

B.M.: RR Spike in Power Pole, Sta. 18+63, 21' Rt. Elev. 691.23  
 RR Spike in Power Pole, Sta. 21+62, 21' Rt. Elev. 691.11

Existing Structure:  
 Single span pony truss with timber plank deck on stone abutments. The structure is ±42'-0" back to back of abutments, ±15'-6" out to out of deck and is not skewed. Str. No. 038-3042

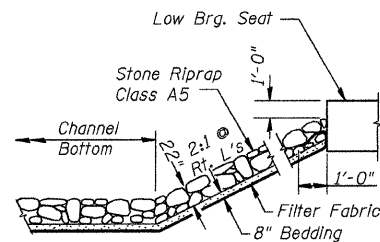
Salvage: Superstructure and Abutment Stone

Road to be closed to traffic during construction.

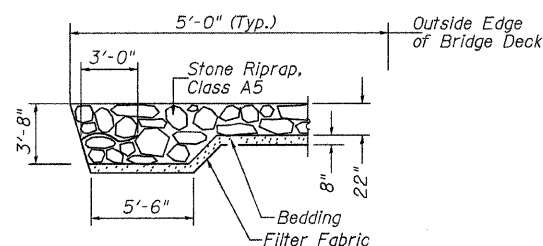
**LOUIS CREEK**  
 BUILT 2011 BY  
 ARTESIA ROAD DISTRICT  
 IROQUOIS COUNTY  
 SEC. 02-01122-00-BR  
 T.R. 14A STATION 20+02.50  
 F.A. PROJ. BROS-0075(138)  
 STR. NO. 038-3062 LOADING HL-93

**NAME PLATE**

Locate Name Plate at S.E. Wingwall  
 Corner of Bridge (See Std. 515001)



**STONE RIPRAP DETAIL**



**SECTION A-A**

**DESIGN SCOUR TABLE**

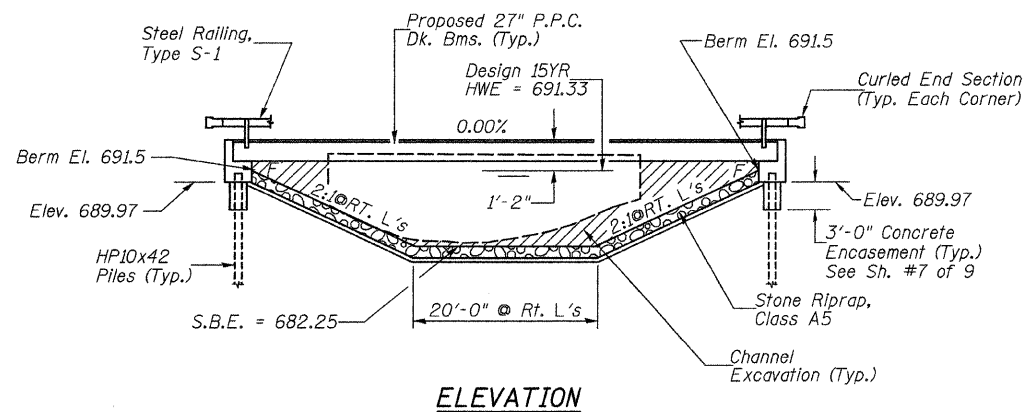
Location	S. Abut	N. Abut
Design Scour Elevation	689.97	689.97

**WATERWAY INFORMATION**

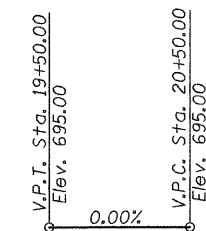
Drainage Area = 9.12 Sq. Mi.		Low Grade Elev. = 692.39 @ Sta. 15+00.00							
Flood Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.		
		Exist.	Prop.		Exist.	Prop.	Exist.	Prop.	
Design	15 1,735	257	346	691.33	0.52	0.29	691.85	691.62	
Base	100 2,810	280	382	691.96	1.59	0.65	693.55	692.61	

DESIGNED	C.T.M.
CHECKED	J.E.H.
DRAWN	C.T.M.
CHECKED	J.E.H.

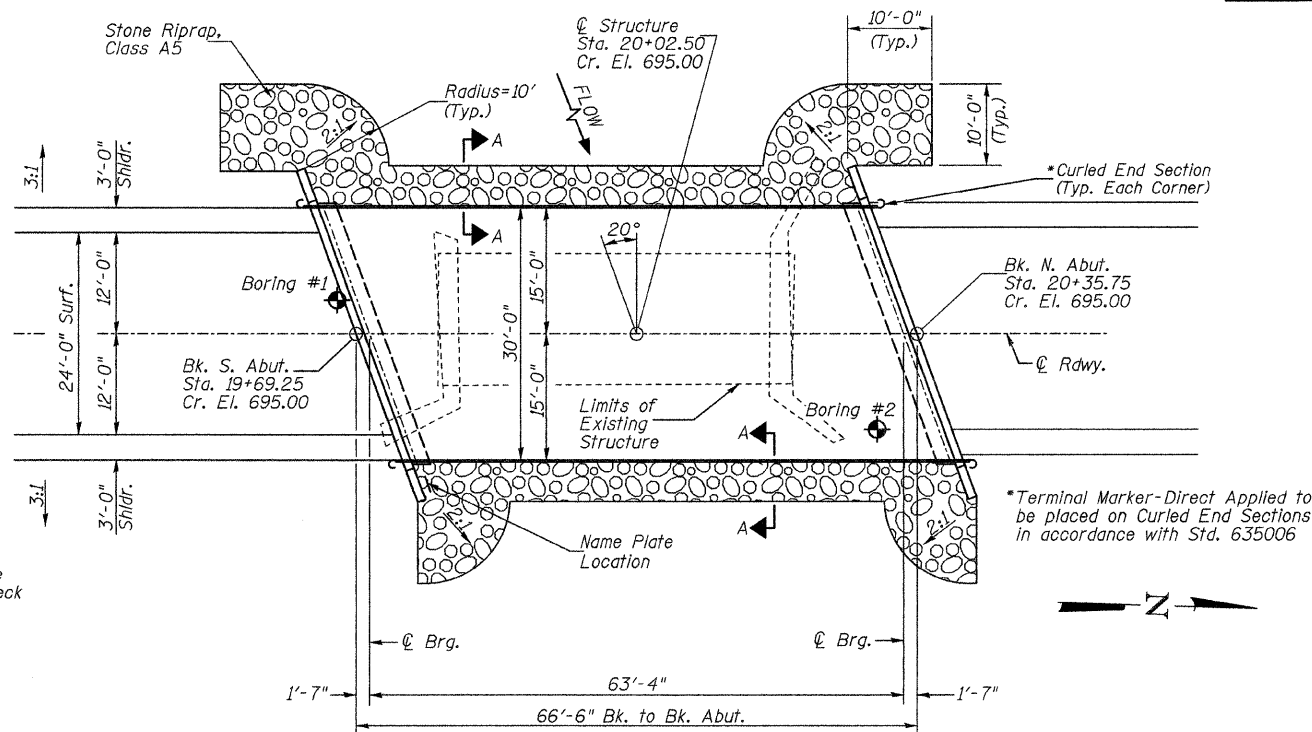
2782b001



**ELEVATION**



**PROFILE GRADE**



**PLAN**

**DESIGN SPECIFICATIONS**

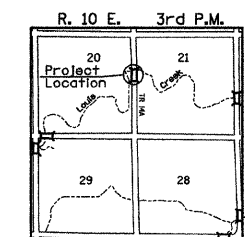
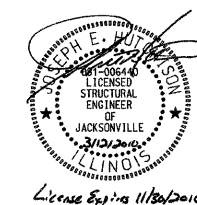
2007 AASHTO (LRFD) & Interims

**DESIGN STRESSES**

(FIELD UNITS)  $f'_c = 3,500$  p.s.i.  $f_y = 60,000$  p.s.i. (Rein.)  
 (PRECAST PRESTRESSED UNITS)  $f'_c = 6,000$  p.s.i.  $f'_{ci} = 5,000$  p.s.i.  $f'_s = 270,000$  p.s.i. ( $\frac{1}{2}$ " Strands)  $f'_{si} = 201,960$  p.s.i. ( $\frac{1}{2}$ " Strands)

**LOADING HL-93**

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



**LOCATION SKETCH**

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 Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

*Stephen E. Hout* 3/12/2010  
 Illinois Structural No. 6440  
 Expires 11/30/2010

**GENERAL NOTES**

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles. For Soil Boring Logs, See Sheets 8-9 of 9. A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications. Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated. Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. Excavation behind existing abutment walls shall be done before removing existing Superstructure. The existing structural steel coating may contain lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	---	220	220
Stone Riprap, Class A5	TON	---	410	410
Filter Fabric	SQ YD	---	350	350
Removal of Existing Structures	EACH	---	1	1
Structure Excavation	CU YD	---	70	70
Concrete Structures	CU YD	---	27.2	27.2
Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,938	---	1,938
Reinforcement Bars	POUND	---	2,950	2,950
Steel Railing, Type S1	FOOT	133	---	133
Furnishing Steel Piles HP10x42	FOOT	---	507	507
Driving Piles	FOOT	---	507	507
Test Pile Steel HP10x42	EACH	---	1	1
Concrete Encasement	CU YD	---	3.5	3.5
Name Plates	EACH	---	1	1

① See Special Provisions

**GENERAL PLAN & ELEVATION**

**IROQUOIS COUNTY**

**SECTION 02-01122-00-BR**

**T.R. 14A OVER LOUIS CREEK**

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9 SHEETS	TR 14A	02-01122-00-BR	IROQUOIS	22	7
		S.N. 038-3062	CONTRACT NO. 87460		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BROS-0075(138)		