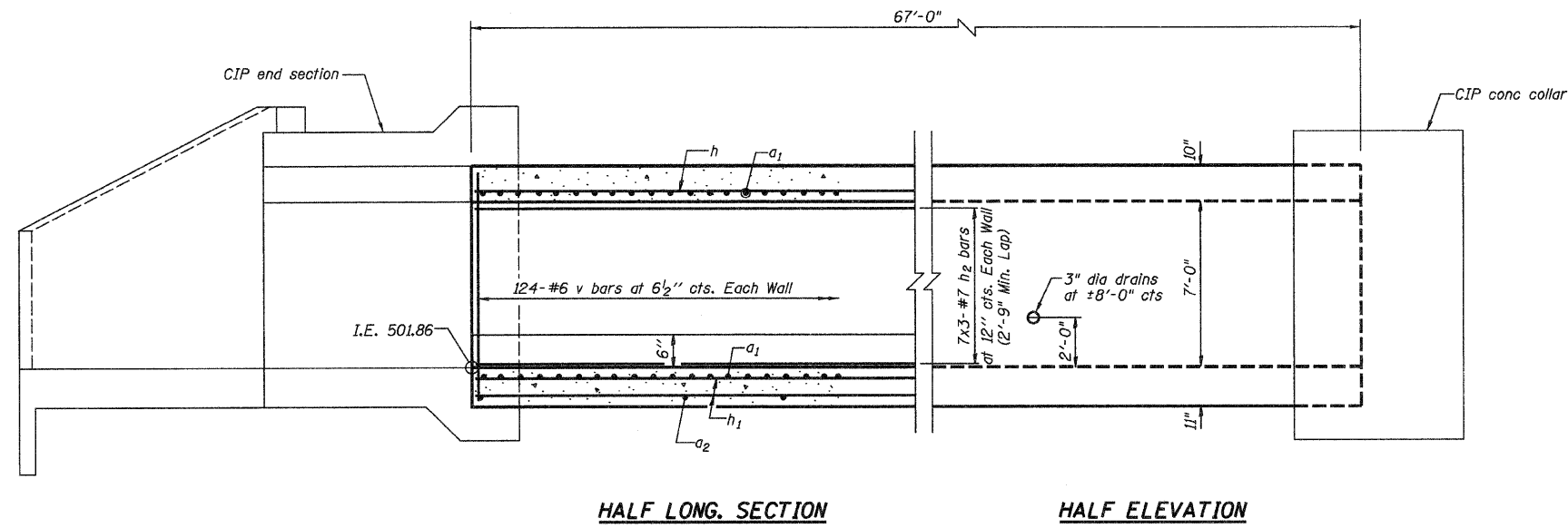


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



HALF LONG. SECTION

HALF ELEVATION

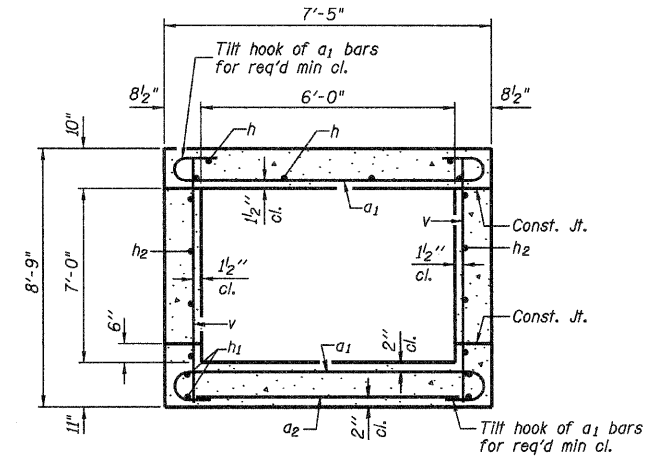
**DESIGN SPECIFICATIONS**  
2002 AASHTO 17th Edition

**DESIGN STRESSES**  
 $f_y = 60,000 \text{ psi}$   
 $f'_c = 3,500 \text{ psi}$

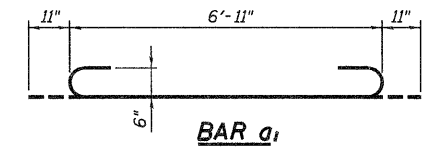
**LOADING HS 20-44**  
Allow 50 lb/sq. ft. for future wearing surface.

**INDEX OF SHEETS**

- 1 UPSTREAM 6'x7' BOX CULVERT EXTENSION
- 2 UPSTREAM 6'x7' END SECTION DETAILS
- 3 UPSTREAM 6'x7' SETTLEMENT COLLAR DETAILS



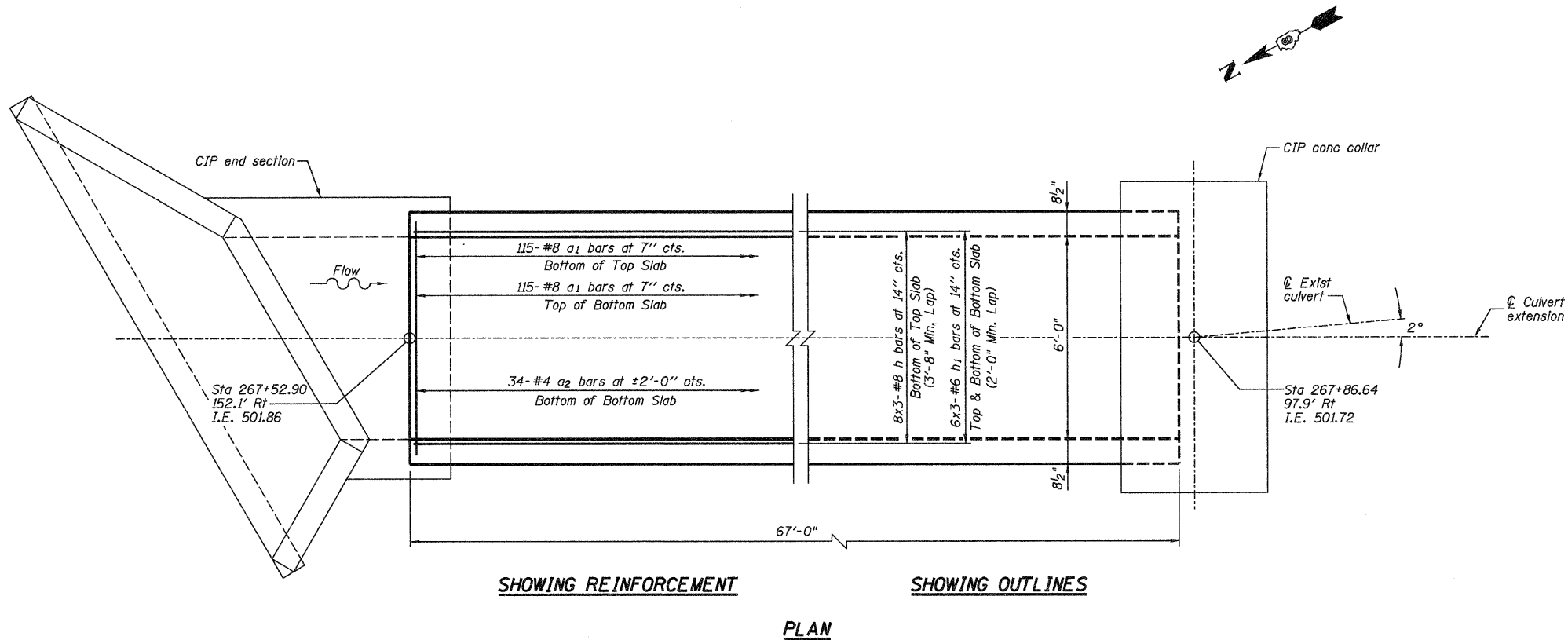
SECTION THRU BARREL



BAR a1

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	230	#8	8'-9"	
a2	34	#4	6'-3"	
h	24	#8	24'-8"	
h1	36	#6	23'-7"	
h2	42	#7	24'-1"	
v	248	#6	8'-5"	
Concrete Box Culverts			Cu. Yd.	56.9
Reinforcement Bars			Pound	13,440



SHOWING REINFORCEMENT

SHOWING OUTLINES

PLAN

**NOTES**

Reinforcement Bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified) See Special Provisions.  
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
All construction joints shall be banded.

**STATION 268+54.00 RT**  
**UPSTREAM 6'x7'**  
**BOX CULVERT EXTENSION**  
**FAP ROUTE 310 (US 67)**  
**SECTION 60-16-1-1B**  
**MADISON COUNTY**

DESIGNED -	JMB
CHECKED -	TES
DRAWN -	R KING
CHECKED -	TES

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184-001397

**JEREMY BUENING, P.E., S.E.**  
LICENSED STRUCTURAL ENGINEER  
STATE OF ILLINOIS  
JEREMY BUENING  
081-006998  
Date 3-3-10  
Exp 11-20-10

SHEET NO. 1 OF 3 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	310	60-16-1-1B	MADISON	481	152
FAP ROUTE 310 (US 67)			CONTRACT NO. 76318		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		