

BENCHMARK:

EXISTING STRUCTURE: Sta. 5+01.6 - Single span steel I-beam bridge with concrete abutments & wingwalls. 45.0' bk. - bk. abuts.; 14.2' o.-o. deck Structure closed to traffic.

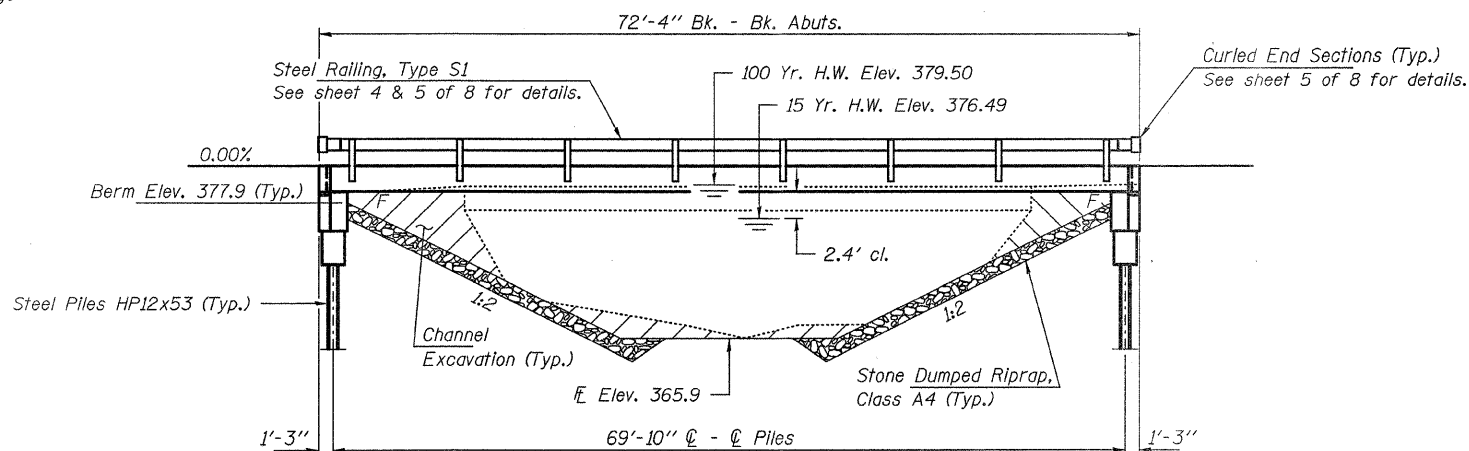
No Salvage

GENERAL NOTES

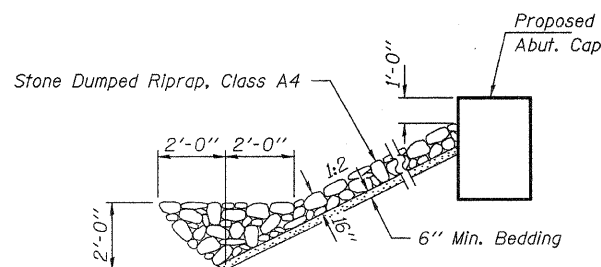
Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production location at North Abutment or approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. 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 Sheet 8 of 8 for Borings.

SOUTHERN OUTLET
 BUILT 200_ BY
 HAMILTON COUNTY
 SEC. 08-01115-00-BR
 BEAVER CREEK ROAD DISTRICT
 STR. NO. 033-3309
 LOADING HL-93

NAME PLATE
 See Std. 515001

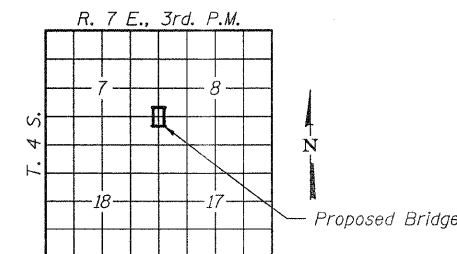


ELEVATION

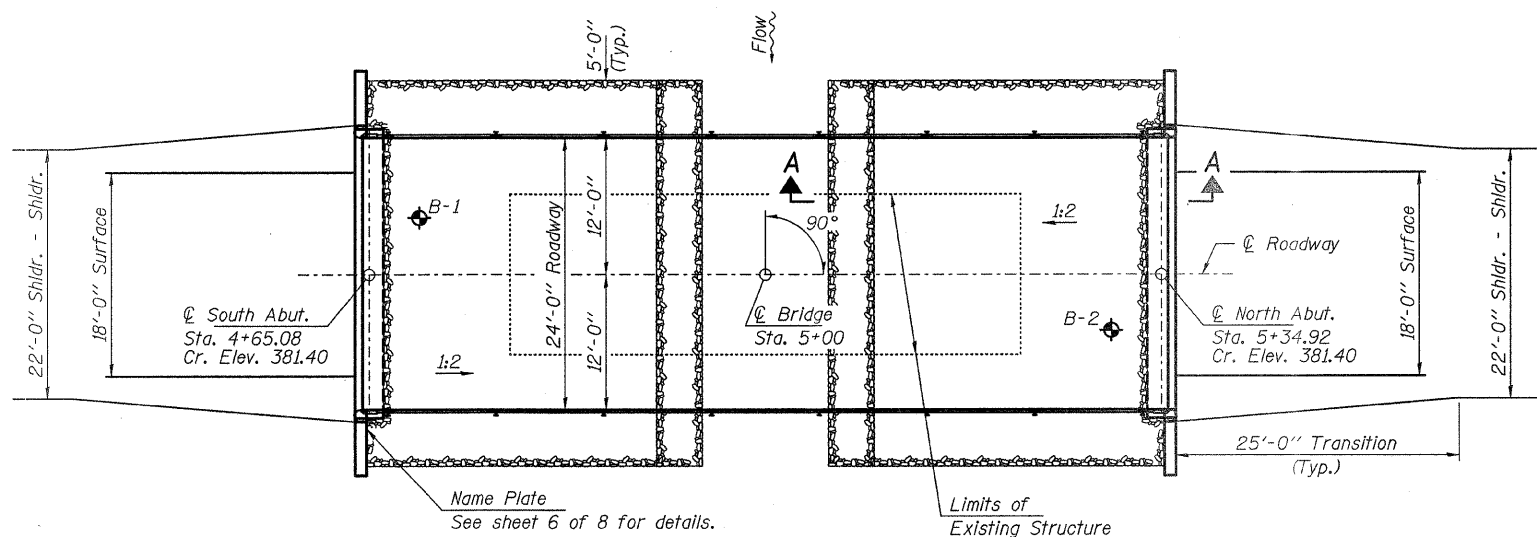
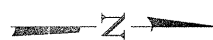


SECTION A-A

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



LOCATION SKETCH



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A4	Ton			180
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 (27" Depth)	Sq. Ft.	1,704		1,704
Reinforcement Bars	Pound		2,670	2,670
Steel Railing, Type S1	Foot	137		137
Furnishing Steel Piles HP12x53	Foot		352	352
Driving Piles	Foot		352	352
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

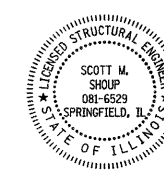
Seismic Performance Zone (SPZ) = 3
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.455g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.864g
 Soil Site Class = E

WATERWAY DATA

Drainage Area..... 7.2 Sq. Mi.
 Existing Opening (15 yr)..... 360 Sq. Ft.
 Req'd Opening (15 yr)..... 385 Sq. Ft.
 Proposed Opening (15 yr)..... 385 Sq. Ft.
 Design Discharge (15 yr)..... 2,210 C.F.S.
 Created Head (15 yr)..... 0.0 Ft.
 100 Yr. Discharge..... 3,800 C.F.S.
 100 Yr. Created Head..... 0.2 Ft.

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."

Scott M. Shoup
 2-6-2009
 ILLINOIS STRUCTURAL NO. 081-6529



Expires 11-30-2010

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 033-3309

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

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 548-3400
 PROJECT NUMBER: 08.0104.130 DATE: 01/21/09

SHEET NO. 1	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	376	08-01115-00-BR	HAMILTON	12	5
8 SHEETS	BEAVER CREEK ROAD DISTRICT		CONTRACT NO. 99355		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT BROS-065(44)		