



## Residential Exterior Deck Submittal Requirement

Community Development – Building Division  
(650) 259-2330

This handout was prepared to provide a guideline for preparing construction documents to apply for residential deck permit. Construction plans and specifications shall be prepared by a licensed architect or civil engineer licensed by the State of California, or, an experienced drafter following the conventional construction of California Code of Regulations Title-24 Residential Building Code for "Exterior Decks".

Construction documents shall include the following information

- Project address, owner and contractor information.
- Indicate that work will comply with current California Code of Regulations Building and Residential codes.
- Description detailing work that will take place.
- Plot plan indicating where deck will be located in relation to house and property lines, include all existing structures and setbacks.
- Floor Area Ratio. Floor plan showing the floor area of existing rooms of the residential building which will include the floor area of the new exterior deck (*contact Planning Division for further clarification*).

- Provide foundation, post and framing layout and specifying dimensions, material, and spacing.
- Show method of attachment of deck to building: ledger, flashing, size and spacing of fasteners.
- Show elevation plan specifying the height of the exterior deck above the adjacent finished grade.
- Guards (guardrail) are required for decks over 30 inches in height, and must be at least *42 inches* in height measured vertically above the adjacent walking surface or the line connecting the stair nosing, intermediate rail spacing or pattern so that a 4-inch sphere cannot pass through.

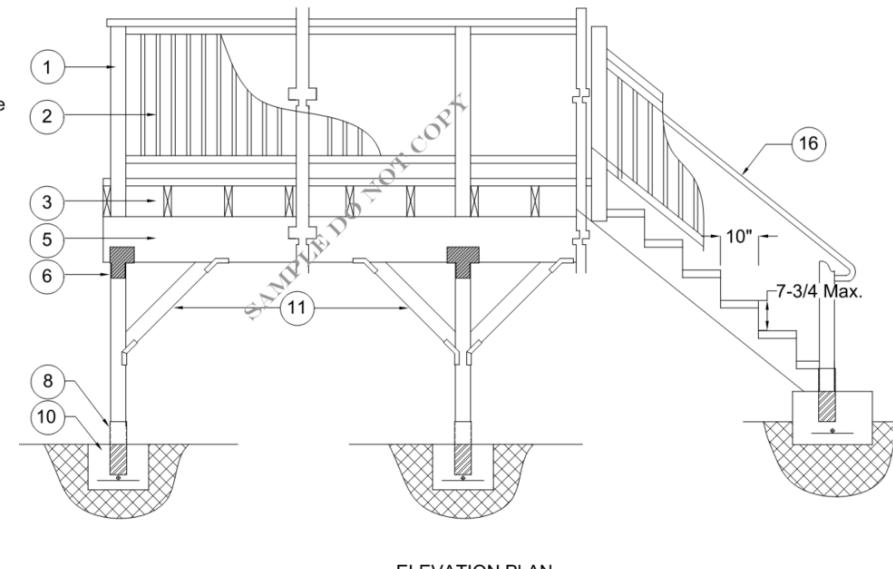
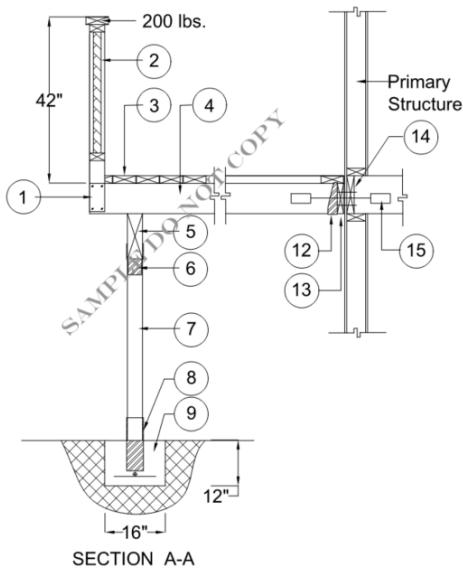
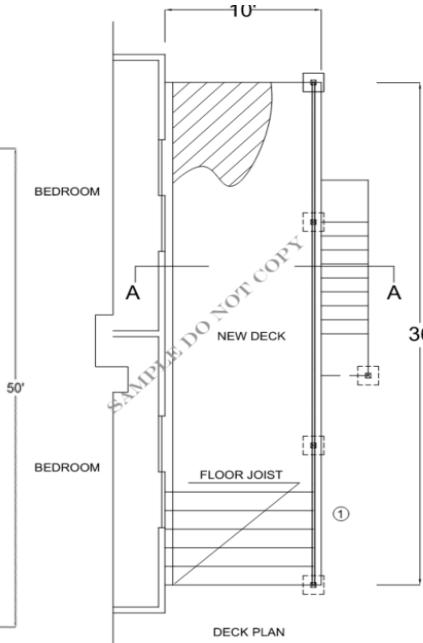
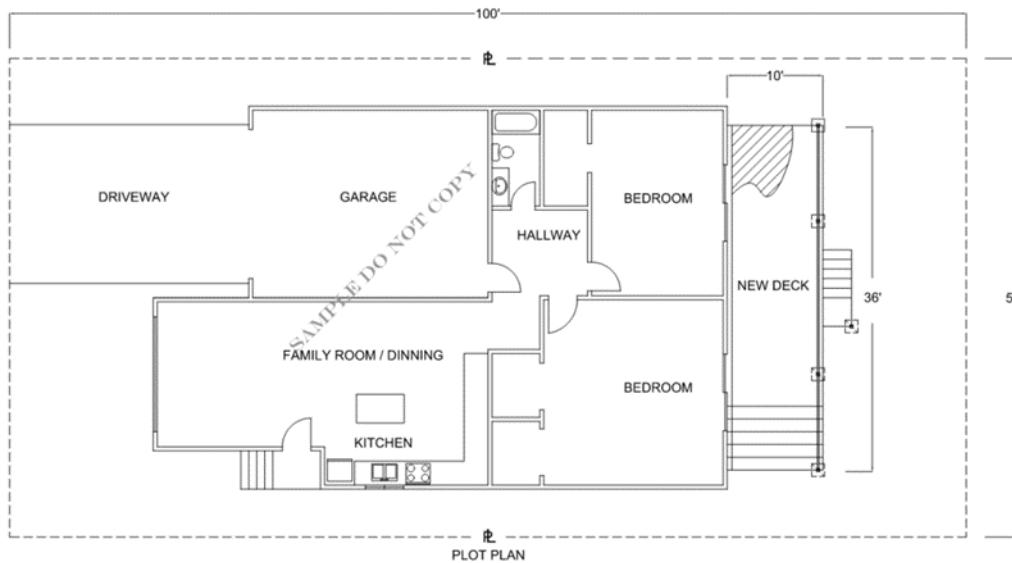
If a stairway is included with the exterior deck:

- Stairway width shall be a minimum of 36 inches wide.
- Maximum rise of each step shall be *7-3/4 inches*, and opening between each rise shall not permit the passage of a *4-inch* diameter sphere to pass through. The minimum tread (run) shall be *10 inches*.
- A handrail is required for stairs with four or more risers, mounted not less than 34 to not more than *38 inches* in height from nosing of step, with a return at each end. Grip size of handrail shall not be less than *1-1/4 inches* and not more than *2" inches* in diameter.

*Note: A 2'x4" lumber on the side or top of the railing is not an acceptable handrail.*

Lumber materials, fasteners, concrete compressive strength and steel reinforcement yield strength.

- Wood shall be pressure treated or of natural resistance to decay. New pressure treatment methods use chemicals that will prematurely corrode standard fasteners, hardware and flashing in contact with treated lumber.
- All anchors and fasteners must be hot-dipped galvanized or stainless steel. All deck hardware must be galvanized with 1.85 zinc coating.
- All post to beam attachments are required to have positive connections in order to resist uplift and lateral displacement, typically this is done with metal straps and clips.
- Minimum compressive strength of concrete shall not be less than, 2,500 psi after 28 days.
- Minimum tensile strength of reinforcing steel for concrete shall be a minimum 40,000 psi.



### Key Notes from Details

1. Min. 4x4 Post Bolted with 1/2" dia. Bolt to Resist a 200 Lbs. load Applied to Top of Guardrail.
2. Intermediate Railing Spaced Not to allow the passage of a 4" dia. Sphere.
3. 2x Wood Decking or Manufactured Decking Material.
4. Floor Joist. Engineered Design or Using CRC Table R507.6 Typical Deck Joist Spans
5. Wood Beam. Engineered Design or Using CRC Table R507.5(1) Minimum Deck Beam Span.
6. Approved Manufactured Post Cap Metal Connector
7. Wood Post. Minimum 4"x4".
8. Approved Manufactured Post base cap metal connector.
9. Approved Manufactured Post base cap metal connector.
10. Concrete Footing with minimum 2-#4 Rebar.
11. Knee Bracing to Resist Horizontal Force Fasten with Approved Manufactured Knee-Brace Stabilizer.
12. Approved Joist Hanger
13. Ledger lag screws or bolted into band joist 14 top and bottom staggered.
14. Band Joist
15. Hold Down or Similar Tension Device for Lateral Loads
16. Handrail 1-1/2" dia. mounted 34" - 38" from nosing of stair