CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

LAKE COUNTY
LAK.44 - 3.79

10/204

T-71 9" REINFORCED CONCRETE PAVEMENT

U-388(12) RURAL

S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 217 + 00	TO STA. 263 + 00	=	4600	× 48 ÷ 9	=	24533	SQ. YDS.
ACCELERATION LANE	STA. 227 + 90	TO STA. 237 + 10	=	1/2 (25)(920)	÷ 9	=	1278	SQ. YDS.
DECELERATION LANE	STA. 230 + 48.76	TO STA. 234 + 28.95	=	1/2 (280.19 + 380.19)(12)	÷ 9	=	440	SQ. YDS.
RAMP A	STA. 0 + 63.65	TO STA. 8 + 22.70	=	759.05	× 16 ÷ 9	=	1349	SQ. YDS.
RAMP B	STA. 0 + 70.90	TO STA. 7 + 25	=	654.10	× 16 ÷ 9	=	1163	SQ. YDS.
TOTAL T-71 9" REINFORCED CONCRETE PAVEMENT U-388(12) RURAL						=	28763	SQ. YDS.

U-388(12) MUNICIPAL

S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 281 + 50	TO STA. 296 + 00	=	1450	× 48 ÷ 9	=	7733	SQ. YDS.
ACCELERATION LANE	STA. 297 + 00	TO STA. 309 + 00	=	1/2 (25)(1200)	÷ 9	=	1667	SQ. YDS.
DECELERATION LANE	STA. 299 + 00	TO STA. 302 + 81	=	1/2 (281 + 381)(12)	÷ 9	=	441	SQ. YDS.
RAMP NO. 1	STA. 5 + 18.56	TO STA. 14 + 17.77	=	899.21	× 16 ÷ 9	=	1599	SQ. YDS.
RAMP NO. 2	STA. 3 + 75	TO STA. 13 + 15.34	=	940.34	× 16 ÷ 9	=	1672	SQ. YDS.
TOTAL T-71 9" REINFORCED CONCRETE PAVEMENT U-388(12) MUNICIPAL						=	13112	SQ. YDS.

UG-388(12) RURAL

S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 263 + 00	TO STA. 272 + 19.93	=	919.93	× 48 ÷ 9	=	4906	SQ. YDS.
TOTAL T-71 9" REINFORCED CONCRETE PAVEMENT UG-388(12) RURAL						=	4906	SQ. YDS.

UG-388(12) MUNICIPAL

S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 272 + 19.93	TO STA. 281 + 50	=	930.07	× 48 ÷ 9	=	4960	SQ. YDS.
S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 296 + 00	TO STA. 305 + 47.27	=	947.27	× 48 ÷ 9	=	5052	SQ. YDS.
TOTAL T-71 9" REINFORCED CONCRETE PAVEMENT UG-388(12) MUNICIPAL						=	10012	SQ. YDS.

FG-388(12)

S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 305 + 47.27	TO STA. 309 + 89.33	=	442.06	× 48 ÷ 9	=	2358	SQ. YDS.
RAMP E	STA. 33 + 00	TO STA. 46 + 79.63	=	1379.63	× 24 ÷ 9	=	3679	SQ. YDS.
RAMP G	STA. 0 + 18.33	TO STA. 14 + 00	=	1381.67	× 24 ÷ 9	=	3684	SQ. YDS.
TOTAL T-71 9" REINFORCED CONCRETE PAVEMENT FG-388(12)						=	9721	SQ. YDS.

F-388(12)

RAMP E	STA. 29 + 00	TO STA. 33 + 00	=	400	× 24 ÷ 9	=	1067	SQ. YDS.
RAMP G	STA. 14 + 00	TO STA. 18 + 00	=	400	× 24 ÷ 9	=	1067	SQ. YDS.
TOTAL T-71 9" REINFORCED CONCRETE PAVEMENT F-388(12)						=	2134	SQ. YDS.

I-7 13" REINFORCED CONCRETE APPROACH SLAB

U-388(12) MUNICIPAL

LAK-44-0489 (WEST APPROACH SLAB)	=	156	SQ. YDS.
LAK-44-0489 (EAST APPROACH SLAB)	=	145	SQ. YDS.
LAK-44-0505 (WEST APPROACH SLAB)	=	90	SQ. YDS.
LAK-44-0505 (EAST APPROACH SLAB)	=	78	SQ. YDS.
TOTAL I-7 13" REINFORCED CONCRETE APPROACH SLAB U-388(12) MUNICIPAL	=	469	SQ. YDS.

FG-388(12)

LAK-44-0556R (NORTHBOUND)	=	134	SQ. YDS.
LAK-44-0556L (SOUTHBOUND)	=	134	SQ. YDS.
TOTAL I-7 13" REINFORCED CONCRETE APPROACH SLAB FG-388(12)	=	268	SQ. YDS.

B-21 WATERPROOFED AGGREGATE BASE COURSE

U-388(12) RURAL

S.R. 44 NORTHBOUND	STA. 217 + 00	TO STA. 225 + 73	=	873	× 10 ÷ 108	=	81	CU. YDS.
" " "	STA. 227 + 90	TO STA. 237 + 10	=	920	× 8 ÷ 54	=	136	CU. YDS.
" " "	STA. 237 + 10	TO STA. 237 + 90	=	1/2 (80)(8 + 10)	÷ 54	=	13	CU. YDS.
" " "	STA. 237 + 90	TO STA. 263 + 00	=	2510	× 10 ÷ 108	=	232	CU. YDS.
" " "	STA. 217 + 00	TO STA. 263 + 00	=	4600	× 4 ÷ 108	=	170	CU. YDS.
S.R. 44 SOUTHBOUND	STA. 217 + 00	TO STA. 225 + 28.95	=	828.95	× 10 ÷ 108	=	77	CU. YDS.
" " "	STA. 230 + 48.76	TO STA. 233 + 28.95	=	280.19	× 8 ÷ 54	=	42	CU. YDS.
" " "	STA. 233 + 28.95	TO STA. 234 + 28.95	=	1/2 (100)(8 + 10)	÷ 54	=	17	CU. YDS.
" " "	STA. 234 + 28.95	TO STA. 263 + 00	=	2871.05	× 10 ÷ 108	=	266	CU. YDS.
" " "	STA. 217 + 00	TO STA. 263 + 00	=	4600	× 4 ÷ 108	=	170	CU. YDS.
RAMP A	STA. 0 + 63.65	TO STA. 8 + 22.70	=	759.05	× 6 ÷ 54	=	84	CU. YDS.
RAMP B	STA. 0 + 70.90	TO STA. 7 + 25	=	654.10	× 6 ÷ 54	=	72	CU. YDS.
TOTAL B-21 WATERPROOFED AGGREGATE BASE COURSE U-388(12) RURAL						=	1360	CU. YDS.

U-388(12) MUNICIPAL

S.R. 44 NORTHBOUND	STA. 281 + 50	TO STA. 294 + 30	=	1280	× 10 ÷ 108	=	119	CU. YDS.
" " "	STA. 281 + 50	TO STA. 296 + 00	=	1450	× 4 ÷ 108	=	54	CU. YDS.
S.R. 44 SOUTHBOUND	STA. 281 + 50	TO STA. 293 + 80.64	=	1230.64	× 10 ÷ 108	=	114	CU. YDS.
" " "	STA. 281 + 50	TO STA. 296 + 00	=	1450	× 4 ÷ 108	=	54	CU. YDS.
RAMP NO. 1	STA. 5 + 18.56	TO STA. 14 + 17.77	=	899.21	× 6 ÷ 54	=	100	CU. YDS.
RAMP NO. 2	STA. 3 + 75	TO STA. 13 + 15.34	=	940.34	× 6 ÷ 54	=	104	CU. YDS.
TOTAL B-21 WATERPROOFED AGGREGATE BASE COURSE U-388(12) MUNICIPAL						=	545	CU. YDS.

UG-388(12) RURAL

S.R. 44 NORTHBOUND	STA. 263 + 00	TO STA. 271 + 97	=	897	× 10 ÷ 108	=	88	CU. YDS.
" " "	STA. 263 + 00	TO STA. 272 + 12	=	912	× 4 ÷ 108	=	34	CU. YDS.
S.R. 44 SOUTHBOUND	STA. 263 + 00	TO STA. 272 + 48	=	948	× 10 ÷ 108	=	88	CU. YDS.
" " "	STA. 263 + 00	TO STA. 272 + 32	=	932	× 4 ÷ 108	=	35	CU. YDS.
TOTAL B-21 WATERPROOFED AGGREGATE BASE COURSE UG-388(12) RURAL						=	240	CU. YDS.

UG-388(12) MUNICIPAL

S.R. 44 NORTHBOUND	STA. 271 + 97	TO STA. 281 + 50	=	953	× 10 ÷ 108	=	88	CU. YDS.
" " "	STA. 297 + 00	TO STA. 306 + 15	=	915	× 8 ÷ 54	=	136	CU. YDS.
" " "	STA. 272 + 12	TO STA. 281 + 50	=	938	× 4 ÷ 108	=	35	CU. YDS.
" " "	STA. 296 + 00	TO STA. 305 + 71	=	971	× 4 ÷ 108	=	36	CU. YDS.
S.R. 44 SOUTHBOUND	STA. 272 + 48	TO STA. 281 + 50	=	902	× 10 ÷ 108	=	84	CU. YDS.
" " "	STA. 299 + 00	TO STA. 301 + 81	=	281	× 8 ÷ 54	=	42	CU. YDS.
" " "	STA. 301 + 81	TO STA. 302 + 81	=	1/2 (100)(8 + 10)	÷ 54	=	17	CU. YDS.
" " "	STA. 302 + 81	TO STA. 304 + 98	=	217	× 10 ÷ 108	=	20	CU. YDS.
" " "	STA. 272 + 32	TO STA. 281 + 50	=	918	× 4 ÷ 108	=	34	CU. YDS.
" " "	STA. 296 + 00	TO STA. 305 + 32	=	932	× 4 ÷ 108	=	35	CU. YDS.
TOTAL B-21 WATERPROOFED AGGREGATE COURSE UG-388(12) MUNICIPAL						=	527	CU. YDS.

FG-388(12)

S.R. 44 NORTHBOUND	STA. 306 + 15	TO STA. 307 + 00	=	85	× 8 ÷ 54	=	13	CU. YDS.
" " "	STA. 307 + 00	TO STA. 308 + 13	=	1/2 (113)(8 + 10)	÷ 54	=	19	CU. YDS.
" " "	STA. 308 + 13	TO STA. 310 + 13	=	200	× 10 ÷ 108	=	19	CU. YDS.
" " "	STA. 305 + 71	TO STA. 310 + 13	=	442	× 4 ÷ 108	=	16	CU. YDS.
S.R. 44 SOUTHBOUND	STA. 304 + 98	TO STA. 310 + 15	=	517	× 10 ÷ 108	=	48	CU. YDS.
" " "	STA. 305 + 32	TO STA. 310 + 14	=	482	× 4 ÷ 108	=	18	CU. YDS.
S.R. 44 NORTHBOUND & SOUTHBOUND	STA. 312 + 38.83	TO STA. 312 + 45	=	6.17	× 28 ÷ 108	=	2	CU. YDS.
RAMP E	STA. 33 + 00	TO STA. 46 + 97.96	=	1397.96	× 14 ÷ 108	=	181	CU. YDS.
RAMP G	STA. 0 + 00	TO STA. 14 + 00	=	1400	× 14 ÷ 108	=	182	CU. YDS.
TOTAL B-21 WATERPROOFED AGGREGATE BASE COURSE FG-388(12)						=	498	CU. YDS.

F-388(12)

RAMP E	STA. 29 + 00	TO STA. 33 + 00	=	400	× 14 ÷ 108	=	52	CU. YDS.
RAMP G	STA. 14 + 00	TO STA. 18 + 00	=	400	× 14 ÷ 108	=	52	CU. YDS.
TOTAL B-21 WATERPROOFED AGGREGATE BASE COURSE F-388(12)						=	104	CU. YDS.