

CALCULATIONS  
PAVEMENT QUANTITIES - TYPICAL SECTIONS

F-388 (10) CODE 7221

SEE SHEET NO.	DESCRIPTION	Sq. Yd.	T-71	T-31	B-219	I-18	I-22	I-9	I-7
			9" REINFORCED PORTLAND CEMENT CONC. PAVEMENT	BITUMINOUS SURFACE TREATMENT	WATERPROOFED ASPHALTIC BASE COURSE TYPE B	STABILIZED CRUSHED AGG. SHOULDERS & APPROACHES	SUBBASE	STONE UNDERDRAIN No. 2	REINFORCED CONCRETE APPROACH SLABS
S.R. 44									
3	FULL WIDTH SECTION 4056.66 Ft.								
	4056.66 x 48 ÷ 9	21635.5							
	4056.66 x 30 ÷ 9		13522.2						
	4056.66 x 30 ÷ 9 (3 ÷ 36)			1126.8					
	4056.66 x 32 ÷ 9 (5 ÷ 36)				2003.3				
	4056.66 x 37.28 ÷ 27					5601.2			
3	RT. HALF WIDTH SECTION 1147.10 Ft.								
	1147.10 x 24 ÷ 9	3058.9							
	1147.10 x 15 ÷ 9		1911.8						
	1147.10 x 15 ÷ 9 (3 ÷ 36)			159.3					
	1147.10 x 16 ÷ 9 (5 ÷ 36)				283.2				
	1147.10 x 18.64 ÷ 27					791.9			
3	FULL WIDTH SECTION (SUPERELEVATED) 1992.50 Ft.								
	1992.50 x 48 ÷ 9	10626.7							
	1992.50 x 30 ÷ 9		6641.7						
	1992.50 x 30 ÷ 9 (3 ÷ 36)			553.4					
	1992.50 x 32.17 ÷ 9 (5 ÷ 36)				989.2				
	1992.50 x 36.19 ÷ 27					2670.7			
3	FULL WIDTH SECTION (SUPERELEVATED) 825.41 Ft.								
	825.41 x 48 ÷ 9	4402.2							
	825.41 x 30 ÷ 9		2751.4						
	825.41 x 30 ÷ 9 (3 ÷ 36)			229.3					
	825.41 x 32.17 ÷ 9 (5 ÷ 36)				409.8				
	825.41 x 36.19 ÷ 27					1106.4			
3	RT. HALF WIDTH SECTION (SUPERELEVATED) 43.23 Ft.								
	43.23 x 24 ÷ 9	115.3							
	43.23 x 15 ÷ 9		72.0						
	43.23 x 15 ÷ 9 (3 ÷ 36)			6.0					
	43.23 x 16.17 ÷ 9 (5 ÷ 36)				10.8				
	43.23 x 18.15 ÷ 27					29.1			
3	BRIDGE APPROACH SECTION 50.00 Ft.								
	50 x 2 x 15.83 ÷ 9		175.9						
	50 x 2 x 15.83 ÷ 9 (3 ÷ 36)			14.7					
	50 x 2 x 15.83 ÷ 9 (5 ÷ 36)				24.4				
	[(50 x 2 x 24 ÷ 0.5) + (50 x 2 x 15.83 ÷ 0.83)] ÷ 27					93.3			
	50 x 2 x 24 ÷ 9						266.7		
4	FULL WIDTH SECTION 484.62 Ft.								
	484.62 x 48 ÷ 9	2584.6							
	484.62 x 10 ÷ 9		538.5						
	484.62 x 10 ÷ 9 (3 ÷ 36)			44.9					
	484.62 x 11 ÷ 9 (5 ÷ 36)				82.3				
	484.62 x 33.67 ÷ 27					604.3			
4	LT. HALF WIDTH SECTION 1147.10 Ft.								
	1147.10 x 5 ÷ 9	3058.9							
	1147.10 x 5 ÷ 9		637.3						
	1147.10 x 5 ÷ 9 (3 ÷ 36)			53.1					
	1147.10 x 5.5 ÷ 9 (5 ÷ 36)				97.4				
	1147.10 x 16.83 ÷ 27					715.0			
4	FULL WIDTH SECTION (SUPERELEVATED) 1012.09 Ft.								
	1012.09 x 48 ÷ 9	5397.8							
	1012.09 x 10 ÷ 9		1124.5						
	1012.09 x 10 ÷ 9 (3 ÷ 36)			93.7					
	1012.09 x 11.17 ÷ 9 (5 ÷ 36)				174.5				
	1012.09 x 30.40 ÷ 27					1139.5			
4	LT. HALF WIDTH SECTION (SUPERELEVATED) 43.23 Ft.								
	43.23 x 24 ÷ 9	115.3							
	43.23 x 5 ÷ 9		24.0						
	43.23 x 5 ÷ 9 (3 ÷ 36)			2.0					
	43.23 x 5.5 ÷ 9 (5 ÷ 36)				3.7				
	43.23 x 16.23 ÷ 27					26.0			
RAMPS "C" AND "D"									
111	TYPICAL SECTION 1036.18 Ft.								
	1036.18 x 16 ÷ 9	1842.1							
	1036.18 x 11 ÷ 9		1266.4						
	1036.18 x 11 ÷ 9 (3 ÷ 36)			105.5					
	1036.18 x 12 ÷ 9 (5 ÷ 36)				191.9				
	1036.18 x 12.53 ÷ 27					480.9			
111	TYPICAL SECTION 253.80 Ft.								
	253.80 x 16 ÷ 9	451.2							
	253.80 x 11 ÷ 9		310.2						
	253.80 x 11 ÷ 9 (3 ÷ 36)			25.8					
	253.80 x 12 ÷ 9 (5 ÷ 36)				47.0				
	253.80 x 12.35 ÷ 27					116.1			
S.R. 84									
137	BRIDGE APPROACH SECTION 50.00 Ft.								
	SEE APPROACH SLAB DETAIL SHT. 216								
	337.18 x 6 ÷ 36					56.2			337.2
137	TYPICAL SECTIONS A, B AND C 1580.23 Ft.								
	1580.23 x 25 ÷ 50						775.1		
	ADDITIONAL I-22 REQ'D WHERE I-4 DRAINS ARE OMITTED					159.4			
10	SUBTOTAL CARRIED TO SHT. 10					13590.0		775.1	603.9
10	TOTAL CARRIED TO SHT. 13	53288.5		2414.5	4317.5				
	Sub Total Carried to S.R. 11		23975.9						

F-388 (10) CODE 7221

SEE SHEET NO.	DESCRIPTION	Sq. Yd.	T-35	B-119	B-35	I-22	I-9	I-7	T-30
			(70-85) ASPHALTIC CONCRETE SURFACE COURSE TYPE "A"	CRUSHED AGGREGATE BASE COURSE	ASPHALTIC CONCRETE BASE COURSE	SUBBASE	STONE UNDERDRAIN No. 2	REINFORCED CONCRETE APPROACH SLABS	BITUMINOUS PRIME COAT
MORLEY ROAD									
152	TYPICAL SECTION 542.83 Ft.								
	(542.83 x 18 ÷ 9) (1.25 ÷ 36)		37.7						
	(542.83 x 19 ÷ 9) (8 ÷ 36)			254.7					114.0
	(542.83 x 18 ÷ 9) (1.5 ÷ 36)				45.2				
	542.83 x 12.25 ÷ 50					133.0			
152	PROUTY ROAD 539.25 Ft.								
	(539.25 x 18 ÷ 9) (2 ÷ 36)		59.9						
	(539.25 x 19 ÷ 9) (8 ÷ 36)			253.0					113.8
	539.25 x 15 ÷ 50					161.8			
152	BRIDGE APPROACH SECTION 50.00 Ft.								
	SEE APPROACH SLAB DETAIL SHT. 203							145.8	
	145.82 x 8 ÷ 36			32.4					
10	SUBTOTAL FROM RAMPS "C" & "D" AND S.R. 44 & 84					13590.0	775.1	603.9	
	TOTAL CARRIED TO SHT. 13	97.6	540.1	45.2	13590.0	1069.9	749.7	2284	

2284 x 0.35 = 799 Gal. T-30

S-1012 (8) CODE 6201

SEE SHEET NO.	DESCRIPTION	Sq. Yd.	T-35	B-119	I-22	I-9	T-30
			(70-85) ASPHALTIC CONCRETE SURFACE COURSE TYPE "A"	CRUSHED AGGREGATE BASE COURSE	SUBBASE	STONE UNDERDRAIN No. 2	BITUMINOUS PRIME COAT
AUBURN ROAD							
165	NORMAL SECTION 12.97 Ft.						
	(12.97 x 24 ÷ 9) (1.5 ÷ 36)		1.4				
	(12.97 x 24 ÷ 9) (6 ÷ 36)			5.8			35
	(12.97 x 25 ÷ 9) (4 ÷ 36)				4.0		
	12.97 x 13.5 ÷ 50					5.1	
165	SUPERELEVATED SECTIONS (747.03 + 754.25) = 1501.28 Ft.						
	(1501.28 x 24 ÷ 9) (1.5 ÷ 36)	166.8					
	(1501.28 x 24 ÷ 9) (6 ÷ 36)			66.72			4003
	(1501.28 x 23 ÷ 9) (4 ÷ 36)				463.4		
	1501.28 x 37.5 ÷ 50					292.7	
165	TYPICAL SECTION 177.81 Ft.						
	(177.81 x 24 ÷ 9) (1.5 ÷ 36)		19.8				
	(177.81 x 24 ÷ 9) (6 ÷ 36)			79.0			474
	(177.81 x 25 ÷ 9) (4 ÷ 36)				54.9		
	177.81 x 9.75 ÷ 50					34.7	
	TOTAL CARRIED TO SHEET 13	188.0	752.0	522.3	332.5	451.2	

451.2 x 0.35 = 1579 Gal. T-30

TRYGVE HOFF & ASSOCIATES  
ENGINEERS  
1922 EAST 107TH STREET CLEVELAND, OHIO

**PAVEMENT QUANTITIES  
CALCULATIONS**

SCALE \_\_\_\_\_ DATE \_\_\_\_\_

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AJ			GOH	T.L.L.	10/11/56	