

33 01 Operation and Maintenance of Utilities

33 01 10 – Operation and Maintenance of Water Utilities

33 01 10.10 Corrosion Resistance

		Daily Labor- Crew Output Hours	Unit	Material	2022 Bare Costs		Total	Total Incl O&M
					Labor	Equipment		
0010	CORROSION RESISTANCE							
0012	Wrap & coat, add to pipe, 4" diameter		L.F.	2.81			2.81	3.
0040	6" diameter			4.21			4.21	4.
0060	8" diameter			5.35			5.35	5.
0100	12" diameter			7.05			7.05	7.
0200	24" diameter			15.80			15.80	17.
0500	Coating, bituminous, per diameter inch, 1 coat, add			.20			.20	
0540	3 coat			.66			.66	
0560	Coal tar epoxy, per diameter inch, 1 coat, add			.27			.27	
0600	3 coat			.74			.74	

33 01 30 – Operation and Maintenance of Sewer Utilities

33 01 30.72 Cured-In-Place Pipe Lining

0010 CURED-IN-PLACE PIPE LINING

0011	Not incl. bypass or cleaning									
0020	Less than 10,000 L.F., urban, 6" to 10"	C-17E	130	.615	L.F.	10.10	36.50	.29	46.89	66.
0200	24" to 36"		90	.889		16.40	52.50	.42	69.32	97.
0300	48" to 72"	↓	80	1	↓	25.50	59.50	.47	85.47	118

33 01 30.75 Cured-In-place Pipe Lining

0010 CURED-IN-PLACE PIPE LINING

0050	Bypass, Sewer	G-17E	500	.160	L.F.		9.50	.08	9.58	14.
0090	Mobilize - (Any Size) 1 Mob per Job.		1	80	Job	4,750	37.50		4,787.50	7,175
0091	Relocate - (°12") (8hrs, 3 per day)		3	26.667	Ea.	1,575	12.55		1,587.55	2,400
0092	Relocate - (12" to 24") (8hrs, 2 per day)		2	40		2,375	18.80		2,393.80	3,575
0093	Relocate - (24" to 42") (8hrs, 1.5 per day)		1.50	53.333		3,175	25		3,200	4,775
0094	Relocate - (42") (8hrs, 1.5 per day)		1	80	↓	4,750	37.50		4,787.50	7,175
0095	Additional Travel, \$2.00 per Mile		3362.50	.024	Mile		1.41	.01	1.42	2.
0096	Demobilize - (Any Size) 1 Demob per Job.		1	80	Job	4,750	37.50		4,787.50	7,175
0097	Refrigeration Truck (12", Cost per Each Location)		3	26.667	Ea.	1,575	12.55		1,587.55	2,400
0098	Refrigeration Truck (12" 24", Each Pipe / Location)		3	26.667		1,575	12.55		1,587.55	2,400
0099	Refrigeration Truck (24" 42", Each Pipe / Location)		1.50	53.333		3,175	25		3,200	4,775
0100	Refrigeration Truck (42", Each Pipe / Location)		1	80	↓	4,750	37.50		4,787.50	7,175
1210	12", 6mm, Epoxy, 250k, 2ft	↓	6	13.333	L.F.	54.50	790	6.25	850.75	1,250
1211	12", 6mm, Epoxy, 250k, 4ft	G-17E	12	6.667	L.F.	54.50	395	3.13	452.63	660
1212	12", 6mm, Epoxy, 250k, 10ft		30	2.667		54.50	158	1.25	213.75	298
1213	12", 6mm, Epoxy, 250k, 20ft		60	1.333		54.50	79	.63	134.13	180
1216	12", 6mm, Epoxy, 250k, 300ft		900	.089		54.50	5.25	.04	59.79	68
1217	12", 6mm, Epoxy, 250k, 328ft	↓	1000	.080		54.50	4.74	.04	59.28	67
1218	12", 6mm, Epoxy, 250k, Transitions, add					20%				
1219	12", 6mm, Epoxy, 250k, 45 and 90 deg, add					50%				
1230	12", 5mm, Epoxy, 400k, 2ft	G-17E	6	13.333		45.50	790	6.25	841.75	1,225
1231	12", 5mm, Epoxy, 400k, 4ft		12	6.667		45.50	395	3.13	443.63	650
1232	12", 5mm, Epoxy, 400k, 10ft		30	2.667		45.50	158	1.25	204.75	288
1233	12", 5mm, Epoxy, 400k, 20ft		60	1.333		45.50	79	.63	125.13	170
1234	12", 5mm, Epoxy, 400k, 50ft		150	.533		45.50	31.50	.25	77.25	98
1235	12", 5mm, Epoxy, 400k, 100ft		300	.267		45.50	15.80	.13	61.43	74
1236	12", 5mm, Epoxy, 400k, 300ft		900	.089		45.50	5.25	.04	50.79	58
1237	12", 5mm, Epoxy, 400k, 328ft	↓	1000	.080		45.50	4.74	.04	50.28	57
1238	12", 5mm, Epoxy, 400k, Transitions, add					20%				
1239	12", 5mm, Epoxy, 400k, 45 and 90 deg, add					50%				
2410	24", 12mm, Epoxy, 250k, 2ft	G-17E	4	20		218	1,175	9.40	1,402.40	2,025
2411	24", 12mm, Epoxy, 250k, 4ft		8	10		218	595	4.70	817.70	1,125
2412	24", 12mm, Epoxy, 250k, 10ft	↓	20	4	↓	218	237	1.88	456.88	595