

Benchmark: BM 100 Chiseled square on NE corner of E end of crash wall of pier at structure 058-0079. Elev. 648.98

Existing Structure: SN 058-0079 was built in 1975 under F.A.I. RT. 72, Section 58-64HB-1. The existing structure consists of two continuous wide flange main spans at 87'-3" each and two single vaulted PPC I-Beam spans at 42'-4" each for a total length of 259'-2" back to back abutments. The superstructure is supported by vaulted abutments and 1 multi-column hammerhead pier. The out to out bridge width is 113'-0" with an 18'-0" raised, voided median. The structure is to be removed and replaced utilizing staged construction.

No Salvage.

**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD Bridge Design Specifications  
with 2008 and 2009 Interims

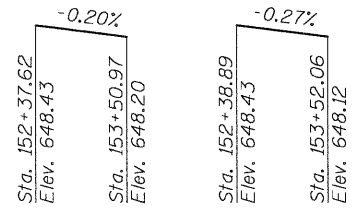
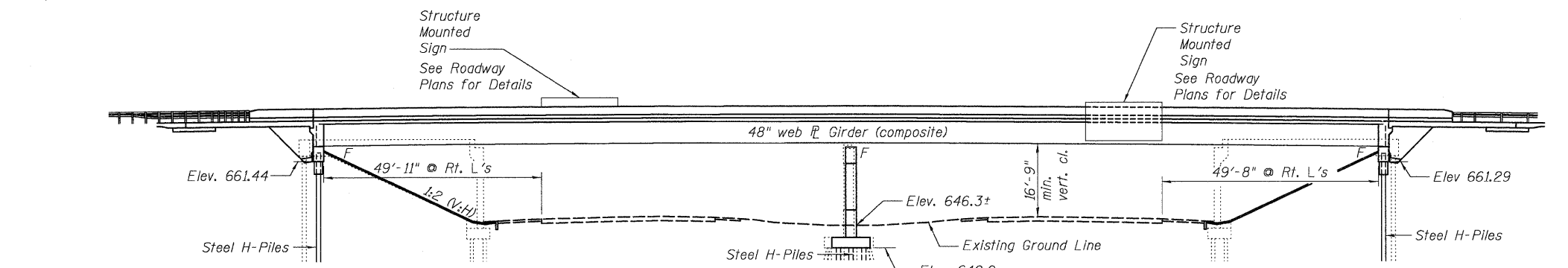
**DESIGN STRESSES**  
FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50)

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

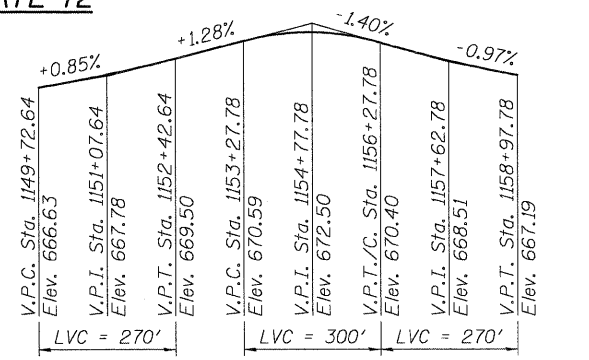
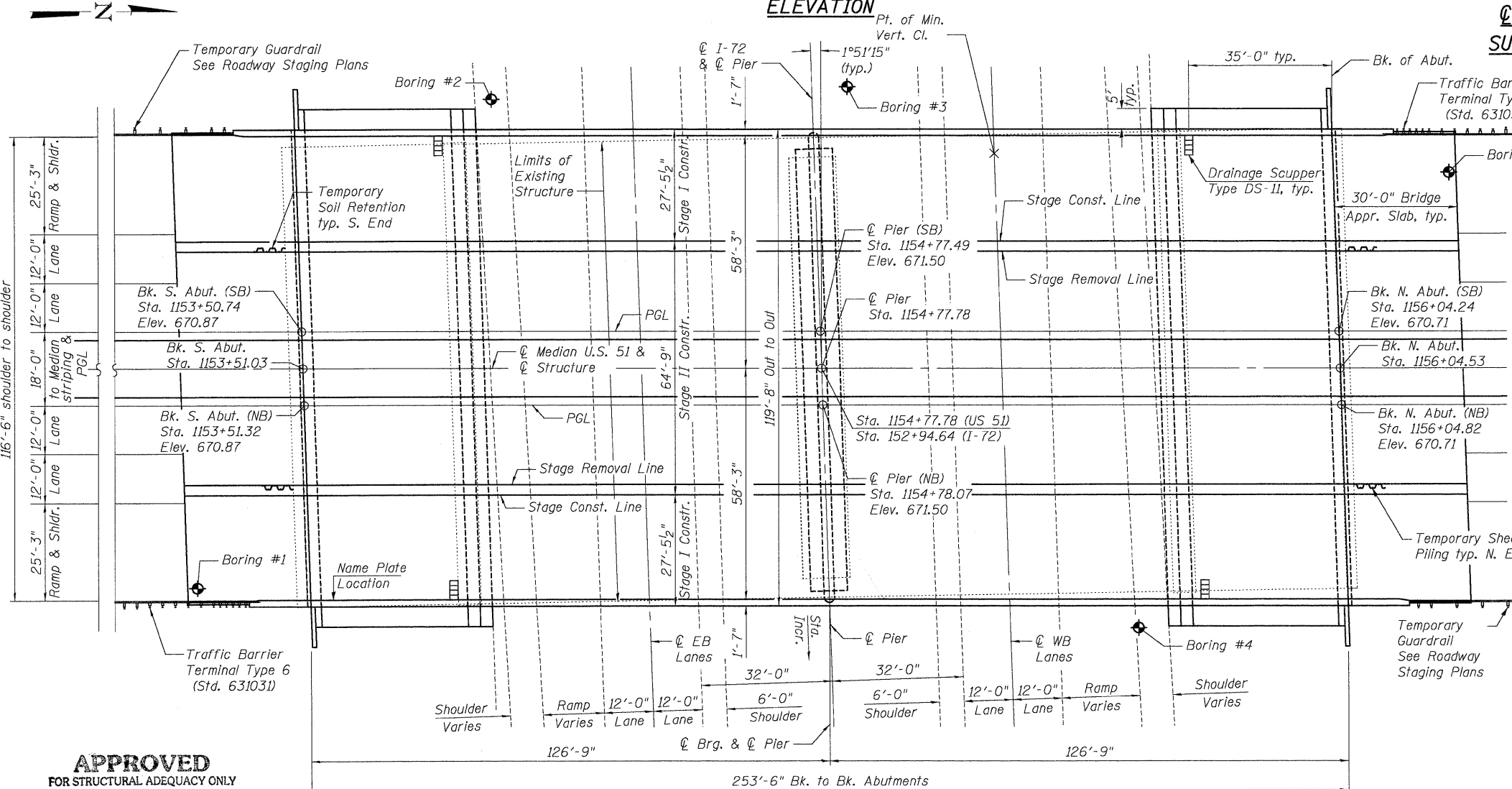
**SEISMIC DATA**  
Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (S<sub>ps</sub>) = 0.27g  
Design Spectral Acceleration at 0.2 sec. (S<sub>p1</sub>) = 0.15g  
Soil Site Class = D

STATION 1154+77.78  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
FAP 322 SEC. (58-64HB-1)B-1  
LOADING HL-93  
STRUCTURE NO. 058-0136

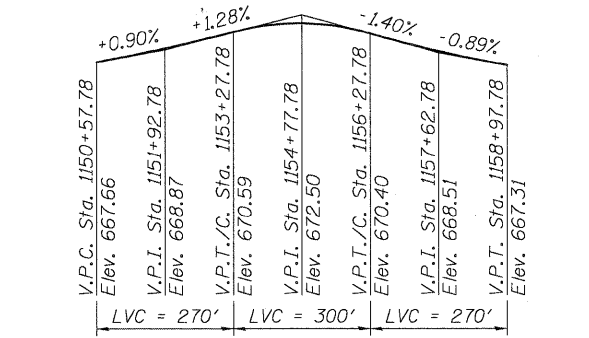
**NAME PLATE**  
See Std. 515001



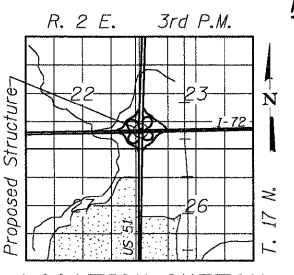
**EB LANES WB LANES**  
SURVEYED P.G. F.A.I. RTE 72



**PROFILE GRADE S.B. F.A.P. ROUTE 322**



**PROFILE GRADE N.B. F.A.P. ROUTE 322**

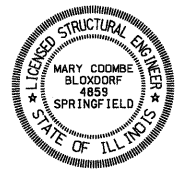


**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
US 51 OVER I-72  
F.A.P. RT. 322 - SEC. (58-64HB-1)B-1  
MACON COUNTY  
STA. 1154+77.78  
STRUCTURE NO. 058-0136

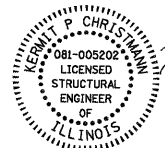
**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson (SE)*  
ENGINEER OF BRIDGES AND STRUCTURES



*Mary Coombe Bloxdorf*  
ILLINOIS STRUCTURAL NO. 4859  
EXPIRES 11/30/10  
DATE: 3/11/10  
Sheets 1 thru 21 & 25 thru 36

**PLAN**



*Kermit P. Christman*  
ILLINOIS STRUCTURAL NO. 5202  
EXPIRES 11/30/10  
DATE: 3/15/10  
Sheets 22 thru 24

**CB** Coombe-Bloxdorf P.C.  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO. 08052-6  
SCALE:  
DATE: 1/17/10  
DESIGN BY: BD/MCB  
DRAWN BY: TFG/CFC  
CHECKED BY: MCB

SHEET NO. 1  
36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	(58-64HB-1)B-1	MACON	149	60
CONTRACT NO. 74387				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

PLOT DATE = 03/11/2010  
FILE NAME = J:\08052-6\184-002703-1.dgn  
USER NAME = R. Anderson  
PLOTTER = HP DesignJet 5000