

Benchmark: Railroad spike in Power Pole south of Structure Elev. 594.35.

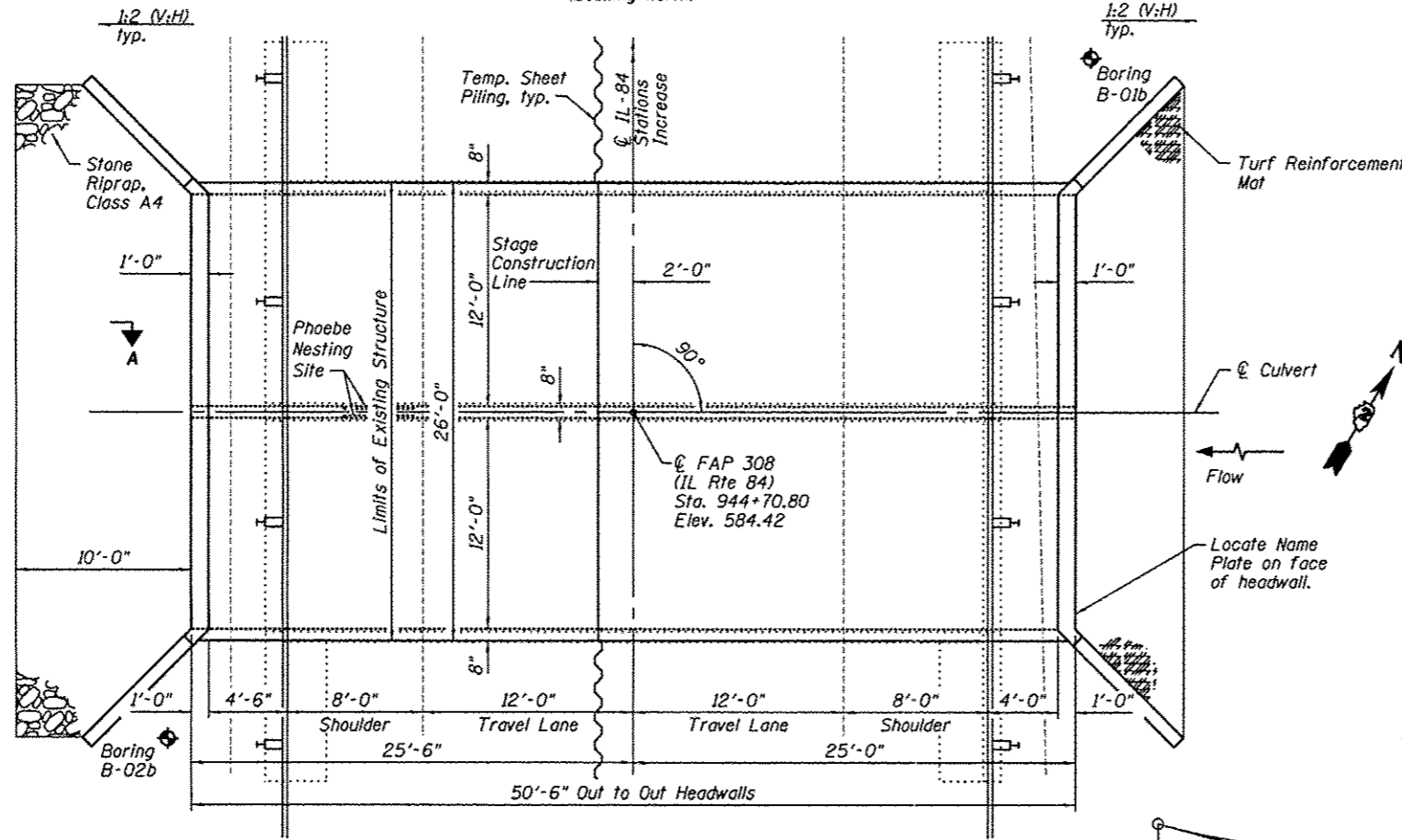
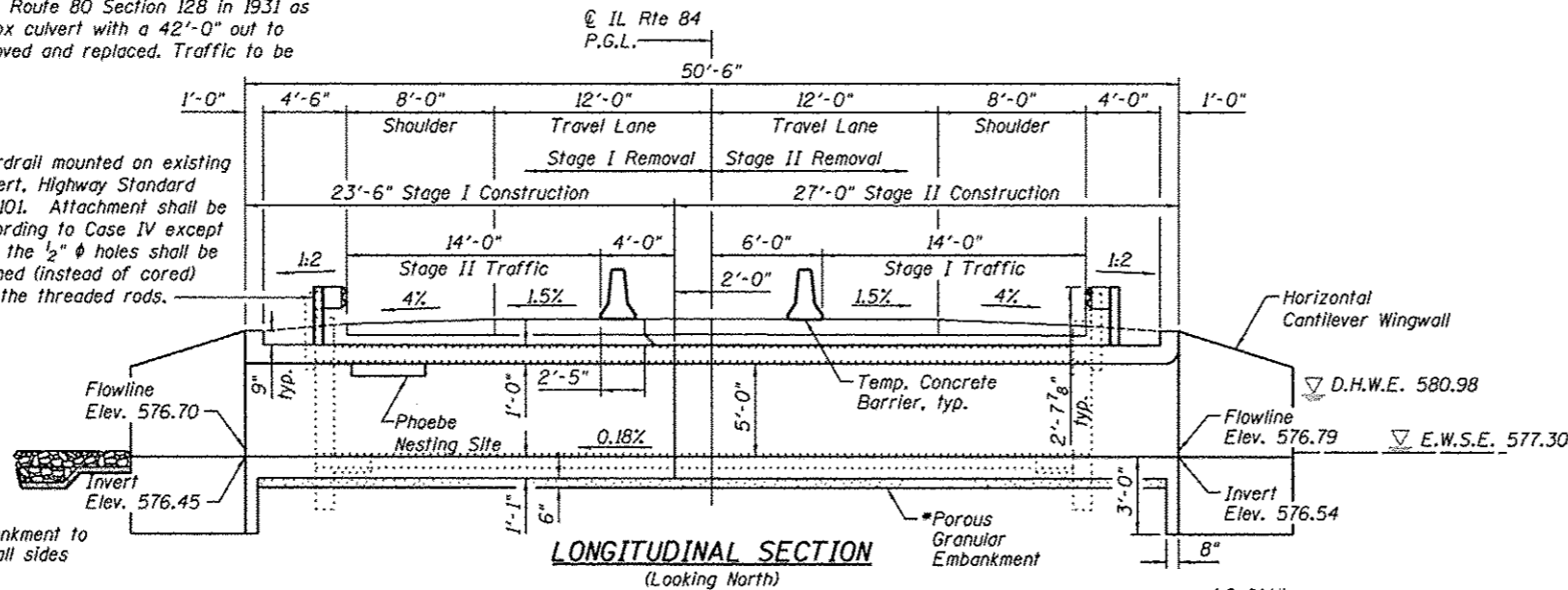
Existing Structure: SN 081-2001 built as Route 80 Section 128 in 1931 as a double 12' x 5' reinforced concrete box culvert with a 42'-0" out to out length. Existing structure to be removed and replaced. Traffic to be maintained utilizing stage construction.

No Salvage.

Precast alternate is not allowed.

Guardrail mounted on existing culvert, Highway Standard 630101. Attachment shall be according to Case IV except that the 1/2" φ holes shall be formed (instead of cored) for the threaded rods.

• Porous Granular Embankment to extend 2'-0" beyond all sides of the Box Culvert



**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2 Stage Construction and Temporary Sheet Piling
- 3 Temporary Concrete Barrier For Stage Construction
- 4 Culvert Details
- 5 Bar Splicer Assembly and Mechanical Splicer Details
- 6-7 Soil Boring Logs

**CURVE DATA**

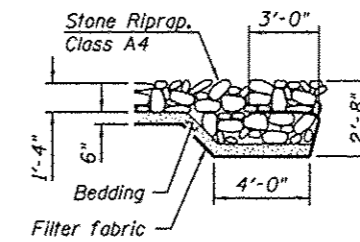
Δ = 18° 14' 31" (RT)  
 D = 1° 0' 0"  
 T = 919.88'  
 L = 1,824.19'  
 E = 73.37'  
 R = 5,729.56'  
 S.E. = 0.0135'/ft.  
 P.C. = Sta. 925+11.60  
 P.T. = Sta. 943+35.79  
 P.I. = Sta. 934+31.48

STATION 994+70.80  
 BUILT 20 BY  
 STATE OF ILLINOIS  
 F.A.P. RTE. 308 SEC. 110T  
 LOADING HL-93  
 STRUCTURE NO. 081-2038

**NAME PLATE**  
 See Std. 515001

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

**DESIGN SPECIFICATIONS**  
 2010 AASHTO LRFD Bridge Design Specifications,  
 5th Edition with 2010 Interim Revisions



**SECTION A-A**

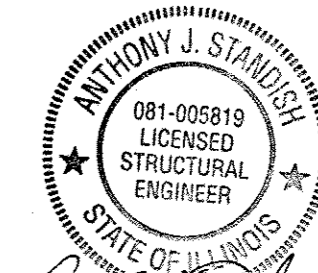
**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)

**APPROVED**  
 For Structural Adequacy Only

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 Engineer of Bridges & Structures



*Cathy Standish*  
 exp 11/2012

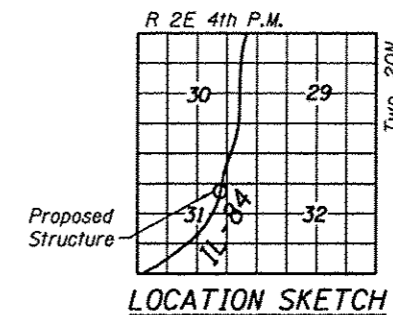
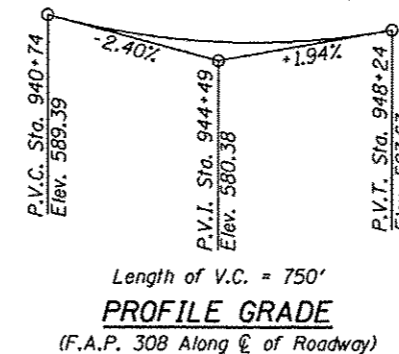
**WATERWAY INFORMATION**

Drainage Area = 1.54 sq. mi. Low Grade Elev. 584.32 @ Sta. 944+88

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater Elev.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	408	81	81	580.18	0.59	0.57	580.77	580.75
Base	50	681	100	100	580.94	1.18	1.16	582.12	582.10
Overtop Existing	100	809	111	111	581.40	1.32	1.29	582.72	583.69
Overtop Proposed	371	1050	120	120	582.30	2.02	N/A	584.32	N/A
Max. Calc.	371	1050	120	120	582.30	N/A	2.02	N/A	584.32
	500	1131	120	120	582.61	2.11	2.11	584.72	584.72

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	Upstream	Downstream
	573.54	573.45



**GENERAL PLAN & ELEVATION**  
**IL- 84 OVER DRAINAGE DITCH**  
**F.A.P. RTE. 308 - SEC. 110T**  
**ROCK ISLAND COUNTY**  
**STATION 944+70.80**  
**STRUCTURE NO. 081-2038**