

**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.

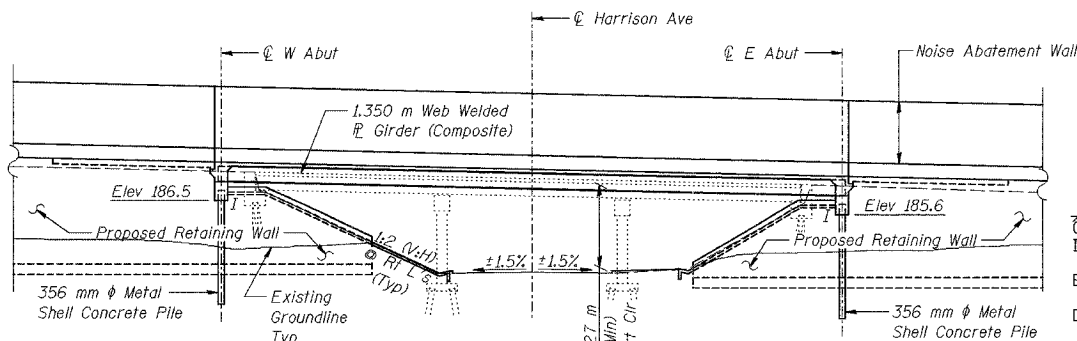
**CURVE DATA**

@ I-80/94  
 $\Delta = 20^\circ-51'-41''$   
 $T = 343.250$  m  
 $L = 678.899$  m  
 $E = 31.331$  m  
 $R = 1,864.600$  m  
 $SE = 3.0\%$   
 $PC = \text{Sta } 8+603.684$   
 $PT = \text{Sta } 9+282.583$   
 $PJ = \text{Sta } 8+946.934$

**LEGEND**

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

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP



**ELEVATION**  
(Looking North)

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



*Gary S. Powell*  
GARY S. POWELL, P. E.  
IN. LIC. NO. 10403944

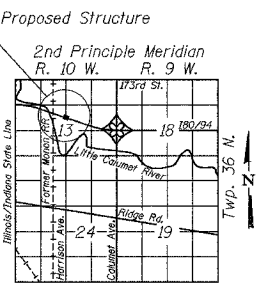
EXP 07-31-2006

DATE 06-15-2005

*Gary S. Powell*  
GARY S. POWELL, S.E.  
IL. LIC. NO. 081-004771

EXP 11-30-2006

DATE 06-15-2005



**LOCATION SKETCH**

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.	SHEET NO. S-1
F.A.I.	2004-133F	LAKE COUNTY, INDIANA	90	79	28 SHEETS
DATE: 06/14					

CONTRACT NO. 62898 INDOT DES. NO. 9910630

**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**

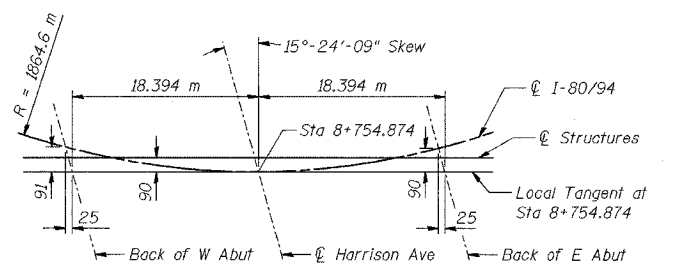
**FIELD UNITS**  
 Concrete, A, Substructure (Indiana):  $f'_c = 24$  MPa  
 Concrete, C, Superstructure (Indiana):  $f'_c = 28$  MPa  
 Reinforcement:  $f_y = 400$  MPa  
 Structural Steel:  $f_y = 345$  MPa (M 270M grade 345W)

**SEISMIC DATA**

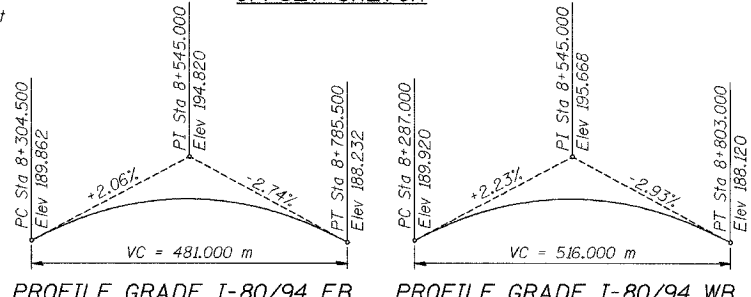
Seismic Performance Category (SPC): A  
 Bedrock Acceleration Coefficient (A): 0.04g  
 Site Coefficient (S): 1.0

**NOTES:**

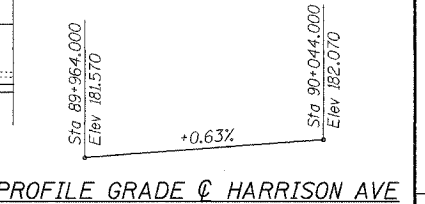
All dimensions measured at right angles to  $\perp$  Structures except as noted.  
 (\*) Radial dimensions are normal to I-80/94.



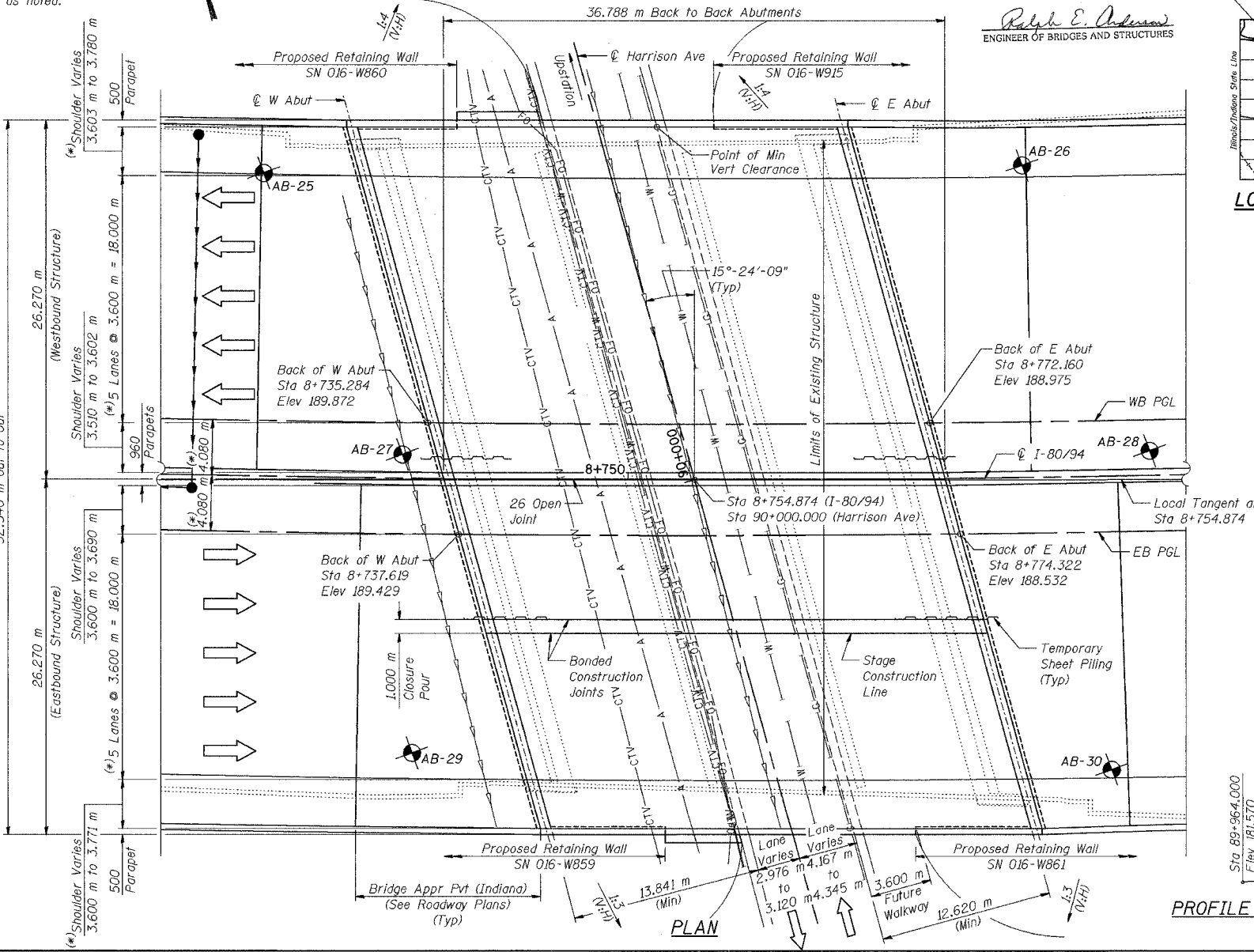
**OFFSET SKETCH**



**PROFILE GRADE I-80/94 EB**      **PROFILE GRADE I-80/94 WB**



**PROFILE GRADE  $\perp$  HARRISON AVE**



**PLAN**

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

**GENERAL PLAN AND ELEVATION**  
 SECTION 2004-133F  
 LAKE COUNTY, INDIANA  
 STATION 8+754.874  
 STRUCTURE NO. I-80-1-8461 (EB & WB)  
 DATE 05/05 (016-1005 & 016-1006)

**AMERICAN**  
 CONSULTING ENGINEERS