

B.M. - Northwest corner of top step at house with address 18017 IL Rte. 176, El. 823.80

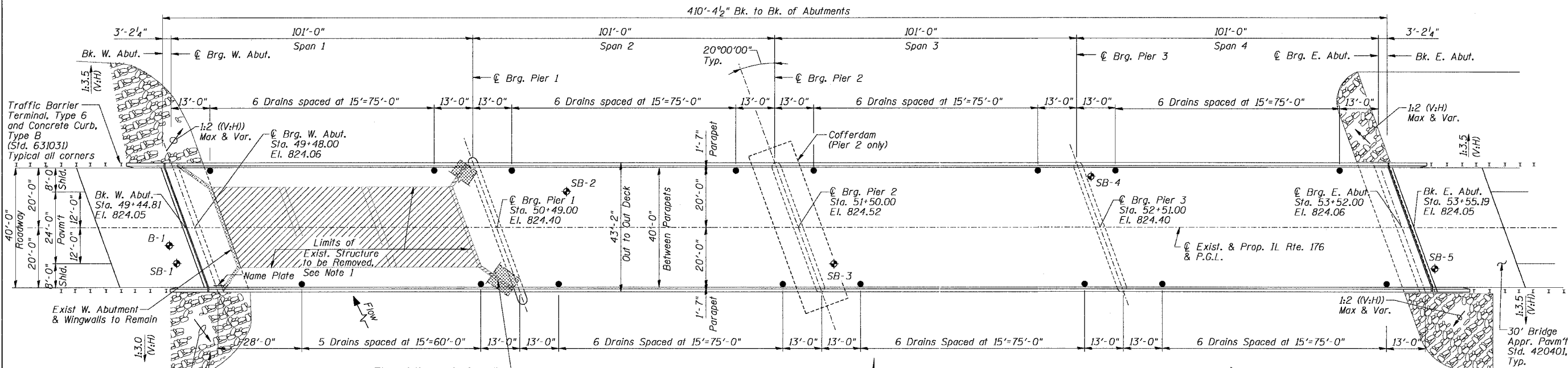
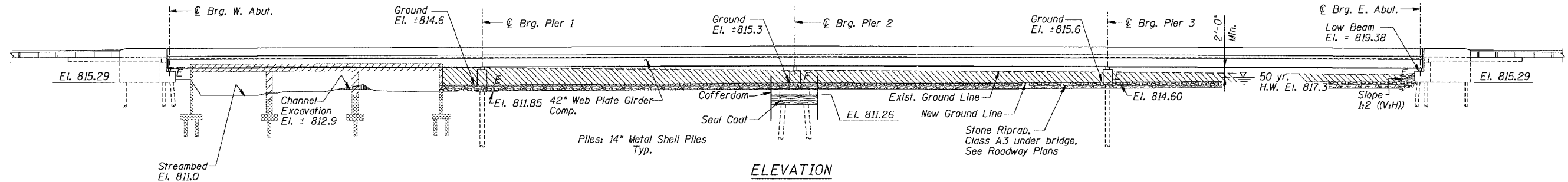
Existing Structure: S.N. 056-0004, built in 1932 as SBI-67. Reconstructed in 1971. The existing structure consists of a 3 (simple) span PPC deck beam superstructure on pile supported closed abutments and pile supported piers. The structure is ±78'-5" Bk. to Bk. abutments and 33'-0" O. to O. deck. The structure is to be removed and replaced, however, the West Abutment will remain in place.

No Stage Construction. Traffic will be detoured during construction.

No Salvage.

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. OF 17 SHEETS
533	II R-1-I-1	McHenry	19	3
FED. ROAD DIST. XXXX	ILLINOIS	FED. AID PROJECT		

Contract #60D29



LEGEND

- Existing Structure to be Removed
- Existing Structure to Remain in Place
- Stone Riprap, Class A5
- Earth Excavation See Roadway Plans
- Channel Excavation See Roadway Plans

- SB-1 - Soil Boring
- B-1 - Previous Boring at W. Abutment from 1996 Streambed Scour Study

STATION 51+50
BUILT 2001 BY
STATE OF ILLINOIS
F.A.P. RTE 533 SEC. 119R-1-B
LOADING HS20
STR. NO. 056-0071

NAME PLATE
See Std. 515001

WATERWAY INFORMATION

Drainage Area = 72.7 mi² Low Grade Elev. 822.5 ft @ Sta. 55+00 - 56+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Overtop	2	1408	285	709	816.2	1.0	0.3	817.2	817.0
Design	50	3034	363	922	817.3	0.9	0.4	818.2	817.7
Base	100	3913	398	1100	817.8	0.8	0.5	818.6	818.3
Max. Calc.	500	5736	430	1389	818.6	0.5	0.6	819.1	819.2

NOTE:

- Top of existing abutments is braced by existing superstructure. Removal of existing superstructure shall not occur until top of Exist. West Abutment has been secured to New West Abutment. See Sheet 12 of 17 for details.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Adams
ENGINEER OF BRIDGES AND STRUCTURES



DESIGN SPECIFICATIONS

1996 AASHTO with 1997, 1998, 1999, 2000 and 2002 Interims.

DESIGN STRESSES

FIELD UNITS

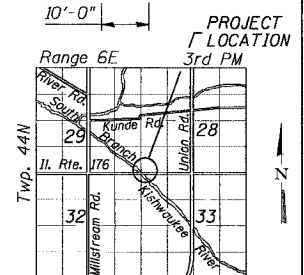
f_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (Structural Steel M270 Grade 50)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

LOADING HS20-44

Allow 50 #/ sq. ft. for Future Wearing Surface



LOCATION SKETCH

GENERAL PLAN
IL Route 176 over
South Branch of the Kishwaukee River
F.A.P. RTE 533, SECTION II R-1-I-1
McHENRY COUNTY
STATION 51+50.00
S.N. 056-0071

DATE: 06-29-07
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC
CHICAGO ILLINOIS