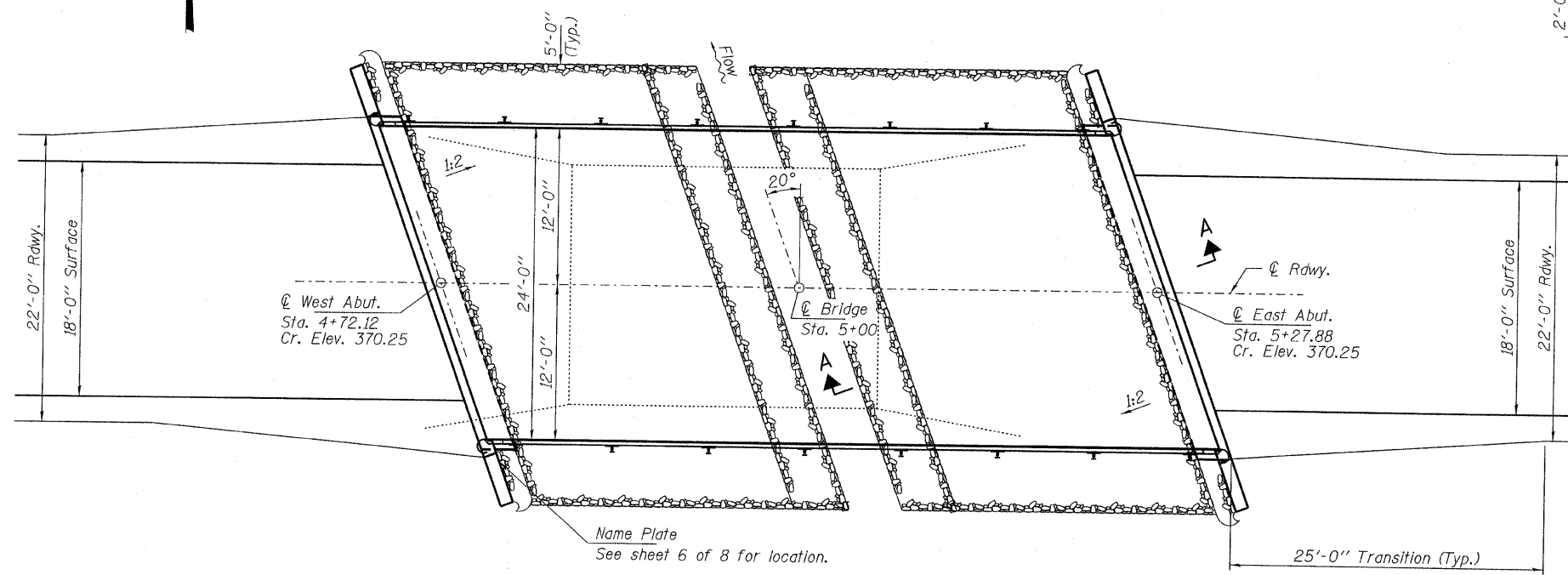


SECTION A-A

Note: See Special Provisions for Stone Dumped Riprap, Class A4



LOCATION SKETCH



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			220
Stone Dumped Riprap, Class A4	Ton			150
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		23.6	23.6
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,368		1,368
Reinforcement Bars	Pound		2,620	2,620
Steel Railing, Type S1	Foot	110		110
Furnishing Steel Piles HP12x53	Foot		344	344
Driving Piles	Foot		344	344
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

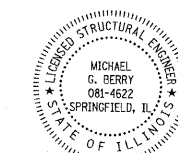
Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (S_{p1}) = 0.448g
Design Spectral Acceleration at 0.2 sec. (S_{p5}) = 0.858g
Soil Site Class = E

WATERWAY INFORMATION

		Drainage Area = 0.70 Sq. Mi.		Existing Low Grade Elev. 368.70 @ Sta. 4+00		Proposed Low Grade Elev. 370.25 @ Sta. 5+00	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater EL.	
			Exist. Prop.		Exist. Prop.	Exist. Prop.	
Design	15	543	122 167.3	364.5	0.07 0.05	364.57 364.55	
Base	100	986	184 304.5	367.6	0.29 0.03	367.89 367.63	
Max. Calc.	500	1400		369.0			

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 6/6/09
ILLINOIS STRUCTURAL NO. 081-4622



Expires 11-30-2010

STRUCTURE NO. 097-3255

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

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 08.0262.130 DATE: 05/26/09	SHEET NO. 1	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	8 SHEETS	237	06-02123-00-BR	WHITE	12	5
			CONTRACT NO. 99364			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				