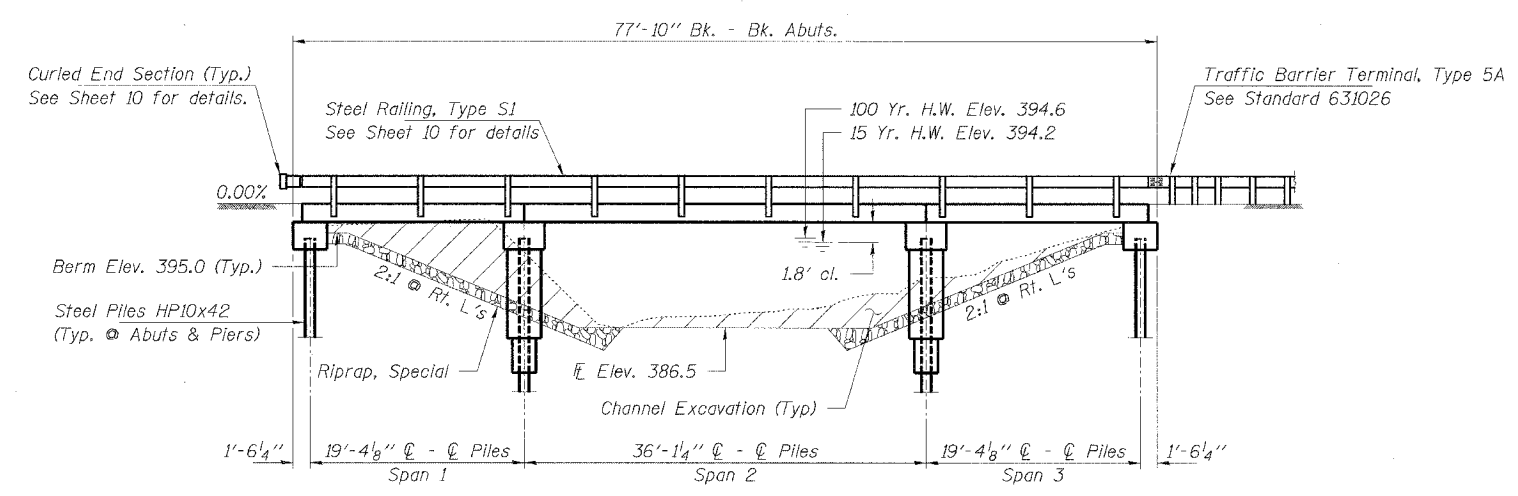


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 2821	98-16119-00-BR	WAYNE	13	7
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 95415

LICK CREEK  
 BUILT 200\_ BY  
 WAYNE COUNTY  
 SEC. 98-16119-00-BR  
 PROJ. BRS-2821 (106)  
 STR. NO. 096-3435 LOADING HS 20

**NAME PLATE**  
 See Std. 515001



**ELEVATION**

**GENERAL NOTES**

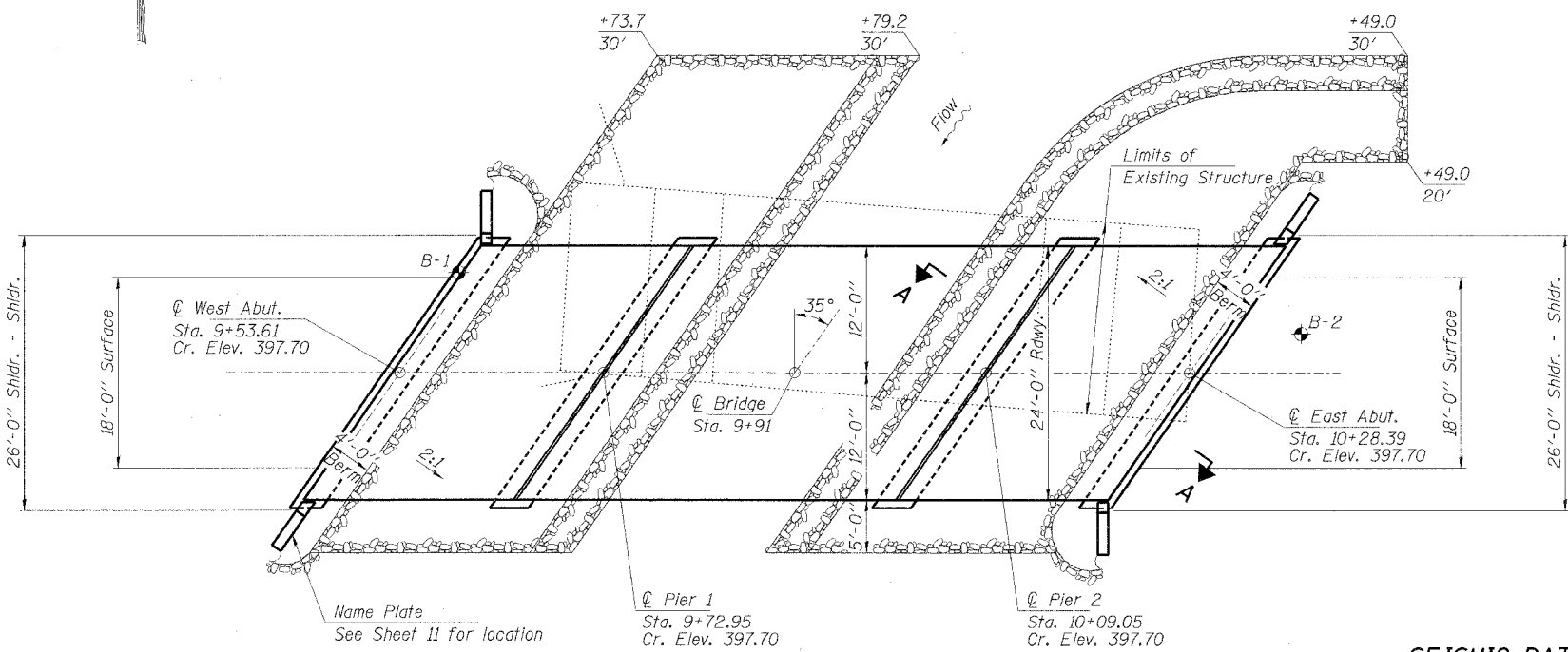
Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.

Excavation required to construct the Abutments & Piers shall be considered incidental to Concrete Structures. No additional compensation will be allowed for Structure Excavation.

The Contractor shall drive two steel test piles in permanent locations, one at the East Abutment and one at Pier 1, as directed by the Engineer before ordering the remainder of the piles.

All proposed construction activity 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.

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60. See Sheet 13 for Borings.



**PLAN**

**SEISMIC DATA**

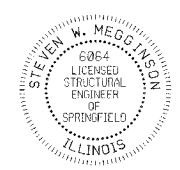
Seismic Performance Category (SPC) = B  
 Bedrock Acceleration Coefficient (A) = 0.095g  
 Site Coefficient (S) = 1.2

**DESIGN STRESSES**

f'c = 5,000 psi (Prestressed Beams)  
 f'ci = 4,000 psi (Prestressed Beams)  
 fc = 1,400 psi (Class SI Concrete)  
 f's = 270,000 psi (Prestressed Strands)  
 fsi = 189,000 psi (Prestressed Strands)  
 fs = 20,000 psi (Reinf. Bars - Field Units)  
 fy = 60,000 psi (Reinf. Bars - Precast Units)  
 n = 9 (Class SI Concrete)  
 Loading HS 20-44  
 Design Specifications: 2002 AASHTO & all applicable interims.  
 25#/Sq. Ft. included in dead load for future wearing surface.

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 Specifications for Highway Bridges".

Steven W. McGinnis 10-29-04  
 ILLINOIS STRUCTURAL NO. 6064



Expires 11-30-04

**WATERWAY INFORMATION**

Drainage Area = 3.1 Sq. Mi. Low Grade Elev. 394.0 @ Sta. 9+91

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	15	860	150	220	394.2	1.7	0.2	395.0	394.4
Base	100	1380	155	235	394.6	1.5	0.7	396.0	395.3
Overtopping									
Max. Calc.	500	1810	155	250	394.9	2.2	1.3	397.1	396.2

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1,824		1,824
Concrete Structures	Cu. Yd.		76.2	76.2
Reinforcement Bars	Pound		5,820	5,820
Steel Railing, Type S1	Foot	155		155
Name Plates	Each		1	1
Steel Piles HP10x42	Foot		415	415
Test Pile Steel HP10x42	Each		2	2
Riprap, Special	Ton			200
Underwater Structure Exc. Protection Location 1	Each		1	1
Underwater Structure Exc. Protection Location 2	Each		1	1

**GENERAL PLAN AND ELEVATION**  
 SECTION 98-16119-00-BR  
 MASSILON ROAD DISTRICT  
 WAYNE COUNTY  
 STATION 9+91

**HLR**  
 Rice, Berry and Associates  
 A Division of Hampton, Lenzini and Renwick, Inc.  
 Civil & Structural Engineers  
 801 S. Durkin Drive  
 Springfield, Illinois 62704  
 217-546-3400  
 P.O. Box 1036  
 DuQuoin, Illinois 62832  
 618-190-4637

Account Number: 12-97-0005-1  
 Date: 10/27/04  
 DESIGNED: S.W.M. CHECKED: M.G.B. DRAWN: D.T.M.