

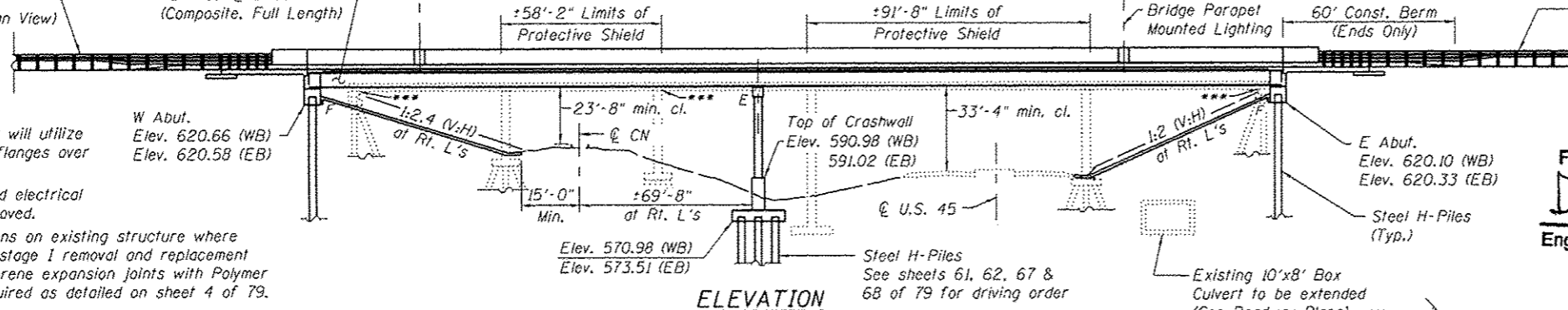
Bench Mark: Chiseled square on raised concrete median at center of US 45 approximately 140'-0" North of I-57/70 centerline. US Route 45 Sta. 60+10. Elev. 592.07.

Existing Structure: S.N. 025-0013 (WB) & 025-0014 (EB), built in 1960 and widened in 1994, are each five spans consisting of one two span unit and one three span unit. Each superstructure is a reinforced concrete deck 63'-2" out to out and is supported on steel stringers. All of the spans are noncomposite except for the fourth spans. The back to back of abutment length of each structure is 355'-8". The superstructure is supported by spill through abutments and reinforced concrete hammer head piers. Existing Structure shall be removed and replaced. Construction shall be staged so that two lanes remain open at all times.

Weather Station to be Salvaged.

Traffic Barrier Terminal Type 6 Std. 631031 (For locations see Plan View)

73" Web  $\phi$  Girder (Composite, Full Length)



ELEVATION

**APPROVED**  
For Structural Adqu...  
*D. Carl Purpy*  
Engineer of Bridges & Structures

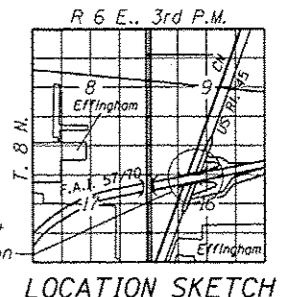
**SEISMIC DATA**  
Seismic Performance Zone (SPZ) = 2  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.150  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.350  
Soil Site Class = C

**DESIGN SPECIFICATIONS**  
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2012 Interim

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c$  = 3,500 psi  
 $f_y$  = 60,000 psi (Reinforcement)  
 $f_y$  = 50,000 psi (M270 Grade 50)  
 $f_y$  = 70,000 psi (M270 Grade HPS 70W)

Notes:  
Borings marked with A were drilled in 1989. For Section A-A see Sheet 2A of 79. A closed drainage system will be required (Not shown for clarity). Up to 1/4" will be ground off the bridge deck and the bridge approach slabs. For offset sketch of Ramps see sheet 2A of 79. See Sheet 2A of 79 for Section B-B.



LOCATION SKETCH

**GENERAL PLAN & ELEVATION**  
**F.A.I. ROUTE 57/70 E.B. AND W.B.**  
**OVER CN & U.S. RTE. 45**  
**SECTION (25-4HVB-1)BY**  
**EFFINGHAM COUNTY**  
**STATION 2294+16.66**  
**SN 025-0111 (WB) & 025-0112 (EB)**



*Chadwick J. Fuesting*  
9/3/2013

S:\P\025-0111-00072-57-70-EB-1095181.dgn 025-001314 57-70 over US 45 450204Final CADD Design Plans\0250111-74295-001-GPE.dgn

FILE NAME = 0250111-74295-001-GPE.dgn	USER NAME = bse/bel	DESIGNED - BB	REVISED - 9/02/2013 CJF	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A.I. RTE. 57/70	SECTION 125-4HVB-1BY	COUNTY EFFINGHAM	TOTAL SHEETS 1760	SHEET NO. 535
DESIGNED BY: BENJAMIN J. LOGGHELLER & ASSOCIATES, INC. 3044 DRIFTWAY, BLOOMINGTON, IL 61710	ILLINOIS DESIGN FIRM NUMBER 184,001670	CHECKED - ACS	REVISED		SHEET NO. 1 OF 79 SHEETS	CONTRACT NO. 74295		ILLINOIS FED. AID PROJECT	
PLLOT SCALE: 1" = 40'-0"	PLLOT DATE: 8/25/13 AM 9/3/2013	DRAWN - WJS	REVISED						
PLLOT DATE: 8/25/13 AM 9/3/2013	CHECKED - CJF	REVISED							