

Open for Construction

JULY 16, 2024

2022 MID CYCLE CODE UPDATES
AGING IN PLACE REQUIREMENTS



New Additions to the LB Building Division

Jonathan Russey – Plan Checker

Faye Mokri – Plan Checker

Ed Cooke – Chief Building Inspector

Achievements/Goals for the LB Building Division

- Building Plan Checkers always available at the Building counter
- Quicker turn around times for Building plan check
- Electronic plan submittals and reviews coming soon

2022 California Title 24



2022 California Title 24-Complete Collection consists of:

- 2022 California Administrative Code (Title 24 Part 1)
- 2022 California Building Code (Title 24 Part 2)
- 2022 California Residential Code (Title 24 Part 2.5)
- 2022 California Electrical Code (Title 24 Part 3)
- 2022 California Mechanical Code (Title 24 Part 4)
- 2022 California Plumbing Code (Title 24 Part 5)
- 2022 California Energy Code (Title 24 Part 6)
- 2022 California Fire Code (Title 24 Part 9)
- 2022 California Existing Building Code (Title 24 Part 10; also Parts 8 & 12)
- 2022 California Green Building Standards Code (Title 24 Part 11).

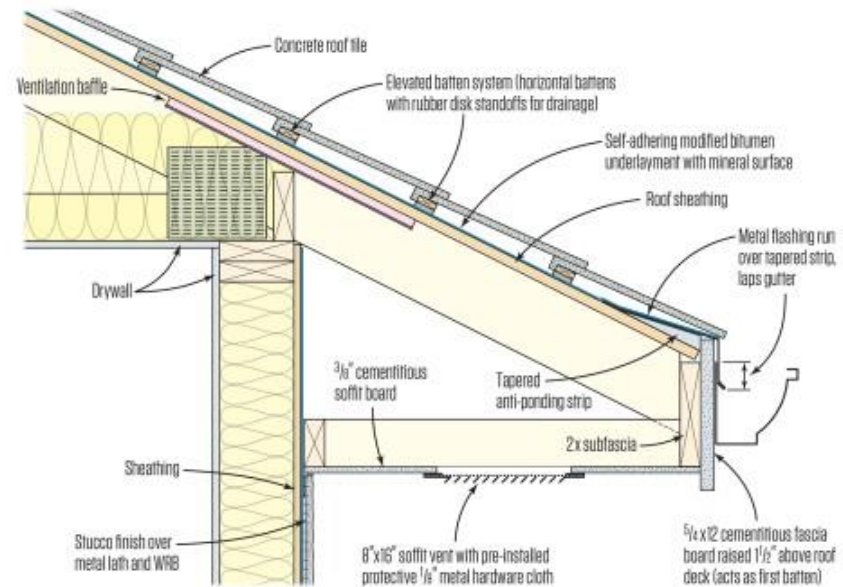
The California Building Standards Code, is the foundation for the design and implementation of building codes within California. The building codes include the implementation of improved safety methods, sustainability measures, consistency, new technology and construction methods, and reliability. These codes are revamped every 18 months through the Triennial and **Intervening Code Adoption Cycle**. These implementations are paramount to the development of building codes.

The building codes used by California are published every three years. Additionally, **Intervening Code Adoption Cycles**^[2] produce supplemental pages half-way, or 18 months, into each triennial period.

High Fire Severity Zone Section R337.7.5

DELETE THE EXCEPTION FOR FASCIA AND ARCHITECTURAL TRIM FOR OPEN ROOF EAVES, ENCLOSED ROOF EAVES AND SOFFITS, PORCH CEILINGS AND FLOOR PROJECTIONS.

Ignition-Resistant Eaves (Closed Soffit)



R327 Aging-in-place design and fall prevention

Added new section that replaces IRC Section 327.

Added to address specific aging-in-place design elements in new residential construction to facilitate access to operational features and to allow people to stay longer in their homes as they age.

R327.1.2 Electrical Receptacle Outlet, Switch and Control Heights

*Electrical receptacle outlets, switches and controls (including controls for heating, ventilation and air conditioning) intended to be used by occupants shall be located no more than **48 inches** (1219.2 mm) measured from the top of the outlet box and not less than **15 inches** (381 mm) measured from the bottom of the outlet box above the finish floor.*

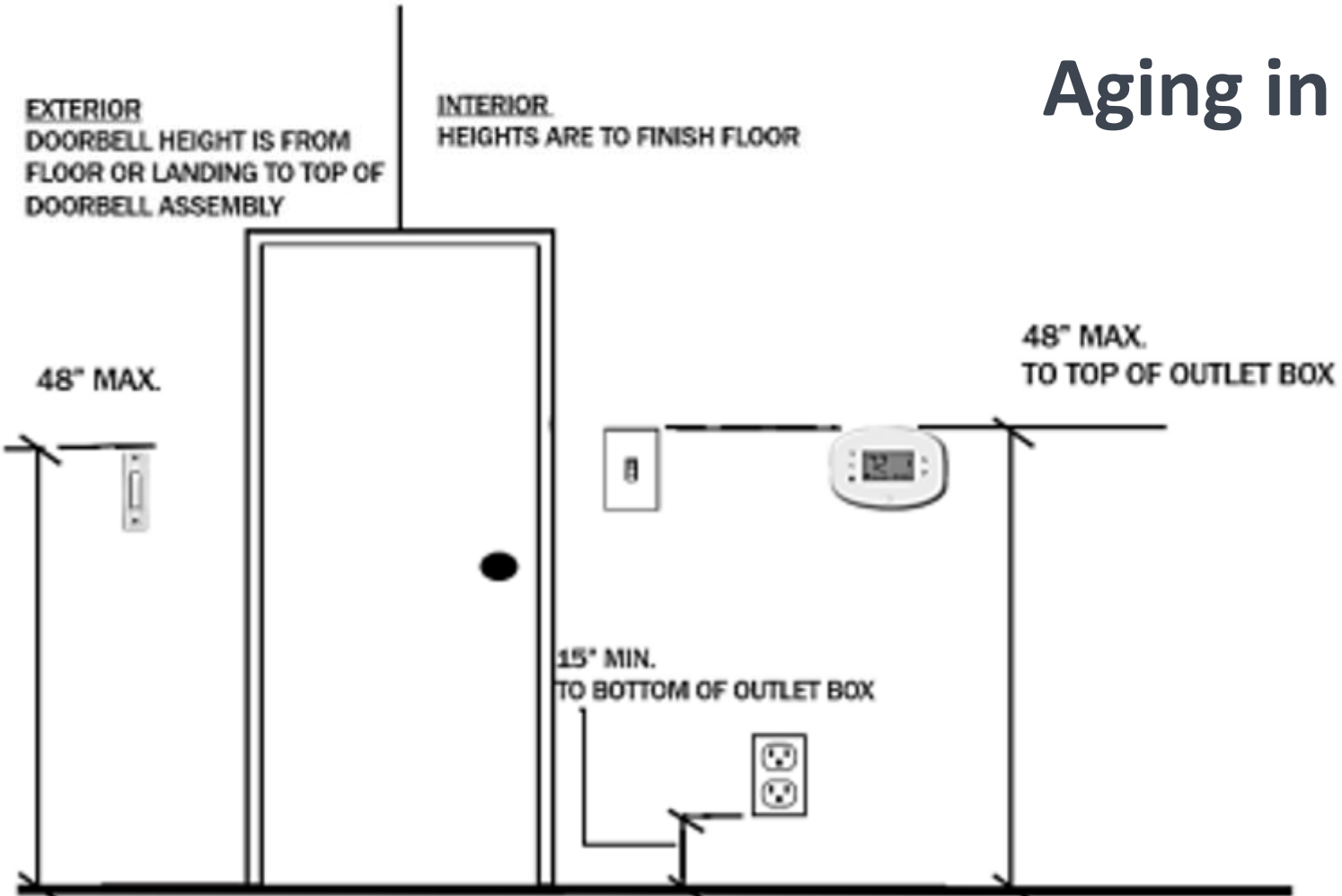


R327.1.4 Doorbell Buttons

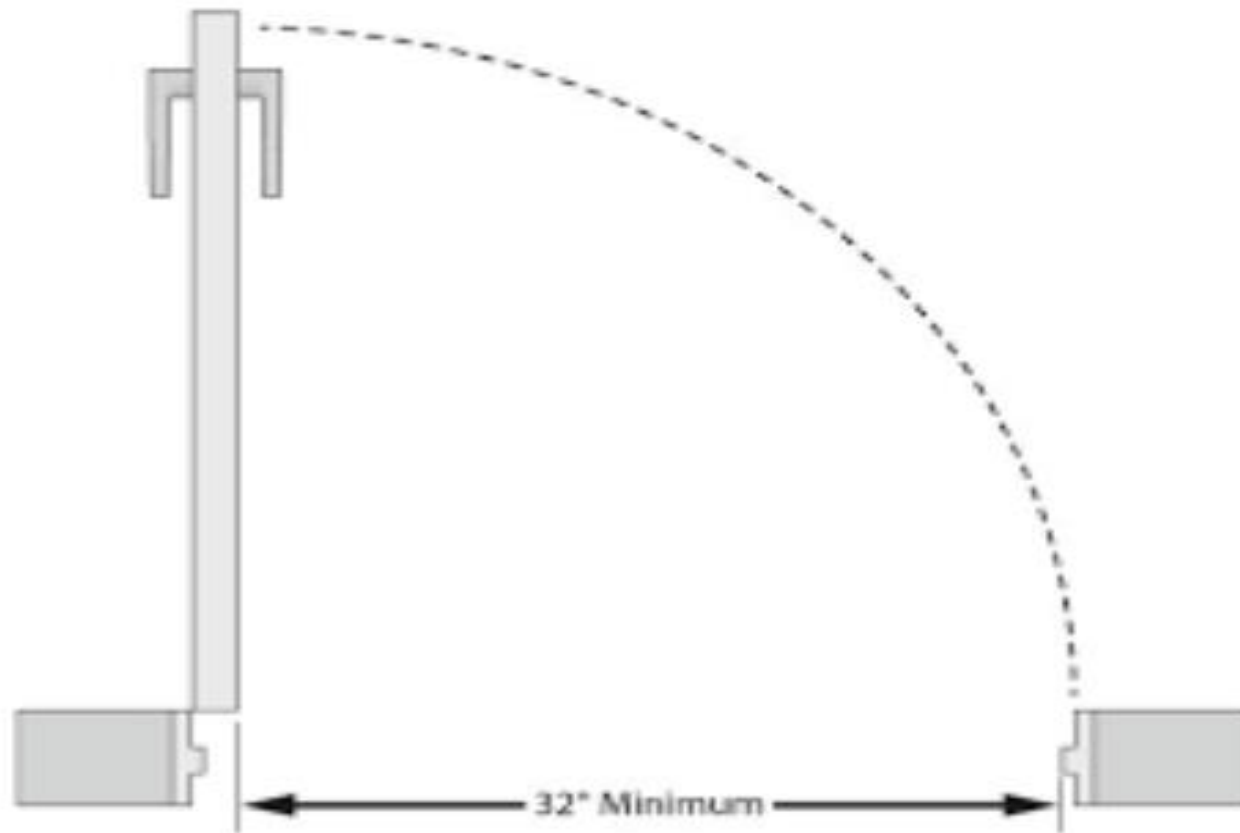
*Doorbell buttons or controls, when installed, shall not exceed **48 inches** (1219.2 mm) above exterior floor or landing, measured from the top of the doorbell button assembly. Where doorbell buttons integrated with other features are required to be installed above **48 inches** (1219.2 mm) measured from the exterior floor or landing, a standard doorbell button or control shall also be provided at a height not exceeding **48 inches** (1219.2 mm) above exterior floor or landing, measured from the top of the doorbell button or control.*



Aging in place



HEIGHTS FOR ELECTRICAL RECEPTACLE OUTLETS, SWITCHES, DOORBELL BUTTONS. INCLUDING HVAC CONTROLS



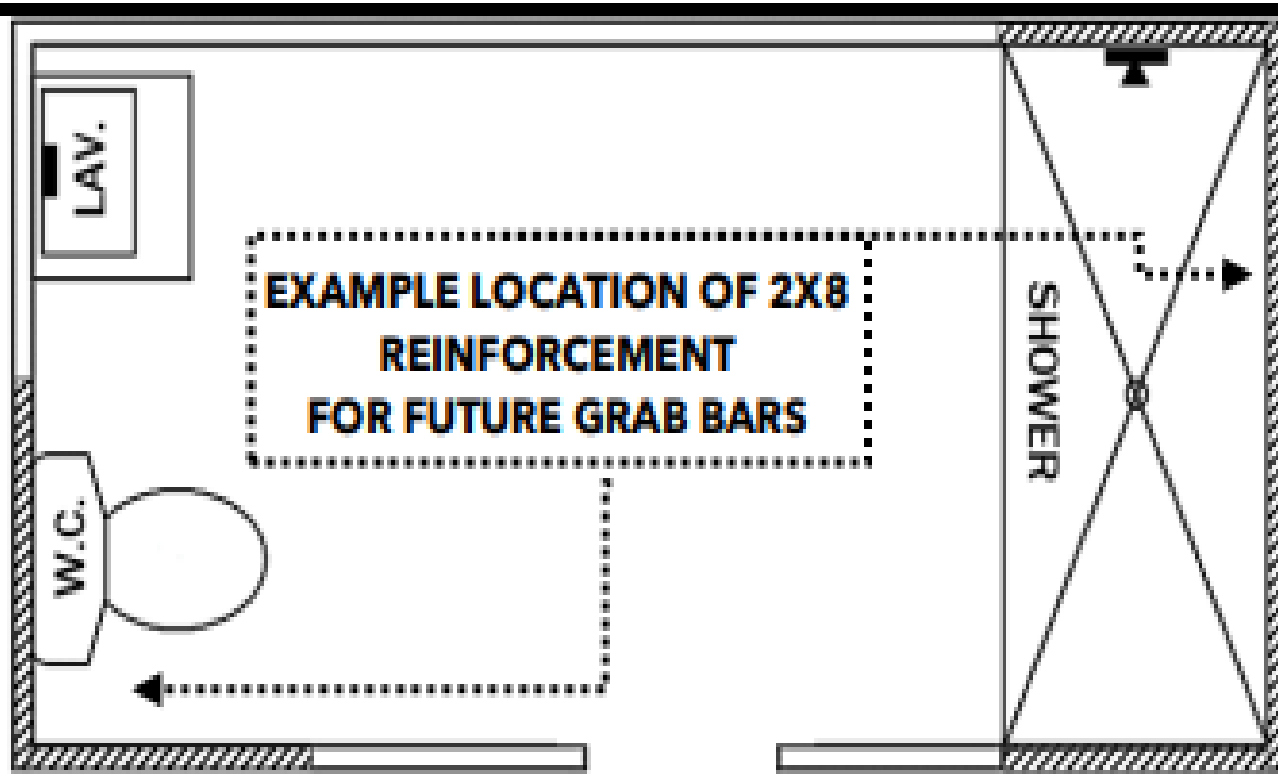
R327.1.3 Interior Doors

*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** (812.8 mm), measured with the door positioned at an angle of 90 degrees from the closed 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.*

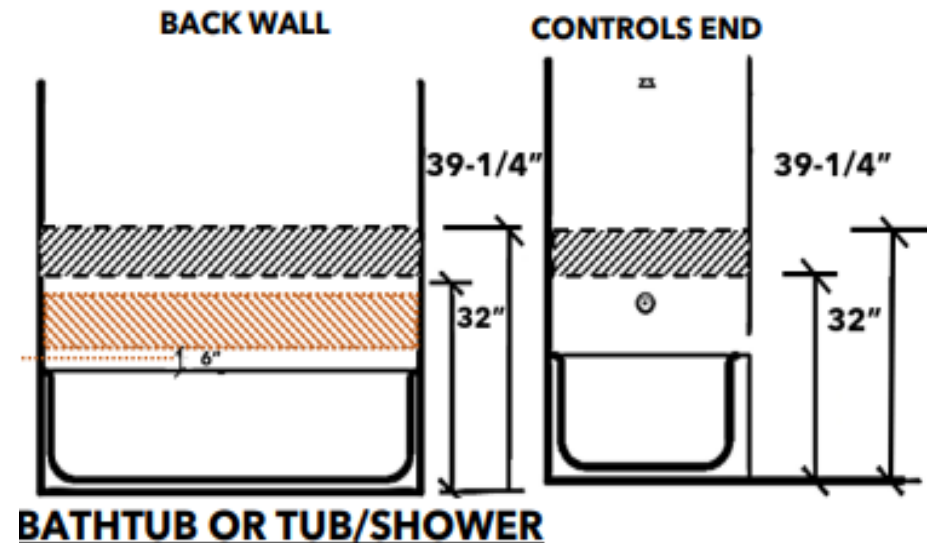
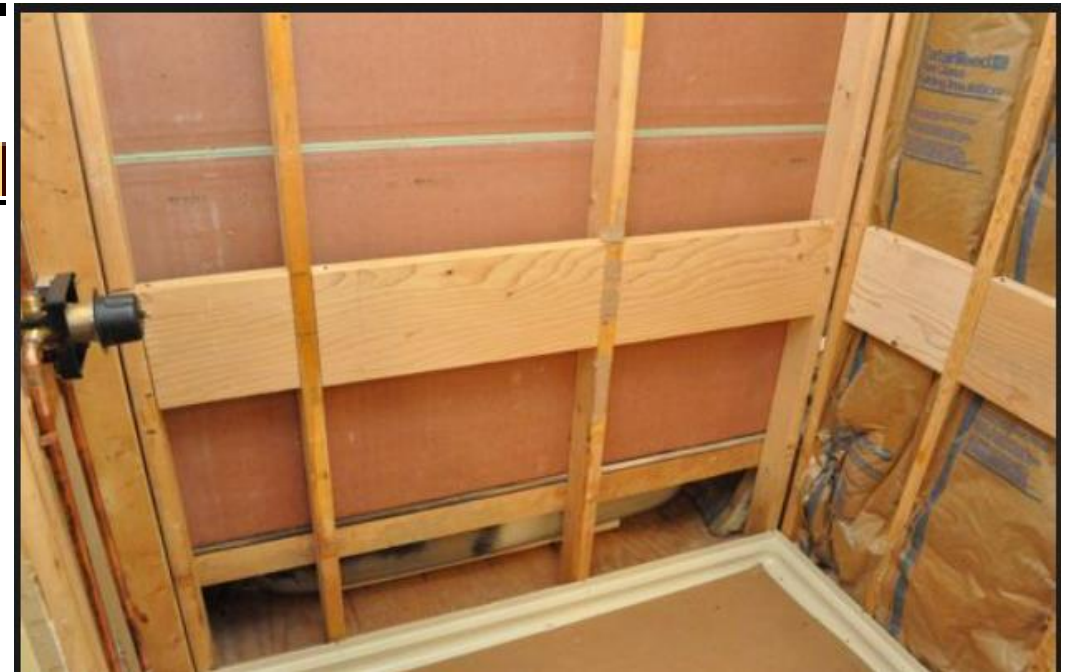
R327.1.1 Reinforcement for Grab Bars

At least one bathroom on the entry level shall be provided with reinforcement installed in accordance with this section. Where there is no bathroom on the entry level, at least one bathroom on the second or third floor of the dwelling shall comply with this section.

- 1.Reinforcement shall be solid lumber or other construction materials approved by the enforcing agency.*
- 2.Reinforcement shall not be less than 2 by 8 inch (51 mm by 203 mm) nominal lumber. [1¹/₂ inch by 7¹/₄ inch (38 mm by 184 mm) actual dimension] or other construction material providing equal height and load capacity. Reinforcement shall be located between 32 inches (812.8 mm) and 39¹/₄ inches (997 mm) above the finished floor flush with the wall framing.*
- 3.Water closet reinforcement shall be installed on both side walls of the fixture, or one side wall and the back wall.*
- 4.Shower reinforcement shall be continuous where wall framing is provided.*
- 5.Bathtub and combination bathtub/shower reinforcement shall be continuous on each end of the bathtub and the back wall. Additionally, back wall reinforcement for a lower grab bar shall be provided with the bottom edge located no more than 6 inches (152.4 mm) above the bathtub rim.*



WATER CLOSET ADJACENT TO ONE SIDE WALL AND A BACK WALL



R327.1.1.1 Documentation for Grab Bar Reinforcement

Information and/or drawings identifying the location of grab bar reinforcement shall be placed in the operation and maintenance manual in accordance with the California Green Building Standards Code, [Chapter 4](#), Division 4.4.



Operation and Maintenance Manual

In compliance with the California Green Building Standards Code, **this Operation and Maintenance Manual shall be available at final inspection and remain with the building throughout the life-cycle of the structure.**

This manual has been prepared for the building located at:

Address

Permit #: _____ - _____ - _____

City/State/Zip

If no new equipment or fixture is installed as part of this project, then check the box and sign below (No further information is required on the rest of this form.)

I Certify that in the construction of this project, no new equipment or fixture was installed.

Name: _____ Relationship to project: _____

Signature: _____ License #: _____ Date: _____

A faint architectural sketch of a multi-story building is visible in the background. In the foreground, a spiral-bound notebook is open to a blank page. Resting on the notebook are several tools: a screwdriver with an orange handle, a pair of blue-handled pliers, and a green and yellow measuring tape. A few screws are scattered on the notebook page.

**A BUILDING OWNER'S MANUAL
SHOULD INCLUDE**

A description of the main principles of design.

Details of the construction of the building (such as finishing, cladding, doors and windows, roof construction, and so on).

Built drawings and specifications.

Operation and maintenance guidelines (including health and safety details and manufacturer 's guidance for effective and proper service).

An inventory list for the plant and equipment.

Evidence of commissioning and research.

Warranties, warranties and certificates.

Specific requirements for demolition, decommissioning and disposal.

Construction and Demolition (C&D) Waste Management

- Diversion of at least 65% of nonhazardous C&D waste by recycling, reuse, and salvage
- 100% diversion of asphalt, concrete, and land-clearing debris (excavated trees, stumps, rocks, etc.)

5-15%
OF MATERIALS CANNOT BE
REUSED OR RECYCLED

UP TO 70%
OF MATERIALS
CAN BE RECYCLED

UP TO 25%
OF MATERIALS
CAN BE REUSED



4.106.4.2.2 Multifamily dwellings, hotels and motels.

- 1. EV ready parking spaces with receptacles.**
 - a. Hotels and motels.** Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.

The previous version of CALGreen required that 10 percent of parking spaces for multifamily buildings be EV charging spaces, and that 25 percent of spaces be equipped with a low power level 2 EV charging receptacle.

Now, all multifamily buildings must provide 40 percent of spaces with low power level 2 EV charging receptacles, and 10 percent of spaces with a level 2 EV charger.





BREAKING NEWS

**New whole building embodied carbon policy in
California Green Building Standards Code,
'CALGreen'.**

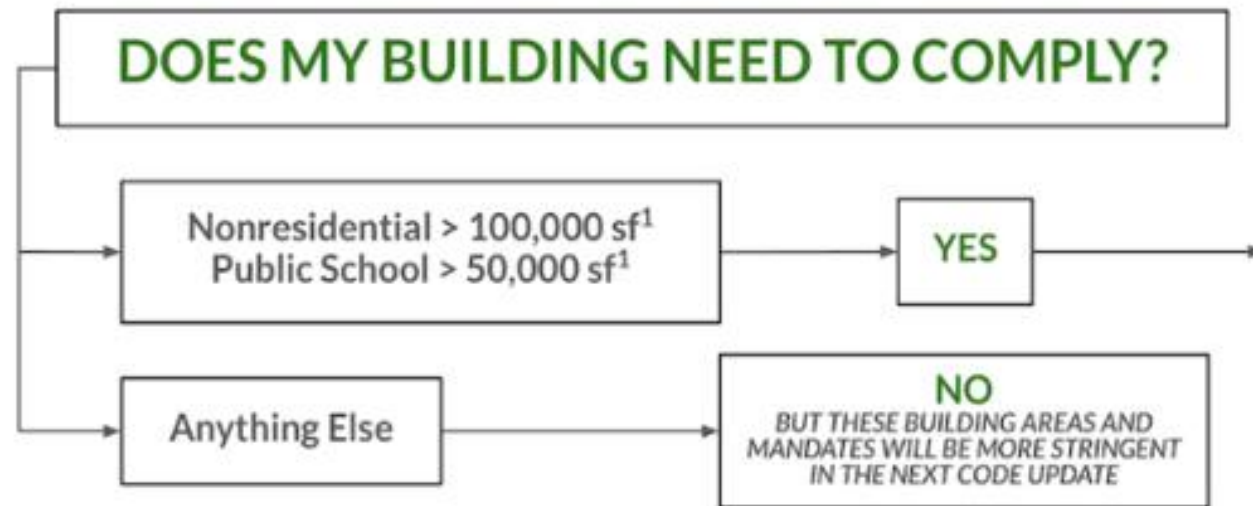


SECTION 5.409 LIFE CYCLE ASSESSMENT

5.409.1 Scope. Effective July 1, 2024, projects consisting of newly constructed building(s) with a combined floor area of 100,000 square feet or greater shall comply with either Section 5.409.2 or Section 5.409.3. Alteration(s) to existing building(s) where the combined altered floor area is 100,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 100,000 square feet or greater shall comply

CALGREEN EMBODIED CARBON REQUIREMENTS

2022 MID-CYCLE UPDATES^{2,3}
EFFECTIVE JULY 1, 2024



Option #1 Building Reuse

- **Mandate:** 45% of the Structure and Enclosure to be reused
- **Scope:** Existing primary structural elements & enclosure (roof framing, wall framing, and exterior finishes)
- **Exclusions:** window assemblies, insulation, structurally unsound or hazardous portions
- **Higher Tier Impacts (Voluntary)¹:** Tiers 1 & 2 increase the threshold of 45% to 75%; Tier 2 also requires 30% of interior non-structural elements to be reused

Option #2: Life Cycle Analysis

- **Mandate:** 10% reduction in GWP from baseline
- **Scope:** 60-year cradle-to-grave, ISO 14044 compliant, WBLCA including primary and secondary structural members, glazing, insulation and exterior finishes
- **Exclusions:** Operational energy, biogenic carbon
- **Higher Tier Impacts (Voluntary)¹:** Tier 1 requires a 15% reduction; Tier 2 requires a 20% reduction

Option #3: Prescriptive Path

- **Mandate:** 175% of industry-wide GWP limits
- **Scope:** Third-party verified EPD's for structural steel, rebar, flat glass, concrete, light and heavy duty mineral wool insulation
- **Exceptions:** Concrete mixes may use weighted average for all mixes on the project
- **Higher Tier Impacts (Voluntary)¹:** Tier 1 reduces threshold of 175% to 150%; Tier 2 reduces threshold of 175% to 100%

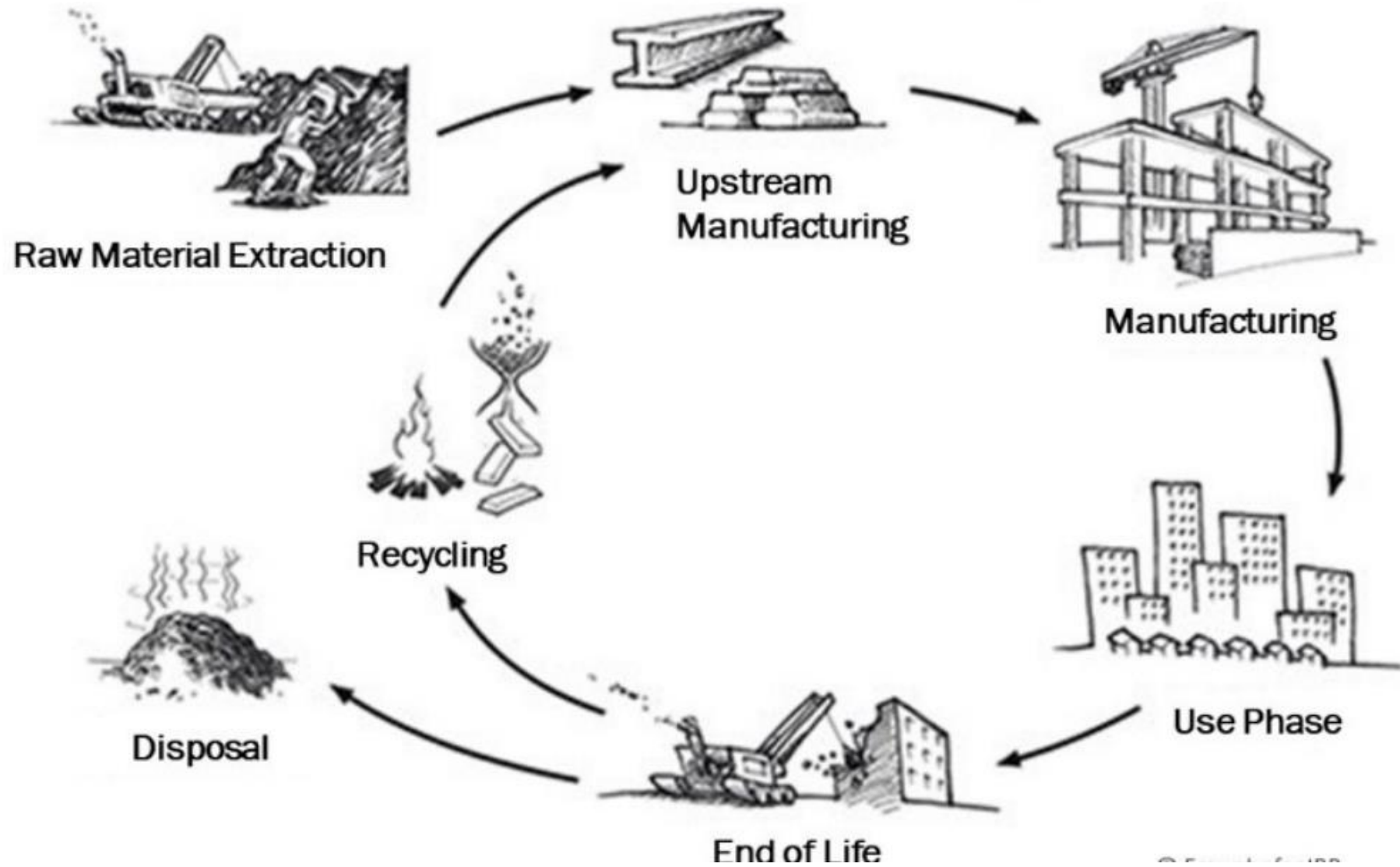


Deconstruction, Salvage and Reuse Policies

Reusing buildings and materials reduces **embodied carbon** and waste while promoting environmental and human health. **Deconstruction** is the process of disassembling buildings to allow for the salvage of building materials for reuse. **Building reuse**, also called adaptive reuse or renovation, describes a process wherein the structure, envelope, or other portions of an existing building are retained and utilized during a renovation project. If the existing building hadn't been reused, it would have been fully demolished and replaced with a newly constructed building on the same site.

CRADLE-TO-GRAVE. [BSC-CG, DSA-SS] Activities associated with a product or building's life cycle from the extraction stage through disposal stage, and covering modules A1 through C4 in accordance with ISO Standards 14025 and 21930.

The Life Cycle of a Building



2022 CALIFORNIA ACCESS



Chapter 11B ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING, Section 11B-605 Urinals, Sub-section 11B-605.5.4 Toe Clearance, Exception.

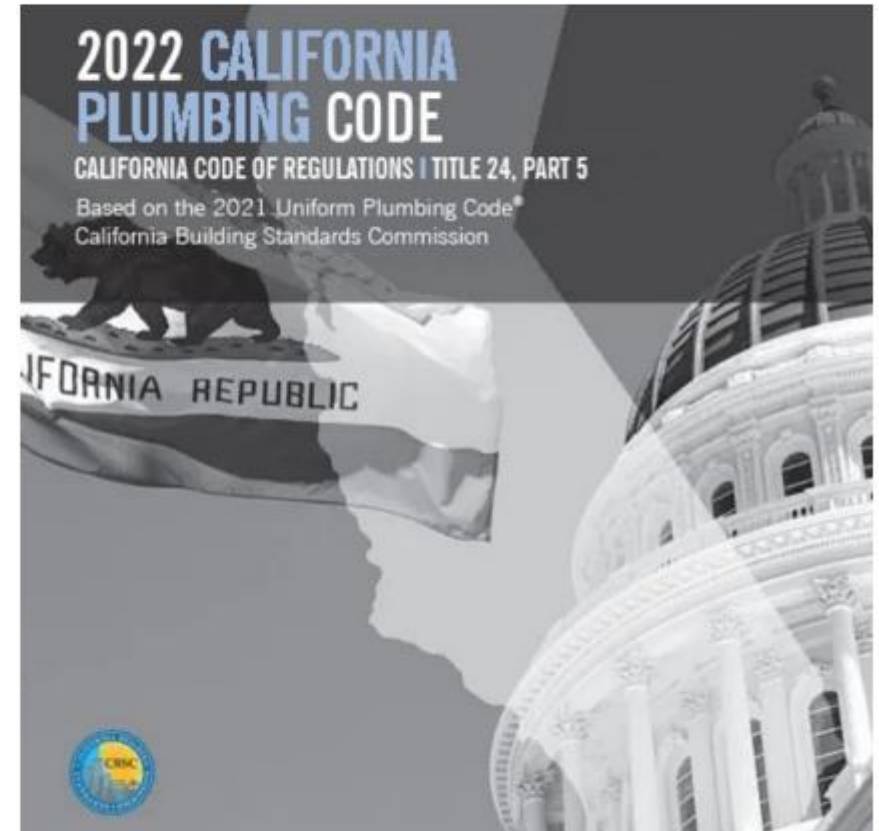
11B-605.5.4 Toe Clearance. *The front partition and at least one side partition shall provide a toe clearance of 9 inches (229 mm) minimum above the finish floor and 6 inches (152 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Partition components at toe clearances shall be smooth without sharp edges or abrasive surfaces. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.*

PLUMBING CODE UPDATE

CBC 2022 Supplement
Effective July 1 2024

All-Gender Multi-user Restroom Facilities

- Early adopted anticipated Model Code
- Not a requirement but an option
 - Provides an exception to current requirements to provide separate facilities
- Allows for the replacement of a Urinal with a Toilet (Water Closet)
- Requires all fixtures to be in privacy compartments
- Urinals must be in privacy compartment or in a separate space





422.0 Minimum Number of Required Fixtures.

422.2 Separate Facilities. Separate toilet facilities shall be provided for each sex.

Exceptions:

- (1) Residential installations.
- (2) In occupancies with a total occupant load of 10 or less, including customers and employees, one toilet facility, designed for use by no more than one person at a time, shall be permitted for use by both sexes.
- (3) In business and mercantile occupancies with a total occupant load of 50 or less including customers and employees, one toilet facility, designed for use by no more than one person at a time, shall be permitted for use by both sexes.
- (4) Separate facilities shall not be required where rooms have fixtures designed for use by both sexes and the water closets are installed in privacy compartments. Urinals shall be located in a privacy compartment.

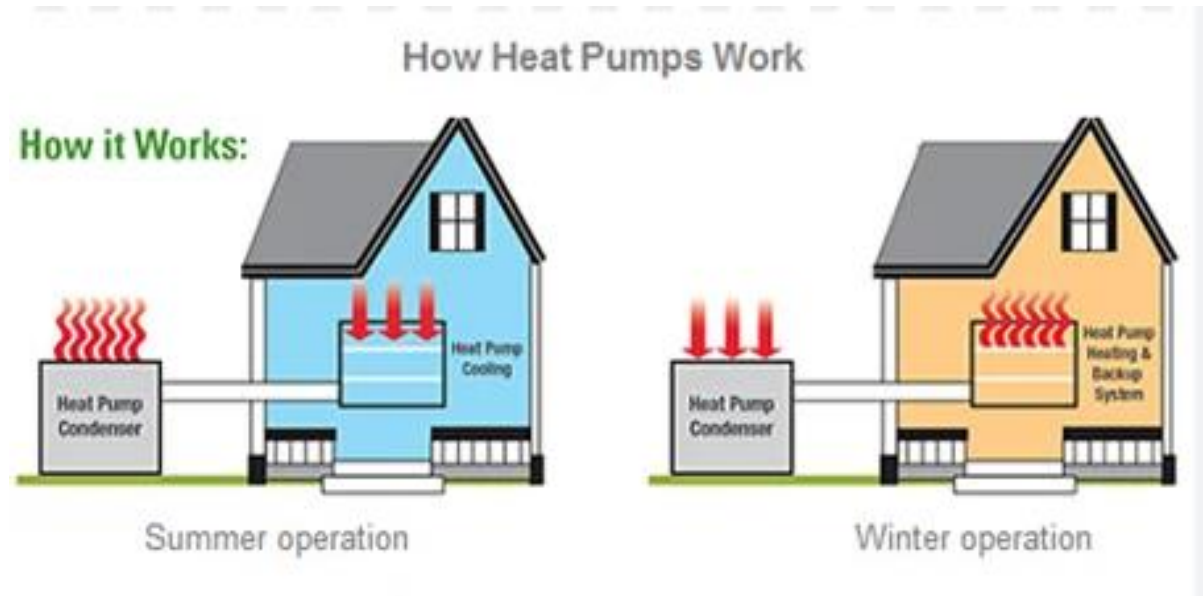
SB 1194 (Allen) Public restrooms: building standards

Would authorize a city, county, or city and county to require, by ordinance or resolution, that public restrooms constructed within its jurisdiction comply with specified requirements instead of complying with the plumbing standards set forth in the California Building Standards Code. This bill would, except as specified, authorize public toilet facilities to be designed to serve all genders, as specified. The bill would give a city, county, or city and county discretion to exclude certain occupancies from the bill's requirements.

The Updated Standards

The Energy Code updates include four main categories of changes:


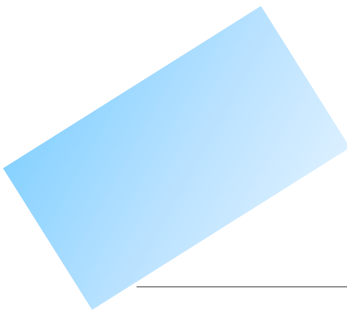
- **Establishing heat pumps as a baseline technology:** The new standards encourage the use of heat pumps, especially in residential space heating. Heat pumps will now serve as the exclusive prescriptive technology for dwelling unit space heating in nearly all new multifamily homes. The same is true for new single family homes in certain climate zones, including San Francisco (Zone 3), many localities in the East and South Bay (Zones 3 and 4), coastal communities between Marin County and Monterey County (Zone 3), and inland areas throughout the Central Valley and Southern California (Zones 13 and 14).
-
- **Reducing gas health risks by improving ventilation:** Commensurate with the growing awareness surrounding the negative health impacts of gas appliances, the new standards strengthen ventilation requirements based on fuel type and floor area.
- **Making homes electric-ready:** Even single-family homes that install gas infrastructure must include electrical circuits for space heating, water heating, ovens, and clothes dryers. Single-family homes must also be backup storage-ready in anticipation of technological advances in solar energy storage, including electrical panels, branch circuits, and transfer switches for battery storage.
- **Expanding solar power:** The standards also accelerate building decarbonization by adding prescriptive standards for minimum solar photovoltaic and battery energy storage capacity for high-rise multifamily and commercial buildings, including office buildings, grocery stores, and schools.



HEAT PUMPS

ADU Facts

- **Vapor retarders** required for concrete slabs and block walls
- **Energy Reports and Solar panels** are required for new construction
- **Separate address** is required for the ADU
- **Readily accessible utility shut offs and disconnects** required



Section R304 - R305: Minimum room areas

R304.1 Minimum area

Habitable rooms shall have a floor area of not less than 70 square feet.


- Exceptions: kitchens

R304.2 Minimum dimensions

Habitable rooms shall be not less than 7 feet in any horizontal dimension.

Section R305 Ceiling height

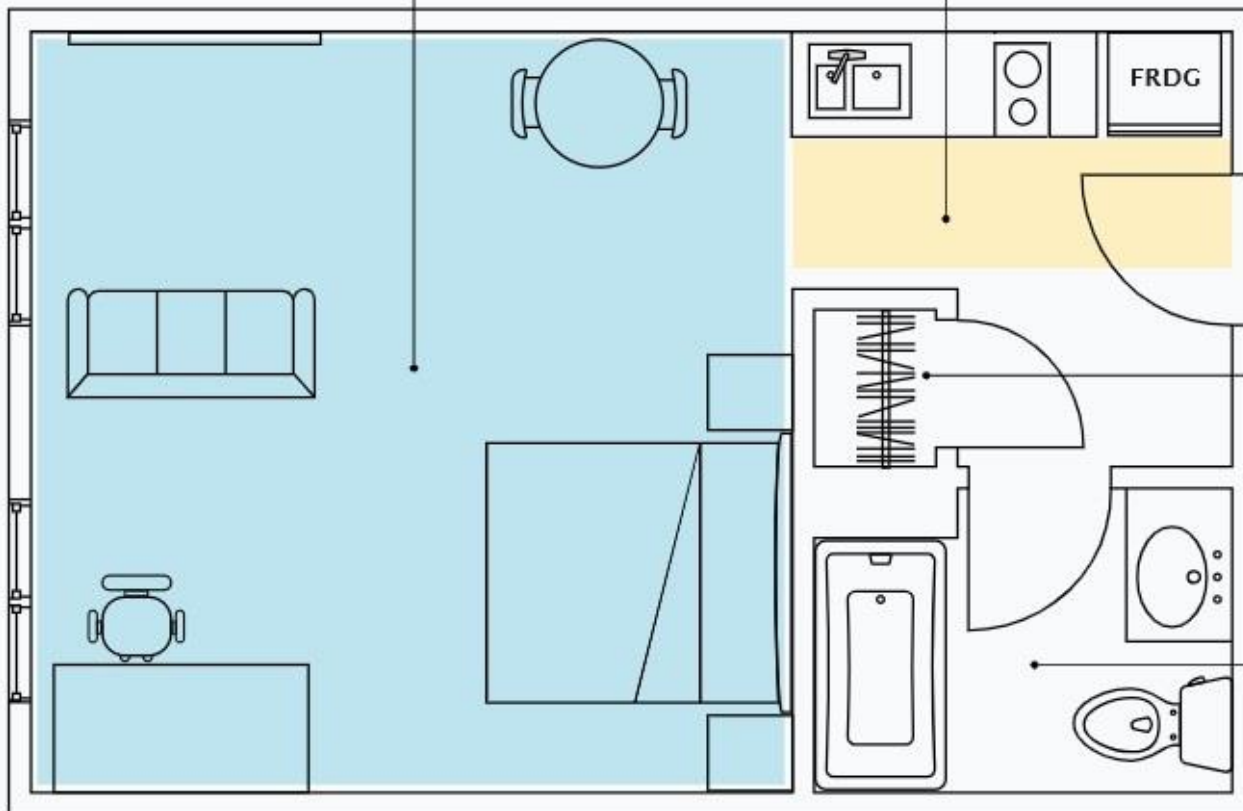
R305.1 Minimum height. Habitable space, hallways and portions of basements containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).



EFFICIENCY DWELLING UNIT

Living room with minimum
190 sq ft of floor space

For other than Accessible dwelling
units, a clear working space of not less than 30" in front
of sink, cooking appliance, and refrigeration facilities
shall be provided



**PROVIDE A FULL KITCHEN
WHICH MEETS THE MINIMUM
EFFICIENCY DWELLING UNIT
STANDARDS – CBC 1208.4**

- **KITCHEN SINK**
- **BUILT IN COOKING APPLIANCE, TYPICALLY A 2-BURNER COOKTOP OR SMALL RANGE**
- **REFRIGERATOR**

Unit to be provided
with separate closet

Unit shall be provided with
separate bathroom containing a
water closet, lavatory, and
bathtub or shower

1208.4 Efficiency Dwelling Units

[HCD 1] Unless modified by local ordinance pursuant to Health and Safety Code Section 17958.1, efficiency dwelling units shall comply with the following:

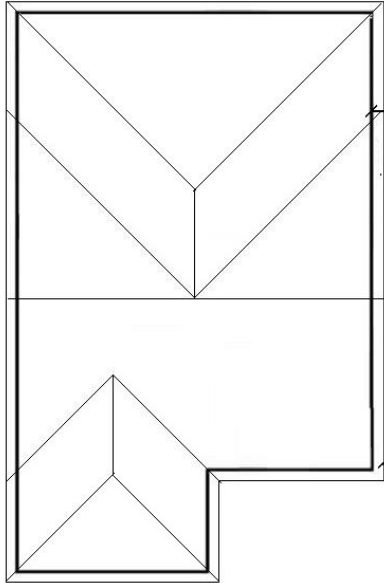
1. The unit shall have a living room of not less than 190 square feet (17.7 m²) of floor area.
2. The unit shall be provided with a separate closet.
3. For other than Accessible, *adaptable* dwelling units, the unit shall be provided with a kitchen sink, cooking appliance and refrigerator, each having a clear working space of not less than 30 inches (762 mm) in front. Light and ventilation conforming to this code shall be provided.
4. The unit shall be provided with a separate bathroom containing a water closet, lavatory and bathtub or shower.



SITE PLAN

PROPERTY LINE

Exterior walls less than 5 feet to property line – 1 hour fire rated wall assembly



Eaves or similar projections between < 5 feet and 2 feet – 1 hour fire rated

Openings at exterior walls between < 5 feet and 3 feet FSD - are limited to 25% of wall area



RIGHT SIDE ELEVATION



Open for Construction

THANK YOU

QUESTIONS?

Notes:

