

COMPUTATIONS & SUB-SUMMARIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

8
277

LAKE COUNTY
LAK-1-6.97

T-71, 10" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

TOTAL NET LENGTH AS PER S. R. 1
 TYPICAL SECTIONS = 17,956.11 FT.
 WIDTH 4 LANES @ 12' = 48.00 FT.
 $17,956.11 \times 48.00 \div 9 = 95,766 \text{ SY.}$

E-11, WATER M-GAL. = $\frac{\text{VOL. X 5}}{1000}$

EMBANKMENT	429,005 C.Y.
I-22	30,890 C.Y.
I-18	8,867 C.Y.
B-19	2,616 C.Y.
TOTAL VOLUME	471,378 C.Y.
M-GALLONS	2,357

B-219, 3" WATERPROOFED AGGREGATE BASE COURSE

TOTAL NET LENGTH = 17,956.11 FT.
 WIDTH 2 SHOULDERS @ 10 FT. = 20 FT.
 WIDTH 2 SHOULDERS @ 5 FT. = 10 FT.
 TOTAL WIDTH = 30 FT.
 $17,956.11 \times 3000 \times \frac{3}{12} \div 27 = 4,987.81 \text{ C.Y.}$

EDGE LANES

TOTAL NET LENGTH = 17,956.11 FT.
 LENGTH 4 EDGES
 $4 \times 17,956.11 = 71,824.44 \text{ FT.}$
 $71,824.44 \div 5,280 = 13.60 \text{ MILES}$

T-31, BITUMINOUS SURFACE TREATMENT

BITUMINOUS MATERIAL APPLIED @ 0.25 GAL. PER SQ. YD. OF B-219
 AREA B-219 AS ABOVE = 59,853.70 S.Y.
 $59,853.70 \times 0.25 = 14,964 \text{ GAL.}$
 NO. 6 AGGREGATE APPLIED @ 0.008 CU. YDS. PER SQ. YD. OF B-219
 $59,853.70 \times 0.008 = 478.8 \text{ C.Y.}$

CENTER LINES

TOTAL NET LENGTH = 17,956.11 FT.
 2 PAVEMENTS, 15 FT. LINES AND 25 FT. SPACES
 $17,956.11 \times 2 \times \frac{15}{40} \div 5,280 = 2.55 \text{ MILES}$

I-18, STABILIZED CRUSHED AGGREGATE SHOULDER MATERIAL

TOTAL NET LENGTH = 17,956.11 FT.
 TOTAL WIDTH = 32.00 FT.
 $17,956.11 \times 32.00 \times \frac{15}{12} \div 27 = 8,867 \text{ C.Y.}$

EARTHWORK				
SHEET NO.	STATION		E-1 ROADWAY EXCAVATION	EMBANKMENT PLUS 18%
	FROM	TO		
13	11+00	17+00	46,610	1,025
14	17+00	27+00	19,117	35,773
15	27+00	37+00	3,792	43,150
16	37+00	47+00	5,237	40,850
17	47+00	57+00	6,236	18,220
18	57+00	67+00	37,697	7,615
19	67+00	77+00	58,375	13,014
20	77+00	87+00	30,860	20,680
21	87+00	97+00	26,827	15,971
22	97+00	107+00	1,764	114,979
23	107+00	117+00	36,902	8,392
24	117+00	127+00	169,631	
26	127+00	137+00	244,806	
27	137+00	150+00	201,219	
28	150+00	160+00	90,310	
29	160+00	170+00	10,152	2,397
30	170+00	180+00	14,458	6,634
31	180+00	190+00	23,882	68,685
32	190+00	193+50	9,613	30,295
MOORES DRIVE				
178	0+64.82	12+00	1,720	3,240
GARFIELD RD.				
180	24+00	32+00	255	9,819
181	32+00	39+50	279	15,862
S. R. 615				
189	25+00	35+00	629	32,523
190	35+00	40+00	385	9,191
FRONTAGE ROAD				
199	112+10	120+00	386	1,555
200	120+00	126+75	322	683
CHILLICOTHE RD.				
202	21+50	25+00	269	1,090
203	25+00	35+50	417	2,522
LITTLE MOUNTAIN RD.				
210	6+00	15+00	531	531
HART ROAD				
213	25+50	35+00	719	1,530
TOTALS			1,043,400	506,226

I-22, SUBBASE

TOTAL NET LENGTH = 17,956.11 FT.
 END AREA = 40.094 SQ. FT.
 LENGTH OF AREA WITH ADDITIONAL 12" OF SUBBASE = 800.00 FT.
 TOTAL WIDTH SUBBASE = 80.00 FT.
 $(40.094 \times 17,956.11) + (1.00 \times 80.00 \times 800.00) \div 27 = 29,035 \text{ C.Y.}$

E-1 COMPACTED SUBGRADE

AREA AS T-71 = 95,766 S.Y.
 AREA AS B-219 = 59,854 S.Y.
 TOTAL = 155,620 S.Y.