

| CULVERT SIZE DIAMETER (in.) | 1 ½ : 1 Slope | | | | 2 : 1 Slope | | | |
|--------------------------------------|----------------|--------------------|--------------------|--------------------|----------------|--------------------|--------------------|--------------------|
| | EC-3 Type B | Depth (T) (18") | Depth (T) (24") | Depth (T) (36") | EC-3 Type B | Depth (T) (18") | Depth (T) (24") | Depth (T) (36") |
| | | Class A1 | Class I | Class II | | Class A1 | Class I | Class II |
| | Sq. Yds. | Cu. Yds. | Cu. Yds. | Cu. Yds. | Sq. Yds. | Cu. Yds. | Cu. Yds. | Cu. Yds. |
| 42 | 25.46 | 12.73 | 16.97 | 25.46 | 23.91 | 11.96 | 15.94 | 23.91 |
| 48 | 33.29 | 16.64 | 22.19 | 33.29 | 31.25 | 15.62 | 20.83 | 31.25 |
| 54 | 42.02 | 21.01 | 28.01 | 42.02 | 39.56 | 19.78 | 26.37 | 39.56 |
| 60 | 52.04 | 26.02 | 34.69 | 52.04 | 48.20 | 24.10 | 32.13 | 48.20 |
| 66 | 63.29 | 31.64 | 42.19 | 63.29 | 59.15 | 29.57 | 39.43 | 59.15 |
| 72 | 75.03 | 37.52 | 50.02 | 75.03 | 70.41 | 35.21 | 46.94 | 70.41 |
| 78 | 88.08 | 44.04 | 58.72 | 88.08 | 82.67 | 41.33 | 55.11 | 82.67 |
| 84 | 102.17 | 51.08 | 68.11 | 102.17 | 95.90 | 47.95 | 63.93 | 95.90 |

TABLE D-7 CULVERT OUTLET PROTECTION WITH ST'D. EW-2 ENDWALLS

| CULVERT SIZE DIAMETER (in.) | Increments For Each Additional Pipe | | | |
|--------------------------------------|-------------------------------------|--------------------|--------------------|--------------------|
| | EC-3 Type B | Depth (T) (18") | Depth (T) (24") | Depth (T) (36") |
| | | Class A1 | Class I | Class II |
| | Conc. | Conc. | Conc. | Conc. |
| | Sq. Yds. | Cu. Yds. | Cu. Yds. | Cu. Yds. |
| 42 | 11.67 | 5.83 | 7.78 | 11.67 |
| 48 | 15.17 | 7.58 | 10.11 | 15.17 |
| 54 | 19.17 | 9.58 | 12.78 | 19.17 |
| 60 | 23.60 | 11.80 | 15.73 | 23.60 |
| 66 | 28.51 | 14.26 | 19.01 | 28.51 |
| 72 | 33.90 | 16.95 | 22.60 | 33.90 |
| 78 | 39.71 | 19.86 | 26.48 | 39.71 |
| 84 | 46.01 | 23.01 | 30.68 | 46.01 |

TABLE D-8 CULVERT OUTLET PROTECTION WITH ST'D. EW-7 ENDWALLS

Quantities To Be Used Only For Computations of Dry Rip Rap For Outlet Protection.*