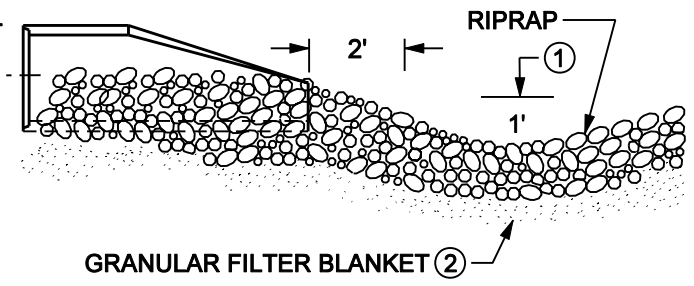


NOTES:  
 PIPE SIZES LARGER THAN THOSE SHOWN  
 REQUIRE A SPECIAL DESIGN.

REQUIREMENTS FOR RIPRAP SIZE,  
 THICKNESS AND FILTER BLANKET  
 WILL BE DESIGNATED IN THE PLANS.

- ① FOR PIPES GREATER THAN OR EQUAL TO 30" USE 1.5'.
- ② GEOTEXTILE FABRIC MAY BE SUBSTITUTED FOR GRANULAR FILTER UNLESS OTHERWISE SPECIFIED. FABRIC SHALL COVER THE AREA OF RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT. FABRIC SHALL MEET MNDOT SPEC. 3733.

PLAN VIEW



GRANULAR FILTER BLANKET ②

SECTION A-A

TABLE OF QUANTITIES - RIPRAP AT RCP OUTLETS							
SPAN OF ARCH PIPE (IN.)	L (FT.)	CLASS II d <sub>50</sub> = 6"		CLASS III d <sub>50</sub> = 9"		CLASS IV d <sub>50</sub> = 12"	
		12" DEPTH RIPRAP (CU.YDS.)	6" DEPTH GRANULAR FILTER (CU.YDS.)	18" DEPTH RIPRAP (CU.YDS.)	9" DEPTH GRANULAR FILTER (CU.YDS.)	24" DEPTH RIPRAP (CU.YDS.)	12" DEPTH GRANULAR FILTER (CU.YDS.)
22	10	3.9	2.0	5.9	3.0	7.8	3.9
28	12	5.5	2.8	8.2	4.1	10.9	5.5
36	14	7.2	3.6	10.8	5.4	14.3	7.2
43	16	9.2	4.6	13.7	6.9	18.3	9.2
51	18	10.9	5.5	16.3	8.2	21.7	10.9
58	20	12.7	6.4	19.0	9.5	25.4	12.7

MNDOT SPEC. REF. 3601, 3733  
 MNDOT 3133C  
 NOT TO SCALE

	<b>MINNEAPOLIS</b> DEPARTMENT OF PUBLIC WORKS		RIPRAP AT RC PIPE-ARCH OUTLETS	STANDARD PLATE NO. SEWR-3006
	DRAWN: CXD	DATE: 4/03		
	APPROVED: HRS	DATE: 12/06		