

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

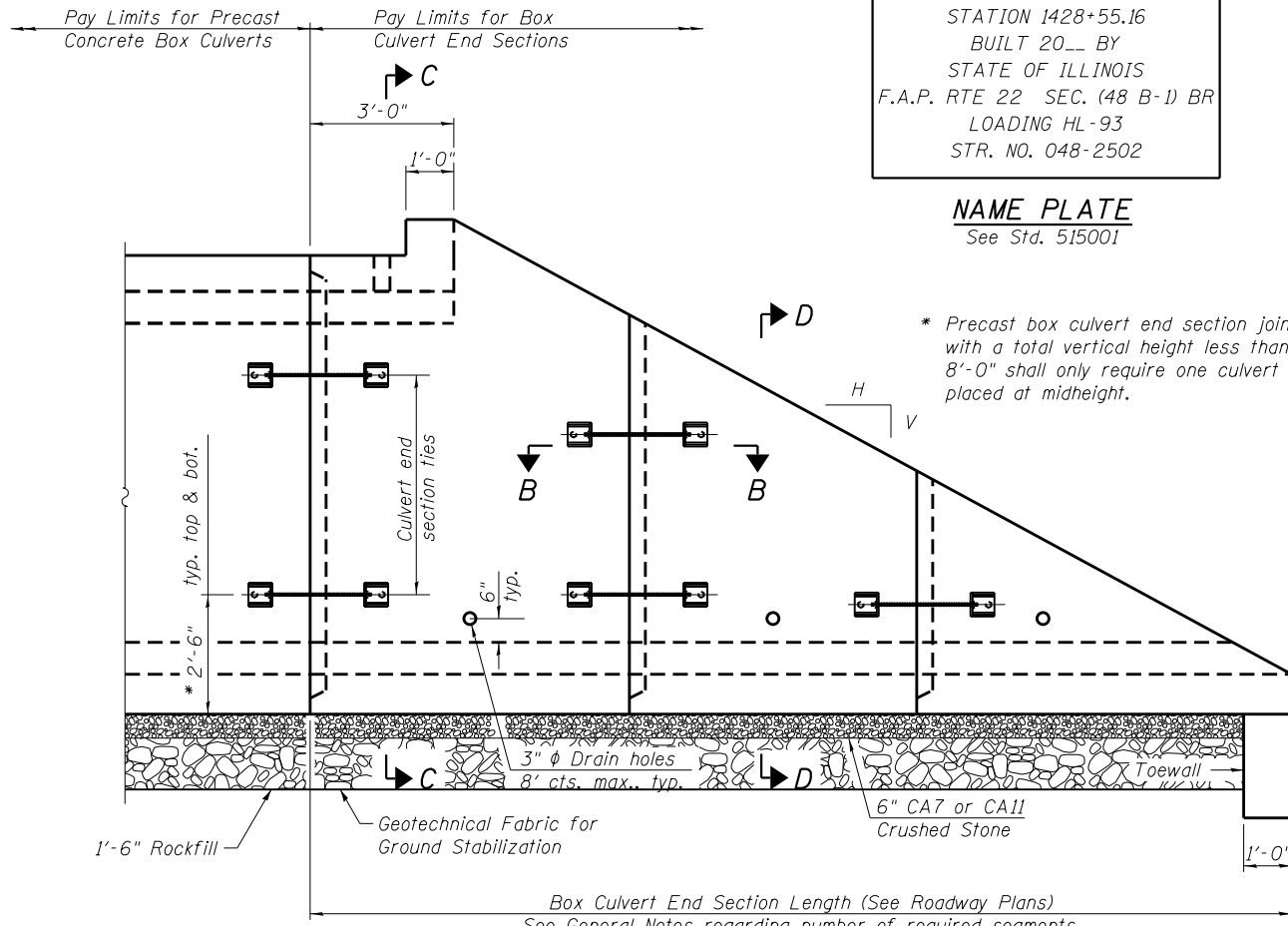
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

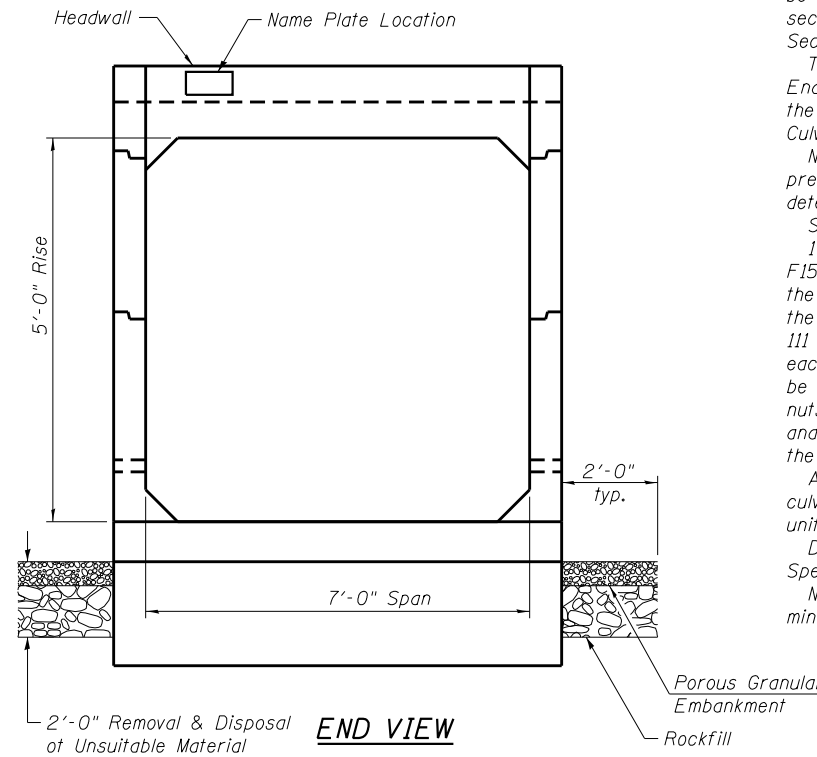
STATION 1428+55.16
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE 22 SEC. (48 B-1) BR
LOADING HL-93
STR. NO. 048-2502

NAME PLATE
See Std. 515001

* Precast box culvert end section joints with a total vertical height less than 8'-0" shall only require one culvert tie placed at midheight.



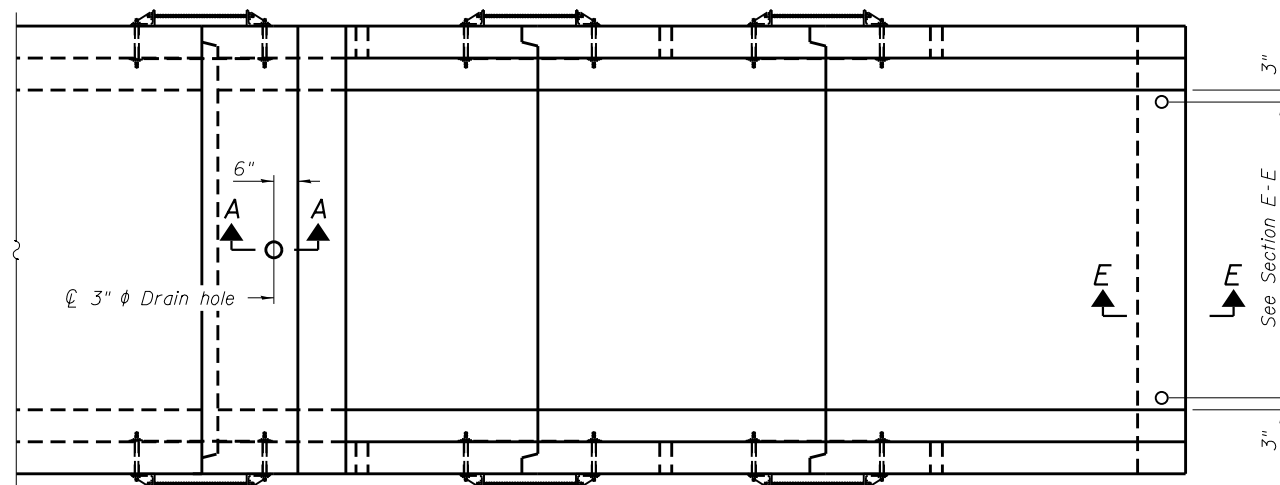
ELEVATION



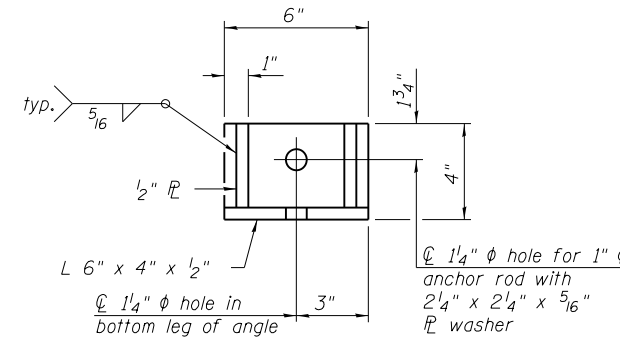
END VIEW

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Box Culvert End Sections, Culvert No. 1	Each	1
Name Plate	Each	1



PLAN



RESTRAINT ANGLE DETAIL

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. Fabric shall be sealed to the concrete with mastic.

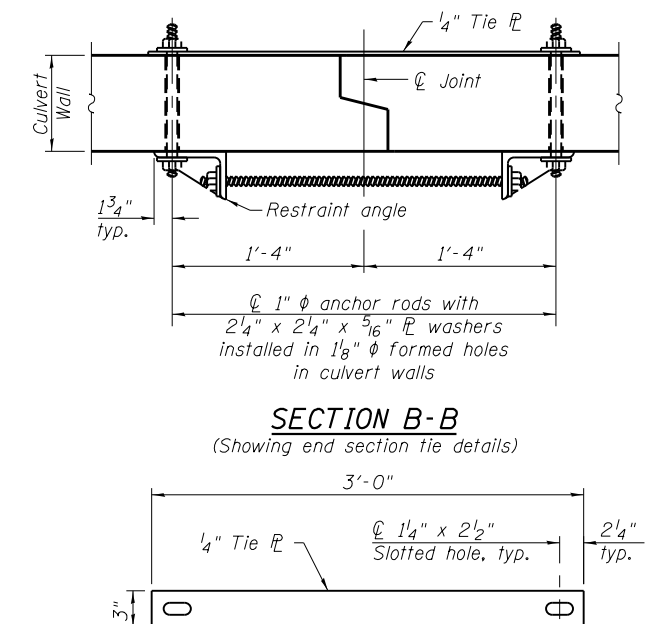
3" ϕ PVC drain cast with the concrete (Adjust location to clear reinforcement).

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

SECTION A-A

(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.)

(Sheet 1 of 2)



TIE PLATE DETAIL

SCB-TES

10-15-2016

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS DESIGN FIRM NO. 184-003525

USER NAME = jacobsmr	DESIGNED - MCB	REVISED -
PLOT SCALE = 0:2.000000 '1' / in.	CHECKED - ARK	REVISED -
PLOT DATE = 5/10/2019	DRAWN - CFC	REVISED -
	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS
ILLINOIS ROUTE 78 - SN 048-2502

SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	48(B-1BR)CRJ	KNOX	94	55
CONTRACT NO. 68758				
ILLINOIS FED. AID PROJECT				

FILE NAME = C:\Users\jacobsmr\Documents\10DOT\0482502\10DOT\0482502\0482502-68758-003-end-sec.dgn