

LAKE COUNTY
LAK-I-2.16

PAVEMENT, BASE & SUBBASE CALCULATIONS

See Sheet No.	Station Location Calculations, etc.	E-1 Compacted Subgrade Sq. Yds.	B-35 3" Asphaltic Conc. Base Course (70-85) Sq. Yds.	B-219 3" Waterproof Aggregate Base Course Sq. Yds.	B-19 8" Aggregate Base Course Sq. Yds.	B-19 5" Aggregate Base Course Sq. Yds.	T-30 Bituminous Prime Coat Sq. Yds.	T-31 Bituminous Surf. Treat. Bit. Mat'l. Sq. Yds.	T-31 Bituminous Surf. Treat. No. 6 Aggr. Sq. Yds.	T-32 Road Mix Bituminous Material Sq. Yds.	T-32 Seal Coat Bituminous Material Sq. Yds.	T-32 No. 46 Aggr. for Road Mix Sq. Yds.	T-32 No. 6 or 9 Aggregate for Choke Sq. Yds.	T-32 No. 6 Aggr. for Seal Coat Sq. Yds.	T-35 1 1/2" Asphaltic Conc. Surf. Course (70-85) Sq. Yds.	T-71 9" Reinf. Portland Cem. Pav't. Sq. Yds.	T-71 10" Reinf. Portland Cem. Pav't. Sq. Yds.	B-35 1 1/2" Asphaltic Conc. Leveling Course (70-85) Sq. Yds.	I-7 Reinf. Conc. Appr. Slabs as per Plan Sq. Yds.	I-18 5" Stab. Cru. Aggr. Shldr's & Approaches Sq. Yds.	I-22 Subbase Grading for 8" Cu. Yds.
	NOTE: For M Quantities, see sheet no. 18-A																				
	NOTE: M Carried Thru S.R. 91 Interchange & Weigh Station, Extra Areas in same as follows:																				
8 & 153	Ramp "A" Sta. 114+00 to Sta. 114+63.97 = 63.97' x 24.34' Avg. W. x 1/2" = 63.97' x 24.34' x 0.5' D. x 1/2"	173.00														173.00					28.83
153	" " Sta. 4+63.97 to Sta. 7+56 = 292.03' x 15' Avg. W. x 1/2" = 292.03' x 16' Avg. W. x 0.5' D. x 1/2"	486.72														486.72					86.53
153	" " Sta. 7+56 to Sta. 9+64 = 208.00' x 17' Avg. W. x 1/2" = 208.00' x 18' Avg. W. x 0.5' D. x 1/2"	392.89														392.89					60.33
153 & 154	" " Sta. 9+64 to Sta. 20+71.96 = 1110.59' Avg. L. x 16' W. x 1/2" = 1110.59' x 16' W. x 0.5' D. x 1/2"	1,974.38														1,974.38					329.06
154	" " Intersection Rt. Sta. 15+36.03 (P) = 284.70 S. 4' Pav't. (P) = 121.73 S. 4' Shldr. (P) = 132.81 S. 4' Shldr. Base 284.70 S. 4' Pav't. 132.81 S. 4' Base x 0.5' Avg. D. x 1/2"	284.70 121.73 132.81		121.73				121.73	121.73							284.70				132.81	60.59
21 & 153	Extra Rt. Ramp "A" Sta. 114+63.97 to Sta. 117+56 = (P) 146.00 S. 4' Shldr. & Base (146.00 S. 4' @ 0.5' Avg. D.) = 146.00 x 1/2"	146.00		146.00				146.00	146.00											146.00	24.33
153	Rt. Ramp "A" Sta. 9+64 to Sta. 10+14 = 51.13' Avg. L. x 2.5' Avg. W. x 1/2" = 51.13' Avg. L. x 3.5' Avg. W. x 0.54' Avg. D. x 1/2"	14.20		14.20				14.20	14.20											14.20	3.58
153	" " Sta. 10+14 to Sta. 11+14 = 102.29' Avg. L. x 3' W. x 1/2" = 102.29' Avg. L. x 4' W. x 0.54' Avg. D. x 1/2"	34.10		34.10				34.10	34.10											34.10	8.18
153 & 154	" " Sta. 11+14 to Sta. 14+84.04 = 376.47' Avg. L. x 3' W. x 1/2" = 376.47' Avg. L. x 3.5' W. x 1/2" = 376.47' x 3.5' W. x 0.57' Avg. D. x 1/2"	125.49		125.49				125.49	125.49											146.41	27.82
154	" " Sta. 15+76.04 to Sta. 20+53 = 472.84' Avg. L. x 3' W. x 1/2" = 472.84' Avg. L. x 3.5' W. x 1/2" = 472.84' x 3.5' W. x 0.57' Avg. D. x 1/2"	157.61		157.61				157.61	157.61											183.88	34.94
153	Lt. Ramp "A" Sta. 4+63.97 to Sta. 7+63.97 = 300.00' x 10' W. x 1/2" = 300.00' x 10.5' W. x 1/2" = 300.00' x 10.5' W. x 0.52' Avg. D. x 1/2"	333.33		333.33				333.33	333.33											360.00	60.67
153	" " Sta. 7+63.97 to Sta. 10+13.97 = 249.26' Avg. L. x 9' Avg. W. x 1/2" = 249.26' Avg. L. x 9.5' Avg. W. x 1/2" = 249.26' x 9.5' Avg. W. x 0.52' Avg. D. x 1/2"	249.26		249.26				249.26	249.26											263.11	45.61
153 & 154	" " Sta. 10+13.97 to Sta. 20+71.96 = 1056.94' Avg. L. x 8' W. x 1/2" = 1056.94' Avg. L. x 8.5' W. x 1/2" = 1056.94' x 8.5' W. x 0.52' Avg. D. x 1/2"	939.50		939.50				939.50	939.50											998.22	173.02
8 & 162	Ramp "B" Sta. 4+74.39 to Sta. 5+14.39 = Intersection (P) = 151.36' S. 4' Pav't. " " " " " " " " = 66.94 S. 4' Shldr. " " " " " " " " = 73.77 S. 4' Shldr. Base (151.36 S. 4' Pav't. + 73.77 S. 4' Base) x 0.5' Avg. D. = 225.13 x 1/2"	151.36 66.94 73.77		66.94				66.94	66.94							151.36				73.77	37.52
162	" " Sta. 5+14.39 to Sta. 7+10.29 = 203.90' Avg. L. x 24' W. x 1/2" = 203.90' Avg. L. x 24' W. x 0.5' D. x 1/2"	543.73														543.73					90.62
162	" " Sta. 7+10.29 to Sta. 9+50 = 239.71' x 20' Avg. W. x 1/2" = 239.71' x 20' Avg. W. x 0.5' D. x 1/2"	532.69														532.69					88.78
162 & 163	" " Sta. 9+50 to Sta. 21+17 = 1166.39' Avg. L. x 16' W. x 1/2" = 1166.39' Avg. L. x 16' W. x 0.5' D. x 1/2"	2,073.58														2,073.58					345.60
163	" " Sta. 21+17 to Sta. 22+17 = 100.00' x 17' Avg. W. x 1/2" = 100.00' x 17' Avg. W. x 0.5' D. x 1/2"	188.89														188.89					31.48
163	" " Sta. 22+17 to Sta. 147+62.73 (P) = 1254.66 S. 4' Pav't. " " " " " " " " = 1254.66 S. 4' @ 0.5' D. = 1254.66 x 1/2"	1,254.66														1,254.66					209.11
162 & 163	Rt. Ramp "B" Sta. 5+14.39 to Sta. 19+50 = 1451.51' Avg. L. x 3' W. x 1/2" = 1451.51' Avg. L. x 3.5' W. x 1/2" = 1451.51' x 3.5' W. x 0.57' Avg. D. x 1/2"	483.84		483.84				483.84	483.84											564.48	107.25
163	" " Sta. 19+50 to Sta. 22+17 = 266.76' Avg. L. x 3' W. x 1/2" = 266.76' Avg. L. x 3' W. x 0.64' Avg. D. x 1/2"	88.92		88.92				88.92	88.92											88.92	16.01
162 & 163	Lt. Ramp "B" Sta. 5+14.39 to Sta. 20+17 = 1500.21' Avg. L. x 8' W. x 1/2" = 1500.21' Avg. L. x 8.5' W. x 1/2"	1,333.52		1,333.52				1,333.52	1,333.52											1,416.86	
	Sub-Totals	12,151.04		4,094.44				4,094.44	4,094.44							8,066.60				4,412.76	1,887.86

NOTE: (P) Denotes Area Obtained by Planimeter.

MICHAEL BAKER, JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

STATE HIGHWAY NO. 1
C-43
PAVEMENT, BASE & SUBBASE CALCULATIONS

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
B.P.	A.L.H.	K.L.G.	R.E.F.		