

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 805	147BR	ST. CLAIR	52	21
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Contract No. 76393

DESIGN SPECIFICATIONS
2002 AASHTO

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 (reinf.)
 $f_y = 50,000$ psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.1lg
Site Coefficient (S) = 1.5

BENCHMARK

Bench Mark: Chiseled square on top of concrete parapet,
N.E. corner of SN. 082-0100. Elev. 465.39

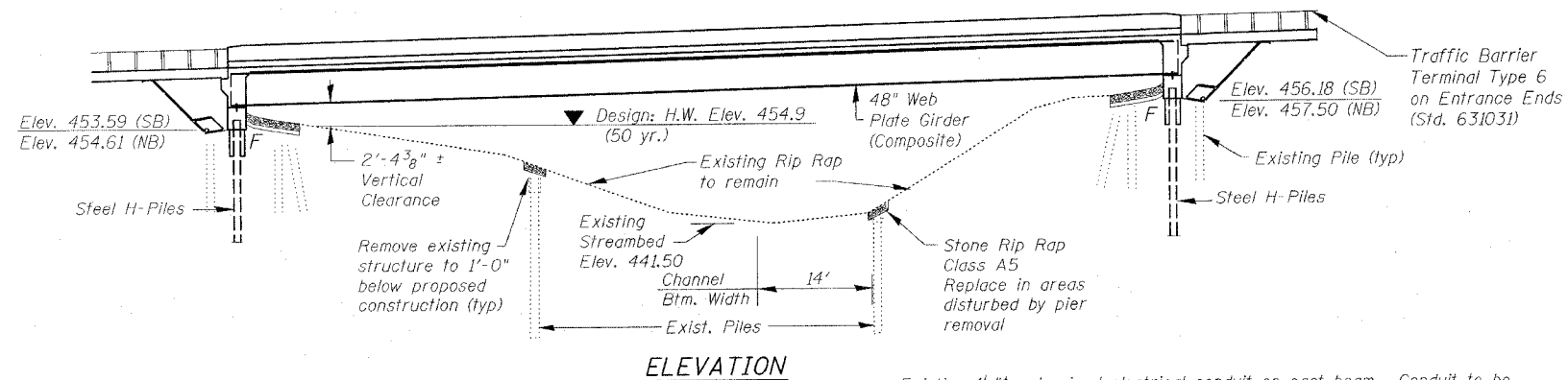
EXISTING STRUCTURE

Existing Structure: S.N. 082-0100 was built as F.A.S. Rte. 840, Sec. 146B in 1950 (S.B.) and widened as F.A.P. Rte. 805, Sec. 147-B-1 in 1976 (N.B.). The structure consists of a three-span, continuous, non-composite, steel wide flange superstructure on pile bent piers and abutments. The structure is 122'-5" back to back of abutments and 92'-0" out to out with a 22'-0" concrete median separating the northbound and southbound roadway.

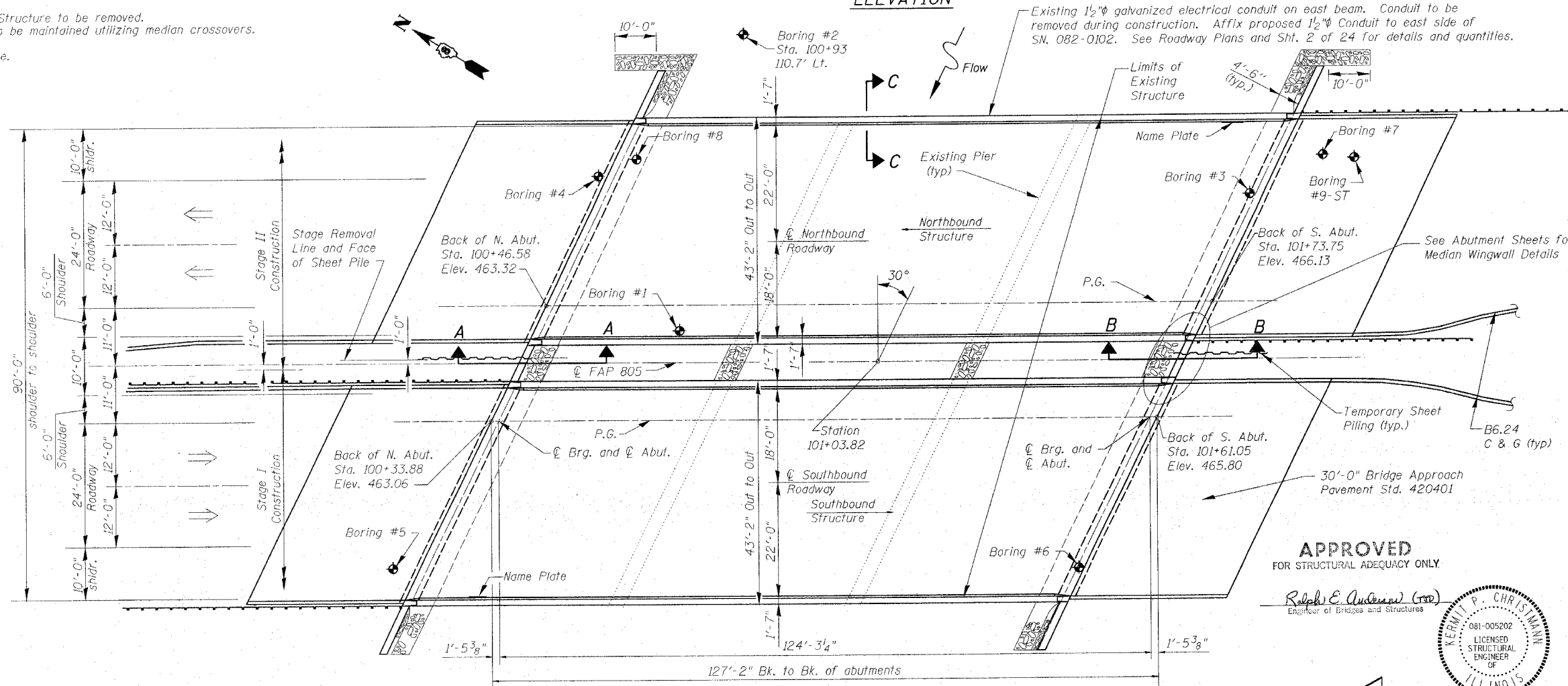
The existing structure has translated to the north and rotated counterclockwise. These movements are discussed in Appendix E of the Revised Geotechnical Study prepared by Shivoly Geotechnical, Inc. and dated June 22, 2004.

Existing Structure to be removed.
Traffic to be maintained utilizing median crossovers.

No Salvage.



ELEVATION



PLAN

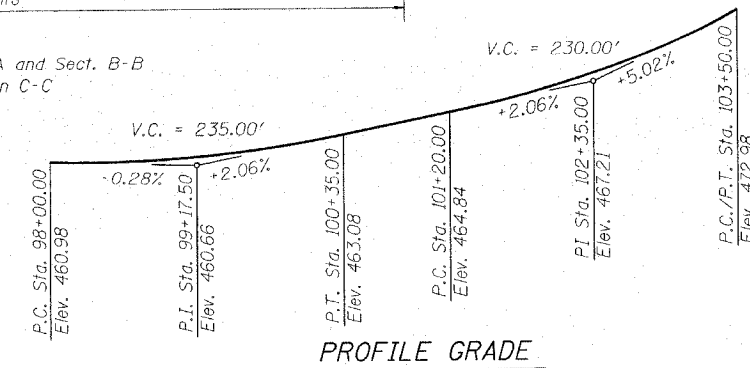
See Sht. 3 of 23 for Sect. A-A and Sect. B-B
See Sht. 2 for Section C-C

WATERWAY INFORMATION

Drainage Area = 5.53 sq. mi. Low Grade Elev. 461.15* @ Sta. 98+46.85*

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	3391	488.2	513.8	454.9	1.7	1.6	456.6	456.5
Base	100	3950	548.0	576.0	455.6	1.8	1.6	457.4	457.2
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	5314	662.4	695.0	456.9	2.2	2.1	459.1	459.0

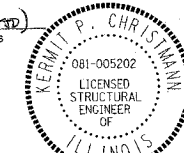
* Low Grade Elevation of Existing Raised Concrete Median



PROFILE GRADE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY.

Ralph E. Anderson (SE)
Engineer of Bridges and Structures



Kermit P. Christman
Exp. 11/30/06

STATION 101+03.82
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 805 SEC. 147BR
LOADING HS20
STR. NO. 082-0103

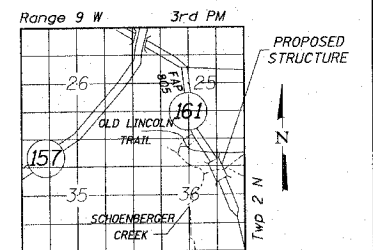
NAME PLATE

SOUTH BOUND
See Std. 515001

STATION 101+03.82
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 805 SEC. 147BR
LOADING HS20
STR. NO. 082-0102

NAME PLATE

NORTH BOUND
See Std. 515001



LOCATION SKETCH

ILLINOIS ROUTE 161 OVER
TRIBUTARY TO SCHOENBERGER CREEK
F.A.P. ROUTE 805 - SECTION 147BR
ST. CLAIR COUNTY
STATION 101+03.82
STRUCTURE NO. 082-0102 (N.B.)
STRUCTURE NO. 082-0103 (S.B.)

GENERAL PLAN & ELEVATION

FILE LOCATION: \$FILES\$ DATE: \$DATES\$ TIME: \$TIME\$ PLOTTED BY: \$USER\$

THOUVENOT, WADE & MOERCHEN, INC.



DESIGNED	ALN
CHECKED	KPC, BWP
DRAWN	JMI, DEH
CHECKED	ALN