



# Community Development Department, Building and Safety Division Residential Plan Check Corrections

3031 Torrance Blvd., Torrance CA 90503 (310) 618-5910

Address: \_\_\_\_\_ Valuation: \_\_\_\_\_ Case #: \_\_\_\_\_

Owner: \_\_\_\_\_ # Stories: \_\_\_\_\_ Date Submitted: \_\_\_\_\_

Plan Checker: \_\_\_\_\_ Type: \_\_\_\_\_ Group: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

- Corrections circled and/or written below are to be made **and noted** on plans before permit is issued;
- Return correction lists, check print and 2 corrected copies of plans and supporting documents **w/ response letter**;
- Provide name, address and phone numbers of the owner and responsible design professional(s) on the tile sheet;
- Provide a complete description of the scope of work on the cover sheet.

## GENERAL

1. **Provide a statement** on the title sheet of the plans that this project shall comply with Title 24 and **2022** California Building Code (CBC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Electrical Code (CEC), California Energy Code, and California Green Building Code.
2. Provide 8-1/2" x 11" plot plan showing address, area of work, setbacks, owner's name, north arrow, and Correction #6.
3. Provide a complete lateral and vertical analysis for this building/addition. A licensed architect or registered engineer must prepare structural plans.
4. All sheets of the plans and the first sheet of the calculations are required to be signed by the California licensed architect or engineer responsible for the plan preparation.
5. Provide a fully dimensioned site plan drawn to scale. The site plan shall show the north arrow, property lines, easements, public ways and all existing/proposed buildings and structures on the site. [§ 106.2 Appendix CBC] Verify side/front/rear yard setbacks.
6. **Show** location of power pole servicing lot. **Provide note on plans** "Undergrounding of electrical, cable and phone". [ORD 3032]
7. Exterior walls of group R-3/U occupancies less than 5 feet from property line shall be of one-hour construction. **[See Table R302.1 (1)]**
8. Provide land survey.
9. Note on plans: Certification of foundation forms required prior to foundation inspection.
10. Projections beyond the exterior wall shall not extend more than 12 inches into the area where openings are prohibited (<3') nor beyond a point one-third the distance to the lot line from an assumed vertical plane located where protected openings are required. **[See Table R302.1 (1)]**
11. Provide a glazed area not less than 8 percent of the floor area of the room served OR artificial light that is adequate to provide an average illumination of 10 foot-candles at a height of 30" above the floor level in the area of \_\_\_\_\_ room. **(R303.1 CRC)**
12. Hallway widths shall be 36" minimum. (R311.6 CRC)
13. Bedroom emergency egress: Each bedroom shall have a door directly to the exterior or a window that will provide a clear space opening of at least 5.7 square feet in the open position (5 sq. ft. at grade floor openings), and a minimum clear opening width of 20 inches and clear opening height of 24 inches and a maximum sill height of 44" above the floor. [§ 1030 CBC](R310 CRC)
14. Room natural ventilation requirement. Provide exterior opening with an area equal to 4 percent of the floor area. Provide in the \_\_\_\_\_ room. **(R303.1 CRC)**
15. Stairways:
  - Stairway riser must be 4 inches minimum and 7.75 inches maximum and minimum run shall be 10 inches. [§ 1011.5.2 CBC](R311.7.5 CRC)
  - Show a minimum 36 inches x 36 inches stair landing. [§ **1011.6 CBC**](R311.3 CRC)
  - Landings should not be reduced in width more than 7.75 inches by a door when fully open. [§ **1011.6 CBC**](R311.3.1 CRC)
16. Provide a minimum of 6 feet 8 inches clear above all portions of the stairs and landings. (R311.7.2 CRC)
17. Handrails are required on at least one side of each continuous run of treads with four or more risers. Show stairway railing/handrail on the floor plan. (R311.7.8 CRC)
18. At least one egress door shall be provided for each dwelling unit that has a minimum clear width of 32 inches between the face of the door and the stop, with the door opened 90° and a minimum clear height of 78 inches measured from the top of the threshold to the bottom of the stop. (R311.2 CRC)
19. Landing at the required egress door shall not be more than 1-1/2 inches lower than the top of the threshold. Landings with doors that do not swing over the landing may have a difference in elevation of 7-3/4 inches maximum below the top of the threshold (311.3.1 CRC)
20. Specify the roof slope. (R905.2.2 CRC)
21. Specify roof/deck material and application. Clearly specify waterproofing, flashing, and method of attachment appropriate to the material being used. (R905 CRC) Specify ICC or other recognized listing approval number for roof materials. (R106.1.1 CRC)
22. Specify minimum 1/4 inch per foot roof/deck slope for drainage. (R300 CRC)
23. Minimum 1-inch clearance shall be provided between the attic insulation and the roof sheathing where eaves or cornice vents are installed. **Blocking bridging and insulation shall not block airflow.** (R806.3 CRC)
24. Indicate two layers of Grade D paper between plywood shear panel and exterior lath. [§ 2510.6 CBC]
25. **Show attic ventilation. The minimum net free ventilating area shall be 1/150 of the area of the vented space. The minimum net free ventilation area can be 1/300 of the vented space provided the following conditions are met: not less than 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically.** **(R806.2 CRC)**
26. **Show** location of attic access with a minimum size of **22"** x 30" unless the maximum vertical headroom height in the attic is less than 30". Where mechanical equipment is installed in the attic, the

## FLOOR PLAN

11. The doorway from a garage into a living area (not a bedroom) shall be protected by a 1-3/8 inch self-closing, self-latching solid core door, or a self-closing door having a fire-protection rating of not less than 20 minutes. **Or automatic-closing and self latching.** [§ 420.2 CBC] (R.302.5.1 CRC)
12. The garage shall be separated from the dwelling unit and its attic area by means of a minimum 1/2" gypboard applied to the garage side and 5/8" type X gypboard beneath habitable room. Show on the floor plan or on a section. **(R302.6 CRC)**
13. Showers and walls above bathtubs with shower heads shall be finished with a smooth, nonabsorbent surface to a **height not less than 72" above the floor.** [§ 1209.2.3 CBC] (307.2 CRC)
14. **[§2406.4 CBC]**(R308 CRC) Show safety glazing in the following locations:
  - Where the nearest edge of glazing is within a 24-inch arc of either side of a door in a closed position (unless there is an intervening wall between the door and the glazing or if the glazing is 5' or higher above the walking surface).
  - Glazing greater than 9 square feet with the bottom edge less than 18" above the floor and the top edge greater than 36" above the floor (unless the glazing is more than 36" horizontally away from walking surfaces or if a complying protective bar is installed)
  - Glazing in shower and tub enclosures (less than 60" above standing surface and 60" horizontally from edge of bathtub or shower.
  - Glazing in swinging and sliding doors.
  - Glazing adjacent to stairways, landings and ramps within 36" horizontally of a walking surface when the glazing is less than 60" above the plane of the adjacent walking surface.
  - Glazing less than 5' horizontally from swimming pools and less than 5' above adjoining grade.

minimum dimensions are 30"x30" and at least as large as the largest component of the appliance [§ 1209.2 CBC] (R807.1 CRC)

- 31. For masonry chimney, comply with section. **(R1001.1 CRC)**
- 32. Provide smoke alarms in each new and existing sleeping room and at a point on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms. Show location(s) on a floor plan or include a note in general notes. [§ 907.2.10.1 to 907.2.10.3 - CBC] (R314.3 CRC)
- 33. In new construction, the required smoke alarms shall receive their primary power from the building wiring and shall be equipped with a battery backup. Smoke alarms may be solely battery operated when installed in existing sleeping rooms and hallways. **[§ 907.2.11.8 CBC]** (R314.6 CRC)
- 34. Where more than one smoke alarm is required to be installed, the smoke alarm shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. (R314.4 CRC)
- 35. **Show** carbon monoxide smoke/symbol on floor plan outside of each separate sleeping area in the immediate vicinity of the Bedrooms, at every habitable level of a dwelling unit including attached garage and basement and each bedroom with fuel burning appliances. (R315.2.3.2 CRC)(R315.2.6 CRC) **(R315.3 CRC).**

**PLUMBING/MECHANICAL**

- 36. **Show** the location of the water heater on the floor plans. [§ 106.1.1 Appendix CBC]
- 37. **Provide note on plans:** Strap the water heater at upper and lower 1/3 of vertical height. The lower strap shall maintain 4" above the controls. [§ 507.2 CPC]
- 38. Provide clearance to toilet of 15" from centerline and 24" from front. [§ 402.5CPC]
- 39. **Provide note on plan:** Showers and shower-tubs shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection. [§ 408.3 CPC]
- 40. **Notes to the plans:** **Tankless Water Heaters** shall be nationally listed and be installed in accordance with the installation instructions that were approved as part of their listing. "The gas piping serving this appliance must be sized in compliance with the water heater's listed installation instructions and the **2022** California Plumbing Code.
- 41. Indicate how the addition is going to be heated. Show the location of new and existing heating units on the floor plans. If the existing system is to be used, **SHOW THE LOCATION OF THE PROPOSED REGISTERS.** [§106.1.1 Appendix CBC]
- 42. Clothes dryer moisture exhaust ducts shall terminate outside the building and have a back-draft damper. Exhaust duct is limited to 14' with 2 elbows. This shall be reduced 2' for every elbow in excess of 2. **Show minimum 4" diameter, smooth, metal duct, and show duct route on plan.**
- 43. Provide an exhaust fan in the bathroom of 4 air changes per hour minimum with humidity control sensor. **(R303.3.1 CRC)**

**ELECTRICAL**

- 44. **Provide note on plans:** Provide arc-fault circuit interrupter protection for **all** outlets (not just receptacles) for all dwelling unit. [§210.12 CEC]
- 45. Provide light with switch at top and bottom for interior and exterior stairs. (R303.7 CRC)
- 46. The panel/subpanel is located in the middle of a shear wall. Revise the location of the panel or have the engineer address

shear transfer, increased loading, and edge reinforcing around the opening in the wall. [§210.8 CEC]

- 47. Ground Fault Circuit Interrupter (GFCI) receptacle protection is required in the – bath; garage, outdoors, underfloor space, kitchen counters, unfinished basements and laundry/utility/wet bar sinks (where the receptacle is within 6 ft of the outside sink edge). [§210.8 CEC]
- 48. **Provide note on plans:** A minimum of 2-20 amp small appliance branch circuits shall be provided for all receptacle outlets in the kitchen, dining room, pantry, or other similar areas [§210.11(C)(1) CEC]
- 49. **Show** a minimum of one wall switch controlled lighting outlet in every habitable room. In other than kitchens and bathrooms, one or more receptacles controlled by a wall switch are permitted in lieu of lighting outlets. [§210.70 CEC]
- 50. A switched light shall be installed at all exterior doors. [§210.70 CEC]
- 51. Provide at least one switched lighting outlet in the garage. [§210.70 CEC]
- 52. **Provide note on plans:** At least one 20-amp branch circuit shall be provided to supply bathroom and laundry receptacle outlets. Such circuits shall have no other outlets. [§210.11(C)(3); §210.11(C)(2) CEC]

**STRUCTURAL**

- 53. Provide strap at top plate line between addition and existing Building.
- 54. Cripple walls having stud height exceeding 14 inches shall be considered a story for the purposes of Conventional Framing and shall be braced as required for braced wall lines in accordance with Table **2308.6 [§2308.6.4 CBC](R602.9 CRC)**
- 55. Provide 8" mudsill and 4" weep screed clearance to grade.
- 56. Show minimum 18 inches clearance from grade to bottom of floor joists and minimum 12-inch clearance to bottom of girders. [§2304.12.1.1 CBC]
- 57. Show minimum underfloor access of 18 inches by 24 inches. **[§1208.1 CBC](R408.4 CRC)**
- 58. Show minimum underfloor ventilation equal to a 1 sq. ft. for each 150 sq. ft. of under floor area. **[§1202.4.1.1 CBC](R408.2 CRC)**
- 59. If foundation cripple wall studs are less than 14", framing shall be solid blocking. **[§2308.3.1.1 CBC](R602.10.10 CRC)**
- 60. Cripple wall exceeding 4 feet in height shall be framed of studs having the size required for an additional story. [§2308.6.6 CBC]
- 61. Steel plate washers shall be a minimum of 3" x 3" x .229" and shall be placed between the foundation sill plate and the nut. [§2308. CBC]
- 62. **Note on the plans;** hold down anchors must be tied in place prior to foundation inspection and re-tightened just prior to covering the wall framing. [§109.3 Appendix CBC]
- 63. Specify 1/2" dia. x 10" anchor steel bolts into foundation. Bolts shall extend not less than 7" into concrete and spaced not more than 4 feet on center. Anchor bolts should be located not more than 12 inches or less than 4 inches from each end of each piece. **[§2308.3.1 CBC]**
- 64. Show foundation bolts and holdowns size and spacing. Foundation bolt size and spacing for shear walls must be clearly shown on the foundation plan. **[§2308 CBC]**
- 65. All *slab* floors used for living purposes shall be reinforced with six by six (6 x 6) number ten (10) wire mesh. [TMC 81.2.22](R506 CRC)
- 66. Expansive soil: provide foundation depth below grade of 24" for exterior and 18"for interior by 15" wide w/ (2) #4's steel bars top and bottom. City Ordinance (see 1809.15)

**CITY OF TORRANCE**  
**COMMUNITY DEVELOPMENT DEPARTMENT – BUILDING AND SAFETY DIVISION**  
**RESIDENTIAL PLAN CORRECTIONS - 2022 California Energy Code (Title 24)**

**Address** \_\_\_\_\_ **Owner** \_\_\_\_\_ **Case #** \_\_\_\_\_  
**Prescriptive Approach**

**For new construction, addition and alteration need to meet these requirements: or Performance Approach, see correction #25**

1. Insulation with a minimum rating of R-20 installed in wall stud with minimum 2x6 framing or U-factor  $\leq 0.071$ .  
**\*\*Exception, only applied to one or two walls of an addition. R-15 cavity insulation if the existing framing is 2x4 or R-21 cavity insulation if the existing framing is 2x6.**
2. Insulation with a minimum rating of R-30 installed in ceiling joist spaces.
3. Insulation with a minimum rating of R-19 installed under raised floor with U-factor  $U \leq 0.037$ .
4. Insulation of heating or cooling ducts, minimum R-6, in accordance with requirements of Chapter 6 of the California Mechanical Code. (Table 150.2A)
5. All exterior joints, penetrations and opening in the building envelope shall be caulked and sealed.
6. The area of glass in windows and doors limited to 20 percent of the floor area and 5% of west facing area of the addition plus the area of any glass that was eliminated in the original residence wall area where the new additions are attached. If the addition is greater than 1,000 square feet, then the credit for the eliminated glass areas is not allowed.
7. All doors and swinging windows weather stripped.
8. All metal, windows and sliding glass doors labeled certifying compliance with Section 110.6, Table 110.6-A and Table 110.6-B Standards for doors and windows, of the standards.
9. New heating or cooling equipment thermostatically controlled shall be installed with setback thermostats.
10. All fan systems exhausting air from the building envelope to the outside shall be provided with back-draft dampers.
11. Insulation blankets with a minimum rating of R-12 installed on storage tanks and on hot water pipes from water heater to the kitchen fixtures.
12. Insulation on the first five feet of hot and cold water outlet pipes from the storage tank of new and existing piping. (Table 120.3A)
13. Re-circulation hot water piping in attics, garages, crawl spaces or unheated spaces shall be insulated. (Table 120.3A)
14. All piping  $\geq 1$  inch in diameter should be insulated with 1.5 inch insulation thickness; pipes  $< 1$  inch in diameter, minimum insulation is 1 inch thickness. (Table 120.3A).
15. All window and sliding glass door assemblies must be dual-paned and aluminum framed or have a maximum U-value of 0.30 and SHGC of 0.23 (manufacturer labels should stay on for inspector to verify).
16. Radiant heating barrier requires an applicable energy report and details for manufacture’s specs plus 1-1/2 to 2” air gap.
17. All lighting fixtures in the kitchen must be high efficacy controlled by either a dimmer switch or vacancy sensor that requires a manual on activation. Under cabinets lighting requires separate switch from other lighting system.
18. All light fixtures shall contain bulbs that are labeled as JA8-2022. Screw base bulbs are permitted, except in recessed lighting fixtures.
19. Recessed lighting shall be listed as IC (zero clearance to insulation) and AT (air tight), be sealed/caulked between the fixture housing and ceiling, shall not contain a screw base socket, and contain bulbs marked with JA8-2022-E efficiency label.
20. Lighting fixtures located within 3 feet horizontally and 8 feet vertically of the bathtub rim or shower stall threshold shall be listed for a damp location, or listed for wet locations where subject to shower spray.
21. Lighting in bathrooms, garages, laundry and utility rooms must be JA8 high efficacy lighting and at least one fixture must have vacancy sensors. (Sec 150.0(k) 2I-J)
22. Other rooms must have high efficacy lighting with JA8-2022 bulbs and have vacancy sensors or dimmers. Closets and hallways under 70 square feet are exempt.
23. Outdoor lighting must be mounted on the building and be JA8 high efficacy, including on/off switch and have photo-cell and motion sensor, or photo control and automatic time switch or astronomical time clock or energy management control system.
24. Common area lighting of multi-family units must be high efficacy luminaires and controlled by an occupant sensor.
25. Provide approved performance software for 2022 standards of CF-1R or CF-1R-ADD or CF-1R-ALT & CF-1R-ALT-HVAC sheets from Energy reports must be on plans, signed by its author and homeowner/designer. Registration with HERS provider is required.
26. HERS field verification is not required for water heater, window replacements and additions  $< 300$  sq. ft.
27. Insulation certification (CF-2R) must be posted at the job site and be available for enforcement agencies upon request.
28. Indoor Air Quality (IAQ) for whole-building ventilation airflow for (addition  $> 1000$  sq. ft.) shall be HERS verified.
29. Continuous whole-building ventilation rate is required to be 1 cfm for each 100 square feet<sup>2</sup> of conditioned floor area (CFA) plus 7.5 cfm for each occupant. Ventilation rate (cfm) =  $CFA/100 + 7.5 \times (\text{number of bedrooms} + 1)$ .
30. **Mandatory requirements for Solar Panels in New Single Family dwellings shall have a photovoltaic (PV) system meeting the minimum Requirements as specified in equation 150.1-C and Sec. 110.10(b) A. (2022 CEC).**  
**\*\*Photovoltaic (PV) requirements DO NOT Apply to additions & alterations. \*\***
31. **Energy Storage System (ESS) Ready in one & two dwelling units. All installations in accordance with CEC 150 (S)**

Conditioned Floor Area (Ft <sup>2</sup> )	Bedrooms				
	0-1	2-3	4-5	6-7	>7
$\leq 1500$	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120

**CITY OF TORRANCE**  
**Community Development Department – Building & Safety Division**

Residential Plan Check Correction  
2022 California Green Building Code (CGBS)

Applies to new construction, additions and alteration to existing building condition area, interior volume or size.

OWNER: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

CASE #: \_\_\_\_\_

**Water Efficiency and Conservation**

1. Indoor Water Use. Section 4.303
  - a. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Section 4.303.1.1 through 4.303.1.4.4.
  - b. Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with California Plumbing Code, and shall meet the applicable referenced standards. Section 4.303.2.
2. Outdoor Water Use Section 4.304(Outdoor potable water use in landscape areas).  
Residential development shall comply with a local water efficient landscape ordinance or the current California department of water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent: Section 4.304.1
  - a. The (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2. (MWELO) and supporting documents, including a water budget calculator, are available at <http://water.ca.gov/>

**Enhanced Durability and Reduced Maintenance**

3. Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency. Section 4.406.1.

**Building Maintenance and Operation**

4. An operation and maintenance manual shall be provided to the building occupant or owner. Section 4.410.1.

**Environmental Quality**

5. Any installed gas fireplace shall be a direct-vent sealed-combustion type with approval number. Section 4.503.1. Wood Fireplaces are not allowed { Air Quality Management District (AQMD) }

**Pollutant Control**

6. Duct openings and other related air distribution component openings shall be covered during construction. Section 4.504.1.
7. Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits. Section 4.504.2.1.
8. Paints, stains and other coatings shall be compliant with VOC limits. Section 4.504.2.2.
9. Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds. Section 4.504.2.3.
10. Documentation shall be provided to verify that compliant VOC limit finish materials have been used. Section 4.504.2.4
11. Carpet and carpet systems shall be compliant with VOC limits. Section 4.504.3.
12. 80 percent of floor area receiving resilient flooring shall comply with specified VOC criteria.
13. Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards. Section 4.504.5.

**Interior Moisture Control**

14. Vapor retarder and capillary break is installed at slab-on-grade foundations. Section 4.505.2.
15. Moisture content of building materials used in wall and floor framing should not exceed 19 percent when checked before enclosure. Section 4.505.3.
16. Humidity control fan is required in a bathroom containing bathtub or shower. Section 4.506.1.

**Environmental Comfort**

17. (Section 4.507.2) Heating and air-conditioning system design. Heating and air-conditioning system shall be sized, designed and have air equipment selected using the following methods;
  - a. Establish heat loss and heat gain values according to ANSI/ACCA 2 manual J-2011 or equivalent
  - b. Size duct systems according to ANSI/ACCA 1 Manual D-2016 or equivalent
  - c. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 or equivalent.
18. Electric vehicle (EV) charging for new one- and two-family dwellings and townhouses with attached private garages shall comply with Section 4.106.4. To facilitate future installation and use of EV chargers in accordance with (CEC ART 625).
  - a. Multi-Family dwellings, hotels/motels, in accordance with section 4.106.4.2 & 4.106.4.3

**\*\*\*Additions and alterations on homes built before 1994 shall comply with SB407 plumbing replacement law. A signed copy of affidavit “for water conservation fixtures” shall be submitted to the building inspector prior to final inspection.\*\*\***