

BUILDING INSPECTION DIVISION - PLAN CHECK CORRECTION LIST

PERMIT NO.: MASTER CHECKLIST

ADDRESS:
OWNER:
ARCH/ENGR/DESIGNER:

DATE: January 1, 2011
OCCUPANCY: R3 / U
TYPE OF CONST: WOOD

Corrections listed below are to be made on plans before permit is issued. The approval of plans and specifications does not permit the violation of any section of the Building Code or other County Ordinance or State law. The following list does not necessarily include all errors and omissions.

PLEASE SPECIFY THE SHEET OR PAGE # UPON WHICH EACH ITEM BELOW HAS BEEN ADDRESSED.

PLAN CHECK HOURS:

8:00 a.m. – 10:00 a.m. & 3:00 p.m. – 5:00 p.m.
MONDAY – FRIDAY

PLANS HAVE BEEN CHECKED IN ACCORDANCE WITH THE 2010 CALIFORNIA RESIDENTIAL CODE FOR NONSTRUCTURAL REQUIREMENTS

TO FACILITATE RECHECKING, PLEASE IDENTIFY NEXT TO EACH LISTED ITEM BELOW THE SHEET OF THE PLANS UPON WHICH THE CORRECTIONS HAS BEEN MADE. IT IS THE APPLICANT RESPONSIBILITY TO ASSEMBLE AND PROVIDE COMPLETE SET OF PLANS FOR FINAL APPROVAL.

1st Check 2nd Check 3rd Check* 4th Check*

***NOTE: Additional time and material charges will apply after the 3rd Check.**

INITIAL REVIEW

GENERAL PLAN REQUIREMENTS

1. The nonstructural provisions of the CRC are applicable to this structure, NOT the CBC.
2. If the structure does not meet the prescriptive requirements of the CRC, an engineered design in accordance with the CBC is required. The prescriptive provisions of CBC Section 2308 are not acceptable.
3. Structures in Seismic Design Category E shall be designed in accordance with the CBC.
4. The submitted plans show three stories for the proposed residence. However, three-story residences are prohibited in the Alquist-Priolo Fault Rupture Hazard Zone where this structure is to be located. ***A complete plan check cannot be performed until this issue is addressed.***
5. Per California Business and Professions Code 5536.1, all persons preparing or being in responsible control of plans, specifications, and instruments of service for others shall sign those plans, specifications, and instruments of service. ***Please include on the plans the designer's information.***
6. Please submit **three (3) sets** of plans, calculations, energy documents, and any other required documentation.
7. Please submit separate plans and calculations for all fences, trash enclosures, pools, and retaining walls.
8. Submit fully dimensioned plot plans drawn to scale and indicate North relative to the site. Show the location, size, and use of all structures on the lot. Properly identify property lines, lot dimensions, and distances between buildings. Show graphically (by arrows) drainage away from the building foundation.
9. Please specify on the plans the square footage of the different uses and provide a breakdown (i.e. dwelling unit, patio, porch, garage, etc.).
10. Please update all notes and code sections to reflect the 2010 California Residential Code and the 2010 California Building Code where appropriate.
11. Provide two sets of engineering calculations with 1st page stamped and signed by a California Registered Design Professional (RDP).
12. Please specify on cover sheet of plans, the following structural information:
 - Floor and roof live load.

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- Basic wind speed (3-second gust), miles per hour, and wind exposure.
 - Seismic design category (SDC) and site class.
 - Flood design data, if located in flood hazard area established in Chapter 17.48 of the Kern County Code of Building Regulations.
13. Please specify, on plans, material specifications for the following:
- Wood lumber species and grade
 - Steel specifications
 - Plywood grade and panel ratings
 - Glulam beam grade
 - Concrete compressive strength
 - Other materials specified on plans
14. Please submit a soil investigation report as required per CRC R401.4 and the Kern County Code of Building Regulations. Note: See Kern County Building Bulletin 10-01 for exceptions.
15. Per CRC R301.2.2.1, please provide complete and detailed calculations showing how the SDC was determined. Determining the SDC from Figure R301.2(2) is not acceptable.
16. Provide a list all special inspections on the cover sheet of plans in accordance with CBC Chapter 17.
17. Provide a statement of special inspections on the cover sheet, prepared by the RDP, in accordance with CBC Sec. 1705.
18. Submit a written statement of responsibility from the contractor to the building official and owner prior to issuance of the building permit in accordance with CBC Sec. 1709. If the contractor(s) is unknown prior to permit issuance, a statement shall be provided by the permit applicant on the form provided by this department. The contractor's statement shall be provided to the building official prior to commencement of work on the main wind or seismic force resisting system or components.
19. A California Registered Design Professional is required to "wet" stamp and sign all sets of the submitted plans.
20. Per Kern County Building Inspection Division policy, standard plans are not permitted to have hand-written corrections. Any modifications require a new set of prints. Please run new prints wherever hand-written comments are found.
21. Due to the number and/or complexity of corrections required before approval, make corrections to originals and run new prints.

FOUNDATION REQUIREMENTS

***Note:** Where footings are located adjacent to a slope steeper than 1:3 (1 vertical to 3 horizontal), either at the top or the bottom, special clearances between the building and the sloping surfaces are required. Please provide clearances to ensure compliance with CRC R403.1.7 for protection against slope drainage, erosion and shallow failures.

1. The maximum *prescriptive* value for allowable soil bearing pressure is 1500 psf if a soils investigation is not provided. Please provide a soils report for higher values or reduce the value used for allowable foundation pressure in the design calculations.
2. Per CRC R404.1.2.3.1, 3000 psi concrete is required for basement and foundation walls in SDC D₀, D₁ and D₂.
3. Per CRC R403.1.6.1, 3"x3"x.229" steel plate washers are required on all anchor bolts in a braced wall line.
4. Add note on foundation plan: All hold downs must be tied in place prior to foundation inspection.
5. Per CRC R406, show how foundation walls enclosing interior spaces below grade are to be dampproofed or waterproofed.
6. Per CRC R317.1, wood framing members that rest on exterior foundation walls and are less than 8" from exposed earth shall be pressure treated
7. Per CRC R403.1.3 and the Kern County Code of Building Regulations, all continuous footings shall have a

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minimum of one #4 bar at top and bottom or a single #5 bar in the middle third of the footing.

8. Per Kern County Code of Building Regulations, structural plain concrete members are not permitted in Kern County except in certain circumstances. Please revise.
9. When under-floor clearances are required, the under-floor area shall be accessible through a minimum 18"x24" floor opening, or a minimum 16"x24" perimeter wall opening. Per CRC R408.4, all under-floor access openings shall be effectively screened or covered where the access opening opens to the exterior of the building.
10. Provide under floor ventilation per CRC R408. One such ventilation opening shall be located within 3 feet of each corner of the building. All under floor openings shall be covered as per CRC R408.2. Please show location and size of all vents on plans.
11. A 6-mil vapor retarder is required under all slabs in heated buildings per CRC R506.2.3.
12. Per CRC R317.1, specify on the typical footing detail treated wood or naturally durable wood for framing in contact with concrete or masonry that is in direct contact with earth.
13. Per CRC R317.1.2, wood embedded in concrete that is in direct contact with earth, or embedded in concrete that is exposed to the weather, or in direct contact with earth, shall be preservative treated wood
14. Dimension all exterior and bearing wall foundations.
15. Provide adequate footings under all bearing walls.
16. Show size, embedment, and location of all anchor bolts, washers and hold downs on foundation plan.
17. Provide designs and details for caissons and grade beams.
18. Show all pier sizes on the plans.
19. Specify maximum height of stem walls. Stem walls shall be provided with #4 vertical rebar at 48" maximum spacing per CRC R403.1.3.
20. Specify maximum height of cripple wall. Cripple walls exceeding 4 feet in height shall be considered a story for purposes of stud sizing requirements per CRC R602.9.
21. Cripple wall bracing shall be in accordance with CRC R602.10.9.1.
22. Provide a step footing detail where slope exceeds 1:10 per CRC R403.1.5.
23. Special inspection is required for post-tensioned foundations. Specify prominently on the foundation plan.
24. Per Simpson specifications for PHD hold downs, the *designer* must calculate and specify the anchor bolt type, length, and embedment for the PHD when not using the standard SSTB bolts. Please specify the SSTB bolts per the Simpson catalog listing for the PHD size on the plans, OR submit calculations and specifications for alternate anchorage type, length, and embedment

FRAMING REQUIREMENTS

1. Per CRC R301.3, the story height is limited to 12 feet when utilizing the prescriptive provisions of the CRC.
2. Provide a complete roof-framing plan showing roof rafters, ceiling joists, trusses, bearing walls, purlins, collar ties, headers, posts, and beams.
3. On the roof plan, specify grade, size, and nailing for the roof sheathing and indicate if blocking is required.
4. Per CRC Table R602.3(3), minimum nominal panel thickness of 7/16" wood structural panel wall sheathing shall be used in areas subject to 100 mph wind speed and exposure C.
5. Please provide a complete floor-framing plan showing floor joists, bearing walls, posts, and beams.
6. On the floor framing plan, specify the grade, size, and fastening for the floor sheathing and indicate if blocking is required.
7. In seismic design category D, E, or F, where the design shear value exceeds 350 pounds per linear foot, framing members receiving edge nailing from abutting panels shall not be less than 3" nominal members per CBC Table 2306.3, footnote i.
8. Provide a typical full-height framing cross section clearly showing top plate height, rafters, joists, beams, bearing walls, firestops, posts to foundation, footings, and foundation.

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9. Detail all post-to-beam, all post-to-footing and post to girder connections to show positive connections.
10. Per CRC R502.4, bearing walls perpendicular to joists shall not be offset from supporting girders, walls, or partitions by more than the joist depth. Provide engineering calculations to support greater offsets.
11. Per CRC 602.9, cripple walls having a stud height of 14" or less shall be sheathed on at least one side with wood structural panel, or the cripple walls shall be of solid blocking.
12. Per CRC R602.7, specify all header sizes for openings in walls.
13. Per CRC R802.2, if a roof pitch is less than 3:12 (25% slope), the ridge, hips, and valleys must be designed as vertical load-carrying members (beams).
14. Per CRC R802.3, the depth of the cut end of the supported rafters shall not be greater than that of all ridge, hip, and valley framing.
15. Per CRC R802.3.1, provide rafter ties to rafters where ceiling joists are perpendicular to rafters.
16. Per CRC R802.5.1, brace ridge, purlins, hips, and valleys to interior bearing walls.
17. Please show the nailing schedule in conformance with CRC Table R602.3(1).
18. Per CRC Table R602.3(5), bearing walls supporting two floors, a roof, and a ceiling must be framed with 3x4 or 2x6 studs.
19. Per CRC Table R602.3(5) for bearing walls, the maximum unbraced height of laterally unsupported 2x4, 3x4, and 2x6 studs is 10'-0", or shall comply with CRC Table R602.3.1. Please provide engineering calculations to support greater heights.
20. Per CRC Table R602.3(5) for nonbearing walls, the maximum unbraced height of laterally unsupported 2x4 and 3x4 studs is 14'-0". Please provide engineering calculations to support greater heights.
21. Per CRC Table R602.3(5) for nonbearing walls, the maximum unbraced height of laterally unsupported 2x6 studs is 20'-0". Please provide engineering calculations to support greater heights.
22. In the case of Standard Plans, truss drawings and calculations may not be deferred. Please submit two copies of truss calculations that have been reviewed and approved by the Engineer or Architect of Record. The truss submittal shall be from a Kern County approved truss manufacturer.
23. Provide three complete sets of truss drawings and calculations in accordance with R802.10.
24. Provide a detail for roof trusses at nonbearing walls for perpendicular and parallel orientations. Specify ½" clearance between trusses and nonbearing walls (i.e. truss clips).
25. Please specify truss support for all girder trusses (i.e. 4x posts).
26. Please verify that all recommendations per the engineering calculations are reflected on the plans.
27. Show support for concentrated loads at _____.
28. Show support for ridge/hip/valley intersections.
29. Show uplift connectors to provide 175 pounds of uplift resistance per CRC R802.10.5.
30. Show rafter tie connections per CRC Table R802.5.1(9) unless calculations are provided to justify otherwise.
31. Provide collar ties in upper third of attic space per CRC R802.3.1 and connected per Table R602.3(1).
32. Deck ledgers shall be preservative treated and connected to the band or rim joist with ½" diameter hot-dipped galvanized lag screws in accordance with CRC Table R502.2.2.1, OR shall be designed by an engineer or architect.
33. Decks shall be attached to the main structure via two pairs (4 total) of hold-down tension devices (1500 lbs/ea) spaced as near the ends of the deck as possible per CRC R502.2.2.3, OR shall be designed by an engineer or architect.

ROOFING REQUIREMENTS

1. Per CRC Chapter 9, roof pitch is not adequate for roof type specified. Provide minimum pitch of _____.
2. Please specify roof pitch.
3. Please specify roof material and underlayment on plans. Provide a minimum Class A roof in Very-High Fire

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Hazard Severity Zones, Class B in High Fire Hazard Severity Zones, and Class C for all others.

4. Per CRC R903.4 roof drains shall be sized and installed per the California Plumbing Code.
5. Per CRC R902.1, roofing shall also comply with requirements of CRC R327.
6. Specify underlayment for shingle roofing per CRC R905.2.
7. Specify required underlayment for clay or tile roof per CRC R 905.3.

STRUCTURAL/LATERAL REQUIREMENTS

1. If the electrical panel is to be positioned within a shear wall, engineering calculations and details must be provided. Please add the following note on the shear wall plan: The electrical panel may not be located within a shear wall.
2. Provide shear transfer detail and design for walls that do not stack up (two-story or split level).
3. Specify on plans the nail size and spacing for all shear walls/braced wall panels. Provide a shear wall schedule including grade and thickness of panels, anchorage, capacity, and other relevant information.
4. Indicate all walls that are balloon framed in rooms with sloped ceilings and in rooms with gabled walls.
5. For shear walls, provide shear transfer connection details at roof, floors, and foundation.
6. Please provide detail for shear transfer from roof to interior shear walls.
7. Shear walls may receive lateral loads from the opposite side of the structure from where they are located. Drag connections are required to transfer the full wall line load across the entire diaphragm (end to end). Provide design and detail for all drag connections (i.e. straps, A35 fasteners, blocking, drag trusses, etc.).
8. Provide metal straps connecting to plate lines on each side of bay windows and other flush beams where the plate line is interrupted.
9. Please comply with all framing requirements as per CRC Chapter 6.
 - a. Provide calculations clearly showing the total length of wall bracing required per CRC Tables R602.10.1.2(1) and R602.10.1.2(2).
 - b. All braced wall panels and braced wall lines are to be clearly identified on plans.
 - c. Braced wall lines shall not be spaced more than 35 feet on center.
 - d. Braced wall panels shall not exceed 25 feet on center and shall be in accordance with CRC R602.10.1.4.
 - e. Braced wall panels must begin at the end of the braced wall line. Wall bracing of WSP may begin no more than 8 feet from the wall end, but must comply with CRC R602.10.1.4.1.
 - f. Braced wall panels cannot be offset out of plane from the designated braced wall line more than 4 feet in order to be considered on the same braced wall line per CRC R602.10.1.4.
 - g. Braced wall panel connections shall be in accordance with CRC R602.10.6.1. Clearly show or note on the plans, and provide a connection detail.
 - h. Live loads shall not exceed 40 psf for floors.
 - i. Show a typical continuous footing beneath all braced wall panels unless the plan dimension does not exceed 50 feet, then continuous foundations are only required at the exterior walls per CRC R403.1.2.
10. Comply with CRC wall bracing requirements OR engineering calculations per the CBC must be provided.

FIRE, SAFETY AND EXIT REQUIREMENTS

1. Please address attached SRA requirements for the "Fire Hazard Area."
2. Please note that 4030 "sliders" (horizontal and single hung) do not meet the 5.7 square feet minimum net clear openable area requirements for egress per CRC R310. Please revise these windows in the sleeping rooms and/or basement areas.
3. Per CRC R310 egress requirements, sleeping rooms, habitable attics and basements shall have at least one operable window or door which shall open directly onto a public street, public alley, yard, or exit court. The egress openings shall fulfill all of the following requirements:

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- a. Minimum 5.7 square feet of net clear openable area (except grade floor openings may be 5 sq ft, provided the sill is no more than 44 inches above the finished ground level).
 - b. Minimum 24" net clear openable height
 - c. Minimum 20" net clear openable width
 - d. Bottom of the opening not more than 44" above the floor (windows only)
4. Per CRC 314 for new construction, graphically show on plans and specify permanently wired smoke alarms with battery back up. They are required in each sleeping room; on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms; and in each story with a dwelling unit including basement.
 5. Per CRC 315 for new construction where there is an attached garage or fuel burning appliance, graphically show on plans and specify permanently wired carbon monoxide alarms with battery back-up. They are required outside of each sleeping area in the immediate vicinity of bedrooms; and on each level of a dwelling unit, including basement.
 6. For existing buildings that undergo alterations/repair/additions, graphically show on plans and specify smoke alarms and carbon monoxide alarms per CRC R314 and/or R315.
 7. Per CRC R312, graphically show 42" high protective railings for porches, balconies, and open sides of landings. Specify maximum opening between railings as required.
 8. Per CRC R311, provide horizontal firestops at 10'-0" maximum intervals, and vertical at ceiling and floor levels and elsewhere as required.
 9. Per CRC R311.3, specify landings at all doors. The landing shall be at least as wide as the door and a minimum of 36" in length.
 10. Per CRC R311.3.1, the landing on each side of the required egress door shall not be more than 1 ½ inches lower than the top of the threshold, except the exterior landing shall not be more than 7 ¾ inches below the threshold provided the door does not swing over the landing.
 11. Per CRC R311.3.2, the landing on each side of doors other than the required egress door shall not be more than 7 ¾ inches below the threshold, except a landing is not required where a stairway of two or fewer risers is located at the exterior side of the door, and the door does not swing over the stairway.
 12. Per CRC R311.7, provide stair and landing details reflecting the following:
 - a. The minimum clear width is 36" at all points above the handrail height.
 - b. The minimum headroom is 6'-8" (except spiral =78")
 - c. The rise is to be 7.75" maximum.
 - d. The run is to be at least 10".
 - e. The run for winding stairs is to be at least 6" at the narrowest, and 10" at a point 12" from the narrowest.
 - f. The minimum landing depth must equal or exceed the stair width, but be no greater than 44"
 - g. The handrails shall be between 34" and 38" above landings and the nosing of treads, CRC R311.7.7.1.
 - h. Structural details are required for top-of-stairway connections (hangers, blocking, fasteners, etc.)
 - i. Structural details are required for landing connections (hangers, blocking, fasteners, etc.)
 - j. Structural details are required for bottom-of-stairway connections (sill plate, fasteners, etc.)
 - k. Stairways within dwelling units and exterior stairways serving a dwelling unit shall have an illumination level on tread runs of not less than 1 foot-candle (11 Lux), CRC R303.6.
 13. Per CRC R311.7.9.1, spiral stairways shall have a 7.5" minimum clear tread depth at a point 12" from the narrow edge. The minimum stairway width shall be 26". Maximum rise shall be 9 1/2" and 6'6" minimum headroom.
 14. Per CRC R302.7, specify 0.50 inch gypsum board to protect walls and soffits beneath stairs where enclosed usable space occurs below.
 15. Per CRC R807.1, graphically show a minimum 22"x30" rough attic access opening with 30" clear headroom

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clearance. For access to attic space other than above the garage, the attic access must be located within the residence.

16. Per CRC R308, safety glazing (tempered glass) is required for windows that are both within 24" of doors and within 60" of the walking surface. Also specify safety glazing for doors and enclosures of hot tubs, whirlpools, saunas, steam rooms, bathtubs, and showers where the bottom exposed edge of the glazing is less than 60" above a standing surface and drain inlet. (Note: see exceptions).

CODE REQUIREMENTS

1. Per CRC R313, an automatic fire sprinkler system shall be installed in every new one and two-family dwelling unit. Provide plans and hydraulic calculations.
2. Please specify how the windows are to open (i.e. slider, casement, single hung, etc.).
3. Please specify all door types (i.e. solid core, French, etc.).
4. Per CRC R302.3, show one-hour fire resistance rated construction separating the dwelling units. Provide details of listed assembly and specify how openings and penetrations are to be protected.
5. Per CRC R304.3, no habitable room, except a kitchen, shall be less than 7'-0" in any dimension.
6. Per CRC R305, provide a minimum ceiling height of 7 feet.
7. Per CRC Table R302.1(1), provide a minimum of 5 feet between the exterior wall of the residence and the property line, or the exterior wall must be one-hour fire resistance rated construction. Please verify the distance to the property line. Openings are prohibited if less than 3 feet from property line. Openings are limited when located between 3 feet and 5 feet from the property line.
8. Per CRC Table R302.1(2), when the building contains an automatic fire sprinkler system, provide a minimum of 3 feet between the exterior wall of the residence and the property line, or the exterior wall must be one-hour fire resistance rated construction. Obtain Planning Department approval if less than 5 feet from property line. Please verify the distance to the property line. Openings are prohibited if less than 3 feet from property line.
9. Per CRC R303.1, provide an aggregate glazing area for all habitable rooms equal to at least 8% of the room floor area. Artificial light is allowed.
10. Per CRC R303.2, walls between ___ and ___ shall be at least 50% open to meet light and/or ventilation requirements.
11. Per CRC R303.1, natural ventilation shall be through operable exterior openings must be equal to at least 4% of the room floor area. Mechanical ventilation is allowed.
12. Per CRC R303.3, bathrooms, water closet compartments and similar rooms shall be ventilated in through exterior openings or mechanical ventilation.
13. Per CRC R304.1, every dwelling unit shall have at least one room of not less than 120 sq ft. Other habitable rooms, except kitchens, shall have a net floor area of not less than 70 sq ft.
14. Per CRC R303.8, interior habitable spaces shall be provided with heating system capable of maintaining a minimum indoor temperature of 68° F at a point of 3 feet above floor and 2 feet from exterior walls.
15. Per CRC R703.2, specify minimum 15# felt, attached to the studs or sheathing, behind the exterior wall veneer.
16. Per CRC R806.2, the minimum net free venting area for attics is 1/150th of the area of the space ventilated. Please show attic ventilation calculations on plans (i.e. total area to be ventilated, typical eave vent and number of eave vents required, etc.).
17. Per CRC R806.2, the minimum net free venting area for attics may be reduced to 1/300th of the area of the space ventilated, provided that at least 50% but not more than 80% of the required area is located in the upper portion of the space to be ventilated at least 3 feet above eave or cornice vents with the balance made up by eave or cornice vents, OR a Class I or Class II vapor barrier is installed on the warm-in-winter side of the ceiling. Please show attic ventilation calculations on plans (i.e. total area to be ventilated, typical eave vent and number of eave vents required, etc.), AND indicate the general location of upper ventilation (i.e. dormer vents) on the roof plan.
18. Per CRC R703.6.2.1, specify a weep screed a minimum 4" above earth and 2" above paved areas.
19. Per CRC R703.6, stucco shall be applied with three coat applications unless proven by manufacturer or ICC

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report.

20. Per CRC R702.4.2, specify fiber-cement, fiber-mat reinforced cement, fiber-reinforced gypsum backers, or glass mat gypsum backers as a base for wall tiles in tub and shower areas.
21. Per CRC R806.3, provide a minimum of 1 inch of air space between the insulation and the roof sheathing.

CALIFORNIA TITLE 24 ENERGY CONSERVATION REQUIREMENTS

1. Please indicate how energy compliance will be met (prescriptive or performance method).
2. Please submit new energy documentation using EnergyPro 5.1 , MICROPAS 8.1, or CALRES 2008 V1.1 or higher.
3. Completed CF-1R forms are to clearly show the compliance option chosen, be fully signed and made a permanent part of the plans.
4. Building orientation in compliance documents must be consistent with plot plan and floor plan.
5. In order to justify the R-4.5 continuous insulation value used for the walls at the OPAQUE SURFACES section of the CF-1R, please specify on the floor plan and on the typical section ICC approved One-Coat Stucco System. If a typical $\frac{7}{8}$ " three-coat stucco application is proposed, please revise the CF-1R form to show R-0 for the continuous insulation values as this assembly does *not* include a rigid layer of foam below the cement mixture.
6. Verify the FENESTRATION SURFACES values as it does not appear that the rough opening size for French doors was used. The energy model programs include a glazing obstruction factors inherent in the program to account for sashes, mullions, frames, etc. as found on the typical window and French door. The actual glazing area plus a 2" perimeter allowance can be input when the door in question is less than 50% glass. Please address.
7. The FENESTRATION SURFACES shown on the CF-1R form should coordinate with all the rough opening sizes for glazing at the perimeter of the structure. Please verify.
8. Please indicate the location of the water heater on the plans.
9. Please verify the number of water heaters and coordinate with the number shown on the plans.
10. Show wall, ceiling, raised floor, and/or slab perimeter insulation per the energy documentation.
11. Please modify insulation shown on the plans to comply with the following table:

Framing Type	Maximum R-value Allowed for Framing				
	2x4	2x6	2x8	2x10	2x12
Roof Rafters	–	R-15	R-21	R-25	R-30
Ceiling Joists and Trusses w/bottom chord slope \leq 3:12	R-60	R-60	R-60	R-60	R-60
Wall Studs	R-15	R-21	R-25	R-30	R-38
Floor Joists	–	R-13	R-22	R-30	R-38

12. An MF-1R form should be provided with the energy documentation, and it should be filled out completely. The designer of the energy system must initial all applicable energy requirements on this checklist and/or indicate which items are not applicable to the energy design.
13. Please specify duct insulation R-value on the plans.
14. Please specify closeable metal or glass doors covering the entire opening of the firebox.
15. Please specify a 6 square inch area intake from the exterior at the firebox (unless the fireplace is on a slab and it is not located on an exterior wall).

LIGHTING REQUIREMENTS

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1. Graphically show lighting in the kitchen to be fluorescent controlled by a standard switch. If incandescent lighting is also desired, submit drawings showing at least 50% of the total rated wattage of the kitchen fixtures are fluorescent.
2. Graphically show all lighting in bathrooms, garages, laundry rooms, and utility rooms as high efficiency lighting controlled by a standard switch or incandescent controlled by a manual-on occupant sensor. Dimmer switches are not permitted in these areas.
3. Dimmer switches are not permitted in bathrooms, garages, laundry rooms, or utility rooms. Please modify the dimmer switches in these areas to MANUAL-ON OCCUPANT SENSORS. Alternately, change the light fixture to FLUORESCENT.
4. Graphically show lighting in all other rooms including closets greater than 70 sq. ft. as high efficiency lighting controlled by a standard switch or incandescent controlled by a dimmer or incandescent controlled by a manual-on occupant sensor.
5. Please modify ceiling fans that include a light fixture to specify a FLUORESCENT fixture. Otherwise, show two separate switches for an incandescent light where one standard switch is for the fan and the dimmer switch or manual-on occupancy sensor is for the light.
6. Per the California Energy Commission, J-box fittings noted on the plans are considered an incandescent light fixture. Please show appropriate switches for all J-boxes on the plans.
7. Graphically show outdoor light (including covered patios and porches) as high efficiency lighting controlled by a standard switch or incandescent controlled by a motion sensor with photocell.
8. Please modify outdoor ceiling fans to specify a FLUORESCENT fixture or specify FAN ONLY. Otherwise, show two separate switches for an incandescent ("normal") light where one standard switch is for the fan and the motion sensor with photocell is for the light.
9. Dimmer switches are not permitted outdoors. Please modify the dimmer switches controlling exterior lighting to MOTION SENSOR WITH PHOTOCELL. Alternately, change the light fixtures to FLUORESCENT.
10. **Graphically show** all lighting in the common areas of multifamily buildings as high efficiency lighting controlled by a standard switch or incandescent controlled by a manual-on occupant sensor.

MECHANICAL AND ELECTRICAL REQUIREMENTS

1. Per CMC 904.11.1, access shall be provided for mechanical equipment in the attic to allow for inspection, service, repair, and replacement without removing permanent construction – specify a minimum 22"x30" opening, provided the largest piece of equipment can be removed through the opening. Per CMC 931.2, show the access no more than 20' from the equipment.
2. Per CMC 904.11.4 for attic-installed furnace, specify an equipment platform at least 30" in depth and width, and verify increased load capacity for the ceiling framing members (i.e. double joists/trusses under platform).
3. Show the dryer vented to exterior per CMC 504.3.
4. Per CMC 504.3.2.2, dryer moisture exhaust duct shall not exceed a total combined horizontal and vertical length of 14 feet, including two 90-degree elbows. The location of the dryer near the ridge, combined with a minimum 10' plate height and the roof pitch, indicates that the 14' allowable exhaust duct length will be exceeded. Please address.
5. Per CMC Table 4-4, please provide mechanical ventilation for bathrooms (exhaust fan with capacity of 50 CFM intermittent or 25 CFM continuous).
6. Per CEC 210.8(A), graphically show GFCI outlets in bathrooms, kitchen countertops, garages, basements, outdoors, and within 6' of sinks.
7. Per CEC 210.52(E)(1), graphically show at least one GFCI outlet installed at the front and at the back of single-family dwellings.
8. Per CEC 210.12(B), specify on electrical sheet: AFCI breakers are required for all dwelling unit hallways, living, dining, and family rooms, bedrooms, dens, closets and similar spaces.
9. Per CEC 210.52(F), specify on electrical sheet: Dedicated 20-amp circuit to Laundry for appliance outlets.
10. Per Kern County Air Pollution Control District Rule 416, see list of APCD communities, wood burning fireplaces may not be installed in residential subdivisions which will consist of 10 or more dwellings. If a fireplace is

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desired, it cannot be wood-burning (i.e. specify wood-pellet or other gas-fueled type and provide appropriate ICC documentation).

11. Please specify ICC approved fireplace on the plans for all premanufactured fireplaces.
12. Please provide UL listing for wood stoves.
13. Please show chimney on elevation views, and specify a 2'-0" vertical clearance from the chimney to the nearest point 10'-0" away. Alternately, specify a direct-vent fireplace.
14. In San Joaquin Valley, Open-hearth wood burning fireplaces are not allowed on lots less than half an acre in area with limit of one Open-hearth wood burning.

GARAGE/CARPORT REQUIREMENTS

1. Per CRC Table R302.6 and the Kern County Code of Building Regulations, please specify 5/8" Type "X" gypsum board from floor to roof sheathing on the garage side of common walls with the residence, or on the garage side of common walls, ceiling, and structural members supporting the ceiling. If the garage and dwelling contain an automatic fire sprinkler system, 1/2" regular gypsum board may be used on the vertical surfaces.
2. Per CRC R302.5.2, ducts penetrating the walls or ceilings separating the dwelling unit from the garage shall be a minimum of 26 gage steel (0.019-inch sheet steel) and shall have no opening into the garage.
3. Per CRC R302.5.1, please specify solid wood or solid or honeycomb core steel door not less than 1 3/8" thick, or 20 minute rated, self-closing, self-latching door between the garage and the dwelling. If the garage and dwelling contain an automatic fire sprinkler system, the door need only be self-closing and self latching.
4. Per CRC R302.5.1, garages are never permitted to open into rooms used for sleeping purposes. Please address.
5. Per CMC 307.1, heating and cooling equipment located in a garage and that generates a glow, spark or flame shall be installed so that the pilots and burners or heating elements and switches at least 18" above the floor level. Specify a minimum 18" non-combustible platform for water heaters in the garage.
6. Per CMC 307.1, please specify protective barriers for appliances located in the garage that may be subject to mechanical damage. Provide a detail if necessary (i.e. bollard).

FLOOD PROTECTION REQUIREMENTS

1. Plan shall identify the proposed elevation of the lowest floor (including basement) of the structure in relation to mean sea level. In areas of shallow flooding without a base flood elevation (BFE), the elevation of the lowest floor shall be referenced to the highest adjacent grade. Highest adjacent grade is the highest natural elevation of the ground surface prior to construction, upstream and next to the proposed wall of the structure. The elevation or the height above the highest adjacent grade to which the structure is to be flood protected is determined by Floodplain Management during their Flood Hazard Evaluation.
2. For an uninhabitable attached garage which is to be built below the lowest floor of the structure's habitable space, or for a detached garage or accessory structure which is to be built below the flood protection elevation established by Floodplain Management, provide details on the exterior elevation(s) clearly showing;
 - Flood resistant materials (concrete, concrete block or approved equal) will be used up to the elevation of the lowest habitable floor.
 - The structure has openings designed to automatically equalize the hydrostatic forces on the exterior walls by allowing the entry and exit of floodwater. This may be an engineered design or by providing a minimum of two openings having a total net area of not less than one square inch per square foot of enclosed area. The openings must be distributed on at least two different walls of the structure. The bottom of the openings shall not be higher than one foot above grade. Openings may be equipped with screens, louvers or other coverings or devices provided that they permit the automatic entry and exit of floodwater.
3. Mechanical equipment and utilities for the structure shall be resistant to flood damage. Water heaters, air conditioners, electrical wall outlets and openings to plumbing and sewer shall be elevated to the elevation of the lowest habitable floor. Clearly show on the appropriate plans and/or elevations.
4. Structures built on a stem wall foundation shall have the crawl space designed to automatically equalize the

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hydrostatic forces on the exterior walls by allowing the entry and exit of floodwater either by engineered design or by providing a minimum of two openings having a total net area of not less than one square inch per square foot of enclosed area.

5. Depth of the foundation shall be shown to comply with the minimum footing depth required for scour protection as established by the Flood Hazard Evaluation.

California Green Building Standards Code (CALGreen): *Please see separate checklist.*

A complete plan check will be performed when the listed items are addressed.

Plan Checked by:

Direct: (661) 862 - ____

FAX: (661) 862-8676