

BENCHMARK: #28. Chiseled "□" in top of SE wingwall, Str. #083-0028, 22.5' right of Sta. 131+27.27, Elev. 411.47

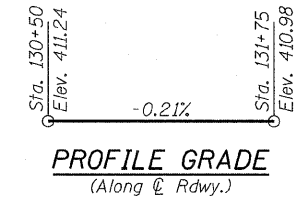
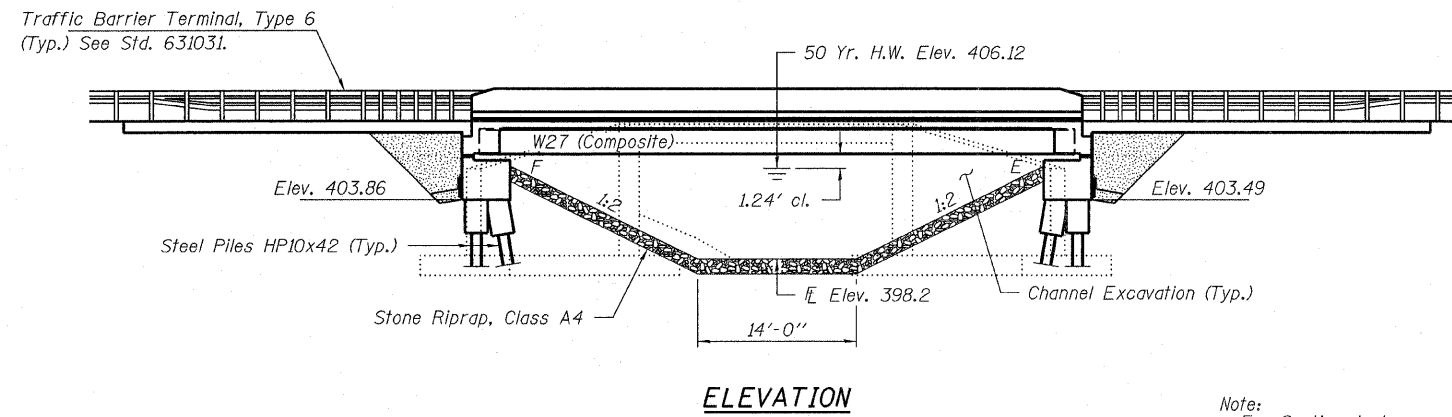
EXISTING STRUCTURE: #083-0028 Built in 1934 as SA 10 @ Sta. 131+15 of Raleigh Road. It measures 26'-0" bk.-bk. abutments by 40'-0" fa.-fa. curbs. The structure is a single span RC slab bridge. The substructure consists of closed concrete abutments with wingwalls on footings with timber piles. The existing structure will be completely replaced using stage construction to maintain traffic.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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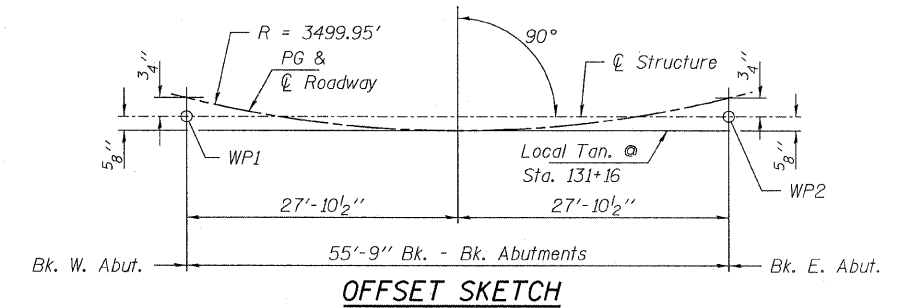
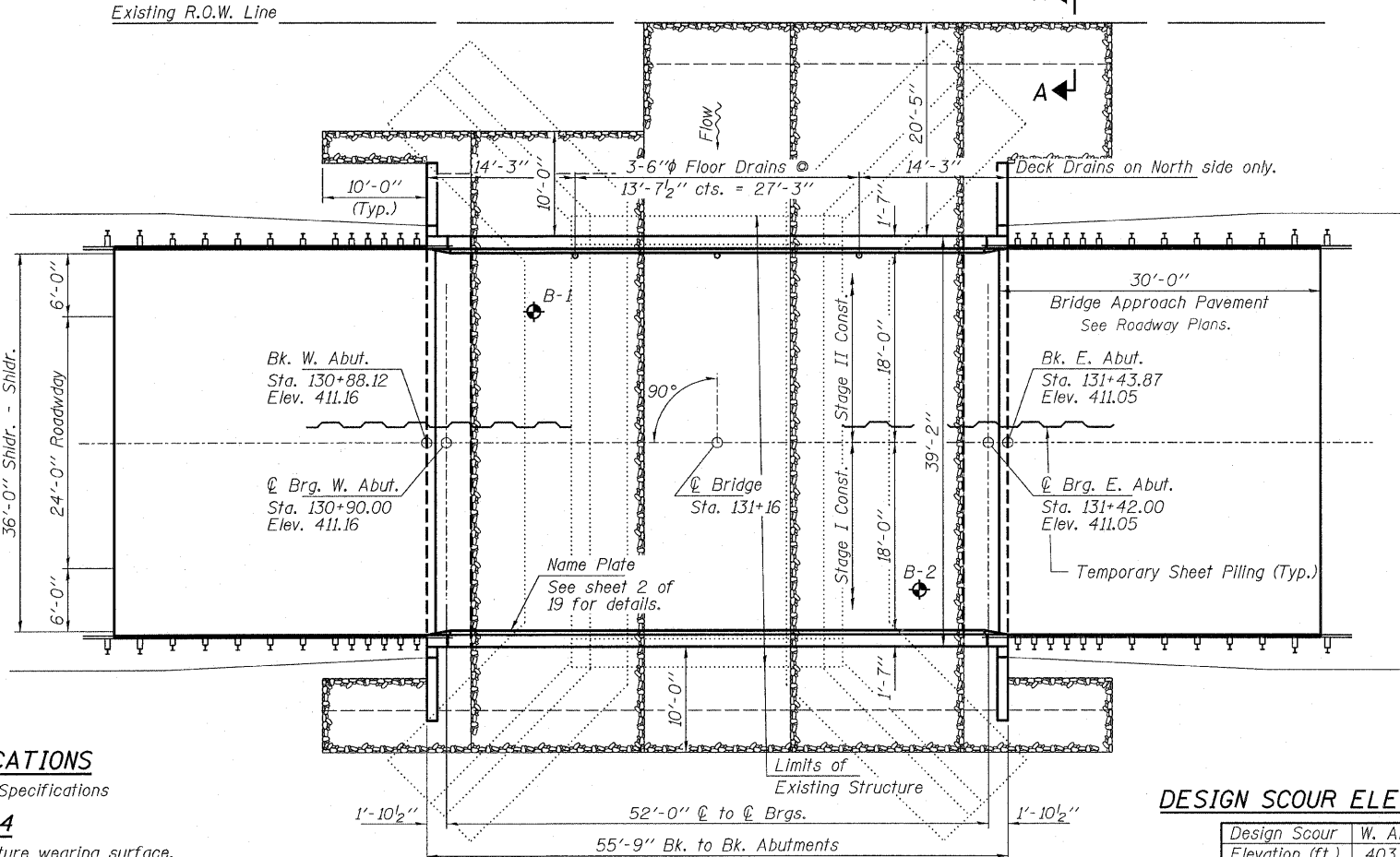
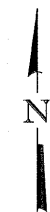
1. General Plan & Elevation
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13. Bearings
14. West Abutment
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17. Cantilever Forming Brackets
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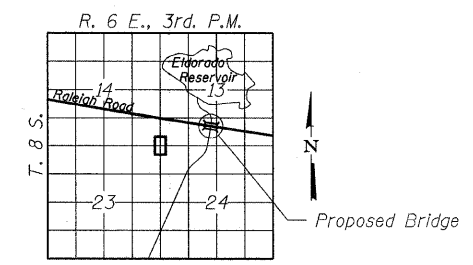
CURVE DATA

P.I. Sta. = 129+55.12
 $\Delta = 6^\circ 41' 52''$ (L.I.)
 $D = 1^\circ 38' 13''$
 $R = 3,499.95'$
 $T = 204.80'$
 $L = 409.13'$
 $E = 5.99'$
 P.C. Sta. = 127+50.32
 P.T. Sta. = 131+59.45
 S.E. Rate = 3.9%
 SE Transitions:
 Attain from Sta. 128+00 to Sta. 128+27
 Remove from Sta. 131+43.87 to Sta. 133+43.87

Note:
For Section A-A see sheet 2 of 19 for details.



OFFSET SKETCH



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

LOADING HS20-44

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 (structural steel) (M270 Gr. 50)

SEISMIC DATA

Seismic Performance Category (SPC) = B
 Bedrock Acceleration Coefficient (A) = .12g
 Site Coefficient (S) = 1.2

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	403.30	403.30

PLAN

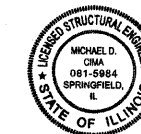
WATERWAY INFORMATION

Drainage Area = 1.8 Sq. mi. Low Grade Elev. 409.8 @ Sta. 134+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E. Exist.	Prop.	Headwater El. Exist.	Prop.	
Design	50	870	185.30	258.76	406.12	0.85	0.68	406.97	406.80
Base	100	990	187.70	263.71	406.22	1.09	0.83	407.31	407.05
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	1270	192.74	274.11	406.43	1.69	1.31	408.12	407.74

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



9-18-2008

Michael D. Cava
ILLINOIS STRUCTURAL NO. 081-5984

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
HLR 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 08.0045.130 DATE: 09/02/08

SHEET NO. 1
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	15

RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY CONTRACT NO. 98533
 FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT

GENERAL PLAN AND ELEVATION
 RALEIGH ROAD OVER
 ELDORADO RESERVOIR SPILLWAY
 FAS 2881 / SECTION 30B-1
 SALINE COUNTY
 STATION 131+16
 STRUCTURE NO. 083-0063