



What are the requirements for side sewer construction?

- 1) Each individual building shall be connected by a separate side sewer.
- 2) All trenches for sewers must be protected and shored in accordance with District requirements and existing State and Federal Safety Laws in effect at the time work is started or in progress.
- 3) The side sewer pipe's nominal diameter shall be a minimum of four (4) inches and shall be equal to or greater than the building plumbing stub diameter. The nominal diameter serving multi-family dwellings or commercial buildings shall be six (6) inches.
- 4) Acceptable side sewer materials are PVC, ABS, Ductile Iron (DI), and High-Density Polyethylene (HDPE). PVC SDR-26 is typical, unless site conditions do not meet cover or other requirements, then alternative materials shall be used in compliance with Central San's Standard Specifications, subject to approval by the District.
- 5) It is the responsibility of the permittee to establish that sufficient slope exists to install the side sewer. The permittee shall obtain the invert elevations of the manholes upstream and downstream of the point of connection and provide a drawing of the installation showing the elevations of the main and side sewer connection, as well as the slope of the side sewer and lateral to the building line. A readable sketch is all that is required, not a professional drawing.
 - a. Minimum fall (slope) is two (2%) percent or one-quarter (1/4) inch per foot.
The maximum allowable slope is 150% or eighteen (18) inches per foot.
- 6) Laterals connecting to an existing main shall follow the general lateral requirements specified on DWG 22-01. Tap and wye connections to the existing main shall follow DWG 22-03.
- 7) Cleanouts shall conform to DWG 22-07 and be provided in the side sewer at the following locations:
 - a. Point of connection to the building drain, within two (2) feet of the building foundation.
 - b. Any single bend greater than forty-five degrees (45°).
 - c. Aggregate horizontal change in direction exceeds ninety degrees (90°).
 - d. Intervals not to exceed one hundred (100) feet.
 - e. At the transition between pressurized and gravity flow on a side sewer.
- 8) Side sewers shall have the following pipe cover and backfill requirements:
 - a. Minimum cover for the building sewers and laterals shall comply with Central San Standard Specifications Section 4-08, Table 2.
 - b. Minimum cover within two (2) feet of the building foundation shall be eighteen (18) inches.
 - c. Class 2 AB is the standard backfill. Pipe shall be installed on four (4) inches of compacted standard bedding material (3/4-inch minus rock) and backfilled with the same with a minimum of six (6) inches above the pipe. Over-excavation shall be backfilled to pipe grade with compacted bedding.



- d. Pipe bedding and cover shall conform to DWG 20-01 (paved areas) and DWG 20-02 (unpaved areas).
- 9) All sewer installations must be air tested for joint tightness in the presence of the Delta Diablo Inspector.
- 10) Side sewer pipes and structures shall be designed and constructed with a minimum wall-to-wall clearance of twelve (12) inches vertical and twelve (12) inches horizontal from other utilities and improvements, unless a greater clearance is required by the utility or local jurisdiction, as specified in DWG 20-06.

Side Sewer Pipe Cover Limitations (Section 4-08, Table 2)

Size	Material	Type and Minimum Class	Min- Max Cover in ft	
Building Sewers				
4"-6"	DI	Class 52	1	30
	CI	Soil Pipe	1.5	
	VC	-	2.5	
	ABS	Schedule 40	24	
	PVC	SDR-26		
		Schedule 40		
HDPE	SDR-17			
Lateral Sewers				
4"-6"	DI	Class 52	1	30
	CI	Soil Pipe	1.5	
	PVC	C900 DR 14	3	24
		C900 DR 18	4	
		SDR-26	5	
		C900 DR 25		
		Schedule 40		
	HDPE	SDR-17		
ABS	Schedule 40			
4"	VC	-		30
6"				20

DI = Ductile Iron

VC = Vitrified Clay

PVC = Polyvinyl Chloride

CI = Cast Iron

ABS = Acrylonitrile Butadiene Styrene

HDPE = High-Density Polyethylene