

BENCHMARK:

TBM 212: Chiseled box on Northeast corner of the Southeast Wingwall on Eastbound I-80/94 Bridge over Hohman Avenue. Station 8+258.6, Offset 17.8 Rt. Elevation = 189.171.

EXISTING STRUCTURE:

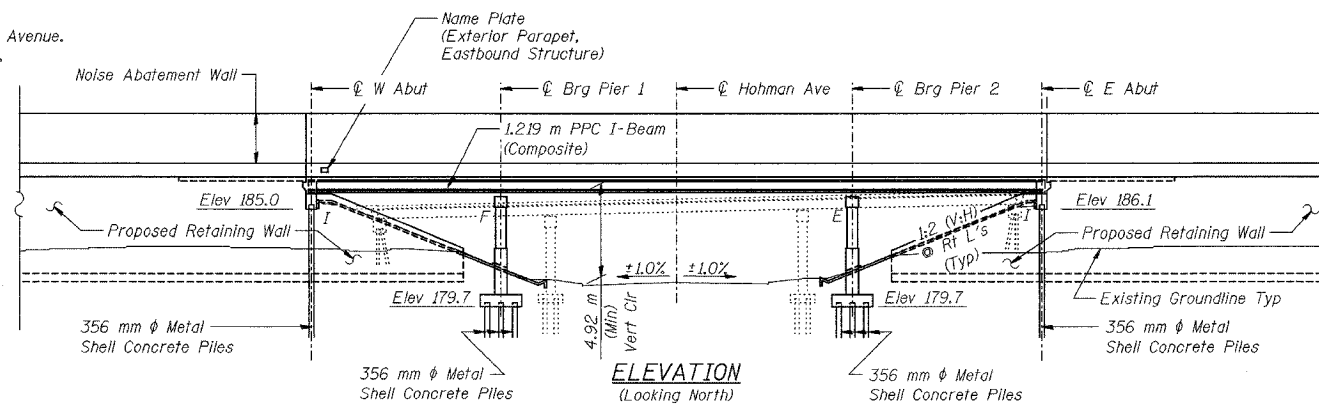
SN I-80-0-3237D (EBL & WBL) originally built in 1948 as FAI Route 80/94 over Hohman Avenue by the State Highway Commission of Indiana. The structure was renovated in 1966, 1982 and 1996. The existing structure is a three span, dual-structure bridge, 46.856 m back to back of abutments, with a reinforced concrete deck superstructure with a 37.034 m total width. The deck is supported by continuous wide flange steel beams on multi-column concrete piers and open abutments with a 20°-03'-00" left skew angle.

SALVAGE:

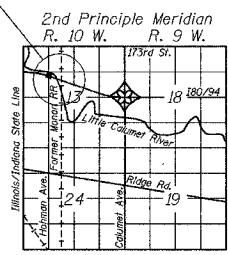
None.

NOTE:

All dimensions millimeters (mm) except as noted.



Proposed Structure



LEGEND

- EB - Eastbound Traffic
- WB - Westbound Traffic
- F - Fixed Bearing
- E - Expansion Bearing
- I - Integral Bearing
- Proposed Sewer
- Soil Borings
- Temporary Sheet Piling
- Drainage Structure
- Existing Sewer
- CTV - Cable TV
- Gas
- Water Main

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I.	2626.2-R-2	LAKE COUNTY, INDIANA	1207	580
ILLINOIS				FED. AID PROJECT
CONTRACT NO. 62114				INDOT DES. NO. 0100987

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

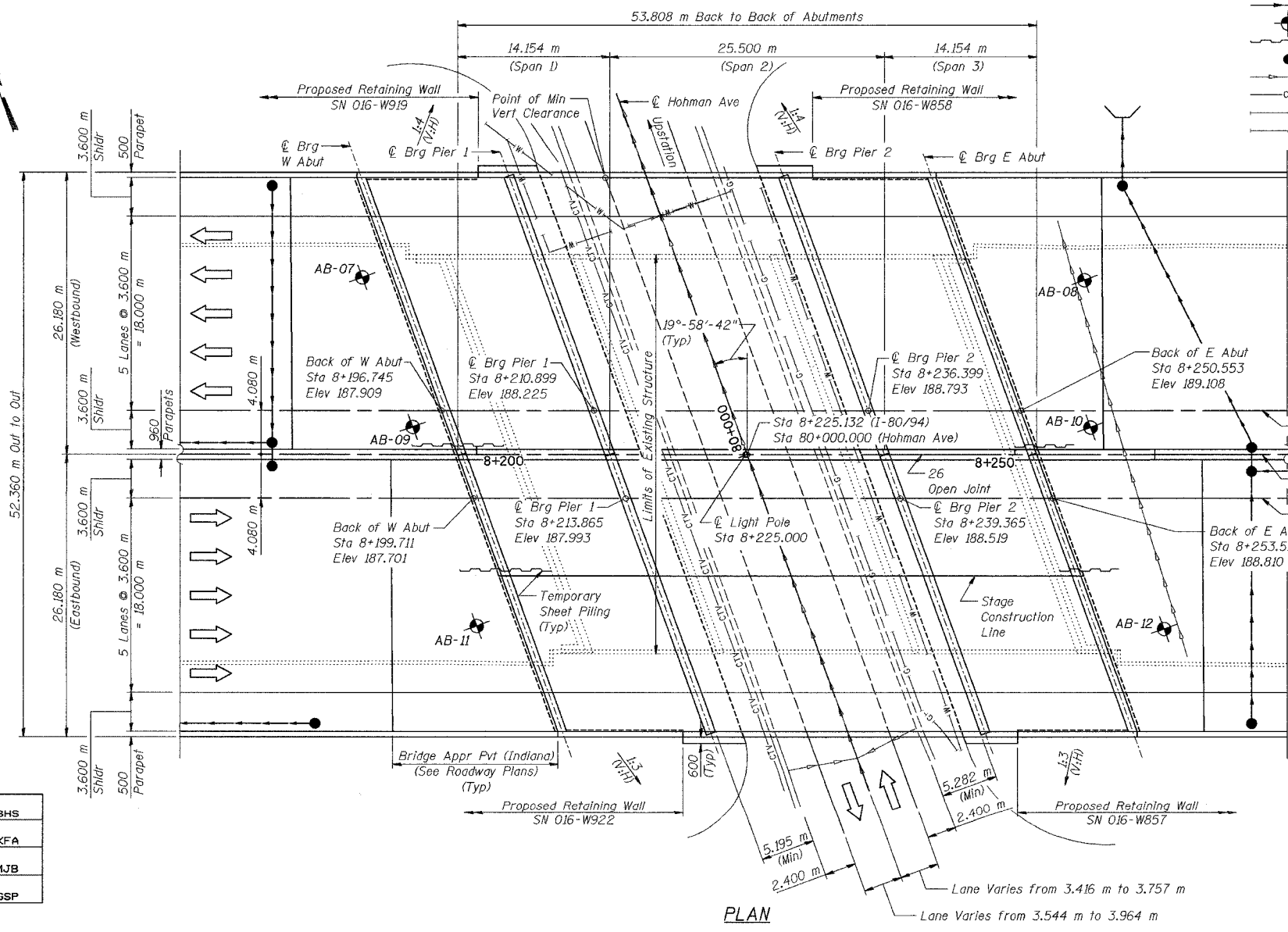
FIELD UNITS
 Concrete, A, Substructure (Indiana): $f'c = 24$ MPa
 Concrete, C, Superstructure (Indiana): $f'c = 28$ MPa
 Reinforcement, $f_y = 400$ MPa

PRECAST PRESTRESSED UNITS

Final Concrete, $f'c = 42$ MPa
 Initial Concrete, $f'ci = 35$ MPa
 Final Strands, $f's = 1860$ MPa (12.7 mm φ low relax strands)
 Initial Strands, $f'si = 1395$ MPa (12.7 mm φ low relax strands)

SEISMIC DATA

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

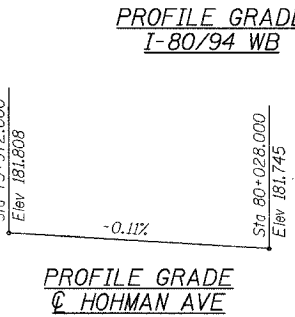
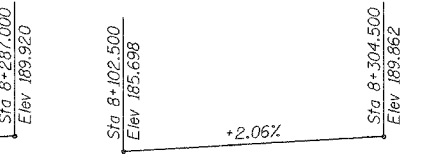
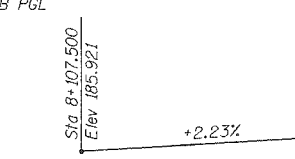


APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES



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 IL. LIC. NO. 081-004771
 EXP 11-30-2006
 DATE 10-6-2005

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 DATE 10-6-2005



DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

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

GENERAL PLAN
 SECTION 2626.2-R-2
 LAKE COUNTY, INDIANA
 STATION 8+225.132
 STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

