

BENCH MARK:

Rebar with IDOT cap located in median area north of the bridge, Sta. 216+54.30, Offset 0.46' RT, Elev. = 614.84

EXISTING STRUCTURE:

The existing bridges (081-0012 SB and 081-0013 NB) were originally constructed in 1965 as FAI RTE 80, Section 81-1HB and widened in 1976 as FAI RTE 80, Section 81-1HBY to accommodate a full cloverleaf configuration. In 1990, both bridges were repaired. Both are 4-span continuous steel wide-flange beam bridges supported on 3 solid hammer head piers and 2 pile bent abutments, all founded on steel H-piles. Both structures are 195'-8" in length (back to back of abutments) and vary in width from 53'-9 1/2" to 55'-10" (out to out deck). The bridges are both built on skews of 15° 40' 3".

STAGING:

Traffic to be maintained utilizing stage construction.

SALVAGE:

None.

HORIZONTAL CURVE DATA

IL RTE 5	IL RTE 5
Ex Curve 100390	Ex Curve 1310
PI STA. = 1+70.59	PI STA. = 826+64.25
$\Delta = 5^\circ 07' 26"$ (LT)	$\Delta = 16^\circ 59' 26"$ (LT)
$D = 1^\circ 30' 10"$	$D = 1^\circ 30' 10"$
$R = 3,812.62'$	$R = 3,812.62'$
$T = 170.59'$	$T = 569.48'$
$L = 340.96'$	$L = 1,130.61'$
$E = 3.81'$	$E = 42.30'$
$e = \dots$	$e = \dots$
P.C. STA. = 0+00.00	P.C. STA. = 820+94.77
P.T. STA. = 3+40.96	P.T. STA. = 832+25.38

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

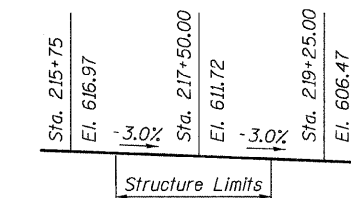
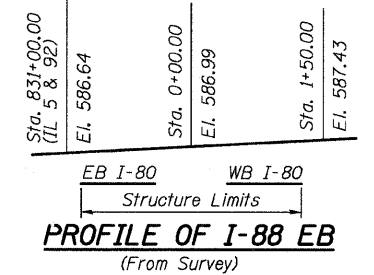
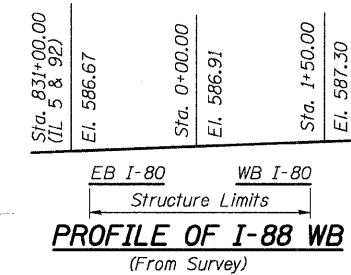
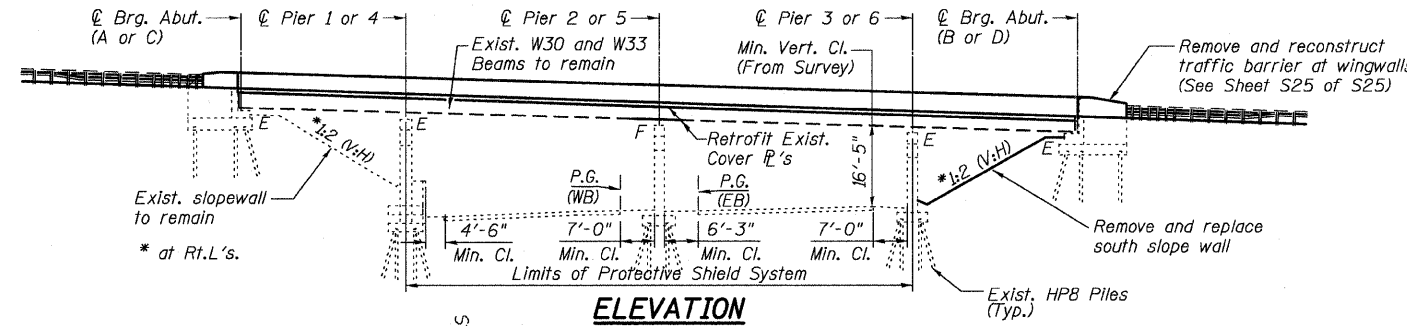
Sheet S1 of S25

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	81-1HBY-D	ROCK ISLAND	120	30
FED. ROAD DIST. NO. 2 ILLINOIS			FED. AID PROJECT	

Contract # 64C74

SCOPE OF WORK

1. Remove existing deck and replace it with 1'-7" wider deck (8") utilizing stage construction.
2. Retrofit existing welded cover plates at Pier 2, all beams (72 total)
3. Install shear connectors in positive moment areas of beam lines.
4. Modify abutments to semi-integral type.
5. Place new Abutment Drains and backfill with Porous Granular Embankment (Special).
6. Remove and replace elastomeric bearings at abutments.
7. Remove and replace bridge approach pavements and drains. Reconnect drains to existing drain systems.
8. Remove and reconstruct traffic barrier at wingwalls.
9. Remove and replace existing concrete slope walls at south abutments and median.
10. Existing steel shall be cleaned and painted under a separate contract.



PROFILE OF PGL I-80 EB & WB
(Developed From Survey Data)

PATRICK ENGINEERING, INC.

APPROVED FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES



ATALAY YARGICOGLU, S.E.
081-005358

EXP. November 30, 2008

DATE: February 27, 2008

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44 & ALT.

Allowance for Future Wearing Surface = 50 #/sq. ft.

DESIGN STRESSES

NEW CONSTRUCTION:

- $f'_c = 3,500$ psi
- $f_y = 60,000$ psi (Reinf.)
- $f_y = 50,000$ psi (M270 Gr 50 Struct. Steel for Cover Plate Retrofit)
- $f_y = 36,000$ psi (M270 Gr 36 Struct. Steel for Bearing Extensions and Side Retainers)

EXISTING STRUCTURE:

- $f_c = 1,400$ psi (Superstructure Concrete)
- $f_c = 1,000$ psi (Substructure Concrete)
- $f_y = 40,000$ psi (Reinf.)
- $f_y = 36,000$ psi (M183 Structural Steel)

SEISMIC DATA

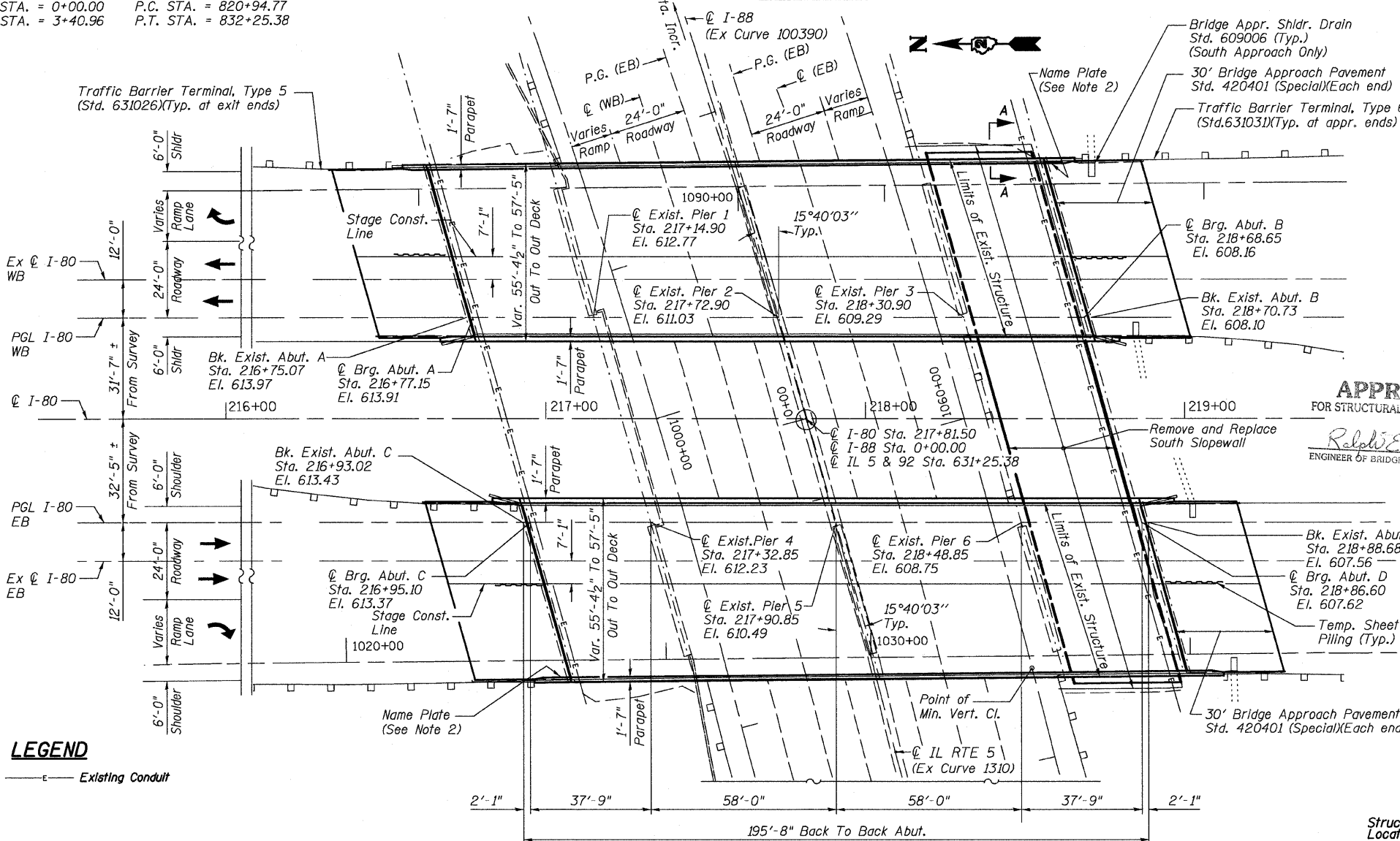
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

- Notes:
1. For Section A-A, see Sheet S2 of S25.
 2. See General Note 15 on Sheet S2 of S25 and Sheet S25 of S25.

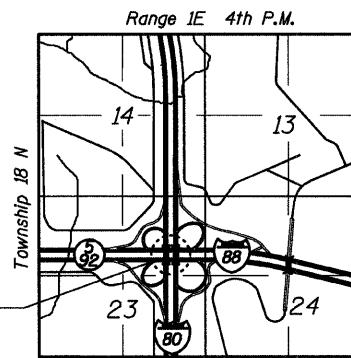
ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION

INTERSTATE 80 OVER INTERSTATE 88
F.A.I. ROUTE 80 - SECTION 81-1HBY-D
ROCK ISLAND COUNTY
STATION 217+81.50
EB S.N. 081-0012 & WB 081-0013

DATE: FEBRUARY 27, 2008
DRAWN BY: C. Smith
CHECKED BY: A. Yargicoglu



PLAN



LOCATION MAP

LEGEND
Existing Conduit

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

8 TIMES
8 FILES
8 DATES