Unified Soil Classification
Field Identification Procedures

Coarse-grained soils Less than half of material (by weight) is of individual particles not visible to the naked eye	No. 200 sieve size is about the smallest particle visible to the naked eye	**Gravel and Gravelly Soils** < 50% of the coarse fraction passes the No. 4 sieve size	For soils with an estimated percentage of fines at 10%, a dual identification using two group symbols is used per ASTM D2488.	For visual classification, the 1/4 inch size may be used as equivalent to the No. 4 sieve size	**Clean Gravels** Will not leave dirt stain on a wet palm	Wide range in grain sizes and substantial amounts of all intermediate particle sizes												GW
						Predominately one size or a range of sizes with some intermediate sizes missing												GP
					Gravels with fines Willleave a dirt stain on a wet palm	Nonplastic fines or fines with low plasticity (for identification of fines see characteristics of ML below)												GM
						Plastic fines (for identification of fines see characteristics of CL below)												GC
		Sand and Sandy Soils ≥ 50% of the coarse fraction passes the No. 4 sieve size			**Clean Sands** Will not leave a dirt stain on a wet palm	Wide range in grain sizes and substantial amounts of all intermediate particle sizes												SW
						Predominately one size or a range of sizes with some intermediate sizes missing												SP
					Sands with fines Willleave a dirt stain on a wet palm	Nonplastic fines or fines with low plasticity (for identification of fines, see characteristics of ML below)												SM
						Plastic fines (for identification of fines, see characteristics of CL below)												SC
Fine-grained soils More than half of material (by weight) is of individual particles not visible to the naked eye		**Silts and Clays** (low plastic)	See identification procedures	**Odor**			**Dry Strength**	None to Low	**Dilatancy (shake) reaction**	Slow to Rapid	**Toughness**	Low to None	**Ribbon (near the P.L.)**	None to Weak	**Shine (near the P.L.)**	Dull	ML
								Medium to High		None to Slow		Medium		Weak to Strong		Slight to Shiny	CL
						Pronounced Organic		Low		Slow to None		Low (spongy)		None		Dull to Slight	OL
		Silts and Clays (highly plastic)						Low to Medium		None to Slow		Low to Medium		Weak to Strong		Slight	MH
								High to Very High		None		High		Strong		Shiny	CH
						Pronounced Organic		Medium		None		Low to Medium		Weak		Dull to Slight	OH
Highly Organic Soils					Readily identified by color, odor, spongy feel, and fibrous texture													PT