

MASONRY DRAINAGE STRUCTURES QUANTITY - VOLUME BASIS 5-2D

Any masonry drainage structure which incorporates an opening for circular pipe exceeding 48 inches in diameter, or for pipe arch of any size, will be measured and paid for on a volume basis. The quantity of masonry to be paid for will be the number of cubic yards of cast-in-place concrete, brick, or precast masonry which has been incorporated into the structure. These quantities are provided in the Roadway Standard Drawings Manual.

MINIMUM PIPE CLEARANCE REQUIREMENT FROM INVERT TO SUBGRADE 5-3

Pipe Size (in.)	CLEARANCE DISTANCE	
	R. C. Pipe (ft.)	C. S. Pipe (ft.)
15	2.4	2.3
18	2.7	2.6
24	3.3	3.1
30	3.8	3.6
36	4.3	4.1
42	4.9	4.6
48	5.4	5.1
54	6.0	5.6
60	6.5	6.1
66	7.0	6.6
72	7.6	7.1

NOTE: This is a minimum desirable clearance and can be reduced with Special Structural and/or Installation Provisions.

MAXIMUM ALLOWABLE FILL HEIGHTS OVER REINFORCED CONCRETE PIPE 5-4

Class III	All sizes 23 Ft.
Class IV	All sizes 32 Ft.
Class IV with Method B installation	All sizes 60 Ft.
Class V with Method B installation	All sizes 90 Ft.

Use material thickness on all pipe except structural plate pipe. Use gage for structural plate pipe and on all pipe arches. Use Method "B" for R.C. Pipes under fills greater than 32 feet.