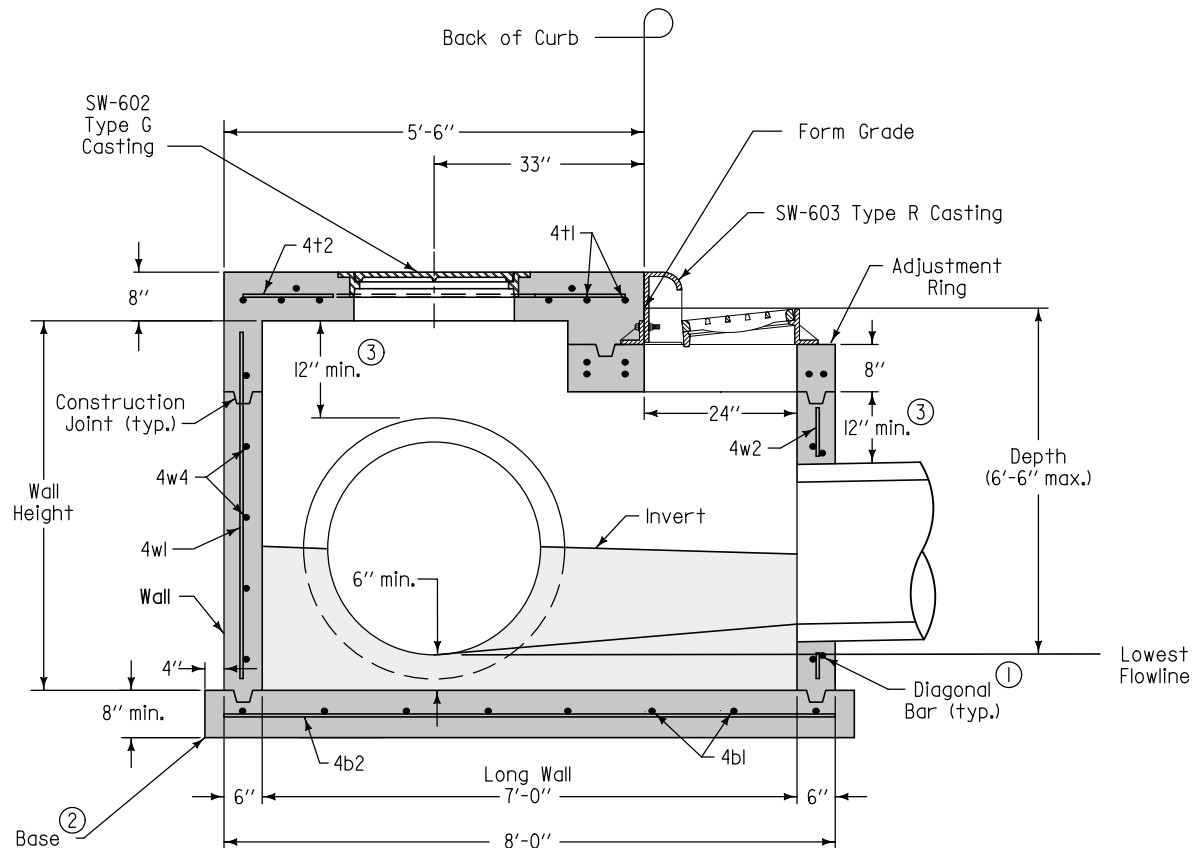
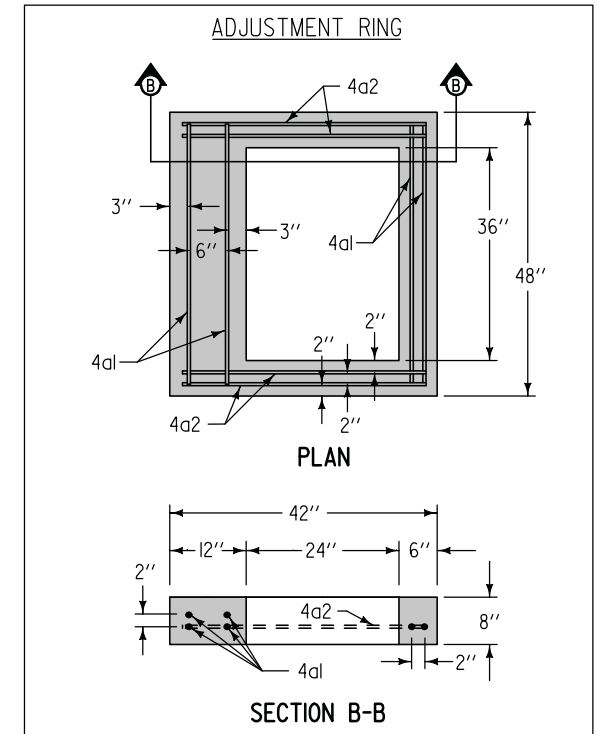


- ① Install four #4 diagonal bars at manhole opening and at all pipe openings.
- ② Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
- ③ 12 inch minimum wall height above all pipes.

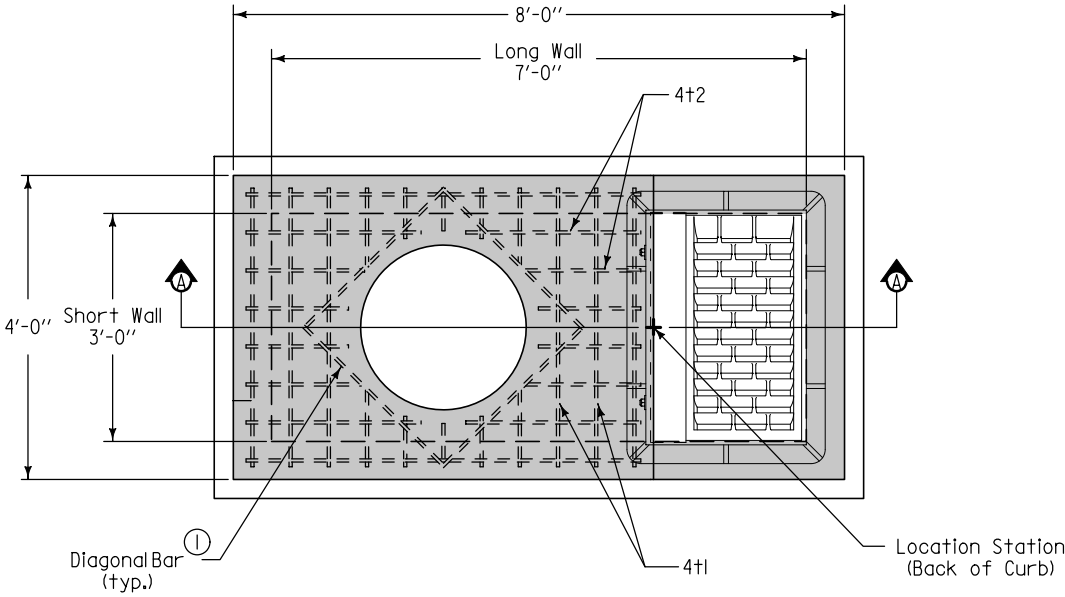


SECTION A-A



 SUDAS	 Iowa Department of Transportation	REVISION	
		NEW	04-21-09
		FIGURE 6010.504	
STANDARD ROAD PLAN		SW-504	
		SHEET 1 of 2	
REVISIONS: New. Replaces SUDAS Special Type "M-C" Intake.			
 SUDAS DIRECTOR		 DESIGN METHODS ENGINEER	
SINGLE GRATE INTAKE WITH FLUSH-TOP MANHOLE			

① Install four #4 diagonal bars at manhole opening and at all pipe openings.



PLAN

REINFORCING BAR LIST

Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	—	11	3'-8"	6"
4t2	4	Top	—	8	5'-2"	6"
4b1	4	Base	—	8	4'-2"	13"
4b2	4	Base	—	5	8'-2"	10"
4a1	4	Adj. Ring	—	6	3'-8"	See Adj. Ring Plan
4a2	4	Adj. Ring	—	4	3'-2"	See Adj. Ring Plan
4w1	4	Walls	—	13	Wall Height minus 4"	12"
4w2	4	Walls	—	11	Wall Height minus 16"	12"
4w3	4	Long Walls	—	Varies	7'-8"	12"
4w4	4	Short Walls	—	Varies	3'-8"	12"

MAXIMUM PIPE DIAMETERS

Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	18"	24"
Long Wall	30"	36"

		REVISION	
		NEW	04-21-09
		SW-504	
FIGURE 6010.504 STANDARD ROAD PLAN		SHEET 2 of 2	
REVISIONS: New. Replaces SUDAS Special Type "M-C" Intake.			
 SUDAS DIRECTOR		 DESIGN METHODS ENGINEER	
SINGLE GRATE INTAKE WITH FLUSH-TOP MANHOLE			