

Bench Mark: Chiseled "□" in south face of concrete base of east storage bin located approximately 425' northwest of existing S.N. 056-0005. Elev. 836.91.

Existing Structure: S.N. 056-0005, built in 1931 as SB1 Rte. 67, Sec. 119. Reconstructed in 1970.

The existing structure is a single span PPC deck beam superstructure on closed abutments.

The structure is 43'-0" Bk. to Bk. Abutments and 33'-0" O. to O. Deck. The structure shall be removed and replaced with a single span wide flange superstructure on pile bent abutments. The road shall be kept open to one lane of traffic at all times by utilizing stage construction.

No Salvage.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	119R-2-I-1	McHenry	13	3
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

Contract #60D58

SHEET NO. 1 OF 11 SHEETS

DESIGN SPECIFICATIONS

AASHTO LRFD 4th Edition, 2007

DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

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

LOADING HL-93

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

ADDITIONAL

SOIL BORING LOCATION TABLE

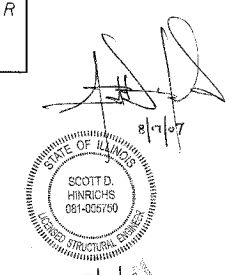
Soil Boring	Station	Offset
R-2	11+50	10.5' Rt.
R-3	12+30	13.0' Rt.
R-4	13+30	13.0' Rt.

STATION 10+00
 BUILT 200_ BY
 STATE OF ILLINOIS
 F.A.P. RTE 533 SEC. 120A-B-R
 LOADING HL-93
 STR. NO. 056-0078

NAME PLATE
 See Std. 515001

LEGEND

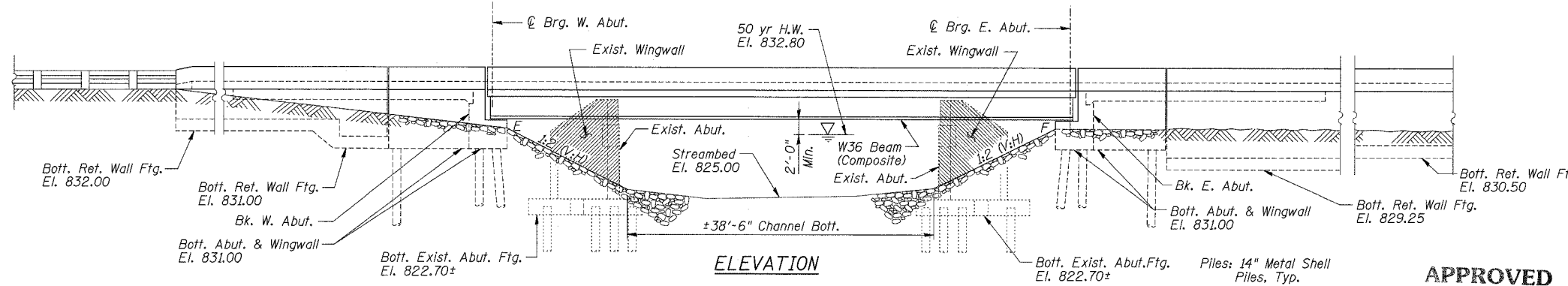
- Exist. Abut. & Wingwalls to be removed to 1'-0" below proposed grade
- Stone Riprap
- Soil Boring (For additional Soil Borings at Retaining Walls, see Retaining Wall Plans)



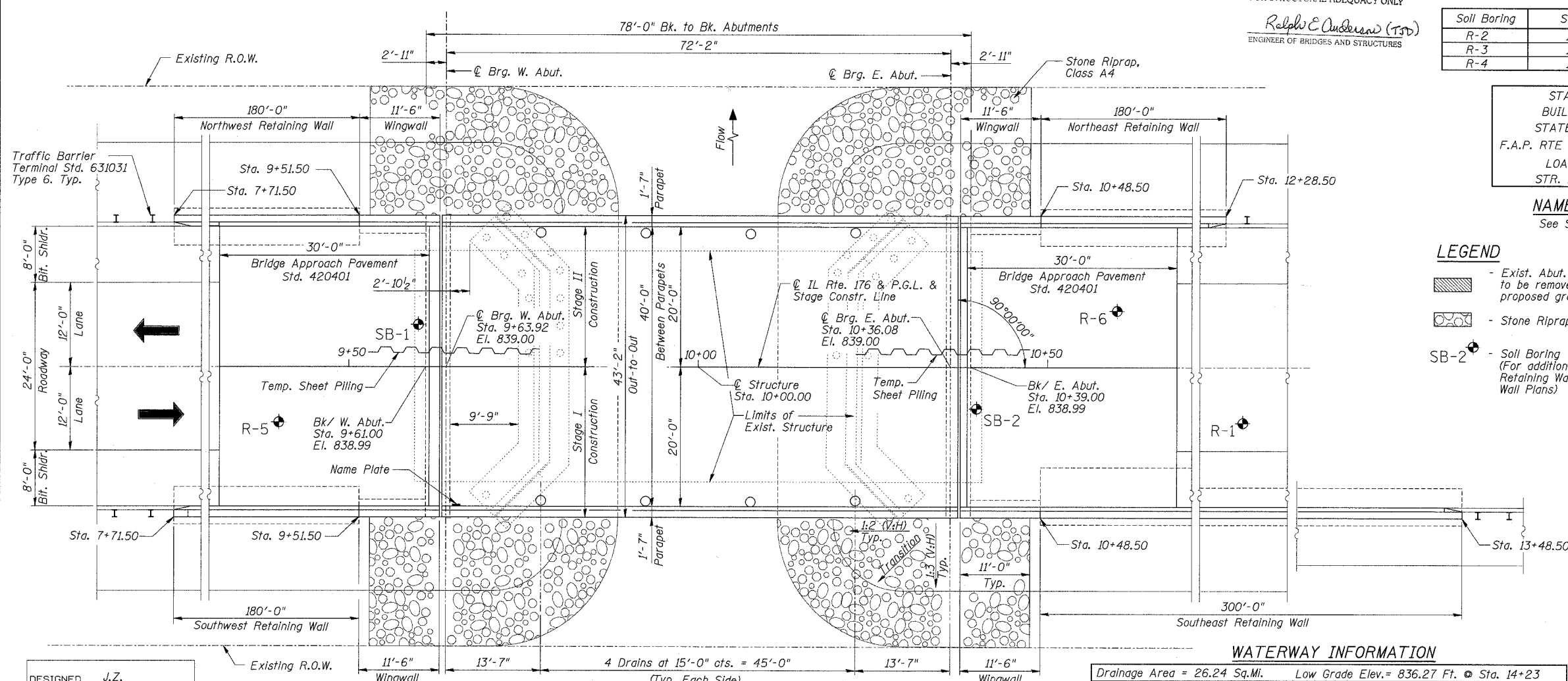
GENERAL PLAN & ELEVATION
 IL Route 176 over the Kishwaukee River
 F.A.P. RTE 533, SECTION 119R-2-I-1
 McHENRY COUNTY
 STATION 10+00.00
 S.N. 056-0078

DATE: 08-17-07

GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC
 CHICAGO, ILLINOIS



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 Ralph E. Anderson (TS)
 ENGINEER OF BRIDGES AND STRUCTURES



WATERWAY INFORMATION

Drainage Area = 26.24 Sq.Mi. Low Grade Elev. = 836.27 Ft. @ Sta. 14+23

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	1164	275	343	831.9	0.2	0.1	832.1	832.0	
Base	50	1666	312	405	832.8	0.3	0.2	833.1	833.1	
Overtopping	100	1875	324	425	833.1	0.4	0.4	833.5	833.5	
Max. Calc.	500	2320	347	465	833.7	0.6	0.5	834.3	834.2	

DESIGNED	J.Z.
CHECKED	S.D.H.
DRAWN	M.S.M.
CHECKED	S.D.H.

PLAN



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