

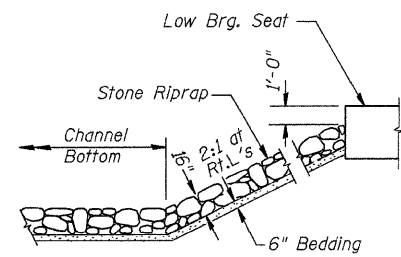
B.M.: RR Spike in Power Pole
Sta. 59+17, 21' Lt.
Elev. 594.78

RR Spike in Power Pole,
Sta. 62+00, 34' Lt.
Elev. 595.32

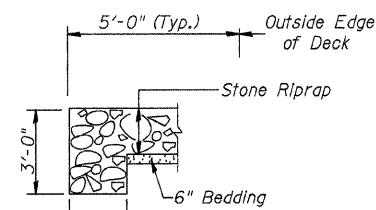
Existing Structure:
Single span reinforced concrete slab on timber closed abutments.
The structure is ±29' back to back of abutments,
±20' out to out of deck and is skewed ±40°.
Str. No. 075-3084

Salvage: None

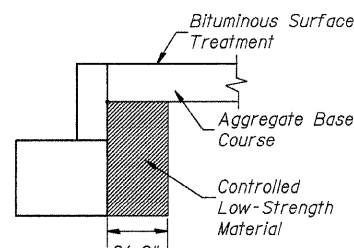
Road to be closed to traffic during construction.



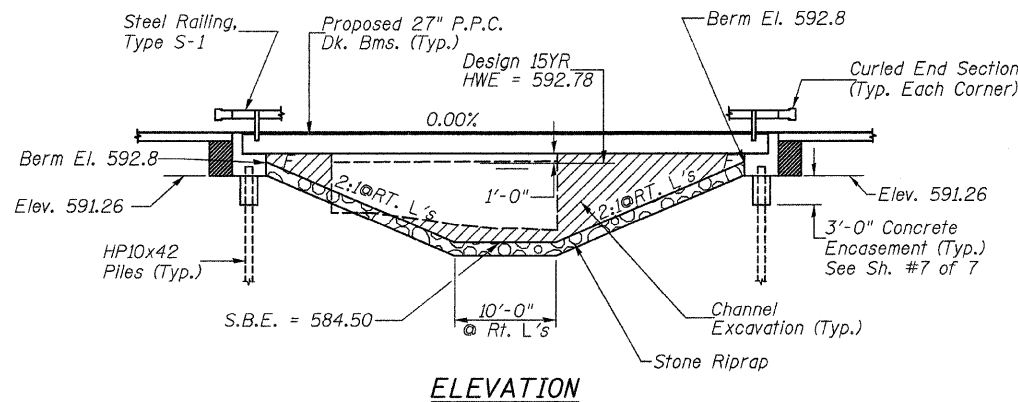
STONE RIPRAP DETAIL



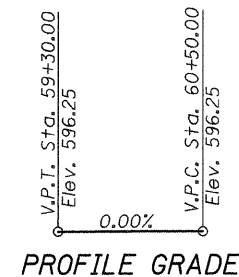
SECTION A-A



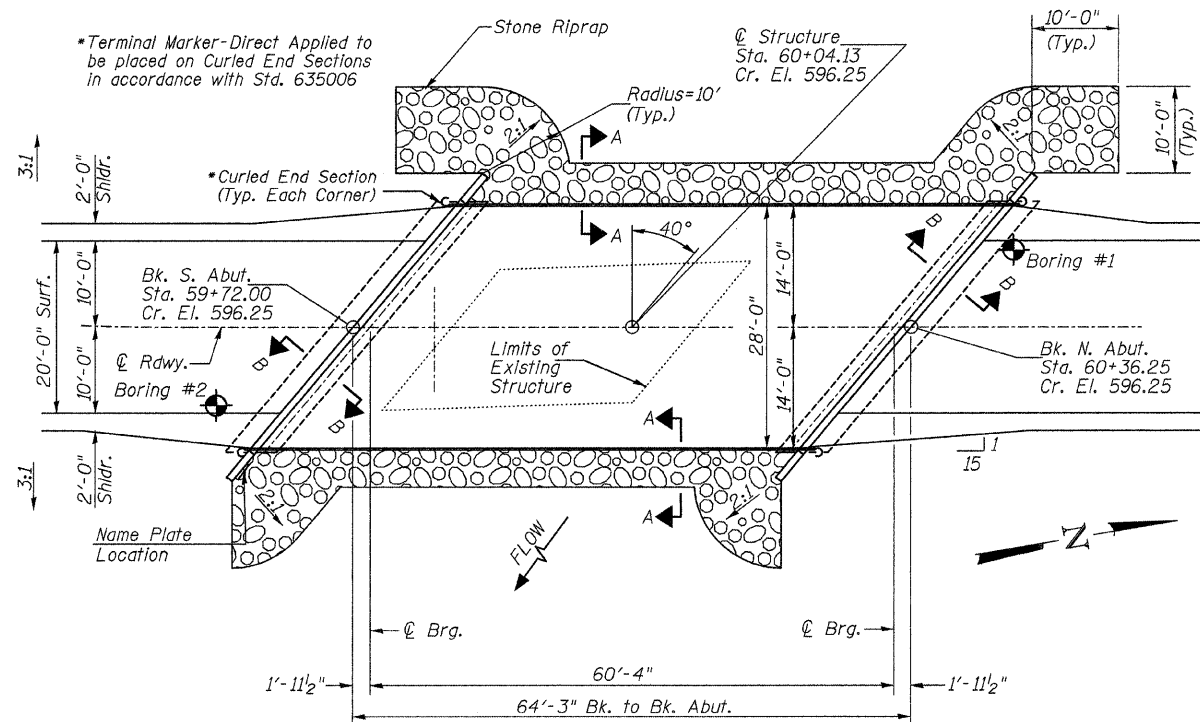
SECTION B-B



ELEVATION



PROFILE GRADE



PLAN

DESIGN SCOUR TABLE

Location	S. Abut	N. Abut
Design Scour Elevation	591.26	591.26

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	891	138	220	592.78	0.31	0.14	593.09	592.92
Base	100	1,470	138	248	593.44	1.61	0.46	595.05	593.90

OVER-THE-ROAD AREA

Freq. Yr.	Existing	Proposed
15	0	0
100	1	0

DESIGN SPECIFICATIONS

2007 AASHTO (LRFD) & Interims

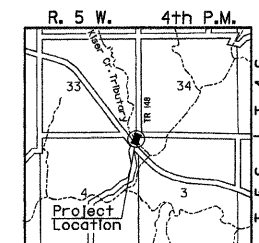
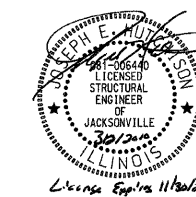
DESIGN STRESSES

(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.

[Signature] 3/2/2010
Illinois Structural No. 6440
Expires 11/30/2010

GENERAL NOTES

The Contractor shall drive test piles to 100% 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 Special Provisions. 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 top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

**KISER CREEK TRIBUTARY
BUILT 201 BY
DERRY ROAD DISTRICT
PIKE COUNTY
SEC. 07-05107-00-BR
T.R. 148 STATION 60+04.13
F.A. PROJ. BROS-0149(040)
STR. NO. 075-3315 LOADING HL-93**

NAME PLATE

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	170	170
Riprap, Special	TON	—	240	240
Removal of Existing Structures	EACH	—	—	1
Structure Excavation	CU YD	—	60	60
Controlled Low-Strength Material	CU YD	—	22.0	22.0
Concrete Structures	CU YD	—	30.8	30.8
Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,732	—	1,732
Reinforcement Bars	POUND	—	3,370	3,370
Steel Railing, Type S1	FOOT	129	—	129
Furnishing Steel Piles HP10x42	FOOT	—	190	190
Driving Piles	FOOT	—	190	190
Test Pile Steel HP10x42	EACH	—	2	2
Concrete Encasement	CU YD	—	4.2	4.2
Name Plates	EACH	—	1	1
Bituminous Surface Treatment, A-2 Special	SQ YD	200	—	200

① See Special Provisions

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

GENERAL PLAN & ELEVATION

PIKE COUNTY

SECTION 07-05107-00-BR

T.R. 148 OVER KISER CREEK TRIBUTARY

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 SHEETS	TR 148	07-05107-00-BR	PIKE	18	7
S.N. 075-3315			CONTRACT NO. 98532		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BROS-0149(040)		