

**UNIT COSTS FOR CONSTRUCTION OF GRAVITY SEWERS (a) (b) (c)**

Pipe Diameter (in)	Depth (ft)										
	8	10	12	14	16	18	20	22	24	26	28
6	\$38.87	\$42.06	\$44.65	\$47.82	\$51.58	\$57.15	\$63.89	\$72.65	\$84.27	\$97.35	\$115.37
8	\$46.85	\$51.99	\$55.04	\$58.91	\$63.48	\$70.29	\$78.68	\$89.43	\$103.42	\$119.47	\$141.59
10	\$56.55	\$64.32	\$68.04	\$72.70	\$78.31	\$86.80	\$97.18	\$110.62	\$128.01	\$147.88	\$175.25
12	\$66.38	\$75.49	\$79.76	\$85.22	\$92.12	\$102.09	\$114.34	\$130.16	\$150.94	\$174.38	\$206.65
15	\$82.32	\$93.63	\$98.38	\$104.11	\$111.51	\$121.61	\$134.45	\$150.06	\$169.91	\$194.25	\$228.35
18	\$99.82	\$113.53	\$118.41	\$124.65	\$132.64	\$144.03	\$156.83	\$173.37	\$193.51	\$217.95	\$252.27
21	\$120.36	\$136.89	\$142.41	\$148.88	\$157.47	\$168.68	\$182.77	\$200.26	\$221.00	\$245.56	\$280.88
24	\$142.07	\$161.58	\$169.63	\$176.56	\$185.78	\$198.06	\$213.11	\$230.86	\$251.61	\$276.44	\$312.98
27	\$150.29	\$170.93	\$177.54	\$186.39	\$197.99	\$213.17	\$230.96	\$252.43	\$277.84	\$304.50	\$344.74
30	\$168.54	\$191.68	\$198.90	\$208.37	\$220.57	\$235.78	\$253.80	\$276.60	\$303.10	\$330.88	\$374.61
33	\$180.51	\$205.30	\$213.15	\$222.77	\$235.44	\$250.89	\$269.43	\$293.27	\$320.82	\$350.17	\$396.45

(a) Based on the Sacramento Area Sewer District (SASD) Standards and Specifications, Type II Bedding and Initial Backfill.

(b) ENR 12363 - Average of 20 Cities and San Francisco, January 2021

(c) \$4.74 per cu.yd. For mechanical compaction of intermediate backfill

**ADDITIONAL COST ITEMS:**

- Cost for pavement removal and replacement  
 Removal = \$5.25 /L.F.  
 Replacement= Asphaltic Concrete: \$210 /ton (1 ton = 160 S.F., 1 inch thick)  
 Aggregate Base: \$48 /ton (1 ton = 20 S.F., 8 inch thick)
- Temporary pavement = \$138 /ton (1 ton = 160 S.F., 1 inch thick)
- Flagpersons = \$564 /day/person
- Utility Crossings (service lines):  
 Minor Utility, cross under = \$234 ea.  
 To replace utilities = \$697 to \$1,179 ea.
- Cost for crossing a major utility to be added. Amount varies.
- Manholes:  
 4' MH = \$2,852 for 7' depth plus \$234 /ft over 7 ft.  
 5' MH type A or B = \$3,979 for 8' depth plus \$409 /ft over 8 ft.  
 Lining additional = \$2,339 for 8' depth plus \$234 /ft over 8 ft.
- Dewatering trench with wells: \$47 to \$103
- T-Lock lining for RCP: \$8.42 /S.F.