



**COUNTY OF LOS ANGELES  
DEPARTMENT OF PUBLIC WORKS  
BUILDING AND SAFETY DIVISION**

**ONE & TWO FAMILY  
DWELLING  
PLAN REVIEW LIST**

**GENERAL PROJECT INFORMATION**

PLAN CHECK NO. \_\_\_\_\_ DISTRICT NO \_\_\_\_\_ INITIAL VALUATION \_\_\_\_\_  
 JOB ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZIP \_\_\_\_\_  
 OWNER \_\_\_\_\_ TELEPHONE (\_\_\_\_) \_\_\_\_\_  
 ARCH/ENG \_\_\_\_\_ TELEPHONE (\_\_\_\_) \_\_\_\_\_  
 APPLICANT \_\_\_\_\_ TELEPHONE (\_\_\_\_) \_\_\_\_\_  
 ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZIP \_\_\_\_\_

**PROJECT INFORMATION**

USE ZONE \_\_\_\_\_ CLIMATE ZONE \_\_\_\_\_ VHFHSZ: YES NO FLOOD ZONE: YES NO

BUILDING ELEMENT	SQ. FT.	NO. OF STORIES	CONSTR. TYPE	OCC. GROUP	\$/SQ. FT.	\$ VALUE
<b>New Valuation:</b>						

**PLAN CHECK ENGINEER AND CORRECTION INFORMATION**

REVIEWED BY \_\_\_\_\_ DATE \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
 RECHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
 RECHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ TELEPHONE \_\_\_\_\_

Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. The approval of plans and specifications does not permit the violation of any section of the Building Code, or other local ordinance or state law.

NOTE: Numbers in the parenthesis ( ) refer to sections of the 2011 edition of County of Los Angeles Building Code, Residential Code (R), Table (T), Plumbing Code (PC), Mechanical Code (MC), Electrical Code (EC), Building Code Manual (BCM), 2005 National Design Specifications (NDS), 2008 AF&PA Special Design Provisions for Wind and Seismic (SDPWS), 2005 Minimum Design Loads for Buildings and Other Structures including Supplement No. 1 (ASCE7).

**INSTRUCTIONS**

- Corrections with circled item numbers apply to this plan check.
  - In the left-hand margin of the circled corrections, please indicate the sheet number and detail or note number on the plans where the corrections are made. Resubmit marked original plans and two corrected sets of plans, calculations and this plan review list.
  - Incomplete, unclear, or faded drawings or calculations will not be accepted.
  - The plan check engineer will be available for conference and telephone calls between the hours of \_\_\_\_\_ and \_\_\_\_\_ on the following days: \_\_\_\_\_. **Appointments are recommended.**
- Incorporate all comments as marked on checked set of plans and calculations and these correction sheets.

**APPLICATION AND PERMIT**

1. Application will expire on \_\_\_\_/\_\_\_\_/\_\_\_\_. Permit needs to be obtained prior to expiration date otherwise the application shall expire. (106.4.1.1)
2. Valuation is low. It should be \$ \_\_\_\_\_. Pay a supplemental plan check fee of \$ \_\_\_\_\_ at the time of re-submittal. (107.2)
3. At final submittal, two complete sets of plans are required and one additional architectural set that includes: a) a site plan, b) dimensioned floor plans, and c) elevations. The final three sets of plans shall be wet stamped and signed by the California registered architect or engineer when appropriate.
4. Separate permit(s) is / are required for accessory buildings, swimming pools, retaining walls, bridges not involving buildings, detached garages, demolition, \_\_\_\_\_. (106.1)

5. Show / correct address of the building on the permit application. (106.4.1)
6. A Certificate of Workers' Compensation insurance must be presented to the local Building and Safety Division Office before a permit can be issued.

## **REFERRALS**

**ALL AGENCY APPROVALS are required prior to permit issuance. Please see the attached agency referral sheet for details.**

7. Approval is required by the City of \_\_\_\_\_ for \_\_\_\_\_ (106.5.1)
8. (Soil) (Foundation) (Geology) report(s) must be approved by Geotechnical & Materials Engineering Division. Provide a copy of approved report and Department approval letter.
9. A Grading Permit (may be) / (is required) per Appendix J103. Contact Drainage & Grading Section of Building and Safety Division to determine if a grading permit is required. (Appendix J103)  
A grading permit is required for the following:
  - a. All excavations exceeding 2-ft. in depth (except for footings, basements and retaining walls). Note: the placement of excess material from such excavations may require a grading permit.
  - b. All fills:
    - i. Intended to support structures.
    - ii. That obstructs or diverts a drainage course.
    - iii. One foot or more in depth placed on natural slopes steeper than 5 units horizontal to 1 unit vertical.
    - iv. 3-ft. or more in depth at its deepest point and greater than 50 cubic yards.
    - v. 5-ft. or more in depth at its deepest point and greater than 20 cubic yards.
  - c. The grading of access roads or pads for exploratory excavations.
10. Rough grading approval is required before a building permit can be issued. (Appendix J105.7)

## **SUPPLEMENTAL PLAN REVIEW COMMENTS/SHEETS**

11. Refer to the attached sheets for supplemental plan review comments:
  - a. 2008 Energy Standards Correction Sheet
  - b. Very High Fire Hazard Severity Zone Requirements
  - c. Hillside Structures Plan Review (slope > 33.3%)
  - d. Steel Moment Frame Plan Review
  - e. Residential Green Building Standards Code Plan Review
  - f. Multi-family Residential Accessibility Plan Review
12. Photocopy/blueprint the following on the plans: (Do NOT staple to the plans)
  - a. Residential Plan General Notes Requirements

- b. Best Management Practice for Construction Activity (Attachment A) requirements.
- c. Structural Observation Program
13. The address of the building, and the name and address of the owner(s), and person(s) preparing the plans are required on the first sheet of the plans. (106.4.3)
14. Delete notes and details that do not apply to this project. (106.4.3)
15. Indicate detail and section references as to their appropriate location on plan views. (106.4.3)
16. Provide existing and proposed contours / spot elevations to indicate general site slope and drainage pattern. (106.4.3)
17. Specify finish floor elevation of first floor and elevation difference to adjacent grade at all doors. (106.4.3)

## **ZONING/PLANNING REQUIREMENTS**

18. Approval from the Regional Planning Department is required for:
  - a. Residential use in \_\_\_\_\_ zone / establishing the property as a legal building site / a land use zone that is not in compliance with the General Plan.
  - b. Residential use on a lot less than 5,000-SF.
19. Locate the building to comply with \_\_\_\_\_ ft. front yard, \_\_\_\_\_ ft. side yard and \_\_\_\_\_ ft. rear yard setback lines.
20. Provide a garage or carport for two automobiles with paved driveway (3½-in. concrete or 1½-in. asphalt on 4-in. base). Minimum required area is 8½-ft. x 18-ft. per parking space.

## **SITE PLAN / BUILDING SITING**

21. Provide a complete plot plan showing: Lot dimensions / yard setbacks / street name(s) / north arrow / existing building(s) to remain / distance between buildings / location of private sewage disposal system including expansion areas / utilities / easements / \_\_\_\_\_ (106.4.3)
22. Maintain 5-ft. clearance between septic tank(s) and seepage pit(s) and minimum clearances to buildings and property lines of 5-ft. for the septic tank and 8-ft. for the seepage pit. (PC Appendix K T-K-1)
23. Exterior walls of dwellings and accessory buildings less than 5-ft.(non-sprinklered) / 3-ft.(sprinklered) to the property line shall be 1-hour fire-resistance-rated construction. (T-R302.1(1) & (2))
24. No openings other than approved foundation vents shall be permitted in the exterior walls of dwellings and accessory buildings where the exterior wall is less than 3-ft. to the property line. (T-R302.1(1) & (2))

25. The area of exterior wall openings of non-sprinklered dwellings and accessory buildings located  $\geq$  3-ft. and  $<$  5-ft. to the property line shall be limited to 25% of the wall area. The area of exterior wall openings is unlimited when exterior walls are located  $\geq$  5-ft for non-sprinklered buildings and  $\geq$  3-ft. for sprinklered buildings. (T-R302.1(1) & (2))
26. Projections, including eaves, are not permitted within 2-ft. from the property line, except detached garages accessory to a dwelling are permitted to have 4-in. eave. Projections located  $\geq$  2-ft. and  $<$  5-ft.(non-sprinklered) / 3-ft.(sprinklered) to the property line shall be of at least 1-hour fire-resistance-rated on the underside. (R302.1, T-R302.1(1) & (2))
27. Buildings adjacent to ascending or descending slopes shall maintain setback according to the requirements of Section R403.1.7. (See attached sketch sheet)
28. For townhouses, 30-in. high parapets shall be constructed as an extension of common walls unless :
  - a. Roof surfaces adjacent to the wall(s) have different elevations of 30-in. or more (R302.2.2 EX 1)
  - b. Roof is covered with a minimum Class C covering, and the roof sheathing is of noncombustible materials or approved fire-retardant-treated wood for a distance of 4-ft. on each side of the wall(s), or one layer of 5/8-in. Type X gypsum board installed directly beneath the roof sheathing with 2-inch ledger for a minimum distance of 4-ft. on each side of the wall(s) (R302.2.2 EX 2)
29. Townhouses with four or more dwelling units in a building shall meet the requirements of Chapter 11A of 2011 County of Los Angeles Building Code. (R320.1)

## **ROOF COVERING**

30. For roof covering specify:
  - a. Roof slope(s) of all areas on the roof plan. (R905)
  - b. Manufacturer and type of built-up roof. (R905.9)
    - i. Built up roof covering materials shall comply with the standards in Table R905.9.2
    - ii. Built-up roofs shall have a minimum slope of  $\frac{1}{4}$ -in. per foot (2%) for drainage (R905.9.1)
  - c. Type / manufacturer and I.C.C. / UL number of shingle / tile roof. (R905.2, R905.3)
  - d. Roof covering shall be Class C rated or better or as required. (R902.1)
31. Roof slope is not adequate for the type of roof covering specified. (R905)
32. Show sizes/locations of the roof/deck drains and overflows on the plans. Roof drainage systems shall be designed in accordance with Ch. 11 of the PC for minimum rain intensity of 3-in./hr. Scupper openings used as overflows shall be a minimum of 4-in. high and have a width equal to the circumference of the roof drain required for the area served and located a minimum of 2-in. above the roof surface. (R903.4.1)
33. Specify approved weatherproof walking surface material at decks and balconies. (106.4.3)

## **DESIGN REQUIREMENTS**

34. An automatic residential fire sprinkler system in accordance with NFPA 13D or Section R313.3 shall be installed in one and two family dwellings or townhouses including attached garages. (R309.6, R313.1, R313.2)
35. For duplexes provide the following:
  - a. Floors and walls separating dwelling units in two-family dwelling shall not be of less than one-hour fire-resistive rating or 1/2-hour fire-resistive rating when an automatic sprinkler system NFPA 13 is installed throughout. (R302.3, R302.3 EX 1)
  - b. Provide sound transmission ratings (STC) per Section 1207.
  - c. Wall assemblies shall extend from the foundation to the underside of the roof sheathing.
  - d. Show draft separation for attic areas between units in a duplex. (R302.12.1)
36. Townhouses shall comply with Section R302.2.
37. Show the following on plans:
  - a. At least one habitable room with a minimum gross area of 120-SF. (R304.1)
  - b. Other habitable rooms shall have a minimum floor area of 70-SF, except kitchen. (R304.2)
  - c. Habitable spaces shall not be less than 7-ft. in any plan dimension, except kitchen. (R304.3)
  - d. Habitable space, hallways, bathrooms, toilet rooms and laundry rooms shall have a ceiling height of no less than 7-ft. (R305.1).
  - e. Bathrooms shall have a ceiling height of no less than 6-ft. 8-in. at the center of the front clearance area for fixtures. (R305.1 EX 2)
  - f. Basement without habitable spaces shall have a ceiling height of no less than 6-ft. 8-in., except 6-ft. 4-in. is allowed under beams or ducts. (R305.1.1)
38. Where the opening of an operable window is located more than 72 inches above the finished grade or surface, the clear opening of the window shall be a minimum of 24 inches above the finished floor. Specify sill height of all operable windows. (R612.2)
39. Glazing at \_\_\_\_\_ is located at a hazardous location and shall be tempered. (R308.4)
40. Aggregate glazing area of habitable rooms must be minimum 8% of the room floor area. This is deficient in \_\_\_\_\_. (R303.1)
41. In order to consider any room as a portion of an adjoining room, at least 1/2 of the common wall area shall be open and unobstructed and shall provide an opening of not less than 1/10 the floor area of the interior room or 25-SF, whichever is greater. Show that the common wall between \_\_\_\_\_ and \_\_\_\_\_ complies. (R303.2)
42. Porch next to required windows at \_\_\_\_\_ must have a minimum clear height of 7-ft. with longer side at least 65% open and unobstructed. (R303.7 EX 1)

43. Minimum openable area of habitable rooms must be 4% of the floor area. (R303.1)
  44. For light and/or ventilation purpose, the openable area between \_\_\_\_\_ and the sunroom or patio cover shall not be less than 1/10 of the floor area of the interior room or 20-SF, whichever is greater. (R303.2 EX)
  45. Habitable rooms using artificial light shall have an average illumination of 6 footcandles (65 lux) at 30 inches above the floor. (R303.1, EX)
  46. In lieu of exterior openings for ventilation of habitable rooms, an approved mechanical ventilating system capable of 0.35 air change per hour in the room or a whole-house ventilation system capable of 15-CFM per occupant shall be installed. (R303.1 EX)
  47. Bathrooms, water closet compartments and other similar rooms shall be provided with minimum glazing area of 3-SF, one-half of which is openable. The glazed areas are not required where artificial light and a mechanical ventilation of 50-CFM intermittent or 25-CFM continuous ventilation are provided. (R303.3)
  48. Dimension on the plans the 30-in. clear width for water closets and 24-in. clearance in front of water closet for \_\_\_\_\_ bathroom. (PC 407.5)
  49. Bathtub and shower floors, walls above bathtubs with a showerhead, and shower compartments shall be finished with a nonabsorbent surface extending to a height of not less than 6 feet above the floor. (R307.2)
  50. Shower doors shall swing out. Net area of shower receptor shall be not less than 1,024 sq. in. of floor area, and encompass 30-in. diameter circle. (PC 411.7)
  51. In every bedroom and basement, provide one openable escape window meeting all of the following: (R310.1, R310.1.1, R310.1.2, R310.1.3)
    - a. A net clear opening area of not less than 5.7-SF.
    - b. A minimum clear height of 24-in.
    - c. A minimum clear width of 20-in.
    - d. The bottom of the clear opening not greater than 44-in. measured from the floor.
  52. Show location(s) of interconnected hard-wired "SMOKE ALARM" with battery backup in the following: (R314)
    - a. In each sleeping room.
    - b. Outside of each separate sleeping area in the immediate vicinity of the bedrooms
    - c. On each additional story of the dwelling, including basements and habitable attics, but not including crawl spaces and uninhabitable attics.
    - d. Provide a note: "SMOKE ALARM shall be interconnected hard-wired with battery backup."
    - e. Battery smoke alarm permitted in existing buildings where no construction is taking place.
  53. For buildings with fuel-burning appliances and/or attached garages, provide an approved carbon monoxide alarm at: (R315.1)
    - a. Outside of each separate sleeping area in the immediate vicinity of the bedrooms
    - b. On every level of a dwelling unit including basements
    - c. Provide a note: "CARBON MONOXIDE ALARM shall be interconnected hard-wired with battery backup."
    - d. Battery carbon monoxide alarm is permitted in existing dwelling units where no construction is taking place.
  54. Show location of 22-in. x 30-in. attic access with 30-in. minimum headroom for attic greater than 30-SF. (R807.1)
  55. Provide full height transverse and longitudinal building cross sections showing framing, plate heights, total heights, insulation, foundation, finish grade, etc. (106.4.3)
- ### EXITS AND STAIRS
56. Provide at least one side-hinged egress door from each dwelling unit not less than 3-ft. wide and 6-ft. 6-in. in height, with a minimum clear width of 32-in. Egress doors shall be readily openable from inside without the use of a key or special knowledge or effort. (F)
  57. Provide a minimum of 36-in. landing at \_\_\_\_\_ . (R311.3)
  58. Required egress doors at \_\_\_\_\_ shall not swing over a landing that is more than 1.5-in. in height below the threshold. (R311.3.1)
  59. Door may open on an exterior landing, provided the door does not swing over the exterior landing and the landing is not more than 7.75-in. below the top of the threshold. (R311.3.1, R311.3.2)
  60. For habitable levels or basements located more than one story above or below an egress door, the travel distance from any occupied point to a stairway or ramp shall not exceed 50 feet. (R311.4)
  61. Provide section and details of interior and exterior stairway showing:
    - a. Maximum rise of 7.75-in. and minimum run (tread) of 10-in. with maximum 3/8-in. variance. (R311.7.4)
    - b. Where tread depth is < 11-in. a nosing between .75-in. & 1.25-in. shall be provided. (R311.7.4.3)
    - c. Minimum width of 36-in. (max. 4.5-in. handrail projection is permitted on each side) (R311.7.1)
    - d. Minimum headroom of 6-ft. 8-in. (R311.7.1)
    - e. Framing (stringer, landing, etc.) size, bracing, connections, and footings. (106.4.3)
    - f. Stairways shall be positively anchored to the primary structure without the use of toenails or nails subject to withdrawal. (R311.5.1)
    - g. Provide a note on the plans "All Stairways shall have an illumination level on tread runs of not less than 1 foot-candle (11 lux)." (R303.6)
  62. Winder treads shall have a minimum tread depth of 10-in. @ a point 12-in. from the narrow side, and a minimum tread depth of 6-inches. (R311.7.4.2)
  63. Spiral Stairways shall meet the following:
    - a. Submit shop drawings for spiral stairway showing compliance with Section R311.7.9.7.

- b. Provide spiral stairway column connections & footing details. (106.4.3)
64. Handrails shall satisfy the following:
- a. Provide a minimum of one continuous handrail on stairways with 4 or more risers and at all open sides. (R311.7.7)
  - b. Handrail height shall be 34 to 38 inches above the nosing of treads. (R311.7.7.1)
  - c. Openings between intermediate balusters shall not allow the passage of a 4-3/8-in. diameter sphere. The triangular openings formed by the riser, tread and bottom rail shall not allow the passage of a 6-in. diameter sphere. (R312.3 EX 1 & 2)
  - d. Handrail grips shall be either Type I or Type II specified in Section R311.7.7.3.
  - e. Return handrail(s) to newel post or wall. (R311.7.7.2)
65. Guards shall meet the following:
- a. Provide guards where the open side is more than 30-in. above the floor or grade below at any point within 36-in. horizontally to the edge of the open side. (R312.1)
  - b. Guard height shall be a minimum of 42-in. (R312.2)
  - c. Required guards shall not have openings which allow passage of a sphere 4 inches in diameter. (R312.3)
66. Provide connection details of guardrail and/or handrail adequate to support a concentrated load of 200 pounds applied in any direction at any point along the top. (T-R301.5)

## VENTILATION

67. Attic Vents shall meet the following: (R806.1, R806.2)
- a. Show ventilation type, size, and location.
  - b. The net free ventilating area shall not be less than:
    - i. 1/150 of the attic space **OR**
    - ii. 1/300 provided a Class I or II vapor barrier is installed on the warm side of ceiling **OR**
    - iii. 1/300 provided at least 50% and not more than 80% of the required ventilation area must be located at least 3 feet above eave or cornice vents with the balance provided by eave or cornice vents.
  - c. Openings shall have corrosion-resistant wire mesh or other approved material with 1/16-in. minimum and 1/4-in. maximum opening.
  - d. A minimum of 1-in. airspace shall be provided between insulation and roof sheathing. (R806.3)
  - e. Unvented attic assemblies shall meet all the conditions in Section R806.4.
68. Under-floor vents shall meet the following requirements: (R408.1)
- a. Show ventilation type, size and location.
  - b. One ventilation opening shall be placed within 3-feet of each corner of the building
  - c. The net free ventilating area shall not be less than 1/150 of the crawl-space area.

- d. Openings shall have corrosion-resistant wire mesh or other approved material with 1/8-in. minimum and 1/4-in. maximum opening.
- e. Unvented under-floor space shall comply with Section 408.3.

## GARAGE AND CARPORT

69. The following is required for the separation of the private garage from the dwelling unit:
- a. Garages beneath habitable rooms shall be separated by no less than 5/8-in. Type X gypsum board. Provide minimum 1/2-in. gypsum board on the garage side elsewhere. (T-R302.6)
  - b. Provide minimum 1/2-in. gypsum board on the garage side of detached garages less than 3-ft. from a dwelling unit or structural members supporting floor or ceiling assemblies. (T-R302.6)
  - c. Doors to the dwelling unit shall be solid wood or solid or honeycomb core steel and not less than 1-3/8-in. thick, or 20 minute rated, unless the dwelling unit and the garage are protected by an automatic fire sprinkler system. Doors shall be self-closing and self-latching. (R302.5.1)
  - d. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. (R302.5.1)
  - e. Garage floor surfaces shall be of an approved noncombustible material, and the area used to park vehicles shall be sloped to a drain or toward the main vehicle entry. (R309.1)
  - f. Floors in garage/carport shall be designed to support a uniformly distributed load of 50-psf or concentrated live loads of 2,000-lbs acting on an area of 20-sq. in. (T-R301.5)

## VENEER / FIREPLACE

70. Specify and detail the veneer material, thickness, backing, anchorage, footings and support over openings in accordance with Section R703.7.
71. Wood burning fireplace is prohibited per AQMD's Rule 445. Gas-fueled fireplace or wood burning fireplace above 3,000-ft elevation is allowed when exemptions in Rule 445 are met.
72. Masonry fireplaces and chimneys shall be constructed, anchored, supported, and reinforced as required per Sections R1001 and R1003.
73. All wood beams, joists, studs and other combustible material shall have a minimum clearance of 2 inches from the front and sides and 4 inches from the back faces of masonry fireplaces. (R1001.11)
74. For Factory-built steel fireplace specify manufacturer, model and I.C.C./UL number or other approved agency. (R1004.1)

## **STRUCTURAL**

75. Buildings and structures, and all parts thereof, shall be constructed to safely support all loads as *prescribed* in 2011 County of Los Angeles Residential Code. When a building contains structural elements exceeding the limits of or not conforming to the Residential Code, these elements shall be engineered in accordance with 2011 County of Los Angeles Building Code. (R301.1.3)
76. Specify grade and species of framing lumber, type and grade of plywood, design strength of concrete and masonry units, the mix of mortar and grout, the strength of steel, glued-laminated timbers, ASTM designation of structural steel shapes and \_\_\_\_\_ . (106.4.3)
77. All one- and two-family dwellings and townhouses in Seismic Design Category D<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub> shall comply with seismic provisions in Section R301.2.2.
78. Buildings in Seismic Design Category E determined per Table R301.2.2.1.1 shall be designed in accordance with 2011 County of Los Angeles Building Code, unless it can be reclassified to a lower SDC per Section R301.2.2.1.2. (R301.2.2.4)
79. A California licensed architect or civil/structural engineer shall approve and stamp construction documents of the following constructions, but not limited to: (R301.1.3.2, R301.1.3.3)
  - a. Wood frame construction more than one story in height or with a basement located in Seismic Design Category D<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub>
  - b. Cold-formed steel construction
  - c. Concrete construction
  - d. Masonry construction
80. Buildings including additions constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with Section 1613.9 of the 2011 County of Los Angeles Building Code. (R301.1.4)
81. Irregular buildings or portions of a building defined in Section R301.2.2.2.5 shall be designed by a registered design professional in accordance with 2011 County of Los Angeles Building Code. Design of the remainder of the building is permitted using the provisions of the Residential Code. (R301.2.2.2.5)
82. Cross-reference all calculations for joists, beams, shear walls, etc, to the structural framing floor plans. (106.4.3)
83. Submit structural calculations and or design details for the following: \_\_\_\_\_ (R301.1.3)
84. The Engineer or Architect of Record shall be designated on the building permit application. (106.4.3)
85. The Engineer or Architect of record shall review, approve and stamp truss design for loads, location, and suitability for intended use. (R802.10.2)
86. Provide a detailed schedule of "Statement of Special Inspections" on the plans complying with 1704.1.1.

87. Specify the roof and floor live loads, roof snow loads, wind design data including wind speed and exposure, and earthquake design data including Seismic Design Category and wall bracing method. Include references to design factors and span tables. (R301, 1603.1)
88. Provide a note on the plans "Fasteners for preservative-treated or fire-retardant-treated wood shall be of hot dipped zinc-coated galvanized steel in accordance with ASTM A 153." (R317.3)

## **FOUNDATION**

89. The foundation plan does not comply with the soil report recommendation for this project. (106.4.3)
90. Note on the foundation plan "Prior to requesting a Building Department foundation inspection, the soils engineer / geotechnical consultant shall inspect and approve the foundation excavations". (106.4.3)
91. Have the consulting soils/geotechnical engineer review and approve the foundation plans and foundation details. (106.4.3)
92. Soil bearing pressure is limited to 1,500-lbs/SF unless soils report recommends otherwise. (T-R401.4.1)
93. Call out foundation bolt size and spacing on foundation plan. The foundation bolts shall be 1/2-in. diameter for SDC D<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub>, or 5/8-in. diameter for SDC E or F. Foundation bolts shall be embedded at least 7-in. into the concrete or masonry foundation spaced not more than 6-ft. apart and provided with 0.229-in. x 3-in. x 3-in. plate washers. (R403.1.6, R602.11.1, 2308.12.8, 2308.12.9)
94. Detail (and reference location on foundation plan) typical foundation sections for: perimeter walls, interior bearing walls, depressed slabs, foundation common to dwelling and garage, garage entrance, spread and/or post pads. (106.4.3)
95. Concrete or masonry foundation walls shall be designed in accordance with Chapters 19 or 21, respectively.
96. For foundation supporting (1) / (2) floors, sections (12) / (15) inches wide, 6 inches thick and minimum 12 inches in depth below natural ground surface or certified fill grade are required. (T-R403.1, T-1809.7)
97. Provide details for stepped footings when slope of bottom of footing exceeds 1:10 but less than or equal to 1:3. (R403.1.5)
98. Show minimum 18-in. underfloor clearance from grade to bottom of floor joists and minimum 12-in. clearance to bottom of girders. (R317.1)
99. Specify that foundation sills shall be naturally durable or preservative-treated wood. Field-cut ends, notches and drilled holes of preservative-treated wood shall be field-treated per AWP A M4. (R317.1.1, 2304.11.2.4)
100. Provide a min. 26-gage weep screed for stucco at the foundation plate line a minimum of 4-in. above the earth or 2-in. above paved areas. (R703.6.2.1)
101. Wood sill plate shall be minimum 8-in. above adjacent grade. (R317.1)

102. Show location of underfloor access crawl hole (18 x 24 inches through a floor or 16 x 24 inches through a perimeter wall). (R408.4)
103. Foundation and floor slabs shall conform to the following requirements, unless an approved soils report indicates that soil is not expansive by the Expansion Index Test method, or recommends other details: (BCM 1805.8 Art. 1)
- Continuous footings under exterior walls and interior bearing walls extending below grade 24-in. and 18-in. respectively and below foundation wall crawl hole. Piles or piers are permitted without interconnected grade beams to support first floor loads only. Pad footing located under a reinforced slab within the confines of a perimeter footing need not be connected by a grade beam.
  - Four continuous #4 bars, two 4-in. from bottom and two 4-in. from top of foundation.
  - Floor slab 4-in. thick over two layers of a 2-in. fill of sand and a moisture barrier membrane (6 mils thick) sandwiched between the two layers of fill and reinforced with #4 bars at 16-in. O.C. each way. Reinforcement to be placed at center of slab.
  - Saturate the soil 18-in. deep before placing the concrete slab.
  - Provide #4 dowels at 16-in. O.C. bent 2-ft. into slab and 1-ft. into footing. Dowels may be omitted when slab is a "monopour" or designed as an independent "floating slab."

## **FRAMING**

### **Roof / Ceiling:**

104. Specify the size, spacing and direction of rafters. (106.4.3)
105. The \_\_\_\_\_" x \_\_\_\_\_" rafters at \_\_\_\_\_" O.C. over \_\_\_\_\_ exceed the allowable span (T-R802.5.1(1) – (8))
106. The size of ridge board, valley, or hip members shall not be less than the cut end depth of the rafter. (R802.3)
107. Roof purlins shall not be smaller than the rafter they support. The maximum span for 2x4 / 2x6 in. roof purlins is 4 / 6 ft. respectively. For purlin supports provide struts not smaller than 2x4 in. spaced not more than 4-ft. on center with an unbraced length not over 8-ft., and not flatter than 45 degrees from the horizontal, to bearing walls. (R802.5.1)
108. Provide designed ridge beams (4 x min.) for open beam vaulted ceilings, or when ceiling joists or rafter ties are not provided. (106.4.3)
109. Ridge / hip / valley members shall be designed as vertical load carrying members when the roof slope is less than 3:12. Provide calculations. (R802.3)
110. Provide manufactured roof truss profiles, layout plan and calculations from truss manufacturer. (R802.10.1)

111. Wood Trusses shall be connected to wall plates by the use of approved connectors having min. uplift capacity of 175 lbs and shall be installed per manufacturer's specifications. (R802.10.5)
112. Show ceiling joist size, spacing, and direction on plans. (106.4.3)
113. The \_\_\_\_\_" x \_\_\_\_\_" ceiling joists at \_\_\_\_\_" O.C. over \_\_\_\_\_ exceed the allowable span.(T-2308.10.2 (1) or T-2308.10.2 (2))
114. Rafter ties spaced 4-ft. (max.) O.C. are required immediately above ceiling joists, which are not parallel to the rafters. Connections shall be in accordance with Tables R802.5.1(9) or 2308.10.4.1 or equivalent capacities shall be provided. (R802.3.1, 2308.10.4.1)
115. For plywood roof diaphragms, specify thickness, grade, panel span rating, and nailing schedule. (R803)
116. Show blocking at ends of rafters and trusses at exterior walls, and at supports of floor joists. (R502.7, 2308.10.6, 2308.8.2)

### **Floors:**

117. Show size, spacing and direction of floor joists. (106.4.3)
118. Joists under parallel bearing partitions shall be of adequate size to support the load. (R502.4)
119. The \_\_\_\_\_" x \_\_\_\_\_" floor joists at \_\_\_\_\_" O.C. at \_\_\_\_\_ exceeds the allowable span. (R502.3.1(1), R502.3.1(2))
120. The \_\_\_\_\_" x \_\_\_\_\_" floor girder / beam under \_\_\_\_\_ exceeds the allowable span. (R502.5(1), R502.5(2))
121. For structural wood panel floor diaphragm specify thickness, grade, T&G edges, panel span rating, nailing schedule, and panel layout pattern. (R503)

### **Walls:**

122. Headers shall be provided over each opening in exterior and interior bearing walls. (T-R502.5(1), T-R502.5(2), 2308.9.5)
123. The \_\_\_\_\_" x \_\_\_\_\_" header at \_\_\_\_\_ exceeds the allowable stress for \_\_\_\_\_ grade. (NDS T-4-A)
124. Detail is required for header support at the corner window(s) at \_\_\_\_\_. (106.4.3)
125. Studs in bearing walls are limited to 10-ft. in height unless an approved design is submitted. (T-R602.3(5))
126. Detail lateral support for the top of interior non-bearing walls when manufactured trusses are used. (1607.13)
127. Studs supporting two floors, ceiling, and roof must be 3x4 or 2x6 at 16-in. O.C. (T-R602.3(5), T-2308.9.1)
128. Note the use of full-length studs (balloon frame) on exterior walls of rooms with vaulted ceiling. (2308.9.1, T-2308.9.1)





