



## Request for Geotechnical Report Waiver

This form is used to request a waiver from the requirement for a Geotechnical Report for qualified projects as listed in the Table on page 2 of this form. The waiving of a Geotechnical Report is subject to the acceptance of the Building Official. Please provide the information requested below and submit the completed form to Building and Safety together with your permit application. **All fields must be completed.**

Project Information	
Plan Review Record No.:	Address:
Is Habitable Space Proposed? (Yes/No):	Assessor's Parcel Number:
Use of Building:	Owner Name:
Maximum Height:	Agent Name:
Proposed Area (in square feet):	Type of Structure:
Proposed Linear Feet (for retaining walls only):	Expansion Index (if unknown, assume range of 91-130):

Section 1803.1 of the California Building Code requires a geotechnical investigation for the classification and determination of soil properties at the building site. Therefore, all plans for buildings and structures submitted for Building and Safety review must be accompanied by a geotechnical report, except when supported by an accepted Geotechnical Report Waiver, Form B-50, or when foundation work is not needed for the project. When such Geotechnical Report Waiver is used, the tables contained in this form shall be followed to determine the applicable foundation design limitations and requirements for the building or structure.

### Geotechnical Report Waiver Eligibility

Only the following building sites and project conditions are eligible for consideration of a Geotechnical Report Waiver:

1. Sites where the building will be located on a natural level building pad. If this condition is not observed during construction, a Geotechnical Report may be requested by B&S.
2. Sites with a building pad having naturally compacted and undisturbed soil.
3. Buildings meeting all height and area restrictions of Table 1803 and follows the minimum foundation design requirements of VCBC Table 1809.7
4. There has been no debris and foundation removal as a result of Declared Disaster.
5. If the proposed project is a habitable structure or a pool/spa and the site has any of the following three existing mapped geohazards, this request will be reviewed by Public Works Land Development:
  - a. Liquefaction Zone
  - b. Fault Hazard Area
  - c. Mapped Landslide/Debris Flow Area

I certify that the above information is true and correct to the best of my knowledge.

**Accepted by Building and Safety Staff**

\_\_\_\_\_  
**Owner/Agent Name**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

**Table 1803****Height and Area Restrictions  
for Geotechnical Report Waiver****General Foundation Design  
Requirements**

USE/OCCUPANCY	HEIGHT OR STORIES	FLOOR AREA	GENERAL FOUNDATION DESIGN REQUIREMENTS <sup>5</sup>
1. Any buildings not listed in below occupancies: <sup>1, 2, 3, 4</sup> • Light-Frame Construction regardless of occupancy group	2-Story maximum	1,000 sqft total or less for both floors	<p><u>Gravity Design</u></p> <ul style="list-style-type: none"> <li>Weighted Expansion Index (EI) of 91~130 from VCBC Table 1809.7</li> <li>Maximum Vertical Bearing Pressure = 1,500 psf</li> </ul> <p><u>Lateral Design</u></p> <ul style="list-style-type: none"> <li>Passive Lateral Bearing Pressure = 100 psf/ft</li> <li>Cohesion = 130 psf</li> <li>Active Lateral Earth Pressure = 60 psf/ft = 30 psf/ft w/ Backfill <sup>8</sup></li> <li>Factor of Safety for Sliding and Overturning = 1.5</li> </ul>
2. Non-Residential, Group U (Not Agricultural): <sup>1, 2, 3, 4</sup> • Private Garages/Carports • Structures Accessory to Private Residential Uses	2-Story maximum	1,000 sqft total or less for both floors	
3. Agricultural, Group U: <sup>2, 3, 4</sup> • Livestock/Poultry Shelters and Buildings • Barns • Agriculture Equipment and Machinery Storage • Sheds and Stables	1-Story	3,000 sqft total or less	
• Crop Protection Shelters and Greenhouses	1-Story	12,000 sqft total or less	
4. Retaining Walls: <sup>6</sup> • Reinforced Concrete and Masonry Using Conventional Spread Footings Only	6-Feet measured from the top of the footing	N/A	
• Swimming Pools on Level Building Site Only: <sup>2, 3</sup>	8-Feet 6 inches Deep	N/A	
5. Non-Building Structures, Group U: <sup>2, 7</sup> • Tanks, towers, vessels, mechanical equipment pads, fences, cantilevered structures, storage racks, antenna poles, pedestrian bridges, grain silos	15-Feet	N/A	

**Footnotes:**

- Total proposed floor areas of attached buildings, or buildings less than 10 feet apart, combined per items 1 and 2 shall not exceed 1,000 square feet total.
- This table only applies to foundations where construction will take place on an existing natural level building site containing no uncompacted fill.
- When not exempted from plan review and inspection in accordance with VCBC Sections 105.2 and 110.1.
- Gutter and downspouts are required per VCBC Table 1809.7 Footnote #13.
- When an Expansion Index Report is provided by a Geotechnical Engineer, the foundation depth may be reduced to equal the corresponding Index in Table 1809.7.
- For retaining wall design with non-saturated soil, use active fluid pressure as noted below. A grading permit is required when the quantity of fill exceeds 50 cubic yards.

Surcharge Slope SurfaceEquivalent Fluid PressureEquivalent Fluid Pressure with Backfill

Level  
5 to 1  
4 to 1  
2 to 1

60 psf/ft  
60 psf/ft  
70psf/ft  
85 psf/ft

30 psf/ft  
32 psf/ft  
35 psf/ft  
38 psf/ft

- 6-inches wide minimum x 12-inches thick thickened edge of slab-on-grade is acceptable for equipment housekeeping pads.
- Backfill material shall be comprised of 3 / 4 inch coarse gravel for a minimum of 12 inches width from the backfill face of the wall and for the full-height of the wall with a perforated drain at the bottom.

**Table 1809.7**  
**Minimum Foundation Design For Supporting Walls Of Light Frame Construction**

WEIGHTED EXPANSION INDEX <sup>13</sup>	FOUNDATION FOR SLAB & RAISED FLOOR SYSTEM <sup>4,8</sup>							CONCRETE SLABS <sup>9,12</sup>		PREMOISTENING OF SOILS UNDER FOOTINGS, PIERS, AND SLABS <sup>4,5</sup>	RESTRICTION ON PIERS UNDER RAISED FLOORS, INDIVIDUAL SPREAD FOOTINGS
	NUMBER OF STORES	STEM THICKNESS	FOOTING WIDTH	FOOTING THICKNESS	ALL PERIMETER FOOTINGS <sup>5</sup>	INTERIOR FOOTINGS FOR SLAB AND RAISED FLOORS <sup>5</sup>	REINFORCEMENT FOR CONTINUOUS FOUNDATIONS <sup>2,6</sup>	3 1/2 INCHES MINIMUM THICKNESS			
								REINFORCEMENT <sup>3</sup>	TOTAL THICKNESS OF SAND (INCHES) <sup>10</sup>		
0 – 20 Very Low (non-expansive)	1	6	12	6	12	12	1-#4 top and bottom	#4 @ 48" o.c. each way, or #3 @ 36" o.c. each way	2	Moistening of ground recommended prior to placing concrete	Piers allowed for single floor loads only
	2	8	15	6	18	18					
	3	10	18	8	24	24					
21 – 50 Low	1	6	12	6	15	12	1-#4 top and bottom	#4 @ 48" o.c. each way, or #3 @ 36" o.c. each way	4	120% of optimum moisture required to a depth of 21" below lowest adjacent grade. Testing required.	Piers allowed for single floor loads only
	2	8	15	6	18	18					
	3	10	18	8	24	24					
51 – 90 Medium	1	6	12	6	21	12	1-#4 top and bottom	#3 @ 24" o.c. each way	4	130% of optimum moisture required to a depth of 27" below lowest adjacent grade. Testing required.	Piers not allowed
	2	8	15	6	21	18					
	3	10	18	8	24	24					
91 – 130 High	1	6	12	6	27	12	2-#4 top and bottom	#3 @ 24" o.c. each way	4	140% of optimum moisture required to a depth of 33" below lowest adjacent grade. Testing required.	Piers not allowed
	2	8	15	6	27	18					
	3	10	18	8	27	24					
Above 130 Very High	Special design by licensed engineer / architect										

**Footnotes:**

- Premoistening is required where specified in Table 1809.7 in order to achieve maximum and uniform expansion of the soil prior to construction and thus limit structural distress caused by uneven expansion and shrinkage. Other systems which do not include premoistening may be approved by the Building Official when such alternatives are shown to provide equivalent safeguards against the adverse effects of expansive soil.
- Reinforcement for continuous foundations shall be placed not less than 3" above the bottom of the footing and not less than 3" below the top of the stem.
- Reinforcement shall be placed at mid-depth of slab.
- After premoistening, the specified moisture content of soils shall be maintained until concrete is placed. Required moisture content shall be verified by an approved testing laboratory not more than 24 hours prior to placement of concrete.
- Crawl spaces under raised floors need not be pre-moistened except under interior footings. Interior footings which are not enclosed by a continuous perimeter foundation system or equivalent concrete or masonry moisture barrier complying with Footnote # 12 of Table 1809.7 shall be designed and constructed as specified for perimeter footings in Table 1809.7.
- Foundation stem walls which exceed a height of three times the stem thickness above lowest adjacent grade shall be reinforced in accordance with Chapter 21 and Chapter 19 in the CBC, or as required by engineering design, whichever is more restrictive.
- Bent reinforcing bars between exterior footing and slab shall be omitted when floor is designed as an independent, "floating" slab.
- Where frost conditions or unusual conditions beyond the scope of this table are found, design shall be in accordance with recommendations of a foundation investigation. Concrete slabs shall have a minimum thickness of 4 inches when the expansion index exceeds 50.
- The ground under a raised floor system may be excavated to the elevation of the top of the perimeter footing, except where otherwise required by engineering design or to mitigate groundwater conditions.
- GRADE BEAM, GARAGE OPENING. A grade beam not less than 12" x 12" in cross section, or 12" x depth required by Table 1809.7, whichever is deeper, reinforced as specified for continuous foundations in Table 1809.7, shall be provided at garage door openings.
- Where a post-tensioning slab system is used, the width and depth of the perimeter footings shall meet the requirements of this table.
- An approved vapor barrier shall be installed below concrete slab-on-grade floors of all residential occupancies in such a manner as to form an effective barrier against the migration of moisture into the slab. When sheet plastic material is employed for this purpose it shall be not less than 10 mils (.010 inch) in thickness. The installation of a vapor barrier shall not impair the effectiveness of required anchor bolts or other structural parts of a building. Foundations at the perimeter of concrete floor slabs shall form a continuous moisture barrier of Portland cement concrete or solid grouted masonry to the depths required by Table 1809.7.
- When buildings are located on expansive soil having an expansion index greater than 50, gutters, downspouts, piping, and/or other non-erosive devices shall be provided to collect and conduct rainwater to a street, storm drain, or other approved watercourse or disposal area.
- Fireplace footings shall be reinforced with a horizontal grid located 3" above the bottom of the footing and consisting of not less than No. 4 Bars at 12" on center each way. Vertical chimney reinforcing bars shall be hooked under the grid. Depth of fireplace chimney footings shall be no less than that required by Table 1809.7.