

Borrow Materials Database Spreadsheet

Version 2.0 - 12/06/2018

SOIL STRENGTH PARAMETERS

Engineering District	RPG	COUNTY	EFFECTIVE COHESION (c) in ksf								EFFECTIVE FRICTION ANGLE (φ)								TOTAL COHESION (c) in ksf								TOTAL FRICTION ANGLE (φ)															
			A-1-a; A-1-b; A-3		A-2-4; A-2-5; A-2-6; A-2-7		A-1-a (gravel)		A-4; A-6		A-5; A-7-5; A-7-6		A-1-a; A-1-b; A-3		A-2-4; A-2-5; A-2-6; A-2-7		A-1-a (gravel)		A-4; A-6		A-5; A-7-5; A-7-6		A-1-a; A-1-b; A-3		A-2-4; A-2-5; A-2-6; A-2-7		A-1-a (gravel)		A-4; A-6		A-5; A-7-5; A-7-6											
			A-1-a	A-1-b	A-2-4	A-2-5	A-1-a	A-1-b	A-4	A-6	A-5	A-7-5	A-1-a	A-1-b	A-2-4	A-2-5	A-1-a	A-1-b	A-4	A-6	A-5	A-7-5	A-1-a	A-1-b	A-2-4	A-2-5	A-1-a	A-1-b	A-4	A-6	A-5	A-7-5										
2	4	ABBEVILLE	0.000	0.100	0.000	0.000	0.200	0.300	0.000	0.000	36.000	28.000	32.000	40.000	28.000	30.000	30.000	0.000	0.000	0.250	0.300	0.000	0.000	0.400	0.400	0.000	0.000	36.000	28.000	32.000	40.000	28.000	30.000	30.000	0.000	0.000	0.250	0.300	0.000	0.000	0.400	0.400

¹These areas are the Piedmont portion of the respective County
²These areas are the Coastal Plain portion of the respective County

GENERAL CLASSIFICATION	GRANULAR MATERIALS (35 percent or less of total sample passing No. 200)							SILT-CLAY MATERIALS (More than 35 percent of total sample passing No. 200)			
	A-1		A-3	A-2				A-4	A-5	A-6	A-7
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				
Sieve analysis, percent passing: 2 mm (No. 10) 0.425 mm (No. 40) 0.075 mm (No. 200)	50 max. 30 max. 15 max.	50 max. 25 max.	51 min. 10 max.	35 max.	35 max.	35 max.	35 max.	36 min.	36 min.	36 min.	36 min.
Characteristics of fraction passing 0.425 mm (No. 40) Liquid limit Plasticity index	6 max.		NP	40 max. 10 max.	41 min. 10 max.	40 max. 11 min.	41 min. 11 min.	40 max. 10 max.	41 min. 10 max.	40 max. 11 min.	41 min. 11 min.*
Usual significant constituent materials	Stone fragments, gravel and sand		Fine sand	Silty or clayey gravel and sand				Silty soils		Clayey soils	
Group Index**	0		0	0			4 max.	8 max.	12 max.	16 max.	20 max.

Classification procedure: With required test data available, proceed from left to right on chart, correct group will be found by process of elimination. The first group from left to which the test data will fit is the correct classification.
*Plasticity Index of A-7-5 subgroup is equal to or less than LL minus 30. Plasticity Index of A-7-6 subgroup is greater than LL minus 30 (see Fig 4-9).
**See group index formula (Eq. 4-1) Group index should be shown in parentheses after group symbol as: A-2-6(3), A-4(5), A-6(12), A-7-5(17), etc.