Table 1

SOIL THICKNESS	
Very Thick	20 inches or more
Thick	At least 10 inches but less than 20 inches
Thin	At least 4 inches but less than 10 inches
Very Thin	Less than 4 inches

Table 2

SOIL PERMEABILITY CATEGORIES	
CATEGORY	TEXTURE
Very Rapid (>6"/hour)	Sands
Rapid (2" to 6"/hour)	Loam sands, course sandy loam, sandy loam
Moderate (.6" to 2"/hour)	Fine sandy loam, loam, silt loam, sandy clay loam, clay loam, silty clay loam, silt
Slow (.06" to .6"/hour)	Sandy clay, clay, silty clay

Table 3

SOIL TEXTURE WATER HOLDING CAPABILITIES	
TEXTURE	WATER RETAINED PER INCH OF SOIL
Sand, loamy sand, loamy coarse sand	.05 inches
Sandy loam, loamy fine sand, coarse sandy loam	.10 inches
Fine sandy loam, sandy clay loam, clay, sandy clay, silty clay	.15 inches
Very fine sandy loam, clay loam, silty clay loam, silt loam, loam, silt	.20 inches

Table 4

WATER HOLDING CATEGORIES	
Very Low	<3.5 inches
Low	3.5 to 5 inches
Medium	5 to 7.5 inches
High	>7.5 inches

Table 5

ACCELERATED EROSION CATEGORIES	
CATEGORY	PERCENTAGE OF SOIL LOST
Slight	<10% of surface soil
Moderate	<25% of surface soil
Severe	>25% of surface soil

Table 6

SLOPE RANGES	
PERCENT OF SLOPE	SLOPE DESCRIPTION
<2%	Nearly level
<5%	Gently sloping
<15%	Moderately sloping
<25%	Strongly sloping
>25%	Steep

Table 7

GUIDE FOR PLACING SOILS IN LAND CAPABILITY CLASSES IN CALIFORNIA								
CAPABILITY CLASS	EFFECTIVE SOIL DEPTH (INCHES) 1/	SURFACE LAYER IRRIGATED	SURFACE LAYER DRYLAND	PERMEABILITY	DRAINAGE CLASS 3/	AVAILABLE WATER CAPACITY 4/	SLOPE	AMOUNT OF EROSION
I	>40 "	Sandy Loam 2/ through Clay Loam 0 - 15%	Sandy Loam 2/ through Clay Loam 0 - 15%	Moderate	Well or Moderate Well >60"	>7.5 inch average AWC	<2%	None or Slight
II	>40"	Loamy Sand through Clay 0 - 15%	Sandy Loams through Clay 0 - 15%	Rapid through Slow	Somewhat poorly through Somewhat Excessively >40"	>5.0 inch average AWC	<5%	None through Moderate
III	>20"	Any 0 - 35%	Sany Loams through Clay 0 - 35%	Rapid through Slow	Poorly through Excessively >20"	>3.5 inch average AWC	<15%	None through Severe
IV	>10"	Any 0 - 60%	Loamy Sand through Clay 0 - 60%	Any	Poorly through Excessively >20"	>2.5 inch average AWC	<25%	Any
V	>20"	Any	Any	Any	Any	>2.5 inch average AWC	<2%	None or Slight
VI	>10"	Any	Any	Any	Any	>2.5 inch average AWC	<50%	Any
VII	Any	Any	Any	Any	Any	>1.0 inch average AWC	<75%	Any
VIII	Any	Any	Any	Any	Any	Any	Any	Any

1/ Claypans with slow permeability will be treated as limiting the effective depth
2/ Percentage of gravel and rock fragments within the 1,00 square-foot area and within the surface horizon
3/ Depth to water table or redox features during growing season
4/ Available moisture between field capacity and wilting point

Table 8

LIMITATIONS OF SEPTIC TANK FILTER FIELDS				
PROPERTY	LIMITS			RESTRICTIVE FEATURE
	Slight	Moderate	Severe	
Flooding	None, Protected	Rare	Common	Floods
Depth of Soil	> 60	40 - 60	<40	Rock, Cemented Pan, Ponding, Wetness
Permeability 24-60 inches	Rapid	Moderate, Very Rapid	Slow	Percs Slowly, Poor Filter
Slope (%)	0 - 5	5 - 15	>15	Slope

Table 9

LIMITATIONS FOR SHRINK-SWELL BEHAVIOR			
PROPERTY	LIMITS		
	Slight	Moderate	Severe
Texture	Coarse, Medium	Fine	Very Fine

Table 10

LIMITATIONS FOR FOUNDATIONS WITHOUT BASEMENTS				
PROPERTY	LIMITS			RESTRICTIVE FEATURE
	Slight	Moderate	Severe	
Flooding	None, Protected	---	Rare, Common	Floods
Depth of Soil	>40	20 - 40	<20	Rock, Cemented Pan, Ponding, Wetness
Shrink-Swell	Slight	Moderate	Severe	Shrink-Swell
Slope (%)	0 - 5	5 - 15	>15	Slope

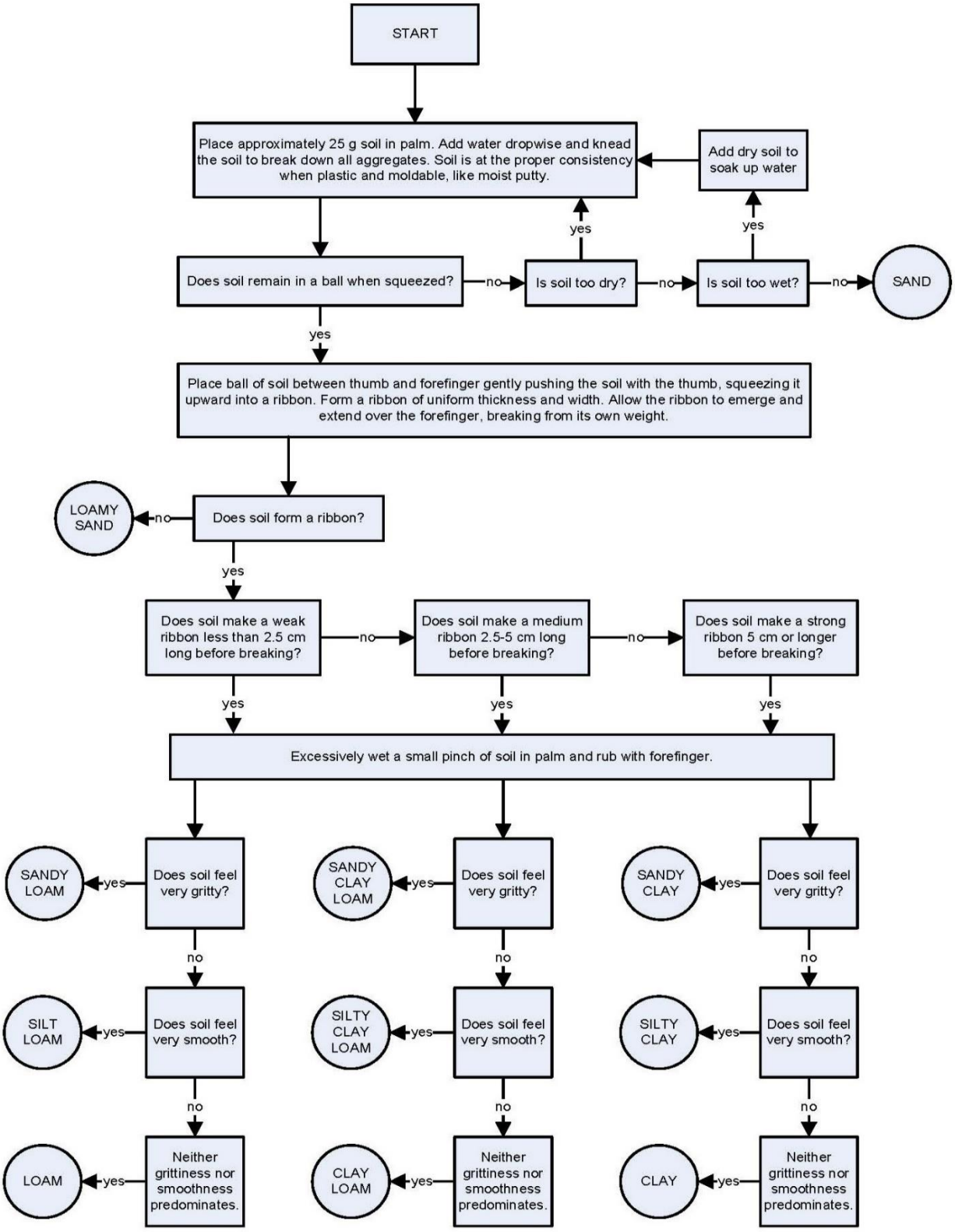
Table 11

LIMITATIONS FOR LOCAL ROADS AND STREETS				
PROPERTY	LIMITS			RETRICTIVE FEATURE
	Slight	Moderate	Severe	
Depth of Soil	>40	20 - 40	<20	Rock, Cemented Pan, Ponding, Wetness
Slope (%)	0 - 5	5 - 15	>15	Slope
Flooding	None, Protected	Rare	Common	Floods
Shrink-Swell	Slight	Moderate	Severe	Shrink-Swell

Table 12

LIMITATIONS FOR TOPSOIL				
PROPERTY	LIMITS			RESTRICTIVE FEATURE
	Slight	Moderate	Severe	
Depth of Soil	>40	20 - 40	<20	Area Reclaim
Texture 0 - 40 Inches	---	Loamy Sand, Sandy Clay Loam, Clay Loam, Silty Clay Loam	San, Sandy Clay, Clay, Silty Clay	Too Sandy, Too Clayey
Rock Fragments 0 - 40 Inches	<15%	15 - 35%	>35%	Too Stoney
Slope (%)	0 - 5	5 - 15	>15	Slope

Figure 5


START
Place approximately 25 g soil in palm. Add water dropwise and knead the soil to break down all aggregates. Soil is at the proper consistency when plastic and moldable, like moist putty.
Add dry soil to soak up water
yes
yes
Does soil remain in a ball when squeezed?
no
Is soil too dry?
no
Is soil too wet?
no
SAND
yes
Place ball of soil between thumb and forefinger gently pushing the soil with the thumb, squeezing it upward into a ribbon. Form a ribbon of uniform thickness and width. Allow the ribbon to emerge and extend over the forefinger, breaking from its own weight.
LOAMY SAND
no
Does soil form a ribbon?
yes
Does soil make a weak ribbon less than 2.5 cm long before breaking?
no
Does soil make a medium ribbon 2.5-5 cm long before breaking?
no
Does soil make a strong ribbon 5 cm or longer before breaking?
yes
yes
yes
Excessively wet a small pinch of soil in palm and rub with forefinger.
SANDY LOAM
yes
Does soil feel very gritty?
SANDY CLAY LOAM
yes
Does soil feel very gritty?
SANDY CLAY
yes
Does soil feel very gritty?
no
no
no
SILT LOAM
yes
Does soil feel very smooth?
SILTY CLAY LOAM
yes
Does soil feel very smooth?
SILTY CLAY
yes
Does soil feel very smooth?
no
no
no
LOAM
yes
Neither grittiness nor smoothness predominates.
CLAY LOAM
yes
Neither grittiness nor smoothness predominates.
CLAY
yes
Neither grittiness nor smoothness predominates.

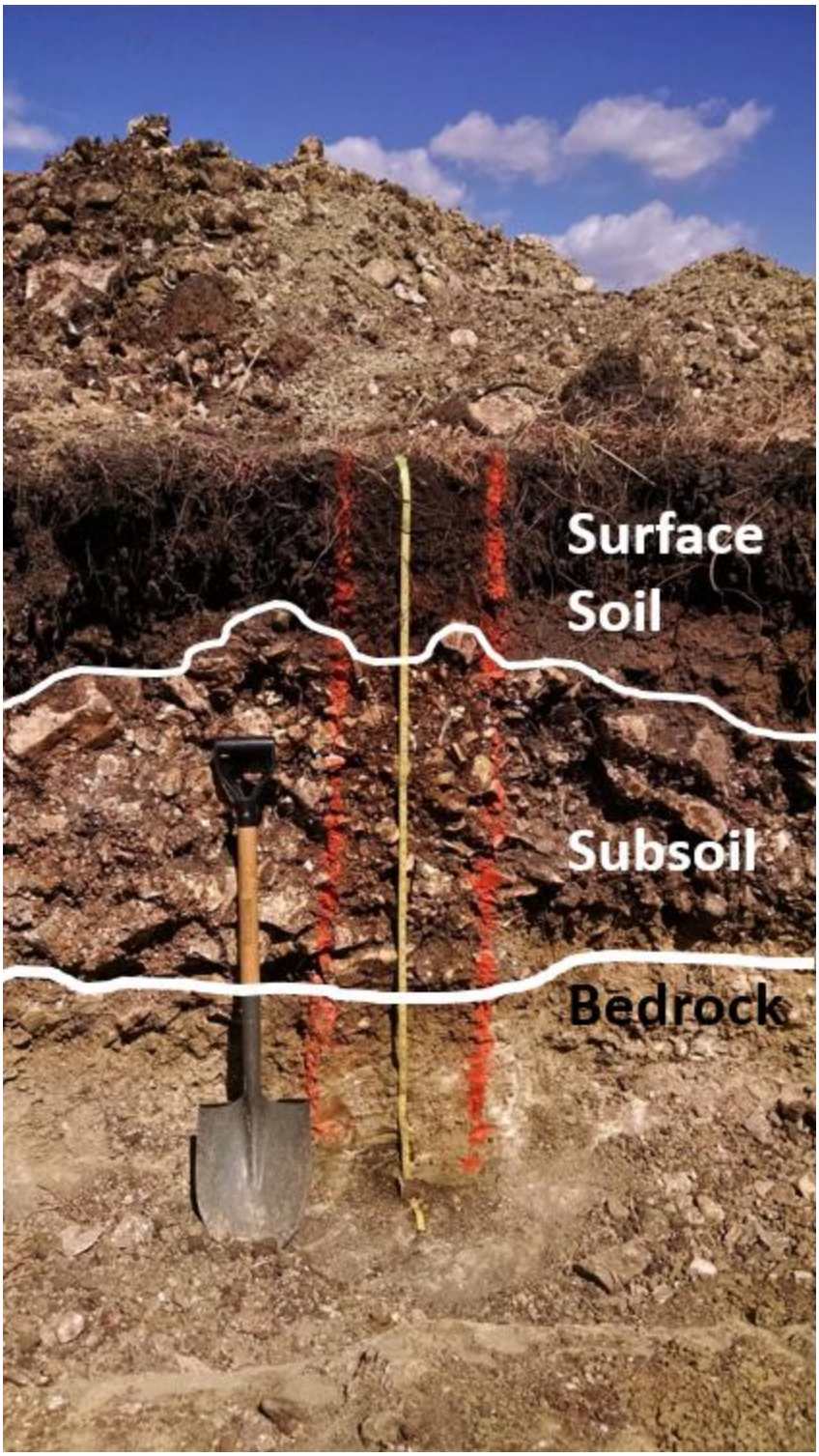


Figure 1

Figure 2

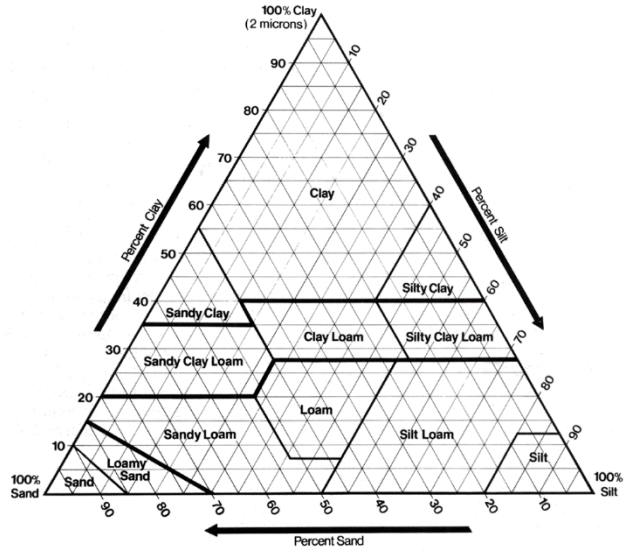
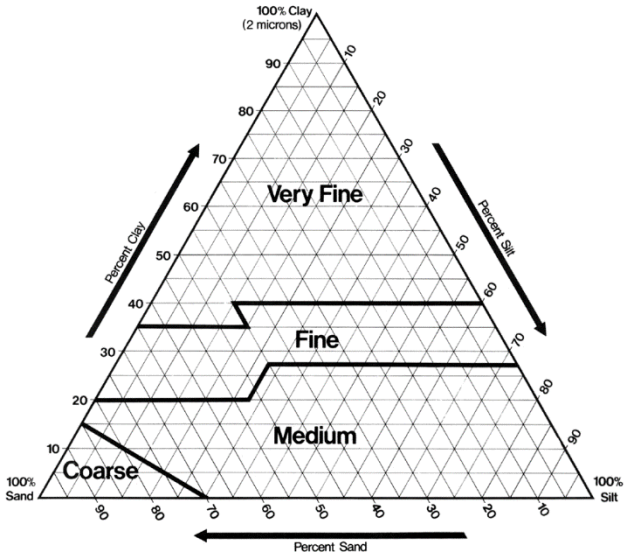


Figure 2 *Soil textural triangle.*

Figure 3



Guide for Estimating Proportions of Course Fragment and Mottels

(Each Fourth of any one square has the same amount of black)

Figure 6

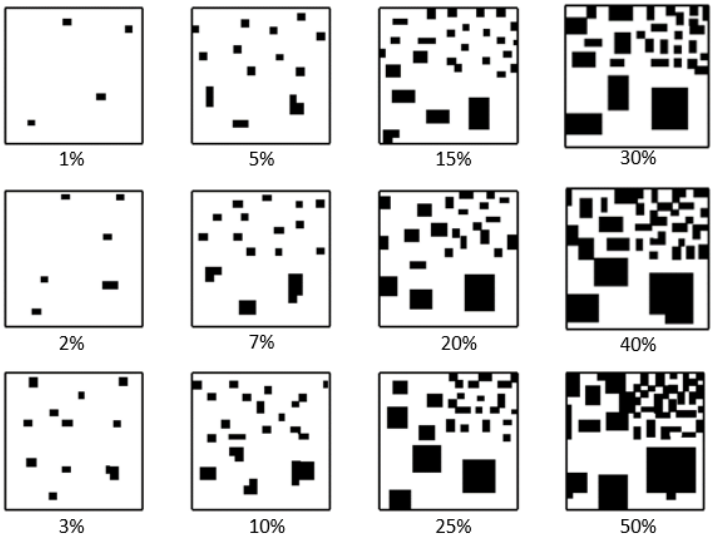


Figure 7