

GENERAL CLASSIFICATION	GENERAL MATERIALS				SILT-CLAY MATERIALS									
	A-1-a, A-1-b, A-3	A-1-a, A-1-b	A-2-4	A-2-5, A-2-6	A-2-7	A-4	A-6, A-7-5	A-7-6	A-7	A-5, A-6, A-7	A-8 (MT45)	A-5, A-6, A-7		A-8
AKASHO GROUP CLASSIFICATION	A-1-a, A-1-b, A-3	A-1-a, A-1-b	A-2-4	A-2-5, A-2-6	A-2-7	A-4	A-6, A-7-5	A-7-6	A-7	A-5, A-6, A-7	A-8 (MT45)	A-5, A-6, A-7		A-8
MSMT GROUP CLASSIFICATION	A-2	A-2-4	A-4-2	A-2-7	A-7-2	A-4	A-4-7	A-7-4	A-7	A-6	A-8	A-5		A-8
GENERAL DESCRIPTION	SAND	SILTY-SAND	SANDY-SILT	CLAYEY-SAND	SANDY-CLAY	SILT	CLAYEY SILT	SILTY-CLAY	COLLOIDAL CLAY	MICA, DIATOMS & SILT	SWAMP MUCK			
STABILITY	WHEN PLASTIC, N.P., HIGH WHEN DRY	GOOD WHEN DRY	GOOD WHEN DRY	GOOD WHEN PROPERLY COMPACTED	GOOD WHEN PROPERLY COMPACTED OR UNDISTURBED	GOOD WHEN PROPERLY COMPACTED OR UNDISTURBED			POOR	GOOD TO POOR	NONE			
USE AS A BASE	FAIR	FAIR	FAIR	POOR	POOR	POOR			UNSATISFACTORY					
USE AS A SUBBASE	EXCELL.	FAIR	FAIR	FAIR	FAIR	FAIR			UNSATISFACTORY					
USE AS A SUBGRADE	EXCELL.	EXCELL.	EXCELL.	EXCELL.	EXCELL.	EXCELL.			UNSATISFACTORY					
FILLS UNDER 50'	EXCELL.	GOOD	GOOD	GOOD	GOOD	GOOD			UNSATISFACTORY					
FILLS OVER 50'	GOOD	GOOD TO FAIR	POOR	FAIR	FAIR	FAIR			UNSATISFACTORY					
FROST ACTION	NONE TO LOW	MEDIUM	HIGH	MEDIUM	MEDIUM	MEDIUM			UNSATISFACTORY					
RANGE OF MAX. DRY DENSITY (AASHTO T-180) (PCF)	115-135	110-130	110-135	115-135	115-130	115-135			UNSATISFACTORY					
RANGE OF OPTIMUM MOISTURE CONTENTS (AASHTO T-180X%)	9-12	8-15	9-15	6-12	9-15	8-15			UNSATISFACTORY					
REQUIRED COMPACTION (AASHTO T-180) (%)	92-95	92-95	92-95	92-95	92-95	92-95			UNSATISFACTORY					
COMPACTION METHODS	ROLLING WITH SMOOTH FACE, TAMING RUBBER-TIRED ROLLER OR VIBRATORY COMPACTOR	TAMPING OR RUBBER-TIRED ROLLER	TAMPING OR RUBBER-TIRED ROLLER	TAMPING OR RUBBER-TIRED ROLLER	TAMPING OR RUBBER-TIRED ROLLER	TAMPING OR RUBBER-TIRED ROLLER			UNSATISFACTORY					
COMPACTION ABILITIES	GOOD WITH CLOSE CONTROL	GOOD TO POOR	GOOD TO POOR	GOOD TO POOR	GOOD TO POOR	GOOD TO POOR			UNSATISFACTORY					
PUMPING ACTION	EXCELLENT TO FAIR	SLIGHT TO NONE	GOOD TO FAIR	GOOD TO FAIR	GOOD TO FAIR	GOOD TO FAIR			UNSATISFACTORY					
BEARING VALUE	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD			UNSATISFACTORY					
DRAINAGE	GOOD	DRAINS FREELY	GOOD TO FAIR	GOOD TO FAIR	GOOD TO FAIR	GOOD TO FAIR			UNSATISFACTORY					

NOTES

A-2 TO A-3 SOILS: WHEN USED AS A BASE, PLASTICITY INDEX AND LIQUID LIMIT SHOULD NOT EXCEED 6 AND 25 RESPECTIVELY. BEST FOR SOIL-CEMENT STABILIZATION, GENERALLY 8 TO 12% CEMENT BY WEIGHT WILL BE SUFFICIENT.


NON-PLASTIC A-2 TO A-3, SOILS MAY REQUIRE VIBRATION FOR COMPACTION.

A-4 TO A-7 SOILS, FILLS SHOULD BE PLACED IN DRY SEASON.

A-4 SILTS, SUSCEPTIBLE TO SETTLEMENT AND EROSION.

A-5 SOILS, WHEN MICA IS PRESENT, VERY DIFFICULT TO COMPACT BECAUSE OF EXPANSION AND REBOUND.

A-6 SOILS (CLAY), WILL PUMP IN POROUS BASES FORMING CRACKS. FILLS WILL SETTLE-OVER LONG PERIODS OF TIME. HIGH BANKS IN CUTS AND FILLS VERY LIABLE TO SLIDE.

SPECIFICATION	CATEGORY CODE ITEMS	
APPROVED	<i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 6-11-68	APPROVAL 12-13-68
	REVISIED 10-1-01	REVISIED 12-22-09
	REVISIED 3-25-10	REVISIED
	REVISIED	REVISIED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SOILS & SOIL-AGGREGATE MIXTURES
CHARACTERISTICS AND PERFORMANCE
STANDARD NO. MD 000.01