

Benchmark: Chiseled "□" on NE wingwall of S.N. 089-0007. Elev. 789.55.

Existing Structure: S.N. 089-0007 built in 1958 as FA Route 6, Section 19VB-1 at Station 431+55.65. Structure consists of 3 span reinforced concrete deck on Steel WF Beams supported on open stub abutments founded on concrete battered piles and two reinforced concrete piers founded on treated timber battered piles. 238'-4" Bk to Bk of abutments 63'-8" Out-to-Out deck. Concrete Deck to be removed and replaced with a wider, 68'-0" out-to-out deck using Stage Construction.

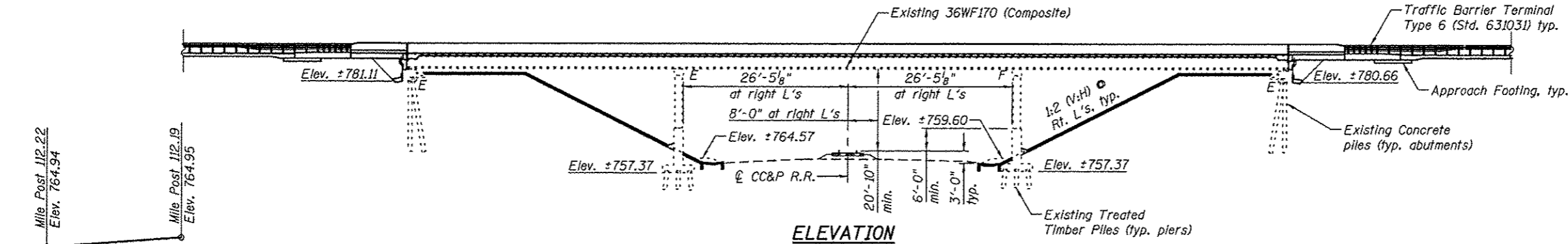
No salvage.

**SCOPE OF WORK**

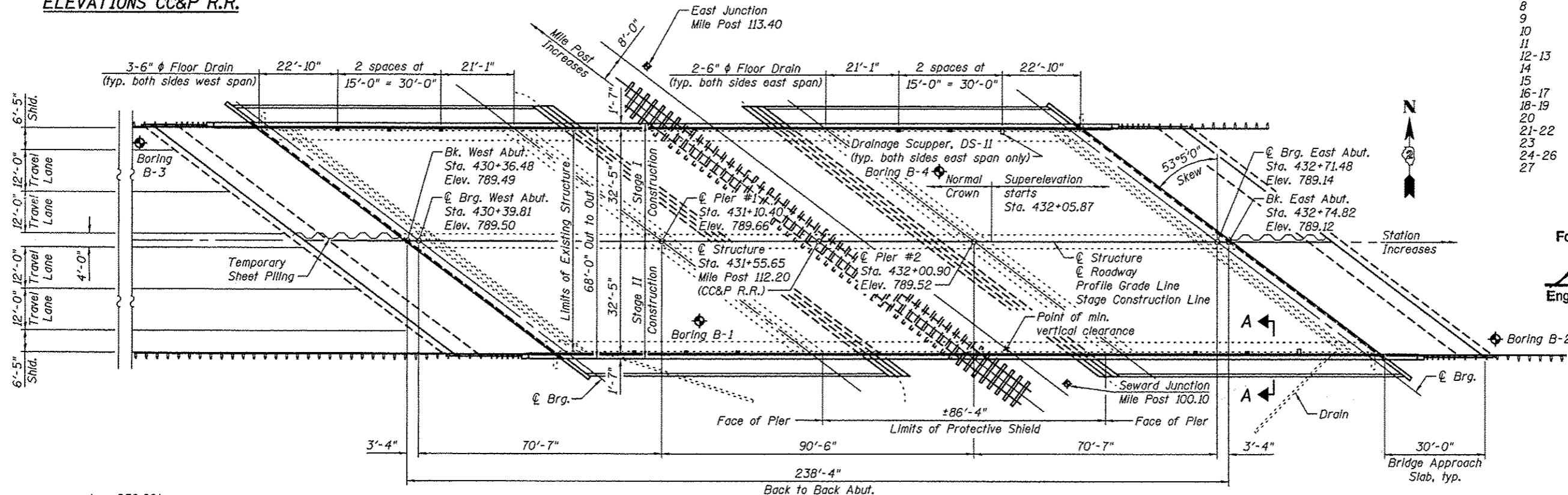
1. Remove and replace existing deck, parapets, expansion joints, end diaphragms, and bridge approach slabs utilizing stage construction.
2. Remove and replace bearings at abutments.
3. Remove and replace existing backwalls and wingwalls, extend abutments to accommodate bridge widening, and construct new "dogear" type wingwalls.
4. Paint existing steel beams.
5. Plate web and both flanges at ends of steel beams.

**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2 Total Bill of Materials and General Notes
- 3 Stage Construction and General Details
- 4 Temporary Concrete Barrier For Stage Construction
- 5-7 Top of Slab Elevations
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- 10 Superstructure
- 11 Superstructure Details
- 12-13 Bridge Approach Slab Details
- 14 Preformed Joint Strip Seal
- 15 Drainage Scuppers, DS-11
- 16-17 Steel Details
- 18-19 Bearing Details
- 20 Abutment Removal Details
- 21-22 Abutment Details
- 23 Bar Splicer and Assembly Details
- 24-26 Soil Boring Logs
- 27 Existing General Plan and Elevation

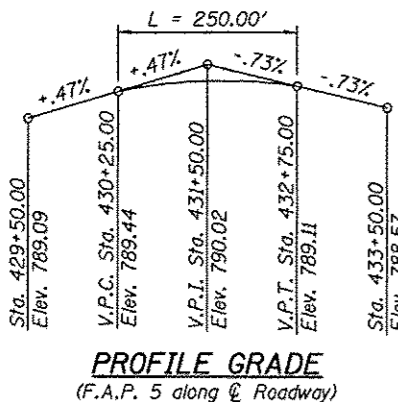


**TOP OF RAIL ELEVATIONS CC&P R.R.**



**PLAN**

See Sheet 3 of 27 for Section A-A



**CURVE DATA**

$\Delta = 42^\circ 47' 21''$  (RT)  
 $D = 2^\circ 30' 16''$   
 $T = 896.34'$   
 $L = 1,708.57'$   
 $E = 169.32'$   
 $R = 2,287.82'$   
 $S.E. = .54''$   
 P.C. STA. = 433+58.37  
 P.T. STA. = 450+66.94  
 P.I. STA. = 442+54.71

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges

**LOADING HS20-44**

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

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Horizontal Bedrock Acceleration Coefficient (A) = 3.1  
 Site Coefficient (S) = 1.2

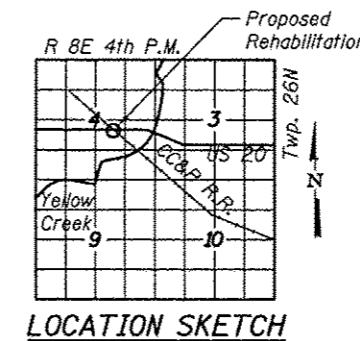
**DESIGN STRESSES**

**FIELD UNITS (NEW CONSTRUCTION)**

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (Structural Steel)

**FIELD UNITS (EXISTING CONSTRUCTION)**

$f'_c = 2,000$  psi  
 $f_y = 40,000$  psi (Reinforcement)  
 $f_y = 33,000$  psi (Structural Steel)



**LOCATION SKETCH**

STATION 431+55.65  
 REBUILT 20L BY  
 STATE OF ILLINOIS  
 F.A.P. Rte 5 Sec (19VB-1)D  
 LOADING HS-20  
 STRUCTURE NO. 089-0007

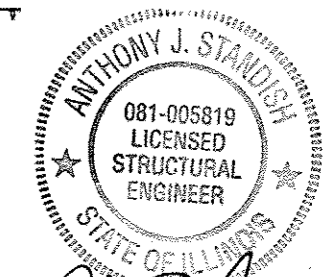
**NAME PLATE**

See Std. 515001

Note:  
 Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

**APPROVED**  
 For Structural Adequacy Only

*Anthony J. Standish*  
 Engineer of Bridges & Structures



**GENERAL PLAN & ELEVATION**  
 F.A.P. Rte 5 (US BUS 20)  
 OVER CC&P RAILROAD  
 SECTION (19VB-1)D  
 STEPHENSON COUNTY  
 STA. 431+55.65  
 S.N. 089-0007

SA 1170 SOUTH HOUBOLT ROAD  
 JOLIET, ILLINOIS 60431  
 STRAND ASSOCIATES \* IDPR NO. 184-001273

USER NAME = brianf  
 DESIGNED KDH  
 CHECKED AJS  
 DRAWN BJF  
 CHECKED RRD  
 PLOT SCALE =  
 PLOT DATE = 6/7/2012

REVISIONS  
 REVISIONS  
 REVISIONS  
 REVISIONS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
 STRUCTURE NO. 089-0007

SHEET NO. 1 OF 27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	(19VB-1)D	STEPHENSON	73	32
				CONTRACT NO. 64E76
ILLINOIS FED. AID PROJECT				