

02 21 Surveys

02 21 13 – Site Surveys

		Daily	Labor-			2022 Bare Costs			Total	Total
		Crew	Output	Hours	Unit	Material	Labor	Equipment		Incl O&P
0010	TOPOGRAPHICAL SURVEYS									
0020	Topographical surveying, conventional, minimum	A-7	3.30	7.273	Acre	45	445	11.05	501.05	725
0050	Average	"	1.95	12.308		67.50	750	18.70	836.20	1,225
0100	Maximum	A-8	.60	53.333	↓	90	3,175	61	3,326	4,900

02 21 13.13 Boundary and Survey Markers

0010	BOUNDARY AND SURVEY MARKERS									
0300	Lot location and lines, large quantities, minimum	A-7	2	12	Acre	33	735	18.25	786.25	1,150
0320	Average	"	1.25	19.200		66	1,175	29	1,270	1,850
0400	Small quantities, maximum	A-8	1	32	↓	66	1,900	36.50	2,002.50	2,950
0600	Monuments, 3' long	A-7	10	2.400	Ea.	36	147	3.65	186.65	263
0800	Property lines, perimeter, cleared land	"	1000	.024	L.F.	.09	1.47	.04	1.60	2.33
0900	Wooded land	A-8	875	.037	"	.12	2.17	.04	2.33	3.42

02 21 13.16 Aerial Surveys

0010	AERIAL SURVEYS									
1500	Aerial surveying, including ground control, minimum fee, 10 acres				Total				4,700	4,700
1510	100 acres				↓				9,400	9,400
1550	From existing photography, deduct				↓				1,625	1,625
1600	2' contours, 10 acres				Acre				470	470
1850	100 acres								94	94
2000	1000 acres								90	90
2050	10,000 acres				↓				85	85

02 31 Geophysical Investigations

02 31 23 – Electromagnetic Investigations

02 31 23.10 Ground Penetrating Radar

0010	GROUND PENETRATING RADAR									
0100	Ground Penetrating Radar				Hr.		210		210	235

02 32 Geotechnical Investigations

02 32 13 – Subsurface Drilling and Sampling

02 32 13.10 Boring and Exploratory Drilling

0010	BORING AND EXPLORATORY DRILLING									
0020	Borings, initial field stake out & determination of elevations	A-6	1	16	Day		905	36.50	941.50	1,400
0100	Drawings showing boring details				Total		335		335	425
0200	Report and recommendations from P.E.						775		775	970
0300	Mobilization and demobilization	B-55	4	6	↓		283	191	474	630
0350	For over 100 miles, per added mile		450	.053	Mile		2.52	1.70	4.22	5.60
0600	Auger holes in earth, no samples, 2-1/2" diameter		78.60	.305	L.F.		14.40	9.75	24.15	32
0650	4" diameter		67.50	.356			16.80	11.35	28.15	37.50
0800	Cased borings in earth, with samples, 2-1/2" diameter		55.50	.432		14.75	20.50	13.80	49.05	62
0850	4" diameter	↓	32.60	.736		14.45	35	23.50	72.95	94
1000	Drilling in rock, "BX" core, no sampling	B-56	34.90	.458			23.50	45.50	69	85
1050	With casing & sampling		31.70	.505		14.75	26	50	90.75	110
1200	"NX" core, no sampling		25.92	.617			31.50	61.50	93	115
1250	With casing and sampling	↓	25	.640	↓	10.90	33	63.50	107.40	131
1400	Borings, earth, drill rig and crew with truck mounted auger	B-55	1	24	Day		1,125	765	1,890	2,550
1450	Rock using crawler type drill	B-56	1	16	"		820	1,600	2,420	2,975
1500	For inner city borings, add, minimum								10%	10%
1510	Maximum								20%	20%