

34 71 Roadway Construction

34 71 13 – Vehicle Barriers

34 71 13.17 Security Vehicle Barriers

		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
2710	Schedule 80 concrete ballards will stop 4,000 lb. vehicle @ 30 MPH									
2800	GFRC decorative jersey barrier cover per 10' section excludes soil	B-6	8	3	Ea.	1,000	148	41	1,189	1,400
2900	Per 12' section excludes soil		8	3		1,225	148	41	1,414	1,600
3000	GFRC decorative 8" diameter bollard cover		12	2		580	99	27.50	706.50	815
3100	GFRC decorative barrier face 10' section excludes earth backing	↓	10	2.400	↓	995	119	33	1,147	1,300
3200	Drop arm crash barrier, 15,000 lb. vehicle @ 50 MPH									
3205	Includes all material, labor for complete installation									
3210	12' width				Ea.				64,500	71,000
3310	24' width								86,000	95,000
3410	Wedge crash barrier, 10' width								98,000	108,000
3510	12.5' width				Ea.				108,000	119,000
3520	15' width								118,500	130,000
3610	Sliding crash barrier, 12' width								178,500	196,000
3710	Sliding roller crash barrier, 20' width								198,000	217,500
3810	Sliding cantilever crash barrier, 20' width								198,000	217,500
3890	Note: Raised bollard crash barriers should be used w/tire shredders									
3910	Raised bollard crash barrier, 10' width				Ea.				38,800	42,900
4010	12' width								44,900	49,000
4110	Raised bollard crash barrier, 10' width, solar powered								46,900	52,000
4210	12' width								53,000	58,000
4310	In ground tire shredder, 16' width								43,900	47,900

34 71 13.26 Vehicle Guide Rails

0010	VEHICLE GUIDE RAILS									
0012	Corrugated stl., galv. stl. posts, 6'-3" OC - "W-Beam Guiderail"	B-80	850	.038	L.F.	12.55	1.89	.64	15.08	17.30
0200	End sections, galvanized, flared		50	.640	Ea.	99.50	32	10.85	142.35	169
0300	Wrap around end		50	.640		142	32	10.85	184.85	216
0325	W-Beam, stl., galv. Terminal Connector, Concrete Mounted		8	4	↓	264	201	67.50	532.50	665
0410	Thrie Beam, stl., galv. stl. posts, 6'-3" OC		850	.038	L.F.	24	1.89	.64	26.53	29.50
0440	Thrie Beam, stl., galv. Wrap Around End Section		50	.640	Ea.	94.50	32	10.85	137.35	164
0450	Thrie Beam, stl., galv. Terminal Connector, Concrete Mounted		8	4	"	289	201	67.50	557.50	695
0510	Rub Rail, stl, galv. steel posts (not included), 6'-3" OC		850	.038	L.F.	2.04	1.89	.64	4.57	5.75
0600	Cable guide rail, 3 at 3/4" cables, steel posts, single face		900	.036		12.70	1.78	.60	15.08	17.30
0700	Wood posts		950	.034		13.40	1.69	.57	15.66	17.90
0900	Guide rail, steel box beam, 6" x 6"		120	.267		38.50	13.35	4.51	56.36	67.50
1100	Median barrier, steel box beam, 6" x 8"	↓	215	.149	↓	52.50	7.45	2.52	62.47	72
1400	Resilient guide fence and light shield, 6' high	B-2	130	.308	↓	25	14.15		39.15	48.50
1500	Concrete posts, individual, 6'-5", triangular	B-80	110	.291	Ea.	69	14.60	4.93	88.53	102
1550	Square		110	.291	"	75.50	14.60	4.93	95.03	110
1650	Timber guide rail, 4" x 8" with 6" x 8" wood posts, treated	↓	960	.033	L.F.	14.05	1.67	.56	16.28	18.55
2000	Median, precast concrete, 3'-6" high, 2' wide, single face	B-29	380	.147		61	7.30	2.26	70.56	80.50
2200	Double face	"	340	.165	↓	70	8.15	2.52	80.67	92
2400	Speed bumps, thermoplastic, 10-1/2" x 2-1/4" x 48" long	B-2	120	.333	Ea.	146	15.35		161.35	183
3030	Impact barrier, MUTCD, barrel type	B-16	30	1.067	"	400	51	25.50	476.50	545

34 71 19 – Vehicle Delineators

34 71 19.13 Fixed Vehicle Delineators

0010	FIXED VEHICLE DELINEATORS									
0020	Crash barriers									
0100	Traffic channelizing pavement markers, layout only	A-7	2000	.012	Ea.		.73	.02	.75	1.12
0110	13" x 7-1/2" x 2-1/2" high, non-plowable, install	2 Clab	96	.167		30.50	7.60		38.10	45
0200	8" x 8" x 3-1/4" high, non-plowable, install		96	.167		29.50	7.60		37.10	44
0230	4" x 4" x 3/4" high, non-plowable, install	↓	120	.133		2.68	6.10		8.78	12
0240	9-1/4" x 5-7/8" x 1/4" high, plowable, concrete pavmt.	A-2A	70	.343	↓	4.74	16.20	7.10	28.04	37