



June 20, 2012

VT-24086-01
12-6-23

Meiners Oaks County Water District
Attention: Mike Hollebrands
202 W. El Roblar Drive
Meiners Oaks, California 93023

Project: Proposed Replacement Water Tanks
Meiners Oaks County Water District
Meiners Oaks Area of Ventura County, California
Subject: Addendum to Geotechnical Engineering Report
Reference: Geotechnical Engineering Report, Two Proposed Water Tanks, Meiners Oaks Water District, Meiners Oaks area of Ventura County, California. File VT-24086-01, Report 09-2-6, February 6, 2009, Earth Systems Southern California

Introduction

As authorized we have performed additional field studies to supplement the recommendations within the referenced Geotechnical Engineering Report for the proposed replacement water tanks. The additional field studies were necessary to define the depths of uncertified fills and current groundwater elevations. The following letter summarizes our field study and provides additional design parameters and geotechnical considerations.

Field Study

On May 2, 2012, four additional test pits were excavated near the proposed limits of the new tank diameters (see attached Site Plan). Bedrock was encountered in two of the test pits, but fill soils were not penetrated in two of the test pits because of a shallow water table. On May 30, 2012, two borings were drilled near the proposed limits of the new tank diameters. These borings penetrated the fill soils and encountered bedrock. The maximum depth explored within the test pits and borings was about 25.5 feet below the existing grade. The test pits were excavated with a subcontracted backhoe. The borings were drilled using a solid stem 8-inch, diameter, hollow stem auger powered by a CME-75 truck mounted drilling rig.

Samples within the test pits were obtained with a relatively lightweight hand sampler. Samples in the borings were obtained using an above ground automatic trip hammer. The samples within the borings were obtained by driving the samplers with a 140-pound automatic trip hammer dropping 30 inches in accordance with ASTM D 1586. The approximate locations of the test pits and borings were determined in the field by pacing and sighting, and are shown on the attached Site Plan. Samples were obtained within the test pits and borings with a Modified California (M.C.) ring sampler (ASTM D 3550 with shoe similar to ASTM D 1586), and with a Standard

Penetration Test (SPT) sampler (ASTM D 1586). The M.C. sampler has a 3-inch outside diameter and a 2.37-inch inside diameter. The SPT sampler has a 2-inch outside diameter and a 1.37-inch inside diameter. Bulk samples of the soils encountered were gathered from the excavation/auger cuttings. The final logs of the test pits and borings represent our interpretation of the contents of the field logs and the results of laboratory testing performed on the samples obtained during the subsurface study. The final logs are attached.

Revised Seismic Design Parameters

The site is located in southern California which is within an active seismic area where large numbers of earthquakes are recorded each year. Historically, major earthquakes felt in the vicinity of the Ojai area have originated from faults outside the area. These include the 1812 Santa Barbara Channel Earthquake, 1857 Fort Tejon earthquake, the 1872 Owens Valley earthquake, and the 1952 Arvin-Tehachapi earthquake.

This site, like all other sites in the general area, can be affected by moderate to major earthquakes centered on faults in southern California. An estimate of the seismic shaking that the proposed development could experience was made by a calculation (dividing the S_{DS} seismic design value by 2.5) as recommended in the 2010 California Building Code. This calculation results in an estimated peak horizontal ground acceleration of about 0.62-g.

The latest adopted version of the California Building Code (2010) specifies that peak ground acceleration for design purposes can be determined either from a site-specific study taking into account soil amplification effects or from results of regional probabilistic analyses of spectral accelerations with adjustments made based on subject site soil profile. The second option has been chosen for this study. The United States Geological Survey (USGS) has undertaken a probabilistic earthquake analysis that covers the continental United States. Determined spectral acceleration values can be adjusted for five common soil/rock classes. The site geographic coordinates (34.4624° north latitude and 119.2771° west longitude) were input into the USGS's web based Seismic Hazard Curves and Uniform Response Spectra calculator to determine the site's short term (0.2 sec.) and long term (1.0 sec.) spectral accelerations. Spectral acceleration parameters that are applicable to seismic design as well as a list of nearby faults are attached to this letter.

Additional Geotechnical Considerations

It is our understanding that two to three of the existing water tanks may be replaced by two new water tanks because of performance and capacity issues. Since the preparation of the referenced Geotechnical Engineering Report, the past topographic map representing the open reservoir has been overlain with the current topography and tank/building locations. This overlay map indicates approximately 30 feet of uncertified fill at the center of the reservoir and areas of the uncertified fill under the portions of the existing tanks. This is consistent with the results of the previous (ESSC 2009) and current field explorations.

The referenced Geotechnical Engineering Report provided five methods for mitigating the potential settlement below the proposed water tanks. It is our understanding that the Client's preferred method is utilizing rammed aggregate piers (RAP's). As previously discussed in the referenced report, the contractor should determine the RAP's construction feasibility and design. This design should include depth, spacing, and diameter of the RAP's. At a minimum the RAP's

June 20, 2012

VT24086-01

12-6-23

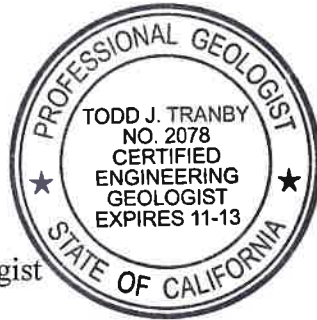
should be overlain by an approximately 5-foot mat of engineered fill to provide a uniform support for the tank base. Any dewatering for construction purposes should be performed cautiously to minimize the effect of reducing pore water pressure and buoyancy forces which could lead to additional settlement below the existing tanks for which removal is not planned.

Please call if you have any questions, or if we can be of further service.

Respectfully submitted,

EARTH SYSTEMS SOUTHERN CALIFORNIA

7
Todd J. Tranby
Engineering Geologist



Reviewed and Approved

Richard M. Beard
Richard M. Beard
Geotechnical Engineer

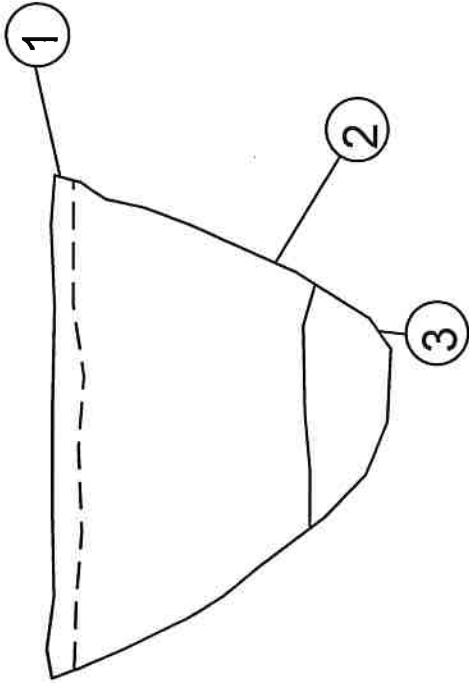


6/20/12

- Attached:
- Test Pit Logs
 - Boring Logs
 - Site Plan
 - Earthquake Hazard Analysis
 - 2010 California Building Code (CBC) (ASCE 7-05) Seismic Design Parameters
 - Table 1 Fault Parameters

- Copies:
- 3 - Meiners Oaks County Water District; Attention: Mike Hollebrands
 - 1 - WREA; Attention: Barney Caudill
 - 1 - Project File

N35E
←



DESCRIPTIONS

1. **TOPSOIL (SM):** Silty fine sand with; slightly moist; loose to medium dense; brown.
2. **SOIL (SM):** Silty fine to medium sand; moist; medium dense to dense; dark brown.
3. **WEATHERED BEDROCK (Tsp):** Fine to medium Sespe sandstone weathers to silty fine to medium sand; moist; dense to very dense; dark brown.

FINAL DEPTH: 9.0 FEET
RING SAMPLE @ 3.0 FEET
RING SAMPLE @ 5.0 FEET
RING SAMPLE @ 7.0 FEET
BULK SAMPLE @ 0-5 FEET
NO GROUNDWATER ENCOUNTERED

TEST PIT #9

Meiners Oaks Water District
Ventura County, CA



Earth Systems
Southern California

May 2, 2012

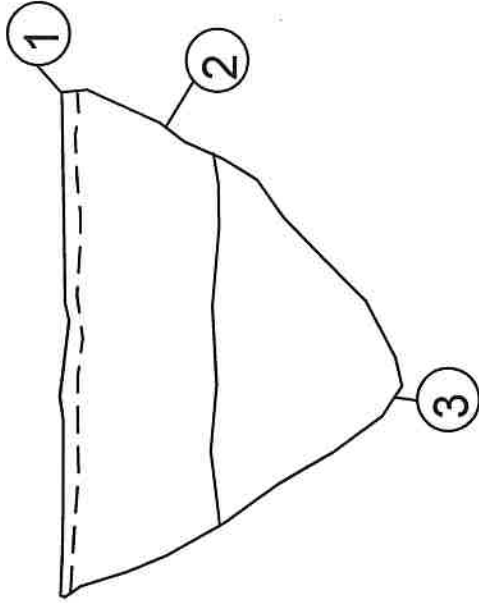
VT-24086-01

SCALE: 1" = 5' (VERTICAL & HORIZONTAL)

N22E
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DESCRIPTIONS

- 1. TOPSOIL (SM):** Silty fine sand with; slightly moist; loose to medium dense; brown.
- 2. ARTIFICIAL FILL (SM):** Silty clayey sand with some fine to medium gravel; moist; medium dense to dense; yellow brown.
- 3. ARTIFICIAL FILL (SC):** Clayey silty sand to sandy silty clay; moist to wet; medium dense to loose; red brown.



FINAL DEPTH: 9.0 FEET
RING SAMPLE @ 3.0 FEET
RING SAMPLE @ 7.0 FEET
BULK SAMPLE @ 0-5 FEET
GROUNDWATER ENCOUNTERED @ 9.0 FEET
GROUNDWATER STABILIZED @ 8.5 FEET

TEST PIT #10

Meiners Oaks Water District
Ventura County, CA



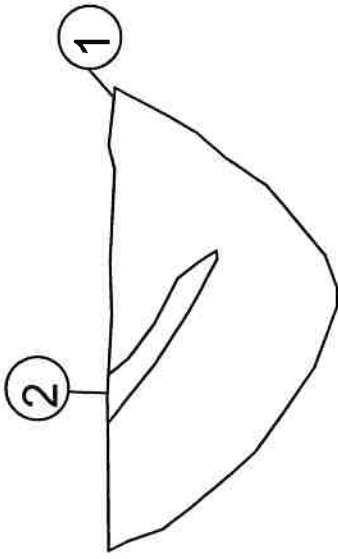
Earth Systems
Southern California

May 2, 2012

VT-24086-01

SCALE: 1" = 5' (VERTICAL & HORIZONTAL)

N15E
←



DESCRIPTIONS

- 1. WEATHERED BEDROCK (TSP):** Fine to coarse Sespe sandstone weathers to fine to coarse silty sand; moist; dense to very dense; yellow brown.
- 2. WEATHERED BEDROCK (TSP):** Sespe siltstone, moist; dense; dark brown.

FINAL DEPTH: 6.5 FEET
RING SAMPLE @ 3.0 FEET
RING SAMPLE @ 5.0 FEET
BULK SAMPLE @ 0-5 FEET
NO GROUNDWATER ENCOUNTERED

TEST PIT #11

Meiners Oaks Water District
Ventura County, CA



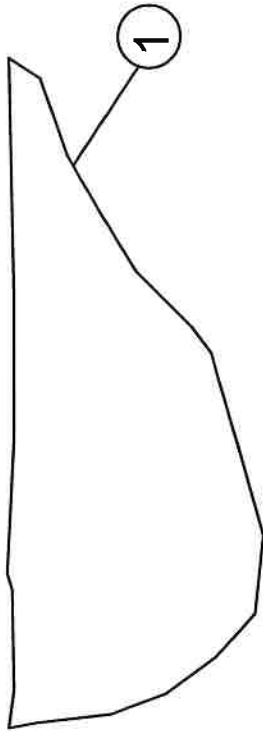
Earth Systems
Southern California

May 2, 2012

VT-24086-01

SCALE: 1" = 5' (VERTICAL & HORIZONTAL)

N32E
←



DESCRIPTIONS

1. **ARTIFICIAL FILL (SM/GW):** Silty sand with boulders, concrete debris, metal debris, and brick debris; slightly moist; medium dense to loose; brown.

FINAL DEPTH: 6.5 FEET
NO GROUNDWATER ENCOUNTERED

SCALE: 1" = 5' (VERTICAL & HORIZONTAL)

TEST PIT #12

Meiners Oaks Water District
Ventura County, CA



Earth Systems
Southern California

May 2, 2012

VT-24086-01



| | |
|--------------------------------------------------|----------------------------------------|
| BORING NO: 1 | DRILLING DATE: May 30, 2012 |
| PROJECT NAME: Meiners Oaks Water District | DRILL RIG: CME-75 |
| PROJECT NUMBER: VT-24086-01 | DRILLING METHOD: 8" Hollow Stem |
| BORING LOCATION: Per Plan | LOGGED BY: G. Olin |

| Vertical Depth | Sample Type | | | PENETRATION RESISTANCE (BLOWS/6") | SYMBOL | USCS CLASS | UNIT DRY WT. (pcf) | MOISTURE CONTENT (%) | DESCRIPTION OF UNITS |
|----------------|-------------|-----|-------------|-----------------------------------|--------|------------|--------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Bulk | SPT | Mod. Calif. | | | | | | |
| 0 | | | | | | | | | |
| 5 | | | | 4/4/3 | | SM | | | ARTIFICIAL FILL: Silty fine sand with concrete, asphalt, and rock gravel; slightly moist; loose; moderate yellowish brown |
| 5 | | | | 2/3/2 | | SM | | | ARTIFICIAL FILL: Same as above |
| 10 | | | | P/P/P | | ML | | | ARTIFICIAL FILL: Very fine sandy silt; wet; very soft; dark yellowish brown |
| 15 | | | | 18/38/50 for 5.5" | | TSP | | | SESPE FORMATION: Fine sandy siltstone to silty sandstone; slightly moist to moist; very hard; dark reddish brown; calcium carbonate in fractures |
| 20 | | | | 46/50 for 5" | | TSP | | | SESPE FORMATION: Fine to medium silty sandstone; slightly moist to moist; very hard; yellow brown |
| 25 | | | | 50 for 5" | | TSP | | | SESPE FORMATION: Same as above |
| 30 | | | | | | | | | TOTAL DEPTH: 25.5 Feet Water Encountered From 8 to 13.5 Feet |
| 35 | | | | | | | | | |

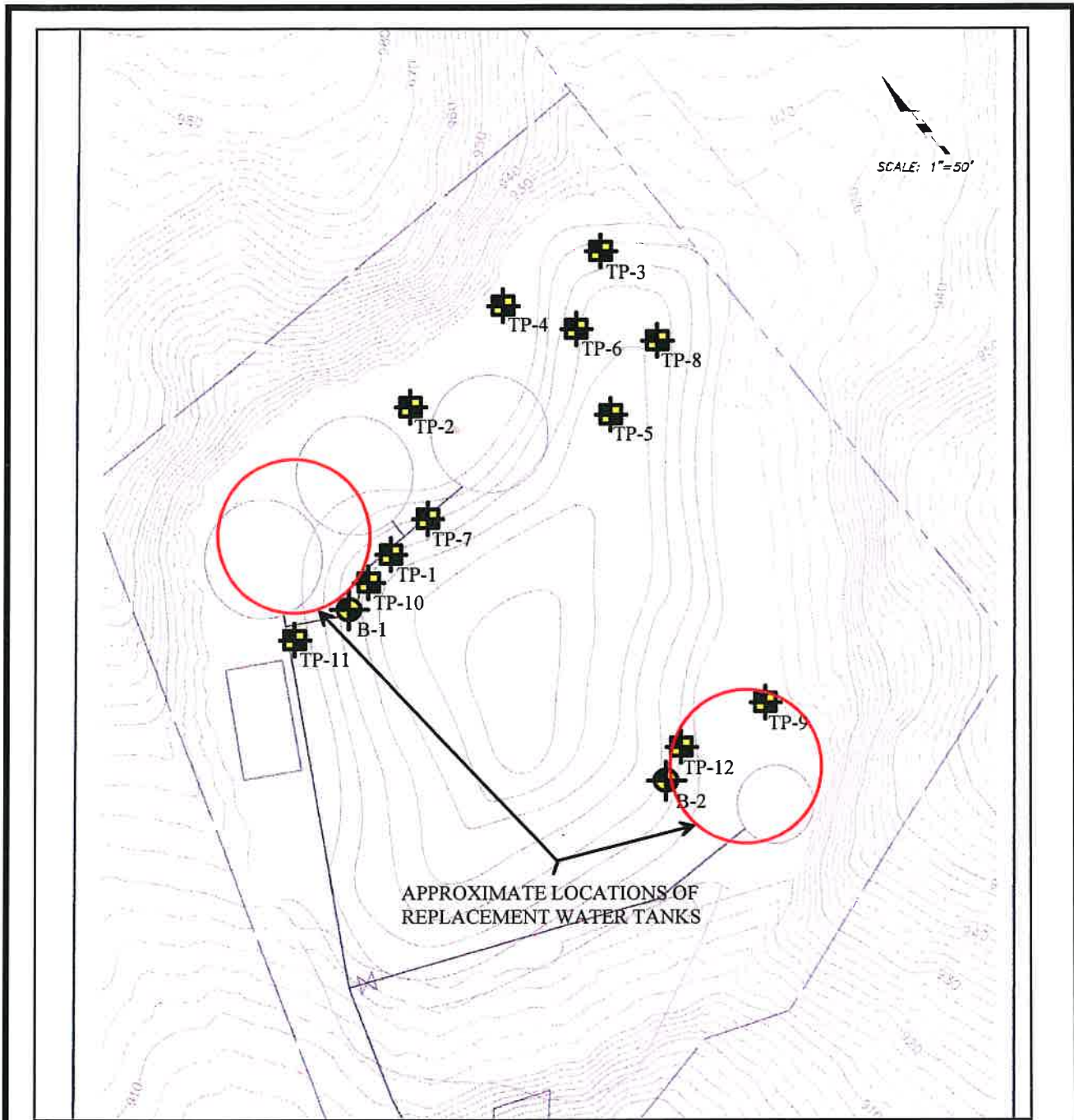
Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.






| | |
|--------------------------------------------------|----------------------------------------|
| BORING NO: 2 | DRILLING DATE: May 30, 2012 |
| PROJECT NAME: Meiners Oaks Water District | DRILL RIG: CME-75 |
| PROJECT NUMBER: VT-24086-01 | DRILLING METHOD: 8" Hollow Stem |
| BORING LOCATION: Per Plan | LOGGED BY: G. Olin |

| Vertical Depth | Sample Type | | | PENETRATION RESISTANCE (BLOWS/6") | SYMBOL | USCS CLASS | UNIT DRY WT. (pcf) | MOISTURE CONTENT (%) | DESCRIPTION OF UNITS |
|----------------|-------------|-----|-------------|-----------------------------------|--------|------------|--------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Bulk | SPT | Mod. Calif. | | | | | | |
| 0 | | | | | | | | | |
| 5 | | | | 8/20/12 | | SM | | | ARTIFICIAL FILL: Silty fine sand with concrete, asphalt, and rock gravel; slightly moist; loose; moderate yellowish brown |
| 10 | | | | 5/8/5 | | SC | | | ALLUVIUM: Clayey silty sand; moist to wet; loose; dark gray |
| 15 | | | | 6/2/3 | | SC | | | ALLUVIUM: Gravelly clayey silty sand; wet; loose; mottled dark gray |
| 20 | | | | 50 for 5.5" | | TSP | | | SESPE FORMATION: Fine sandy siltstone to silty sandstone; slightly moist to moist; very hard; dark reddish brown; calcium carbonate in fractures |
| 25 | | | | 50 for 5.5" | | TSP | | | SESPE FORMATION: Same as above |
| 30 | | | | | | | | | TOTAL DEPTH: 25.5 Feet Water Encountered From 8 to 16 Feet |
| 35 | | | | | | | | | |

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.



-  TP-1 TEST PIT LOCATIONS
-  B-1 BORING LOCATIONS

| | |
|----------------------------------------------------------------------------------------------------------------------------------|-------------|
| SITE PLAN | |
| Meiners Oaks Water District Ventura County, California | |
|  Earth Systems Southern California | |
| JUNE 2012 | VT-24086-01 |



EQHAZ-NG3.xls - EARTHQUAKE HAZARD ANALYSIS - Next Generation
Microsoft Excel Spreadsheet Developed 2008 to 2011 by Shelton L. Stringer, PE, GE, PG, EG

| | | | |
|-------------|-----------------------------|-------------|---------|
| Project: | Meiners Oaks Water District | | |
| File No: | VT-24086-01 | Date: | 6/14/12 |
| Latitude: | 34.4624 | | |
| Longitude: | -119.2771 | | |
| Site Class: | C | Vs30 (m/s): | 560 |

| | |
|----------|----------|
| Table # | 1 |
| Override | Selected |

| Most Significant Fault Information | | | | Fault # | 133 | 133 |
|------------------------------------|-----|---------------------------------------|--|------------------------------|-----|-----|
| Magnitude (M _w): | 6.8 | Mission Ridge-Arroyo Parida-Santa Ana | | Magnitude (M _w): | | 6.8 |
| Distance: | 3.2 | km (2.0 mi.) | | Distance, km: | | 3.2 |
| Fault Type: | 1 | Reverse | | Fault Type: | | 1 |
| Return Interval: | | years Annual p: #VALUE! | | Return Interval | | |
| Fault Selected on: | 1 | Deterministic max PGA | | | | |
| Use Code: | CBC | Enter IBC or CBC | | | | |
| Seismic Use Group: | 1 | Normal | | | | |

Summary of Key Calculated Spectral Accelerations (Sa) to Construct 2010 CBC (ASCE 7-05) Spectrum

| Period T (sec) | Determin. & Prob (2%/50 yr) Spectral Acc -Site Class B/C | | | | Site Class C | | Use Calc.(0)/Mapped (1): | 1 | | |
|----------------|----------------------------------------------------------|---------------|-----------------|------------|--------------|------------|--------------------------|---------------------------|-------|---|
| | m Determ. Sa(g) | Probab. Sa(g) | 1.5Determ Sa(g) | MCE Sa (g) | Site Factor | MCE Sa (g) | Design Sa (g) | Enter Mapped Values Below | | |
| PGA | 0.623 | 0.944 | 0.934 | 0.858 | 1.000 | 0.924 | 0.572 | PGA | 0.924 | g |
| 0.20 | 1.429 | 2.299 | 2.144 | 2.144 | 1.000 | 2.310 | 1.429 | Ss | 2.310 | g |
| 1.00 | 0.472 | 0.855 | 0.708 | 0.708 | 1.300 | 1.114 | 0.613 | S1 | 0.857 | g |

Summary of Site PGA & Key Spectral Acceleration (Sa) by Probabilistic & Deterministic Seismic Hazard Analyses

| Period T (sec) | Site Class B/C - soft rock , PE in 50 yrs | | | | NGA (1.0) Site Factor | mean Deterministic | | Use Site Sa, based on: | | |
|----------------|-------------------------------------------|-------|----------------|-------|-----------------------|--------------------|-----------------|------------------------------|------|-------------|
| | 2002 USGS Data | | 2008 USGS Data | | | 2002 USGS Sa (g) | 2008 NGA Sa (g) | 2002 Determ. (USGS Combined) | | |
| | 10% | 2% | 10% | 2% | | | Sa (g) | Choose: | | |
| PGA | 0.571 | 0.944 | 0.438 | 0.823 | 1.000 | 0.623 | 0.438 | 0.623 | 0 | Determ. |
| 0.20 | 1.350 | 2.299 | 1.072 | 2.102 | 1.000 | 1.429 | 1.042 | 1.429 | 10% | in 50 years |
| 1.00 | 0.489 | 0.855 | 0.337 | 0.667 | 1.000 | 0.472 | 0.384 | 0.472 | 2002 | Year |

Based on interpolation of 0.05 degree grid values

2010 California Building Code (CBC) (ASCE 7-05) Seismic Design Parameters

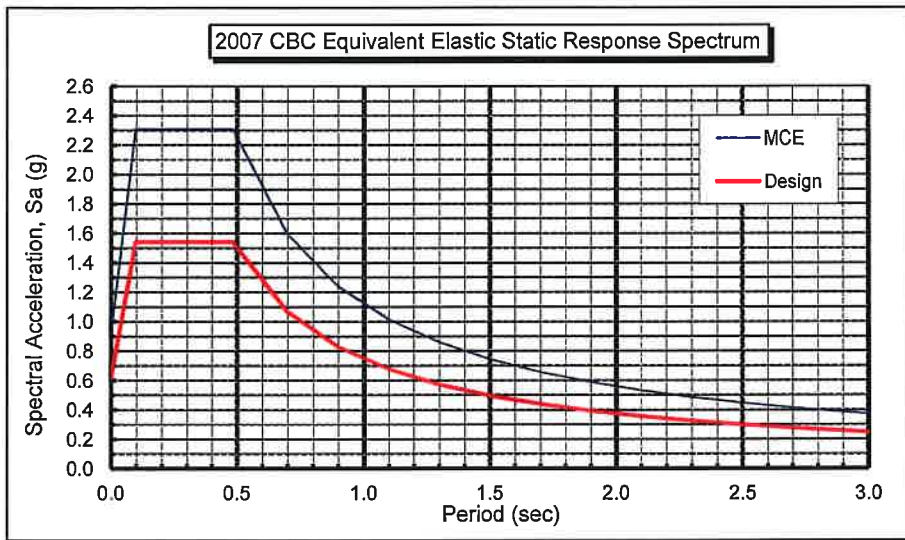
| | | | |
|-------------------------|------------|----------------------------------------|--------------------------------------------|
| Seismic Design Category | E | <u>CBC Reference</u> Table 1613.5.6 | <u>ASCE 7-05 Reference</u> Table 11.6-2 |
| Site Class | C | Table 1613.5.2 | Table 20.3-1 |
| Latitude: | 34.462 N | | |
| Longitude: | -119.277 W | | |

Maximum Considered Earthquake (MCE) Ground Motion

| | | | | |
|-------------------------------|----------|----------------|-------------------|--------------|
| Short Period Spectral Reponse | S_S | 2.310 g | Figure 1613.5 | Figure 22-3 |
| 1 second Spectral Response | S_1 | 0.857 g | Figure 1613.5 | Figure 22.4 |
| Site Coefficient | F_a | 1.00 | Table 1613.5.3(1) | Table 11.4-1 |
| Site Coefficient | F_v | 1.30 | Table 1613.5.3(2) | Table 11-4.2 |
| | S_{MS} | 2.310 g | $= F_a * S_S$ | |
| | S_{M1} | 1.114 g | $= F_v * S_1$ | |

Design Earthquake Ground Motion

| | | | |
|-------------------------------|----------|----------------|---------------------------|
| Short Period Spectral Reponse | S_{DS} | 1.540 g | $= 2/3 * S_{MS}$ |
| 1 second Spectral Response | S_{D1} | 0.743 g | $= 2/3 * S_{M1}$ |
| | T_0 | 0.10 sec | $= 0.2 * S_{D1} / S_{DS}$ |
| | T_s | 0.48 sec | $= S_{D1} / S_{DS}$ |



| Period T (sec) | Design Sa (g) |
|-------------------|---------------------|
| 0.00 | 0.616 |
| 0.05 | 1.095 |
| 0.10 | 1.540 |
| 0.48 | 1.540 |
| 0.70 | 1.061 |
| 0.90 | 0.825 |
| 1.10 | 0.675 |
| 1.30 | 0.571 |
| 1.50 | 0.495 |
| 1.70 | 0.437 |
| 1.90 | 0.391 |
| 2.10 | 0.354 |
| 2.30 | 0.323 |
| 2.50 | 0.297 |
| 2.70 | 0.275 |
| 2.90 | 0.256 |

Table 1
Fault Parameters

| Fault Section Name | Distance | | Avg Dip | Avg Dip | Avg Rake | Trace Length | Fault Type | Mean | Mean | Slip Rate |
|---------------------------------------|----------|------|--------------|------------------|----------|--------------|------------|------|-------------------------|-----------|
| | (miles) | (km) | Angle (deg.) | Direction (deg.) | (deg.) | (km) | | Mag | Return Interval (years) | |
| Mission Ridge-Arroyo Parida-Santa Ana | 2.0 | 3.2 | 70 | 176 | 90 | 69 | B | 6.8 | | 0.4 |
| Santa Ynez (East) | 3.7 | 5.9 | 70 | 172 | 0 | 68 | B | 7.2 | | 2 |
| Sisar | 4.2 | 6.8 | 29 | 168 | na | 20 | B' | 7.0 | | |
| San Cayetano | 6.8 | 10.9 | 42 | 3 | 90 | 42 | B | 7.2 | | 6 |
| Red Mountain | 8.7 | 14.0 | 56 | 2 | 90 | 101 | B | 7.4 | | 2 |
| Pine Mtn | 9.8 | 15.7 | 45 | 5 | na | 62 | B' | 7.3 | | |
| Ventura-Pitas Point | 11.4 | 18.4 | 64 | 353 | 60 | 44 | B | 6.9 | | 1 |
| North Channel | 13.0 | 20.9 | 26 | 10 | 90 | 51 | B | 6.7 | | 1 |
| Oak Ridge (Onshore) | 14.4 | 23.1 | 65 | 159 | 90 | 49 | B | 7.2 | | 4 |
| Oak Ridge (Offshore) | 14.6 | 23.4 | 32 | 180 | 90 | 38 | B | 6.9 | | 3 |
| Big Pine (Central) | 15.0 | 24.1 | 76 | 167 | na | 23 | B' | 6.3 | | |
| Big Pine (West) | 16.4 | 26.4 | 50 | 2 | na | 18 | B' | 6.5 | | |
| Big Pine (East) | 19.6 | 31.5 | 73 | 338 | na | 23 | B' | 6.6 | | |
| Simi-Santa Rosa | 19.7 | 31.8 | 60 | 346 | 30 | 39 | B | 6.8 | | 1 |
| Santa Ynez (West) | 20.6 | 33.1 | 70 | 182 | 0 | 63 | B | 6.9 | | 2 |
| Pitas Point (Upper) | 21.3 | 34.3 | 42 | 15 | 90 | 35 | B | 6.8 | | 1 |
| Nacimiento | 22.7 | 36.5 | 66 | 40 | na | 113 | B' | 7.1 | | |
| Pitas Point (Lower)-Montalvo | 23.1 | 37.2 | 16 | 359 | 90 | 30 | B | 7.3 | | 2.5 |
| Channel Islands Western Deep Ramp | 27.0 | 43.4 | 21 | 204 | 90 | 62 | B' | 7.3 | | |
| Oak Ridge (Offshore), west extension | 27.0 | 43.5 | 67 | 195 | na | 28 | B' | 6.1 | | |
| Malibu Coast (Extension), alt 1 | 27.1 | 43.7 | 74 | 4 | 30 | 35 | B' | 6.5 | | |
| Malibu Coast (Extension), alt 2 | 27.1 | 43.7 | 74 | 4 | 30 | 35 | B' | 6.9 | | |
| San Andreas (Big Bend) | 27.9 | 45.0 | 90 | 198 | 180 | 50 | A | 7.8 | 108 | 34 |
| San Gabriel | 28.7 | 46.2 | 61 | 39 | 180 | 71 | B | 7.3 | | 1 |
| Santa Susana, alt 2 | 29.5 | 47.4 | 53 | 10 | 90 | 43 | B' | 6.8 | | |
| Holser, alt 1 | 29.9 | 48.1 | 58 | 187 | 90 | 20 | B | 6.7 | | 0.4 |
| Holser, alt 2 | 29.9 | 48.1 | 58 | 182 | 90 | 17 | B' | 6.7 | | |
| Del Valle | 29.9 | 48.1 | 73 | 195 | 90 | 9 | B' | 6.3 | | |
| Santa Susana, alt 1 | 29.9 | 48.1 | 55 | 9 | 90 | 27 | B | 6.8 | | 5 |
| Channel Islands Thrust | 30.2 | 48.5 | 20 | 354 | 90 | 59 | B | 7.3 | | 1.5 |
| Garlock (West) | 32.2 | 51.8 | 90 | 149 | 0 | 98 | A | 7.6 | 493 | 6 |
| Northridge | 32.3 | 52.0 | 35 | 201 | 90 | 33 | B | 6.8 | | 1.5 |
| San Andreas (Mojave N) | 32.4 | 52.2 | 90 | 199 | 180 | 37 | A | 7.8 | 106 | 27 |
| Pitas Point (Lower, West) | 32.5 | 52.3 | 13 | 3 | 90 | 35 | B | 7.2 | | 2.5 |
| South Cuyama | 33.0 | 53.1 | 33 | 210 | na | 48 | B' | 6.8 | | |
| Pleito | 33.1 | 53.3 | 46 | 181 | 90 | 44 | B | 7.1 | | 2 |
| Santa Cruz Island | 33.1 | 53.3 | 90 | 188 | 30 | 69 | B | 7.1 | | 1 |
| San Andreas (Carrizo) rev | 34.0 | 54.7 | 90 | 224 | 180 | 59 | A | 7.8 | 106 | 34 |
| Northridge Hills | 34.4 | 55.4 | 31 | 19 | 90 | 25 | B' | 7.0 | | |
| Anacapa-Dume, alt 1 | 34.5 | 55.5 | 45 | 354 | 60 | 51 | B | 7.2 | | 3 |

Reference: USGS OFR 2007-1437 (CGS SP 203)

Based on Site Coordinates of 34.4624 Latitude, -119.2771 Longitude

Mean Magnitude for Type A Faults based on 0.1 weight for unsegmented section, 0.9 weight for segmented model (weighted by probability of each scenario with section listed as given on Table 3 of Appendix G in OFR 2007-1437). Mean magnitude is average of Ellworths-B and Hanks & Bakun moment area relationship.