

COMPUTATIONS & SUB-SUMMARIES

LAKE COUNTY
LAK-1-26.51
ASHTABULA COUNTY
ATB-1-0.00

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	I-1103 (15)

9
176

L-9 COMMERCIAL FERTILIZER
(12-12-12) TONS = $\frac{A \times 9 \times 20}{1000 \times 2000}$

Area Seeded	623 848	S.Y.
Area Sodded	25 642	S.Y.
Total Area	649 490	S.Y.
TONS	=	58.46

L-9 AGRICULTURAL LIMING MATERIAL
TONS = $\frac{A \times 9 \times 100}{1000 \times 2000}$

Area Seeded	623 848	S.Y.
Area Sodded	25 642	S.Y.
Total Area	649 490	
TONS	=	292.27

E-11 WATER M. GAL = $\frac{Vol. \times 5}{1000}$

Embankment +20%	C.Y.	681310
I-22	"	40464
I-18	"	11961
B-119	"	2160
Total Volume	C.Y.	735895
M-GALS	=	3680

EDGE LINES

Length as per Typical Section
S.R.1 = 23162.78, 4 Edges
23162.78 x 4 = 92651.12 Lin. Ft.
Add for Ramp Exits 202 " "
Add for Ramp Entr. 892 " "
93745.12 Lin. Ft.
93745.12 ÷ 5280 = **17.76 Miles**

CENTERLINES

Length as per Typical Section
S.R.1 = 23162.78 2 Pavements
15 Ft. Lines spaced @ 25 Ft.
23162.78 x 2 x 1540 ÷ 5280
= **3.29 Miles**

I-18, STABILIZED CRUSHED AGGREGATE SHOULDER MATERIAL

Total Length as per S.R.1
Typical Section = 23162.78 Lin. Ft.
Width, 2 Shoulders @ 5.67' = 11.34 Ft.
& 2 Shoulders @ 10.50' = 21.00 Ft.
Total Width = 32.34 Ft.
Depth = 5 in.
23162.78 x 32.34 ÷ 9 x 5/16 = **11560.0 Cu.Yds.**

B-33, 3" BITUMINOUS MACADAM BASE COURSE

Total Length as per S.R.1
Typical Section = 23162.78 Lin. Ft.
Width, 2 Shoulders @ 5' = 10 Ft.
& 2 Shoulders @ 10' = 20 Ft.
Total Width = 30 Ft.
23162.78 x 30 ÷ 9 = **77209.3 Sq.Yds.**

T-31, BITUMINOUS SURFACE TREATMENT

Bituminous Material, 2 Seal Operations
of 0.25 gal. per sq. yd. of B-33, each
Area B-33 as above = 77209.3 Sq.Yds.
(77209.3 x 0.25) 2 = **38604.7 Gals.**

No. 46 Aggregate (1st Operation):
Applied @ 0.008 Cu.Yd. per Sq.Yd. of B-33
77209.3 x 0.008 = **617.7 Cu.Yds.**

No. 6 Aggregate (2nd Operation):
Applied @ same rate as No. 46 Aggregate
= **617.7 Cu.Yds.**

L-9 SEEDING

Length as per Typical Section S.R.1
= 23162.78 Lin. Ft.
Deduct 3000 Lin. Ft. for Roadside Rest
= 20162.78 Lin. Ft.
Av. Width R/W to R/W = 310.5 Ft.
Deduct 78 Ft. Width for Paved Areas
= 232.5 Ft.
20162.78 x 232.5 ÷ 9 = 520 672 Sq.Yds.
Deduct for Sodded Areas = 24 483
NET SEEDING AREA = 496 389 Sq.Yds.

L10 SODDING

Sheet No.	Sq. Yds.
3	600
10	422
11	994
12	1141
13	1784
14	1143
15	453
16	1109
17	1271
18	1126
19	876
20	1264
21	1579
22	1722
23	1284
24	1130
25	1056
65	524
66	388
70	317
74	738
77	294
81	87
82	166
83	178
84	32
85	34
87	67
88	17
89	60
90	112
91	10
92	6
93	37
94	53
95	17
96	70
97	89
98	71
99	47
100	7
101	76
102	11
103	51
104	29
105	10
106	52
107	6
108	111
117	500
TOTAL	24483

EARTHWORK

Sheet No.	Station		E-101 Roadway Excavation	Embankment +20%
	From	To	Cu.Yds.	Cu.Yds.
10	18+00	26+00	6461	35532
11	26+00	41+00	34182	18254
12	41+00	56+00	63061	14612
13	56+00	71+00	94263	5222
14	71+00	86+00	32313	32218
15	86+00	101+00	37007	59866
16	101+00	116+00	19572	41665
17	116+00	12+00	18057	31356
18	12+00	27+00	33799	18260
19	27+00	42+00	24344	15961
20	42+00	57+00	34967	43808
21	57+00	72+00	25471	23164
22	72+00	87+00	32879	3906
23	87+00	102+00	27254	30839
24	102+00	117+00	26517	46237
25	117+00	132+00	69244	3356
26	132+00	133+00	3698	0
67	Bates Rd.		4639	42167
71	County Line Rd.		1434	33002
75	Van Pelt Rd.		3828	50188
79	Le Fever Rd.		1034	41309
125	Roadside Rest		31422	78388
TOTALS			625446	681310

E-4 BORROW

Embankment +20% = 681310
E-101 Roadway EXCAV. = -625446
55864
Deduct E-3 Channel EXCAV. = 2811
E-4 NET BORROW = 53053 Cu.Yds.

T-71, 10" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

Total Length as per S.R.1
Typical Section = 23162.78 Lin. Ft.
Width, 4 Lanes @ 12' = 48 Ft.
23162.78 x 48 ÷ 9 = **123534.9 Sq.Yds.**

I-22, SUBBASE

Total Length as per S.R.1
Typical Section = 23162.78 Lin. Ft.
End Area, 4 Lanes = 40.90 Sq. Ft.
23162.78 x 40.90 ÷ 27 = **35087.3 Cu.Yds.**

E-101 COMPACTED SUBGRADE

Area as T-71 = 123535 Sq.Yds.
Area as B-33 = 77210 " "
TOTAL = 200745 Sq.Yds.