

ORDINANCE NO. 05 – 2026

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAUSALITO AMENDING SAUSALITO MUNICIPAL CODE SECTION 8.02.070 TO ADOPT ENERGY REACH CODE REQUIREMENTS FOR SINGLE FAMILY BUILDING REMODELS; AMENDING SAUSALITO MUNICIPAL CODE SECTION 8.02.120 TO ADOPT CALGREEN TIER 1 VOLUNTARY MEASURES, AND ENACTING SAUSALITO MUNICIPAL CODE CHAPTER 8.04 (LOW CARBON CONCRETE STANDARDS)

WHEREAS, pursuant to the City’s police power under Article XI Section § 7 of the California Constitution, the City Council of the City of Sausalito has the authority to enact and enforce ordinances and regulations for the public peace, morals, and welfare of the City and its residents; and

WHEREAS, pursuant to Health and Safety Code section 17960, the building department of every city or county shall enforce within its jurisdiction all the provisions published in the State Building Standards Code, the provisions of this part, and the other rules and regulations promulgated pursuant to the provisions of this part pertaining to the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition, or arrangement of apartment houses, hotels, or dwellings; and

WHEREAS, new versions of the California Building Standards Code (Title 24, California Code of Regulations) are approved by the California Building Standards Commission (“Commission”) every three years, and by operation of state law, under Health & Safety Code sections 17958 and 18938, these new building codes go into effect in every jurisdiction in California 180 days after adoption by the Commission; and

WHEREAS, Health and Safety Code Section 17958.7 provides that a local agency may make changes to the California Building Standards Code so long as the local government can make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological, or topographical conditions; and

WHEREAS, Section 17958.7 also provides that changes to the California Building Standards Code must be filed with the California Building Standards Commission (“Commission”) following adoption; and

WHEREAS, the Public Resources Code Section 25402.1(h)(2) states that a local enforcement agency may adopt more restrictive energy standards when they are cost-effective and approved by the California Energy Commission; and

WHEREAS, pursuant to AB 130 (2025), the City is further limited in adoption of local amendments unless one of the listed conditions in Health and Safety Code section 17958.7(c) authorizing adoption of local amendments is met, and that any changes affecting residential units are only authorized if at least one of the following conditions is met: (1) the change is substantially equivalent to a change previously filed by the city/county and was in effect as of Sept. 30, 2025; (2) the Commission deems the change necessary as an emergency standard to protect health and safety; (3) the change relates to home hardening; (4) the change is necessary to implement a local code amendment that is adopted to align with a general plan approved on or before June 10, 2025, and that permits mixed-fuel (i.e., electric and natural gas, etc.) residential construction consistent with federal law while also incentivizing all-electric construction as part of an adopted greenhouse gas emissions reduction strategy; or (5) the change is related to administrative practices, is proposed for adoption

during the time between building code updates, and relates to alterations to fee schedule, reductions in time for permitting or costs of operation, modernization of permitting platforms and software, or programs of enforcement of building code violations; and

WHEREAS, the City Council finds that the changes in this ordinance are reasonably necessary because of local climatic, geological, and topographical conditions, are cost-effective in the manner required by the Public Resources Code, and further finds that such changes affecting residential units are authorized under Health and Safety Code 17958.7(c)(5), in the Tier 1 CALGreen Voluntary Measures are being undertaken as a “local code amendment that is adopted to align with a general plan approved on or before June 10, 2025, and that permits mixed-fuel residential construction consistent with federal law while also incentivizing all-electric construction as part of an adopted greenhouse gas emissions reduction strategy”, as further detailed in this ordinance; and

WHEREAS, nothing in this ordinance is intended to amend or conflict with any provisions of the National Appliance Energy Conservation Act of 1975 or to impose requirements to use or install any particular appliance or appliance system;

NOW, THEREFORE, the City Council of the City of Sausalito does ordain as follows:

SECTION 1. Enactment of Energy Reach Code Requirements for Single Family Building Remodels. Sausalito Municipal Code 8.02.070 (Local Amendments to California Energy Code) is amended to read in entirety as follows:

8.02.070 Local Amendments to California Energy Code.

The 2025 California Energy Code, as published by the California Building Standards Commission in the California Code of Regulations, Title 24, Part 6, adopted by reference, is hereby amended as follows:

Section 100.0 – SCOPE – of Subchapter 1 – ALL OCCUPANCIES–GENERAL PROVISIONS – of the 2025 California Energy Code is amended to add a new subsection (i) as follows:

- (i) Single-Family Building Remodel Energy Reach Code. In addition to all requirements of the California Energy Code applicable to Existing Single-Family Building additions and alterations, the energy efficiency, renewable energy, and electric readiness measures specified in Section 150.0(w) shall be required for Covered Projects.

Section 100.1(b) – Definitions – of Subchapter 1 of the 2025 California Energy Code is amended by adding the following definition:

“Covered Project(s)” means additions or alterations, as described below, to a single family residential building originally permitted for construction on or before December 31, 2010, which equal or exceed 500 square feet of interior conditioned space. Any addition or alteration to the same structure in the preceding 36 months shall be counted towards the 500 square feet threshold, except those additions or alterations made prior to the initial adoption of this ordinance. When any changes are made in the building, such as walls, columns, beams or girders, floor or ceiling joists and coverings (subfloor and drywall), roof rafters, roof diaphragms, foundations, piles or retaining walls or similar components, the floor area of all rooms affected by such changes shall be included in computing floor areas for the purpose of applying this definition.

This definition does not apply to project scopes that are solely limited to any of the following: the replacement and upgrading of residential roof coverings, exterior wall finishes and/or floor finishes; alterations that add no more than 75 square feet of fenestration; alterations that add no more than 16 square feet of skylight area with a maximum U-factor of 0.55 and a maximum SHGC of 0.30; or alterations that are limited to providing access for persons with disabilities. A Covered Project shall not include a project that is considered to be a newly constructed building under the California Energy Code, Title 24, Part 6. The final determination of whether a project meets the definition of a Covered Project shall be made by the Building Official or designee.

The first two paragraphs of Section 150.0 of Subchapter 7 – SINGLE-FAMILY RESIDENTIAL BUILDINGS - MANDATORY FEATURES AND DEVICES – are amended to read as follows:

Single-family residential buildings shall comply with the applicable requirements of Sections 150(a) through 150.0(w).

NOTE: The requirements of Sections 150.0(a) through 150.0(v) apply to newly constructed buildings. Sections 150.2(a) and 150.2(b) specify which requirements of Sections 150.0(a) through 150.0(v) also apply to additions or alterations. In addition, Covered Projects shall also be required to comply with Section 150.0(w).

Section (w) is added to Section 150.0 as follows:

(w) A Covered Project shall install a set of measures based on building vintage from the Measure Menu in Table 1B to achieve a total Measure Point Score that is equal to or greater than the Target Score in Table 1A. In addition, all mandatory measures listed in Table 1B shall be installed. Installed measures shall meet the specifications in Table 2, List of Measure Specifications.

Building vintage is the year in which the original construction permit for the building was submitted, as documented by building department records, or the permit issue date of an addition or alteration that satisfied the Performance Standards (California Energy Code, Title 24, Part 6, Section 150.1(b)) that were in effect at that time, whichever is later.

Exceptions to 150.0(w):

- (i) If a project is limited solely to a newly created attached Accessory Dwelling Units (ADUs) or Junior Accessory Dwelling Unit (JADU) as defined in the Sausalito Municipal Code, the project shall be exempt from complying with this Section. A newly created ADU and JADU shall include either additions or conversions of existing space. This exception DOES NOT apply to a Covered Project of an existing ADU or JADU.
- (ii) If a project occurs in a Mobile Home, Manufactured Housing, or Factory-built Housing as defined in Division 13 of the California Health and Safety 12 Code (commencing with section 17000 of the Health and Safety Code), the project shall be exempt from complying with this Section.
- (iii) If, due to conditions specific to the project, it is technically or economically infeasible to achieve compliance, the Building Official may reduce the Target Score and/or waive some or all the mandatory requirements.

- (iv) If the applicant demonstrates, using Commission-certified compliance software as specified by Section 10-109(c) and Section 10-116, that the Energy Budget of the Proposed Building Design would be less than or equal to the Energy Budget of the building under the project if it included any set of measures that would achieve compliance under this Section, the project shall be exempt from complying with this Section. (v) If the applicant resides in the dwelling unit and demonstrates that they qualify for the California Alternative Rates for Energy (CARE), or Family Electric Rate Assistance (FERA) program, or if the applicant is the owner of the dwelling unit which is occupied by a dependent who demonstrates that they qualify for the California Alternative Rates for Energy (CARE), or Family Electric Rate Assistance (FERA) program, the project may comply by installing, to the specifications in Table 2, the following measures:
- (a) E1: Lighting Measures; and
 - (b) E2: Water Heating Package

Table 1A: Target Score

Target Score	Pre-1978	1978-1991
	8	7

Table 1B: Measure Menu

ID	Measure	Pre-1978	1978-1991
E1	Lighting Measures		
E2	Water Heating Package	2	2
E3	Air Sealing	2	1
E4	R-38 Attic Insulation	4	2
E5	Duct Sealing	3	2
E6	New Ducts + Ducts Sealing	6	4
E7	Windows	4	3
E8	R-15 Wall Insulation	5	-
E10	R-19/R-30 Raised Floor Insulation	9/10	9/10
FS1	Heat Pump Water Heater (HPWH) Replacing Gas	12	12
FS2	High Efficiency Heat Pump Water Heater Replacing Gas	13	13
FS3	Heat Pump Water Heater (HPWH) Replacing Electric	5	5
FS4	High Efficiency HPWH Replacing Electric	6	6
FS5	Heat Pump Space Heater	18	13
FS6	High Efficiency Pump Space Heater	19	14
FS8	Heat Pump Clothes Dryer	1	1
FS9	Induction Cooktop	1	1

PV1	Solar PV + EV Ready Pre-Wire	13	13
ER1	Electric Readiness – Service Upgrade		
ER2	Electric Readiness – End Uses		

The following conditions also apply to Table 1B:

1. Unless otherwise specified, the requirements shall apply to the entire dwelling unit, not just the additional or altered portion.
2. Measures from the Measure Menu in Table 1B and specified in Table 2, that already exist in the home, may be counted towards compliance with these requirements, unless otherwise specified in Table 2.
3. Measures from the Measure Menu in Table 1B that are to be installed to satisfy requirements under the State Energy Code, Title 24, Part 6, may not be counted towards compliance with these requirements. Where these requirements conflict with other Energy Code requirements, the stricter requirements shall prevail.

Table 2: List of Measure Specifications

ID	Measure Specification
Energy Measures	
E1	<u>Lighting Measures</u> : Install lighting with an efficiency of 45 lumens per watt or greater in all interior and exterior screw-in fixtures. Install photocell, occupancy sensor or energy management system controls that meet the requirements of 150.0(k)3 in all outdoor lighting permanently mounted to a residential building or to other buildings on the same lot
E2	<u>Water Heating Package</u> : Insulate all accessible hot water pipes with pipe insulation a minimum of ¾ inch thick. This includes insulating the supply pipe leaving the water heater, piping to faucets underneath sinks, and accessible pipes in attic spaces or crawlspaces. Upgrade fittings in sinks and showers to meet current California Green Building Standards Code (Title 24, Part 11) Section 4.303 water efficiency requirements. Exception: Upgraded fixtures are not required if existing fixtures have rated or measured flow rates of no more than ten percent greater than 2025 California Green Building Standards Code (Title 24, Part 11) Section 4.303 water efficiency requirements.
E3	<u>Air Sealing</u> : Seal all accessible cracks, holes, and gaps in the building envelope at walls, floors, and ceilings. Pay special attention to penetrations including plumbing, electrical, and mechanical vents, recessed can light luminaires, and windows. Weather-strip doors if not already present. Verification shall be conducted following a prescriptive checklist that outlines which building aspects need to be addressed by the permit applicant and verified by an inspector. Compliance can also be demonstrated with blower door testing conducted by a certified ECC Rater no more than three years prior to the permit application date that either: a) shows at least a 30 percent reduction from pre-retrofit conditions; or b) shows that the number of air changes per hour at 50 Pascals pressure difference (ACH50) does not exceed ten for Pre-1978 vintage buildings, seven for 1978 to 1991 vintage buildings. If

	combustion appliances are located within the pressure boundary of the building, conduct a combustion safety test by a certified ECC Rater or a professional certified by the Building Performance Institute, in accordance with the BPI Technical Standards for the Building Analyst Professional.
E4	<u>R-38 Attic Insulation</u>: Attic insulation shall be installed to achieve a weighted assembly U-factor of 0.025 or insulation installed at the ceiling level shall have a thermal resistance of R-38 or greater for the insulation alone. Recessed downlight luminaires in the ceiling shall be covered with insulation to the same depth as the rest of the ceiling. Luminaires not rated for insulation contact must be replaced or fitted with a fire-proof cover that allows for insulation to be installed directly over the cover. Exception: In buildings where existing R-30 is present and existing recessed downlight luminaires are not rated for insulation contact, insulation is not required to be installed over the luminaires.
E5	<u>Duct Sealing</u>: Air seal all space conditioning ductwork to meet the requirements of 2025 Title 24, Part 6, Section 150.2(b)1E. The duct system must be tested by an ECC Rater no more than three years prior to the Covered Project permit application date to verify the duct sealing and confirm that the requirements have been met. This measure may not be combined with the New Ducts and Duct Sealing measure in this Table. Exception: Buildings without ductwork or where the ducts are in conditioned space.
E6	<u>New Ducts + Duct Sealing</u>: Replace existing space conditioning ductwork with new R-6 ducts that meet the requirements of 2025 Title 24 Section 150.0(m)11. This measure may not be combined with the Duct Sealing measure in this Table. To qualify, a preexisting measure must have been installed no more than three years before the Covered Project permit application date.
E7	<u>Windows</u>: Replace at least 50% of existing windows with high performance windows with an area-weighted average U-factor no greater than 0.27.
E8	<u>R-15 Wall Insulation</u>: Install wall insulation in all exterior walls to achieve a weighted U-factor of 0.095 or install wall insulation in all exterior wall cavities that shall result in an installed thermal resistance of R-15 or greater for the insulation alone.
E10	<u>R-19/R-30 Floor Insulation</u>: Raised-floors shall be insulated such that the floor assembly has an assembly U-factor equal to or less than U-0.037/U0.028, or shall be insulated between wood framing with insulation having an R-value equal to or greater than R-19/R-30.
Fuel Substitution Measures	
FS1	<u>Heat Pump Water Heater (HPWH) Replacing Gas</u>: Replace existing natural gas water heater with a heat pump water heater that meets the requirements of Sections 110.3 and 150.2(b)1.H.iii.b.
FS2	<u>High Efficiency Heat Pump Water Heater (HPWH) Replacing Gas</u>: Replace existing natural gas water heater with a heat pump water heater with a Northwest Energy Efficiency Alliance (NEEA) Tier 3 or higher rating that also meets the requirements of Sections 110.3 and 150.2(b)1.H.iii.c.
FS3	<u>Heat Pump Water Heater (HPWH) Replacing Electric</u>: Replace existing electric resistance water heater with a heat pump water heater that meets the requirements of Sections 110.3 and 150.2(b)1.H.iii.b.

FS4	<u>High Efficiency Heat Pump Water Heater (HPWH) Replacing Electric</u> : Replace existing electric resistance water heater with heat pump water heater with a Northwest Energy Efficiency Alliance (NEEA) Tier 3 or higher rating that also meets the requirements of Sections 110.3, and 150.2(b)1.H.iii.c.
FS5	<u>Heat Pump Space Heater</u> : Replace all existing gas and electric resistance primary space heating systems with an electric-only heat pump system that meets the requirements of Sections 110.3, 150.2(b)1.C, 150.2(b)1.E, 150.2(b)1.F, and 150.2(b)1.G.
FS6	<u>High Efficiency Heat Pump Space Heater</u> : Replace all existing gas and electric resistance primary space heating systems with a system that meets the requirements of Sections 110.3 and 150.2(b)1.C, 150.2(b)1.E, 150.2(b)1.F, and 150.2(b)1.G and one of the following: (i) A ducted electric-only heat pump system with a SEER2 rating of 16.5 or greater, an EER2 rating of 12.48 or greater and an HSPF2 rating of 9.5 or greater; or (ii) B. A ductless mini-split heat pump system with a SEER2 rating of 14.3 or greater, an EER2 rating of 11.7 or greater and an HSPF2 rating of 7.5 or greater
FS8	<u>Heat Pump Clothes Dryer</u> : Replace all existing gas and electric resistance clothes dryers with heat pump dryers with no resistance element and cap the gas line(s).
FS9	<u>Induction Cooktop</u> : Replace all existing gas and electric resistance stove tops with inductive stove top(s) and cap the gas line(s).
Solar PV and Electric Readiness Measures	
PV1	<u>Solar PV+ Electric Ready Pre-Wire</u> : For New Solar PV Systems: Install a new solar PV system that meets the requirements of Section 150.1(c)14. In addition, upgrade the panelboard to meet the requirements of ER1 and install any two of the other measures from ER2.A - ER2.F. For Existing PV Systems: If the home already has an existing solar PV system that meets the requirements of Section 150.1(c)14, to claim credit for this measure, PV1, upgrade the panelboard to meet the requirements of ER1 and install any two of the other measures from ER2.A - ER2.F.
ER1	<u>Electric Readiness - Service Upgrade</u> : Upgrade the panelboard serving the individual dwelling unit to provide circuit breaker spaces for a heat pump water heater, heat pump space heater, electric cooktop and electric clothes dryer with the capacities specified in Section 150.0 (n)1, (t), (u) and (v); or, provide electrical load calculations and appliance specifications for serving all of these end-uses with a minimum 100-amp panel.
ER2	<u>Electric Readiness Measures - End Uses</u> : For any covered project, if the service panel is being upgraded or to claim the Solar PV + Electric Ready Pre-Wire credit, satisfy any two of the electric readiness measures below. If the kitchen is being remodeled, make the range electric ready as specified in ER2, Item C below and upgrade the panelboard as specified under ER1. If the laundry room is being remodeled, make the dryer electric ready as specified in Item D below and upgrade the panelboard as specified under ER1. Meet the requirements below, that otherwise apply to newly constructed buildings:

	A. Heat Pump Water Heater Ready, as specified in Section 150.0(n)1. B. Heat Pump Space Heater Ready, as specified in Section 150.0(t). C. Electric Cooktop Ready, as specified in Section 150.0(u). D. Electric Clothes Dryer Ready, as specified in Section 150.0(v). E. Battery Energy Storage Systems (BESS) Ready, as specified in Section 150.0(s). F. EV Charger Ready. Install a dedicated 208/240-volt branch circuit as specified in the California Green Building Code, Title 24, Part 11, Section A4.106.8.1, which otherwise applies to new construction. Exception: If an electrical permit is not otherwise required for the project other than compliance with the laundry room and kitchen remodel requirements of this Item, ER2.
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SECTION 2. Adoption of CALGreen Tier 1 Voluntary Measures. Sausalito Municipal Code Section 8.02.120 (Local Amendments to California Green Building Standards Code) is hereby amended to read as follows:

8.02.120 Local Amendments to California Green Building Standards Code.

The 2025 California Green Building Standards Code (CALGreen), as published by the California Building Standards Commission in the California Code of Regulations, Title 24, Part 11, adopted by reference, is hereby amended as follows:

Section 202 Amended. A definition of “substantial remodel” is hereby added to Section 202 to read as follows:

SUBSTANTIAL REMODEL. Any project or projects that affects the removal or replacement of 50% or more of the linear length of the existing exterior walls of the building, and/or 50% or more of the linear length of the existing exterior wall plate height is raised, and/or 50% or more of the existing roof framing area is removed or replaced, over a 3-year period.

Sections 301.1 through 301.3 Amended. Sections 301.1 to 301.3 of Chapter 3 of the California Green Building Standards Code are amended to read:

301.1 Scope. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code and any applicable local amendments. In addition, the City requires the use of Voluntary Tiers, as provided in Appendix A4 and A5, for certain residential and non-residential new construction, additions, and alterations.

301.1.1 Residential additions and alterations. The mandatory provisions of Chapter 4 shall be applied to additions and/or alterations of existing residential buildings where the addition and/or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration, except that a substantial remodel shall be subject to the same provisions applicable to new construction.

The mandatory provisions of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping, and repairing or maintaining existing light fixtures are not considered alterations for the purpose of this section.

Modified Tier 1 adopted (Residential). All residential building additions and/or alterations exceeding 500 square feet must meet CALGreen Chapter 4 Mandatory Measures and shall achieve Tier 1 status, as defined in Section A4.601, as applicable to the scope of work, excluding Division A4.2 “Energy Efficiency”. A substantial remodel must meet CALGreen Chapter 4 Mandatory Measures and shall achieve Tier 1 status, as defined in Section A4.601, for the entire project, but excluding the requirements of Division A4.2 “Energy Efficiency.” Normal maintenance, reroofing, painting or wall papering, and floor finishes are excluded for the purposes of establishing the scope of applicable CALGreen Chapter 4 Mandatory Measures and Tier 1 requirements.

301.2 Low-rise and high-rise residential buildings. The provisions of individual sections of CALGreen may apply to either low-rise residential buildings, high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used. **All newly constructed and substantial remodel residential projects must meet CALGreen Chapter 4 Mandatory Measures, and shall achieve Tier 1 status, as defined in Section A4.601, as applicable to the scope of work, but excluding the requirements of Division A4.2 “Energy Efficiency.”**

301.3 Non-residential additions and alterations. The provisions of individual sections of Chapter 5 apply to building non-residential additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and alterations [A]. When the code section applies to both, no banner will be used.

Modified Tier 1 adopted. Newly constructed non-residential buildings, as well as alterations and additions of 5,000 square feet or greater that include replacement of at least two of the following: HVAC system, building envelope, hot water system, or lighting system, must comply with CALGreen Chapter 5 Mandatory measures and achieve Tier 1 status as set forth in Section A5.601, as applicable to the scope of work, but excluding the requirements of Division A4.2 “Energy Efficiency.”

Section 301.6 Added. Section 301.6, Low-carbon concrete requirements for all projects, is added to read as follows:

301.6 Low-carbon concrete requirements for all projects. Plain and reinforced concrete installed as part of any project subject to the application of this code shall demonstrate compliance with the requirements of Sausalito Municipal Code Chapter 8.04, Low Carbon Concrete Standards, the full text of which is herein added to this code by reference.

SECTION 3. Enactment of Low Carbon Concrete Standards. Sausalito Municipal Code Chapter 8.04, Low Carbon Concrete Standards, is enacted to read:

8.04.010 Findings and Purpose.

Pursuant to Section 17958.2(a) of the California Health and Safety Code, the City Council hereby finds the following modifications to the California Building Standards Code provisions regulating allowable mix design and materials for plain and reinforced concrete, are reasonably necessary. This is because Sausalito experiences climatic seasonal reduction in vegetative moisture content, combined with heavily populated steep terrain, which presents increased wildfire risk to our residents from carbon-induced global warming; and is also bordered by sea water on much of its territorial border and subject to direct adverse local impact from sea-level rise as the result of construction-related contributions to climate change, including significant carbon emissions from cement production.

The purpose of this chapter is to provide practical standards and requirements for the composition of concrete, as defined herein, that maintains adequate strength and durability for the intended application and at the same time reduces greenhouse gas emissions associated with concrete composition. This code includes pathways for compliance with either reduced cement levels or lower-emission supplementary cementitious materials.

8.04.020 Definitions.

For the application of this chapter the following definitions shall apply:

Concrete: Concrete is any approved combination of mineral aggregates bound together into a hardened conglomerate in accordance with the requirements of this code.

Upfront Embodied Carbon (*Embodied Carbon*): The greenhouse gasses emitted in material extraction, transportation and manufacturing of a material corresponding to life cycle stages A1 (extraction and upstream production), A2 (transportation), and A3 (manufacturing). Definition is as noted in ISO 21930 and as defined in the Product Category Rule for Concrete by NSF dated February 22nd, 2019.

Environmental Product Declaration (EPD): EPDs present quantified environmental information on the life cycle of a product to enable comparisons between products fulfilling the same function. EPDs must conform to ISO 14025, and EN 15804 or ISO 21930, and have at least a “cradle to gate” scope (which covers product life cycle from resource extraction to the factory).

8.04.030 Compliance.

Compliance with the requirements of this chapter shall be demonstrated through any of the compliance options in Sections 8.04.040 through 8.04.070.

Table 8.04.030 Cement and Embodied Carbon Limit Pathways

	Cement limits for use with any compliance method 8.04.040 through 8.04.070	Embodied Carbon limits for use with any compliance method 8.04.040 through 8.04.070
Minimum specified compressive strength f'_c , psi (1)	Maximum ordinary Portland cement content, lbs/yd ³ (2)	Maximum embodied carbon kg CO ₂ e/m ³ , per EPD
up to 2500	362	260
3000	410	289
4000	456	313
5000	503	338
6000	531	356
7000	594	394
7001 and higher	657	433
up to 3000 light weight	512	578
4000 light weight	571	626
5000 light weight	629	675
Notes (1) For concrete strengths between the stated values, use linear interpolation to determine cement and/or embodied carbon limits. (2) Portland cement of any type per ASTM C150.		

8.04.040 Cement Limit Method – Mix.

Cement content of a concrete mix using this method shall not exceed the value shown in the Table 8.04.030. Use of this method is limited to concrete with specified compressive strength not exceeding 5,000 psi.

8.04.050 Cement Limit Method – Project.

Total cement content shall be based on total cement usage of all concrete mix designs within the same project. Total cement content for a project shall not exceed the value calculated according to Equation 8.04.50.

Equation 8.04.50:

$$Cem_{proj} < Cem_{allowed}$$

where

$$Cem_{proj} = \sum Cem_n V_n \text{ and } Cem_{allowed} = \sum Cem_{lim} V_n$$

and

n = the total number of concrete mixtures for the project

Cem_n = the cement content for mixture n , kg/m³ or lb/yd³

Cem_{lim} = the maximum cement content for mixture n per Table 8.04.030, kg/m³ or lb/yd³

v_n = the volume of mixture n concrete to be placed, yd^3 or m^3

Applicant can use yd^3 or m^3 for calculation, but must keep same units throughout

8.04.060 Embodied Carbon Method – Mix.

Embodied carbon of a concrete mix, based on an approved environmental product declaration (EPD), shall not exceed the value given in Table 8.04.030.

8.04.070 Embodied Carbon Method – Project.

Total embodied carbon (EC_{proj}) of all concrete mix designs within the same project shall not exceed the project limit (EC_{allowed}) determined using Table 8.04.030 and Equation 8.04.050.

8.04.080 Allowable Increases.

- (1) *Cement and Embodied Carbon Limit Allowances.* Cement or Embodied Carbon limits shown in Table 8.04.030 can be increased by 30% for concretes demonstrated to the Building Official as requiring high early strength. Such concretes could include, but are not limited to, precast, prestressed concrete; beams and slabs above grade; and shotcrete
- (2) *Approved Cements* The maximum cement content may be increased proportionately above the tabulated value when using an approved cement, or blended cement, demonstrated by approved EPD to have a *plant-specific EPD* lower than 1040 kg CO₂e/metric ton. The increase in allowable cement content would be $(1040 / \text{plant-specific EPD}) \%$.

8.04.090 Exemptions.

- (1) *Hardship or infeasibility exemption.* If an applicant for a project subject to this chapter believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this chapter, the applicant may request an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility. The applicant shall identify in writing the specific requirements of the standards for compliance that the project is unable to achieve and the circumstances that make it a hardship or infeasible for the project to comply with this chapter. Circumstances that constitute hardship or infeasibility may include, but are not limited to the following:
 - a. There is a lack of commercially available material necessary to comply with this chapter;
 - b. The cost of achieving compliance is disproportionate to the overall cost of the project;
 - c. Compliance with certain requirements would impair the historic integrity of buildings listed on a local, state or federal list or register of historic structures as regulated by the California Historic Building Code (Title 24, Part 8).
- (2) *Granting of exemption.* If the Building Official determines that it is a hardship or infeasible for the applicant to fully meet the requirements of this chapter and that granting the requested exemption will not cause the building to fail to comply with the California Building Standards Code, the Building Official shall determine the maximum feasible threshold of compliance reasonably achievable for the project. In making this determination, the Building Official shall consider whether alternate, practical means of achieving the objectives of this chapter can be satisfied. If an exemption is granted, the applicant shall be required to comply with this chapter in all other

respects and shall be required to achieve the threshold of compliance determined to be achievable by the Building Official.

- (3) *Denial of exception.* If the Building Official determines that it is reasonably possible for the applicant to fully meet the requirements of this chapter, the request shall be denied and the applicant shall be notified of the decision in writing. The project and compliance documentation shall be modified to comply with the standards for compliance.
- (4) *Appeal.* Any aggrieved applicant or person may appeal the determination of the Building Official regarding the granting or denial of an exemption or compliance with any other provision of this chapter. An appeal of a determination of the Building Official shall be filed in writing and processed in accordance with the provisions of this code and the California Building Standards Code for appeals.

SECTION 4. Findings Under California Health and Safety Code.

For purposes of Health and Safety Code 17958.7(c) and (d), the City Council finds that the adoption of the proposed Single-Family Building Remodel Energy Reach Code and modifications to the California Energy Code in Section 1, the adoption of the proposed modifications to the California Green Building Standards Code, including adoption of the Tier 1 CALGreen voluntary measures and low carbon concrete standards in Section 2 and 3, are being undertaken as a “local code amendment that is adopted to align with a general plan approved on or before June 10, 2025, and that permits mixed-fuel residential construction consistent with federal law while also incentivizing all-electric construction as part of an adopted greenhouse gas emissions reduction strategy,” because the 2021 City of Sausalito General Plan, adopted February 9, 2021, includes a Sustainability – Climate Change Mitigation and Resiliency Element and Community Development Element, which include the following policies and goals requiring the reduction of greenhouse emissions in the City of Sausalito, which this proposed ordinance is consistent with:

- Objective S-1 Mitigate Impacts of Climate Change by Reducing Emissions in Sausalito in Line with Statewide Goal to Reduce Emissions by 40 Percent below Baseline Emissions by 2030
- Policy S-1.2 Energy-Efficiency, Residential, and Commercial. Improve energy efficiency of all buildings, services, and infrastructure
- Policy S-1.4 Natural Gas Replacement. Evaluate electrification, or evaluate alternative renewable energy sources, for building systems that currently use natural gas for heating.
- Policy S-2.3 Water and Wastewater. Increase indoor and outdoor water efficiency and conservation.
- S-1.3.4 Construction Goals. Incentivize net-zero construction projects in the private and public sectors with optimized HVAC systems and including a mandate for all-electric systems (zero gas use) for heating and appliances.
- Objective S-2 Increase Conservation of Natural Resources and Reduce Waste Production
- S-2.3.9 CAP Implementation. Implement recommendations from the CAP on community and government operations actions to increase water efficiency and reduce water usage.
- S-4.4.4 Emissions Reduction. Support the city’s emissions reduction programs, including maximizing transit and nonemitting transportation uses.
- CD-2.1.3 Green Building Ordinance. Adopt a green building ordinance that requires green building strategies and provides targets for energy efficiency savings that meets or exceeds state building and energy codes.

The proposed ordinance is also consistent with the City of Sausalito Climate Action Plan, adopted on June 16, 2015, which serves as the City's adopted greenhouse gas emissions reduction strategy, includes the following strategies for greenhouse gas reductions, specifically stating:

"The two fundamental means for reducing emissions from electricity and natural gas use are decreasing consumption through both efficiency and behavioral change, and switching from fossil fuels to renewable sources. Increasing the efficiency of buildings is the most cost-effective approach for reducing greenhouse gas emissions. . . . New construction techniques and building materials, known collectively as "green building," can significantly reduce the use of resources and energy and creation of waste in our homes and commercial buildings. Green construction methods can be integrated into buildings at any stage, from design and construction to renovation and deconstruction. The City can also adopt energy efficiency standards for new construction and remodels that exceed existing State mandates."

The Climate Action Plan further includes the following actions:

- CAP 1-1 Residential Green Building Ordinance. Update building codes to mandate higher building energy performance in newly constructed residential buildings.
- CAP 1-2. Commercial Green Building Ordinance. Update building codes to mandate higher building energy performance in newly constructed non-residential buildings.

The Council finds that the modifications to the California Energy Code and CALGreen, and Low Carbon Concrete Standards are likely to result in less energy use through reductions and conservation in energy and water use, or result in direct reduction of project costs, and that such requirements are likely to reduce long-term project costs, thereby making all-electric construction more likely and feasible, and thereby incentivizing all-electric construction.

Additionally, California Health and Safety Code Sections 17958.5, 17958.7, and 18941.5 require that findings be made in order to change or modify building standards found in the California Building Standards Code based on local climatic, geologic, or topographic conditions. Therefore, the Sausalito City Council hereby finds that these changes or modifications to the 2025 California Building Standards Code are reasonably necessary because of the following local climatic, geological and topographical conditions:

I. Climatic conditions:

a) Most of the annual rainfall in Sausalito occurs during the winter, it typically receives no measurable precipitation between May and October. During this time, temperatures average between 70 and 90 degrees. These conditions eliminate most of the moisture in the natural vegetation and heavily wooded hillsides. The area also suffers periodic droughts that can extend the dry periods to other months of the year. These conditions can be further exacerbated by occasional off-shore hot, dry, Santa-Anna winds; all of which contribute to an elevated fire hazard. The City of Sausalito experiences climatic seasonal reduction in vegetative moisture content, combined with heavily populated steep terrain, which presents increased wildfire risk to residents from carbon-induced global warming. Climate change, due to emissions of greenhouse gases, has increased average air temperatures in Marin County by 2.3°F from 1985 to 2018, resulting in more intense and frequent heat waves, more intense

and frequent drought, more severe storms and extreme weather events and more severe and frequent wildfires.

b) Most of the annual rainfall in Sausalito occurs during the winter, and some portions of the City are subject to tidal influences, there are times that flooding conditions occur in low-lying areas. Carbon-induced global warming is likely to increase the severity of rainfall events in Sausalito, which already have a history of creating land-slide risks, and also increase flooding events in low-lying areas of the City of Sausalito.

c) The California Global Warming Solutions Act of 2006, known as AB 32, established a statewide goal of reducing greenhouse gas emissions to a level 80% below 1990 levels by 2050, and Senate Bill 32, passed in 2016, set a target to reduce statewide emissions to 40% below 1990 levels by 2030. City studies, including those set forth in the City's adopted climate action plan, indicate that the use of energy in buildings is a significant source of greenhouse gas emissions directly contributing to the adverse increases in climate-related hazards already being experienced in the City of Sausalito.

II. Geologic conditions:

Many areas of the city, including some highly developed industrial and commercial areas, are located on bay alluvial soils which are subject to liquefaction in the event of an earthquake.

III. Topographic conditions:

a) Much of Sausalito is located in hilly areas, and many of the residential areas are heavily landscaped, and many exist adjacent to hilly open space areas which are characterized by dry vegetation and have limited access. In addition, the steepness of grades located in the hills and canyons results in narrow and winding roads, and limited water supply, making timely access, rescue and firefighting activities by emergency providers difficult.

b) Highway 101 is the major arterial route between San Francisco, Marin, and Sonoma County areas, and is the primary access into and out of Sausalito. Should that highway become impassable, diversion of traffic onto alternative routes via surface streets in Sausalito may cause heavy traffic congestion, further limiting emergency access.

c) The City of Sausalito is bordered by the San Francisco Bay on much of its territorial border and is already subject to direct adverse local impact from flood events, and will be subject to sea-level rise as the result of construction-related contributions to climate change, including significant carbon emissions from cement production and other building materials.

The table below identifies the modified building standards above, and the corresponding climatic, geological or topographical condition which necessitates the modification:

<u>TABLE 1 – Climatic, Geological, Topographical Findings</u>	
<u>Modifications under</u> <u>this Ordinance:</u>	<u>Climatic, geological and topographical</u> <u>conditions:</u>
California Energy Code 100.0, 100.1, and 150 CALGreen301.1 – 301.3	Ia, Ib, Ic, II, IIIa, IIIb, IIIc
CALGreen 301.6 and SMC 8.04 Low Carbon Concrete Standards	Ia, Ib, Ic, II, IIIa, IIIb, IIIc

SECTION 2. Cost Effectiveness Determination Under Public Resources Code Section 25402(h).

The City Council finds that pursuant to Public Resources Code section 25402.1, subd. (h)(2), that the local amendments to the 2025 California Energy Code set forth in Section 1 that revise energy standards are more restrictive than the California Energy Code and are cost effective, based upon the findings of the 2022 Cost-Effectiveness Study: Existing Single Family Building Upgrades published on April 25, 2024 by Frontier Energy, Inc. and Misti Bruceri & Associates LLC, and supplementary memo, Application of 2022 Studies to 2025 Energy Code: Existing Single Family Building Upgrades.

SECTION 3. CEQA. The Sausalito City Council finds that this Ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines 15061(b)(3), which provides that CEQA does not apply it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA, and in the alternative, under CEQA Guidelines section 15321, governing enforcement actions.

SECTION 4. Severability. If any section, sub-section, sentence, clause, phrase or portion of this Ordinance or the application thereof to any person or circumstances is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction or preempted by state legislation, such decision or legislation shall not affect the validity of the remaining portions of the Ordinance. The City Council hereby declares that it would have passed this Ordinance and each and every section, sub-section, sentence, clause, phrase or portion thereof, irrespective of not declared invalid or unconstitutional without regard to any such decision or preemptive legislation.

SECTION 5. Effective Date. In accordance with Government Code section 36937 and Health and Safety Code section 18941. 5, this ordinance shall take effect following approval by the California Energy Commission, at least 30 days following adoption, or on January 1, 2026, whichever is later. However, where applications and plans for building have been filed and are pending for building permits prior to the effective date of this Ordinance, such permits may be issued, and the applicant may proceed with construction in compliance with the 2022 California Building Standards Code, as previously adopted and amended under Ordinance No. 1291 of the City of Sausalito, but only to the extent that the issuance of such permit is required by Health and Safety Code section 18938. 5 and any other applicable law.

SECTION 6. Posting and Publication; Filing of Ordinance. The City Clerk shall post and/or publish this ordinance as may be required by Government Code section 36933. The Clerk shall cause a certified copy of this Ordinance to be filed with the California Energy Commission and California Building Standards Commission in the manner required by law.

INTRODUCED AND FIRST READ at the meeting of the City Council of the City of Sausalito, California, on XXXX, and thereafter **ADOPTED** at a regular meeting of the City Council held on XXXXXX, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

Steven Woodside
Mayor

ATTEST:

Walfred Solorzano
City Clerk