

PAVEMENT CALCULATIONS

ASPHALTIC CONCRETE SURFACE COURSE ITEM T-35

Begin Project Sta. 101+82.09 to Sta. 118+76.42 = 169,433 x 24 = 40,663.92 ÷ 9 =
Sta. 119+00 to Sta. 178+46.12 = 5,946.12 x 24 = 142,706.88 ÷ 9 =
Sta. 178+50 to Sta. 226+13 = 4,763 x 24 = 114,312 ÷ 9 =
Sta. 226+13 to Sta. 238+13.77 = 1200.77 x 28 = 33,621.56 ÷ 9 =
Sta. 0+00 to Sta. 34+47.17 = 3,447.17 x 24 = 82,732.08 ÷ 9 =
Sta. 33+50 to Sta. 103+06.59 = 6,956.59 x 24 = 166,958.16 ÷ 9 =
Extra Area
Total 1 1/2" Thick
68,113.95 ÷ 36 x 1 1/2
Extra Area (Feathered) 1 1/2" (2396 ÷ 36 x 1.50) =
Extra Area (Drives) 2" (2,260 ÷ 36 x 2) =
Extra Area (Mail Box Approaches) 2" (733 ÷ 36 x 2) =
City of Willoughby Total

Sta. 103+06.59 to Sta. 121+55 = 18,484.1 x 24 = 44,361.84 ÷ 9 =
Extra Area
Total
5,651.09 ÷ 36 x 1 1/2
Extra Area (Feathered) 1 1/2" (595 ÷ 36 x 1.50) =
Extra Area (Drives) 2" (358 ÷ 36 x 2) =
Extra Area (Mail Box Approaches) 2" (226 ÷ 36 x 2) =
Mentor Twp. Total
Grand Total

4,518.21 Sq.Yds.
15,856.32 Sq.Yds.
12,701.33 Sq.Yds.
3,735.73 Sq.Yds.
9,192.45 Sq.Yds.
18,550.91 Sq.Yds.
3,559.00 Sq.Yds.
68,113.95 Sq.Yds.
2,838.08 Cu.Yds.
99.83 Cu.Yds.
125.56 Cu.Yds.
40.72 Cu.Yds.
3,074.19 Cu.Yds.

4,929.09 Sq.Yds.
722.00 Sq.Yds.
5,651.09 Sq.Yds.
235.46 Cu.Yds.
24.79 Cu.Yds.
19.88 Cu.Yds.
12.55 Cu.Yds.
292.68 Cu.Yds.
3,366.87 Cu.Yds.
3,367 Cu.Yds.

Use

ASPHALTIC CONCRETE LEVELING COURSE ITEM B-35

Sta. 101+82.09 to Sta. 108+00 = 617.91 x 22 = 13,594 ÷ 9 =
Sta. 108+00 to Sta. 118+76.42 = 10,766.12 x 24 = 25,834 ÷ 9 =
Sta. 119+00 to Sta. 170+00 = 5,100.00 x 22 = 112,200 ÷ 9 =
Sta. 170+00 to Sta. 178+46.12 = 846.12 x 24 = 20,306.88 ÷ 9 =
Sta. 178+50 to Sta. 226+13 = 4,763 x 22 = 104,786 ÷ 9 =
Sta. 226+13 to Sta. 238+13.77 = 1,200.77 x 25.50 = 30,619.64 ÷ 9 =
Sta. 0+00 to Sta. 34+47.17 = 3,447.17 x 24 = 82,732.08 ÷ 9 =
Sta. 33+50 to Sta. 103+06.59 = 6,956.59 x 24 = 166,958.16 ÷ 9 =
Extra Area
Total
65,451.30 ÷ 36 x 1.5
Preleveling & Extra Leveling Material } 300 Cu.Yds per mile x 4.195 Miles
City of Willoughby Total

Sta. 103+06.59 to Sta. 121+55 = 18,484.1 x 24 = 44,361.84 ÷ 9 =
Extra Area
Total
5,651.09 ÷ 36 x 1.5
Preleveling & Extra Leveling Material } 300 Cu.Yds per mile x .350 Mile
Mentor Twp Total
Grand Total

1510.45 Sq.Yds.
2,870.45 Sq.Yds.
12,466.66 Sq.Yds.
2,256.32 Sq.Yds.
11,642.88 Sq.Yds.
3,402.18 Sq.Yds.
9,192.45 Sq.Yds.
18,550.91 Sq.Yds.
3,559.00 Sq.Yds.
65,451.30 Sq.Yds.
2,727.14 Cu.Yds.
1,258.50 Cu.Yds.
3,985.64 Cu.Yds.

4,929.09 Sq.Yds.
722.00 Sq.Yds.
5,651.09 Sq.Yds.
235.46 Cu.Yds.
105.00 Cu.Yds.
340.46 Cu.Yds.
4,326.10 Cu.Yds.
4,326 Cu.Yds.

Use

PORTLAND CEMENT CONCRETE BASE COURSE ITEM B-70

Begin Project Sta. 101+82.09 to Sta. 108+00 = 617.91 x 4 = 2,471.64 ÷ 9 =
Sta. 108+00 to Sta. 118+76.42 = 10,766.12 x 26 = 27,986.92 ÷ 9 =
Sta. 119+00 to Sta. 170+00 = 5,100 x 4 = 20,400 ÷ 9 =
Sta. 170+00 to Sta. 178+00 = 800 x 26 = 20,800 ÷ 9 =
Sta. 178+00 to Sta. 178+46.12 = 46.12 x 4 = 184.48 ÷ 9 =
Sta. 178+50 to Sta. 185+00 = 650 x 4 = 2,600 ÷ 9 =
Sta. 185+00 to Sta. 186+00 = 100 x 3.5 = 350 ÷ 9 =
Sta. 186+00 to Sta. 216+00 = 3,000 x 3 = 9,000 ÷ 9 =
Sta. 216+00 to Sta. 217+00 = 100 x 3.5 = 350 ÷ 9 =
Sta. 217+00 to Sta. 224+02 = 702 x 4 = 2,808 ÷ 9 =
Sta. 224+02 to Sta. 226+13 = 211 x 2 = 422 ÷ 9 =
Sta. 1+75 to Sta. 2+30 = 55 x 5 = 275 ÷ 9 =
Sta. 2+30 to Sta. 3+30 = 100 x 3 = 300 ÷ 9 =
Sta. 3+30 to Sta. 6+76 = 346 x 1 = 346 ÷ 9 =
Sta. 6+76 to Sta. 7+76 = 100 x 3 = 300 ÷ 9 =
Sta. 7+76 to Sta. 8+50 = 74 x 5 = 370 ÷ 9 =
Sta. 8+50 to Sta. 14+50 = 600 x 25 = 15,000 ÷ 9 =
Extra Area
Total Willoughby

274.62 Sq.Yds.
3,109.65 Sq.Yds.
2,266.67 Sq.Yds.
2,311.11 Sq.Yds.
20.49 Sq.Yds.
288.89 Sq.Yds.
38.89 Sq.Yds.
1,000.00 Sq.Yds.
38.89 Sq.Yds.
312.00 Sq.Yds.
46.89 Sq.Yds.
30.56 Sq.Yds.
33.33 Sq.Yds.
38.44 Sq.Yds.
33.33 Sq.Yds.
41.11 Sq.Yds.
1,666.67 Sq.Yds.
1,333.00 Sq.Yds.
12,884.54 Sq.Yds.
12,885 Sq.Yds.

Use

PORTLAND CEMENT CONCRETE PAVEMENT ITEM T-70

Total 7" for Drives (City of Willoughby)

Use

198.00 Sq.Yds.

CONCRETE CURB ITEM I-12 (Type 3-B)

Begin Project Sta. 101+82.09 to Sta. 118+76.42 = 169,433 x 2
Sta. 119+00 to Sta. 178+46.12 = 5,946.12 x 2 =
Sta. 178+50 to Sta. 185+50 = 700 x 2 =
Sta. 185+50 to Sta. 217+00 = 3,150 x 1 =
Sta. 217+00 to Sta. 226+56 = 956 x 2 =
Sta. 1+75 to Sta. 14+50 = 1275 x 1 =
Extra Area

3,388.66 Lin.ft.
11,892.24 Lin.ft.
1,400.00 Lin.ft.
3,150.00 Lin.ft.
1,912.00 Lin.ft.
1,275.00 Lin.ft.
1,108.00 Lin.ft.

Total
Deduction for Intersections
Total (City of Willoughby)

Use

24,125.90 Lin.ft.
1,540.00 Lin.ft.
22,585.90 Lin.ft.
22,586 Lin.ft.

CONCRETE CURB ITEM I-12 (Type 6)

Sta. 185+50 to Sta. 217+00 = 3,150 x 1 =
(City of Willoughby)

3,150.00 Lin.ft.

SUBBASE ITEM I-22

Begin Project Sta. 101+82.09 to Sta. 108+00 = 617.91 x 6 = 3,707.46 ÷ 9 =
Sta. 108+00 to Sta. 118+76.42 = 10,766.12 x 28 = 30,139.76 ÷ 9 =
Sta. 119+00 to Sta. 170+00 = 5,100 x 6 = 30,600 ÷ 9 =
Sta. 170+00 to Sta. 178+00 = 800 x 28 = 22,400 ÷ 9 =
Sta. 178+00 to Sta. 178+46.12 = 46.12 x 6 = 276.72 ÷ 9 =
Sta. 178+50 to Sta. 185+00 = 650 x 6 = 3,900 ÷ 9 =
Sta. 185+00 to Sta. 186+00 = 100 x 5.5 = 550 ÷ 9 =
Sta. 186+00 to Sta. 216+00 = 3,000 x 4 = 12,000 ÷ 9 =
Sta. 216+00 to Sta. 217+00 = 100 x 5.5 = 550 ÷ 9 =
Sta. 217+00 to Sta. 224+02 = 702 x 6 = 4,212 ÷ 9 =
Sta. 224+02 to Sta. 226+13 = 211 x 3 = 633 ÷ 9 =
Sta. 1+75 to Sta. 2+30 = 55 x 6 = 330 ÷ 9 =
Sta. 2+30 to Sta. 3+30 = 100 x 4 = 400 ÷ 9 =
Sta. 3+30 to Sta. 6+76 = 346 x 2 = 692 ÷ 9 =
Sta. 6+76 to Sta. 7+76 = 100 x 5 = 500 ÷ 9 =
Sta. 7+76 to Sta. 8+50 = 74 x 6 = 444 ÷ 9 =
Sta. 8+50 to Sta. 14+50 = 600 x 26 = 15,600 ÷ 9 =
Extra Area

411.94 Sq.Yds.
3,348.86 Sq.Yds.
3,400.00 Sq.Yds.
2,488.89 Sq.Yds.
3,074 Sq.Yds.
433.33 Sq.Yds.
61.11 Sq.Yds.
1,333.33 Sq.Yds.
61.11 Sq.Yds.
468.00 Sq.Yds.
70.34 Sq.Yds.
36.67 Sq.Yds.
44.44 Sq.Yds.
76.89 Sq.Yds.
55.55 Sq.Yds.
49.33 Sq.Yds.
1,733.33 Sq.Yds.
1,513.00 Sq.Yds.

Total
4" Total = 15,616.86 x 4 = 36 City of Willoughby

15,616.86 Sq.Yds.
1,735.20 Cu.Yds.

Sta. 14+50 to Sta. 26+23 = 11,73 x 26.5 = 31,084.50 ÷ 9 =
Sta. 28+13 to Sta. 34+47.17 = 6,34.17 x 26.5 = 16,805.51 ÷ 9 =
Sta. 33+50 to Sta. 34+46 = 96 x 26.5 = 2,544 ÷ 9 =
Sta. 34+46 to Sta. 43+00 = 854 ÷ 9 =
Extra Area
Total 5"
City of Willoughby Total = 6,810.10 ÷ 36 x 5 =
Total 5" ≠ 4" City of Willoughby

3,453.83 Sq.Yds.
1,867.27 Sq.Yds.
282.67 Sq.Yds.
569.33 Sq.Yds.
637.00 Sq.Yds.
6,810.10 Sq.Yds.
945.84 Cu.Yds.
2,681.04 Cu.Yds.

BORROW ITEM E-4

Total Excavation 11,425 Cu.Yds.
Total Embankment 12,414 Cu.Yds.
Total Embankment + 22% 15,145 Cu.Yds.
Net Borrow 3,720 Cu.Yds.

STABILIZED CRUSHED AGGREGATE SHOULDER & APPROACHES ITEM I-18

Sta. 1+50 to Sta. 8+50 (Right Side Only)
700 x 4 x .1042 = 291.76 Cu.ft. ÷ 27

Use

10.80 Cu.Yds.
11 Cu.Yds.