ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80/94	2626.2-R-2	LAKE COUNTY, INDIANA	1207	692
		ILLINOIS	FED. AID PROJECT-	

SHEET NO. S-1
28 SHEETS

CONTRACT NO. 62114 INDOT DES. NO. 0100987

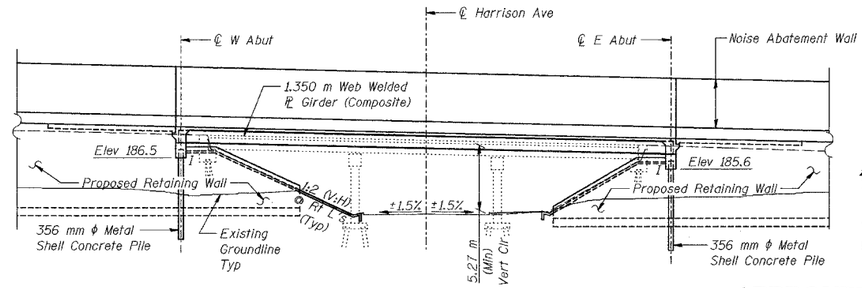
BENCHMARK:
TBM 102: Set cut box at Northeast corner of Northeast wingwall over Little Calumet River Bridge. Westbound I-80/94 mile marker 0.4. Station 8+587.2. Offset 22.4 Lt. Elevation = 191.619.

EXISTING STRUCTURE:
SN I-80-I-3805E (EBL & WBL) originally built in 1949 as FAI Route 80/94 over Harrison Avenue by the State Highway Commission of Indiana. The structure was renovated in 1966, 1982, 1990, and 1996. The existing structure is a three span, dual-structure bridge. 33.657 m back-to-back of abutments, with a reinforced concrete deck superstructure with a maximum total width of 48.330 m. The deck is supported by continuous wide flange steel beams on multi-column concrete piers and open abutments with a 15°-28' left skew angle.

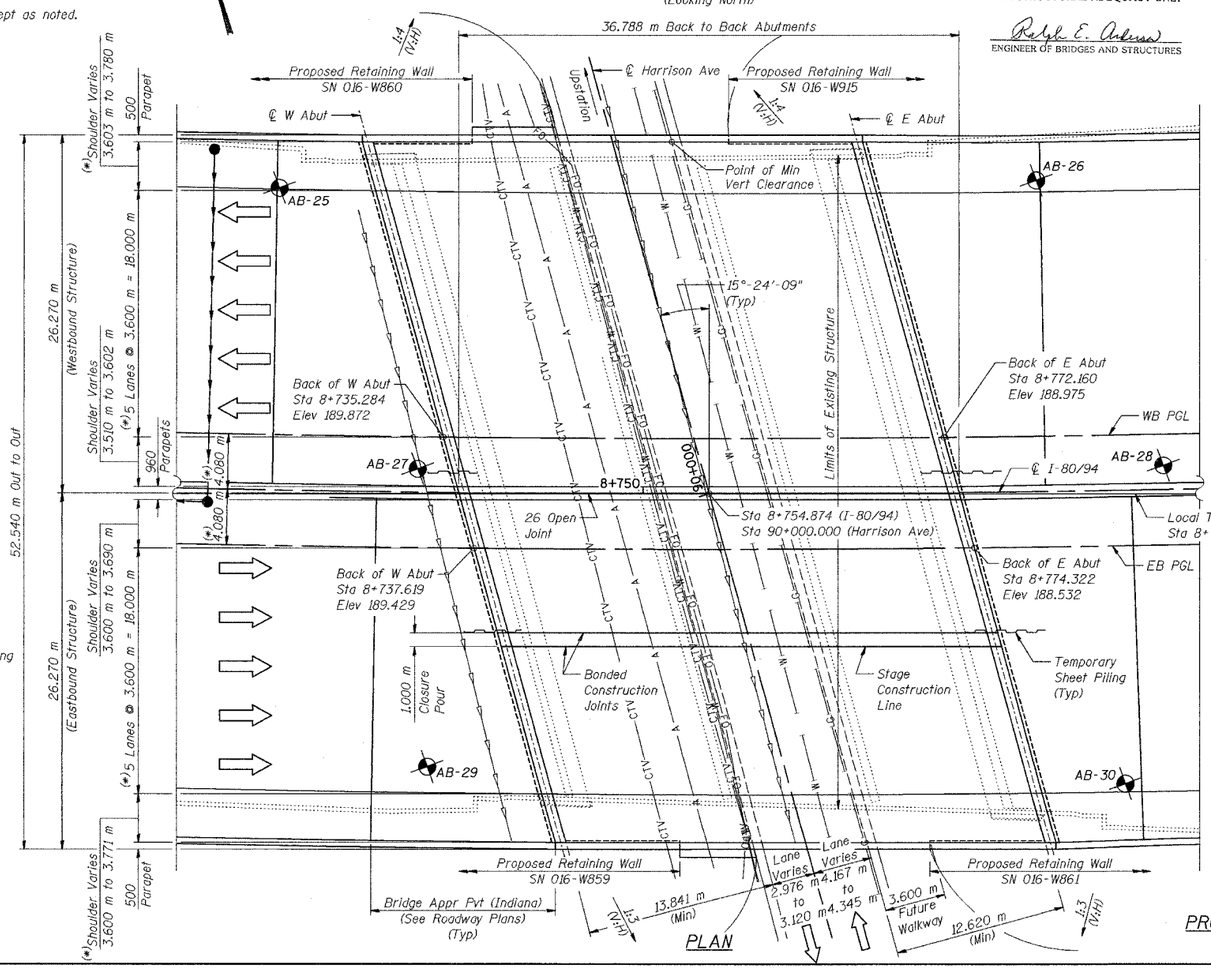
STAGING:
See sections on Sheet No 2 for staging.

SALVAGE:
None.

NOTE:
All dimensions millimeters (mm) except as noted.



ELEVATION
(Looking North)



PLAN

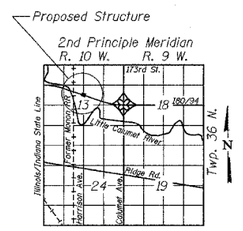
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

LICENSED STRUCTURAL ENGINEER
GARY S. POWELL
081-004771
CHICAGO
ILLINOIS
STATE OF ILLINOIS

Gary S. Powell
GARY S. POWELL, S.E.
IL. LIC. NO. 081-004771
EXP 11-30-2006
DATE 10-6-2005

GARY S. POWELL
REGISTERED
No. 10403944
STATE OF INDIANA
PROFESSIONAL ENGINEER

Gary S. Powell
GARY S. POWELL, P. E.
IN. LIC. NO. 10403944
EXP 07-31-2006
DATE 10-6-2005



LOCATION SKETCH

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges.

1989 AASHTO Guide Specifications for Structural Design of Sound Barriers and 1992 Interims.

DESIGN LOADING
Roadway Live Load: MS-18, Alt Military, and Indiana Toll Road Truck Loads
Future Wearing Surface = 2.4 kN/sq m
Wind Load on Noise Wall = 1.7 kPa

DESIGN STRESSES
FIELD UNITS
Concrete, A, Substructure (Indiana): f'c = 24 MPa
Concrete, C, Superstructure (Indiana): f'c = 28 MPa
Reinforcement: fy = 400 MPa
Structural Steel: fy = 345 MPa (M 270M grade 345W)

SEISMIC DATA
Seismic Performance Category (SPC): A
Bedrock Acceleration Coefficient (A): 0.04g
Site Coefficient (S): 1.0

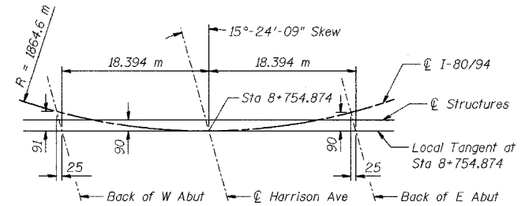
NOTES:
All dimensions measured at right angles to ℄ Structures except as noted.

(*) Radial dimensions are normal to I-80/94.

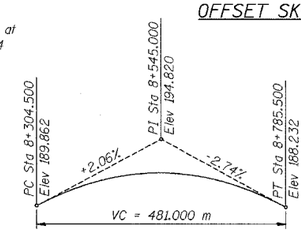
CURVE DATA
(℄ I-80/94)
Δ = 20°-51'-41"
T = 343.250 m
L = 678.899 m
E = 31.331 m
R = 1,864.600 m
SE = 3.0%
PC = Sta 8+603.684
PT = Sta 9+282.583
PI = Sta 8+946.934

LEGEND
EB - Eastbound Traffic
WB - Westbound Traffic
I - Integral Bearing
- Proposed Sewer
- Soil Borings
- Temporary Sheet Piling
- Drainage Structure
- Existing Sewer
CTV - Cable TV
G - Gas
W - Water Main
FO - Fiber Optic
A - Aerial Line

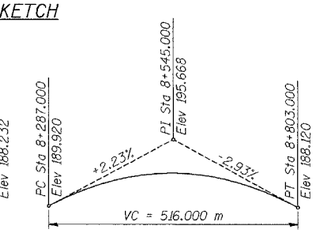
DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP



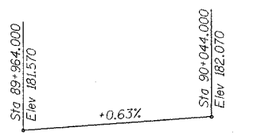
OFFSET SKETCH



PROFILE GRADE I-80/94 EB



PROFILE GRADE I-80/94 WB



PROFILE GRADE ℄ HARRISON AVE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER HARRISON AVENUE

GENERAL PLAN
SECTION 2626.2-R-2
LAKE COUNTY, INDIANA
STATION 8+754.874
STRUCTURE NO. I-80-1-8461 (EB & WB)
DATE 09/05 **(016-I005 & 016-I006)**

AMERICAN CONSULTING ENGINEERS