

01 45 Quality Control

01 45 23 – Testing and Inspecting Services

01 45 23.50 Testing					Daily Crew	Daily Output	Labor- Hours	Unit	Material	2022 Bare Costs		Total	Total Incl O&P
										Labor	Equipment		
2300	Patching core holes, to 12" diameter				1 Cefi	22	.364	Ea.	36	19.35		55.35	68.50
2400	Drying shrinkage at 28 days											236	260
2500	Flexural test beams, ASTM C 78											136	150
2600	Mix design, one batch mix											259	285
2650	Added trial batches											120	132
2800	Modulus of elasticity, ASTM C 469							Ea.				195	215
2900	Tensile test, cylinders, ASTM C 496											52	58
3000	Water-Cement ratio curve, 3 batches											141	155
3100	4 batches											186	205
3300	Masonry testing, absorption, per 5 brick, ASTM C 67											72	80
3350	Chemical resistance, per 2 brick											50	55
3400	Compressive strength, per 5 brick, ASTM C 67											95	105
3420	Efflorescence, per 5 brick, ASTM C 67											101	112
3440	Imperviousness, per 5 brick											87	96
3470	Modulus of rupture, per 5 brick											86	95
3500	Moisture, block only											68	75
3550	Mortar, compressive strength, set of 3											32	35
4100	Reinforcing steel, bend test											68	75
4200	Tensile test, up to #8 bar											68	75
4220	#9 to #11 bar											114	125
4240	#14 bar and larger											182	200
4400	Soil testing, Atterberg limits, liquid and plastic limits											91	100
4510	Hydrometer analysis											155	170
4600	Sieve analysis, washed, ASTM D 422											136	150
4710	Consolidation test (ASTM D 2435), minimum											455	500
4750	Moisture content, ASTM D 2216											18	20
4780	Permeability test, double ring infiltrometer											500	550
4800	Permeability, var. or constant head, undist., ASTM D 2434											264	290
4850	Recompacted											250	275
4900	Proctor compaction, 4" standard mold, ASTM D 698											230	253
4950	6" modified mold											110	120
5100	Shear tests, triaxial, minimum											410	450
5150	Maximum											545	600
5300	Direct shear, minimum, ASTM D 3080											320	350
5350	Maximum											410	450
5550	Technician for inspection, per day, earthwork											556	612
5650	Bolting											556	612
5750	Roofing											556	612
5790	Welding											556	612
5820	Non-destructive metal testing, dye penetrant							Day				556	612
5840	Magnetic particle							Day				556	612
5860	Radiography											556	612
5880	Ultrasonic											556	612
6000	Welding certification, minimum							Ea.				91	100
6100	Maximum							"				364	400
7000	Underground storage tank												
7520	Volumetric tightness, °= 12,000 gal.							Ea.	475			475	525
7530	12,000 – 29,999 gal.								595			595	655
7540	= 30,000 gal.							▼	675			675	740
7600	Vadose zone (soil gas) sampling, 10-40 samples, min.							Day				1,375	1,500
7610	Maximum							"				2,275	2,500
7700	Ground water monitoring incl. drilling 3 wells, min.							Total				4,550	5,000
7710	Maximum							"				6,375	7,000