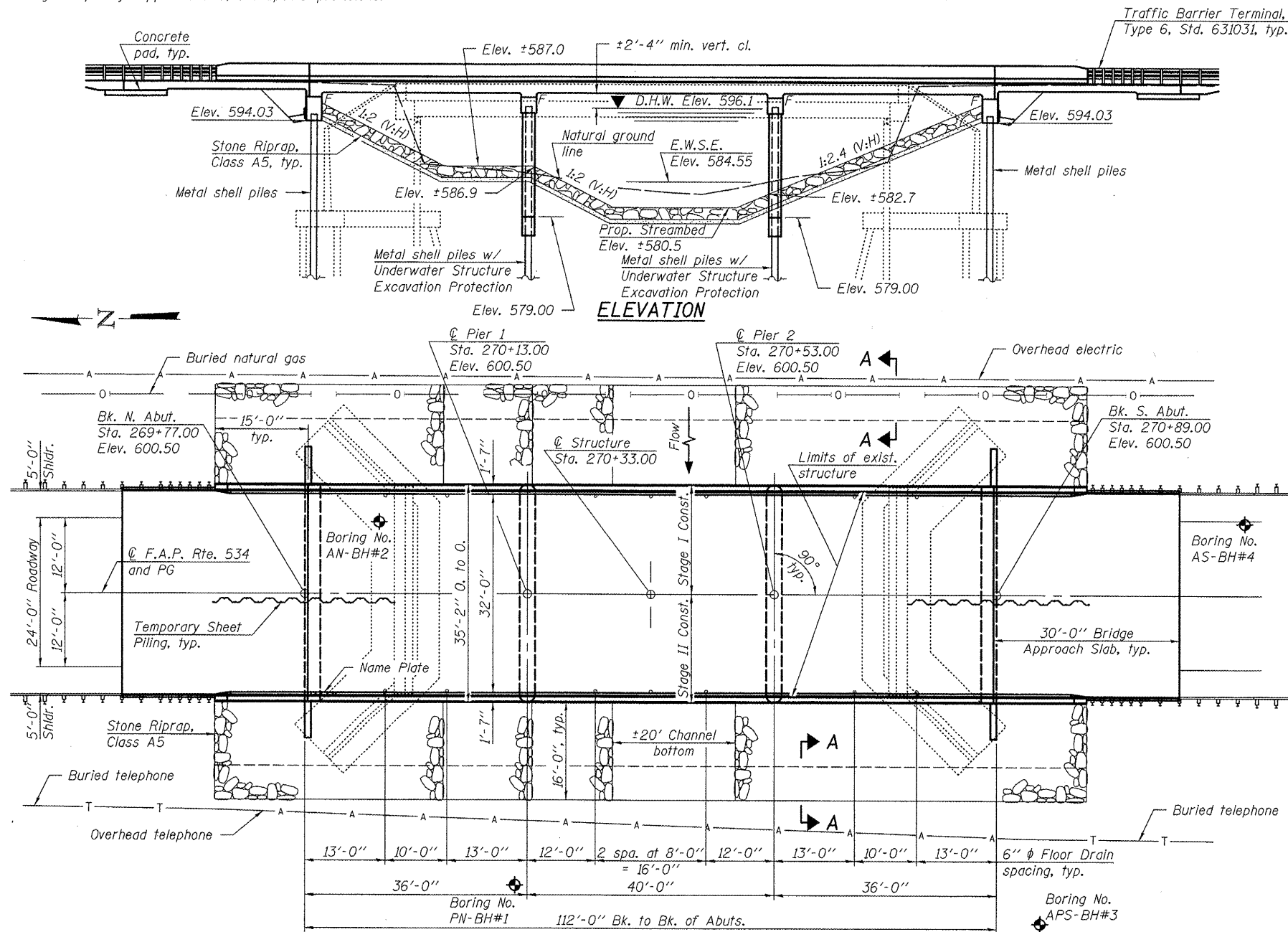


Benchmark: CB-1 = RR spike in powerpole at S. entrance to rest area ±500' N. of S.N. 036-0012 on right side of IL 94, Elev. = 609.42.

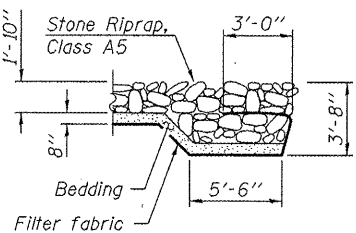
Existing Structure: S.N. 036-0004 was built in 1928 under S.B.I. Rte. 94, Section 109B. In 1977, the superstructure was replaced and the substructure was widened under F.A. Rte. 534, Section 109BR. In 2007, emergency wide flange beams were installed under four beams. The existing single span structure consists of PPC deck beams on untreated timber pile supported closed abutments. The bk. to bk. abts. dimension measures 79'-6" while the O. to O. width measures 33'-0". Staged construction shall be used during construction.

Salvage temporary support beams, see special provisions.

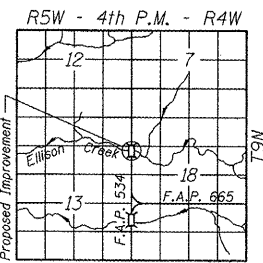


**ELEVATION**

**PLAN**



**SECTION A-A**

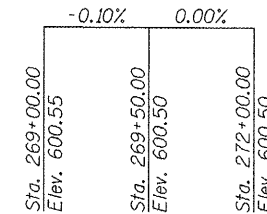


**LOCATION SKETCH**

STATION 270+33.00  
 BUILT 201 BY  
 STATE OF ILLINOIS  
 F.A.P. RT. 534 SEC. 109BR-1  
 LOADING HL-93  
 STRUCTURE NO. 036-0072

**NAME PLATE**

See Std. 515001



**PROFILE GRADE**

(Along @ F.A.P. Rte. 534)

**INDEX OF SHEETS**

1. General Plan & Elevation
2. General Data
3. Temporary Sheet Piling
4. Stage Construction Details
5. Temporary Concrete Barrier
- 6.-8. Superstructure Details
- 9.-10. Approach Slab
11. Abutments
12. Piers
13. Metal Shell Pile Details
14. Bar Splicer Details
- 15.-20. Boring Logs

**LOADING HL-93**

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

**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)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.10g  
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.144g  
 Soil Site Class = D

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	594.0	568.5	568.5	594.0

**WATERWAY INFORMATION**

Drainage Area = 41.7 Sq. Mi. Low Grade Elev. 600.15 @ Sta. 266+50.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	3,950	689	713	595.0	1.0	0.9	596.0	595.9
Base	100	7,040	809	875	596.6	2.9	1.5	599.0	597.6
Exist									
Overtopping	330	8,800	809	-	597.3	3.3	-	600.6	-
Proposed Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	9,350	-	1001	597.5	-	2.5	-	600.0

**APPROVED**  
 For Structural Adequacy Only

*Eric Lagemann*  
 Engineer of Bridges & Structures



*Eric Lagemann* 12/16/10  
 Expires 11/30/2012 Date

**GENERAL PLAN & ELEVATION**  
**ILLINOIS ROUTE 94 OVER ELLISON CREEK**  
**F.A.P. RTE. 534 - SECTION 109BR-1**  
**HENDERSON COUNTY**  
**STATION 270+33.00**  
**STRUCTURE NO. 036-0072**

FILE NAME =	USER NAME = elagemann	DESIGNED KAK	REVISED -
\\080844\1194\Cad\Plans\0360072-68653.dgn		CHECKED EML	REVISED -
PLOT SCALE =		DRAWN KAK	REVISED -
PLOT DATE = 12/16/2010		CHECKED EML	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION



SHEET NO. 1 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	14
				CONTRACT NO. 68693
ILLINOIS FED. AID PROJECT				