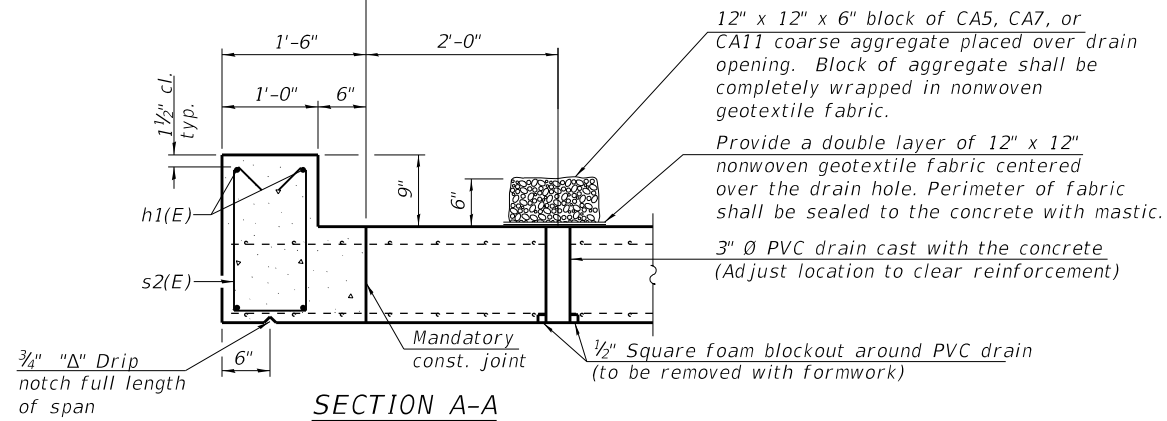


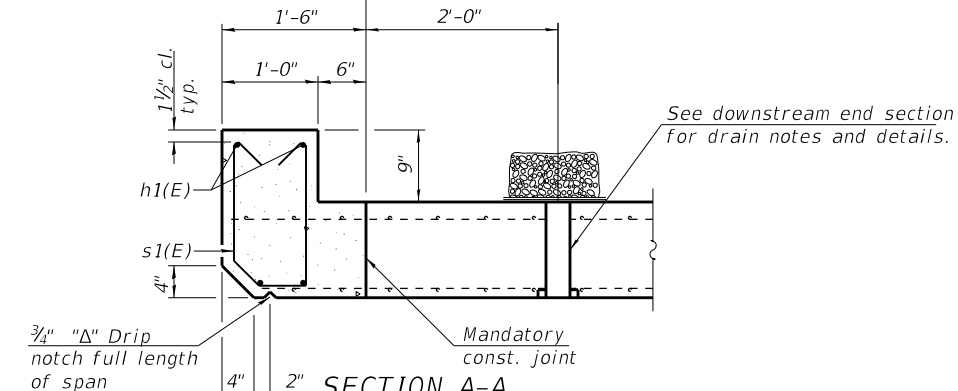
Cast in Place Concrete End Sections Pay Limits for Precast Concrete Box Culverts



**SECTION A-A**  
(Downstream End)

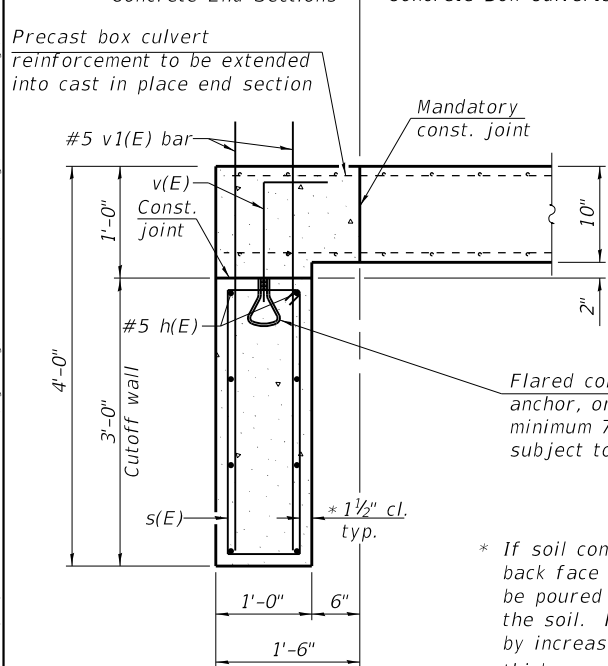
(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

Cast in Place Concrete End Sections Pay Limits for Precast Concrete Box Culverts



**SECTION A-A**  
(Upstream End)

Cast in Place Concrete End Sections Pay Limits for Precast Concrete Box Culverts



**SECTION B-B**  
(Cutoff Wall)

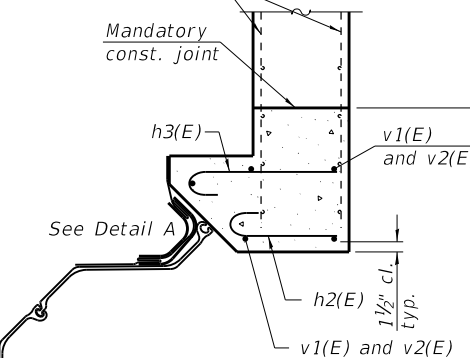
\* If soil conditions permit, the back face of cutoff wall may be poured directly against the soil. Provide 3" cover by increasing cutoff wall thickness to 1'-1 1/2".

12" x 12" x 6" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Perimeter of fabric shall be sealed to the concrete with mastic.

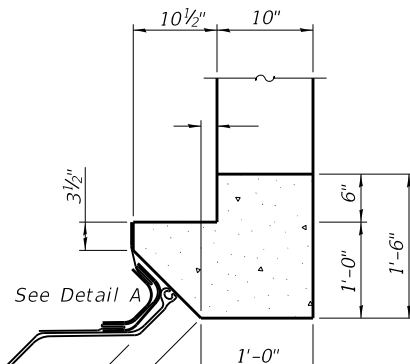
3" Ø PVC drain cast with the concrete (Adjust location to clear reinforcement)

1/2" Square foam blockout around PVC drain (to be removed with formwork)

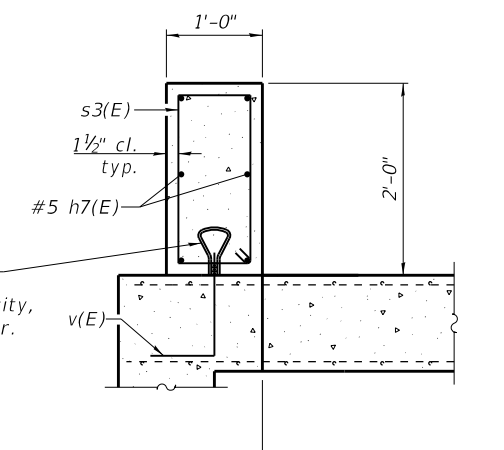


**SECTION C-C**

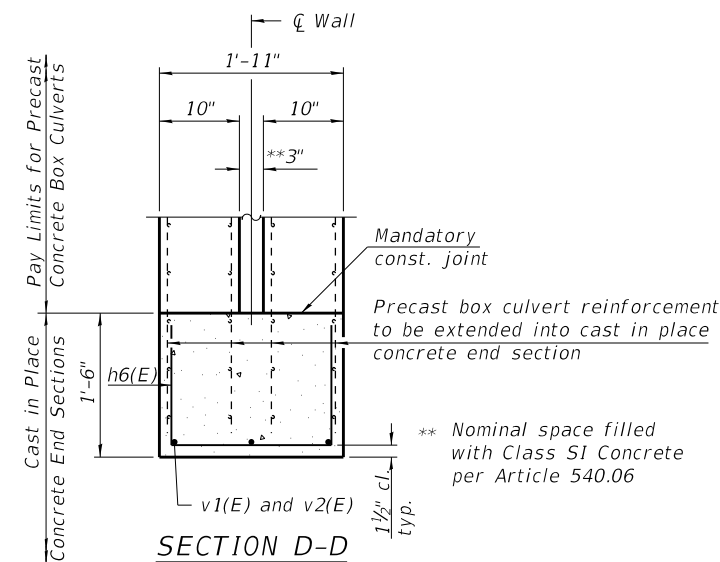
Northeast, Southeast, and Southwest Wingwalls (Showing reinforcement)



**SECTION C-C**  
(Showing dimensions)



**SECTION B'-B'**  
(Weir Wall For Both 8'x5' Cells)

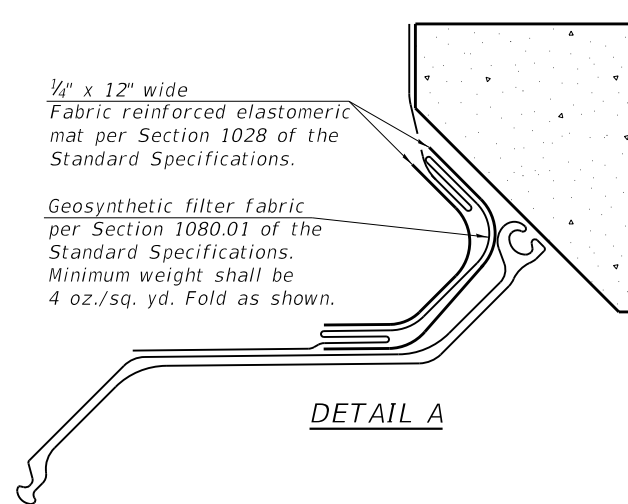


**SECTION D-D**  
(For multiple cells only)

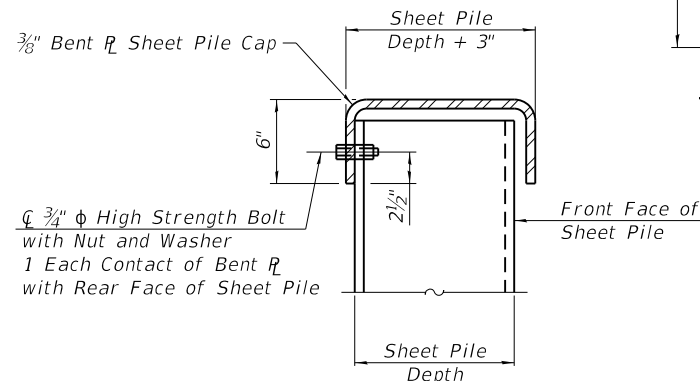
\*\* Nominal space filled with Class SI Concrete per Article 540.06

1/4" x 12" wide Fabric reinforced elastomeric mat per Section 1028 of the Standard Specifications.

Geosynthetic filter fabric per Section 1080.01 of the Standard Specifications. Minimum weight shall be 4 oz./sq. yd. Fold as shown.



**DETAIL A**



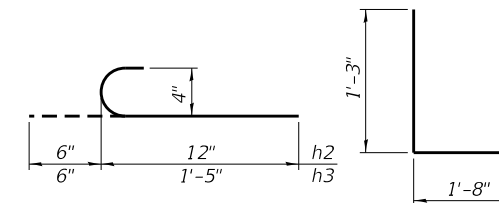
**SECTION E-E**

**END SECTIONS**  
**BILL OF MATERIAL**

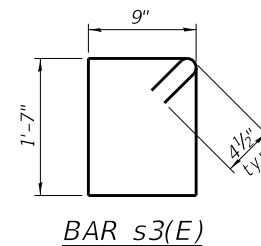
(For information only)

Bar	No.	Size	Length	Shape
h(E)	32	#5	16'-10"	—
h1(E)	16	#6	17'-2"	—
h2(E)	33	#4	1'-6"	—
h3(E)	55	#4	1'-9"	—
h6(E)	20	#4	5'-2"	—
h7(E)	12	#5	7'-8"	—
s(E)	60	#4	7'-9"	—
s1(E)	30	#4	4'-0"	—
s2(E)	30	#4	4'-2"	—
s3(E)	16	#4	5'-5"	—
v(E)	76	#5	1'-7"	—
v1(E)	33	#5	5'-10"	—
v2(E)	33	#5	6'-5"	—
Concrete Box Culverts	Cu. Yd.		31.9	
Reinforcement Bars	Pound		2,320	
Permanent Sheet Piling	Sq. Ft.		736	

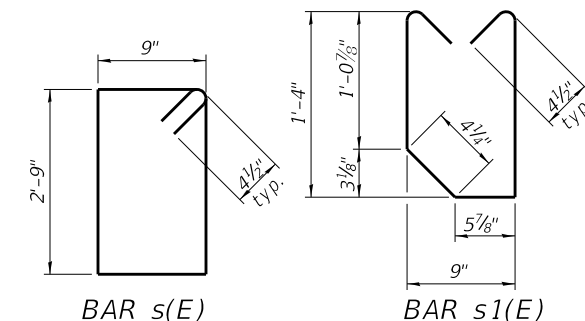
Reinforcement bars designated (E) shall be epoxy coated



**BARS h2(E) and h3(E)** **BAR h6(E)**  
(For multiple cells only)

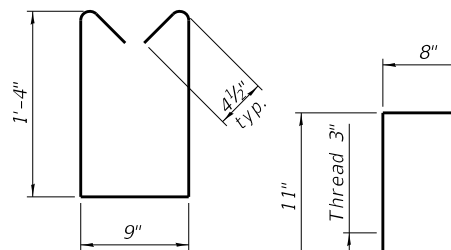


**BAR s3(E)**



**BAR s(E)**

**BAR s1(E)**



**BAR s2(E)**

**BAR v(E)**

MODEL: 0228306-61469-006  
 FILE NAME: P:\0228306-61469-006-002 (ENG) - PTB 195-016 Phase II Vpr Vpr\Engineering\WO 01 - IL83-IL306500 Drawings\01 CADD Drawings\0228306-61469-006.dwg  
 311 S. Wacker Drive, Suite 1950  
 Chicago, Illinois 60606  
 312-474-5500  
 www.bowmanconsulting.com



USER NAME = atiemann	DESIGNED - KJH	REVISED -
PLOT SCALE = 2:0.0000 1" = 1'	DRAWN - AHT	REVISED -
PLOT DATE = 3/10/2021	CHECKED - AJN	REVISED -
	DATE - 3/11/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**END SECTION DETAILS**  
**CULVERT - STRUCTURE NO. 022-8300**

SCALE: SHEET CUL-08 OF CUL-10 SHEETS STA. TO STA.

F.A.P. RTE. 344	SECTION 2020-196-T	COUNTY DUPAGE	TOTAL SHEETS 122	SHEET NO. 63
CONTRACT NO. 62M69			ILLINOIS FED. AID PROJECT	

CUL-08