

- for new pipe connections, provide cored opening with flexible pipe connector.
- For existing pipe connections, provide an arched opening with a diameter up to 6 inches larger than outside diameter of pipe. Install waterstop around existing pipe. Fill void between pipe and opening with non-shrink grout.
- For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.
- 4) 12 inch minimum riser height above all pipe openings.

Manhole Diameter (inches)	Maximum Pipe Diameter (3) (inches) for 2 Pipes		
	At 180°	At 90 °	
	Separation	Separation	
48	24	18	
60	36	24	
72	42	30	
84	48	36	
96	60	42	

SUDAS	OIOWADOT	REV 1	10-21-14		
FIGURE 6010.303	STANDARD ROAD PLAN	SW-303			
		SHEET 1 of 1			
REVISIONS: Changed "Chimney Seal" to "Infiltration Barrier".					
Rul D. Wigard Brian Smith SUDAS DIRECTOR DESIGN METHODS ENGINEER					
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