

PAVEMENT UNDERDRAIN AT SUMPS

NOTE:
Place 4" PVC Perforated Pipe at all drainage sump locations.

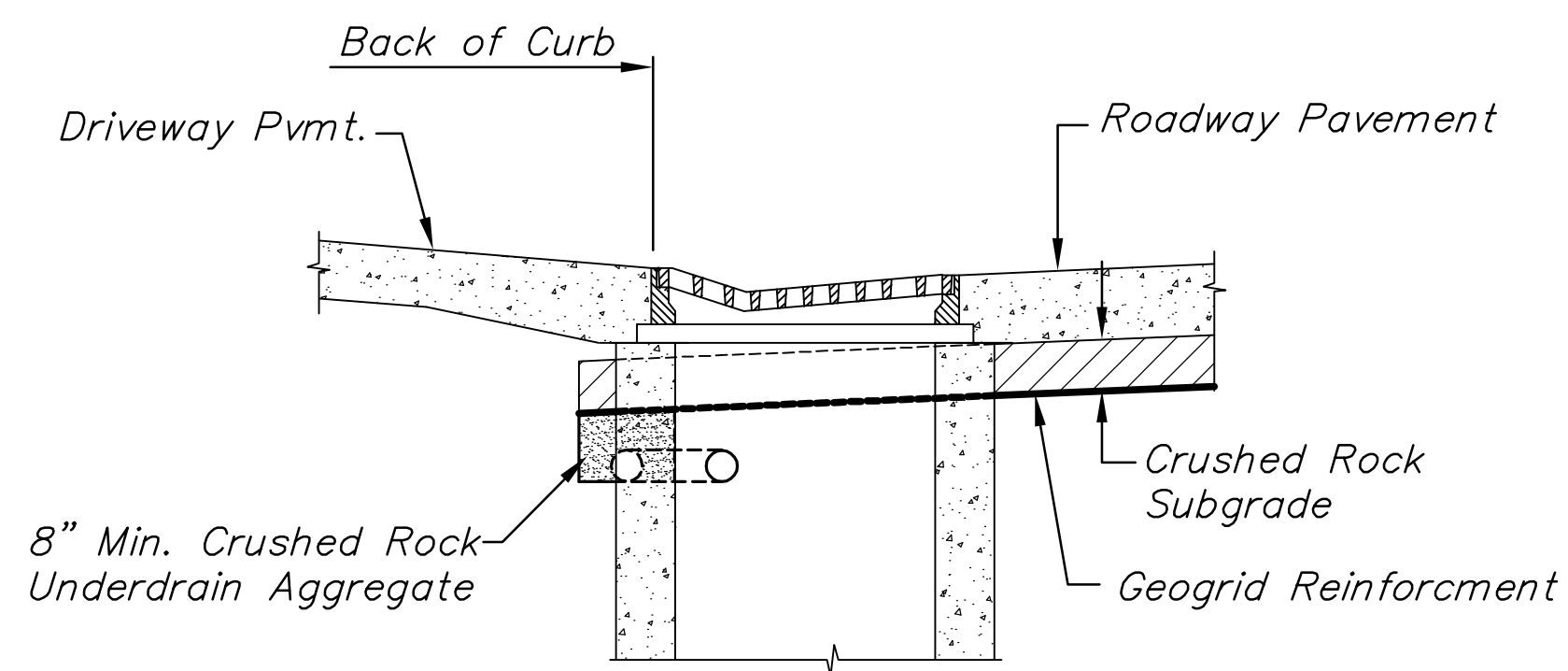
Cost of Underdrain System at sumps to be incidental to the Reinforced Crushed Rock Subgrade.

Refer to "Pipe Connection Detail" on Sheet No. 8 for connections to structures.

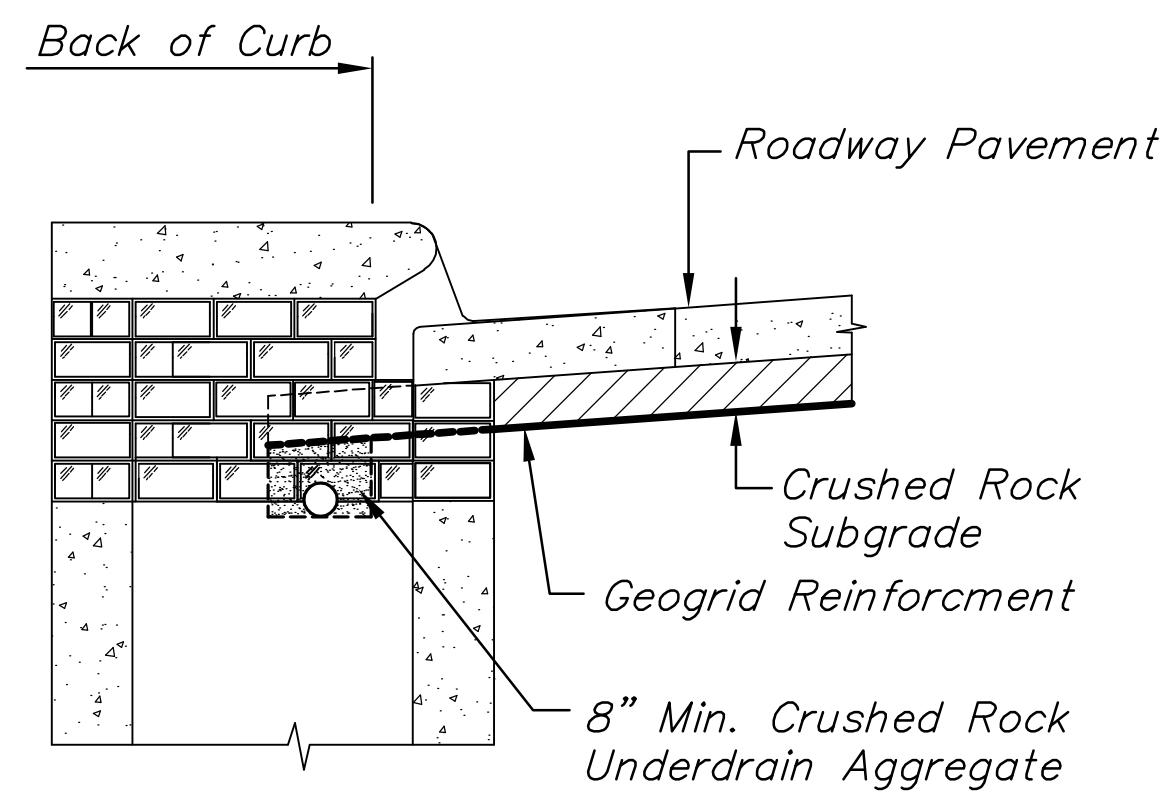
**CRUSHED ROCK UNDERDRAIN AGGREGATE
GRADATION REQUIREMENTS**

Percent of Aggregate Retained	
1 1/2"	0
3/4"	15-60
# 4	40-80
#40	74-92
P-200	4-12

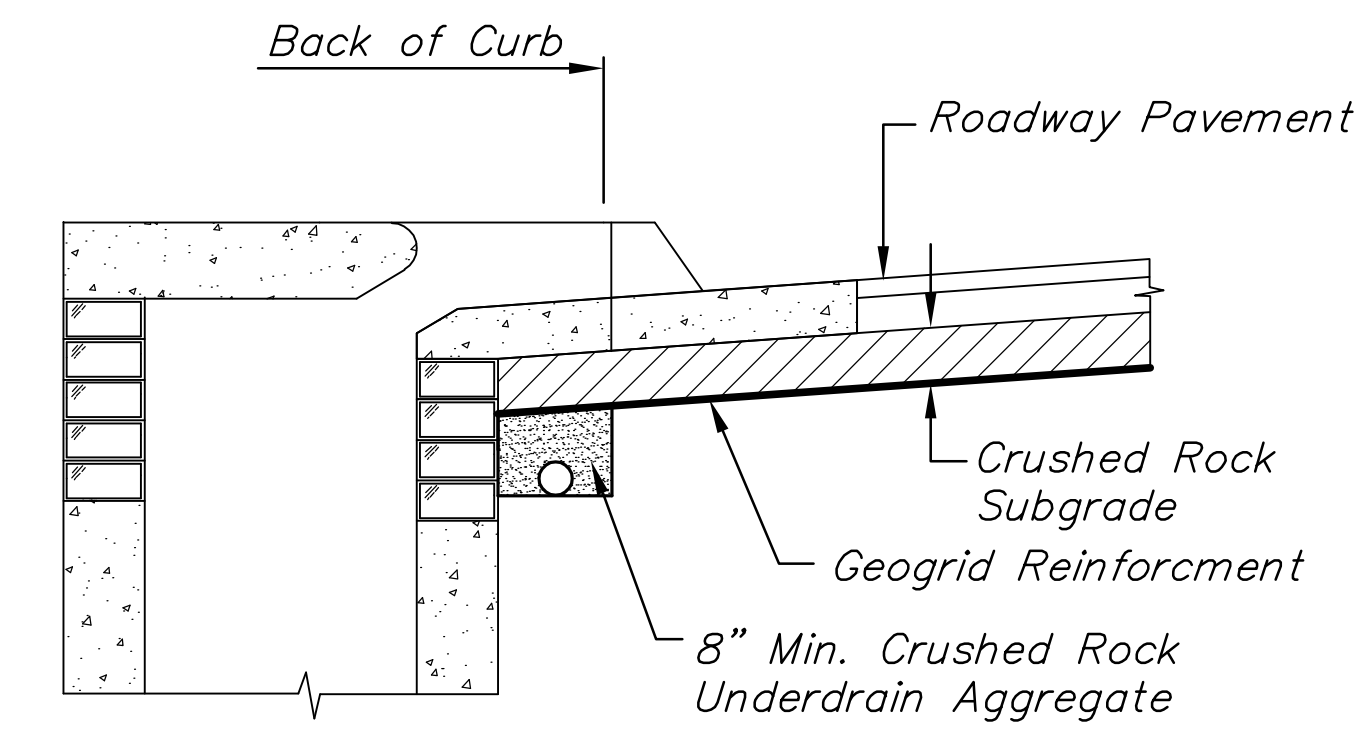
Rock quality shall be the same as specified for coarse aggregate for asphalt concrete mixes.



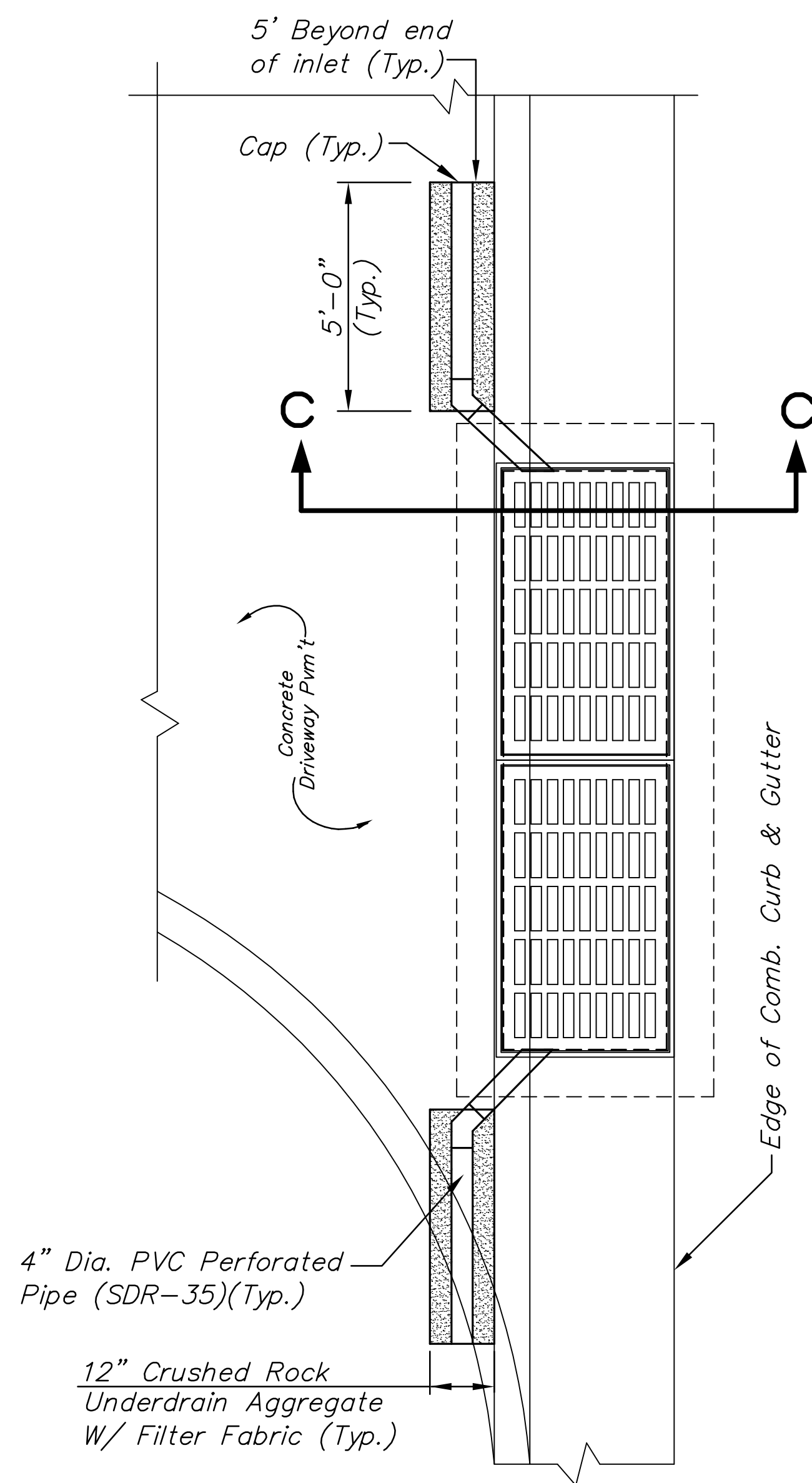
SECTION C-C



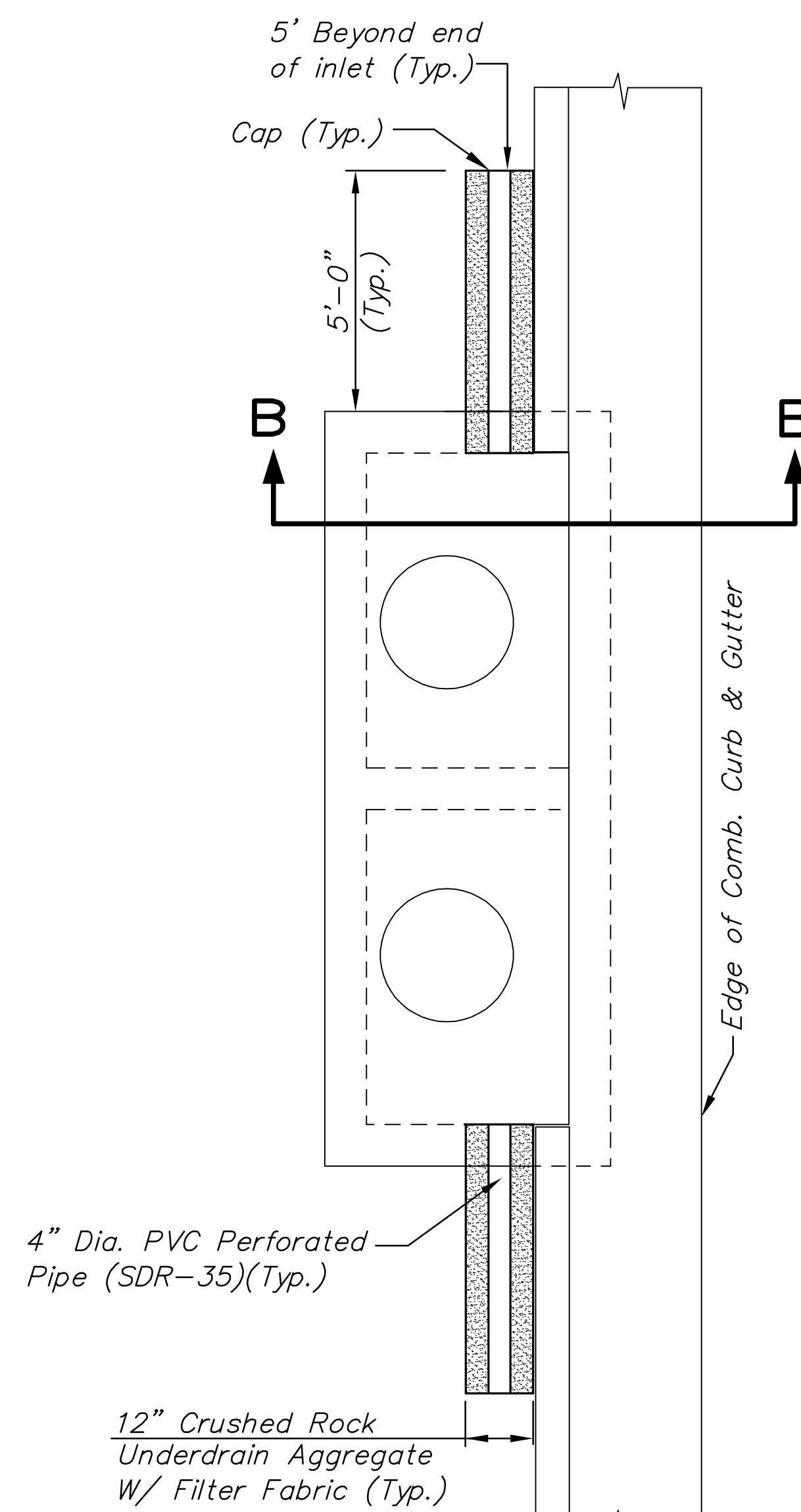
SECTION B-B



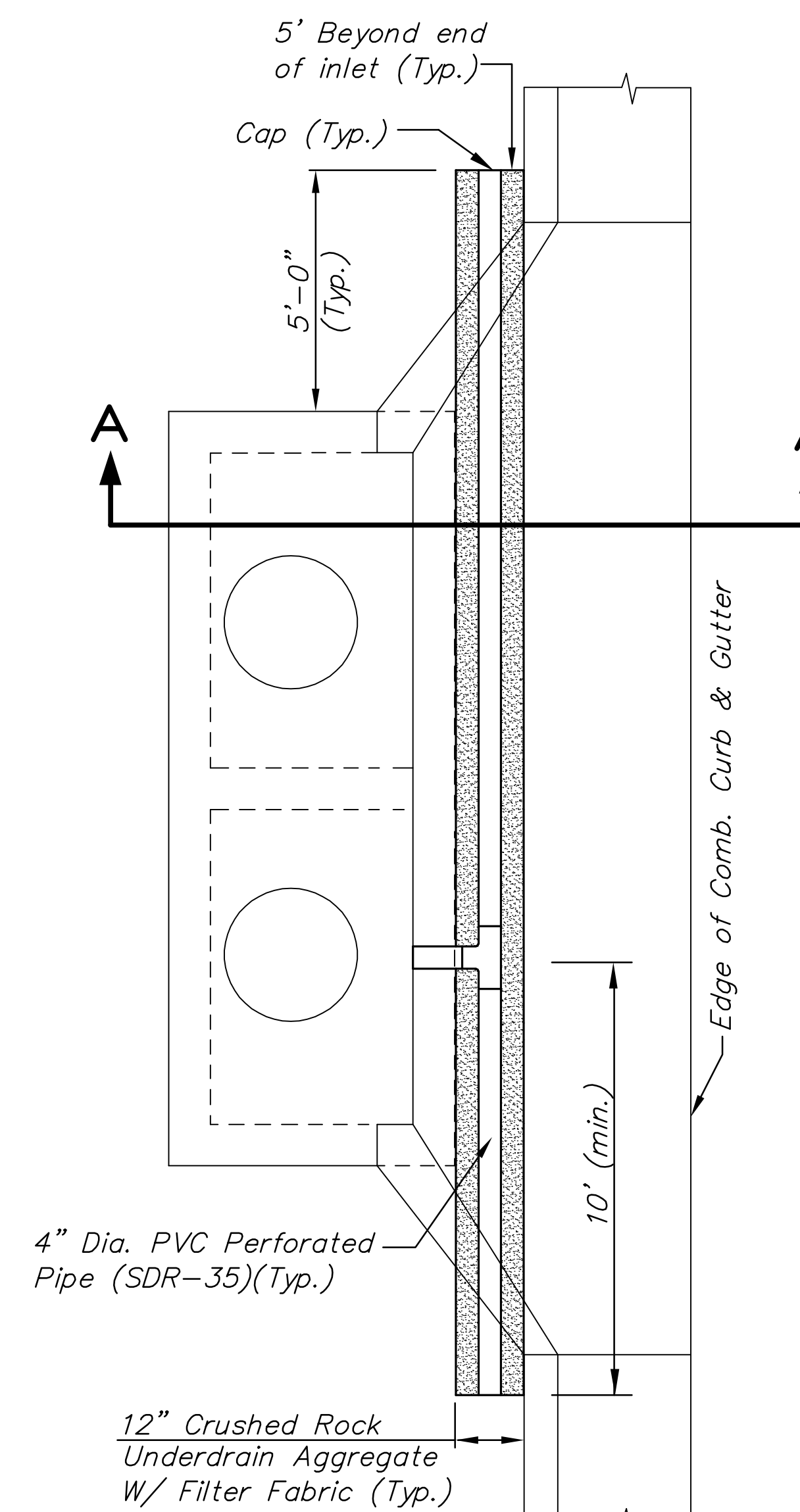
SECTION A-A



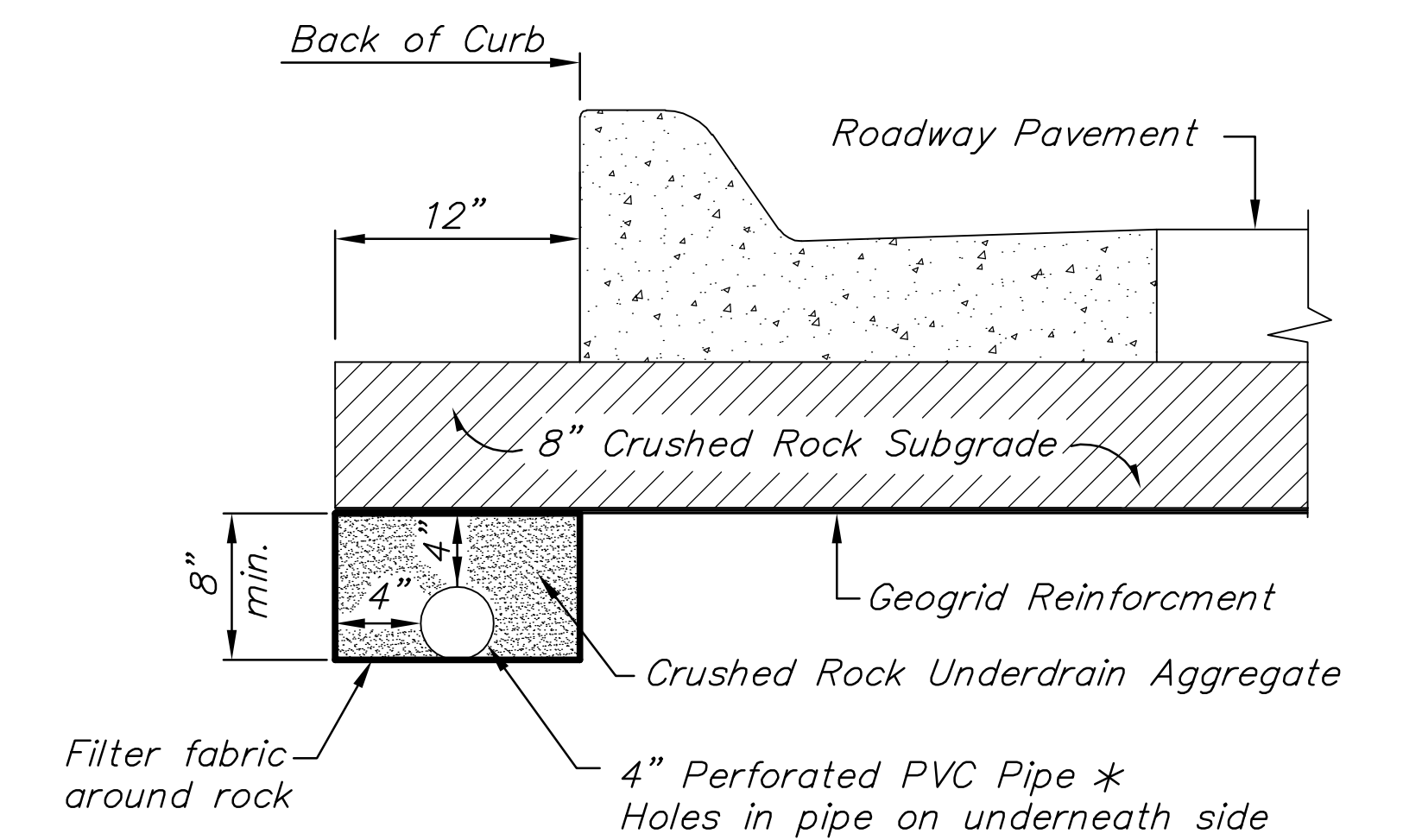
DRIVEWAY GRATE INLET
TYPE 2 INLET SIMILAR



TYPE 1 INLET



TYPE 1-A INLET



* Minimum 16 perforations per lineal feet @ 1/4" Dia. Perforations to be on bottom half of pipe.

PIPE DRAIN DETAIL

J:\Civil\04177\ADDENDUM PLANS\04177ADD_UNDERDRAIN.dwg 11/16/2007 11:35:47 AM CST



**UTILITY IMPROVEMENTS
17TH STREET AT BSNF RAIL CORRIDOR**
PROJECT NAME

PAVEMENT UNDERDRAIN DETAILS
SHEET TITLE

JRA DESIGN BY: DPG DRAWN BY: JRA CHECKED BY:

SEPTEMBER 2007 DATE 04177 JOB NO. 13 / 28 SHEET/OF