Date:

County of San Diego, Planning & Development Services
RESIDENTIAL BUILDING CODE PLAN CHECK
BUILDING DIVISION

Plan check correction list for one- and two-family residences, associated garages, and other accessory structures

RECORD ID: **OWNER:**

RESULT:

Plan reviewer: Phone/email:

A. GENERAL REQUIREMENTS

1. Each of the items on this list requires correction before a permit will be issued. The approval of plans and specifications does not permit the violation of any section of the building code, county ordinances, or state law. The following plan check may contain errors and omissions. Every effort has been made to perform a thorough review, however, any life safety items missed remain subject to further comments. (See the 2025 California Residential Code, Section R105.4)

2. Each of the items on this list requires correction before a plan change will be issued. The approval of plans and specifications does not permit the violation of any section of the building code, county ordinances, or state law. The following list does not necessarily include all errors and omissions. (See the 2025 California Residential Code, Section R105.4)

3. The following supplements are attached and considered part of this review. Compliance with these items must be obtained prior to permit issuance:
    a. Minimum construction specifications (PDS #081)
    b. County of San Diego Storm Water Intake Form
    c. County of San Diego Standard Project Storm Water Quality Management Plan (SWQMP)
    d. Sample Stormwater Best Management Practices (BMP) presentation (PDS #272)
    e. Eave construction guidance document (PDS #198)
    f. Special inspection summary (PDS #006)
    g. List of approved special inspection agencies and construction material testing laboratories
    h. Other :

4. **Please read your Conditions of Approval list.** Conditions may include items such as: Fire District Approval, DPW Flood Control, DPW Driveway Review, etc. We recommend reviewing these conditions **early** in the project design stage to determine potential requirements. We also advise satisfying the “Structural Approval” (i.e., this building code review) and “Planner Approval” conditions (if required) **before** submitting your plans to the fire district for approval stamps. Additionally we recommend you retain all previously reviewed sets until permit issuance.

5. Plan revisions must be made by printing new sheets incorporating the necessary modifications. **Please slip revised sheets** into the complete sets as needed and **return the replaced sheets** at recheck. Revisions made with pen or pencil, by crossing out or taping on information, or by using white-out are not allowed.

6. Changes to scope of work such as square footage, addition/removal of structures, etc. may require a plan change. Please see a PDS Permit Technician to determine any requirements; you may need approval from Zoning/Engineering and updated documents (e.g., agency clearance letter, fire mitigation, etc.).

7. The following set(s) **must** be returned with the new/revised sets at recheck:
    a. Previously plan-checked and stamped set(s) dated _____ .

b. Red-marked set(s) dated _____ . Red marks on plans are part of this comments list.

8. **Plans will not be accepted for recheck** unless you submit the **original correction list** – copies not accepted – and a **complete response list** per the following:
   a. Provided item-by-item responses on separate **8-1/2-inch by 11-inch** sheet(s); **do not mark** responses on the original correction list.
   b. Clearly and specifically indicating **where and how** each correction item has been addressed (vague responses, such as "Done" or "See plans," are unacceptable)
   c. Clearly and specifically indicating **any additional changes made to project** beyond responses to correction items

9. For plan check by appointment, the intention is to sign off and approve the plan check at this appointment. **The appointment is for a decision maker**, not a permit expediter, and a response list must be carefully prepared with this objective in mind. If the decision maker is unable to attend in-person, they should be available by phone if needed.

10. Plans may be required to be submitted and logged-in for recheck due to:
    a. Insufficient progress
    b. Changes
    c. Lost red-marked set, or lack of a response letter
    d. Other :

11. A second opinion is available on any interpretation or correction provided and will not affect the level of customer service you receive. **We ask you to provide your interpretation of the code, along with any health or safety concerns that the interpretation may cause, and how this will affect your project.** The second opinion will come from one of our senior staff or a supervisor who will have a chance to take a deeper look at supporting documentation on both sides of the issue. This may occur at the counter or require a few days for proper research and understanding of the intent of the code in question. After the second opinion you can always follow up with our Building Official for a final opinion.

12. For your information, this **plancheck expires** on _____ .

B. PLAN REQUIREMENTS

1. Include **current** County of San Diego minimum construction specifications (PDS #081) **with signature** on full-size sheet in plans. A PDF template of PDS #081 is available at: http://www.sdcounty.ca.gov/pds/bldgforms/index.html.

2. Specify on plans that the **"project will comply with the following building codes and associated County of San Diego amendments"**, and also list the following codes:
   a. 2025 California Residential Code (CRC) and/or 2025 California Building Code (CBC) as applicable
   b. 2025 California Green Building Standards Code (CalGreen)
   c. 2025 California Electrical Code (CEC)
   d. 2025 California Mechanical Code (CMC)
   e. 2025 California Plumbing Code (CPC)
   f. 2025 California Fire Code (CFC)
   g. 2025 California Building Energy Efficiency Standards (CBEES)
   h. 2025 California Wildland-Urban Interface Code (CWUIC)

3. Provide / revise "**Scope of Work**" describing the project and identifying structures included on this permit.

4. **Scope of work** in County permit system is:_____,
   but the **plans do not match** the scope of work as follows:_____.
   After clarification, you may need to complete a Plan Change Form (PDS 652) and go to the Permit Center check-in counter to start the plan change process.

5. Provide fully **dimensioned plot plan** drawn to scale and **indicating the following**:
   a. Lot dimensions with property lines and any easements identified
   b. Size and use of each structure on the lot
   c. Dimensions from structures to property lines (measured at right angles to structures)
   d. Dimensions between structures (measured at right angles to structures)

6. Plans are incomplete. Plan check will proceed with submittal of complete plans. Use this list as a guide in preparing plans.

7. The plans must be prepared using accepted drafting procedures and practice. Additionally, familiarity with the building permit process and the management of your project is essential. We recommend you retain the services of an **experienced design professional** to help you submit quality plans, thoroughly address all plan check correction items, and provide project management.

8. For your information, here is what is shown on the Property Summary Report for your project.
    a. Fire Hazard Severity Zone:
    b. Existing Structural BMP:
    c. Priority Development Project:
    d. Environmentally Sensitive Area:
    e. Hillside Development:

9. Provide on structural plans a **basis of structural design summary** per the following (CBC 1603.1, CRC R106.1):
    a. If basis of design is **structural calculations**, summary shall include:
        ○ *Note on plans* : "Basis of design of structures is structural calculations using design parameters per California Building Code chapter 16 and ASCE 7."
        ○ Specify Building risk category per CBC 1604.5
        ○ Specify design roof live load per CBC 1607.12
        ○ Specify design floor live load per CBC 1607.10
        ○ Specify design snow load per CBC 1608
            Exception: Ground snow load is less than the factored roof live load AND no potential for drift accumalation. ASCE 7.2
            Exception: Ground snow load is less than the factored roof live load AND no potential for unbalanced snow loading. ASCE 7.2
            Exception: For roofs less than 100 ft long AND the ground snow load is less than or equal to 10 psf. Regardless if there is potential for drift or unbalanced snow loading. ASCE 7.2
            Exception: For roofs less than 300 ft long AND the ground snow load is less than or equal to 5 psf. Regardless if there is potential for drift or unbalanced snow loading. ASCE 7.2
        ○ Wind design data:
            ▪ Specify basic design wind speed per CBC 1609.3
            ▪ Specify ASD design wind speed per CBC 1609.3.1
            ▪ Specify exposure category per CBC 1609.4
        ○ Seismic design data:
            ▪ Specify seismic importance factor per ASCE 7 Table 1.5-2
            ▪ Specify site class per ASCE 7 20.3
            ▪ Specify mapped spectral response acceleration parameters, S_S and S_1, per CBC 1613.3.1
            ▪ Specify design spectral response acceleration parameters, S_{DS} and S_{D1}, per CBC 1613.3.4
            ▪ Specify seismic design category per CBC 1613.3.5
            ▪ Specify seismic force-resisting system type per ASCE 7 12.2.1
            ▪ Specify seismic response coefficient, C_S, per ASCE 7 12.8.1.1
            ▪ Specify response modification coefficient, R, per ASCE 7 Table 12.2-1
    b. If basis of design is **conventional light-frame construction per CBC 2308**, summary shall include:
        ○ *Note on plans:* "Basis of design of structures is conventional light-frame construction using design parameters per California Building Code section 2308."
        ○ Specify design roof live load per CBC 1607.12
        ○ Specify design floor live load per CBC 1607.10
        ○ Specify design snow load per CBC 1608
        ○ Wind design data:
            ▪ Specify basic design wind speed per CBC 1609.3
            ▪ Specify ASD design wind speed per CBC 1609.3.1
            ▪ Specify exposure category per CBC 1609.4
        ○ Seismic design data:
            ▪ Specify site class per ASCE 7 20.3
            ▪ Specify mapped spectral response acceleration parameters, S_S and S_1, per CBC 1613.3.1
            ▪ Specify design spectral response acceleration parameters, S_{DS} and S_{D1}, per CBC 1613.3.4
            ▪ Specify seismic design category per CBC 1613.3.5
    c. If basis of design is **conventional light-frame construction per CRC**, summary shall include:
        ○ *Note on plans:* "Basis of design of structures is conventional light-frame construction using design parameters per California Residential Code."

- ○ Specify design roof live load per CRC R301.6
- ○ Specify design floor live load per CRC R301.5
- ○ Specify design snow load per CRC R301.2.3
- ○ Specify ultimate wind speed = 110 mph per CRC R301.2.1
- ○ Specify wind exposure category = C per CRC R301.2.1.4

  Exception: Exposure category B acceptable if justification provided demonstrating site meets code definition
- ○ Seismic design data:
  - ▪ Specify site class per ASCE 7 20.3
  - ▪ Specify mapped spectral response acceleration parameters, S_S, per CBC 1613.3.1
  - ▪ Specify design spectral response acceleration parameters, S_{DS}, per CBC 1613.3.4
  - ▪ Specify seismic design category per CRC Table R301.2.2.1.1

10. Provide on structural plans a **basis of soil design summary** per the following (CBC 1603.1, CRC R106.1):
    a. If basis of design is a **geotechnical report**, summary shall include:
       - ○ *Note on plans:* "The basis of soil design values is geotechnical report dated _____ by (engineer/firm preparing report)."
       - ○ Specify allowable vertical bearing pressure per geotechnical report
       - ○ Specify allowable lateral bearing pressure per geotechnical report
       - ○ Specify allowable skin friction per geotechnical report
       - ○ Specify other soil properties, such as retaining walls design parameters, per geotechnical report as applicable.

    b. If basis of design is **CBC presumptive load-bearing values**, summary shall include:
       - ○ *Note on plans:* "The basis of soil design values is California Building Code Table 1806.2."
       - ○ Specify class of soil materials per CBC Table 1806.2
       - ○ Specify allowable vertical bearing pressure per CBC Table 1806.2

         Exception: A geotechnical report may be required for assumed values greater than 1,500 psf **or** where the building official has reason to doubt soil classification or design value.
       - ○ Specify allowable lateral bearing pressure per CBC Table 1806.2

         Exception: A geotechnical report may be required for assumed values greater than 100 psf/ft **or** where the building official has reason to doubt soil classification or design value.

11. Provide two sets of **structural calculations** -- addressing all applicable CBC 1605 load combinations -- prepared, stamped, and signed by California-licensed civil engineer, structural engineer, or architect for:
    a. Vertical load supporting system
    b. Lateral load (wind/seismic) resisting system
    c. Retaining walls
    d. Glass guardrail systems
    e. Other:

12. Each sheet of structural plans must bear the **stamp and wet or electronic signature** of a California-licensed civil engineer or architect.

13. **Special inspection** required for the following:
    a. Field welding (CBC 1705.2.1)
    b. High-strength bolting (CBC 1705.2.1, CBC 1705.12.1)
    c. Cold-formed steel framing (CBC 1705.2.1, CBC 1705.11.2, CBC 1705.12.3)

       Exception: Projects meeting appropriate exception criteria of CBC 1705.11.2, CBC 1705.12.1 or CBC 1705.12.3

       Exception 1 of Section CBC 1704.2: Structural observation by California-licensed engineer allowed in lieu of special inspection.
    d. High-strength concrete (CBC 1705.3)

       Exception 1 of Section CBC 1704.2: Concrete with specified compressive strength of 3000 psi or less
    e. Post-installed concrete anchors (CBC 1705.3)
    f. Pre-stressed/post-tensioned slabs (CBC 1705.3)

       Exception: Non-structural pre-stressed slabs supported directly on the ground and where the effective concrete pre-stress is less than 150 psi
    g. Masonry (CBC 1705.4)

       Exception: Masonry meeting prescriptive design requirements of CRC R404 or CRC R606

       Exception 1 of Section CBC 1704.2: Masonry with specified compressive strength of 1500 psi or less

Exception 1 of Section CBC 1704.2: Masonry site retaining walls with overall height of 10 feet or less
Exception 1 of Section CBC 1704.2: Structural observation by California-licensed engineer allowed in lieu of special inspection

h. Structural wood elements -- e.g., shear walls, diaphragms, drag struts, braces -- of main seismic force-resisting system (CBC 1705.13.2)

Exception: Detached one- and two-family dwellings not exceeding two stories above grade and without horizontal and vertical irregularities in accordance with section 12.3 of ASCE 7
Exception: Wood shear walls, shear panels, and diaphragms, including nailing, bolting, anchoring, and other fastening to other components of the seismic force-resisting system, where the fastener spacing of the sheathing is more than 4 inches on center
Exception 1 of Section CBC 1704.2: Structural observation by California-licensed engineer allowed in lieu of special inspection.

i. Other:

14. Specify special inspector name/firm and phone number (as approved by the City of San Diego). Complete PDS #006 **special inspection summary** and make a permanent part of the plans. As an alternative to PDS #006, a statement of special inspection may be used if equivalent information is provided.

15. Provide **large, clear** note on **cover sheet or plot plan**: "**Special inspection required. See special inspection form (or equivalent) on sheet _____**."

16. Clearly distinguish on plans between **proposed** (new), **as-built** (non-permitted), and **existing** (permitted) construction.

17. Note on plans: "As-built construction shall be made accessible for inspection by a PDS Building Inspector. Some elements, such as reinforced concrete or concrete masonry units (CMU), may require a combination of access and a certification report. The need for electrical, plumbing, or mechanical certification reports will be determined by a PDS Building Inspector in the field. Any required certification reports are not a substitute for County inspection."

18. Provide **certification report(s)** for **reinforced concrete or concrete masonry unit (CMU)** elements per the following:

a. Each report shall include:
   - ○ Test results, photos, and other evidence supporting certification. Specify measures/test performed for certification with hidden construction verified by testing and/or destructive examination.
   - ○ Each report shall indicate certifying parties have visited job site and **list date(s) of job-site visit(s)**
   - ○ Each report shall include statement confirming the as-built construction **complies with the code(s)** applicable to the project **and matches the construction** detailed on the submitted building plans
   - ○ Each report shall indicate **if mitigation and/or repairs are needed to achieve compliance. Specify and detail on plans such mitigation and/or repairs.**

b. Report(s) shall be produced, signed, and stamped by California-licensed Civil Engineer, Structural Engineer, or Architect

19. **Plan change during construction**. Provide a letter from a California licensed engineer, architect, or the engineer of record (EOR), addressing the structural impacts of the changes. For example, anchor bolt attachment to previously constructed footings.

20. Name, label, and specify on floor plans the **use of all rooms and spaces**.

21. Provide the following for **licensed 24-hour care facility** (CRC R335):
    a. Specify on plans R-3.1 occupancy with data table indicating number of ambulatory, nonambulatory, bedridden, and elderly clients **(maximum 6 total)**
    b. At each bedroom location on floor plans, note the number of clients and client status – ambulatory, nonambulatory, bedridden, or elderly – proposed for housing in that bedroom
    c. Provide documentation indicating approved number of clients for each client status type. Documentation shall be either a copy of the state license or completed application with confirmation from the state that application has been received.
    d. Verification no restraint practiced – including locked doors preventing egress – unless building meets all requirements for I-3 occupancy

22. The following special provisions apply for **R-3.1 occupancy** residential care facilities:
    a. **Facilities having more than 2 stories or having more than 3,000 square feet above the first story:** 1-hour-rated construction required if housing nonambulatory clients above the first story (CRC R335.3.1)
    b. **Facilities housing a bedridden client:** Sleeping rooms may not be located above or below first story (CRC R335.3.1)

c. **Facilities housing nonambulatory clients:** Means of egress per CRC R335.6.3.2
d. **Facilities housing only one bedridden client:** Means of egress per CRC R335.6.3.3
e. Area and exterior wall limitations per CRC R335.3.2 and CRC R335.9
f. Changes in level per CRC R335.6.4
g. Stairways per CRC R335.6.5
h. Floor separation per CRC R335.6.6
i. Fences and gates per CRC R335.6.7
j. Basement exits per CRC R335.6.8
k. Delayed egress locks per CRC R335.6.9

23. Foundation and framing plans shall be **the same orientation** as floor plans.

24. Provide **legend/definitions** for all symbols, shaded areas, etc., used on plans.

25. Remove all "build per code" and "not for construction" notes from plans.

26. Make plan check corrections and thereafter, provide or update **sheet index** coordinated with plans.

27. Additional special provisions apply for the following:
    a. Tiny houses
    b. Light straw-clay construction
    c. Straw bale construction
    d. Emergency housing (emergency sleeping cabins, emergency transportable housing units, membrane structures, and tents)
    e. Intermodal shipping containers. CBC 3115, CRC R301.1.4

C. SITE REQUIREMENTS

1. **SITE INSPECTION Requirements:**
    a. Per your **CONDITIONS OF APPROVAL**, **site inspection** required. Post site identification cards and call for initial SITE INSPECTION as instructed in your conditions. Additional correction items may apply based on the results.

    b. **Accela Parcel Land Query** indicates there is an open grading permit for this parcel. Therefore, no site inspection required. See any **grading permit** requirements below.
    c. In response to the results of a site inspection, submit a report from a California licensed Civil or Geotechnical Engineer. Each report shall indicate the dates the certifying parties have visited the job site and address the following (as applicable):
        ○ Grading plans and a grading permit are required when there will be 200 or more cubic yards of earth moved or when there will be a cut or fill eight feet or more in vertical height, measured from the toe of the slope to the top of the slope. (See San Diego County Grading Ordinance Section 87.202.) Provide earthwork quantities with calculations and exhibit to confirm no grading permit required.

        ○ A compaction report is required when fill soils of 12" in depth or greater are on the site.
        ○ A geotechnical investigation is required for any questionable soil. Address geotechnical conditions as applicable per CBC 1803.4 such as soil classification, questionable soil, expansive soil, etc. Provide recommendations for foundation design, retaining wall design, soil bearing capacity, etc.

    d. If earthwork quantities and calculations are accepted in support of exempt grading, then earthwork can commence prior to building permit issuance. Provide a compaction report or geotechnical report (as applicable).

        ○ Provide 2 copies of any required Soils or Compaction reports. Compaction reports more than 5 years old shall include an update letter by a California-licensed civil engineer.
        ○ Foundation elements (e.g., footings, slab thickness, reinforcement, moisture barrier, etc.) shall comply with all recommendations made in Soils or Compaction report.
    e. Subject to further evaluation or comments from a County Building Inspector regardless of any accepted report.

2. Project located in **Alquist-Priolo Earthquake Fault Zone**. Provide geotechnical report prepared, stamped, and signed by California-licensed civil engineer demonstrating proposed building(s) will not be constructed across trace of active fault.

3. **Grading permit** required from PDS Building Services.
   Provide the following documentation:
    a. **Accela Parcel Land Query** indicates there is no grading permit found. Apply for a grading record.
    b. Grading Record ID: _____

c. Pass rough grading inspection.
d. Compaction Report (2 copies). Compaction reports more than 5 years old shall include an update letter by a California-licensed civil engineer.
e. Minor Grading Certification Form PDS #073 (2 copies)

4. **Grading permit** required from PDS Land Development and DPW Private Development Construction Inspection. Provide the following documentation:
   a. **Accela Parcel Land Query** indicates there is no grading permit found. Apply for a grading record.
   b. Grading Record ID: _____
   c. Pass rough grading inspection and provide DPW Grading Inspection Results
   d. Compaction Report (2 copies). Compaction reports more than 5 years old shall include an update letter by a California-licensed civil engineer.

5. **Compaction report** required (2 copies). Compaction reports more than 5 years old shall include an update letter by a California-licensed civil engineer.

6. Note on cover sheet or plot plan: "All proposed buildings, structures, additions, modifications to buildings/structures must comply with the approved location, as shown on the County approved Plot Plan. At the discretion of the County, the property owner may be required to provide proof of current placement of each on the parcel. This may include a stamped and signed **setback certificate** prepared by a California licensed surveyor or civil engineer. (County Building Code 91.1.107.2)"

7. *Note on cover sheet or plot plan:* **"Per Site Inspection, compaction report required at first inspection"**

8. Note on cover sheet or plot plan: "Per LD pre-review form, This project gains access from a County maintained road and an **application** for a **Right of Way (ROW) permit** was created prior to the issuance of the building permit. Begin processing the ROW **permit** 8 weeks prior to anticipated Final Inspection Approval**.** Coordinate with the land development counter at **rowpermitcounter@sdcounty.ca.gov**.
   Applicant Signature: _____"

9. Provide **itemized impervious surface area information** on stormwater Best Management Practices (BMP) plan or plot plan. Coordinate with total entered on County of San Diego Storm Water Intake Form.
   a. Dimensions of all **impervious** elements – including building roofs, driveways, paved walkways, patios, patio covers, and decks – to enable calculation and verification of the surface area of each element
      ○ Impervious areas from **other open building permits**. For example, ground mount solar, swimming pools, patio covers, etc.
   b. Distinguish between new/replaced **impervious** surface area and existing **impervious** surface area
   c. **"Existing" driveway:** There are four possible ways a driveway can be permitted, (1) Building Permit; (2) Grading Permit; (3) Clearing Permit; (4) Agricultural Use. Even though County Building Code Section 91.1.105.2 exempts driveways no more than 30" above grade from permit, this is contingent upon the driveway having been constructed as supplementary to an issued permit. If not "existing", driveway must be considered as new/replaced impervious surface area. Provide one of the following to verify driveway is existing:
      ○ Proof that the driveway was constructed as supplementary to a **previously issued permit**.
      ○ Proof that the driveway was constructed as supplementary to an **established agricultural use**.
   d. **Provide table** determining cumulative new/replaced **impervious** surface area and cumulative existing **impervious** surface area on entire parcel, and **coordinate** with totals entered on County of San Diego Storm Water **Intake Form** (see PDS #272 for guidance)
   e. Provide table indicating surface area of each constructed **pervious** element (see PDS #272 for guidance)
   f. For any constructed **pervious** elements, provide on plans **all of the following** (for more information on pervious element design and strategies, please consult the **County of San Diego BMP Design Manual**):
      ○ Manufacturer and product specifications
      ○ Pervious element slope and direction of slope
      ○ Cross-section of product assembly with complete dimensions and detailing
      ○ Specific maintenance program – e.g., debris removal, vacuum sweeping twice per year, re-setting pavers as needed – to ensure product assembly remains pervious.
      ○ *Note on plans*: "Constructed pervious surfaces shall not be sealed."

10. Provide **itemized land disturbance information** on stormwater Best Management Practices (BMP) plan or plot plan. Coordinate with total entered on County of San Diego Storm Water Intake Form.
    a. Provide table determining cumulative land disturbance for all soil disturbance occurring **under this permit**. Include items such as septic fields, grading, buildings(s), covered areas, decks, walkways, driveways, fence and retaining wall footings, etc.

b. Provide table determining cumulative land disturbance for all soil disturbance occurring **under other open permits on this site**. Include items such as ground mount solar, swimming pools, patio covers, etc.
c. Provide table determining cumulative land disturbance due to any **proposed landscaping under this permit or any other open permits on this site**.
    ○ For proposed landscaping areas **over 2500 sf**, provide Landscape Documentation Package.
    ○ For proposed landscaping areas **between 500 sf and 2500 sf**, provide Landscape Certificate of Completion Checklist.
    ○ For proposed landscaping areas **less than 500 sf**, no landscape permit required but must be included as disturbed area on the table.

11. **After the sets have been approved and stamped by the fire district**, PDS Building plan reviewer shall confirm that no additional impervious area or land disturbance was required.

12. S**tormwater INTAKE form shall be completed and made a permanent part of plans. No need to submit separate 8.5x11 versions.**
    a. Project identification information and applicant's signature
    b. Total new/replaced impervious area
    c. Total existing impervious area
    d. Total area disturbed by the project
    e. Waste Discharger Identification Number (WDID) (obtained from State Water Resources Control Board and required when total area of land disturbance is 1 acre or more **or** project is part of a common development with land disturbance of 1 acre or more)
    f. County records indicate this parcel is part of an **EXISTING PDP** (SATISFIED OR NOT SATISFIED):
        ○ **Property Summary Report** indicates EXISTING PDP (SATISFIED OR NOT SATISFIED)
        ○ **Accela Parcel Land Queries** indicate there are PDS Building records that are OPEN or ISSUED with a status of PDP in the GEO CODES and Building Inspector Comments.
    g. This parcel is part of an existing PDP designated as **SATISFIED**:
    Use information in Part 3 to determine if this is a NEW PDP
    h. This parcel is part of an existing PDP designated as **NOT SATISFIED**:
    This parcel is already a PDP therefore the Standard SWQMP form does not apply.
    i. Project type determination: Standard Project or Priority Development Project

13. The **impervious area** is close to requiring a stormwater **Priority Development Project (PDP)**. Note the following on cover sheet or plot plan:
    a. New or replaced imperious area is within 95% of 10,000 sf (9,500 sf). Any additional impervious area may require a stormwater Priority Development Project (PDP)
    b. Redevelopment project impervious area is within 95% of 5,000 sf (4,750 sf) on a site with 10,000 square feet or more of existing impervious surface. Any additional impervious area may require a stormwater Priority Development Project (PDP)
    c. New or replaced impervious area within a hillside area with minimum 25% natural slope and creating or replacing 5,000 square feet or more of impervious surface"
    d. New or redeveloped driveway and/or road creating or replacing 5,000 square feet or more of impervious surface"
    e. New or redevelopment project discharging directly to an Environmentally Sensitive Area (ESA) and creating or replacing 2,500 square feet or more of impervious surface"

14. The **land disturbance** of this project is close to requiring a stormwater **Priority Development Project (PDP)** and a **Construction General Permit** from the State Water Resources Control Board, including a current WDID number. Note all of the following on cover sheet or plot plan:
    "a. Disturbed area shown is within 90% of an acre (39,204 sf). Any work outside the scope of the construction drawings may require a Waste Discharger Identification Number (WDID) directly from the State Water Resources Control Board. Contact: stormwater@waterboards.ca.gov (866) 563-3107."
    "b. The perimeter of the land disturbance must be clearly staked as per the approved plans."
    "c. DPW Watershed Protection Program requires a meeting with the owner and contractor no later than Foundation inspection. Contact: BMP.Program@sdcounty.ca.gov."

15. Stormwater Intake form declarations indicate project is a **Priority Development Project (PDP)** per the criteria below.

A typical PDP SWQMP ***submittal package through PDS Land Development*** *requires: 1. two copies of the PDP SWQMP, 2. two copies of the site plan with impervious areas, 3. two copies of a topographic map, 4. two copies of a drainage study (even if not required in any residential grading process), 5. PDS 811 (application), 6. PDS 126 (financial responsibility form), and a deposit for initial review, and 7. a flash drive with each of the above items on it.*
Applicant will visit the ***Land Development Counter*** *(no appointment) to submit for review.*

a. Project creating or replacing 10,000 square feet or more of impervious surface
b. Redevelopment project creating or replacing 5,000 square feet or more of impervious surface on a site with 10,000 square feet or more of existing impervious surface
c. New or redeveloped hillside area with minimum 25% natural slope and creating or replacing 5,000 square feet or more of impervious surface
d. New or redeveloped driveway and/or road creating or replacing 5,000 square feet or more of impervious surface
e. New or redevelopment project discharging directly to an Environmentally Sensitive Area (ESA) and creating or replacing 2,500 square feet or more of impervious surface
f. Total land disturbance exceeds 1 acre (43,560 sf), and you must also obtain a Waste Discharger Identification Number (WDID) directly from the State Water Resources Board.
g. County records indicate project site is PDP-NOT-SATISFIED: This parcel is part of a larger stormwater Priority Development Project (PDP) for multiple parcels, including this parcel. It is already established that the individual parcels are a PDP, such that the regular stormwater INTAKE and STANDARD forms do not apply in this case. The term "NOT-SATISFIED" means that, until now, there was not enough information to establish compliance of the individual parcels. Now, submittal of a parcel-specific PDP SWQMP is required per the description above.

16. Provide stormwater Best Management Practices (BMP) plan **coordinated** with Priority Development Project Storm Water Quality Management Plan (PDP SWQMP) approved by PDS Land Development covering proposed scope of work and including location and detailing of any Structural BMPs.
    a. If a PDP SWQMP under a related Land Development Referral (LDREFL) record type, **include the BMP Plan and Drainage Management Areas (DMA) Plan** from the approved PDP SWQMP document stamped by PDS Land Development. This BMP Plan and DMA Plan must show all structural BMP's, construction BMP's, and post-construction (source control and site design) BMP's, and must be coordinated with the rest of the approved PDP SWQMP document. The BMP Plan and DMA Plan must already cover the proposed scope of work under this building permit.
        ○ Note on cover sheet or plot plan: "This project is a Stormwater Priority Development Project (PDP). Construction of Structural-BMPs may not begin, and PDS Building inspections may not proceed past Roof Nail, until the project team meets with the Watershed Protection Program (WPP). Contact: PDP.PackageReview@sdcounty.ca.gov."
        ○ BMP Plan from approved grading permits may be integrated into the building plans. Do not include the entire set of grading plans.
    b. If any other stormwater record types, once available, you only need to bring a **photocopy of the PDP SWQMP cover sheet** that has the approval stamp and signature.
        ○ BMP Plan from approved grading permits may be integrated into the building plans. Do not include the entire set of grading plans.

17. **Stormwater STANDARD form shall be completed and made a permanent part of plans. No need to submit separate 8.5x11 versions.**
    Pay extra attention to filling out all parts of Tables 1 and 3 of the form, including checking off appropriate boxes indicating the stormwater Best Management Practices (BMP) designations that apply, such as SD-G, SD-B, SD-D, SS-6, SS-8 as examples.
    a. Project identification information and applicant's signature
    b. Proposed erosion control BMPs for Disturbed Slopes and Disturbed Flat Areas per Table 3
    c. Proposed energy dissipater (as needed where run-off is concentrated) per Table 3
    d. Proposed sediment control BMPs per Table 3
    e. Proposed BMPs preventing off-site tracking of sediment per Table 3
    f. Proposed site management BMPs per Table 3
    g. Proposed source control BMPs per Table 2
    h. Proposed site design BMPs per Table 1

18. Provide a **stormwater Best Management Practices (BMP) Plan** with current legend.
    a. Indicating general direction of site drainage
    b. Identifying location of proposed erosion control BMPs per Standard Project SWQMP

c. Identifying location of proposed energy dissipater per Standard Project SWQMP
d. Identifying location of proposed sediment control BMPs per Standard Project SWQMP
e. Identifying location of proposed BMPs preventing off-site tracking of sediment per Standard Project SWQMP

f. Identifying location of proposed site management BMPs per Standard Project SWQMP
g. Identifying location of proposed source control BMPs per Standard Project SWQMP
h. Identifying location of proposed site design BMPs per Standard Project SWQMP
i. Coordinate between the stormwater BMP's indicated in the STANDARD form (particularly those in Tables 1 and 3 of the STANDARD form), and those to be shown on the BMP Plan with current legend.
j. BMP Plan from approved grading permits may be integrated into the building plans. Do not include the entire set of grading plans.

19. County records indicate an **existing Structural Best Management Practices (Structural BMP)** - e.g., bioretention areas, infiltration areas, biofiltration areas - on the project site. **Specify on BMP plan** the location of the installed Structural BMP(s) to confirm no encroachment by proposed construction.
For more information on the installed Structural BMP(s), email BMP.Program@sdcounty.ca.gov or visit our website at https://www.sandiegocounty.gov/stormwater and then go to “Maintaining My Structural BMP”.

D. DESIGN REQUIREMENTS

1. Provide **complete dimensions** on floor plans, building sections, and exterior elevations.

2. Provide **dwelling room dimensions** complying with the following:
   a. Minimum 70 square feet of floor area for all habitable rooms (CRC R312.1)
      Exception: Kitchens
      Exception: Portions of a room with a sloping ceiling with less than 5-foot height or a furred ceiling with less than 7-foot height shall not be considered as contributing to required floor area of that room.

   b. Habitable rooms not less than 7 feet in any horizontal dimension (CRC R312.2)
      Exception: Kitchens

3. Provide **ceiling heights** complying with the following (CRC R313):
   a. Minimum 7-foot height in habitable rooms and hallways
      Exception: In rooms with sloping ceilings, minimum 50% of required floor area at minimum 7-foot ceiling height acceptable with no portion of required floor area at less than 5-foot ceiling height.
   b. Minimum 6-foot-8-inch height in bathrooms, toilet rooms, and laundry rooms
   c. Minimum 6-foot-8-inch height in basements without habitable rooms or hallways
      Exception: Minimum 6-foot-4-inch height acceptable beneath beams, girder, ducts, or other obstructions.

4. Sleeping Lofts: Where provided in dwelling units or sleeping units, **sleeping lofts shall comply with Sections R315.2 through R315.5**. Sleeping lofts constructed in compliance with this section shall be considered a portion of the story below. Such sleeping lofts shall not contribute to the number of stories as regulated by this code.
   a. Habitable room

5. Space labeled _____ is considered:
   a. Habitable room
   b. Sleeping room

6. **Patio cover, or other exterior covered area:** If the presence of any exterior covered area restricts the adjacent building's natural **light** or **ventilation** per comments D.8 and D.9, or restricts its required **egress or emergency egress**, then the following "covered patio" parameters must be met: (County Building Code 92.2.RAPPBF)
   a. Maximum one story. *(Based on prescriptive requirements if no calculations.)*
   b. Maximum 12-foot height. *(Based on prescriptive requirements if no calculations.)*
   c. Minimum 65% open from floor to minimum 6-foot-8-inch height above floor on **both** longest exterior side and at least one additional exterior side.
      Exception: Patio cover with one fully open exterior side acceptable if width-to-depth ratio of patio cover is minimum 2-to-1.
   d. Any solid exterior walls located below required patio cover openings shall be maximum 2 feet, 6 inches above floor.
   e. Required patio cover openings may be enclosed only with insect screening or approved maximum 1/8-inch-thick translucent/transparent plastic.

f. Exterior building openings serving as emergency egress or rescue openings from sleeping rooms may open to patio cover only if all required open sides are fully unenclosed.

7. Specify the following **on floor plans** at each window, **or on window schedule** coordinated with floor plans:
   a. Width
   b. Height
   c. Operation type (e.g., slider, casement, single-hung, awning)

8. Specify the following **on floor plans** at each door, **or on door schedule** coordinated with floor plans:
   a. Width
   b. Height
   c. Operation direction (e.g., swing path, slider, pocket)

9. Provide **at least one** of the following in each habitable room to achieve **adequate lighting**:
   a. Natural Light: Habitable rooms shall have an aggregate area of glazed openings not less than 8 percent of the floor area of such rooms. Required glazed openings shall face directly onto a street, alley or public way, or a yard or court located on the same lot as the building. (CRC R325.1.1)
   b. Glazed openings are not required where artificial light is provided that is capable of producing an average illumination of 6 footcandles over the area of the room at a height of 30 inches above the floor level. (CRC R325.1.1, Exception 3)
   c. Unobstructed opening to adjoining rooms and complying with **all of the following** (CRC R325.1.3):
      - Minimum 50% of common wall area between rooms
      - Minimum 10% of floor area of interior room
      - Minimum 25 square feet
      - Adjacent room with glazed window and/or door area to exterior of at least 8% of both rooms' combined floor area
   d. See other exceptions. (CRC R325.1.1)

10. Provide **at least one** of the following in each habitable room to achieve **adequate ventilation**:
    a. Habitable rooms shall have an aggregate area openable to the outdoors not less than 4 percent of the floor area of such rooms. Openings shall be through windows, skylights, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. (CRC R325.1.2)
    b. Natural ventilation shall not be required in habitable rooms other than kitchens where a whole-house mechanical ventilation system or a mechanical ventilation system capable of producing 0.35 air changes per hour in the habitable rooms is installed in accordance with the California Mechanical Code. (CRC R325.1.2, Exception 1)

    c. Unobstructed opening to adjoining rooms and complying with **all of the following** (CRC R325.1.3):
       - Minimum 50% of common wall between rooms
       - Minimum 10% of floor area of interior room
       - Minimum 25 square feet
       - Adjacent room with openable window and/or door area to exterior of at least 4% of both rooms' combined floor area
    d. See other exceptions. (CRC R325.1.2)

11. Provide the following in **each bathroom, powder room, and water closet** compartment:
    a. Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in **windows of not less than 3 square feet, one-half of which shall be openable**. (CRC R325.2)

       Exception: The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be 50 cubic feet per minute for intermittent ventilation or 20 cubic feet per minute for continuous ventilation in accordance with the California Mechanical Code, Chapter 4. Exhaust air from the space shall be exhausted directly to the outdoors.
    b. **Bathroom exhaust fans:** Each bathroom containing a bathtub, shower or tub/shower combination shall be mechanically ventilated for purposes of **humidity control** in accordance with the California Mechanical Code, Chapter 4; and the California Green Building Standards Code, Chapter 4, Division 4.5. Note: Window operation is not a permissible method of providing bathroom exhaust for **humidity control**. (CRC R325.2.1)

12. Specify **tempered glass** at the following locations requiring safety glazing:
    a. **Glazing in doors:** Glazing in swinging, sliding, and bi-fold doors (CRC R324.4.1)
       Exception: Glazed openings through which a 3-inch-diameter sphere is unable to pass.
       Exception: Decorative glazing.

b. **Glazing adjacent to doors:** Glazing in an individual fixed or operable panel adjacent to a door within 60 inches vertically of floor **and** meeting **either of the following** (CRC R324.4.2):
   Exception: Where intervening wall or barrier between door and glazing.
   Exception: Where door accesses closet or storage area maximum 3 feet in depth.
   Exception: Glazing adjacent to fixed panel of patio doors.
   ○ Within 24 inches of either side of the door in the plane of the door in a closed position.
   ○ Located on a wall perpendicular to the plane of the door in a closed position and within 24 inches of the hinge side of an in-swinging door.
c. **Glazing and wet surfaces:** Glazing within 60 inches – vertically and horizontally – of showers, bathtubs, hot tubs, swimming pools, and saunas (CRC R324.4.5)
d. **Glazing adjacent to stairs and ramps:** Glazing adjacent to stairways, ramps, and intermediate landings within 36 inches horizontally and 36 inches vertically of the travel surfaces (CRC R324.4.6)
   Exception: Where horizontal rail installed on accessible side of glazing at minimum 34 inches and maximum 38 inches above walking surface.
e. **Glazing adjacent to the bottom stair landing:** Glazing adjacent to bottom stair landings within 36 inches vertically of landing surface and within 60-inch horizontal arc less than 180 degrees from bottom tread nosing (CRC R324.4.7)
   Exception: Glazing protected by complying guard and minimum 18 inches from guard.
f. **Glazing in windows:** Glazing per **all of the following** and within 36 inches horizontally of walking surfaces (CRC R324.4.3):
   Exception: Where horizontal rail installed on accessible side of glazing at minimum 34 inches and maximum 38 inches above walking surface.
   Exception: Decorative glazing
   ○ Exposed area of individual pane minimum 9 square feet.
   ○ Bottom edge of glazing within 18 inches of floor.
   ○ Top edge of glazing more than 36 inches above floor.

13. **Window fall protection:** Where the top of the sill of an operable window is located less than 24 inches above the finished floor and greater than 72 inches above the finished grade or surface below, specify on plans **one of the following** for the operable window (CRC R321.2):
    ○ Window opening will not allow passage of 4-inch-diameter sphere when in largest opened position.
    ○ Windows provided with fall prevention device or window opening limiting device meeting ASTM F 2090.

14. Requirements for newly constructed dwellings. Please note on plans the following **Aging-in-Place and Fall Prevention Design**:
    a. **Reinforcement for grab bars:** At least one bathroom on the entry level shall be provided with reinforcement installed in accordance with section R328.1. Reinforcement shall be minimum 2x8 solid lumber, located between 32” and 39-¼” above the finished floor flush with wall framing on both side walls of the fixture.

    b. **Electrical outlets, switch, and control heights** shall be located no more than 48” measured from the top of the outlet box and not less than 15” measured from the bottom of the outlet box above the finished floor (Section R328.1.2). Show dimension on elevation.
    c. **Doorbell buttons** shall not exceed 48” above exterior floor or landing. (Section R328.1.4). Show dimension on elevation.
    d. **Interior Doors:** Effective July 1, 2024, at least one bathroom and one bedroom on the entry level shall provide a doorway with a net clear opening of not less than 32 inches, measured with the door positioned at an angle of 90 degrees from the close position; or, in the case of a two- or three-story single family dwelling, on the second or third floor of the dwelling if a bathroom or bedroom is not located on the entry level.

E. EGRESS REQUIREMENTS

1. **Doors:** Door operations and dimensions shall comply with the following. Not less than one egress door shall be provided for each dwelling unit (CRC R318.2). The required egress door shall open directly into a public way or to a yard or court that opens to a public way (CRC R318.1).
   a. Egress door shall be side-hinged swinging type (County Building Code 92.2.R318.2)
   b. Egress door minimum 32-inch clear width (County Building Code 92.2.R318.2)
   c. All doors minimum 78-inch clear height (County Building Code 92.2.R318.2)
   d. Note on plans (CRC R318.2): "Egress doors shall be readily openable from inside the dwelling unit without the use of a key or special knowledge or effort."

2. Dimension on floor plans **level landing** per the following **on each side of each door**:

a. Width not less than door width (County Building Code 92.2.R318.3)
b. Minimum 36-inch depth (County Building Code 92.2.R318.3)
   Exception: Landing not required at top of interior flight of stairs if door does not swing over stairs.
   Exception: Landing depth not required at exterior balconies less than 60 square feet and only accessible from door.
c. Maximum 1-1/2 inches lower than top of door threshold (County Building Code 92.2.R318.3)
   Exception: Maximum 7-3/4 inches lower than top of door threshold if door does not swing over landing.

3. Provide **at least one route of egress** complying with the following from all occupiable spaces (County Building Code 92.2.R318.4, CRC R318.6):
   a. Egress through doors complying with items E.1 and E.2 (County Building Code 92.2.R318.1)
   b. Minimum 36-inch hallway width (CRC R318.6)
   c. For levels more than one story above or below the grade-level exterior egress door serving that level, maximum 50-foot travel distance from any occupiable point to egress stairway or ramp. (County Building Code 92.2.R318.4)
   d. Egress from any occupiable space does not require travel through garage (County Building Code 92.2.R318.1)

4. Provide door or window at basements, habitable attics, the room to which a sleeping loft is open, and every sleeping room for **emergency escape and rescue openings** complying with the items below. Also refer to CRC section R319 for additional requirements and exceptions for openings at basements and openings installed under decks/porches (CRC R319).
   a. Minimum 5.7-square-foot net clear opening area (CRC R319.2.1)
      Exception: Minimum 5.0-square-foot net clear opening area acceptable for grade-level or below-grade room
   b. Minimum 24-inch net clear opening height (CRC R319.2.2)
   c. Minimum 20-inch net clear opening width (CRC R319.2.2)
   d. Bottom of clear opening maximum 44 inches above floor (CRC R319.2.3)
   e. Opening directly to public way or yard/court opening to public way (CRC R319.1)
   f. Where sill height is below grade level, window well provided per CRC R319.4

5. Provide **stairway design** complying with the following on floor plans and building sections:
   a. Minimum 36-inch clear width with maximum 4-1/2-inch handrail encroachment (CRC R318.7.1)
      Exception: Minimum 26-inch clear width acceptable at spiral stairways with maximum 24-1/2-inch walkline radius (CRC R318.7.11.1).
   b. Minimum 6-foot-8-inch headroom (CRC R318.7.2)
      Exception: Minimum 6-foot-6-inch headroom acceptable at spiral stairways (CRC R317.7.11.1)
   c. Minimum 36-inch-deep level landings (1/4" per foot max slope) at top and bottom of each flight of stairs with width perpendicular to the direction of travel not less than the width of the flight served. For landings of shapes other than square or rectangular, the depth at the walk line and the total area shall be not less than that of a quarter circle with a radius equal to the required landing width. Where the stairway has a straight run, the depth in the direction of travel shall be not less than 36 inches (CRC R318.3, CRC R318.7.6).

      Exception: The top landing of an interior stairway, including those in an enclosed garage, shall be permitted to be on the other side of a door located at the top of the stairway, provided that the door does not swing over the stairs.
      Exception: At an enclosed garage, the top landing at the stair shall be permitted to be not more than 73/4 inches below the top of the threshold.
      Exception: At exterior doors, a top landing is not required for an exterior stairway of not more than two risers, provided that the door does not swing over the stairway.
      Exception: Exterior stairways to grade with three or fewer risers serving a deck, porch or patio shall only be required to have a bottom landing width of not less than 36 inches no matter the width of the stairway, provided that the stairway is not the required access to grade serving the required egress door.

   d. Maximum 12-foot-7-inch vertical rise on one stairway flight between floors or landings (CRC R318.7.3)
   e. Enclosed accessible space beneath stairs shall have walls, under-stair surface, and any soffits protected with 1/2-inch gypsum board on the enclosed side (CRC R302.7)

6. Provide stairway **risers, level treads, and nosings** complying with the following:
   a. Risers (CRC R318.7.5.1):
      ○ Maximum 7-3/4-inch riser height.

Exception: Maximum 9-1/2-inch riser height acceptable at spiral stairways (CRC R318.7.11.1).

- ○ Vertical or sloped from underside of nosing maximum 30 degrees from vertical.
- ○ At open risers, openings located more than 30 inches, as measured vertically, to the floor or grade below shall not permit the passage of a 4-inch-diameter sphere. Any open risers not allowing passage of 4-inch-diameter sphere.

  Exception: The opening between adjacent treads for spiral stairways is only limited by their maximum riser height.

b. Treads (CRC R318.7.5.2):
- ○ Minimum 10-inch tread depth.
- ○ For winder treads, minimum 10-inch tread depth at 12 inches from inside edge and minimum 6-inch tread depth at any point within stairway clear width (CRC R318.7.5.2.1).

  Exception: For spiral stairway treads, minimum 6-3/4-inch tread depth at 12 inches from inside edge

c. Nosings (CRC R318.7.5.3):
- ○ On stairways with solid risers, minimum 3/4-inch and maximum 1-1/4-inch nosing projection.

  Exception: Nosings not required where tread depth is minimum 11 inches.

  Exception: Where risers are open, the maximum nosing projection shall be permitted to exceed 1-1/4 inches.

7. Provide **ramp design** complying with the following on floor plans and building sections:
   a. Maximum 8.3% slope where serving exterior door required for egress (CRC R318.8.1)

      Exception: Maximum 12.5% where technically infeasible to comply due to site constraints.
   b. Maximum 12.5% slope where exterior doors not required for egress and interior doors (CRC R318.8.1)
   c. Minimum 36-inch-deep landings at the following (CRC R318.8.2):
      - ○ Top of ramp
      - ○ Bottom of ramp
      - ○ Where door opens on to ramp
      - ○ Where ramp changes directions

8. Provide stairway and ramp **handrails** complying with the following:
   a. Provided on at least one side of each continuous stairway flight with four or more risers and each ramp with slope exceeding 8.3% (CRC R318.7.8, CRC R318.8.3)
   b. Located minimum 34 inches and maximum 38 inches vertically above sloped plane adjoining tread nosings or finished ramp surface (CRC R320.2)
   c. Continuous for full length of stairway flight or ramp run (CRC R320.5)

      Exception: Handrails may be interrupted by newel posts at turns.
   d. Handrails adjacent to a wall shall have minimum 1-1/2-inch clearance between wall and handrail.

9. Provide coordinated connection **details** specifying the following **stairway elements** designed for CRC R301.5 stair live loads:
   a. Stringer sizes
   b. Landing joists and beams
   c. Hangers

10 Provide **guard** complying with the following at any open-sided walking surface – including floors, stairs, ramps, and landings – located more than 30 inches vertically above adjacent floor or grade within 36 inches horizontally of open-side edge (CRC R321.1.1, R301.5):
   a. Minimum 42-inches high above walking surface (CRC R321.1.2)

      Exception: Minimum 34-inch-high guard acceptable at open side of stairs
   b. Openings in guard may not allow passage of 4-inch-diameter sphere (CRC R321.1.3)

      Exception: At open sides of stairs, openings in guard may not allow passage of 4-3/8-inch-diameter sphere, while triangular openings formed by riser, tread, and bottom rail of guard may not allow passage of 6-inch-diameter sphere

11. Provide coordinated connection **details** specifying the following for glass **guard systems**:
   a. Glass shall be tempered (CRC R324.4.4)
   b. Glass thickness (any structural glass designed with safety of factor of 4 considering CRC R301.5 guardrail loads)
   c. Member sizes designed for CRC R301.5 guardrail loads
   d. Means of connection (member-to-member and guardrail to supporting structure) for CRC R301.5 guardrail loads

12. Private residence **elevators and platform lifts** shall comply with CRC R323

F. ADDITIONAL LIFE SAFETY REQUIREMENTS

1. Indicate **smoke alarms** – interconnected per CRC R310.4 and hard-wired with battery back-up per CRC R310.6 – in the following locations on floor plans or utility plans (CRC R310.3):

   Exception: Smoke alarms shall not be located within areas specified in CRC R310.3.3. This includes, but not limited to, installations with ionization smoke alarms with an alarm-silencing switch or Photoelectric smoke alarms shall be permitted to be installed 10 feet or greater from a permanently installed cooking appliance.

   a. Within each sleeping room
   b. Outside each separate sleeping area in immediate vicinity of bedrooms
   c. On each story of dwelling

2. Indicate **carbon monoxide alarms** – interconnected per CRC R311.5 and hard-wired with battery back-up per CRC R311.6 – in the following locations on floor plans or utility plans in dwelling units with fuel-burning appliances, fireplace, or an attached garage communicating with the dwelling unit (CRC R311.3):
   a. Outside each separate sleeping area in immediate vicinity of bedrooms
   b. On each story of dwelling
   c. In any bedroom with a fuel-burning appliance located within that bedroom or its attached bathroom

3. **Dwelling unit garage shall be separated** per the following:
   a. Minimum 1/2-inch gypsum board on garage side of **walls** separating the garage from dwelling. Extend gypsum board to **roof sheathing**, OR install additional 1/2-inch gypsum board on garage side of **ceilings** separating garage from attics, with minimum 1/2-inch gypsum board on walls/columns/posts supporting such ceilings. (County Building Code 92.2.R302.6)
   b. Minimum 5/8-inch Type X gypsum board on floors/ceilings separating garage from habitable rooms above with minimum 1/2-inch gypsum board on walls/columns/posts supporting such floors/ceilings (County Building Code 92.2.R302.6)
   c. Where garage located within 6 feet of dwelling on same lot, minimum 1/2-inch gypsum board on interior side of exterior walls (County Building Code 92.2.R302.6)
   d. Self-closing **and self-latching** doors complying with **one of the following**:
      - ○ Minimum 1-3/8-inch-thick solid wood (CRC R302.5.1)
      - ○ Minimum 1-3/8-inch-thick solid or honeycomb core steel (CRC R302.5.1)
      - ○ 20-minute fire rating (CRC R302.5.1)

      Exception: Openings need only be self-closing/self-latching where garage and dwelling both sprinklered.
   e. Openings prohibited from garage into dwelling unit sleeping room (CRC R302.5.1)
   f. Ducts in garage and ducts penetrating walls between garage and dwelling shall be minimum 26-gage sheet steel with no openings into garage (CRC R302.5.2)
   g. Columns and posts require minimum 1/2-inch gypsum board due to support of floors/ceilings above. Provide minimum 5-foot high corner guards or metal jacketing for columns and posts subject to vehicular impact (CBC 704.9)

4. Specify on floor plans or foundation plans **garage slabs/floors** of noncombustible material with minimum 1% slope directed to drains or main vehicle entry doorway. (CRC R309.1)

5. Exterior walls with **proximity to property lines, or to imaginary lines for fire separation distance**, shall comply with the following:

   Exception: Detached sheds, playhouses, and similar structures.

   a. Walls (provide details specifying CBC Table 720.1(2) assembly number or alternate listed assembly) (CRC R302.1):
      - ○ 1-hour fire rating for exposure to both sides within 3 feet of property line (sprinklers)
      - ○ 1-hour fire rating for exposure to both sides within 5 feet of property line (without sprinklers)
   b. Projections (detail any rated construction) (CRC R302.1):
      - ○ Prohibited within 2 feet of property line
      - ○ 1-hour fire rating on the underside within 3 feet of property line (if building is sprinklered)

        Exception: Unrated roof eaves acceptable if fireblocking provided from wall top plate to underside of roof sheathing and no gable/eave vents installed in the associated wall.
      - ○ 1-hour fire rating on the underside within 5 feet of property line (if building is not sprinklered)

        Exception: Unrated roof eaves acceptable if fireblocking provided from wall top plate to underside of roof sheathing and no gable/eave vents installed in the associated wall.
   c. Openings (CRC R302.1):
      - ○ Prohibited within 3 feet of property line

- ○ Maximum 25% of wall area within 5 feet of property line (without sprinklers)

d. Penetrations (specify listing number and manufacturer of fire-stopping material) (CRC R302.1):
   - ○ 1-hour fire-rated penetrations of walls within 3 feet of property line (sprinklers)
   - ○ 1-hour fire-rated penetrations of walls within 5 feet of property line (without sprinklers)

e. Detached dwelling units shall have separate addresses matching County permit system.

6. Dwelling units in two-family dwellings, including **duplexes and attached accessory dwelling units**, shall be separated per the following:
   a. Walls (provide details specifying CBC Table 721.1(2) or Gypsum Association assembly):
      - ○ 1-hour fire rating extending from foundation/floor to roof sheathing (CRC R302.3
        Exception: 30-minute fire rating acceptable if sprinklered
        Exception: Wall assemblies need not extend through attic if ceiling is protected by minimum 5/8-inch type X gypsum board **and** walls supporting ceiling are protected by minimum 1/2-inch gypsum board **and** attic draft stop per CRC R302.12.1 provided above and along the wall assembly separating the dwellings
      - ○ Airborne sound insulation with minimum 50 STC rating (provide details specifying Gypsum Association assembly) (CBC 1207.2)

   b. Floors/ceilings (provide details specifying CBC Table 721.1(3) assembly number or alternate listed assembly):
      - ○ 1-hour fire rating with supporting construction of equal or greater fire rating (CRC R302.3)
        Exception: 30-minute fire rating acceptable if sprinklered
      - ○ Airborne sound insulation with minimum 50 STC rating and impact sound insulation with minimum 50 IIC rating (provide details specifying Gypsum Association assembly) (CBC 1207.2, CBC 1207.3)

   c. Doors (CRC R302.3):
      - ○ Self-closing with active latch bolt
      - ○ 45-minute fire rating
        Exception: 20-minute fire rating acceptable if 1/2-hour wall assembly allowed (i.e., sprinklered).

   d. Fire-rated penetrations (specify listing number and manufacturer of fire-stopping material) per CRC 302.4

   e. Attached dwelling units shall have separate addresses matching County permit system.
   f. **Supporting Construction:** Vertical and horizontal assemblies separating dwelling units shall be supported by construction having an equal or greater fire-resistance rating per R302.3.4.
   g. **Vertically stacked dwelling units** per R302.3.5 if automatic sprinkler system is not provided in both dwelling units.
   h. **Shared accessory rooms** shall be separated from each individual dwelling unit in accordance with Table R302.3.6. Openings, ducts, and other penetrations between the shared accessory room and dwelling unit shall comply with Section R302.3.6.

7. Each **townhouse** shall be considered a separate building and separated per CRC R302.2.

G. ELECTRICAL, PLUMBING, AND MECHANICAL REQUIREMENTS

1. Note on cover sheet or plot plan whether or not **property is connected to electrical grid**. If not connected, provide complete plans for system generating electrical power. See PDS Technician to add this system to the permit scope of work.

2. Provide an **electric/utility plan** as follows:
   a. Electrical legend identifying all symbols used.
   b. Add note to plans: “Electrical, Plumbing, and Mechanical to be verified in field”

3. On the floor plan or electrical plan, show the **location of all electrical panels (meter panels and sub panels)**, whether proposed or existing. Provide a 30-inch-wide by 36-inch-deep workspace in front of all panels. Panels are not allowed in bathrooms. (CEC 110.26)

4. Indicate location of **heating units and water heaters** on floor plan. Coordinate with your energy compliance documents. (CRC R325.8, CPC 505.1)

5. Gas-fired water heaters and furnaces **located in bedrooms, or in bathrooms <u>containing</u>** a shower, a tub, and/or a tub shower, shall comply with **<u>one of the following</u>** (CPC 505.1, CMC 904.1):
   a. Installed in dedicated closet with listed, gasketed, self-closing door with all combustion air from the outdoors

   b. Water heater or furnace shall be a direct-vent appliance

6. Indicate on floor plans access openings per the following to **attics housing mechanical or plumbing appliances** (CMC 304.4):
    a. Minimum 22 inches by 30 inches or size of largest appliance component
    b. Located maximum 20 feet from appliance where attic passageway height less than 6 feet

7. Indicate on floor plans or utility plans location of **dryer vent** complying with **all of the following** (CMC 504.4.2.1):
    a. Minimum 4-inch diameter
    b. Maximum 14-foot combined horizontal and vertical length with two 90-degree elbows
    c. Two feet deducted from maximum length for each elbow in excess of two

8. Note on cover sheet or plot plan if the property is serviced by **propane (LPG) or natural gas**.

9. Indicate on cover sheet or plot plan **location and size of any propane tanks**. Dimension minimum 10-foot clearance to structures and property lines for maximum 500-gallon capacity propane tanks. (CFC Table 6104.3)

10. LPG (propane) appliances not allowed in crawlspaces, pits, or basements unless provided within enclosure sealed from adjacent spaces and having louvered door enabling ventilation to exterior. (CMC 303.7.1)

11. Note on cover sheet or plot plan: "LPG (propane) piping assemblies in or beneath slabs within the structure to be approved by the Building Inspector." (CMC 303.7.1)

12. For each prefabricated fireplace, wood stove, or pellet stove:
    a. **Note on plans: "Gas fireplaces** are required to be listed and must be direct-vent sealed-combustion type (applies to new buildings only) (CalGreen 4.503.1)"
    b. **Note on plans: "Wood stoves and pellet stoves** are required to be listed and must comply with U.S. EPA New Source Performance Standards (NSPS) and have permanent label indicating they are certified to meet emission limits (CalGreen 4.503.1)"
    c. **Note on plans: "Chimney shrouds** are part of the approved fireplace assembly (CRC R1004.1)"

13. **Masonry fireplaces** must be constructed per county details (make completed PDS #180 a permanent part of plans) or engineered design with coordinated structural details and calculations. Listed masonry type products shall comply with the requirements of the listing report. (CRC R1001)

H. ENERGY EFFICIENCY REQUIREMENTS

1. Provide complete energy efficiency compliance documentation demonstrating design compliance with the 2025 California Building Energy Efficiency Standards (CBEES) for low-rise residential buildings. Design shall be coordinated with the building plans. (CBEES 100.0)

2. Proposed design shall comply with energy efficiency requirements applicable to **climate zone** _____. (CBEES 100.1)

3. The following energy efficiency **compliance forms** shall be completed and made a permanent part of plans. No need to submit separate 8.5x11 versions.
    a. **Prescriptive** certificate of compliance (CBEES 10-103):
        - ○ CF1R-NCB-01-E (applies to newly constructed buildings and additions greater than 1000 s.f.)
        - ○ CF1R-ADD-01-E (applies to additions up to 1000 s.f.)
        - ○ CF1R-ADD-02-E (may be used for additions up to 300 s.f. with no HERS verification required)
        - ○ CF1R-ALT-01-E (applies to alterations)
        - ○ CF1R-ALT-02-E (applies to space conditioning alterations with multiple systems contained in single dwelling unit)
    b. **Performance** certificate of compliance (CBEES 10-103):
        - ○ CF1R-PRF-01-E

4. Make energy efficiency **Mandatory Requirements Sheets** a permanent part of plans. Regardless of whether Prescriptive or Performance compliance approach is used, Mandatory requirements apply. (CBEES 100.0(e)(2)(D)(ii))

5. **Signatures:** Energy efficiency compliance forms shall be signed by **all of the following** (CBEES 10-103):
    a. Energy efficiency documentation author
    b. Project designer or owner

6. Building orientation indicated on CF1R form **shall match orientation shown on plot plan**. (CBEES 100.1)

7. Glazing areas indicated on CF1R form **shall match floor plan**. (CBEES 100.1)

8. Proposed design as indicated on CF1R form shall comply with the following **glazing measures:**
    a. Mandatory per one of the following (CBEES 150.0(q)):
        ○ Fenestration, including skylight products, separating conditioned space from unconditioned space or outdoors, maximum weighted average **U-factor = 0.40**

        Exception: Fenestration area of up to 10 s.f. or 0.5% of conditioned floor area – whichever is greater – is exempt

        Exception: Fenestration area of up to 30 s.f. is exempt for dual-glazed greenhouse or garden windows

        Exception: Fenestration installed in buildings meeting the California Wildland-Urban Interface Code and the building is located in a Wildland-Urban Interface (WUI) Fire Areas as designated by the local enforcement agency.

    b. Prescriptive (See CBEES 150.1(c)3, CBEES Table 150.1-A, CBEES 150.2(a)1, CBEES 150.2(b)1 for exceptions):

        ○ Maximum **U-factor** = 0.30
        ○ Maximum **Solar Heat Gain Coefficient** (SHGC) = 0.23
        ○ Maximum **total glazing area** = 20% of conditioned floor area
        ○ Maximum **total west-facing glazing area** = 5% of conditioned floor area
        ○ Maximum **U-factor for Doors** = 0.20

9. Proposed design as indicated on CF1R form shall comply with the following **roof decks, ceiling, and rafter roof insulation :**
    a. Mandatory (CBEES 150.0(a)):
        ▪ Climate zones 10, 14, and 15: roof decks in newly constructed attics that are above conditioned space shall be insulated to achieve an area-weighted average assembly U-factor not exceeding U-0.184. See CBEES 150.0(a) for exceptions.
        ▪ Ceilings and rafter roofs shall be shall be insulated to achieve an area-weighted average assembly U-factor not exceeding U-0.043 OR insulated between wood-framing members with insulation resulting in an installed thermal resistance of R-22 or greater for the insulation alone. For vented attics, the mandatory insulation shall be installed at the ceiling level; for unvented attics, the mandatory insulation shall be placed at either ceiling or roof level.

        Exception: Ceilings and rafter roofs in an alteration shall be insulated to achieve an area-weighted average assembly U-factor not exceeding 0.054 or shall be insulated between wood-framing members with insulation resulting in an installed thermal resistance of R-19 or greater.

    b. Prescriptive (CBEES 150.1(c)1A, CBEES Table 150.1-A):
        ○ Below-roof-deck insulation, ceiling insulation, radiant barrier, and roofing material requirements shall be equal to or greater than that shown in Table 150.1-A meeting Option i, ii or iii below.
        ▪ Option B for **Ventilated attics in Climate Zone 7**: Air handlers or ducts are allowed to be in ventilated attic spaces when the roof and ceiling insulation level meet these items (Section 150.1(c)9A).
            ^ **Below-Roof-Deck Insulation**: N/R
            ^ **Ceiling Insulation**: R-30
            ^ **Radiant Barrier**: Required
            ^ **Roofing Material**: Any

        ▪ Option B for **Ventilated attics in Climate Zones 10, 14, and 15:** Air handlers or ducts are allowed to be in ventilated attic spaces when the roof and ceiling insulation level meet these items (Section 150.1(c)9A).

            ^ **Below-Roof-Deck Insulation**: R-19
            ^ **Ceiling Insulation**: R-38
            ^ **Radiant Barrier**: N/R
            ^ **Roofing Material**: Concrete and clay tile with air space

        ▪ Option C for **Ventilated attic in Climate Zone 7:** For Option C to be applicable, duct systems and air handlers of HVAC systems shall be located entirely in conditioned space. For dwelling units with attics, the duct system and air handlers of HVAC systems shall be located below the ceiling separating the occupiable space from the attic. (Section 150.1(c)9B).
            ^ **Below-Roof-Deck Insulation**: N/R
            ^ **Ceiling Insulation**: R-30
            ^ **Radiant Barrier**: Required
            ^ **Roofing Material**: Any

▪ Option C for **Ventilated attic in Climate Zones 10, 14, and 15:** For Option C to be applicable, duct systems and air handlers of HVAC systems shall be located entirely in conditioned space. For dwelling units with attics, the duct system and air handlers of HVAC systems shall be located below the ceiling separating the occupiable space from the attic. (Section 150.1(c)9B).

^ **Below-Roof-Deck Insulation**: N/R
^ **Ceiling Insulation**: R-38
^ **Radiant Barrier**: Required
^ **Roofing Material**: Any

▪ Option C for **Cathedral ceiling in Climate Zones 7, 10, 14, and 15:** For Option C to be applicable, duct systems and air handlers of HVAC systems shall be located entirely in conditioned space (Section 150.1(c)9B).

^ **Below-Roof-Deck Insulation**: R-38
^ **Ceiling Insulation**: N/A
^ **Radiant Barrier**: Not required if roof is concrete or clay tile with air space. Otherwise required.
^ **Roofing Material**: Any

10. Proposed design as indicated on CF1R form shall comply with the following **wall insulation measures:**
    a. Mandatory per **one of the following** (CBEES 150.0(c)):
        ○ Minimum R-15 between 2x4 wood studs
            Exception: Existing walls with minimum R-11
        ○ Minimum R-21 between 2x6 or larger wood studs
        ○ Maximum assembly U-factor = 0.095 per applicable CBEES joint appendix table between other 2x4 framing assemblies
            Exception: Existing walls with maximum assembly U-factor = 0.110
        ○ Maximum assembly U-factor = 0.069 per applicable CBEES joint appendix table between other 2x6 or larger framing assemblies
    b. Prescriptive (CBEES 150.1(c)1B, CBEES Table 150.1-A):
            Exception: Demising walls between conditioned and unconditioned space – e.g., between dwelling and garage – need only meet mandatory requirements
        ○ Framed walls in **climate zone 7** per **one of the following**:
            Exception: Minimum R-15 between 2x4 wood studs and minimum R-21 between 2x6 wood studs acceptable in additions 700 s.f. or less per CBEES 150.2(a)1B iii
            ▪ Maximum assembly U-factor = 0.065 per applicable CBEES joint appendix table. Compliance with cavity only, continuous only, or with both cavity and continuous that results in this U-factor.
            ▪ Assembly compliance options include minimum R-15 between 2x4 wood studs at 16” o.c. plus minimum R-4 continuous per Appendix JA4-30 Table 4.3.1.
            ▪ Assembly compliance options include minimum R-25 between 2x6 wood studs at 16” o.c. per Appendix JA4-30 Table 4.3.1.
        ○ Framed walls in **climate zones 10, 14, and 15** per **one of the following**:
            Exception: Minimum R-15 between 2x4 wood studs and minimum R-21 between 2x6 wood studs acceptable in additions 700 s.f. or less per CBEES 150.2(a)1B iii
            ▪ Maximum assembly U-factor = 0.048 per applicable CBEES joint appendix table. Compliance with cavity only, continuous only, or with both cavity and continuous that results in this U-factor.
            ▪ Assembly compliance options include minimum R-13 between 2x4 wood studs at 16” o.c. plus minimum R-10 continuous per Appendix JA4-30 Table 4.3.1.
            ▪ Assembly compliance options include minimum R-25 between 2x6 wood studs at 16” o.c. plus minimum R-4 continuous per Appendix JA4-30 Table 4.3.1.

11. Proposed design as indicated on CF1R form shall comply with the following **raised-floor insulation measures:**
    a. Mandatory and prescriptive per **one of the following** (CBEES 150.0(d), CBEES 150.1(c)1C):
        ○ Minimum R-19 between wood framing members
        ○ Maximum U-factor = 0.037 per applicable CBEES joint appendix table

12. Specify **on building sections** the R-values of the following **insulation assemblies** – cavity and/or continuous as applicable – as indicated on CF1R form:
    a. Roof/ceiling
    b. Wall
    c. Raised-floor
    d. Slab-perimeter (if required per performance method)

13. The following **nominal framing depths** will be required in order to accommodate cavity insulation as indicated on CF1R

form:

a. Roof rafters: _____ nominal depth to accommodate _____ cavity insulation
b. Stud walls: _____ nominal depth to accommodate _____ cavity insulation

14. **Detail** on plans the following for **any continuous insulation assemblies:**
    a. Continuous insulation of the roof deck: **Structural connection** of roofing material to framing considering insulation layer between
    b. Continuous insulation outside exterior walls: **Structural connection** of exterior finish material – e.g., stucco, siding – to framing considering insulation layer between

15. *Note on building sections for **climate zone 14** projects*: "Class I or Class II vapor retarder shall be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation." (CBEES 150.0(g)2)

16. For projects with radiant barrier, *provide **large, clear** note on **roof plan or elevations***: **"Radiant barrier is required."**

17. For projects with cool roofing, specify all of the following **cool roof product information** on roof plans with a **large, clear** accompanying note indicating **"Cool roof required"**:
    a. Cool Roof Rating Council (CRRC) product ID number
    b. Manufacturer brand
    c. Product model
    d. Product color

18. Proposed design as indicated on CF1R form shall comply with the following **space-conditioning equipment measures**:

    a. Mandatory (CBEES Tables 110.2-A through L):
    ○ Space-conditioning equipment efficiency (CBEES 110.2(a)). See also 2025 Single-Family Residential Mandatory Requirements Summary section for Space Conditioning, Water Heating, and Plumbing System.
    ○ In cooling systems utilizing forced-air ducts **or** zonal controls, **HERS verification required** to confirm adequate cooling system airflow and air-handling unit fan efficacy (CBEES 150.0(m)11). See also 2025 Single-Family Residential Mandatory Requirements Summary section Ducts and Fans.

19. For projects with **whole-house fan** indicated on CF1R form, add a note or specification indicating the fan is listed.

20. Proposed design as indicated on CF1R form shall comply with the following **supply- and return-air duct measures**:

    a. Mandatory (CBEES 150.0(m)1): See also 2025 Single-Family Residential Mandatory Requirements Summary section Ducts and Fans
    ○ Minimum R-6 insulation
    Exception: Ducts may not require insulation provided certain conditions are met.

21. Proposed design shall comply with the following **indoor air quality (IAQ) measures** applicable to dwelling units:
    a. Mandatory (CBEES 150.0(o), ASHRAE Standard 62.2):
    ○ *Note on the plans for Whole-Dwelling Unit Mechanical Ventilation (CBEES 150.0(o)1.C):* "A mechanical exhaust ventilation system, supply ventilation system, or combination thereof shall be installed for each dwelling unit to provide whole-building ventilation with outdoor air in compliance with ASHRAE Standard 62.2 as adopted by the California Energy Commission."
    Exception: Additions 1000 s.f. or less and alterations:
    ○ *Note on the plans for Local Mechanical Exhaust:* "An intermittently or continuously operating local mechanical exhaust ventilation system shall be installed in each bathroom with a bathtub, shower, or similar moisture source and in each kitchen in compliance with ASHRAE Standard 62.2 as adopted by the California Energy Commission. Ventilation rates to be per Section 150.0 (o) G.iii.b and Tables 150.0-E, 150-F, 150.0-G, and 150.0-H"

22. Proposed design as indicated on CF1R form shall comply with the following **water heating measures:**
    a. Mandatory (CBEES 110.3(b)):
    ○ Water heater efficiency: Minimum _____ Energy Factor (EF) per CBEES Residential Compliance Manual Table 5-4

23. **Solar PV Installation and Solar Capable Measures**: Newly constructed single-family dwellings (SFD), including

Accessory Dwelling Units (ADUs) when required per energy compliance documentation, shall comply with **solar PV installation requirements** and **solar-capable measures**, per the following: (County Building Code 92.1.3120, County Building Code 92.2.R332):

a. Prescriptive or performance:
   - ○ Solar PV Installation required per energy compliance documentation. Note on cover sheet or plot plan: "Provide Solar PV system under separate permit. System size to comply with energy compliance documentation." For exceptions, refer to CBEES Section 150.1(c)14 and Reference Appendix JA11. Additional solar guidance for ADU's provided online at California Energy Commission Blueprint Newsletter

b. Mandatory:
   - ○ Indicate on floor plan or utility plan the location of minimum 200-amp electrical panel with 225 amp busing.

c. Mandatory when PV system not required per energy compliance documentation or otherwise exempted:
   - ○ Dimension on roof plan designated solar zone area (when no photovoltaic system is provided due to exceptions) complying with all of the following:
     - ▪ Minimum 250 s.f. cumulative of areas that have no dimension less than 5-feet and are no less than 80 s.f. each for buildings with roof areas less than or equal to 10,000 s.f., and no less than 160 s.f. each for buildings with roof areas greater than 10,000 s.f.
       Exception: For exceptions, refer to section 110.10(b)1. The exceptions allow for some alternative efficiency measures.
     - ▪ Located between 90 and 300 degrees of true north (indicate north arrow on roof plan)
       Exception: Low-sloped (2:12 or less) roofs
     - ▪ No shading obstructions – including vents, chimneys, skylights, architectural features, roof-mounted equipment – located within solar zone
     - ▪ Any shading obstruction projecting above solar zone shall be located away from solar zone at least two times the height difference between the highest point of the obstruction and the nearest point of the solar zone
       Exception: Any obstruction oriented north of all points in the solar zone
     - ▪ Adequate firefighter access pathways provided **adjacent to – but not within – each solar zone** per the following (CRC R324.6, CBC 3111.2):
       Exception: Roofs with 2:12 slope or less
       Exception: Detached, nonhabitable accessory structures
       - At least two minimum 36-inch-wide pathways – each on a separate roof plane – with at least one pathway on the street or driveway side of roof
       - At least one minimum 36-inch-wide pathway on each roof plane with a photovoltaic array **or** on an adjacent roof plane **or** straddling the same and adjacent roof planes
       - Pathways extend from lowest roof edge to ridge
       - Pathways free of obstructions, such as vent pipes, conduit, or mechanical equipment
     - ▪ Adequate smoke ventilation setback at ridges **adjacent to – but not within – each solar zone** per the following (CRC R324.6, CBC 3111.2):
       Exception: Roofs with 2:12 slope or less
       Exception: Detached, nonhabitable accessory structures
       - **Sprinklered buildings with photovoltaic arrays occupying not more than 66% of total roof area in plan view**: Minimum 18-inch clear set back required on both sides of horizontal ridge
       - **Sprinklered buildings with photovoltaic arrays occupying more than 66% of total roof area in plan view:** Minimum 36-inch clear set back required on both sides of horizontal ridge
       - **Unsprinklered buildings with photovoltaic arrays occupying not more than 33% of total roof area in plan view:** Minimum 18-inch clear set back required on both sides of horizontal ridge
       - **Unsprinklered buildings with photovoltaic arrays occupying more than 33% of total roof area in plan view:** Minimum 36-inch clear set back required on both sides of horizontal ridge
     - ▪ Adequate emergency escape and rescue opening pathway **adjacent to – but not within – each solar zone** per the following (CRC R324.6, CBC 3111.2):
       - Minimum 36-inch-wide pathway from each required emergency escape and rescue opening.

○ *Note on floor plan or utility plan*: "The main electrical service panel shall not be of a type with a center-fed main circuit breaker and shall include reserved space allowing for installation of double-pole circuit breakers for a future solar photovoltaic system. The reserved space shall be permanently and visibly marked as 'For Future Solar Photovoltaic'."

○ Indicate on floor plan or utility plan **all of the following** to accommodate future installation of a roof-mounted solar photovoltaic system:

▪ Approved minimum 4-inch-square electrical junction box located within 72 inches horizontally and 12 inches vertically of main electrical service panel.

▪ Minimum 1-inch-diameter listed electrical metallic raceway originating at readily accessible attic location with proximity to solar zone area and terminating at the required electrical junction box.

▪ Minimum 1-inch-diameter listed electrical metallic raceway originating at the required electrical junction box and terminating at the main electrical service panel.

▪ *Note on floor plan or utility plan*: "Electrical junction box and segment of metallic raceway in the attic shall be permanently and visibly marked as '**For Future Solar Photovoltaic**.'"

24. Newly constructed garages with electrical service shall comply with the following **electric vehicle capable measures** (County Building Code 92.1.3120, County Building Code 92.2.R332, CalGreen 4.106.4.1):

    Exception: Newly constructed garages on lots with an existing garage including either an electric vehicle charging system or electrical conduit installed per County Building Code 92.1.3120.4.1 through 92.1.3120.4.3 to accommodate future installation of an electric vehicle charging system.

    a. Mandatory (CBEES 110.10):

    ○ *Note on floor plan or utility plan*: "The main electrical service panel shall include reserved space allowing for installation of a circuit breaker for a future electric vehicle charging system. The reserved space shall be permanently and visibly marked as '**EV Capable**.'"

    ○ Indicate on floor plan or utility plan **all of the following** to accommodate future installation of an electric vehicle charging system:

    ▪ Approved minimum 4-inch-square electrical junction box located on the interior of the garage at minimum 30 inches and maximum 48 inches above the garage floor

    ▪ Minimum 1-inch-diameter listed electrical metallic raceway originating at the main electrical service panel and terminating at the required electrical junction box

    ▪ *Note on plans*: "Electrical junction box shall be permanently and visibly marked as '**For Future Electric Vehicle Charging**.'"

25. For projects requiring HERS verification, CF1R forms **must be registered** with a California-approved HERS provider data registry. (CBEES 10-103)

26. *Provide **large, clear** note on **cover sheet or plot plan***: **"Properly completed and signed Certificates of Installation (CF2R forms) shall be provided to the inspector in the field. For projects requiring HERS verification, the CF2R forms shall be registered with a California-approved HERS provider data registry."** CF2R forms are available at http://www.sdcounty.ca.gov/pds/bldg/energy-stds.html. (CBEES 10-103)

27. *Provide **large, clear** note on **cover sheet or plot plan***: "**Properly completed Certificates of Verification (CF3R forms) shall be provided to the inspector in the field for items requiring HERS verification. CF3R forms shall be registered with a California-approved HERS provider data registry."** CF3R forms are available at http://www.sdcounty.ca.gov/pds/bldg/energy-stds.html. (CBEES 10-103)

28. For projects utilizing the **Green Building Incentive Program**, comply with one of the following:
    a. Note on cover sheet or plot plan: "Recycled content to be used for compliance with Green Building Incentive Program."
    b. Plans demonstrate use of straw bale construction
    c. Note on cover sheet or plot plan: "Graywater system (permitted through the Department of Health and Quality) to be
    d. Energy efficiency documentation exceeds standards by 15%.

I. ROOF ASSEMBLY REQUIREMENTS

1. Specify roof material and underlayment.

2. Specify ICC, UL, or equivalent listing report number, manufacturer, and model for roofing material (tile, metal, built-up, etc.).

3. *Note on roof plan or elevations:* "Roofing shall have a class A fire rating." (County Building Code 92.2.R902 and County Building Code 92.1.1505.1)

4. In roof area additions or alterations involving more than 50% of a structure's existing roof area or 2,500 square feet – whichever is less – the structure's entire roof covering – new and existing – shall meet item I.3. (County Building Code 92.1.1505.1)

5. Specify roof pitch.

6. Specify on plans **layer-by-layer** assembly of any **built-up roofing systems** – include coordinated assembly **System Number** from manufacturer's listing report – to verify required fire rating achieved at roof pitch proposed.

7. Roof pitch is not adequate for roof type specified (CRC R905). Provide minimum pitch of _____.

8. Specify 1/4:12 minimum roof pitch for drainage on roof plan **or design to support accumulated water**. (CRC R903.4, CBC 1611.1, CBC 1611.2)

9. Unless roofs are sloped to drain over roof edges, **detail** primary and secondary (emergency overflow) roof **drainage** per the following with location of each roof drainage element indicated on roof plan (CRC R903.4, CPC 1101.12):

    a. Detail **primary** roof drainage per **one of the following**:
        - ○ Roof drains sized per CPC Table D 101.1 and located at low point of roof
        - ○ Scuppers sized per CPC Table D 101.1 and placed level with roof surface in adjacent walls or parapets

    b. Detail **secondary** (emergency overflow) roof drainage with same capacity as primary roof drainage per **one of the following**:
        - ○ Roof drains with maximum height to prevent roof ponding and minimum 2 inches above low point of roof
        - ○ Scuppers three times size of roof drains with minimum 4-inch opening height and installed 2 inches above low point of roof in adjacent parapet walls

    c. Detail of **separate drain and overflow outlets** required.

10. Indicate on plans approved **waterproof** decking material for **balconies/decks over interior spaces**. Specify manufacturer and ICC, UL, or equivalent listing report number. (CRC R903.1)

11. Indicate on roof plan location and size of **attic vents** per the following:
    a. Minimum net vent area per the **greater of the following**:
        - ○ Minimum 1 s.f. of net free vent area required for every 150 s.f. of attic area (**provide calculation on roof plan**) (CRC R806.2)

            Exception: Net vent area of 1/300 attic area acceptable provided **BOTH of the following** conditions are met (as applicable):
            - • Install a Class I or Class II vapor retarder on the warm-in-winter side of ceiling In climate zone 14 and 16.
            - • Install between 40% and 50% of the required net free vent area a maximum of 3 feet below the ridge or the highest point of the space (measured vertically), and install the balance of the required ventilation in the bottom one-third of the attic space.

            Exception: Unvented attics complying with CRC R806.5.
        - ○ For projects with a whole-house fan, **provide calculation on roof plan** of Net free vent area using cfm value from CF1R form (assuming minimum 1 s.f. net free vent area per 750 cfm airflow). Applies to the isolated attic space where the whole-house fan is located. (CBEES 150.1(c)12)

    b. Vents positioned to provide **cross ventilation** to each attic area

12. Indicate on roof plan location and sizes of **skylights**. Specify manufacturer and ICC, UL, or equivalent listing report number. (CRC R308.6)

J. WILDFIRE-RESISTIVE CONSTRUCTION REQUIREMENTS

Exception: This section not applicable to new or remodeled building located outside wildland-urban interface fire area as defined in County Consolidated WUI Code 96.2.202 definitions.
Exception: Group U accessory structures not exceeding 120 square feet in floor area where located not less than 50 feet from applicable buildings. (CWUIC 501.1)
Exception: Group U agricultural buildings not less than 50 feet from applicable buildings. (CWUIC 501.1)

Exception: New accessory buildings and miscellaneous structures, such as awnings and canopies, complying with CWUIC

504.11.
Exception: Group C occupancy special buildings conforming to the limitations specified in CBC 450.4.1

Exception: Manufactured homes shall comply with the following Ignition-Resistant requirements:

a. A unit manufactured on or after September 1, 2008 requires an ignition-resistant construction system. Provide evidence of the Construction System Certification Label (Title 25 4214)
b. A unit manufactured before September 1, 2008 shall have both of the following: (1) an existing asphalt composition roof, or metal roof covering and, (2) Title 24, Part 7 compliant attic ventilation. Provide evidence of compliance.

c. Note on plans: "Underfloor areas to be enclosed with a non-combustible exterior covering (stucco, cement fiber board, etc.) per the California Wildland-Urban Interface Code."

1. Note on plans: Where there is a void under the roof covering (**space between the roof covering and combustible roof decking**) it shall comply with the following (CWUIC 504.2.1):
   a. Bird stops shall be used at the eaves where the profile fits, to prevent the entry of debris at the eave.
   b. Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.
   c. Plus one of the following:
      1. A 72 lb. (32.7 kg) cap sheet complying with ASTM D3909 Standard Specification for “Asphalt Rolled Roofing (Glass Felt) Surfaced with Mineral Granules,” shall be installed over the roof deck.
      2. A listed and labeled roof underlayment that has been tested as part of the roof assembly in accordance with ASTM E108 or UL 790 for Class A fire classification shall be installed in accordance with the underlayment manufacturer’s installation instructions and listing.

2. Note on plans: **Exposed valley flashings** shall be constructed with not less than 0.019-inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley. (CWUIC 504.2.2)

3. Note on plans: **Gutters** and **downspouts** shall be constructed of noncombustible material. Gutters shall be provided with an approved means to prevent the accumulation of leaves and debris in the gutter and shall be non-combustible. (County Consolidated WUI Code 96.2.504.4)

4. Note on plans: **Operable skylights** shall be protected by a noncombustible mesh screen and the dimensions of the openings in the screen shall not exceed 1/8 inch. (CWUIC 504.8.2)

5. Note on plans: **All vents** (roof, foundation, combustion-air, etc.) shall resist the intrusion of flames and embers. (CWUIC 504.10) Gable-end and dormer vents shall be located not less than 10 feet from lot lines. Underfloor ventilation openings shall be located as close to grade as practical. (CWUIC 504.10.3) Where an addition, alteration, or roof modification takes place, non-compliant WUI vents shall be upgraded and/or retrofitted to resist the intrusion of flames and embers. (County Consolidated WUI Code 96.2.504.10.4)

6. Specify vent manufacturer on plans: **Ventilation openings** for enclosed attics, eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation openings, and vent openings in exterior walls and exterior doors shall comply with one of the following: (CWUIC 504.10)

   a. Ventilation openings shall be fully covered with Wildfire Flame and Ember Resistant vents approved and listed by the California State Fire Marshal, or WUI vents, tested in accordance with ASTM E2886, to demonstrate compliance with all the following requirements:
      1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
      2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
      3. The maximum temperature of the unexposed side of the vent shall not exceed 662 degrees Fahrenheit (350 degrees Celsius).
   b. Vents that are installed on a sloped roof, such as dormer vents, shall comply with all of the following
      1. Vents shall be covered with a mesh where the dimensions of the mesh therein shall be a minimum of 1/16 inch and shall not exceed 1/8 inch in diameter.
      2. The vent and mesh material shall be noncombustible.
      3. The vent and mesh material shall be corrosion resistant.

7. **Detail eaves, soffits, and fascias.** Refer to guidance document PDS #198 and requirements below. (County Consolidated WUI Code 96.2.504.3)
   Exception: Eave construction on an addition may match the existing structure provided that the square footage of the addition does not exceed 50% of the existing structure or 2,500 square feet, whichever is less.

a. **PROTECTION OF ENCLOSED EAVES.** The exposed underside of enclosed roof eaves and soffits shall be protected on the exposed underside by one or more of the following:
    1. Noncombustible material
    2. 2-inch nominal dimension lumber when tongue and grooved.
    3. Materials approved for not less than 1-hour fire resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL263
b. **PROTECTION OF OPEN EAVES.** The exposed roof deck on the underside of unenclosed roof eaves shall consist of one or more of the following:
    1. Noncombustible material
    2. 2-inch nominal dimension lumber when tongue and grooved.
    3. Materials approved for not less than 1-hour fire resistance-rated construction on the exterior side, as
    4. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the roof deck designed for exterior fire exposure, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
c. **FACIAS**. Shall be ignition-resistant building materials, fire-retardant-treated wood labeled for exterior use and complying with Section 2303.2 of the California Building Code, materials approved for not less than 1-hour fire-resistance-rated construction or 3-inch (51 mm) nominal dimension lumber.

8. Specify **exterior wall coverings** complying with the following (County Consolidated WUI Code 96.2.504.5):
    Exception: Exterior wall covering on an addition may match the existing structure provided that the square footage of the addition does not exceed 50% of the existing structure or 2,500 square feet, whichever is less, unless the exterior wall covering is wood shingle or shake, in which case the exterior wall covering on the addition shall be fire-retardant, pressure-treated wood shingles or shakes. All other provisions of this section shall apply to the addition.
    Exception: Repair or replacement of 50% or more of an existing exterior wall shall require **the entire wall** to meet all wildfire requirements.
    a. Noncombustible material (stucco, cement fiber board, masonry, etc.)
    b. A minimum of 6 inches of metal flashing or noncombustible material applied vertically on the exterior of the wall shall be installed at the ground, decking and roof intersections.

9. **Enclose underfloor areas** to the ground with noncombustible material. (CWUIC 504.6)

10. **Specify exterior glazing on window and door schedules** for exterior windows, window walls and glazed doors, windows within exterior doors, and skylights per any of the following: (County Consolidated WUI Code 96.2.504.8):

    a. Multilayered glazed panels with at least **two panes of tempered glass** complying with Section 2406 of the California Building Code. Skylights/solar tubes shall be tempered glass per listing report or modified subject to field inspection.
    b. Glass block
    c. Glazing with a fire-protection rating of not less than 20 minutes when tested according to NFPA 257 or UL 9, and shall be exempt from the hose stream test.
    d. Provide **large, clear note on cover sheet or plot plan**: "For wildfire compliance, multilayered glazed panels will now require TWO PANES of tempered glass"

11. **Specify on door schedule** exterior doors per any of the following: (County Consolidated WUI Code 96.2.504.9):

    a. Noncombustible construction
    b. Solid-core wood not less than 1¾ inches thick
    c. The exterior door shall be constructed of solid core wood that complies with the following requirements:
        1. Stiles and rails shall not be less than 1 3/8 inches thick
        2. Raised panels shall not be less than 1¼ inches thick, except for the exterior perimeter of the raised panel that shall be permitted to taper to a tongue not less than 3/8 inch thick
    d. Have a fire protection rating of not less than 20 minutes when tested according to NFPA 252, UL 10B or UL 10C.

12. Note on plans for **garage doors** (CWUIC 504.9):

    a. Automatic garage door openers for vehicle doors serving a residential building shall be equipped with a battery backup function.

b. Exterior garage doors shall resist the intrusion of embers by preventing gaps between doors and door openings, at the bottom, sides and tops of doors, from exceeding 1/8 inch. Gaps between doors and door openings shall be controlled by one or more of the following methods:
    1. Weather-stripping products with tensile strength and flammability rating per CWUIC 504.9.2.
    2. Door overlaps onto jambs and headers.
    3. Garage door jambs and headers covered with metal flashing.

13. **Detail patio cover, carport, and trellis construction,** with all exposed elements complying with **any of the following** (County Consolidated WUI Code 96.2.504.7):
    a. Heavy timber construction
    b. Noncombustible material
    c. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263
    d. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the ceiling assembly, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual
    e The underside of a floor projection assembly that meets the performance criteria in Section 504.7.2 when tested in accordance with the test procedures set forth in ASTM E2957
    f. The underside of a floor projection assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3
    g. Modified heavy timber (minimum 2x exterior grade tongue-and-groove sheathing, 4x6 rafters/beams, 6x6 posts/columns, 3x blocking)

14. **Detail deck, balcony, and exterior stair construction,** with all exposed elements complying with the following (County Consolidated WUI Code 96.2.504.7):

    Exception: Deck repair or replacement involving 50% or more of the existing deck or 1,000 square feet of deck area, whichever is less, shall require the entire deck to meet all requirements of this item

    a. **Framing** (any of the following):

        Exception: Structural supports of decks, balconies, and similar projections skirted from floor level to ground level with noncombustible material

        ○ Heavy timber construction
        ○ Noncombustible material
        ○ Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263
        ○ The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the ceiling assembly, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual

        ○ The underside of a floor projection assembly that meets the performance criteria in Section 504.7.2 when tested in accordance with the test procedures set forth in ASTM E2957
        ○ The underside of a floor projection assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3
        ○ Modified heavy timber (minimum 2x exterior grade tongue-and-groove sheathing, 4x beams/joists/stringers/treads, 6x6 posts/columns, 3x blocking)
        ○ A minimum of a 6-inch metal flashing, applied vertically on the exterior of the wall, shall be installed at all deck-to-wall intersections.

    b. **Walking surface** material (any of the following):
        ○ Material that complies with the performance requirements of Section 504.7.3.3 when tested in accordance with ASTM E2632 and ASTM E2726
        ○ Material that complies with the performance requirements of both SFM Standard 12-7A-4 and Section 503.2.4
        ○ Noncombustible material
        ○ Any material that complies with the performance requirements of SFM Standard 12-7A-4A and any attached exterior wall covering is noncombustible or ignition-resistant building materials.
        ○ Any material that complies with the performance requirements of Section 504.7.3.4 when tested in accordance with ASTM E2632 and any attached exterior wall covering is noncombustible or ignition-resistant building materials.

15. Note on plans: Paints, coatings, stains, or other surface treatments are **not an approved method** of protection for any wildfire-resistive construction requirement. (CWUIC 503.2.5)

K. VERTICAL DESIGN REQUIREMENTS

1. Provide a complete **roof/floor framing** plan.
2. Provide **engineered design** per *California Building Code* due to the following (CRC R301.1.3):
    a. Structure exceeds conventional framing limits of CRC R301
    b. Structure exceeds two stories
    c. Structural elements of steel, concrete, masonry, structural insulated panels, or alternative systems
3. **Framing** shall comply with all recommendations made in **engineering calculations**.
4. Vertical design calculations appear to be inaccurate as follows:
    a.
    b.
    c.
    d.
    e.
5. Provide complete **structural detailing** for the project.
6. **Cross-reference all framing details** with the appropriate plans.
7. Delete all non-applicable details from plans.
8. **Specify** plywood grade, thickness, panel span rating, and nailing for **roof/floor sheathing**. (CRC Table R503.2.1.1(1)
9. *Note on plans:* “Plywood shall be continuous under **California fill**.”
10. **Specify** on framing plans the size, orientation, span, and spacing as applicable for the following **structural elements**:
    a. Rafters
    b. Ceiling joists
    c. Beams
    d. Floor joists
    e. Headers
    f. Posts
    g. Columns
11. Provide two complete sets of **truss drawings**, and **coordinate** with roof framing plan. (CRC R802.10.1)
12. **Identify trusses** on roof framing plan by file/ID/sequence number or make truss layout a permanent part of plans.
13. Design trusses for bearing at **perpendicular interior shear walls**.
14. Detail **1/2-inch clearance** between trusses and non-bearing walls.
15. Detail **uplift resistance of trusses** and/or rafters per CRC Table R802.11 at supporting wall assemblies.
16. Indicate on roof framing plan **support for ridge/hip/valley** intersections. (CRC R802.3)
17. **Detail rafter-tie connections** at conventionally framed areas with connection nailing per CRC Table R802.5.2.
18. Provide **metal straps** across ridge beam and rafters.
19. Specify **camber requirements** and combination symbol for all **glue-laminated** wood members on plans.
20. *Note on plans:* "A certificate of conformance for glue-laminated wood members is required prior to framing inspection."
21. Specify the make and model number of all proposed truss/beam/joist **hangers**.
22. Specify size and type (double stud, post, etc.) of **support for beams/headers** – 4x12 and larger – and **girder trusses.**
23. **Detail** all beam-to-post, post-to-beam, and post-to-footing **connections.**
24. Specify **stud size and spacing** for all walls. (CRC R602.3.1)

25. **Balloon frame** walls of rooms with sloping ceilings (rake walls). Identify on plans any balloon-framed walls.

L. LATERAL DESIGN REQUIREMENTS

1. Provide on framing plans labeled **grid lines** to identify location of each shear wall.
2. Specify on framing plans type and length of all **shear walls** and coordinate with shear-wall schedule.
3. Provide engineered lateral design per California Building Code. Building does not meet the following **bracing requirements** of CRC R602.10:
    a. Story height exceeds CRC R301.3 limit of 11 feet, 7 inches
        Exception: Story height of 13 feet, 7 inches acceptable for masonry walls with limited bearing wall clear height
    a. Shear walls not constructed per acceptable bracing methods of CRC R602.10.4 and CRC R602.10.6
    b. Braced wall line spacing exceeds 25 feet per CRC Table 602.10.1.3
        Exception: Up to 35-foot spacing allowed for single room not exceed 900 square feet if all other braced wall spacing does not exceed 25 feet
    c. Insufficient cumulative shear wall length within braced wall line(s) per CRC Table R602.10.3(1) for wind loads with adjustments per CRC Table R602.10.3(2)
    d. Insufficient cumulative shear wall length within braced wall line(s) per CRC Table R602.10.3(3) for seismic loads with adjustments per CRC Table R602.10.3(4)
        Exception: Buildings meetings simplified wall bracing criteria of CRC R602.12
    e. Shear wall spacing within braced wall line(s) exceeds 20 feet per CRC R602.10.2.2
    f. Shear walls offset more than 4 feet from braced wall line(s) per CRC R602.10.1.2
    g. Shear walls angled more 8 feet diagonally from braced wall line considered part of separate braced wall line
    h. Shear walls not located at ends of each braced wall line or do not meet alternate provisions of CRC R602.10.2.2.1
    i. Individual shear wall length and/or height does not comply with CRC Table R602.10.5
4. Site is located in CRC Seismic Design Category E. Provide engineered lateral design per *California Building Code*. (CRC R301.2.2.4)
5. Lateral design calculations appear to be inaccurate as follows:
    a.
    b.
    c.
    d.
    e.
6. Vertical Shear Distribution: Lateral design at lower level to account for shear loading from above.
7. **Shear walls and lateral load resisting elements** shall comply with all recommendations made in engineering calculations.
8. Shear wall types proposed **may not be mixed within the same braced wall line**. (CRC R602.10.4.1)
9. Specify fastener size, spacing, and any required **blocking for all shear walls and roof/floor diaphragms**. (CBC 2306.2, CBC 2306.3)
10. The aspect ratio of **roof/floor diaphragms** shall not exceed the following (AF&PA SDPWS Table 4.2.4):
    a. 3:1 for unblocked wood structural panel diaphragms
    b. 4:1 for blocked wood structural panel diaphragms
11. The aspect ratio of **shear walls and shear wall segments** shall not exceed the following (AF&PA SDPWS Table 4.3.4):
    a. 3.5:1 for wood structural panel shear walls with capacity reduced per SDPWS Table 4.3.4 for aspect ratios exceeding 2:1
    b. 2:1 for other shear wall sheathing types
12. Provide **shear-transfer** connection details for shear walls at roof, floors, and foundation. Cross-reference all shear-transfer details with the appropriate plans. (CRC R602.10.6)
13. Make **manufacturer's structural detail sheet(s)** for engineered shear panels (e.g., Strong-Wall, Hardy Frame, TJ, Shear Max, etc.) a permanent part of the plans.

14. Provide details for interior shear walls indicating **shear transfer from roof/floor diaphragm** above.

15. Provide **shear-transfer** details at **openings in shear walls** (force transfer, perforated, etc.) (CBC 2305.1.1)

16. Provide **drag straps** on each side of bay windows, flush beams, or other locations where plate lines are interrupted.

17. Detail **ledger connection(s)** with lateral anchorage to primary structure at locations such as decks. (CRC R507.1, CRC R507.2)

18. Where shear wall **nail spacing 2 inches on center or less <u>or</u> shear wall forces exceed 350 pounds per foot**, all framing members receiving edge nailing from adjoining panel edges shall be minimum 3-inch nominal members or double 2-inch nominal members. (AF&PA SDPWS 4.3.7.1)

19. Detail construction of **cripple walls** per the following (CRC R602.9, CRC R602.10.9):
    a. Framed with studs equivalent to studs above
    b. If more than 4 feet high, framed with studs required for an additional story
    c. If less than 14 inches high, solid block construction or sheathed/nailed on at least one side with wood structural panel
    d. Supported on continuous foundations
    e. Braced per provisions of CRC R602.10.9

20. Specify location/type of **hold-downs** on foundation plan (grade-level hold-downs) and framing plan (upper-level hold-downs).

M. FOUNDATION DESIGN REQUIREMENTS

1. Provide a complete **foundation plan**.

2. **Foundation elements** (e.g., footings, slab thickness, reinforcement, moisture barrier, etc.) shall comply with all recommendations made in soils/compaction report and engineering calculations.

3. Foundation elements using soil friction require a geotechnical report.

4. Foundation design calculations appear to be inaccurate as follows:
    a.
    b.
    c.
    d.
    e.

5. Site inspection revealed presence of **expansive soils**. Provide soils report with foundation design recommendations.

    Exception: Single-story structures at locations where moderately expansive soil conditions exist may comply with the requirements for expansive soil foundation design per form PDS #065 in lieu of providing a soils report

6. Indicate on foundation/framing plan location and size of underfloor vents or elevated walking surface vents per the following (CRC R304.1.3, CRC R408.1):

    Exception: Unvented crawl spaces shall have the earth floor covered with Class I or Class II vapor retarder (CBEES 150.0(g))

    a. Minimum 1 foot of net vent area required for every 150 square feet of underfloor area (as demonstrated by calculation provided on foundation plan)
    b. At least one vent located within 3 feet of each corner of building

7. Indicate on foundation plan location of minimum 16-inch by 24-inch **access openings to all underfloor areas**. (CRC R408.4)

    Exception: Minimum 18-inch by 24-inch opening required where access is through the floor

8. Dimension **underfloor clearance** off grade of 18 inches for floor joists and 12 inches for floor girders **or** specify preservative-treated wood. (CRC R317.1)

9. Dimension the following **vertical clearances** for wood framing, sheathing, and siding at exterior walls **or** specify preservative-treated wood (CRC R317.1):
    a. Minimum 8 inches for wood sill plates above adjacent ground

Exception: Preservative-treated wood sill plates required at slab-on-grade footings

b. Minimum 6 inches for wood studs, sheathing, and siding above adjacent ground
c. Minimum 2 inches for wood studs, sheathing, and siding above adjacent impervious surface

10. Specify preservative-treated wood posts and columns at the following locations (CRC R317.1):
    a. For posts in crawl spaces and supported by concrete piers or metal pedestals:
       Exception: Minimum 8 inches above adjacent ground
    b. For posts and columns exposed to weather

11. Indicate wall **sill plate anchorage** to foundations per required County of San Diego minimum construction specifications (PDS #081) (CRC R403.1.6, CRC R602.11.1, CBC 2308.3.1):
    a. Minimum 1/2-inch-diameter anchor bolts
       Exception: Approved anchors or anchor straps spaced as required to provide equivalent anchorage to 1/2-inch-diameter anchor bolts
       Exception: Minimum 5/8-inch-diameter anchor bolts in Seismic Design Category E (CBC 2308.3.1.2)
    b. Minimum 7-inch embedment into concrete or masonry
    c. Bolts spaced maximum 6 feet on center
       Exception: Maximum 4 feet on center for buildings more than two stories in height
    d. Minimum two bolts per sill plate section with one bolt located maximum 12 inches and minimum seven bolt diameters from each end of each section
    e. Bolts located in the middle third of the sill plate width
    f. Steel plate washers per the following provided between sill plate and nut of each anchor bolt:
       ○ Minimum 3 inches by 3 inches by 0.229 inch
       ○ If standard cut washer placed between plate washer and nut, hole in plate washer may be diagonally slotted with maximum 3/16-inch larger width than bolt diameter and maximum 1-3/4 inch slot length

12. Provide **footing details** specifying all dimensions and reinforcement. **Cross-reference all details** with foundation plan.

13. Provide a **step footing** detail. (CRC R602.11.2)

14. Unless otherwise specified by soils report, dimension on building sections or foundation details **minimum 7-foot horizontal distance** from bottom leading edge of footings face of slope (i.e., distance to daylight).

14. Provide **adequate footings** under all bearing walls and shear walls. (CRC R403.1)

16. Provide **adequate spread footings** under posts/columns (where required due to post/column load).

17. Specify on foundation plan **slab thickness, reinforcement, and moisture barrier**. (CRC R506.1, CRC R506.2)

18. Provide coordinated details specifications for the following elements of **concrete or masonry wall design**:
    a. Maximum overall height
    b. Maximum height of any retained soil
    c. Maximum stem wall height
    d. Wall type (cantilevered or restrained)
    e Wall material (concrete or masonry) with required material strength
    f. Wall thickness
    g. Vertical and horizontal reinforcement:
       ○ Bar size and spacing
       ○ Bar position (edge or center) with dimension from face of wall
    h. Footing/key dimensions and reinforcement
    i. Means of restraint (restrained walls)
    j. Drainage system behind walls retaining soil
    k. Waterproofing for walls retaining soil and adjacent to usable space

N. SUPPLEMENTAL ADDITION AND ALTERATION REQUIREMENTS

1. Provide floor plan for **existing rooms** adjacent to addition/alteration with door sizes, window sizes, and types indicated – including doors/windows to be removed – to verify compliance with light, ventilation, and egress requirements.

2. Indicate **smoke alarms and carbon monoxide alarms** shall be installed – battery-powered alarms acceptable – **in existing** construction in locations as follows:_____(CRC R314.2.2, CRC R315.2.2)

3. Provide **framing and/or foundation** plans **for existing** structure at _____ to verify existing construction adequate to support proposed added loads.

4. Detail means of achieving **positive connection between addition(s) and existing** construction at the following:
    a. Plate lines (detail on framing plans)
    b. Footings and slabs (detail on foundation plans)

5. Detail installation of **hold-downs and/or anchor bolts in existing foundations**. Specify manufacturer and listing number of epoxy, expansion anchors, wedge anchors, etc., as applicable.