

B.M.: #14; Elevation 584.58, Chiseled "L" on SW wingwall of bridge #068-0022, Existing Structure: SN 068-0022, built in 1928 as Route FA 42, Section 105-B, reconstructed in 1961, 1978 and 2004. In 2009, wide flange beams were installed under four beams. The existing structure is a one-span Deck Beam Bridge, 43'-0" back-to-back abutments, 46'-0" out-to-out of deck, supported on closed abutments. To be removed.

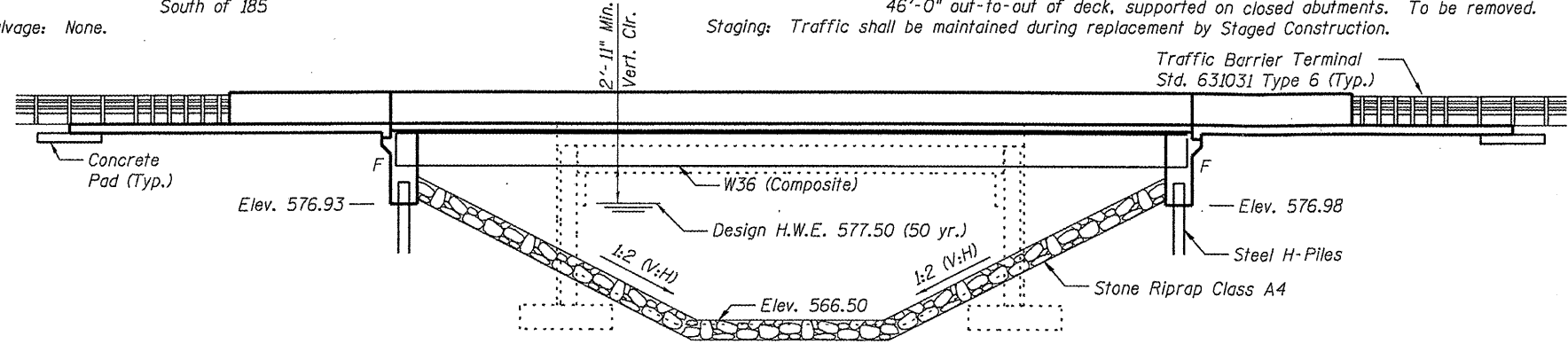
B.M.: #15; Elevation 617.27, Chiseled "L" in headwall, West side of 127 & 2.2 miles South of 185

Salvage: None.

Staging: Traffic shall be maintained during replacement by Staged Construction.

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DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

LOADING HL-93

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

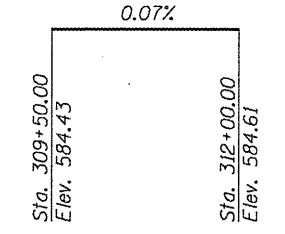
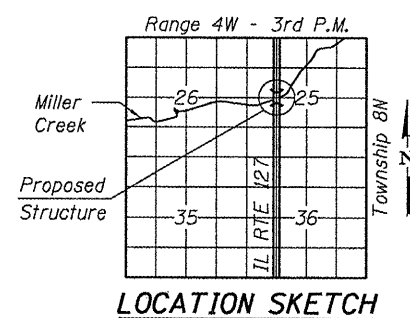
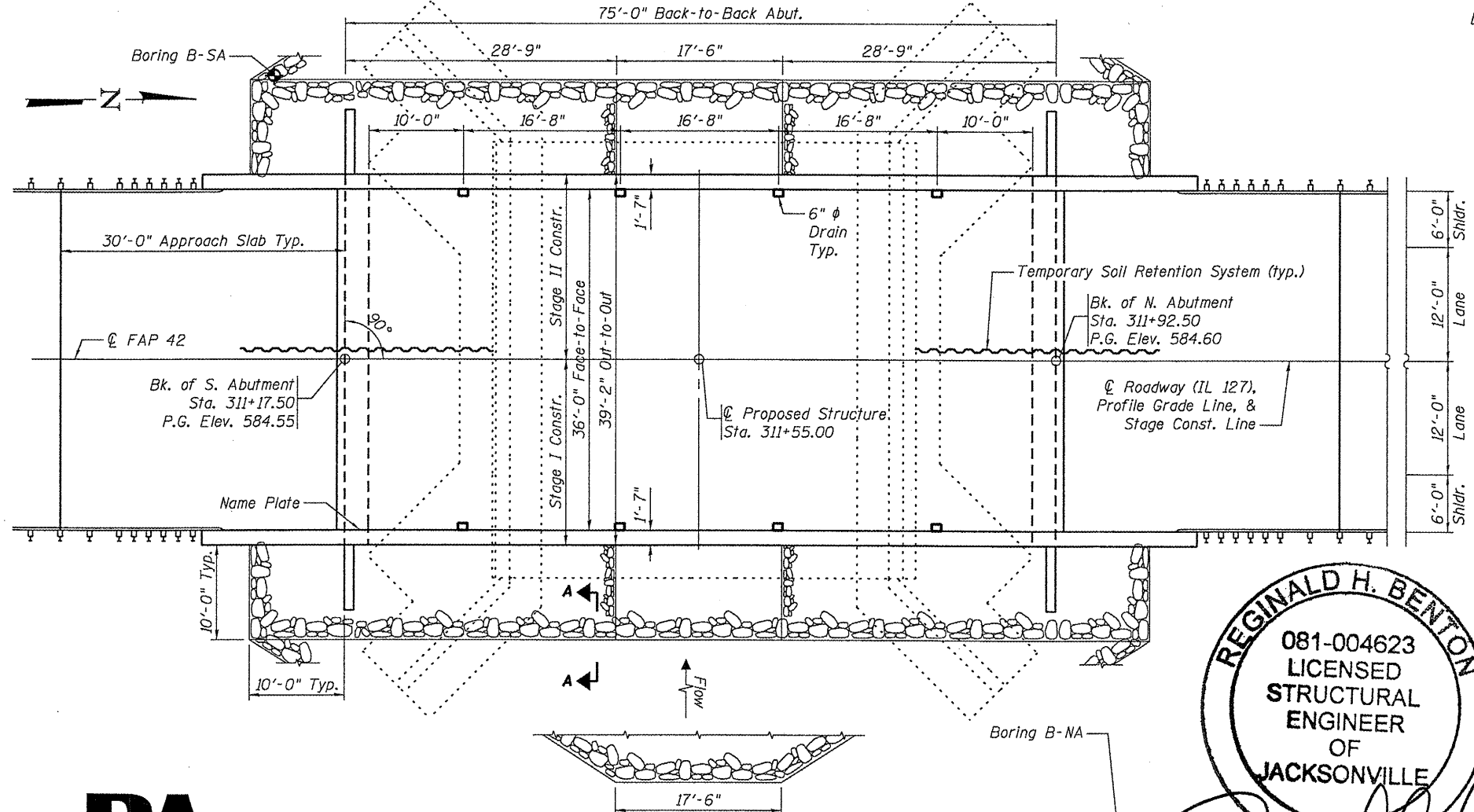
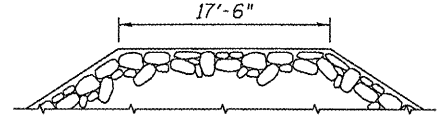
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = .147g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = .348g
 Soil Site Class = C

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications

ELEVATION



**PROFILE GRADE
F.A.P. 42 (I.L. 127)**
Along Centerline Roadway

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abutment	N. Abutment
	577.12	577.14

WATERWAY INFORMATION

Drainage Area = 3.30 sq. mi. Proposed Low Grade Elev. = 584.42 @ Sta. 313+60

Flood Yr.	Freq.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.		
		Exist.	Prop.		Exist.	Prop.	Exist.	Prop.	
Design	50	2025	333.6	396.8	577.5	0.0	0.0	577.12	577.23
Base	100	2384	356.0	434.9	578.1	0.0	0.0	577.70	577.85
Overtopping (Existing)	--	--	--	--	--	--	--	--	--
Max. Calc.	500	3267	404.5	516.6	579.5	0.0	0.0	578.95	579.09



APPROVED
For Structural Adequacy Only
Reginald H. Benton
10/4/2011
EXP 11/30/2012
Engineer of Bridges & Structures

**GENERAL PLAN & ELEVATION
IL ROUTE 127 OVER MILLER CREEK
F.A.P. RTE. 42 - SEC. 105B-1
MONTGOMERY COUNTY
IL ROUTE 127 STA. 311+55.00
STRUCTURE NO. 068-0511**

BA
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IL Design Firm Registration No. 184-000852

FILE NAME = P:\07e1820-2\Design\Plans\Structure Sheets\0680511-72866-001-GPE.dgn	USER NAME =	DESIGNED - MBH	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 068-0511	F.A.P. RTE. 42	SECTION 105B-1	COUNTY MONTGOMERY	TOTAL SHEETS 63	SHEET NO. 22
	PLOT SCALE =	CHECKED - SJH	REVISOR -		SHEET NO. 1 OF 20 SHEETS	CONTRACT NO. 72866		FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT		
	PLOT DATE =	DRAWN - MBH	REVISOR -							
		CHECKED - SJH	REVISOR -							