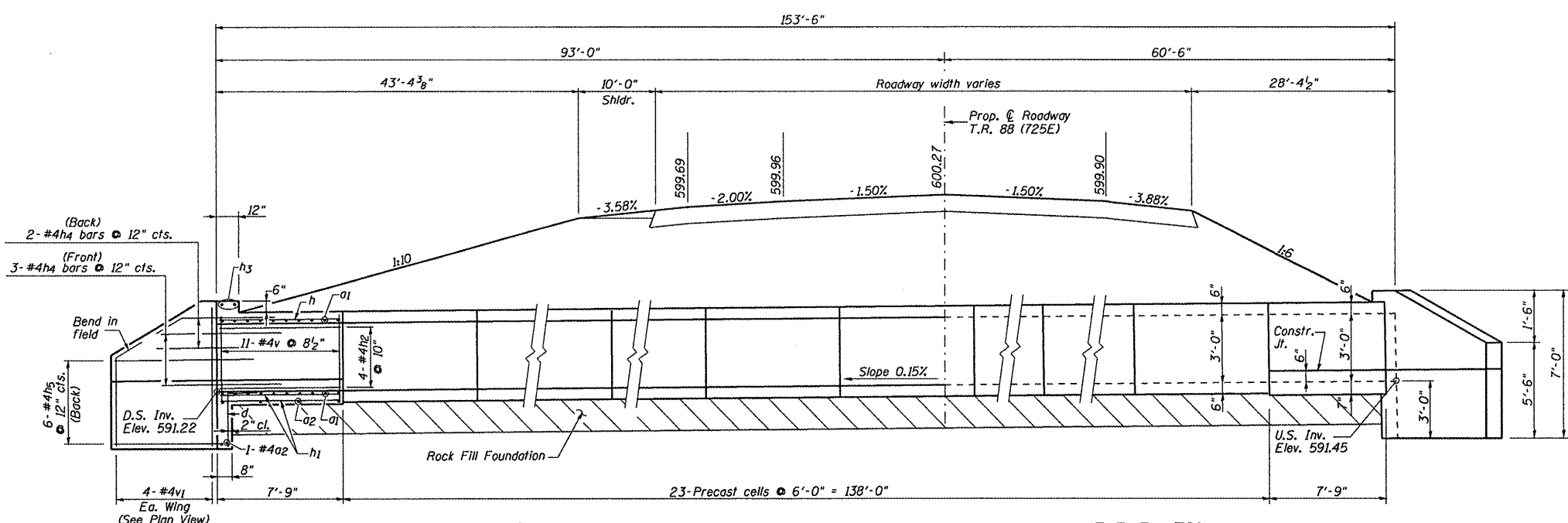


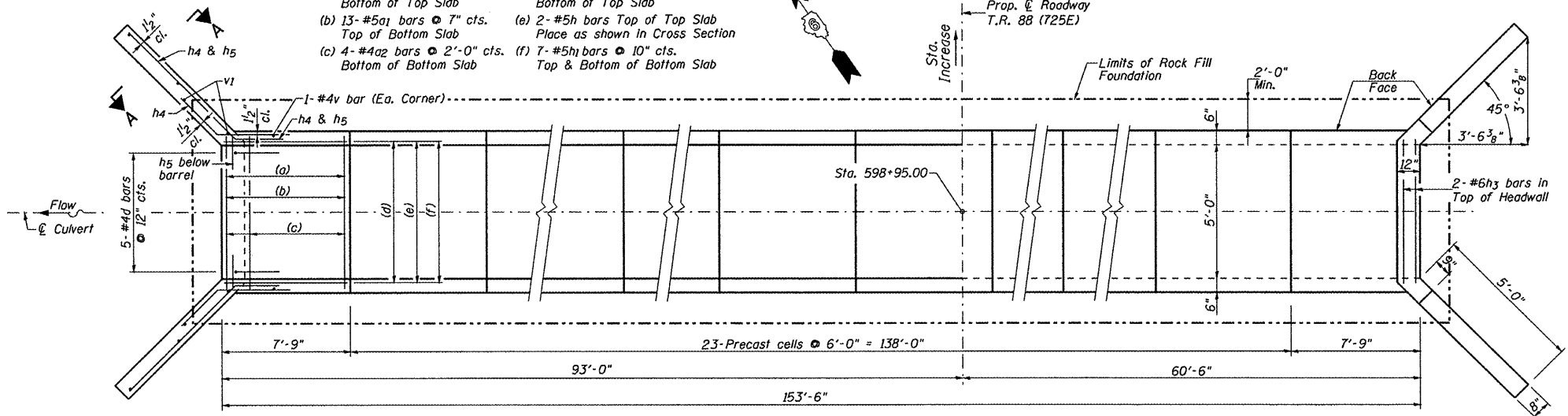
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
75	84-12; 11-3	•	729	461
STA.		TO STA.		
FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT				
• SANGAMON AND CHRISTIAN				



HALF LONG SECTION

HALF ELEVATION

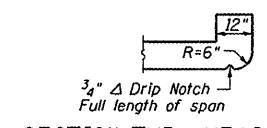
- (a) 13-#5a1 bars @ 7" cts. Bottom of Top Slab
- (b) 13-#5a1 bars @ 7" cts. Top of Bottom Slab
- (c) 4-#4a2 bars @ 2'-0" cts. Bottom of Bottom Slab
- (d) 6-#5h bars @ 12" cts. Bottom of Top Slab
- (e) 2-#5 bars Top of Top Slab Place as shown in Cross Section
- (f) 7-#5h bars @ 10" cts. Top & Bottom of Bottom Slab



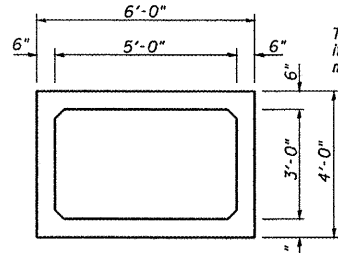
SHOWING REINFORCEMENT

PLAN

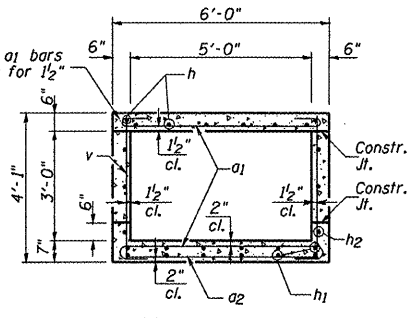
SHOWING OUTLINES



SECTION THRU HEADWALL (Upstream End Only)



SECTION THRU PRECAST BARREL

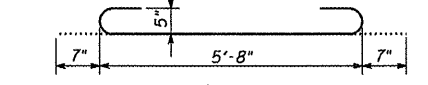


SECTION THRU BARREL

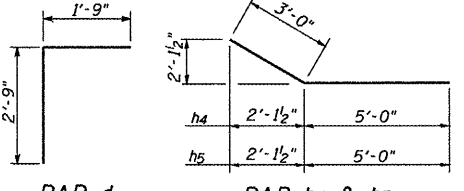
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	52	#5	6'-10"	U
a2	10	#4	5'-8"	—
d	10	#4	4'-6"	—
h	16	#5	7'-5"	—
h1	28	#5	7'-5"	—
h2	16	#4	7'-5"	—
h3	4	#6	5'-8"	—
h4	20	#4	8'-0"	—
h5	24	#4	8'-0"	—
v	48	#4	3'-9"	—
v1	16	#4	6'-8"	—
x	44	#4	4'-6"	—
x1	12	#4	13'-4"	—

Porous Granular Embankment	Cu. Yd.	86
Filter Fabric	Sq. Yd.	447
Precast Concrete Box Culverts 5'x3'	Foot	138
Concrete Box Culverts	Cu. Yd.	11.6
Reinforcement Bars	Pound	1,560
Rock Fill Foundation	Ton	178
Granular Culvert Backfill	Cu. Yd.	166

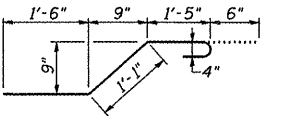


BAR a1

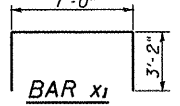


BAR d

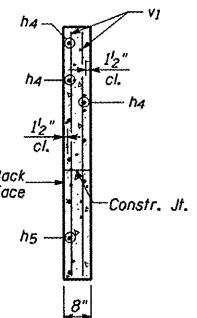
BAR h4 & h5



BAR x



BAR x1



SECTION A-A

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interim Revisions

LOADING HL-93

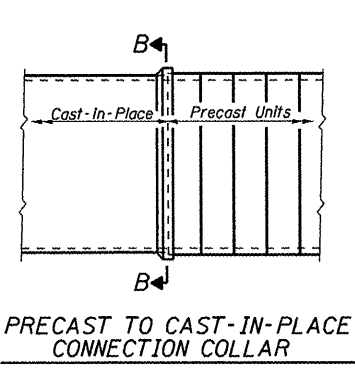
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

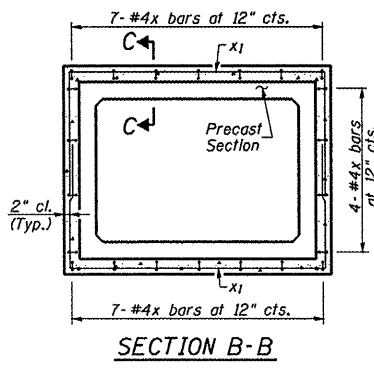
FIELD UNITS	PRECAST UNITS
f'c = 3,500 psi	f'c = 5,000 psi
fy = 60,000 psi	fy = 65,000 psi (W.W.F.)

NOTES:

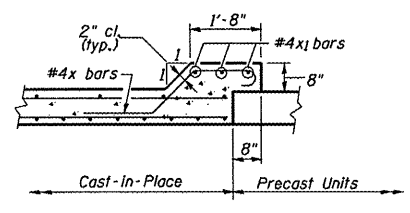
- The Precast Culvert shall be designed in accordance with ASTM C1577.
- Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60.
- It shall be the responsibility of the contractor to divert the stream flow in order to keep the construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included in the item "Precast Concrete Box Culverts 5' x 3'."
- Precast end sections will not be allowed.
- All construction joints shall be bonded.
- Limits of Removal and Replacement of weak soils with Rock Fill Foundation will be determined by the Engineer.



PRECAST TO CAST-IN-PLACE CONNECTION COLLAR



SECTION B-B



SECTION C-C

Exp. 11-30-2012
 LICENSED STRUCTURAL ENGINEER
 WILLIAM L. BAILEY, JR
 5087
 STATE OF ILLINOIS
 WLB
 03-28-2012

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PROPOSED BOX CULVERT
 PLAN - ELEVATION - DETAILS
 STA. 598+95.00
 SCALE: NONE
 DATE: 03/06/2012
 DRAWN BY:
 CHECKED BY: WLB