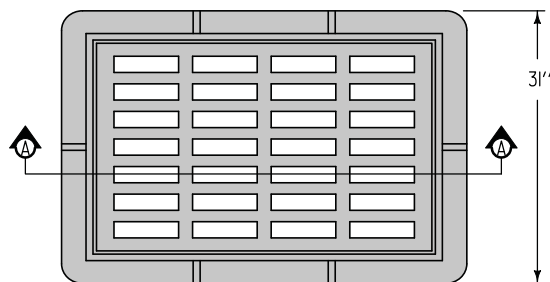
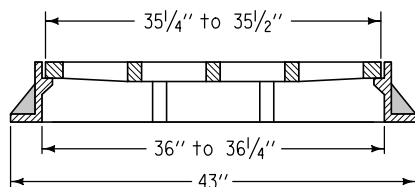


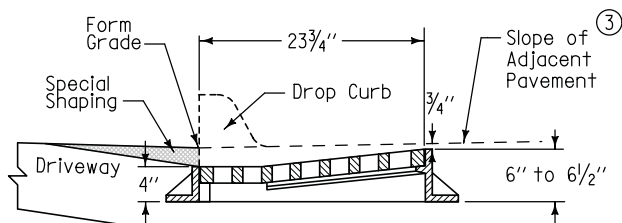
TYPE Q ^①
Driveway Grate
(Minimum open area 370 in²)



PLAN

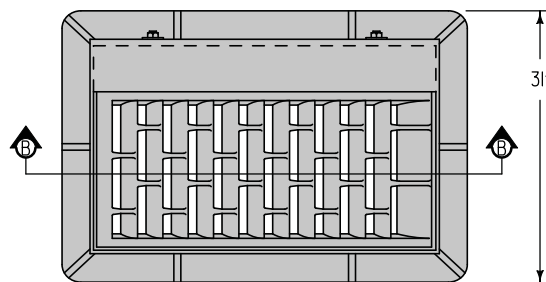


SECTION A-A



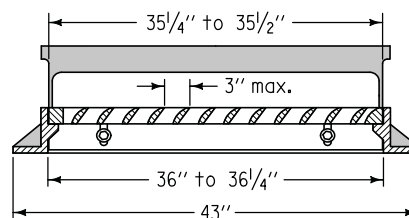
TYPICAL SECTION

TYPE R ^②
Curb Inlet Grate
(Minimum open area 180 in²)

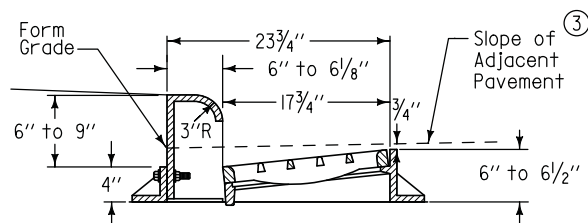


PLAN

← Flow



SECTION B-B

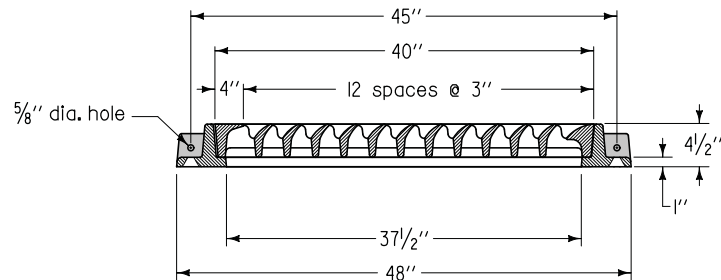
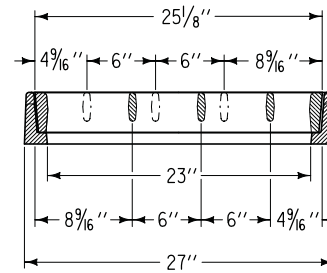
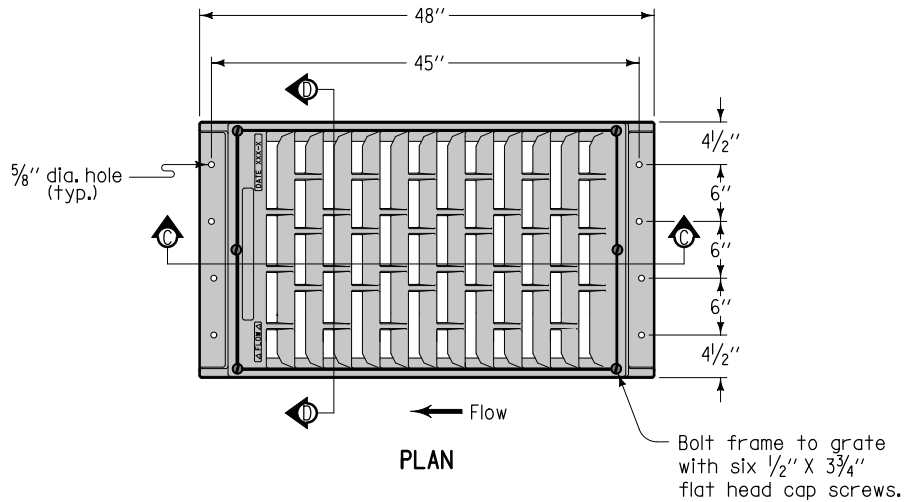


TYPICAL SECTION

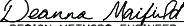
- ① For use at curb drops for driveways. Use only when specified in the contract documents.
- ② Provide bicycle-safe vane-style grate with offset longitudinal ribs between vanes. At low points, grates with vanes facing both directions of flow are allowed.
- ③ For details of boxout pavement, refer to SW-514.

 SUDAS	 Iowa Department of Transportation	REVISION	
		1	10-20-0
FIGURE 6010.603	STANDARD ROAD PLAN	SW-603	
		SHEET 1 of 2	
REVISIONS: Added type S grate to sheet 2. Modified notes 2 and 4. Added shading.			
			
SUDAS DIRECTOR		DESIGN METHODS ENGINEER	
CASTINGS FOR GRATE INTAKES			

TYPE S ②④
Barrier Intake Gate
(Minimum open area 300 in²)



- ② Provide bicycle-safe vane-style grate with offset longitudinal ribs between vanes. At low points, grates with vanes facing both directions of flow are allowed.
- ④ Use ductile iron frame castings meeting the requirements of ASTM A 536.
Frame minimum weight = 220 lbs.
Grate minimum weight = 340 lbs.

 SUDAS	 Iowa Department of Transportation	REVISION	
		1	10-20-09
		FIGURE 6010.603 STANDARD ROAD PLAN	
		SW-603	
		SHEET 2 of 2	
REVISIONS: Added type S grate to sheet 2. Modified notes 2 and 4. Added shading.			
 SUDAS DIRECTOR		 DESIGN METHODS ENGINEER	
CASTINGS FOR GRATE INTAKES			