

B.M.  
 RR Spike in Power Pole Sta. 56+31, 20' RT Elev. 99.53  
 RR Spike in Power Pole Sta. 64+96, 19' RT Elev. 95.88

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 OF 10 SHEETS
TR 251	*	IROQUOIS	18	6	
FED. ROAD DIST. NO. 7		BILLINGS	PROJECT BROS-075(130)		
*98-26104-01-BR 98-25104-01-BR		CONTRACT #87336			

**EXISTING STRUCTURE:**

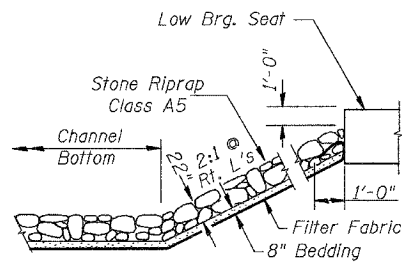
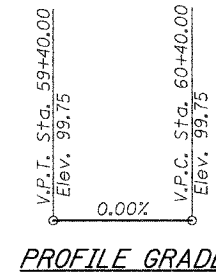
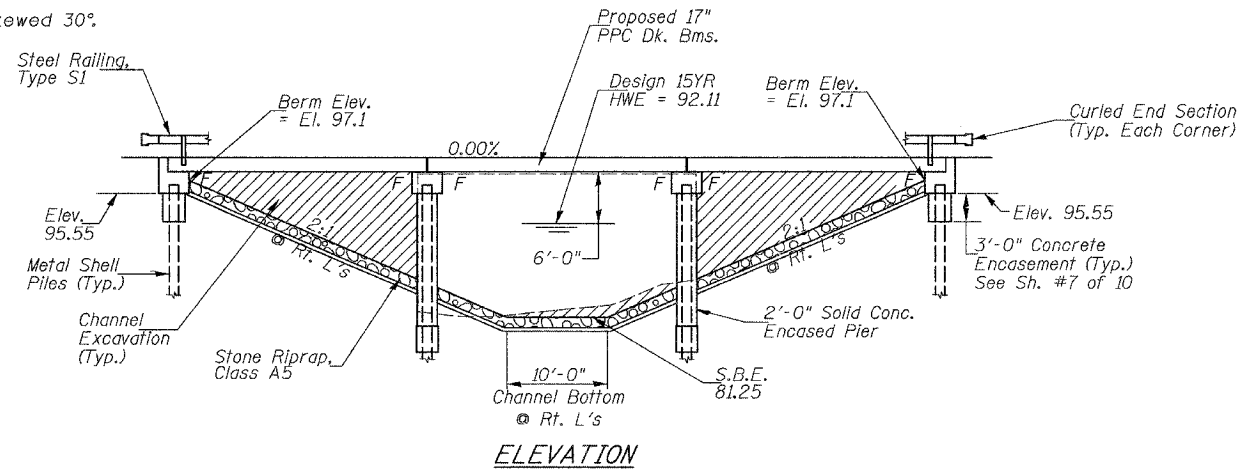
Single span reinforced concrete slab deck with concrete rail superstructure supported on timber-closed abutments with concrete caps and timber piling/backing. The structure is ±37' back to abutments, ±24' out to out of deck, and is skewed 30°. Str. No. 038-5526

Salvage: None

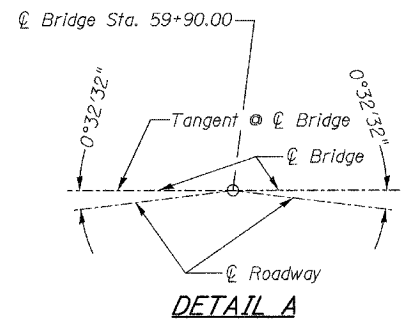
Road to be closed to traffic during construction.

**GENERAL NOTES**

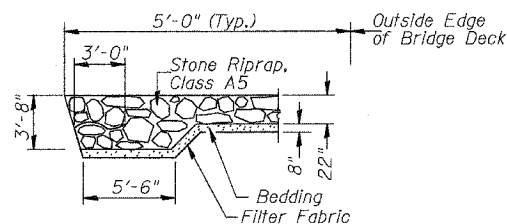
The Contractor shall drive 2 test piles, in permanent locations, one at the East Abutment and one at Pier #1 as directed by the Engineer before ordering the remaining piles.  
 For Soil Boring Logs, See Sheets 8-10 of 10.  
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams.  
 Reinforcement Bars shall conform to AASHTO M-31 or M-322, Grade 60.  
 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.



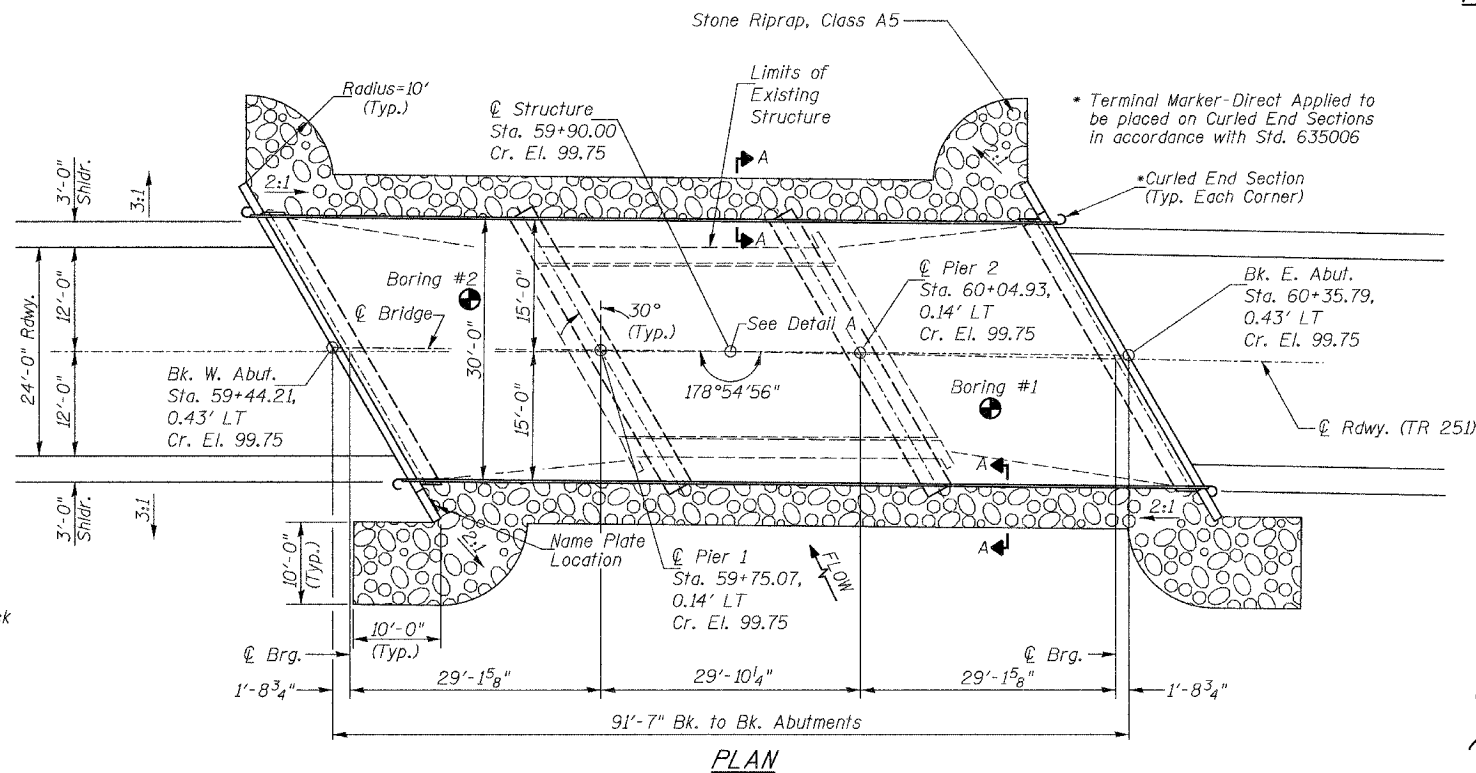
**STONE RIPRAP DETAIL**



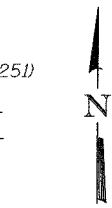
**DETAIL A**



**SECTION A-A**



**PLAN**



Professional Engineer Seal for E. HUTCHINS, State of Illinois, License No. 413,000, Expires 11/30/2008.

**COON CREEK  
 BUILT 200\_ BY  
 STOCKLAND/SHELDON ROAD DISTRICTS  
 IROQUOIS COUNTY  
 SEC. 98-26104-01-BR / 98-25104-01-BR  
 T.R. 251 STATION 59+90.00  
 F.A. PROJ. BROS-075(130)  
 STR. NO. 038-5562 LOADING HS20-44**

**NAME PLATE**

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

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	450	450
Stone Riprap, Class A5	TON	—	590	590
Filter Fabric	SQ YD	—	570	570
① Removal of Existing Structures	EACH	—	—	1
Structure Excavation	CU YD	—	130	130
Concrete Structures	CU YD	—	125.6	125.6
Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	2,678	—	2,678
① Reinforcement Bars	POUND	—	10,910	10,910
Steel Railing, Type S1	FOOT	—	184	184
Furnishing Metal Shell Piles 12"	FOOT	—	1,065	1,065
Driving Piles	FOOT	—	1,065	1,065
Test Pile Metal Shells	EACH	—	2	2
Concrete Encasement	CU YD	—	7.8	7.8
Name Plates	EACH	—	—	1
① Underwater Structure Excavation Protection-Location 1 (Pier #1)	EACH	—	1	1
① Underwater Structure Excavation Protection-Location 2 (Pier #2)	EACH	—	1	1

① See Special Provisions

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.

Signature of E. HUTCHINS, dated 4/13/2007, Illinois Structural No. 6440, Expires 11/30/2008.

**DESIGN SPECIFICATIONS**

2002 AASHTO & Interims

**DESIGN STRESSES**

(FIELD UNITS)  $f'_c = 3,500$  p.s.i.  $f_y = 60,000$  p.s.i. (Rein.)  
 (PRECAST PRESTRESSED UNITS)  $f'_c = 5,000$  p.s.i.  $f'_{ci} = 4,000$  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 HS20-44**

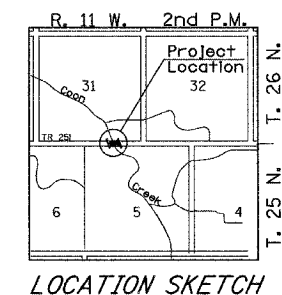
Allow 50#/sq. ft. future wearing surface.

**WATERWAY INFORMATION**

Drainage Area = 14.10 Sq. Mi.		Low Grade Elev. = 95.97 @ Sta. 63+00.00						
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. ft.		Nat. H.W.E. ft.	Head - ft.		Headwater Elev. - ft.
			Exist.	Prop.		Exist.	Prop.	
Design	15	1,251	263	317	92.11	0.06	0.03	92.17
Base	100	1,919	330	448	94.52	0.13	0.04	94.65

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

DESIGNED	B.A.N.
CHECKED	J.E.H.
DRAWN	C.E.T.
CHECKED	B.A.N./J.E.H.



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION  
 T.R. 251 OVER COON CREEK  
 SECTION 98-26104-01-BR / 98-25104-01-BR  
 IROQUOIS COUNTY  
 STR. NO. 038-5562  
 STATION 59+90.00**