

Refer to SW-514 for boxout details.

- () SW-603 Type R unless Type Q is specified in the contract documents.
- (2) Cast-in-place base shown. Base may be square. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
- 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 pipes.

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

SUDAS Jowa Department of Transportation		REVISION 1 10-16-12		
		SW-502		
FIGURE 6010.502 STANDARD ROAD PLAN SHEET 1 of 1 REVISIONS: Added reference to SW-514.				
Four D. Wigard Deanna Marfield				
SUDAS DIRECTOR DESIGN METHODS ENGINEER				
CIRCULAR SINGLE GRATE INTAKE				