

31 23 Excavation and Fill

31 23 16 – Excavation

31 23 16.14 Excavating, Utility Trench		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Base Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	EXCAVATING, UTILITY TRENCH									
0011	Common earth									
0050	Trenching with chain trencher, 12 HP, operator walking									
0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.57	.24	.81	1.11
0150	18" deep		750	.011			.61	.26	.87	1.18
0200	24" deep		700	.011			.65	.27	.92	1.27
0300	6" wide trench, 12" deep		650	.012			.70	.30	1	1.36
0350	18" deep		600	.013			.76	.32	1.08	1.48
0400	24" deep		550	.015			.83	.35	1.18	1.61
0450	36" deep	B-53	450	.018	L.F.		1.01	.43	1.44	1.98
0600	8" wide trench, 12" deep		475	.017			.96	.40	1.36	1.87
0650	18" deep		400	.020			1.14	.48	1.62	2.23
0700	24" deep		350	.023			1.30	.55	1.85	2.54
0750	36" deep		300	.027			1.52	.64	2.16	2.96
1000	Backfill by hand including compaction, add									
1050	4" wide trench, 12" deep	A-16	800	.010	L.F.		.46	.10	.56	.79
1100	18" deep		530	.015			.69	.16	.85	1.19
1150	24" deep		400	.020			.91	.21	1.12	1.59
1300	6" wide trench, 12" deep		540	.015			.68	.15	.83	1.18
1350	18" deep		405	.020			.90	.20	1.10	1.56
1400	24" deep		270	.030			1.35	.31	1.66	2.35
1450	36" deep		180	.044			2.03	.46	2.49	3.52
1600	8" wide trench, 12" deep		400	.020			.91	.21	1.12	1.59
1650	18" deep		265	.030			1.38	.31	1.69	2.39
1700	24" deep		200	.040			1.82	.41	2.23	3.17
1750	36" deep		135	.059			2.70	.61	3.31	4.69
2000	Chain trencher, 40 HP operator riding									
2050	6" wide trench and backfill, 12" deep	B-54	1200	.007	L.F.		.38	.33	.71	.94
2100	18" deep		1000	.008			.46	.40	.86	1.12
2150	24" deep		975	.008			.47	.41	.88	1.15
2200	36" deep		900	.009			.51	.45	.96	1.24
2250	48" deep		750	.011			.61	.54	1.15	1.49
2300	60" deep		650	.012			.70	.62	1.32	1.72
2400	8" wide trench and backfill, 12" deep		1000	.008			.46	.40	.86	1.12
2450	18" deep		950	.008			.48	.42	.90	1.18
2500	24" deep		900	.009			.51	.45	.96	1.24
2550	36" deep		800	.010			.57	.50	1.07	1.40
2600	48" deep		650	.012			.70	.62	1.32	1.72
2700	12" wide trench and backfill, 12" deep		975	.008			.47	.41	.88	1.15
2750	18" deep		860	.009			.53	.47	1	1.30
2800	24" deep		800	.010			.57	.50	1.07	1.40
2850	36" deep		725	.011			.63	.55	1.18	1.55
3000	16" wide trench and backfill, 12" deep		835	.010			.55	.48	1.03	1.34
3050	18" deep		750	.011			.61	.54	1.15	1.49
3100	24" deep		700	.011			.65	.57	1.22	1.60
3200	Compaction with vibratory plate, add								35%	35%
5100	Hand excavate and trim for pipe bells after trench excavation									
5200	8" pipe	1 Clab	155	.052	L.F.		2.35		2.35	3.50
5300	18" pipe	"	130	.062	"		2.81		2.81	4.18