

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

GROUP SYMBOLS AND NAMES			
GRAPHIC/SYMBOL	GROUP NAMES	GRAPHIC/SYMBOL	GROUP NAMES
	GW WELL-GRADED GRAVEL		CL LEAN CLAY
	GP POORLY-GRADED GRAVEL		CL LEAN CLAY WITH SAND
	GW-GM WELL-GRADED GRAVEL WITH SAND		CL-ML SILTY CLAY
	GW-GC WELL-GRADED GRAVEL WITH SILT		CL-ML SILTY CLAY WITH SAND
	GP-GM POORLY-GRADED GRAVEL WITH SILT		CL-ML SILTY CLAY WITH GRAVEL
	GP-GC POORLY-GRADED GRAVEL WITH SILT AND SAND		CL-ML SILTY SILTY CLAY WITH GRAVEL
	GM SILTY GRAVEL		ML SANDY SILT
	GC CLAYEY GRAVEL		ML SANDY SILT WITH GRAVEL
	GP-GM POORLY-GRADED GRAVEL WITH SILT		ML GRAVELLY SILT
	GP-GC POORLY-GRADED GRAVEL WITH SILT AND SAND		ML GRAVELLY SILT WITH SAND
	GM SILTY GRAVEL		OL ORGANIC LEAN CLAY
	GC CLAYEY GRAVEL		OL ORGANIC LEAN CLAY WITH SAND
	GP-GM POORLY-GRADED GRAVEL WITH SILT		OL SANDY ORGANIC LEAN CLAY
	GP-GC POORLY-GRADED GRAVEL WITH SILT AND SAND		OL SANDY ORGANIC LEAN CLAY WITH GRAVEL
	SW WELL-GRADED SAND		OL ORGANIC SILT
	SW-GM WELL-GRADED SAND WITH GRAVEL		OL ORGANIC SILT WITH SAND
	SW-GC WELL-GRADED SAND WITH SILT		OL ORGANIC SILT WITH GRAVEL
	SW-GM WELL-GRADED SAND WITH SILT AND GRAVEL		OL SANDY ORGANIC SILT
	SP POORLY-GRADED SAND		OL SANDY ORGANIC SILT WITH GRAVEL
	SP-GM POORLY-GRADED SAND WITH GRAVEL		OL GRAVELLY ORGANIC SILT
	SW-SC WELL-GRADED SAND WITH SILT		OL GRAVELLY ORGANIC SILT WITH SAND
	SW-GC WELL-GRADED SAND WITH SILT AND GRAVEL		CH FAT CLAY
	SP-SC POORLY-GRADED SAND WITH SILT		CH SANDY FAT CLAY
	SP-GM POORLY-GRADED SAND WITH SILT AND GRAVEL		CH SANDY FAT CLAY WITH GRAVEL
	SP-SC POORLY-GRADED SAND WITH SILT AND GRAVEL		MH ELASTIC SILT
	SP-GM POORLY-GRADED SAND WITH SILT AND GRAVEL		MH ELASTIC SILT WITH SAND
	SP-SC POORLY-GRADED SAND WITH SILT AND GRAVEL		MH ELASTIC SILT WITH GRAVEL
	SP-GM POORLY-GRADED SAND WITH SILT AND GRAVEL		MH SANDY ELASTIC SILT
	SP-SC POORLY-GRADED SAND WITH SILT AND GRAVEL		MH SANDY ELASTIC SILT WITH GRAVEL
	SP-GM POORLY-GRADED SAND WITH SILT AND GRAVEL		MH GRAVELLY ELASTIC SILT
	SP-SC POORLY-GRADED SAND WITH SILT AND GRAVEL		MH GRAVELLY ELASTIC SILT WITH SAND
	SP-GM POORLY-GRADED SAND WITH SILT AND GRAVEL		OH ORGANIC FAT CLAY
	SM SILTY SAND		OH ORGANIC FAT CLAY WITH SAND
	SM-GM SILTY SAND WITH GRAVEL		OH ORGANIC FAT CLAY WITH GRAVEL
	SC CLAYEY SAND		OH SANDY ORGANIC FAT CLAY
	SC-GM CLAYEY SAND WITH GRAVEL		OH SANDY ORGANIC FAT CLAY WITH GRAVEL
	SC-SC SILTY, CLAYEY SAND		OH GRAVELLY ORGANIC FAT CLAY
	SC-GM SILTY, CLAYEY SAND WITH GRAVEL		OH GRAVELLY ORGANIC FAT CLAY WITH SAND
	PT PEAT		OL/OH ORGANIC SOIL
	PT COBBLES		OL/OH ORGANIC SOIL WITH SAND
	PT COBBLES AND BOULDERS		OL/OH ORGANIC SOIL WITH GRAVEL
	PT BOULDERS		OL/OH SANDY ORGANIC SOIL
	PT BOULDERS		OL/OH SANDY ORGANIC SOIL WITH GRAVEL
	PT BOULDERS		OL/OH GRAVELLY ORGANIC SOIL
	PT BOULDERS		OL/OH GRAVELLY ORGANIC SOIL WITH SAND
	PT BOULDERS		OL/OH GRAVELLY ORGANIC SOIL WITH SAND

FIELD AND LABORATORY TESTING	
(C)	CONSOLIDATION (ASTM D2435)
(CL)	COLLAPSE POTENTIAL (ASTM D4546)
(CP)	COMPACTION CURVE (CTM 216)
(CR)	CORROSIVITY TESTING (CTM 643, CTM 422, CTM 417)
(CU)	CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D4767)
(DS)	DIRECT SHEAR (ASTM D3080)
(EI)	EXPANSION INDEX (ASTM D4829)
(M)	MOISTURE CONTENT (ASTM D2216)
(OC)	ORGANIC CONTENT-% (ASTM D2974)
(P)	PERMEABILITY (CTM 220)
(PA)	PARTICLE SIZE ANALYSIS (ASTM D422)
(PI)	PLASTICITY INDEX (AASHTO T 90) LIQUID LIMIT (AASHTO T 89)
(PL)	POINT LOAD INDEX (ASTM D5731)
(PM)	PRESSURE METER
(R)	R-VALUE (CTM 301)
(SE)	SAND EQUIVALENT (CTM 217)
(SG)	SPECIFIC GRAVITY (AASHTO T 100)
(SL)	SHRINKAGE LIMIT (ASTM D4943)
(SW)	SWELL POTENTIAL (ASTM D4546)
(UC)	UNCONFINED COMPRESSION-SOIL (ASTM D2166)
(UR)	UNCONFINED COMPRESSION-ROCK (ASTM D7012 - METHOD C)
(UU)	UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D2850)
(UW)	UNIT WEIGHT (ASTM D7263 - METHOD B)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

CERTIFIED ENGINEERING GEOLOGIST  
 October 30, 2015  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

APPARENT DENSITY OF COHESIONLESS SOILS	
DESCRIPTION	SPT N <sub>60</sub> (BLOWS / 12 INCHES)
VERY LOOSE	0 - 5
LOOSE	5 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	GREATER THAN 50

MOISTURE	
DESCRIPTION	CRITERIA
DRY	NO DISCERNABLE MOISTURE
MOIST	MOISTURE PRESENT, BUT NO FREE WATER
WET	VISIBLE FREE WATER

PERCENT OR PROPORTION OF SOILS	
DESCRIPTION	CRITERIA
TRACE	PARTICLES ARE PRESENT BUT ESTIMATED TO BE LESS THAN 5%
FEW	5% - 10%
LITTLE	15% - 25%
SOME	30% - 45%
MOSTLY	50% - 100%

PARTICLE SIZE		
DESCRIPTION	SIZE	
BOULDER	GREATER THAN 12"	
COBBLE	3" - 12"	
GRAVEL	COARSE	3/4" - 3"
	FINE	1/5" - 3/4"
SAND	COARSE	1/16" - 1/5"
	MEDIUM	1/64" - 1/16"
	FINE	1/300" - 1/64"
SILT AND CLAY	LESS THAN 1/300"	

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**LEGEND - SOIL**  
**(SHEET 2 OF 2)**  
 NO SCALE

**A10G**

2015 STANDARD PLAN A10G