

Bench Mark: RR spike in telephone pole at Station 35+44, 26.5' left. Elevation 608.61.

Existing Structure: S.N. 037-0093 built in 1963 as F.A.I. Route 80, Section 37-IHBR-1. Structure consists of four span reinforced concrete steel deck on continuous steel wide flange beams supported by pile bent spill thru abutments and hammerhead piers. 216'-2" back-to-back abutments. 31'-8" out-to-out deck. Structure to be removed and replaced. Road to be closed and traffic detoured during construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A.I. 80	37-IHBR-1	HENRY	133	64	18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract #64602

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$ " ϕ open holes $\frac{15}{16}$ " ϕ unless otherwise noted.
Anchor bolts shall be set before bolting diaphragms over supports.
Calculated weight of Structural Steel = AASHTO M270 Grade 50 = 234,200 lb.
= AASHTO M270 Grade 36 = 22,050 lb.

All Construction joints shall be bonded.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2.
These components are the tension flanges, webs and all splice plate material except fill plates.
Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
Field welding of construction accessories will not be permitted to girders.
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

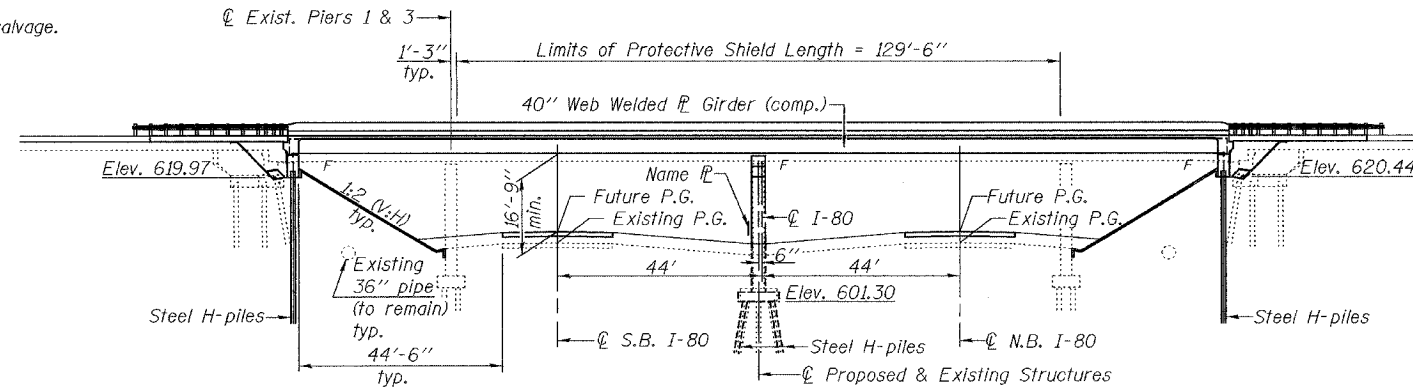
The Contractor shall drive two Steel HP 12x63 test piles in a permanent location, one each at the East Abutment and at the Pier, as directed by the Engineer before ordering the remainder of piles.

The Inorganic zinc rich primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5 G 4/8. See special provisions for Cleaning and Painting New Metal Structures.

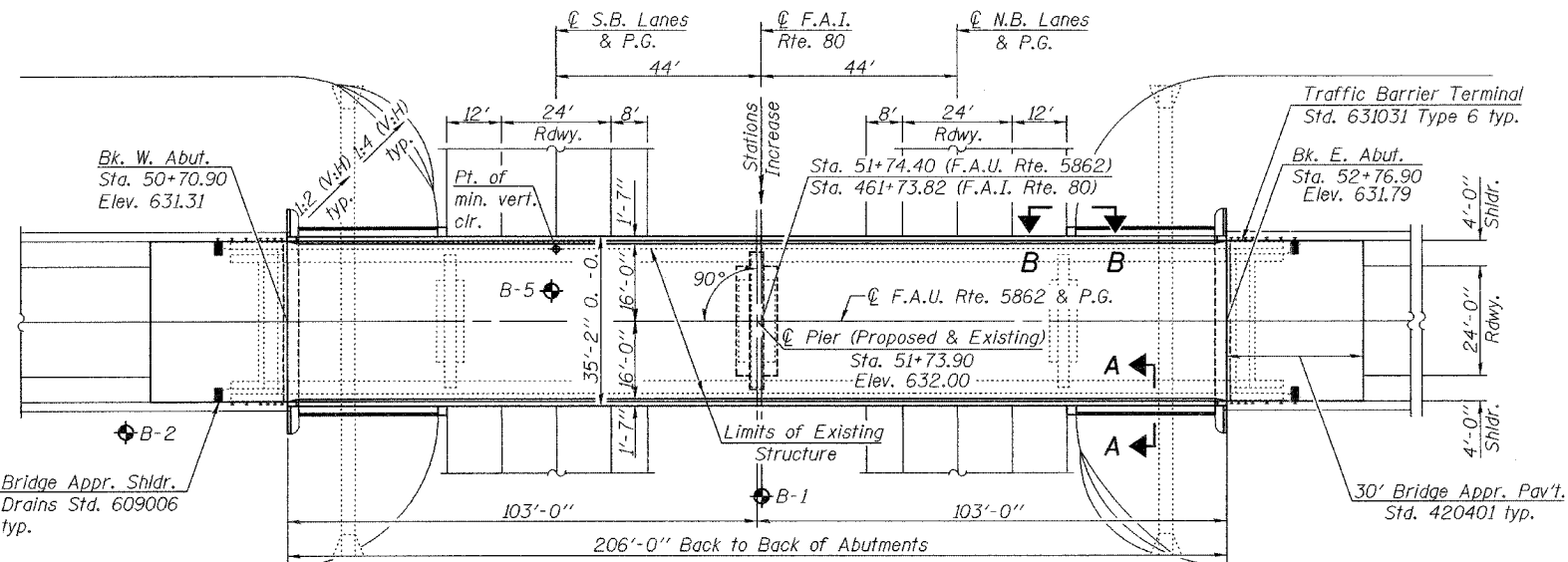
The Cost of the removal of existing slopewall shall be included with "Removal of Existing Structures".
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

INDEX OF SHEETS

1. General Plan & Elevation
2. General Details
- 3.-4. Top of Slab Elevations
5. Superstructure
6. Superstructure Details
7. Diaphragm
8. Structural Steel
9. Structural Steel Details
10. Bearing Details
11. Anchor Bolt Details
12. West Abutment
13. East Abutment
14. Pier
15. Bar Splicer Assembly Details
- 16-18. Borings

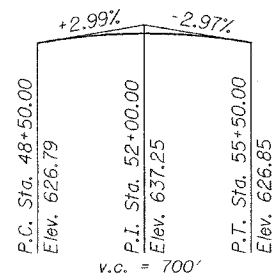


ELEVATION

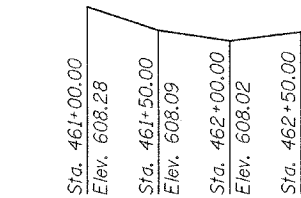


PLAN

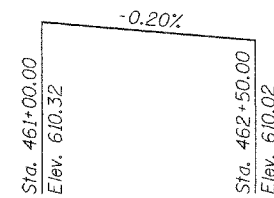
Note: See sheet 2 of 18 for Section A-A and B-B.



PROFILE GRADE
(along ϕ F.A.U. Rte. 5862)



EXISTING PROFILE GRADE
(along P.G. S.B. F.A.I. Rte. 80)



FUTURE PROFILE GRADE
(along P.G. F.A.I. Rte. 80)

DESIGNED	Michael D. Lima
CHECKED	R. Sommer
DRAWN	R. Sommer
CHECKED	MDC, PRL

September 25, 2006
EXAMINED
PASSED
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2006

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, US, 3rd. Edition - 2004

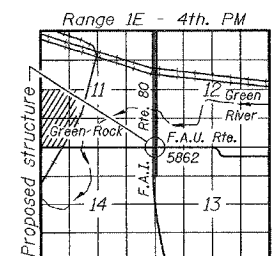
DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (reinforcement)
 f_y = 50,000 psi (AASHTO M270 Grade 50)
 f_y = 36,000 psi (AASHTO M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 3.4%g
Site Coefficient (S) = 1.0



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Superstructure	Cu. Yd.	243.0		243.0
Concrete Structures	Cu. Yd.		125.2	125.2
Removal of Existing Structures No. 1	Each			1
Reinforcement Bars, Epoxy Coated	Pound	57370	19950	77320
Protective Coat	Sq. Yd.	906.4		906.4
Name Plates	Each	1		1
Porous Granular Embankment-(Special)	Cu. Yd.		150.0	150.0
Stud Shear Connectors	Each	1908		1908
Bar Splicers	Each	66		66
Furnishing and Erecting Structural Steel	L. Sum			1
Structure Excavation	Cu. Yd.		262.0	262.0
Furnishing Steel Piles HP 12x63	Foot		1627	1627
Test Pile Steel HP 12x63	Each		2	2
Driving Piles	Foot		1627	1627
Slopewall 4"	Sq. Yd.			261.1
Bridge Deck Grooving	Sq. Yd.	687		687
Pipe Underdrains for Structures 4"	Foot		163	163
Geocomposite Wall Drain	Sq. Yd.		112.5	112.5
Protective Shield	Sq. Yd.	455.7		455.7

GENERAL PLAN & ELEVATION
POPPY GARDEN ROAD OVER I-80
F.A.I. ROUTE 80 - SEC. 37-IHBR-1
HENRY COUNTY
STATION 461+73.82
STRUCTURE NO. 037-0171