



COUNTY OF SAN LUIS OBISPO

Department of Planning and Building

Introductions

Agenda

- Title 19 Ordinance Update
- CRC / CBC
- Energy Code Changes
- Significant Changes/ Electrical /Mechanical /Plumbing
- **Break**
- LAMP/ OWTS – Stormwater
- Special Inspections / Structural Observation / Energy Compliance
- Accessory Dwelling Units and Tiny Houses
- **Q&A**



Internships

- Projects
 - Plan checking
 - Plan check lists
 - Historical Program
- In Progress
 - Handout updates
 - List updates with new code
 - Digital Entry of Plans
 - Future changes within program
- Student Involvement
- Energy Section/Tri-County Regional Energy Network (3C-REN)
 - Energy Efficiency
 - Course and Event Offering Development
 - Regional Coordination



Title 19 Update

Appendix Q of the California Residential Code- Tiny Houses.

Updated Chapter 3 – Building Codes by restructuring Tables 903.1 and 903.2

Updated Chapter 7 – Plumbing Code to reflect onsite wastewater (septic) permit requirement authority.

Updated Chapter 11 – Stormwater Management to be consistent with state permit language.



Table 903.1 change



Table 903.1 – Automatic Fire Sprinkler System Requirements for NEW CONSTRUCTION

STRUCTURE TYPE	SPRINKLERS REQUIRED ²	DESCRIPTION	SQUARE FOOTAGE ¹		MIN. DISTANCES BETWEEN STRUCTURES AND PROPERTY LINES (PL)	REQUIREMENTS	USE EXAMPLES	EXCEPTIONS
			MIN	MAX				
New Construction	Yes	New buildings including mobile homes and commercial coaches ¹	0		Per CBC, CRC	Throughout new buildings	All new construction and dwellings	Exceptions 2, 3, 4
Residential Accessory Structure	Yes	Accessory structures as defined in CRC	1,000	3,000	50 feet from PL 30' between any structures on site	No heating, cooling, living or sleeping spaces	One story garage, workshop, studio, residential storage bldg.	Exception 1
Agricultural Structure	Yes	Accessory to agricultural operation, livestock, crops. Agricultural operations in accordance with AG LUO & CBC definition	3,000	5,000	100 feet from PL, 50 feet from other structures	Primary usage must be 75% livestock or crops	One story barn or stables	Exception 1
Pole barn, Covered arena, Greenhouse	No	One story hay storage, covered riding arena, greenhouses	Unlimited if 60 feet on all sides per CBC		100 feet from PL, 50 feet from other structures	No public use or access	See description	None
Agricultural Exempt (no permit required)	No	LUO Ag Exempt & signed affidavit	0	3,000	100 feet from PL, 50 feet from other structures	Per Ag Exempt agreement	Ag-Barn on Ag zoned land over 20 acres	See Title 19

References:

CRC: California Residential Code | CFC: California Fire Code | CBC: California Building Code | LUO: Land Use Ordinance (San Luis Obispo County)

Footnotes:

¹ For the purpose of calculating square footage for the application of fire sprinkler requirements and fire flow requirements, the floor area shall include all combustible areas attached to the structure, including garages, patio covers, overhangs over 2 feet, covered walkways and decks.

² Automatic Fire Sprinklers installed at exterior locations shall be approved corrosion resistant devices when environmental or operational conditions warrant.

Exceptions:

1. Structures between the minimum and the maximum square footage must meet all the above table criteria and all the following are required in lieu of fire sprinklers: • no conditioned or habitable space, • no second stories (lofts 1/3 the floor area and open to below are allowed), • minimum two exits including one pedestrian door (side hinge swinging door), • workshops or offices limited to 10% of floor area, • dedicated fire water storage minimum of 5,000 gallons steel tank in full compliance with NFPA 1142 (see fire safety plan) if there is no community provided fire hydrant within 500 ft., • structure complies with the California Wildland Urban-Interface Ignition Resistant Construction Requirements, • heat detectors installed in accordance with CBC linked to an audible bell mounted in the exterior of the structure. • Cannot be used as a place of employment or for public assemblage/events. • Cannot be used as a commercial building.

2. A single-story building or commercial coach where floor area does not exceed 1000 square feet and the occupancy is not a Group A, E Daycare, F1 Woodworking, group R, Group H, Group I occupancy if any occupancy where cellulose nitrate film, pyroxylin plastics or any hazardous materials manufactured, stored or handled in quantities in excess of Tables in CBC, CFC or within Los Osos CSD and the fire flow from a hydrant is less than 750gpm at 20psi.

3. Mobile/manufactured or factory-built homes or commercial coaches constructed or altered on or before March 12, 2011 which were not manufactured with automatic fire sprinklers.

4. Accessory dwelling units shall not be required to provide fire sprinklers if they are not required for the primary residence.



Table 903.2 change



Table 903.2 – Automatic Fire Sprinkler System Requirements for EXISTING CONSTRUCTION ⁴

OCCUPANCY OR STRUCTURAL MODIFICATION TYPE	SPRINKLERS REQUIRED ³	DESCRIPTION	SQUARE FOOTAGE ¹	REQUIREMENTS	USE EXAMPLES	EXCEPTIONS
Alterations ¹	Yes, if...	Alteration includes modifications to the structure	50% of existing floor area ²	Alterations additions and remodel square footage will be considered a combined and cumulative sum of floor area	Interior remodels Rehabilitation	Exceptions 1, 2, 3, 4
Additions ¹	Yes, if...	Additions cumulative from January 01, 2008 regardless of any change of ownership	1,000 sf or 50% of floor area ²	Alterations additions and remodel square footage will be considered a combined and cumulative sum of floor area	Any addition	Exception 4
Hazard Category and Occupancy Classification Changes	Yes	Change results in higher hazard or as deemed necessary by fire code official and the building official	Any	Hazard classification rating as determined by the fire code official, and occupancy classification as determined by the building official.	Any change of occupancy defined in Chapter 3 of the CBC	None
Hazardous Materials Inside buildings	Yes	Cellulose nitrate film or pyroxylin plastics or any hazardous materials manufactured, stored or handled in quantities in excess of Tables in CBC, CFC	Any	Building and any portion of a building must also include requirements as listed in CFC Chapter 5005.4	Any occupancy	None

References:

CRC: California Residential Code | CFC: California Fire Code | CBC: California Building Code |

Footnotes:

- ¹ For the purpose of calculating square footage for the application of fire sprinkler requirements and fire flow requirements, the floor area shall include all combustible areas attached to the structure, including garages, patio covers, overhangs over 2 feet, covered walkways and decks.
- ² Fire sprinklers are required when all ceiling coverings are removed, or a project reaches the threshold of 50% of addition or alteration; determination of fire sprinklers shall be made by one of the following methods: 1) By net floor area: Any room(s) or area(s) that are added, altered, rehabilitated or repaired shall have their net floor area calculated and compared to the total net floor area of the existing structure to find the calculated percentage. 2) By surface area: Surface area shall be defined as surfaces of walls and ceilings. Any room(s) or area(s) that are added, altered, rehabilitated or repaired shall have their surface area calculated compared to the total wall and ceiling surface area of the existing structure to find the calculated percentage.
 Note: Change(s) in project scope after the plan review process shall require that the fire sprinkler calculation be revised and submitted for review and approval.
- ³ Automatic Fire Sprinklers installed at exterior locations shall be approved corrosion resistant devices when environmental conditions warrant.
- ⁴ Mobile/manufactured or factory-built homes or commercial coaches constructed or altered on or before March 12, 2011 which were not manufactured with automatic fire sprinklers are not subject to fire sprinkler requirements.

Exceptions:

1. Alterations limited to only one of the following: replacement of exterior coverings and windows, roofing, electrical services, sewer laterals, retaining walls, or routine plumbing, electrical and mechanical repairs.
2. A loft open to the floor below and no more than one third of the floor area of the room below may be added without requiring sprinklers.
3. REPAIR is the reconstruction or renewal for the purpose of maintenance.
4. Accessory dwelling units shall not be required to provide fire sprinklers if they are not required for the primary residence. Footnote 2 determination is required.



2019 California Residential Code / CRC

R101.2- Scope- Allowed to be constructed under CRC

- Live/Work Units
- Owner- Occupied Lodging Houses- Five or fewer guestrooms
- Care Facilities 5 or fewer persons- custodial care/medical care/care- within a dwelling
- Live/Work Units etc are not mixed occupancies R302.1

R110.1- Change of Occupancy- change of use permits required, i.e from a dwelling to a live/work or residential care facility

R106.4.2-10% of required residential parking spaces shall be EV capable

R106.4- ADU without required parking are exempt from EV requirements

R301.5- Live load change from 40lbs to 60lbs for balconies and decks Table



2019 California Residential Code / CRC

R302.3 Now references all fire resistance ratings permitted in CBC 703.3

R302.13- ½" Gypsum required in un-sprinklered crawl spaces with fuel burning appliances

R308.4.2- Glazing within 24" of the hinge side of a door

R310.1 Emergency escape openings no longer required in bedrooms in sprinklered basements- and other conditions apply

R311.7.1- Handrail projection- changing wording to allow handrails on both sides to encroach into the minimum width

R314.2.2 Smoke alarms shall be interconnected on repairs



2019 California Residential Code / CRC

R315- Carbon Monoxide alarms shall be interconnected

R317.1- Enclosed balconies must have natural ventilation

R317.3 Staples in fire retardant and pressure treated lumber must be stainless steel: nails, bolts have other options

R324.6.2.2- Emergency egress windows require a rescue path on roof with solar installed

R325.3- Mezzanine limitations increase from 1/3 to 1/2 area of the room served, under certain conditions

R408.3 Unvented crawl spaces- when dehumidification exists

R806.5 Unvented Attics- new options and requirements; vapor diffusion ports.



2019 California Building Code / CBC

CBC 202 - Definition of sleeping unit- fire separation

CBC302.1- Classification of outdoor areas- rooftop decks

CBC 303.4- Assembly use of greenhouse classification- where public access is provided for the exhibition of plants- A occupancy

CBC 309.1- Mercantile use of greenhouse, sale of plants–M Occupancy

CBC 312.1.1- Greenhouses not classified as another occupancy shall be classified as group U

CBC 310.4.2- Owner occupied lodging houses with 5 rooms or less or 10 total occupants are now under CRC

CBC 311.1.1- Regardless of size, storage rooms are to be classified as part of the occupancy they are accessory to

CBC 311.2- Self Storage facilities shall now be classified as S-1



2019 California Building Code / CBC

422.6- Electrical backup power requirements for ambulatory care facilities are added in this code cycle

424.1- Children's play structures 10' high **OR** 150 SF shall comply

506.2- Allowable area for a Non-Sprinklered VB greenhouse has substantially increased; 5,500 SF to 9000 SF

706.1.1- Fire walls are no longer required for a party wall on lot lines dividing a building for building ownership purposes.

708.4- Garage door perimeter gap protection in WUI areas

903.3.1.2.1- Sprinkler protection at exterior balconies and decks-dwelling units and sleeping units

904.13- UL 300- Fire Extinguishing Hoods in I-2.1 and R-2's

905.3.1- Class III Standpipe systems on all 4 story buildings, class I if sprinklered



2019 California Building Code / CBC

Table 1004.5- Occupant Load Factor of a B; 100 to 150

1004.8 a new sub-category of concentrated occupant load factor of one per fifty sq. ft.; Building Official discretion

1010.1.4.4- Locking arrangements in E and Educational B occupancies; including remote operation

1615- Risk Category III and IV must design for Tsunami loads if applicable

1704.6.3- Structural Observation is required on all Category III & IV buildings and SDC E, 3 stories or greater



Title 24 Energy Standards: Changes to 2019

- Jennifer Rennick, AIA, CEA
- Mike Horgan, CPHC, CSLB #1039516
In Balance Green Consulting



Non-Residential: *Relatively* Few Changes

- 11-12 Health Care Facilities included
- Mechanical – More mandatory measures
 - Alignment with ASHRAE 62.1 and 62.2
 - Natural ventilated spaces must also have mechanical ventilation
- Lighting – Reduced lighting power density (LPD) ~20% to 50%
- Lighting – Additional controls and exemptions, especially concerning daylighting

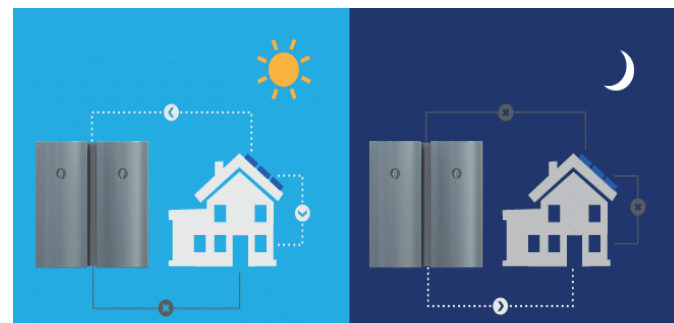


*LED's are the prevalent light source,
so lower LPD*



Residential: Few, but Significant Changes

- EDR New Metric – Performance Method for new construction
- All-Electric Compliance Options
- Photovoltaic (PV) Required
- Better Walls & Windows
- QII Required – Prescriptive Package Approach



Reminder: Two Paths to Compliance

Prescriptive Package:

- Checklist Approach
- Used as *Baseline* for Performance Method

Performance Method:

- Computer Modeling
- Flexibility through *Trade-Offs*

Mandatory Measures: Required for *all* projects



Performance Method: EDR –Two Levels

Efficiency



PVs



Compliance

- Model your project's energy use
- "Efficiency" Energy Design Rating (**EDRe**)
- Time Dependent Valuation (TDV)

- Add PV Solar System
- Optional Battery Storage
- "Total" Energy Design Rating (**EDRt**)

- Better than both EDRe and EDRt
- Meet Title 24 2019 Energy Standards



A Path for All-Electric Systems



**Ductless, Compact-Ducted,
or Ducted Heat Pumps**

**Split or integrated Heat
Pump Water Heaters**

- Heating and A/C with split system – ducted or ductless
- Heat pump for DHW
- Induction cook tops and clothes driers
- No Combustion
- Eliminate gas line to offset costs

An all electric home reduces the CO₂ footprint by 66% compared to a 2019 compliant home with mixed fuel.

Mini-Split Raised Floor Example

- Great Opportunity for New Construction, Retrofit/Remodels and Additions
- Condenser can be ground or wall mounted
- Locate unit away from clothes dryer vent and other sources of debris



Line Set

Mini-Split Compact Duct or Ductless Options

Compact Duct



Return
Duct

Line Set

Ductless



COUNTY
OF SAN LUIS
OBISPO

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www.slocounty.ca.gov

Consider Placement for HPWH

—Put the tank where the hot water is needed,
recirc pump not an option



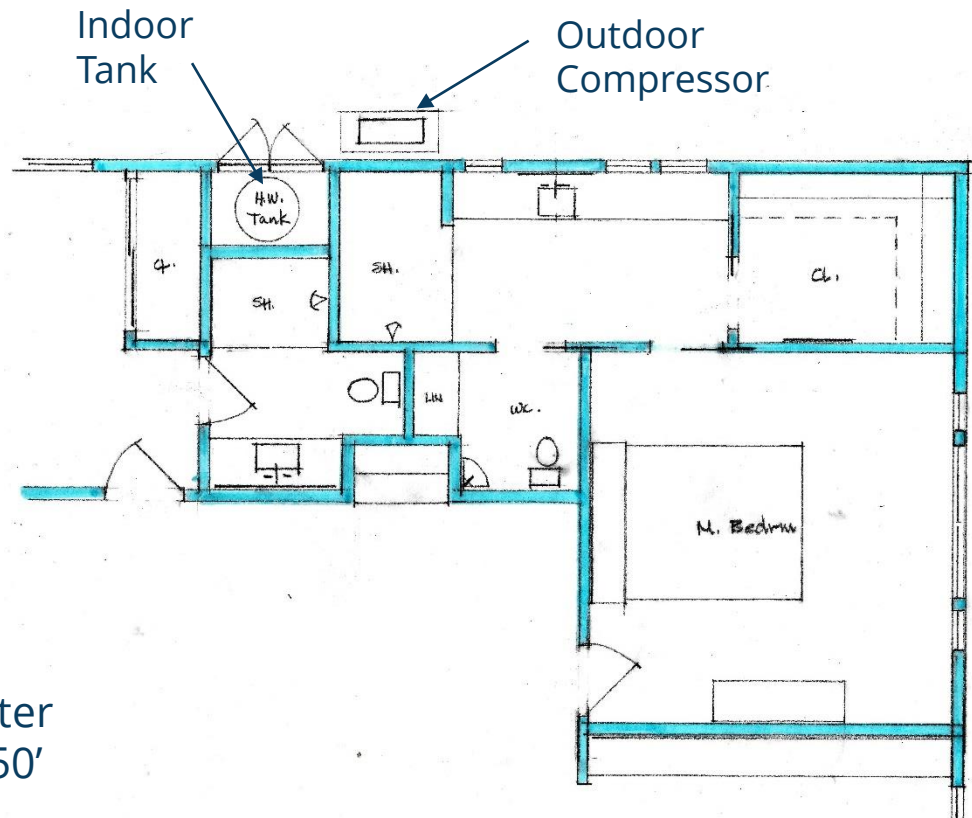
YouTube Hot Water Solutions -AO Smith

HPWH require air flow clearances and condensate drainage



HPWH - Consider Split Systems

-Large volume space not needed, colder exterior operating temps allowable



Condenser Outdoors, Hot Water Indoors. Can separate up to 50'

PV –Prescriptive Requirement, Performance EDR Baseline:

Equation 150.1-C Annual Photovoltaic Electrical Output

$$kW_{PV} = (CFA \times A)/1000 + (N_{dwell} \times B)$$

Where:

kW_{PV} = kW DC size of PV system

CFA = Conditioned Floor Area

A = CFA adjustment factor

N_{dwell} = Number of dwelling units

B = Dwelling adjustment factor

CZ	A	B
4	0.586	1.21
5	0.585	1.06
6	0.594	1.23
9	0.613	1.36

Example: 1,400 SF home CZ 5: $(1400 \times 0.585)/1000 + 1(1.06) = 1.88$ kW system



Prescriptive PV sizing - examples

Single Family Residence

Climate Zone	Reference Location	1200 sq ft Home	2000 sq ft Home
4	Paso Robles	1.9 kW	2.4 kW
5	San Luis Obispo	1.8	2.2
	Santa Maria	1.8	2.2
6	Santa Barbara	1.9	2.4
9	NE Santa Barbara County	2.1	2.6

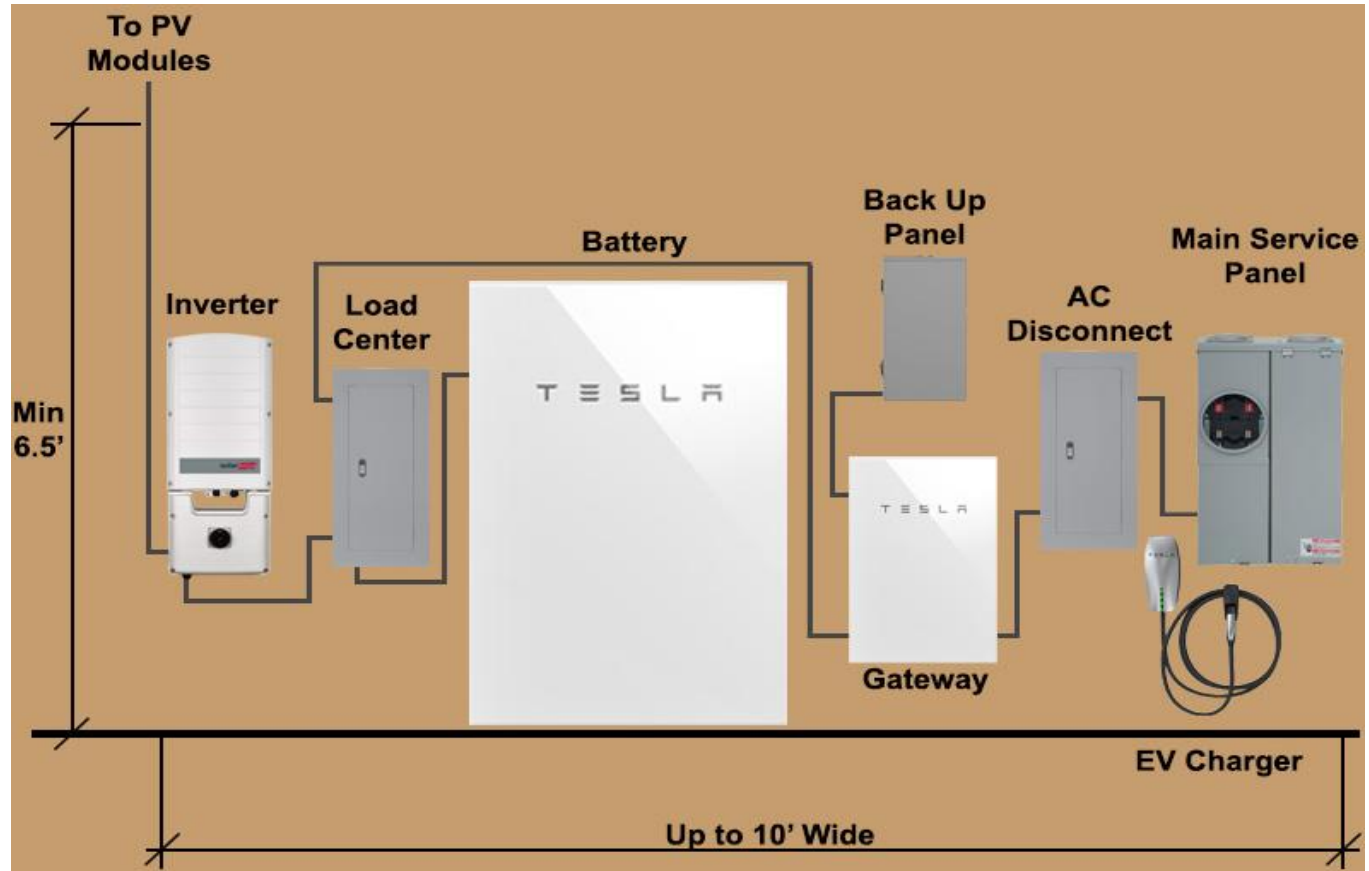


**2 kW DC system: 6 panels (340 W modules 39"x77" ea)
approx. 13' x 10' area needed.**



Batteries Optional Credit Available – Allow 10' long wall area

Future proof design: Designate space for this or similar equipment .

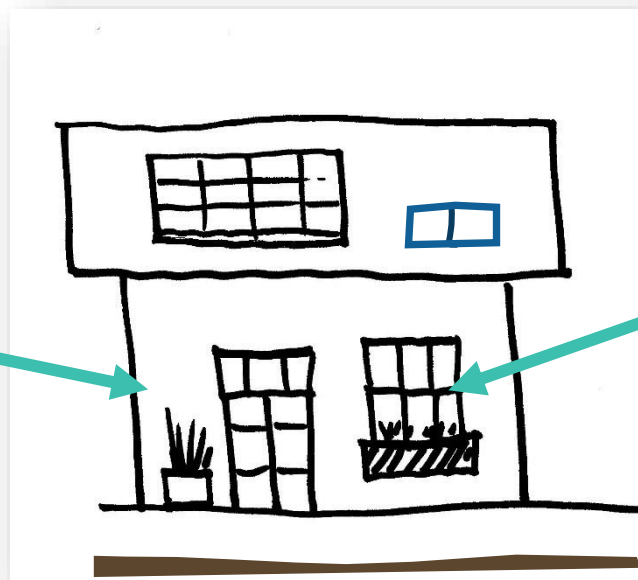


Improved Walls & Windows: Single-Family Prescriptive Requirement, Performance EDR Baseline

Walls:

CZ 1-5, 8-16
 $U \leq 0.048$, e.g.
2x4 R-13 + R-10
2x6 R-21 + R-5
2x6 R-20 + R-6

CZ 6,7
 $U \leq 0.065$, e.g.
2x4 R-13 + R-5
2x6 R-21 + R-2



Windows:

U -factor ≤ 0.30 ,
SHGC ≤ 0.23 ,
except CZ 1,3,5,16

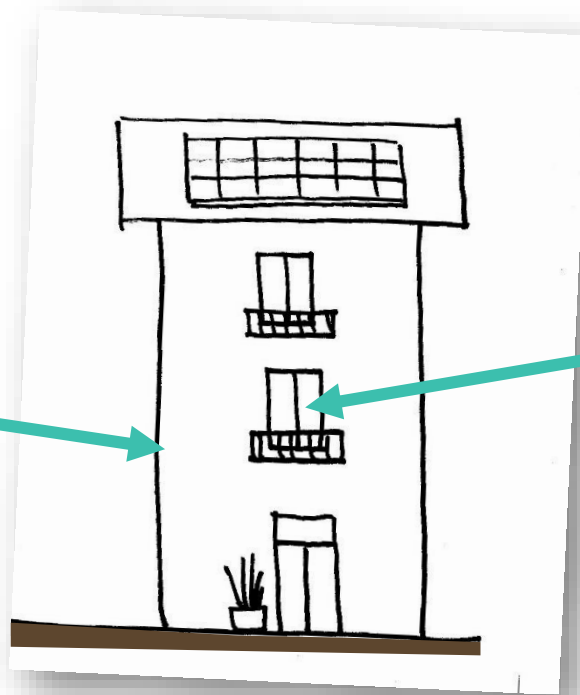
Solid Door:
 U -factor ≤ 0.20

Improved Walls & Windows: Multi-family Prescriptive Requirement, Performance EDR Baseline

Walls:

$U \leq 0.051$, e.g.
2x4 R-15 + R-8
2x6 R-21 + R-4

Except CZ 6-7
 $U \leq 0.065$, e.g.
2x4 R-13 + R-5
2x6 R-21 + R-2



Windows:

U -factor ≤ 0.30 ,
SHGC ≤ 0.23 ,
except CZ 1,3,5,16

Solid Doors:
 U -factor ≤ 0.20

Continuous Insulation (CI) Assemblies

Just say YES!

Table 3-10: Examples of Wood-Framed Wall Assemblies and U-Factors Assuming Gypsum Board Interior

Stud (16" oc)	Cavity Insulation	Cavity Insulation Type	Exterior Insulation	U-Factor
2x4	R15	High density batt	R4	0.065
2x4	R13	Open-cell spray foam (ocSPF)	R5	0.064
2x4	R15	High density batt	R8	0.050
2x6	R21	Loose-fill cellulose or high density batt	R4	0.051
2x6	R19	Low density batt	R5	0.051
2x6	R31	Closed-cell spray foam (ccSPF)	R2	0.049
2x6	R23	High density batt or mineral wool	R4	0.049
2x6	R21	Loose-fill cellulose or high density batt	R5	0.048
2x6	R19	Low density batt	R6	0.048
2x6	R23	High density bat or mineral wool	R5	0.047

← CZ 6,7

← CZ 1-5
CZ 8-16

New Code –CI Required under Prescriptive. Under Performance Method projects will have to find trade-off credit to remove CI.



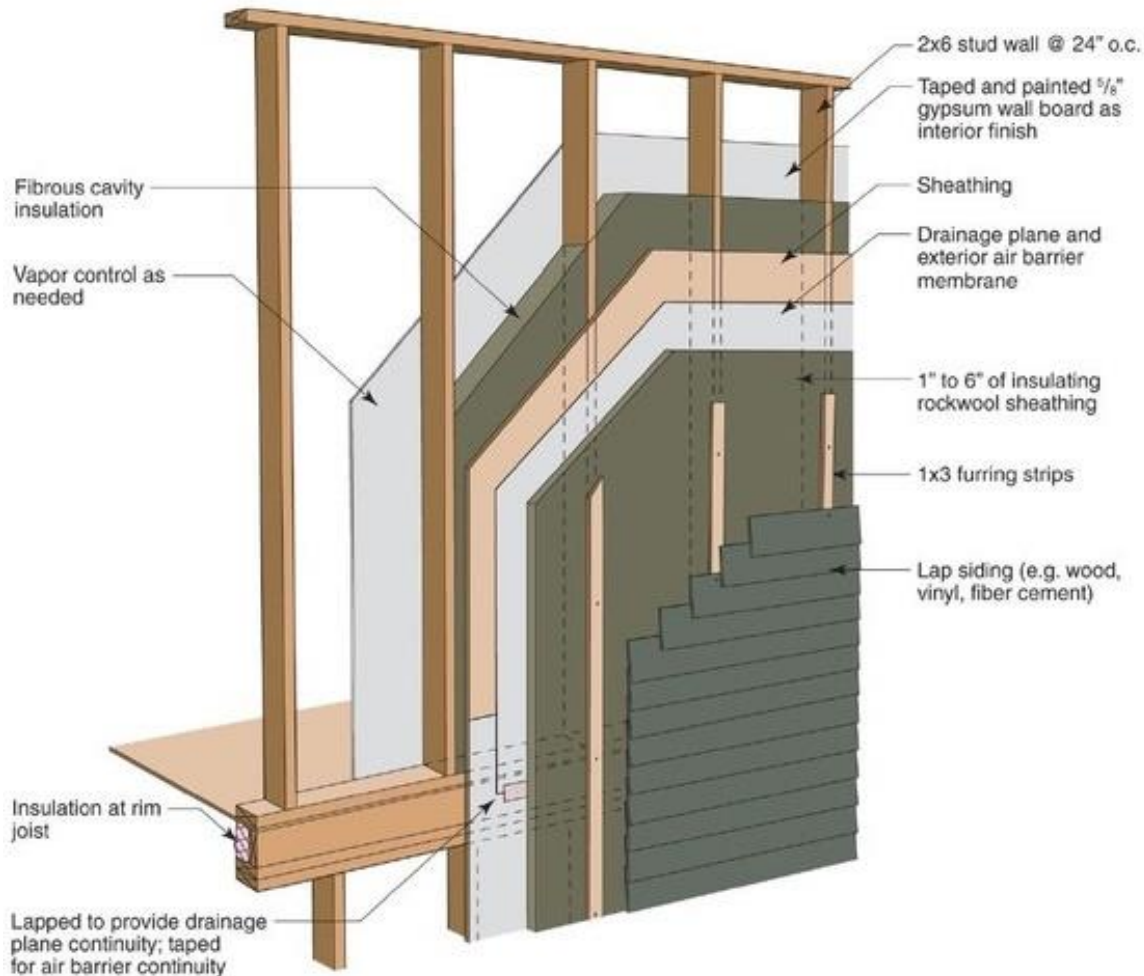
Variety of Products



- **Rigid Insulation**
 - Wood Fiber – Gutex
 - Rockwool – Comfortboard
 - Polyiso, XPS, EPS,
 - GPS (Graphite enhanced)
- **Specialized Fasteners**
- **Rain-Screen/Cladding**
 - Lime Plaster
 - Cement Stucco
 - Wood or Other Siding



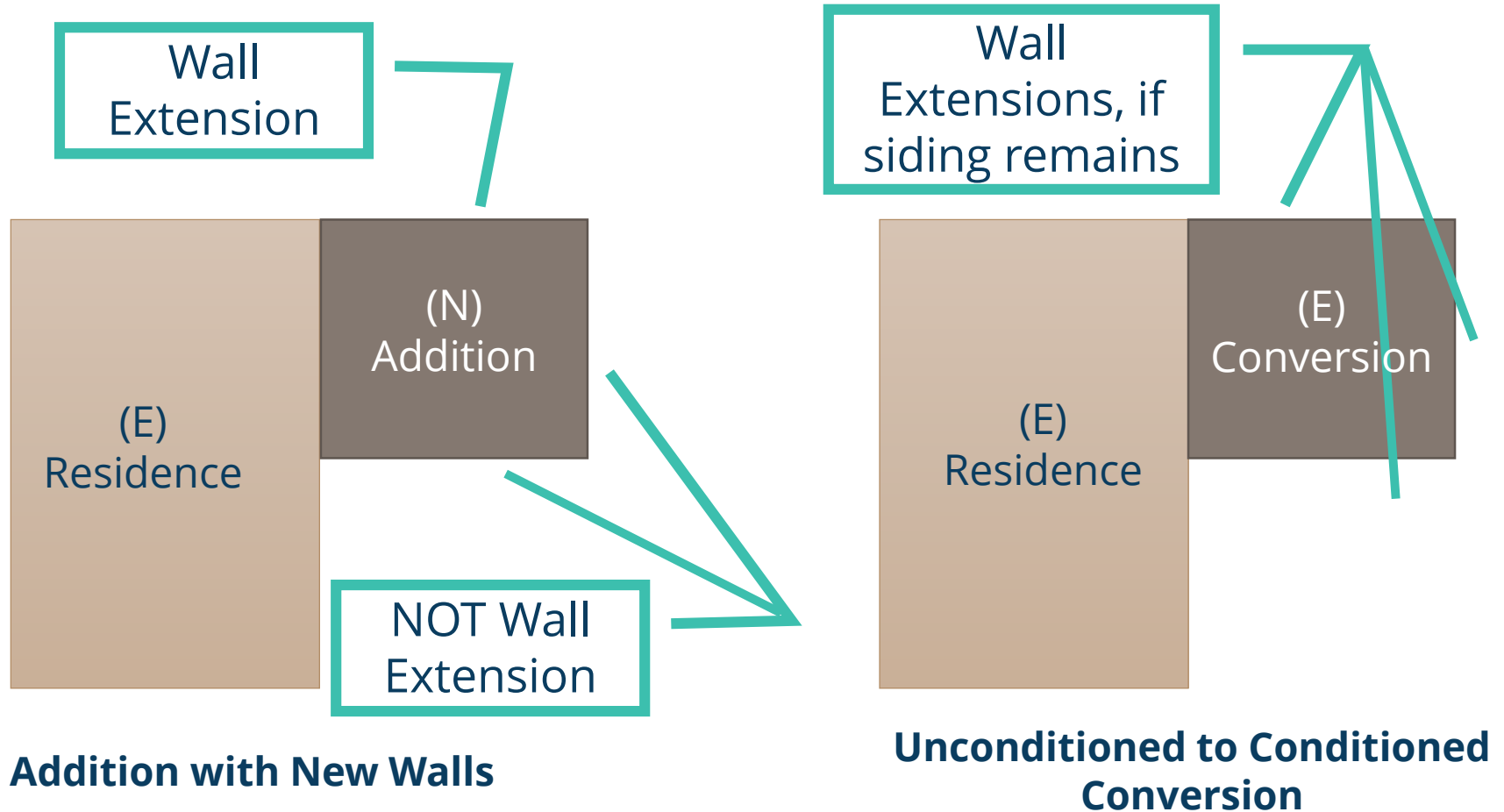
Continuous Insulation (CI) - Example



Ingredients

1. Stud w/ cavity insulation
2. Sheathing
3. Membrane
4. RIGID INSULATION
5. Exterior Finish as Rain Screen

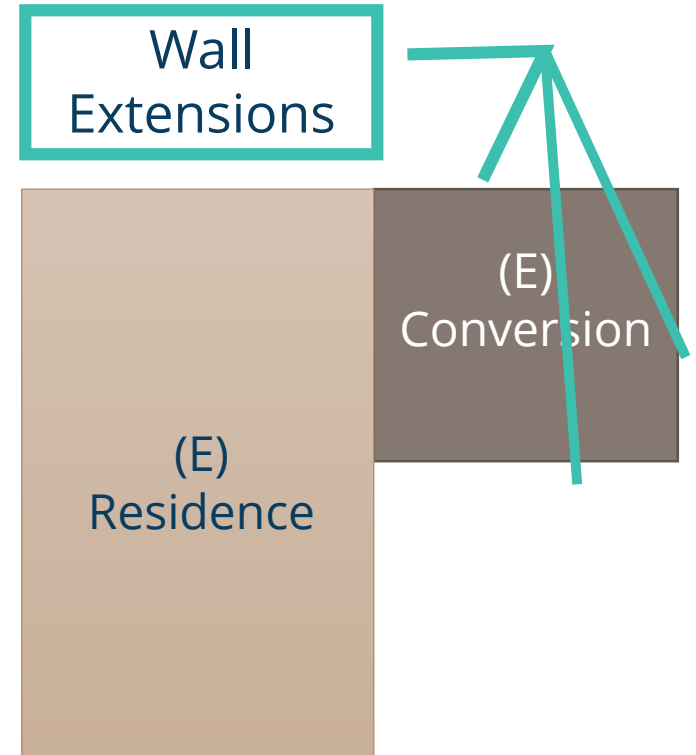
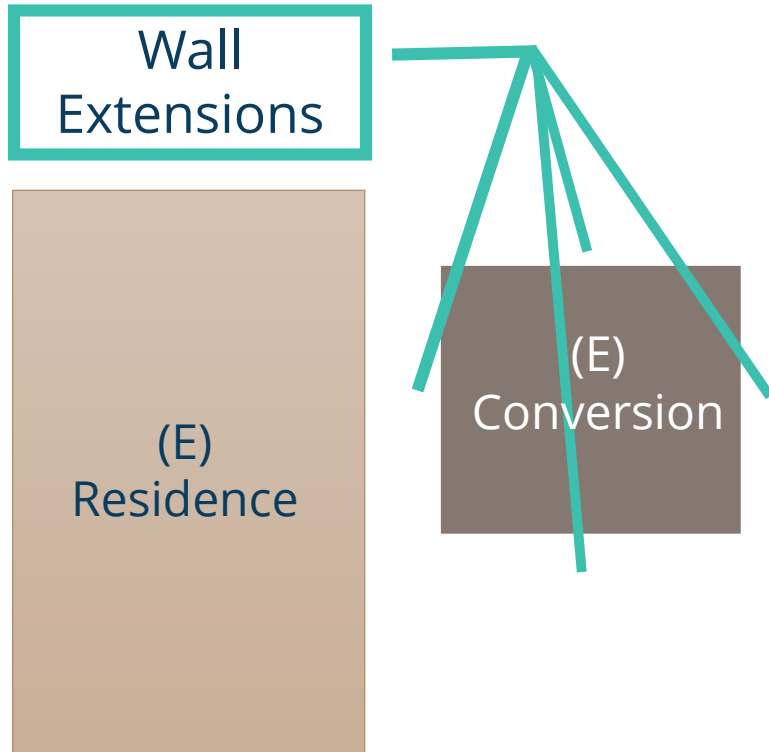
Exception to Prescriptive CI: Additions –Wall Extensions



ADU -Wall Extensions

Converted unconditioned space:

Existing walls are considered Wall Extensions if *siding remains*



QII –High Quality Insulation Installation Prescriptive Requirement, Performance EDR Baseline

- New SF Residential Construction
- New low-rise Multi-Fam except CZ 7
- Additions over 700 sf
- **Includes Air-Sealing**
- Verified HERS Inspection
- Kick-Off and Pre-Construction Meetings
- Multiple HERS Site Visits



No Voids –No Gaps, and
Loft the Batts!



QII is also about:

- Air sealing around windows, doors, and rough openings
- Air sealing wall, top plate penetrations, and chases
- Installing air barrier at tubs, showers, knee walls and skylight wells
- Sealing drywall to top plates and
- Sealing sill plates to foundation/floor

Quality Insulation Installation (QII)
Handbook



For Installers and HERS Raters

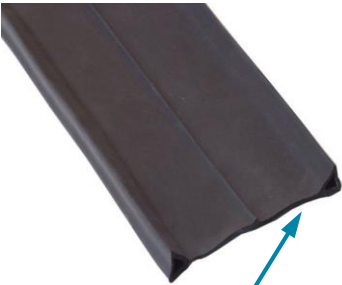
2019 Energy Code

CalCERTS, Inc.
HERS PROVIDER
Version: October 14, 2019

*This is a great resource:
Construction processes mapped
out and many examples with
pictures and diagrams.*



Stop Air Leakage at Sill Plates



Sill gasket



Air Sealing Penetrations; Full Insulation Coverage; Caulking and Sealant Visible



Many small penetrations are easier to seal than one big bundle



Ceiling joists are completely covered



Attention to detail and coordination with subs is necessary.

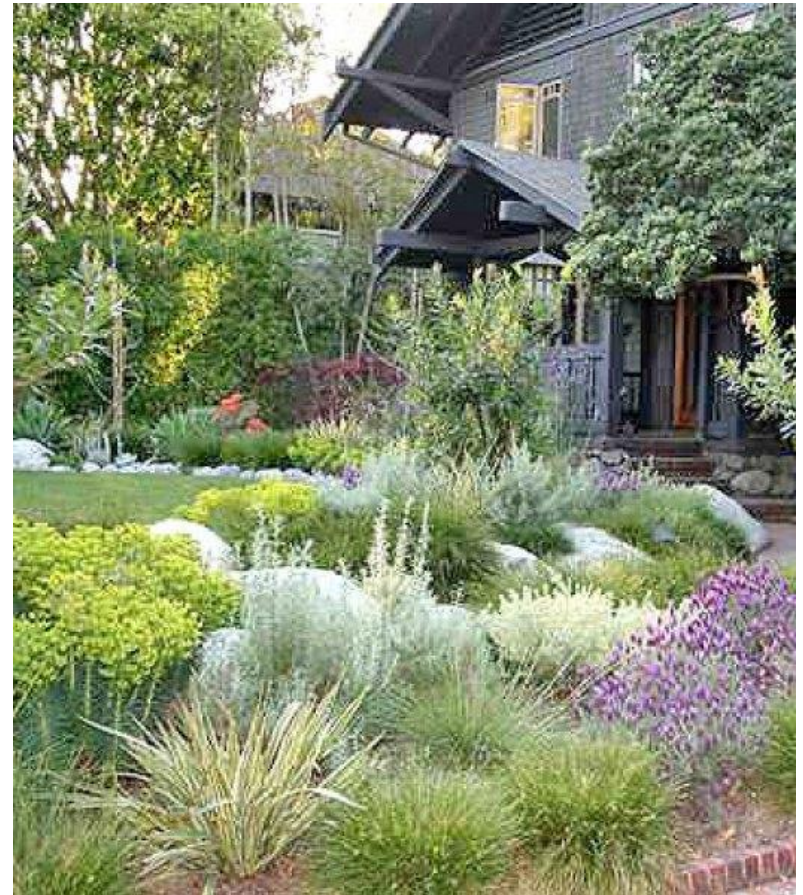


Make your HERS Rater Happy today!



Title 24, Part 11: CAL Green

- Increase number of **Electric Vehicle *CAPABLE*** spaces; charging stations not required
- Reminder: Landscape installed *within the year* is part of the permit and must meet **MWELO**
- **Commissioning** (for projects >10,000 SF) is included in Energy Code *and* CAL Green. Use form **NRCC-CXR-E**



Questions and Discussion

For future training, reach out to 3C-REN



Electrical Code Changes

210.5 C 1 B POSTING OF IDENTIFICATION MEANS

- ...The label shall be of sufficient durability to withstand the environment involved and shall not be hand-written.

210.8 (B) OTHER THAN DWELLING UNITS

- All single-phase receptacles rated 150 volts to ground or less, 50 amps or less and all 3 phase receptacles rated 150 volts or less, 100 amps or less installed in the following locations shall have ground fault circuit interrupter protection for personnel.

(N) 210.8 (E) CRAWL SPACE LIGHTING OUTLETS

- GFCI protection shall be provided for lighting outlets not exceeding 120 volts to ground installed in crawl spaces.

(N) 210.12 (C) GUEST ROOM AND GUEST SUITES

- All 120 volt single phase 15 and 20 amp branch circuits supplying outlets (not just receptacles) and devices installed in guest rooms and guest suites of hotels and motels shall be protected by any means in 210.12(A)(1) (AFCI)



Electrical Code Changes

210.64 ELECTRICAL SERVICE AREAS

- At least one 120 volt single phase 15 or 20 amp rated receptacle outlet shall be installed in an accessible location within 25 feet of the indoor electrical service equipment. The receptacle shall be installed in the same room or area as the service equipment.

(N) 210.71 MEETING ROOMS

- Each meeting room not more than 1000 SF in other than dwelling units shall have 15 or 20 ampere receptacle outlets:

225.20 PROTECTION AGAINST PHYSICAL DAMAGE

- Conductors installed on building, structures *or poles* shall be protected against physical damage as provided in 230.50.

225.27 RACEWAY SEAL

- Where a raceway enters a building or structure from outside it shall be sealed. The sealant shall be identified for use with the cable insulation.



Electrical Code Changes

250.30 (A) (4) GROUNDING ELECTRODE

- The building or structure grounding electrode system shall be used as the grounding electrode for the separately derived system. If located outdoors, the grounding electrode shall be installed in accordance with 250.30(C).
 - Exception: If the separately derived system originates in equipment that is listed and identified as suitable for use as service equipment, the grounding electrode used for the service or feeder equipment shall be permitted to be used as the grounding electrode for the separately derived system.



Electrical Code Changes

(N) 376.20 CONDUCTORS CONNECTED IN PARALLEL

- Where single conductor cables comprising each phase, neutral or grounded conductor of an alternating current system are connected in parallel as permitted by 310.10(H) the conductors shall be installed in groups consisting of not more than one conductor per phase, neutral or grounded conductor to prevent current imbalance due to inductive reactance.

406.9(B)1 WET LOCATIONS

- ...an outlet box hood installed for this purpose shall be identified as “extra duty”.

(N) 422.5 APPLIANCES GFCI PROTECTION FOR PERSONNEL

- Appliances as identified in 422.5(A)(1-5) 250 volt to ground or less and 60 ampere or less single or 3 phase shall be provided with GFCI protection for personnel.



Electrical Code Changes

(N) 440.9 GROUNDING AND BONDING

- Where equipment is installed on a roof, an equipment grounding conductor of the wire type shall be installed inside the conduit where non-threaded fittings are used.

(N) 680.74 BONDING HYDROMASSAGE TUBS

705.22(5) DISCONNECT DEVICES

- Where the line and load terminals are capable of being energized in the open position the disconnecting means shall be marked in accordance with the warning in 690.13(B).



Mechanical Code Changes

Chapter 3- New clearance requirements for solid-fuel burning appliances, ducts serving Type I hood exhaust system, and product conveying ducts

Chapter 5- New provisions for Type I and Type II exhaust systems and product conveying ducts

Chapter 6- New sizing provisions for duct systems; duct leakage testing requirements; installations and closure requirements for flexible air ducts; and new provisions for air dispersion systems

Chapter 9- New requirements for pressure regulators and electric furnaces



Mechanical Code Changes

Chapter 11- New refrigerant system requirements, such as A2L and B2L low flammability refrigerants; machinery room requirements such as access, openings, detectors, and ventilation systems; and new pressure limiting-device provisions for compressors

Chapter 12- new pressure testing requirements for piping and components, expansion tanks, and materials for hydronic systems

Chapter 13- New requirements for piping material, overpressure protection, and gas piping installation for fuel gas piping systems

Merv Filters



Plumbing Code Changes

CPC Chapter 3- New sound transmission provisions for plumbing piping systems

CPC-Chapter 4- New product standards for such plumbing fixtures as wall hung fixtures, waste fittings, lavatories, showers, bathtubs and whirlpool bathtubs, flushometer valves, sinks, and eyewash stations; and signage for single use toilet facilities - ASME A112.6.1

CPC- 507.27 and 509.6- New provisions for connector capacities for elbows in connectors and clearance of appliances and their connectors to combustible materials

CPC 604.10.1- Tracer wire shall be electrically continuous, corrosion resistant and blue



Plumbing Code Changes

CPC 609.4- PEX, PP or PE-RT tubing shall be permitted to be tested with air where permitted by the manufacturer

CPC- Chapter 6- New backflow protection provisions for chemical dispensers; new material provisions for pipes, tubes, fittings and joint methods for water supply and distribution; and new pressure testing for the hot and cold-water supply system

CPC 1007.2- New provisions for trap seal primers for potable water supply ASSE 1018



County Special Programs

OWTS/LAMP

Stormwater

Structural Observation/Special Inspection

Energy Compliance Program



ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

Wastewater Updates

- All minor and major repairs require an in-person permit.
- An engineered system or engineered analysis must be completed by a civil engineer if a new system or replacement leachfield is being utilized



OWTS

Wastewater Consistency

- No part of an OWTS dispersal area can go under anything impermeable or can be compacted.
- Individual systems shall be designed and constructed to either reserve 100% replacement area, or to include dual leach fields with a diverter valve.



Local Agency Management Program (LAMP)

LAMP

- Tentative adoption May 2020
- Changes you may notice:
 - Dispersal Area Calculations
 - Gravel Packed Seepage Pits
 - Exploratory Boring
 - Nonconventional OWTS Permitting
 - Non-Residential Systems
 - Accessory Dwelling Units



LAMP

Dispersal Area Calculations

- We will continue to utilize RWQCB OWTS Policy
- 75gpd per additional bedroom



LAMP

Gravel Packed Seepage Pits will be allowed:

Only where previously permitted

Or

Site does not meet requirements for a conventional OWTS.

And

Must be Equipped with a supplemental treatment system.



LAMP

Nonconventional OWTS (NOWTS) will be approved on a case by case bases at the discretion of the County.

- Must be NSF/ANSI 245 certified (nitrogen) or be NSF/ANSI 46 certified (bacteria)
- Must have an operating permit issued by County P&B and required prior to final inspection



LAMP

Accessory Dwelling Units and OWTS

- 1 acre minimum with public water service
- 2.5 acres minimum with domestic well

Dwelling Size	OWTS Requirements
0 - 799 ft ²	May use or modify existing OWTS to meet additional demand.
800 -1,200 ft ²	Must utilize a new OWTS with distinct reserve area.



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<https://www.slocounty.ca.gov/Departments/Planning-Building/Building/Onsite-Wastewater-Treatment-Systems.aspx>



COUNTY OF SAN LUIS OBISPO

www.slocounty.ca.gov

Stormwater

Plan Review Process

- Grading Plans
- Drainage Plans
- Erosion Sediment Control Plans

Field Requirements

- Final Inspection



Stormwater

Plan Review Process – Grading Plans

- Must accurately depict proposed area of disturbance.
- Projects with area of disturbance greater than 1 acre are required to enroll in Construction General Permit (Regional Water Quality Control Board)
- Area of disturbance includes, but not limited to the following:
 - All Grading
 - Demolition Area
 - Septic Area
 - Utility Trenches
 - Driveway Improvements
 - Material Storage
 - Construction Entrance/Parking
 - Landscaping Area
 - Public Improvements



Stormwater

Drainage Plans

- Must depict the final drainage solution, including the final discharge location
- Low Impact Development (LID) to mimic pre-development drainage patterns (i.e., allowing stormwater treatment, retention, and infiltration onsite) to allow storage and infiltration onsite
- LID may be required for projects within MS4 area



Stormwater

Erosion Sediment Control Plans

- Must accurately depict Best Management Practices (BMPs)
 - Perimeter and slope protection
 - Construction entrance/staging areas
 - Plans for site stabilization/revegetation
- Include the actual BMP CASQA/Caltrans details as notes in ESC Plans. This helps contractors and inspectors in the field verify construction
- Evidence of enrollment (if required) must be provided prior to permit issuance and included on plans
 - SWPPP NOI or SWPPP Waiver
 - WDID number, QSD/QSP, contact information
 - SLO County required to enforce enrollment in applicable state permits



Stormwater

Field Requirements

- Approved ESC Plan must be implemented in the field all year
- BMPs must be installed prior to first inspection
 - Other building inspections may be suspended if BMPs are not installed and maintained
- BMPs must be maintained
- New types of BMPs may be needed depending on site performance



Stormwater

Cover/Protect Soils (Erosion Control)



Erosion Control blankets to cover soil



Straw placed to cover soil

Stormwater

Cover/Protect Soils (Erosion Control)



Erosion Control blankets to cover soil



Hydroseed application to cover soil

Stormwater

Contain/Hold Sediment Onsite (Sediment Control)



**Sediment Control perimeter protection
(Straw Wattles)**



Sediment Control (Straw Wattles)

Stormwater

Contain/Hold Sediment Onsite (Sediment Control)



Sediment Control perimeter protection (Silt Fence)

Stormwater

Final Inspection

- BMPs must be maintained and disposed of when no longer effective or needed
- Final stabilization/vegetation coverage required at final inspection
- Permanent BMPs should not include plastic materials that will require removal at final inspection



Stormwater

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Special Inspection

The “**Special Inspection Program**” document explains the entire process with expectations for all parties as well as references to the associated required forms.

BLD-1031- “Statement Of Special Inspection Agreement” is a required form that is received at application.

BLD-1032- “Statement Of Required Special Inspections” is the list of required and specific special inspections.

BLD-1033- “Special Inspection Daily Report” is a courtesy form; the special inspector may use their own form.

BLD-1034- “Special Inspection Discrepancy Notice” is a courtesy form ; the special inspector or agency may use their own form.

BLD-1035- “Special Inspection Final Report” is a courtesy form; The special inspector or agency may use their own form



Structural Observation

Structural Observation is the visual observation of the structural system by a registered engineer or licensed architect for general conformance to the approved construction documents

Structural Observation Schedule lists the stages of construction that the Structural Observer has identified as significant and that require site structural observation

Structural Observer of Record (SOR) is the registered engineer or licensed architect of record responsible for the structural design who will perform the site's structural observation as required

Designated Structural Observer (DSO) is a registered engineer or licensed architect designated by the engineer or architect of record to perform the structural observation



Structural Observation

Documenting Structural Observation requirement

- The SOR must be a person or firm registered in the state of California to practice engineering or architecture.
- The SOR must have direct contractual relationship with the owner, or owner's representative, to provide the structural observation service.
- The SOR must either be the EOR/AOR for the structural design, and may designate another engineer or architect to be the DSO.



Structural Observation

Execution Of Structural Observation

- **Pre-construction Meeting** The owner shall arrange a preconstruction meeting with the engineer/architect responsible for structural design, the DSO (if applicable) the contractor, special inspectors, and the building inspector.
- **Performing Structural Observations and Submission of Reports** The SOR or DSO shall perform structural observation and shall complete the “Structural Observation Report” form (BLD-1037).
- **Inspection by Building Inspector** -To obtain County approval at foundation, framing, and final inspection stages, a Structural Observation Report (BLD-1037) is provided to the inspector.

Structural observation does not include or waive the responsibility of the inspections required by County Planning & Building.



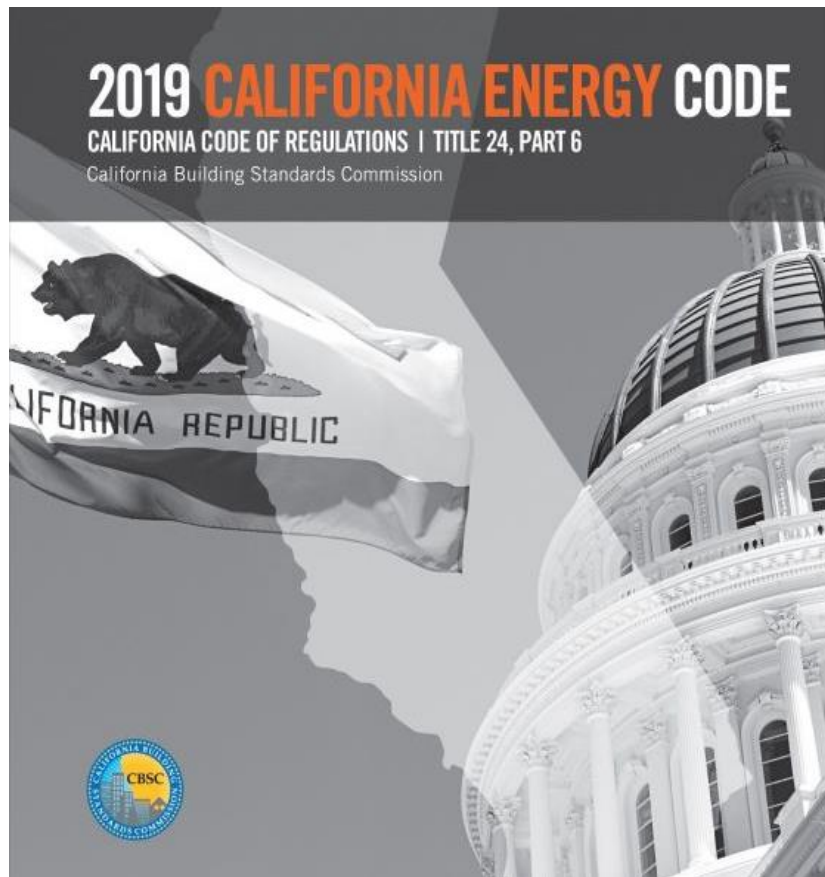
Energy Compliance Program



- **WHO:** Public and Private Sector Building Professionals
- **WHAT:** A program to support comprehension, compliance, and enforcement of the Energy Code for Residential and Nonresidential projects within the County of SLO

Energy Compliance Program

- **WHY:** To help building professionals navigate the Energy Code and achieve compliance
- **HOW:** By providing easy-to-use checklists for inclusion with submittals
- **WHEN:** January 1, 2020



Accessory Dwelling Units

ADU Ordinance Amendment - Phase II

- September 12, 2019: Planning Commission recommended approval of Inland and Coastal Land Use Ordinance Amendments
- January 28, 2020: Board of Supervisors Public Hearing
 - Inland – If approved, amendments will go into effect after 30 days
 - Coastal – Action anticipated to be taken in March 2020

SB 13, AB 68, and AB 881 were signed by the Governor in October 2019

- State ADU law will be incorporated into Phase II
- County will implement State ADU law starting January 1, 2020



Appendix Q – Tiny Houses

Less than 400 sq. ft.

Lofts are permitted, may be accessed by ladder

Must have a permanent foundation- not on wheels

Egress Roof Access Window



Questions

