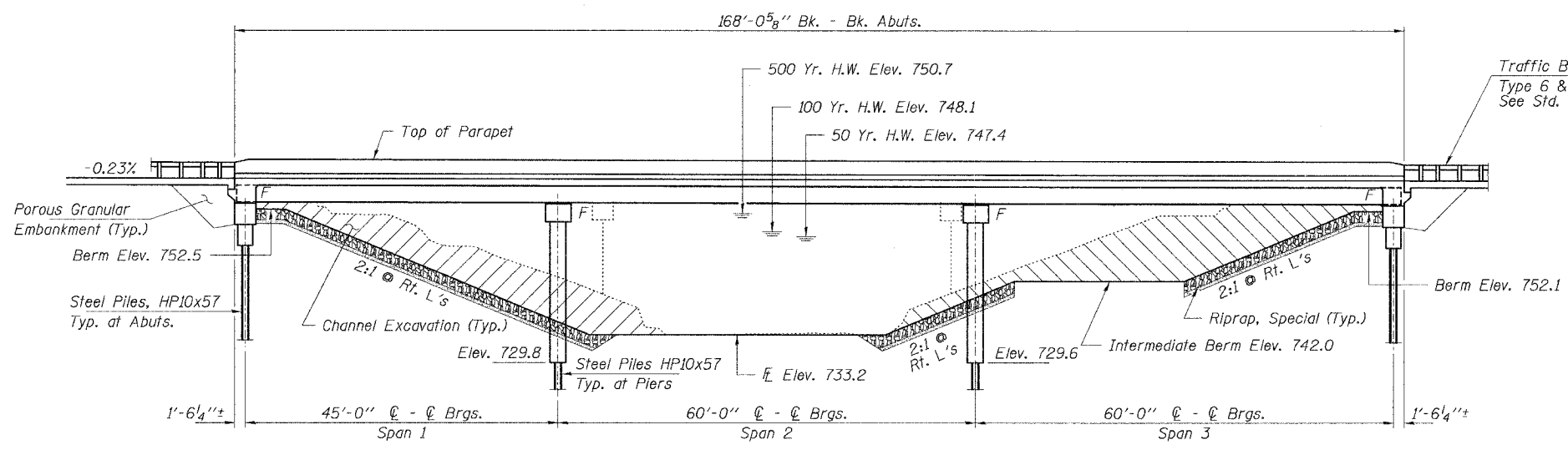


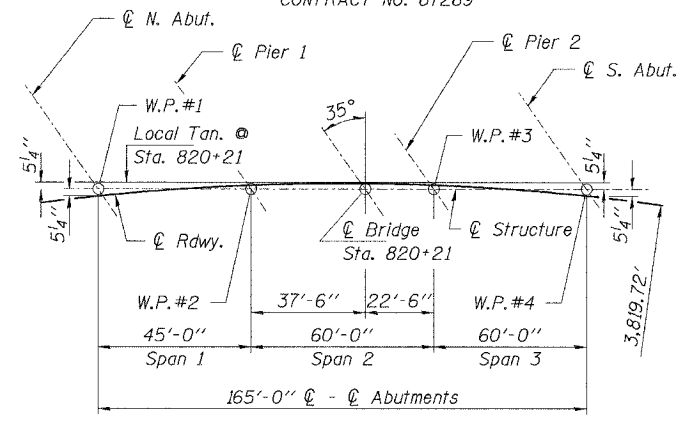
ROUTE NO.	SECTION	COUNTY	DATE	SHEET
F.A.U. 6385	00-00182-01-BR	McLEAN	33	17
FED. ROAD DIST. NO.		ALLIANCE	FED. AID PROJECT - BRN-822743	

CONTRACT NO. 87269



**ELEVATION**

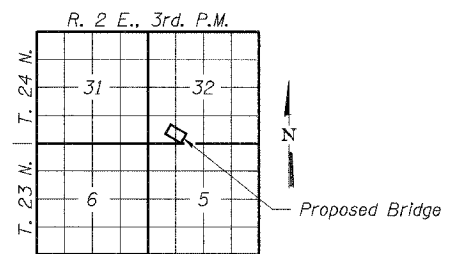
Note: Channel Excavation quantity is included with Roadway Plans.



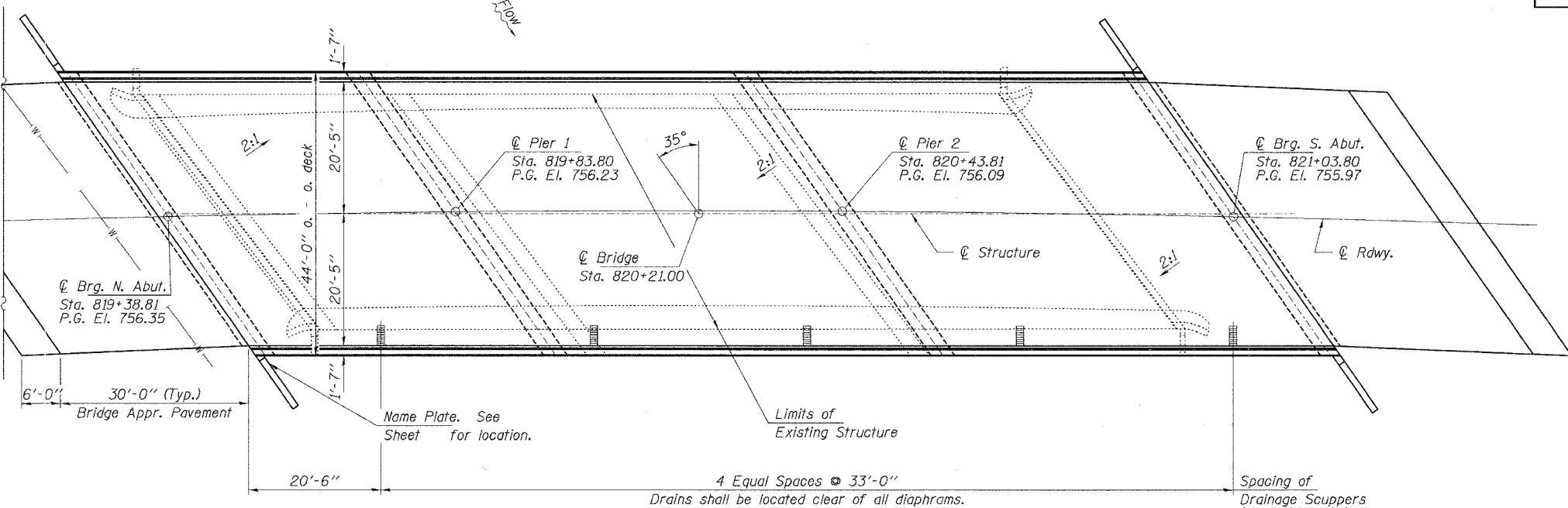
**OFFSET SKETCH**

SUGAR CREEK  
BUILT 200 BY  
McLEAN COUNTY  
SEC. 00-00182-01-BR  
F.A.U. ROUTE 6385 / C.H. 70  
F.A. PROJ. BRM-5227(43)  
STR. NO. 057-5306 LOADING HS 20

**NAME PLATE**  
See Std. 515001



**LOCATION SKETCH**



**PLAN**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Superstructure	Cu. Yd.	249.4		249.4
Concrete Structures	Cu. Yd.		83.0	83.0
Furnishing and Erecting Structural Steel	L. Sum	1		1
Reinforcement Bars, Epoxy Coated	Pound	62,210	10,890	73,100
Steel Piles HP10x57	Foot		1,300	1,300
Test Pile Steel HP10x57	Each		2	2
Name Plates	Each		1	1
Riprap, Special	Sq. Yd.			1,060
Protective Coat	Sq. Yd.	903		903
Porous Granular Embankment	Ton			250
Bar Splicers	Each	84		84
Removal of Existing Structures	Each		1	1
Drainage Scuppers	Each	5		5
Underwater Str. Exc. Protection, Location 1	Each		1	1
Underwater Str. Exc. Protection, Location 2	Each		1	1
Concrete Encasement	Cu. Yd.		28.8	28.8
Bridge Deck Grooving	Sq. Yd.	763		763
Stud Shear Connectors	Each	3,042		3,042
Slope Wall Removal	Sq. Yd.			765

**DESIGN SPECIFICATIONS**  
2002 AASHTO & Applicable Interims

**LOADING HS 20-44**

Allow 25#/sq. ft. for future wearing surface.

**DESIGN STRESSES**

f'c = 3,500 p.s.i.  
fy = 60,000 p.s.i. (Reinforcement)  
fy = 50,000 p.s.i. (Structural Steel) (M270 Gr. 50W)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.045g  
Site Coefficient (S) = 1.5

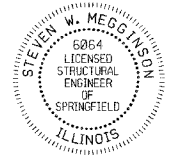
**WATERWAY INFORMATION**

Drainage Area = 20.1 Sq. Mi. Low Grade Elev. 754.6 @ Sta. 825+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exst. Prop.	Nat. H.W.E.	Head - ft. Exst. Prop.	Headwater El. Exst. Prop.
Design	50	3,980	620 980	747.4	1.7 1.5	749.1 748.9
Base	100	5,340	670 1,050	748.1	1.9 1.6	750.0 749.7
Overtopping	100	-	-	-	-	-
Max. Calc.	500	7,600	870 1,350	750.7	2.2 2.0	752.9 752.7

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* 11-15-05  
ILLINOIS STRUCTURAL NO. 6064



Expires 11-30-06

**HLR**  
Rice, Berry and Associates  
A Division of Hampton, Lenzini and Renwick, Inc.  
Civil & Structural Engineers  
3085 Stevenson Drive  
Suite 201  
Springfield, Illinois 62703  
217-546-3400  
P.O. Box 1036  
DuQuoin, Illinois 62832  
618-790-4637  
Date: 11/15/05  
DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.B.

**GENERAL PLAN AND ELEVATION**

F.A.U. 6385 / C.H. 70 OVER SUGAR CREEK  
SECTION 00-00182-01-BR  
McLEAN COUNTY  
STRUCTURE 057-5306 / STATION 820+21