

**SAN JOAQUIN COUNTY
RESIDENTIAL PLAN CHECK CORRECTION SHEET**

FAX (209) 468-3163

PERMIT NO: _____ DATE: _____

APPLICANT: _____ PHONE #: _____

OWNER: _____ PHONE #: _____

JOB SITE ADDRESS: _____

CHECKED BY: _____

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A. GENERAL

Present California Law mandates that residential construction comply with Title 24 and the following model codes:

2007 California Building Code

2007 California Plumbing Code

2007 California Mechanical Code

2007 California Fire Code

2007 California Electrical Code

2005 Energy Efficiency Standards, Title 24, Part 6 C.C.R.

B. The circled items listed need clarification, modification or change.

C. To speed up the recheck process, note on this list (or a copy where each correction item has been addressed, i.e., plan sheet, specification, etc.). Be sure to enclose the marked up list when you submit the revised plans.

D. Please make all corrections on the original tracings and submit two new sets of prints, or substitute the affected sheets in the original prints and return all documents and original plan sets.

1. GENERAL

- 1.1 A Building Permit cannot be issued prior to the approval of the Improvement Plan or approval by _____ department. Please contact your planner or the department involved.
- 1.2 Indicate on the Title Sheet of the plans, the name of the legal owner and name of person responsible for the preparation of the plans. An ink signature is required on all instruments of service. Section 106.1.1.
- 1.3 Specify on the Title Sheet of the plans the gross floor area of each element of this project including dwelling, garage, carport, patio, deck and balcony. Section 106.1.1.
- 1.4 Provide a statement on the Title Sheet of the plans that this project shall comply with 2005 Title 24 and 2007 CBC, CMC, CPC and 2007 CEC. Section 106.3.
- 1.5 Any occupancy not mentioned specifically or about which there is any question shall be classified by the Building Official and included in the group which it most nearly resembles. Section 301.
- 1.6 Submit all drawings in scale with information clearly indicated. Section 106.3..
- 1.7 Execute special inspection agreement. Agreement attached. Section 1704.
- 1.8 A Wood burning fireplace is not allowed with a parcel less than one-half acre.
- 1.9 Only one wood burning fire place is allowed

2. SITE PLAN

- 2.1 Submit fully dimensioned site plan drawn to scale showing north arrow, location, size and use of all existing and proposed structures on the lot. Identify property lines and show lot dimensions and all easements. Show distances between all structures, proposed and existing, and property lines. Show driveway with dimensions and construction materials.
- 2.2 Buildings 150 feet or more from the public roadway shall conform to the San Joaquin County Fire Chiefs Association Fire Road Standards. The existing-proposed fire access road/driveway shall be delineated on the construction drawings and the appropriate forms shall be signed by the owner prior to permit issuance.
- 2.3 Note on plans that surface water will drain away from building and show drainage pattern. Section 1804.7.
- 2.4 Show lot and finish floor elevations. Indicate that the finished floor elevation and building mechanical equipment shall be a minimum of 12 inches above the 100-year flood elevation N.G.V.D.
- 2.5 Indicate that non-decay resistant wood and HVAC duct work shall be located above the floodplain elevation.
- 2.6 Indicate that areas in the floodplain shall have two or more openings in the exterior wall on different sides, with the bottom edge within one foot of grade and a total net area not less than one square inch for each square foot of enclosed area. The opening may be screened or louvered.

2.7 A Grading permits is required. Show the following on the site plan.

a. Drainage pond, volume required is _____.

b. Building pad, estimate cubic yards of material..

Section 1803

3. FLOOR PLAN

3.1 Provide a copy of a complete floor plan to be given to the County Assessor.

3.2 Identify all rooms as to use. Show dimensions of all rooms.

3.3 Indicate window sizes and their method of opening on floor plan.

3.4 Provide floor plan of rooms adjoining proposed addition. Indicate any windows and doors, including their sizes and method of opening, which are affected by the addition.

3.5 Dwelling units and congregate residences shall have at least one room which shall have not less than 120 sq. ft. of floor area. Habitable rooms, other than kitchens shall contain at least 70 square feet of floor area with no dimension less than 7 feet. Section 1208.1 & 1208.3

3.6 Window and skylight area must be at least 8 percent of the floor area. Section 1205.2.

3.7 Openable window and openable skylight area in habitable rooms must be 4 percent of the floor area being ventilated. Section 1203.4.1.

3.8 At least ½ of the common wall must be open and have an opening not less than 1/10 of the floor area of the interior room or 25 square feet whichever is greater if light and ventilation is being supplied from adjacent room. Section 1203.4.1.1 & 1205.2.1.

3.9 Required windows shall not open into a roofed porch unless the ceiling is at least 7 feet and the longer side is at least 65% open. Section 1205.2.2.

3.10 Sleeping rooms and basements shall have a window or exterior door for emergency exit. Clear opening shall not be greater than 44 inches height from floor. The window must have an openable area of at least 5.7 square feet with the minimum clear openable width 20 "and the minimum clear openable height 24". Section 1026.2, 1026.2.1 & 1026.3.

3.11 Safety glazing shall be installed in the following locations. Section 2406.3:

- a. Glazing in ingress/egress doors.
- b. Glazing in sliding doors including fixed panels.
- c. Glazing within 24-inch arc of either vertical edge of the door and less than 60" above walking surface.
- d. Glazing in wall enclosing tub and shower less than 60" above standing surface and drain inlet.

- e. Glazing in excess of 9 sq. ft., bottom edge less than 18" above the floor, top edge greater than 36" above floor and walking surfaces within 36" horizontally of the plane of the glazing.
- 3.12 Show that ceiling height for habitable rooms is a minimum of 7 feet, 6 inches. Show that the ceiling height for laundry rooms, hallways, corridors and bathrooms is a minimum of 7 feet. Section 1208.2.
- 3.13 Show location of the weather-stripped attic access with minimum size 20" x 30". Detail how the access opening is to be framed if rafters or trusses do not provide adequate space. Locate in a corridor, hallway or other readily accessible location with a minimum of 30" headroom. Section 1209.2.
- 3.14 The walls and ceiling of the enclosed usable space under interior stairs shall be protected on the enclosed side with 0.5 or ½ inch Gypsum Board. Section 1009.5.3.
- 3.15 Garage requires ½ inch Gypsum Board fire protection on the garage side of walls and ceiling common to the dwelling. Walls supporting ceilings require equivalent fire protection. Section 406.1.4.
- 3.16 Indicate that firewall extends from garage floor to roof sheathing or may terminate at garage ceiling if the entire ceiling is finished with 1/2 inch Gypsum Board. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8 inch Type X gypsum board or equivalent. Section 406.1.4.
- 3.17 Show 1-3/8" solid core self-closing door or 20 minute door for openings between garage and dwelling. Section 406.1.4.
- 3.18 All elements supporting floor above garage, including walls supporting floor joists, shall have one-hour, fire-resistive protection on the garage side. Section 406.1.4.
- 3.19 Garages are not permitted to open into a room used for sleeping purposes. Section 406.1.4.
- 3.20 Doors may open into the garage only if the floor or landing in the garage is not more than 1" lower than the door threshold, or if door opens into house, the landing, step or floor difference shall not exceed 7.75". Section 1008.1.4.
- 3.21 Indicate a 36" minimum depth landing outside of exterior doors. Section 1008.1.5.

4. **FOUNDATION PLAN**

- 4.1 The proposed project is located within an expansive soil area where a conventional foundation may not be suitable. Therefore, an engineer or an architect is required to reevaluate the foundation design or specify all footings to be 18" deep. Section 1802A.2.2 & 1805A.8..
- 4.2 The proposed project is located in a subsidence area where a conventional foundation may not be suitable. Therefore, a complete soils report by a geotechnical engineer and foundation design are required. Section 1802A.
- 4.3 If hold-downs are required, note on plan that hold-down anchors and mudsill bolts must be tied into place prior to foundation inspection. Section 108.5.2.

4.4 Provide footings complying with Table 1805A.4.2 beneath all interior bearing walls.

4.5 Provide footings and columns for concentrated loads imposed by girder trusses and beams.

4.6 Specify size, I.C.B.O. number and manufacturer of power driven pins to fasten sills to concrete. Show end distance and spacing.

4.7 Braced wall support. Braced wall lines shall be supported on continuous foundations. Section 2308.3.4.

EXCEPTION: For structures with a maximum plan dimension not over 50 feet continuous foundations are required at exterior walls only.

4.8 All braced wall panels on concrete floors shall be anchored to slab using at least two ½" X 10" bolts into a footing. Section 2308.3.3.

4.9 Note on plans that foundations supporting wood shall extend 8" minimum above finish grade. Section 2304.11.2.2.

4.10 Dimension foundation per Table 1805A.4.2.:

Floors

<u>Supported</u>	<u>Stemwall</u>	<u>Width</u>	<u>Depth*</u>
1	6"	12"	12"
2	8"	15"	18"

*Depth is below undisturbed soil. CBC Section 1805A.2.

4.11 Provide two #4 reinforcing bars in all footings. Locate one 3" from top of stemwall and one 3" clear of soil in bottom of footing. S.J.Co. Ord. #3180.

4.12 Indicate that foundation sills shall be pressure treated or equal. Section 2304.11.2.2.

4.13 Show foundation bolt size and spacing. A minimum of ½" nominal diameter x 10" steel bolts embedded at least 7" into the concrete and spaced not more than 6' apart. Plate washers a minimum of 3" x 3" x 3/16" shall be used on each bolt. Section 2308.6 & 2308.12.8..

4.14 Show locations of hold downs on foundation plan, shear wall mudsill bolt spacing, and shear wall segment lengths.

4.15 Show pier size, 14" square or 16" diameter, spacing and 12" depth into undisturbed soil. Limit spacing to support 25 sq. ft. of floor area unless a greater area can be justified. S.J.Co. Ord. #3526

4.16 Concrete in footings shall have a specified compressive strength of not less than 2500 psi. at 28 days. Section 1805A.4.2.1

4.17 Specify that individual concrete or masonry piers shall project at least 8" above exposed ground unless the columns or posts which they support are of approved wood of natural resistance to decay or treated wood is used. Section 2304.11.2.7

- 4.18 Show blocking at ends and at supports of floor joists and floor trusses. Section 2308.8.2.
- 4.19 Floor slabs shall be not less than 3 ½" thick and reinforced with a minimum of 6" x 6", No. 10 gauge welded wire reinforcing mesh. S.J.Co. Ord. #3180.
- 4.20 If foundation cripple wall studs are less than 14", framing shall be solid block or sheathed with plywood. Section 2308.9.4.
- 4.21 Show minimum underfloor ventilation equal to 1 square foot for each 150 square feet of underfloor area. Openings shall be as close to corners as practicable and shall provide cross ventilation on at least two approximately opposite sides. Section 1203.3. Calculate required area and area provided.
- 4.22 Show minimum 18" clearance from grade to bottom of floor joists and minimum 12" clearance to bottom of girders. Section 2304.11.2.1.1.
- 4.23 Columns and posts located on concrete or masonry floors or decks exposed to the weather or to water splash or in basements and which support permanent structure shall be supported by concrete piers or metal pedestals projecting 1" above floors unless approved wood of natural resistance to decay or treated wood is used.
- 4.24 Show minimum underfloor access of 18" x 24" and if through floor it must be weatherstripped. Section 1209.1.

- 4.25 If subfloor clearances cannot be met and installed over an existing slab, a two-ply built-up asphalt membrane or an approved equivalent will be required or all floor structure members, including subfloor, shall be pressure-treated.

5. FRAMING PLANS AND SECTIONS

- 5.1 Provide calculations for main vertical and horizontal framing members and post footings. Calculations shall be accompanied by a plan drawing showing location of beams. Section 1604.
- 5.2 Provide calculations for lateral loads, shear panels, and shear transfer. Wind loading shall be based on a minimum of 75 m.p.h., $q_s=14.5$ psf, and exposure B or C. Calculations shall be accompanied by a plan drawing showing location of shear walls. Specify shear wall length and hold-down location on the plans. Show hold-down details with bolt type and embedment per manufacturer's specifications. Section 1609A.3
- 5.3 The proposed structure does not conform with the conventional construction requirements of Section 2308. Therefore, a licensed California designer is required to prepare, stamp and sign structural calculations and all drawings that pertain to the engineered design.
- 5.4 Where allowable shear exceeds 350 plf, foundation sill plates and all framing members receiving edge nailing from abutting panels shall be a single 3 inch nominal member. Section 2305.3.11.

- 5.5 Where the total design shear does not exceed 600 plf, a single 2-inch nominal sill plate may be used provided anchor bolts are designed for 50 percent of allowable and 2 inch x 2 inch x 3/16 inch steel plate washers are used. Section 2305.3.11
- 5.6 Detail all post to beam and post to footing connections and reference the detail to the plan.
- 5.7 Show garage framing section, size of header over garage opening, method of bracing garage front, and hold-downs if required. Figure 2308.9.3.2
- 5.8 Provide roof framing, ceiling joist framing and floor framing plans.
- 5.9 Provide framing sections through:
_____ Specify plate height.
- 5.10 Provide truss details, calculations and lay out plans stamped and wet signed by a Licensed California Designer. Section 2303.4.1.2
- 5.11 Roof trusses and rafters shall not span more than 40 feet between points of vertical support. Section 2308.2. #5
- 5.12 The architect or engineer of record shall review and certify approval of all submittal documents, including truss calculations, as being compatible with the design of the building. Section 2303.4.3.
- 5.13 Specify hangers at girder truss to support cross trusses.
- 5.14 Headers shall be provided over each opening in exterior bearing walls in accordance with Table 2308.9.5 Headers shall be provided over each opening in interior bearing partitions in accordance with Table 2308.9.6..
- 5.15 Specify roof slope, roof material and application. Show weight of felt.
- 5.16 Roof slope is not adequate for roof type specified. See CBC Chapter 15.
- 5.17 Indicate that wood shingle or shake roofs shall be a minimum of Class C fire-retardant.
- 5.18 Show rafter ties. Rafter ties shall be spaced not more than 4 feet on center and be just above the ceiling joists, where rafters and ceiling joists are not parallel. Section 2308.10.4.1.
- 5.19 The unbraced length of 2 x 4 struts (purlin braces) shall not exceed 8 feet. Section 2308.10.5.
- 5.20 Show purlins to be no smaller than rafters supported.
- 5.21 Show rafter purlin braces to be not less than 45 degrees to the horizontal. Section 2308.10.5.
- 5.22 Show solid blocking at exterior walls on trussed roofs. Section 2308.8.5.
- 5.23 Ridges, hips and valleys shall be at least one size larger than supported rafters. Section 2308.10.4.
- 5.24 Provide supports for ridge/hip/valley intersections to beam and/or bearing walls.
- 5.25 Joists, rafters appear to be overspan at:

- 5.26 Show blocking at ends and at supports of ceiling joists and for rafters at bearing walls.
- 5.27 In open beam construction, provide strap ties across the beams at the ridge support and provide tie at wall plates.
- 5.28 Show attic ventilation. Minimum vent area is 1/150 of attic area or 1/300 of attic area if at least 50% of the required vent is at least 3 feet above eave vents or cornice vents. Calculate required area and area provided. Section 1203.2.
- 5.29 Show double joists. Floor joists shall be doubled under bearing partitions running parallel with the joists. Section 2308.8.4.
- 5.30 Buildings shall be provided with exterior and interior braced wall lines. Spacing shall not exceed 35 feet on center in both the longitudinal and transverse directions in each story. Braced wall lines shall consist of braced wall panels which meet the requirements for location, type and amount of bracing specified in Section 2308.9.3 and are in line or offset from each other by not more than 4 feet. Braced wall panels shall start at not more than 12 1/2 feet from each end of a braced wall line. All braced wall panels shall be clearly indicated on the plans. See 2308.9.3.1 for alternate braced wall panels. Section 2308.9.3.
- 5.31 Braced wall panels shall be spaced every 25 feet in interior and exterior braced wall lines. Section 2308.12.3
- 5.32 If method 5 is used for a braced wall panel, nail gypsum board at 7" on center with nails as required by Table 2306.4.8.
- 5.33 Provide an alternate wall panel not less than 2'-8" wide in accordance with Section 2308.9.3.1 Table 2308.9.3(1) where a 48 inch wide wall is not available. Alternate wall panels may be reduced 16 inches adjacent to a door or window in one-story buildings. Section 2308.9.3.2.
- 5.34 The top plate of interior braced wall lines shall be attached to the top plate of the intersecting exterior wall by use of a coil strap or equal.
- 5.35 Ceiling joist allowable spans shall be in accordance with Table 2308.10.2(1) or (2). Rafter allowable spans see Section 2308.10.3 for tables.
- 5.36 Show double top plate with minimum 48" lap splice and nailed at each end with eight 16d nails. Section 2308.9.2.1.
- 5.37 Show nailing schedule on plans in compliance with Table 2304.9.1. Indicate that fasteners for pressure-preservative treated wood shall be of hot dipped galvanized steel, stainless steel, silicon bronze or copper. Exception being 1/2" (12.7 mm) diameter or greater steel bolts. Section 2304.9.1.1.
- 5.38 Show stud size and spacing. Maximum allowable stud heights; bearing wall: 2 x 4 and 2 x 6 maximum 10 foot, non-bearing: 2 x 4 maximum 14 foot, 2 x 6 maximum 20 feet. Provide engineering for studs exceeding listed lengths. Section 2308.9.1.
- 5.39 Specify all header sizes for framing over openings over 4 feet wide. Section 2308.8.3 & 2304.3.2.
- 5.40 Specify floor and roof plywood grade and panel identification index. Table 2304.7(3).

5.41 Show or note fire blocks and draft stops at the following locations per Section 717.1:

- a. In concealed spaces in stud walls and partitions at the ceiling and floor levels and at 10 ft. intervals both horizontal and vertical.
- b. In openings around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.
- c. Seal all duct and pipe penetrations through the garage fire wall with an approved non-combustible material.
- d. In concealed space of a floor ceiling assembly draft stops shall be installed so that the space does not exceed 1,000 sq. ft. Draftstopping shall divide the concealed space into approx. equal areas.

6. **MECHANICAL**

6.1 Indicate method of heating the interior spaces intended for human occupancy 68 degrees F at point 3 feet above floor. Section 1204.1.

6.2 Show the locations of the water heater and heating/cooling appliances.

6.3 Show ICBO or UL approval number for prefab fireplace. Log lighter can only be used if included in the fireplace listing.

6.4 Provide UL number and manufacturer's installation requirements for wood stove (brochure preferred).

6.5 Specify mechanical ventilation capable of providing five air changes per hour in bathrooms, water closet compartments and similar rooms if required openable windows are not provided. California Energy Commission.

6.6 In lieu of required exterior openings for natural ventilation, a mechanical ventilating system may be provided. Such system shall be capable of providing two air changes per hour in guest rooms, dormitories, habitable rooms in public corridors with a minimum of 15 cubic feet per minute of outside air per occupant during such time as the building is occupied. Provide an engineered ventilation system for such rooms. California Energy Commission..

6.7 Provide a raised platform for any furnace, water heater or other device in the garage which may develop a spark or flames so that the spark or flame will be at least 18" above the garage floor. CMC 308.1.

6.8 Show the source of combustion air to furnace in compliance with Chapter 7. The minimum free area of both the upper and lower combustion air openings when taken from inside or outside of building shall not be less than 1 sq. in. per 4000 BTU. Section 701.4.1.

6.9 When all combustion air is taken from the outdoors one opening is permitted. The opening shall equal 1 sq. in. per 3,000 BTU/HR input, but no smaller than vent flow area. CMC Section 701.4.2

- 6.10 Furnace shall not be installed in any bedroom, bathroom or in a closet or confined space with access only through such room, unless specified as direct vent appliance, enclosed furnace or electric heating appliance. CMC Section 904.1.
- 6.11 Where a water heater and furnace are shown side by side, indicate that they will be separately vented or detail the combined vent connection on the plans, sized in accordance with the GAMA Venting Tables.
- 6.12 Provide dryer vent to exterior. Unless otherwise permitted or required by the dryer manufacturer's installation instructions and approved by the building official, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of 14 feet (4267 mm), including two 90-degree elbows. Two feet (610 mm) shall be deducted for each 90-degree elbow in excess of two. Section 504.3.2.2.
- 6.13 Furnace may be installed in the attic provided an opening and passageway as large as the largest piece of the furnace is provided within 20 feet of the furnace. The passageway shall have a 24" width floor and not less than 30" in depth in front of the firebox side. Provide a permanent electric outlet and light fixture at furnace area, switched at access opening. CMC Section 305.0, 904.11..
- 6.14 Furnace in a closet or alcove shall not be less than 12" wider than the furnace and shall have a min. clear working space not less than 3" along the sides, back and top of the furnace. CMC, Table 5-3.

- 6.15 Vent Termination. Indicate that Type B or BW gas vents with listed vent caps 12 inches in size or smaller shall be permitted to be terminated in accordance with Table 8-A, provided they are located at least 8 feet from a vertical wall or similar obstruction. All other Type B gas vents shall terminate not less than 2 feet above the highest point where they pass through the roof and at least 2 feet higher than any portion of a building within 10 feet. CMC Section 802.5.2

**TABLE 8-2
VENT TERMINATION ABOVE ROOF**

<u>Roof Slope</u>	<u>Minimum Height From Roof to Lowest Discharge Opening</u>
Flat to 6/12	1-0
Over 6/12 to 7/12	1-3
Over 7/12 to 8/12	1-6
Over 8/12 to 9/12	2-0
Over 9/12 to 10/12	2-6
Over 10/12 to 11/12	3-3
Over 11/12 to 12/12	4-0

7. PLUMBING

- 7.1 Provide water distribution sizing calculations because of the size and complexity of the system (see attached form).
- 7.2 Note on the plan that the hosebibbs and lawn sprinkler systems shall have approved backflow prevention devices. CPC Section 602.1
- 7.3 Dimension on the plans, the 30" clear width for water closet compartments and 24" clearance in front of water closet. CPC Section 407.6.

- 7.4 Detail seismic anchorage of water heater. See attached details. CPC Section 508.2.
- 7.5 All water heaters installed in areas where they may be subjected to mechanical damage shall be suitably guarded against such damage by being installed behind adequate barriers or by being elevated or located out of the normal path of a vehicle using any such garage. CMC Section 308.1.
- 7.6 T & P valve shall discharge at exterior of building point down within 24" to 6" above ground. CPC Section 608.5.
- 7.7 In a water heater enclosure, provide a minimum clear area of 50 square inches of combustion air vent within 12" of floor and ceiling or size openings. CPC Section 505.3.2.
- 7.8 Water heaters which depend on the combustion of fuel for heat shall not be installed in a room used or designed to be used for sleeping purposes, bathroom, clothes closets or in a closet or other confined space opening into a bathroom or bedroom, unless direct vent water heater. CPC Section 505.1.
- 7.9 Indicate that shower valves shall be an individual control valve of the pressure balance or thermostatic mixing valve type. Handle position stops shall be provided on such valves to limit the mixed water to a maximum temperature of 120 degrees Fahrenheit. CPC Section 418.0.
- 7.10 Note on drawing that an approved metallic waste and vent system is required in buildings of three or more stories. CPC, Section 701.0.

8. ELECTRICAL

- 8.1 Show location of all electrical receptacles, switches and fixtures.
- 8.2 Electrical receptacle locations and/or spacing is not adequate in:
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- 8.3 In kitchens and dining areas of dwelling units a receptacle outlet shall be installed at each counter space so that no point along the wall line is more than 24 inches, measured horizontally from a receptacle outlet in that space. Island and peninsular counter tops 12 inches or wider shall have at least one receptacle. Section 210-52(c).
- 8.4 Receptacle outlet shall be installed in hallways 10 feet or more in length.
- 8.5 Electrical receptacles in habitable rooms shall be spaced a maximum of 12 feet apart, 6 feet maximum from any door opening, any wall space wider than 24 inches. CEC 210.52(A)
- 8.6 Show location of smoke detector, 120v permanently wired, with battery backup. Section.(F) 907.2.10
- a. In each sleeping room.
 - b. Centrally located corridor giving access to bedrooms.
 - c. In each story and basement.
 - d. In multi-story, in close proximity to upper landing of stairway.
 - e. Where the ceiling height of a room opens into the hallway serving the bedrooms exceeds that of the hallway by 24 inches or more, smoke detectors shall be installed in both areas.

- 8.7 Note on plans that all smoke detectors shall be audible in all sleeping areas of the dwelling unit. Section 907.2.10.1.2.
- 8.8 Note in the following locations that convenience outlets shall be GFCI protected: bathrooms, all kitchen counter top receptacles, within six feet of wet bar sinks, outdoors, garages, grade-level portions of unfinished accessory buildings used for storage or work areas and unfinished basements. CEC Section 210-8.
- 8.9 Provide energy lighting effective 10/05 as follows:
- a. Kitchen - High efficacy or up to 50% of the total wattage can be low efficacy. All high-efficacy and low-efficacy lighting must be controlled separately.
 - b. Bathroom, Garage, Laundry Room, and Utility room – High efficacy or manual-on occupancy sensor.
 - c. All other interior rooms (e.g., living room, dining room, bedrooms, hallways) except closets less than 70 sq. ft. – High efficacy or manual-on occupancy sensor or dimmer.
 - d. For outdoor lighting attached to buildings – High efficacy or controlled by motion sensor + photocontrol.
- 8.10 Indicate on the plans that recessed ceiling fixtures are “Zero Clearance Insulation Cover” (IC) approved in insulated areas.
- 8.11 Provide at least one GFCI outdoor receptacle outlet accessible at grade level and not more than 6 ft.-6 in. above grade at both front and back of dwelling. CEC Section 210-8.
- 8.12 Provide at least one GFCI outlet, not over 5 ½ feet above the floor if there is one or more dedicated circuits installed in the garage. CEC Section 210-8(A)).
- 8.13 Show location and size of electrical service entrance panel.
- 8.14 Provide note that bathroom and laundry room receptacles shall be supplied by a 20 ampere branch circuit exclusive to those rooms. CEC Section 210-11
- 8.15 Note that ranges and dryers require a 4-wire grounded receptacle outlet regardless of where the circuit originates.
- 8.16 Note that branch circuits for bedroom receptacle outlets shall be protected by an arc-fault circuit interrupter. CEC Section 210.12

9. **ENERGY**

- 9.1 The CF-1R sheet showing the required elements of the selected energy package and listing the design elements showing compliance with that selected package must be signed by the owner or designer and document author. A design professional must note his/her state license number. Section 1403 of Title 20.
- 9.2 Provide form MF-1R, “The Mandatory Energy Conservation Requirements” with items appropriately checked.
- 9.3 Show the size, type, make, and model of the space heating (or cooling) system and provide heat loss and cooling load calculations.

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- 9.4 Show the size, type, make, model and energy factor of the water heater.
 - 9.5 Unless an exempted model is specified, an R-12 external water heater blanket shall be installed.
 - 9.6 Show on the plans the “R” value for the walls, floors, ceiling and related areas.
 - 9.7 Show double glazing as per Energy Design on Glazing Schedule and SHGC’s. If Lo E, so note.
 - 9.8 The energy calculations stipulate that a Radiant Barrier will be installed. The submitted plans do not specify this requirement.
 - 9.9 The energy calculations stipulate that diagnostic testing of the duct system by an approved HERS rater is required. The submitted plans do not specify this requirement.
 - 9.10 The energy calculations stipulate that a split HVAC system(s) will be installed and a TXV is required to be verified by an approved HERS rater. The plans submitted do not specify this requirement.
 - 9.11 The energy calculations stipulate that a hydronic heating system with panels imbedded in concrete is to be installed. Perimeter slab edge insulation is required with a value of R-10. The plans do not specify or detail this requirement.
 - 9.12 The plans are not in compliance with the energy conservation compliance package selected or design calculations provided. Show on the plans conformance as follows:
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10. FIRE SPRINKLER SYSTEM

- 10.1 An automatic fire sprinkler system shall be designed in accordance with the appropriate NFPA Standard; 13, 13D, or 13R by the California State licensed installation contractor or a registered fire protection engineer and approved prior to issuance of the building permit.

11. MISCELLANEOUS DETAILS

- 11.1 Provide four elevations.
- 11.2 Detail veneer attachment, including lintels over openings.
- 11.3 Detail glass block support and reinforcement. Section 21044.1.2.4.
- 11.4 Detail laundry chute enclosure and door; show fire-resistive construction. Section 707.13.
- 11.5 Provide fireplace construction details, show reinforcing and ties in conformance with CBC 2111 and that combustible material will not be placed within 2” of the smoke chamber or chimney walls. If construction is to be per attached standard detail, note this on plans.
- 11.6 A spark arrestor is required on all chimneys connected to any appliance or fireplace. The net free opening of the spark arrestor shall not permit the passage of spheres larger than ½” nor block the passage of spheres less than 3/8”. Section 2802.

- 11.7 Provide 36"; high protective railing for porches and platforms that are 30" or more above grade, balconies and open sides of stair landings. Openings between railings shall be less than 4" except that the triangular openings formed by the riser, tread and bottom element of a guardrail at the open side of a stairway may be of such size that a 6" diameter sphere cannot pass through. Section 1013.2.
- 11.8 Provide stairway and landing details. Section 1009.3.
- a. Maximum rise 7 3/4" and minimum run is 10".
 - b. Minimum headroom is 6'-8".
 - c. Minimum clear width is 36".
 - d. Detail anchorage of stair and exterior exit balcony supports to primary structure without use of toenails or nails subject to withdrawal. Section 2308.12.7.
- 11.9 Show handrails on floor plan. All handrails per CBC Section 1012 shall satisfy the following:
- a. Provide handrail for stairways with 4 or more risers.
 - b. Handrail shall be 34" above the nosing of treads.
 - c. The handgrip portion of handrail shall be not less than 1 1/4" nor more than 2" in cross-sectional dimension.
 - d. Handrails shall terminate into a post or return to wall.
- 11.10 A door may open inward at the top step of a stairway provided the top step is not more than 8" lower than the floor level. Section 1009.4.
- 11.11 Delete or cross off on standard detail sheet all information that does not apply to this project.
