

# 31 32 Soil Stabilization

## 31 32 13 – Soil Mixing Stabilization

31 32 13.30 Calcium Chloride	Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs Labor	Equipment	Total	Total Incl O&P
0010 <b>CALCIUM CHLORIDE</b>									
0020 Calcium chloride, delivered, 100 lb. bags, truckload lots				Ton	660			660	725
0030 Solution, 4 lb. flake per gallon, tank truck delivery				Gal.	1.58			1.58	1.74

# 31 33 Rock Stabilization

## 31 33 13 – Rock Bolting and Grouting

### 31 33 13.10 Rock Bolting

0010 <b>ROCK BOLTING</b>									
2020 Hollow core, prestressable anchor, 1" diameter, 5' long	2 Skwk	32	.500	Ea.	182	29.50		211.50	244
2025 10' long		24	.667		305	39.50		344.50	395
2060 2" diameter, 5' long		32	.500		675	29.50		704.50	785
2065 10' long		24	.667		1,200	39.50		1,239.50	1,375
2100 Super high-tensile, 3/4" diameter, 5' long		32	.500		48.50	29.50		78	97
2105 10' long		24	.667		121	39.50		160.50	193
2160 2" diameter, 5' long		32	.500		375	29.50		404.50	460
2165 10' long	↓	24	.667		675	39.50		714.50	805
4400 Drill hole for rock bolt, 1-3/4" diam., 5' long (for 3/4" bolt)	B-56	17	.941			48.50	93.50	142	175
4405 10' long		9	1.778			91	177	268	330
4420 2" diameter, 5' long (for 1" bolt)		13	1.231			63	123	186	229
4425 10' long		7	2.286			117	228	345	425
4460 3-1/2" diameter, 5' long (for 2" bolt)	↓	10	1.600	↓		82	159	241	297
4465 10' long	B-56	5	3.200	Ea.		164	320	484	595

# 31 36 Gabions

## 31 36 13 – Gabion Boxes

### 31 36 13.10 Gabion Box Systems

0010 <b>GABION BOX SYSTEMS</b>									
0400 Gabions, galvanized steel mesh mats or boxes, stone filled, 6" deep	B-13	200	.280	S.Y.	17.95	13.90	10.45	42.30	52
0500 9" deep		163	.344		32.50	17.05	12.85	62.40	75.50
0600 12" deep		153	.366		36	18.15	13.70	67.85	81.50
0700 18" deep		102	.549		75.50	27.50	20.50	123.50	146
0800 36" deep	↓	60	.933	↓	84.50	46.50	35	166	201

# 31 37 Riprap

## 31 37 13 – Machined Riprap

### 31 37 13.10 Riprap and Rock Lining

0010 <b>RIPRAP AND ROCK LINING</b>									
0011 Random, broken stone									
0100 Machine placed for slope protection	B-12G	62	.258	L.C.Y.	37	14.05	13.95	65	77
0110 3/8 to 1/4 C.Y. pieces, grouted	B-13	80	.700	S.Y.	73.50	34.50	26	134	162
0200 18" minimum thickness, not grouted	"	53	1.057	"	23	52.50	39.50	115	147
0300 Dumped, 50 lb. average	B-11A	800	.020	Ton	28.50	1.06	1.69	31.25	35
0350 100 lb. average		700	.023		28.50	1.21	1.93	31.64	35.50
0370 300 lb. average	↓	600	.027	↓	28.50	1.41	2.25	32.16	36