

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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B.M. # 114 Chiseled  $\square$  on center of N. Headwall for concrete box culvert, located on W. side of IL Rte. 159 in "Buff Truck outfitters" parking lot across from historical landmark "Catsup Bottle" Elev. 475.811

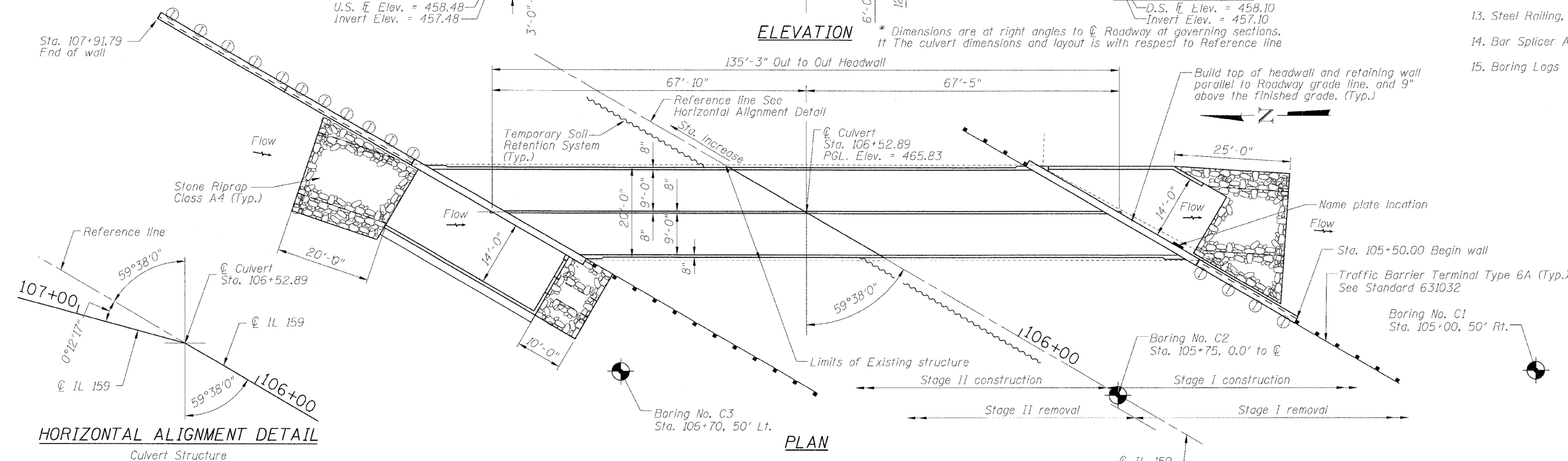
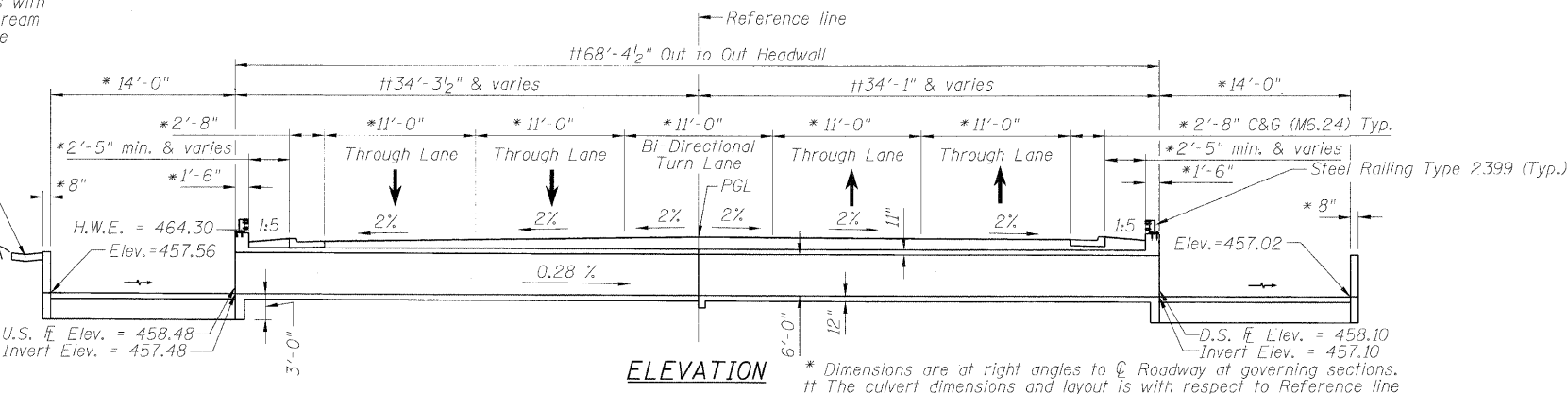
Existing Structure- The structure (structure No. 082-2023) is a triple cell concrete box culvert built in 1934 and extended twice on the downstream (east end in 1985 and 2001. The original structure has three cells at 6.0 ft. by 2.5 ft and is 85.4 ft long. The first extension is 21.8 ft and the latest extension is 26.2 ft long. Both extensions consist of three cells with the two outer cells at 6.25 ft by 5.1 ft and the center cell at 6.5 ft by 5.1 ft. Two concrete headwalls with wing walls are located at both the upstream and downstream ends. The culvert is at a skew of 59.6 degrees with the roadway.

Existing culvert is to be removed and replaced.

Stage construction: One lane of traffic shall be maintained in each direction utilizing stage construction.

No Salvage-

Type B gutter (Std. 606201) See Roadway Plans



STATION 106+52.89  
BUILT 2009 BY  
STATE OF ILLINOIS  
F.A.P. RT. 600 SEC. 60-(30,31,128)-1  
LOADING HS20  
STRUCTURE NO: 082-2044

NAME PLATE  
See Std. 515001

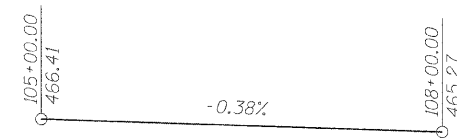


Expires: 11/30/2010

*m. j. Karshenas* 7-28-2009

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

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



DESIGN SCOUR ELEV. TABLE

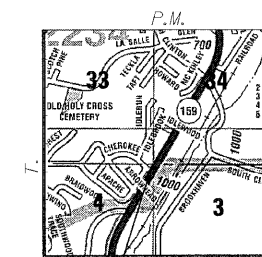
Design Scour Elevation (feet)	Upstream	Downstream
	454.48	454.10

LOADING HS20-44  
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS  
2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (Soldier piles.)



LOCATION SKETCH

MID-AMERICA ENGINEERING SERVICES

GENERAL PLAN & ELEVATION  
IL RTE. 159 OVER BRANCH OF CANTEEN CREEK  
FAP ROUTE 600 SEC. 60-(30,31,128)-1  
ST. CLAIR COUNTY  
STA. 106+52.89  
STRUCTURE NO. 082-2044

DESIGNED - KRG
CHECKED - MJK
DRAWN - GSJ
CHECKED - MJK

WATERWAY INFORMATION									
Drainage Area = 0.358sq. miles Low Grade Elev. 464.8 @ Sta. 109+50									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	50	632	45	90	464.3	3.0	2.50	467.3	466.8
Base	100	831	45	90	464.7	3.4	2.70	468.1	467.4
Overtopping	<10	293	45	90	463.4	2.2	1.90	465.6	465.3

10 year Velocity through proposed culvert = 3.3'/sec. 10 year Velocity through existing culvert = 6.5'/sec.

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15 SHEETS	600	60-(30,31,128)-1	St. Clair	399	242
		STRUCTURE NO: 082-2044	CONTRACT NO. 76830		
		FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT	