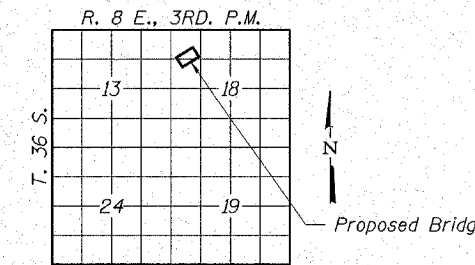


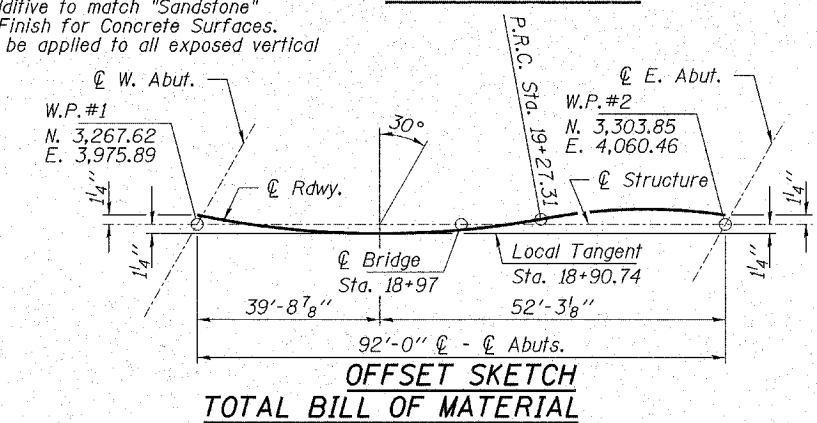
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SH. N.
F.A.S. 2111	01-00268-00-BR	KANE	70	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 8397	

MILL CREEK  
 BUILT 200\_ BY  
 KANE COUNTY  
 SEC. 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 F.A. PROJ. BRS-2111(103)  
 STR. NO. 045-3019 / LOADING HS 20

**NAME PLATE**  
 See Std. 515001



**LOCATION SKETCH**

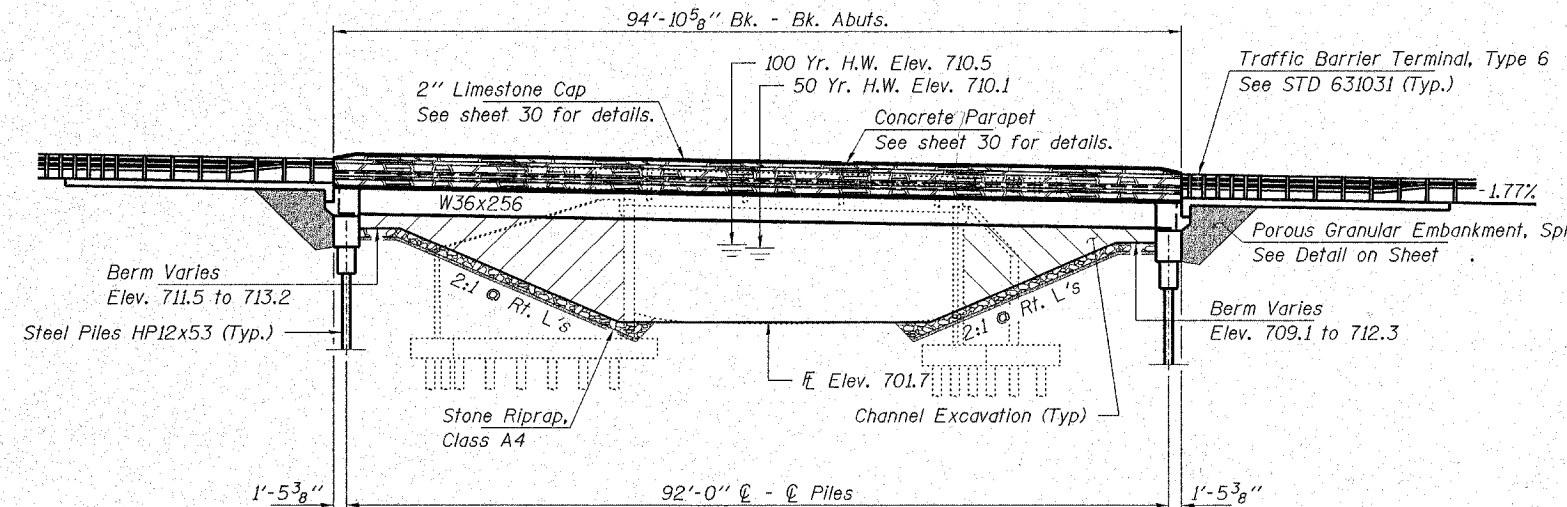


**OFFSET SKETCH**  
**TOTAL BILL OF MATERIAL**

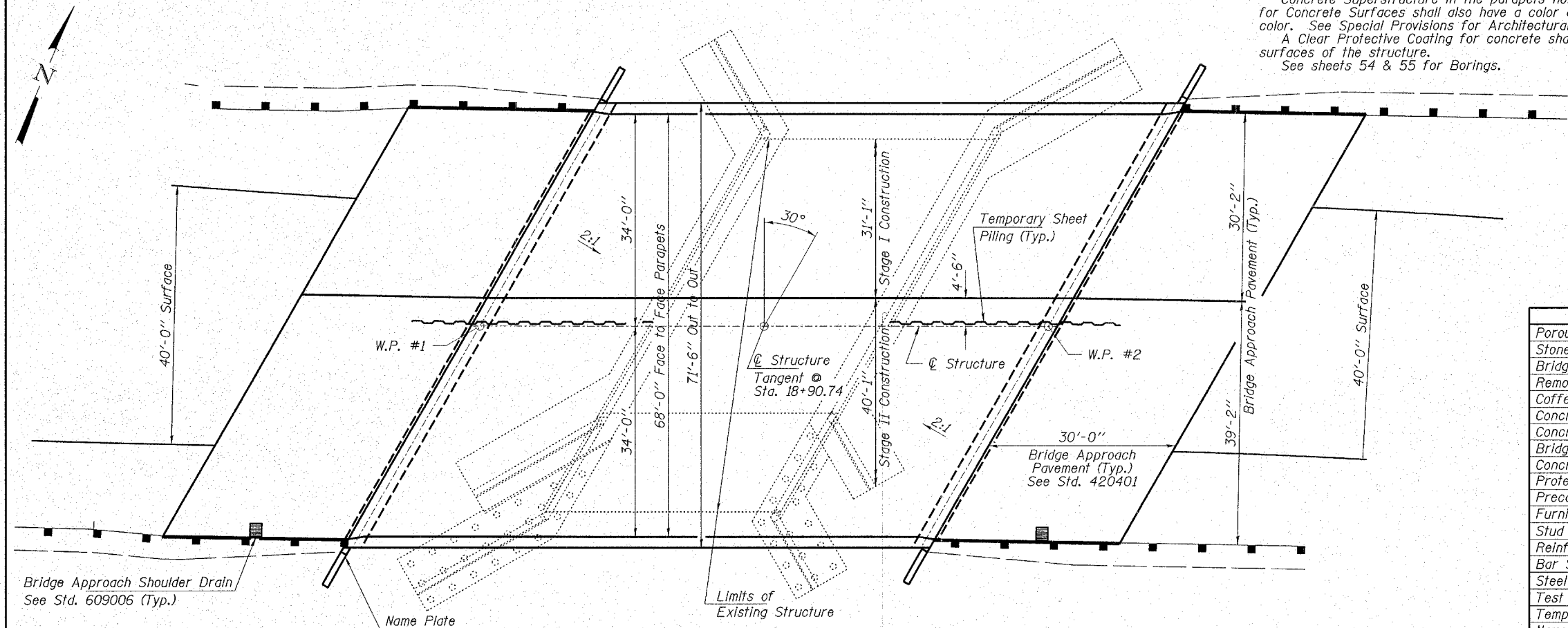
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Ton		515	515
Stone Riprap, Class A4	Ton		1,000	1,000
Bridge Approach Pavement	Sq. Yd.	462		462
Removal of Existing Structures	Each		1	1
Cofferdams	Each		2	2
Concrete Structures	Cu. Yd.		75.0	75.0
Concrete Superstructure	Cu. Yd.	267.9		267.9
Bridge Deck Grooving	Sq. Yd.	717		717
Concrete Encasement	Cu. Yd.		11.2	11.2
Protective Coat	Sq. Yd.	1,183		1,183
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	149		149
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1,914		1,914
Reinforcement Bars, Epoxy Coated	Pound	40,910	10,140	51,050
Bar Splicers	Each	410	30	440
Steel Piles HPI2x53	Foot		1,350	1,350
Test Pile Steel HPI2x53	Each		2	2
Temporary Sheet Piling	Sq. Ft.		4,400	4,400
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		163	163
Concrete Headwalls for Pipe Drains	Each		4	4
Pipe Underdrains for Structure, 4"	Foot		234	234
Concrete Wearing Surface (3")	Sq. Yd.	717		717
Clear Protective Coating for Concrete	Sq. Ft.	1,078		1,078
Architectural Finish for Concrete Surfaces	Sq. Ft.	1,078		1,078
Limestone Cap	Foot	190		190

**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 3, mechanically galvanized bolts  
 Bolts 3/4 in.  $\phi$ , holes 5/8 in.  $\phi$ , unless otherwise noted.  
 Calculated weight of Structural Steel = 280,520 lbs.  
 All structural steel shall be AASHTO M 270 Grade 50W  
 No field welding is permitted except as specified in the contract documents.  
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions  
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".  
 Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
 The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.  
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.  
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.  
 Excavation required to construct the Abutments and porous granular shall be considered incidental to Concrete Structures. No additional compensation will be allowed for Structure Excavation.  
 All proposed construction activities shall be in accordance with a Regional Permit of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued a Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.  
 Concrete Superstructure in the parapets noted to receive Architectural Finish for Concrete Surfaces shall also have a color additive to match "Sandstone" color. See Special Provisions for Architectural Finish for Concrete Surfaces.  
 A Clear Protective Coating for concrete shall be applied to all exposed vertical surfaces of the structure.  
 See sheets 54 & 55 for Borings.



**ELEVATION**



**PLAN**

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.04g  
 Site Coefficient (S) = 1.2

**DESIGN SPECIFICATIONS**

2002 AASHTO & all applicable Interims

**LOADING HS 20-44**

Allow 50#/sq. ft. for future wearing surface.  
 Allow 120 Kip KCDOT Permit Vehicle

**DESIGN STRESSES**

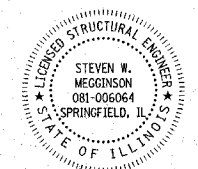
$f'_c = 3,500$  p.s.i.  
 $f_y = 60,000$  p.s.i. (Reinforcement)  
 $f_y = 50,000$  p.s.i. (Structural Steel) (M270 GR. 50 W)  
 $n = 9$

**WATERWAY INFORMATION**

Drainage Area = 18.3 Sq. Mi.		Low Grade Elev. 710.88 @ Sta. 23+50							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Natural H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.			
Design	50	2,605	260 360	710.1 0.9 0.9	711.3 711.3				
Base	100	3,066	270 390	710.5 1.6 1.3	712.2 711.9				
Overtopping									
Max. Calc.	500	4,476	290 420	711.0 3.3 2.4	714.3 713.4				

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. Megginson*  
 ILLINOIS STRUCTURAL NO. 081-006064



Expires 11-30-08

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

3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

**ELGIN • SPRINGFIELD**

PROJECT NUMBER: 12-06-0060-1 DATE: 08/29/07  
 DESIGNED: R.J.P. CHECKED: S.W.M. DRAWN: D.A.B.

**GENERAL PLAN AND ELEVATION**  
 SECTION 01-00268-00-BR  
 F.A.S. 2111 / FABYAN PARKWAY  
 KANE COUNTY  
 STATION 18+97 / STRUCTURE NO. 045-3019