#### **Utilites**

All ADUs must attan approval from applicable agencies, as follows, prior to issuance of **Building Permit** 

Electric Utility Services: PG+E Water and Sewer Services: City of Santa Barbara Trash and Recycling: Marborg Gas Utility Services: So Cal Gas

# **Sprinklers**

The proposed Accessory Dwelling Unit shall not have sprinklers, if the existing primary residence does not have sprinklers. Pursuant to Gov. Code 65852.2.D.xii.

#### **Sheet Index**

A0.0 Cover Sheet Green Buildings Standards Code

Green Buildings Standards Code

Title 24 Energy Compliance A0.4 2022 Low-Rise Res. Mandatory Measures

A0.5 Site Plan - Proposed + Drainage A0.6

Floor plans - 250 SF ADU

Elevations - Spanish Colonial - 250 SF

Elevations - Craftsman - 250 SF A1.3 Floor plans - 450 SF - ADU

A2.3 Elevations - Craftsman - 450 SF

Elevations - Spanish Colonial - 450 SF

A3.1 Color and Materials Board - Craftsman + Spanish Colonial Revival Options

**Equipment Specs** 

A4.0 Roof Plans

# **Supporting Documents**

**Geotechnical Report** Prepared By Contact Date Prepared Survey Prepared By Contact Date Prepared **Structural Calculations** Prepared By Contact Date Prepared **Truss Calculations** Prepared By Contact Date Prepared **Energy Compliance** Prepared By Contact

Date Prepared Civil Enginee Prepared By

Contact Date Prepared **Drainage Plans** 

Prepared By Contact Date Prepared

Mechanical Engineer Prepared By Contact Date Prepared

Electrical Engineer Prepared By Contact Date Prepared

# **Operation & Maintenance**

At the time of final inspection, an operation & maintenance manual, compact disc or web-based reference shall be placed in the building. This manual shall include all of the items listed on California Green Building Standards Code Section 4.410.1. Refer to sheets A0.2 and A0.3.

# **Stormwater Compliance - Tier 1**

For the building permit submittal, this project will demonstrate compliance with Tier 2 (new 2020 requirements) post-construction storm water requirements, since between 500 and 1,999 sf of new/replaced impervious area is proposed.

Tier 2 projects are required to install BMPs that will capture and treat an area and volume of runoff equivalent to the total area and runoff volume of the new and/or replaced impervious area (between 500 and 1,999 square feet). The treated area is not required to be the new/redeveloped impervious area – another impervious location on the project site may be selected for treatment.

Mandatory Inspections:

Inspections shall be called in by Contractor for inspection 72 hours prior to needed inspection. The City will then route the request to the QSP Inspector or third party Company.

# **Archaeological Discovery Condition**

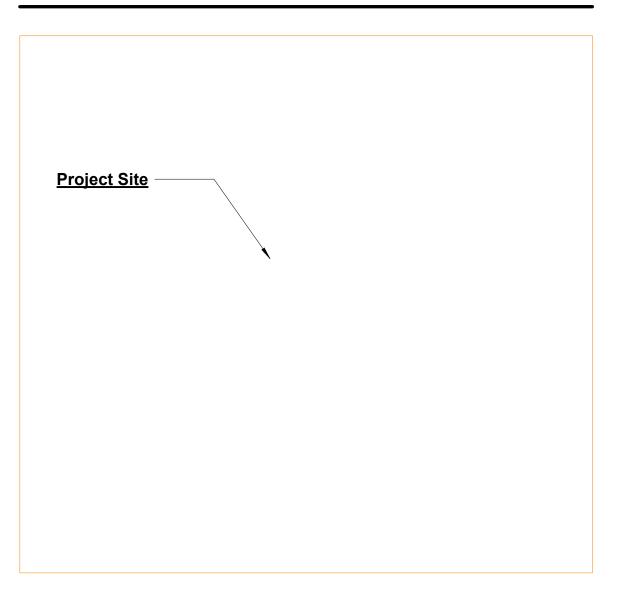
Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation of the parcel.

If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and an archaeologist from the most current City-Qualified Archaeological Resources Consultant List shall be retained by the applicant. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment which may include, but are not limited to, redirection of grading or excavation activities, consultation or monitoring with a Barbareño Chumash representative from the most current City-Qualified Native American Site Monitors List.

If a discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City-Qualified Native American Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If a discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current Native American Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

# **Vicinity Map**



# **Project Directory**

Designer + Building Team

Lucrezia DeLeon (805) 260-1381 lucrezia@itsihouse.com

AMA Assets Aaron Amuchastegui info@amaconstruct.com (916) 436-1911

Area for Stamps

Custom Home Al **Builders Capital** Travis Dodge

# **Construction Waste Reduction, Disposal and Recycling**

See A0.11 for California Green Building Standards Code provisions for construction waste management and documentation of diversion approach.

An approved County sorting / recycling facility must be utilized for construction waste management to comply with Construction Waste Reduction, Disposal and Recycling provisions of California Green Standards Code Section 4.408.1 \*minmum 65% non- hazardous materials recycled and/ or salvaged for re-use.)

Approved Waste Management Company: Marborg Industries 728 E. Yanonali Santa Barbarba, CA 93103 Phone: 805.963.1852

## **Enhances Durability, Reduced Maintenance**

Annulare Spaces around pipes, electrical cables, conduits and other openings in sole, bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cements mortar, concrete masonry or similar method acceptable to the enforcing agency.

#### **Smoke Detectors and CO Alarms**

Provide Smoke Detectors & Carbon Monoxide Alarms per California Residential Code

# **Very High Fire Severity Zone**

Properties that are in the very high Fire Hazard Severity Zones muyst complet with Chapter 7A, S. B Municipal Code Sections 22.04.020 & 22.04.025

#### **Pollutant Control**

See A0.2 and A0.3 for California Green Building Standards Code provisions for polluntant control regarding ducts, indoor air quality, mechanical equipment and finish materials. Confirm to provisions for Interior Moiture Control, Indoor Air Quality, Installer, & Special Inspector Qualifications, and Verifications.

responsibility to verify any and all information.



Proto

Santa DU Pro

of A

a

5

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any

and all claims, liabilities, suits, and demands on

persons or property, including injury or death, or

these construction documents. The use of these

plans does not eliminate or reduce the user's

account of any injury, damage, or loss to

economic losses, arising out of the use of

City







Stamp/Signature:
Lucrezia DeLeon
1
$\mathcal{A}(\mathcal{X})$
d(l, d(l)) =

Initial Submittal		

ii ii lie	ai Submillai
Revis	ions:
$\triangle$	

Sheet Title:

**Cover Sheet** 



# California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

NOT APPLICABLE
RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, installed in close proximity to the location or the proposed location of the EV space at the time of original **CHAPTER 3** construction in accordance with the California Electrical Code. 1.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities. **GREEN BUILDING** 4.304 OUTDOOR WATER USE When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the 4.106.4.2.4 Identification. 4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest **SECTION 301 GENERAL** The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code. Efficient Landscape Ordinance (MWELO), whichever is more stringent. space shall count as at least one standard automobile parking space only for the purpose of complying with any **301.1 SCOPE.** Buildings shall be designed to include the green building measures specified as mandatory in applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 4.106.4.2.5 Electric Vehicle Ready Space Signage. the application checklists contained in this code. Voluntary green building measures are also included in the Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans application checklists and may be included in the design and construction of structures covered by this code, Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. 1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code Regulations, 4.106.4.2.1 Multifamily development projects with less than 20 dwelling units; and hotels and motels with less Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are than 20 sleeping units or guest rooms. **301.1.1 Additions and alterations. [HCD]** The mandatory provisions of Chapter 4 shall be applied to available at: https://www.water.ca.gov/ The number of dwelling units, sleeping units or quest rooms shall be based on all buildings on a project site subject to 4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or specific area of the addition or alteration. 1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or **EFFICIENCY** of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical 4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE facilities or the addition of new parking facilities serving existing multifamily buildings. See Section system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all 4.106.4.3 for application. 4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in EVs at all required EV spaces at a minimum of 40 amperes. sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such 1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved EV charging. lighting fixtures are not considered alterations for the purpose of this section. for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code. 2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use. 4.408 CONSTRUCTION WASTE REDUCTION. DISPOSAL AND RECYCLING Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, o improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. 4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 DIVISION 4.2 ENERGY EFFICIENCY Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate percent of the non-hazardous construction and demolition waste in accordance with either Section 1. When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and management ordinance. 4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy other important enactment dates. Commission will continue to adopt mandatory standards. 2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of 301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION Excavated soil and land-clearing debris. individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential Alternate waste reduction methods developed by working with local agencies if diversion or 4.303 INDOOR WATER USE buildings, or both. Individual sections will be designated by banners to indicate where the section applies recycle facilities capable of compliance with this item do not exist or are not located reasonably 4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and a. Construction documents are intended to demonstrate the project's capability and capacity for facilitating high-rise buildings, no banner will be used. urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, 3. The enforcing agency may make exceptions to the requirements of this section when isolated future EV charging. jobsites are located in areas beyond the haul boundaries of the diversion facility. b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or **SECTION 302 MIXED OCCUPANCY BUILDINGS** Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving 4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan EV chargers are installed for use. plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final in conformance with Items 1 through 5. The construction waste management plan shall be updated as **302.1 MIXED OCCUPANCY BUILDINGS.** In mixed occupancy buildings, each portion of a building completion, certificate of occupancy, or final permit approval by the local building department. See Civil necessary and shall be available during construction for examination by the enforcing agency. 2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power shall comply with the specific green building measures applicable to each specific occupancy. Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per buildings affected and other important enactment dates. Identify the construction and demolition waste materials to be diverted from disposal by recycling, dwelling unit when more than one parking space is provided for use by a single dwelling unit. 1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall reuse on the project or salvage for future use or sale. comply with Chapter 4 and Appendix A4, as applicable. **4.303.1.1 Water Closets.** The effective flush volume of all water closets shall not exceed 1.28 gallons per Specify if construction and demolition waste materials will be sorted on-site (source separated) or Exception: Areas of parking facilities served by parking lifts 2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the California flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense bulk mixed (single stream) Building Code, shall not be considered mixed occupancies. Live/Work units shall comply with Specification for Tank-type Toilets. Identify diversion facilities where the construction and demolition waste material collected will be 4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more Chapter 4 and Appendix A4, as applicable. sleeping units or guest rooms. Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume 4. Identify construction methods employed to reduce the amount of construction and demolition waste DIVISION 4.1 PLANNING AND DESIGN The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to of two reduced flushes and one full flush. Specify that the amount of construction and demolition waste materials diverted shall be calculated **ABBREVIATION DEFINITIONS: 4.303.1.2 Urinals.** The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. by weight or volume, but not by both. 1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types Department of Housing and Community Development The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush. of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 California Building Standards Commission 4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical Division of the State Architect, Structural Safety enforcing agency, which can provide verifiable documentation that the percentage of construction and system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all OSHPD Office of Statewide Health Planning and Development demolition waste material diverted from the landfill complies with Section 4.408.1. EVs at all required EV spaces at a minimum of 40 amperes. Low Rise 4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA Note: The owner or contractor may make the determination if the construction and demolition waste The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved AA Additions and Alterations WaterSense Specification for Showerheads. materials will be diverted by a waste management company. for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code. **4.303.1.3.2** Multiple showerheads serving one shower. When a shower is served by more than one 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of CHAPTER 4 showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in reduced by a number equal to the number of EV chargers installed over the five (5) percent required. RESIDENTIAL MANDATORY MEASURES allow one shower outlet to be in operation at a time Note: A hand-held shower shall be considered a showerhead 4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds **SECTION 4.102 DEFINITIONS** a. Construction documents shall show locations of future EV spaces. 4.303.1.4 Faucets per square foot of the building area, shall meet the minimum 65% construction waste reduction 4.102.1 DEFINITIONS b. There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or The following terms are defined in Chapter 2 (and are included here for reference) **4.303.1.4.1 Residential Lavatory Faucets.** The maximum flow rate of residential lavatory faucets shall EV chargers are installed for use. not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall **4.408.5 DOCUMENTATION**. Documentation shall be provided to the enforcing agency which demonstrates FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar not be less than 0.8 gallons per minute at 20 psi. compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4... 2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power pervious material used to collect or channel drainage or runoff water. Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per **4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas.** The maximum flow rate of lavatory **WATTLES.** Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials dwelling unit when more than one parking space is provided for use by a single dwelling unit. faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also buildings shall not exceed 0.5 gallons per minute at 60 psi. Sample forms found in "A Guide to the California Green Building Standards Code Exception: Areas of parking facilities served by parking lifts. used for perimeter and inlet controls. (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in 4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver documenting compliance with this section. 4.106 SITE DEVELOPMENT **3.EV Chargers.** Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. more than 0.2 gallons per cycle. 2. Mixed construction and demolition debris (C & D) processors can be located at the California Where common use parking is provided, at least one EV charger shall be located in the common use parking 4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation Department of Resources Recycling and Recovery (CalRecycle). and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, area and shall be available for use by all residents or guests. **4.303.1.4.4 Kitchen Faucets.** The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons management of storm water drainage and erosion controls shall comply with this section. per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not 4.410 BUILDING MAINTENANCE AND OPERATION When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per **4.410.1 OPERATION AND MAINTENANCE MANUAL.** At the time of final inspection, a manual, compact 4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less an automatic load management system (ALMS) may be used to reduce the maximum required electrical minute at 60 psi. disc, web-based reference or other media acceptable to the enforcing agency which includes all of the than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers following shall be placed in the building: or more, shall manage storm water drainage during construction. In order to manage storm water drainage shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) **Note**: Where complying faucets are unavailable, aerators or other means may be used to achieve during construction, one or more of the following measures shall be implemented to prevent flooding of adjacen served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall 1. Directions to the owner or occupant that the manual shall remain with the building throughout the property, prevent erosion and retain soil runoff on the site. have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical life cycle of the structure. capacity to the required EV capable spaces. 4.303.1.4.5 Pre-rinse spray valves. 2. Operation and maintenance instructions for the following: 1. Retention basins of sufficient size shall be utilized to retain storm water on the site. When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance a. Equipment and appliances, including water-saving devices and systems, HVAC systems, 2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar 4.106.4.2.2.1 Electric vehicle charging stations (EVCS). Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 photovoltaic systems, electric vehicle chargers, water-heating systems and other major Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1 disposal method, water shall be filtered by use of a barrier system, wattle or other method approved (d)(7) and shall be equipped with an integral automatic shutoff. appliances and equipment. b. Roof and yard drainage, including gutters and downspouts. 3. Compliance with a lawfully enacted storm water management ordinance. Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels FOR REFERENCE ONLY: The following table and code section have been reprinted from the California Space conditioning systems, including condensers and air filters. shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section Landscape irrigation systems. **Note:** Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or requirements. e. Water reuse systems. are part of a larger common plan of development which in total disturbs one acre or more of soil. 3. Information from local utility, water and waste recovery providers on methods to further reduce 4.106.4.2.2.1.1 Location. resource consumption, including recycle programs and locations. (Website: https://www.waterboards.ca.gov/water\_issues/programs/stormwater/construction.html) EVCS shall comply with at least one of the following options: TABLE H-2 Public transportation and/or carpool options available in the area. 5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent I.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will 1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of and what methods an occupant may use to maintain the relative humidity level in that range. manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space. STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY 6. Information about water-conserving landscape and irrigation design and controllers which conserve water include, but are not limited to, the following: VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019 2. The charging space shall be located on an accessible route, as defined in the California Building Code, 7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 1. Swales Chapter 2, to the building. feet away from the foundation. 2. Water collection and disposal systems PRODUCT CLASS 8. Information on required routine maintenance measures, including, but not limited to, caulking, Exception: Electric vehicle charging stations designed and constructed in compliance with the California MAXIMUM FLOW RATE (gpm) French drains [spray force in ounce force (ozf)] painting, grading around the building, etc. Water retention gardens Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section Information about state solar energy and incentive programs available. 5. Other water measures which keep surface water away from buildings and aid in groundwater 4.106.4.2.2.1.2, Item 3. Product Class 1 (≤ 5.0 ozf) 10. A copy of all special inspections verifications required by the enforcing agency or this code. 11. Information from the Department of Forestry and Fire Protection on maintenance of defensible 4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions. space around residential structures. **Exception**: Additions and alterations not altering the drainage path. The charging spaces shall be designed to comply with the following: Product Class 2 (> 5.0 ozf and  $\leq 8.0$  ozf) 1.20 12. Information and/or drawings identifying the location of grab bar reinforcements. Product Class 3 (> 8.0 ozf) 1.28 **4.106.4 Electric vehicle (EV) charging for new construction.** New construction shall comply with Sections 1. The minimum length of each EV space shall be 18 feet (5486 mm). 4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625. 2. The minimum width of each EV space shall be 9 feet (2743 mm). 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)] depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling Exceptions: 3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum 4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial ordinance, if more restrictive. 1. On a case-by-case basis, where the local enforcing agency has determined EV charging and aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is buildings infrastructure are not feasible based upon one or more of the following conditions: 12 feet (3658 mm). Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the **Exception:** Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 1.1 Where there is no local utility power supply or the local utility is unable to supply adequate California Plumbing Code. 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional **4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in local utility infrastructure design requirements, directly related to the implementation of Section accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 4.106.4.2.2.1.3 Accessible EV spaces. 4.106.4, may adversely impact the construction cost of the project. 1701.1 of the California Plumbing Code. 2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall DIVISION 4.5 ENVIRONMENTAL QUALITY comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready parking facilities. spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section **SECTION 4.501 GENERAL** THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER. 4.501.1 Scope 4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway 4.106.4.2.3 EV space requirements. TABLE - MAXIMUM FIXTURE WATER USE irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors. shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main 1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the FIXTURE TYPE **FLOW RATE SECTION 4.502 DEFINITIONS** proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close 5.102.1 DEFINITIONS concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere proximity to the location or the proposed location of the EV space. Construction documents shall identify the SHOWER HEADS (RESIDENTIAL) 1.8 GMP @ 80 PSI The following terms are defined in Chapter 2 (and are included here for reference) 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall overcurrent protective device. have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device **AGRIFIBER PRODUCTS.** Agrifiber products include wheatboard, strawboard, panel substrates and door MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device. LAVATORY FAUCETS (RESIDENTIAL) cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements. Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is LAVATORY FAUCETS IN COMMON & PUBLIC **COMPOSITE WOOD PRODUCTS.** Composite wood products include hardwood plywood, particleboard and accordance with the California Electrical Code. installed in close proximity to the location or the proposed location of the EV space, at the time of original 0.5 GPM @ 60 PSI medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, USE AREAS construction in accordance with the California Electrical Code. structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated 4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent 1.8 GPM @ 60 PSI KITCHEN FAUCETS wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 2. Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination METERING FAUCETS 0.2 GAL/CYCLE location shall be permanently and visibly marked as "EV CAPABLE". location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for WATER CLOSET 1.28 GAL/FLUSH electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING VERIFICATION WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

URINALS

0.125 GAL/FLUSH

raceways and related components that are planned to be installed underground, enclosed, inaccessible or in

concealed areas and spaces shall be installed at the time of original construction.



# California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

YES
NOT APPLICABLE
RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER,

**CHAPTER 7** TABLE 4.504.5 - FORMALDEHYDE LIMITS TABLE 4.504.2 - SEALANT VOC LIMIT **INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS** MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to (Less Water and Less Exempt Compounds in Grams per Liter) MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION hundredths of a gram (g O3/g ROC). 702 QUALIFICATIONS SEALANTS **VOC LIMIT** PRODUCT **CURRENT LIMIT** Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 **702.1 INSTALLER TRAINING.** HVAC system installers shall be trained and certified in the proper 250 **ARCHITECTURAL** HARDWOOD PLYWOOD VENEER CORE 0.05 nstallation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood. certification program. Uncertified persons may perform HVAC installations when under the direct supervision and MARINE DECK 760 HARDWOOD PLYWOOD COMPOSITE CORE 0.05 esponsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this NONMEMBRANE ROOF 300 PARTICLE BOARD 0.09 examples of acceptable HVAC training and certification programs include but are not limited to the following: article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of ROADWAY 250 MEDIUM DENSITY FIBERBOARD 0.11 product (excluding container and packaging). 1. State certified apprenticeship programs. Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a). . Public utility training programs. 450 SINGLE-PLY ROOF MEMBRANE THIN MEDIUM DENSITY FIBERBOARD2 0.13 Training programs sponsored by trade, labor or statewide energy consulting or verification organizations. 4. Programs sponsored by manufacturing organizations. **REACTIVE ORGANIC COMPOUND (ROC).** Any compound that has the potential, once emitted, to contribute to OTHER 420 1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED 5. Other programs acceptable to the enforcing agency. ozone formation in the troposphere. BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL **SEALANT PRIMERS** MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE **702.2 SPECIAL INSPECTION [HCD].** When required by the enforcing agency, the owner or the VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. **ARCHITECTURAL** with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a). 250 NON-POROUS to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be 775 2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM POROUS 4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed considered by the enforcing agency when evaluating the qualifications of a special inspector: THICKNESS OF 5/16" (8 MM). woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as 500 MODIFIED BITUMINOUS applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, 1. Certification by a national or regional green building program or standard publisher. MARINE DECK 760 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building pellet stoves and fireplaces shall also comply with applicable local ordinances. DIVISION 4.5 ENVIRONMENTAL QUALITY (continued) performance contractors, and home energy auditors. 750 OTHER 4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California 4.504 POLLUTANT CONTROL Successful completion of a third party apprentice training program in the appropriate trade. Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions 4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING 4. Other programs acceptable to the enforcing agency. from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final California Specification 01350) startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component Special inspectors shall be independent entities with no financial interest in the materials or the openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to See California Department of Public Health's website for certification programs and testing labs. project they are inspecting for compliance with this code. reduce the amount of water, dust or debris which may enter the system. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx. 4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section. homes in California according to the Home Energy Rating System (HERS). TABLE 4.504.3 - VOC CONTENT LIMITS FOR **4.504.3.1 Carpet cushion.** All carpet cushion installed in the building interior shall meet the requirements of the BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall 4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the ARCHITECTURAL COATINGS2,3 California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic requirements of the following standards unless more stringent local or regional air pollution or air quality employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 his code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the management district rules apply: GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT (Emission testing method for California Specification 01350) particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a COMPOUNDS ecognized state, national or international association, as determined by the local agency. The area of certification 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks See California Department of Public Health's website for certification programs and testing labs. shall comply with local or regional air pollution control or air quality management district rules where COATING CATEGORY VOC LIMIT shall be closely related to the primary job function, as determined by the local agency. applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. FLAT COATINGS 50 https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic Note: Special inspectors shall be independent entities with no financial interest in the materials or the compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and project they are inspecting for compliance with this code. NON-FLAT COATINGS 100 4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1 tricloroethylene), except for aerosol products, as specified in Subsection 2 below. NONFLAT-HIGH GLOSS COATINGS 150 4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area receiving 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in 703 VERIFICATIONS resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the SPECIALTY COATINGS units of product, less packaging, which do not weigh more than 1 pound and do not consist of more **703.1 DOCUMENTATION.** Documentation used to show compliance with this code shall include but is not Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including ALUMINUM ROOF COATINGS 400 Version 1.2, January 2017 (Emission testing method for California Specification 01350) limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific commencing with section 94507. BASEMENT SPECIALTY COATINGS 400 See California Department of Public Health's website for certification programs and testing labs. documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in 4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the appropriate section or identified applicable checklist BITUMINOUS ROOF COATINGS 50 hhtps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx. the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits BITUMINOUS ROOF PRIMERS 350 apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss 350 BOND BREAKERS 4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard coating, based on its closs, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources composite wood products used on the interior or exterior of the buildings shall meet the requirements for Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in 350 CONCRETE CURING COMPOUNDS formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seg.), by or before the dates specified in those sections, as shown in Table 4.504.5 CONCRETE/MASONRY SEALERS 100 4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR **4.504.5.1 Documentation.** Verification of compliance with this section shall be provided as requested DRIVEWAY SEALERS 50 Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic by the enforcing agency. Documentation shall include at least one of the following: compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of California Code of 150 DRY FOG COATINGS Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Product certifications and specifications. Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation FAUX FINISHING COATINGS 350 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see FIRE RESISTIVE COATINGS 350 CCR. Title 17. Section 93120, et seq.) 4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the FLOOR COATINGS 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered 100 enforcing agency. Documentation may include, but is not limited to, the following: Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA FORM-RELEASE COMPOUNDS 250 0121, CSA 0151, CSA 0153 and CSA 0325 standards. 1. Manufacturer's product specification. 5. Other methods acceptable to the enforcing agency. GRAPHIC ARTS COATINGS (SIGN PAINTS) 2. Field verification of on-site product containers. 500 HIGH TEMPERATURE COATINGS 420 4.505 INTERIOR MOISTURE CONTROL INDUSTRIAL MAINTENANCE COATINGS 250 TABLE 4.504.1 - ADHESIVE VOC LIMIT<sub>1,2</sub> **4.505.1 General.** Buildings shall meet or exceed the provisions of the California Building Standards Code. LOW SOLIDS COATINGS1 120 **4.505.2 CONCRETE SLAB FOUNDATIONS.** Concrete slab foundations required to have a vapor retarder by (Less Water and Less Exempt Compounds in Grams per Liter) MAGNESITE CEMENT COATINGS 450 California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the ARCHITECTURAL APPLICATIONS VOC LIMIT California Residential Code, Chapter 5, shall also comply with this section. MASTIC TEXTURE COATINGS 100 50 INDOOR CARPET ADHESIVES METALLIC PIGMENTED COATINGS **4.505.2.1 Capillary break.** A capillary break shall be installed in compliance with at least one of the 500 50 CARPET PAD ADHESIVES 250 MULTICOLOR COATINGS OUTDOOR CARPET ADHESIVES 150 1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with PRETREATMENT WASH PRIMERS 420 a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, 100 WOOD FLOORING ADHESIVES shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, PRIMERS, SEALERS, & UNDERCOATERS 100 60 RUBBER FLOOR ADHESIVES 350 REACTIVE PENETRATING SEALERS 2. Other equivalent methods approved by the enforcing agency. 50 SUBFLOOR ADHESIVES 3. A slab design specified by a licensed design professional. RECYCLED COATINGS 250 65 CERAMIC TILE ADHESIVES 4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage ROOF COATINGS 50 shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent VCT & ASPHALT TILE ADHESIVES 50 moisture content. Moisture content shall be verified in compliance with the following: RUST PREVENTATIVE COATINGS 250 50 DRYWALL & PANEL ADHESIVES SHELLACS 1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent 50 COVE BASE ADHESIVES moisture verification methods may be approved by the enforcing agency and shall satisfy requirements CLEAR 730 found in Section 101.8 of this code 70 MULTIPURPOSE CONSTRUCTION ADHESIVE 2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end OPAQUE 550 of each piece verified. 100 STRUCTURAL GLAZING ADHESIVES SPECIALTY PRIMERS, SEALERS & 3. At least three random moisture readings shall be performed on wall and floor framing with documentation 100 250 SINGLE-PLY ROOF MEMBRANE ADHESIVES UNDERCOATERS acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. 50 STAINS 250 OTHER ADHESIVES NOT LISTED Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying 450 STONE CONSOLIDANTS SPECIALTY APPLICATIONS recommendations prior to enclosure. 510 340 SWIMMING POOL COATINGS PVC WELDING 4.506 INDOOR AIR QUALITY AND EXHAUST 490 TRAFFIC MARKING COATINGS 100 CPVC WELDING **4.506.1 Bathroom exhaust fans.** Each bathroom shall be mechanically ventilated and shall comply with the 420 ABS WELDING 325 **TUB & TILE REFINISH COATINGS** 1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 250 250 WATERPROOFING MEMBRANES PLASTIC CEMENT WELDING 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a 550 275 WOOD COATINGS ADHESIVE PRIMER FOR PLASTIC WOOD PRESERVATIVES 350 80 CONTACT ADHESIVE a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of 250 ZINC-RICH PRIMERS 340 SPECIAL PURPOSE CONTACT ADHESIVE b. A humidity control may be a separate component to the exhaust fan and is not required to be 1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & STRUCTURAL WOOD MEMBER ADHESIVE 140 integral (i.e., built-in) EXEMPT COMPOUNDS 250 TOP & TRIM ADHESIVE 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS SUBSTRATE SPECIFIC APPLICATIONS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE. 1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY 30 METAL TO METAL THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS 2. Lighting integral to bathroom exhaust fans shall comply with the California Energy Code. 50 PLASTIC FOAMS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD. POROUS MATERIAL (EXCEPT WOOD) 4.507 ENVIRONMENTAL COMFORT 50 4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be 30 sized, designed and have their equipment selected using the following methods: 80 FIBERGLASS 1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods. 2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems). ASHRAE handbooks or other equivalent design software or methods. 1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED. Equipment Selection), or other equivalent design software or methods. 2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE **Exception:** Use of alternate design temperatures necessary to ensure the system functions are THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR acceptable QUALITY MANAGEMENT DISTRICT RULE 1168.



By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.











Lucrezia DeLeon

Stamp/Signature:

Initia	al Submittal
Revis	ions:
$\wedge$	

Sheet Title

Title 24 Energy Compliance

Sheet No

A0.3



By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.











Stamp/Signature:

Lucrezia DeLeon

Initial Submittal	
Revisions:	

2022 Low-Rise Res. Mandatory Measures

Sheet No

**A0.4** 



By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.











Lucrezia DeLeon

Stamp/Signature:

Low

Initia	al Submittal
Revis	
$\triangle$	

Revisions:

Site Plan Proposed +
Drainage

Sheet No

A0.5





itia	al Submittal
evis	ions:
۸	

Revis	ions:
	<u>.                                      </u>

2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.

3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. 4. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom

that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section Required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a

- commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection. (CRC R314.6)
- Smoke alarms shall be installed not less than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by CRC R314.3.
- The smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. (CRC R314.4)
- Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection. (CRC R315.5)
- Required carbon monoxide alarms shall be installed in the following locations per CRC R315.3: 1. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
- 2. On every occupiable level of a dwelling unit, including basements. 3. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm
- shall be installed within the bedroom.
- Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217. (CRC R315.1.1)

#### **Electrical Notes**

- See Sheet A0.4 for 2016 Low-Rise Residential Mandatory Measures
- All 125-volt, 15-amp, and 20-amp receptacles shall be listed as tamper-resistant receptacles. [§ 406.12 CEC]
- Vent fans must be switched separately from lighting. 2019 California Energy Code 150(k)2B Provide arc-fault circuit interrupter protection for all outlets in the entire dwelling unit. 210.12 CEC
- Small Appliance Branch Circuits: Provide two or more 20-ampere small appliance branch circuits in kitchen. CEC
- Bathroom Receptacles: Outlets shall be supplied by a least one 20-amp branch circuit. Such circuits shall have no other
- outlets. CEC 210.11 (C)(3) Arc-Fault Circuit Interrupter: All branch circuits that supply 120-volt, single phase, 15 and 20 ampere branch circuits upplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry rooms or similar rooms or areas shall be protected by an arc-fault circuit
- interrupter(s). CEC 210.12(A) & (B). Laundry Branch Circuits: Provide a minimum of one 20-ampere branch circuit for laundry receptacles. CEC 210.52(F) Where branch-circuit wiring is modified, replaced or extended in areas specified in CEC 210.12(A), the branch circuit shall be
- protected by either a listed combination-type AFCI located at the origin of the branch circuit or a listed outlet branch-circuit type AFCI located at the first receptacle of the existing branch circuit. [CEC 210.12 (D)] 10. All interior residential lighting is to be high efficacy. Luminaires with integral sources (e.g., LED luminaires) and changeable
- lamps must be CEC certified as meeting the requirements of JA8. 11. Lighting not automatically classified as high efficacy by the CA Energy Commission (e.g., pin-based fluorescent I
- uminaires, pulse-start halide luminaires, high pressure sodium luminaries) is to have a light source or lamp installed in them at the time of inspection that meets the requirements of Joint Appendix JA8. 12. Recessed downlighting is to contain light sources that are JA8-certified, shall not contain screw based lamps and shall not contain light sources that are labeled "not for use in enclosed fixtures" or "not for use in recessed fixtures". They shall be listed for zero clearance, have a label that certifies the luminaire as airtight when tested in accordance with ASTM E283 (with the exception
- of exhaust fan housings) and be readily accessible for ballast or driver maintenance and replacement The NFRC thermal performance labels shall remain on the windows until final inspection
- All exterior outlets shall be waterproof/GFCI outdoor receptacles. [CEC 210.52 (E)(1)]. Except for closets less than 70 square feet and hallways, all luminaires that are installed with JA8-certified light sources are
- required to be controlled by either a dimmer or vacancy sensor. Please note or show this on plans. At least one luminaire each bathroom, garage, laundry room, and utility room shall be controlled by a manual on/automatic-off vacancy sensor. Please indicate this on the plans. [California Energy Code Section 150 (k) 2 (J)]

#### Plumbing Notes

- -All water closets shall have an effective flush volume of not more than 1.28 gallons per flush. Tank type water closet shall be certified to the performance criteria of the U.S. EPA Water Sense Specification for tank type toilets.
- -Urinals shall have an effective flush volume not to exceed 0.5 gallons per flush. -Single shower heads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Multiple shower heads when served by a single valve shall have a combined flow rated not to exceed 1.8 gallons per minute. -Residential lavatory faucets shall have a maximum rate of 1.2 gallons per minute at 60 psi and a minimum flow rate of not
- less than 0.8 gallons per minute at 20 psi. -Faucets in common and public areas (outside dwellings and sleeping units) in residential buildings must have a maximum
- flow rate of 0.5 gallons per minute at 60 psi. -Metering faucets when installed in residential buildings must not deliver more than 0.25 gallons per cycle.
- -Kitchen faucets shall have a maximum of flow rate of 1.8 gallons per minute at 60 psi. -Kitchen faucets temporarily increase the flow rate to a maximum of 2.2 gallons at 60 psi but must default back to the 1.8
- -The WC shall be located in a space of 30" min. width, and 24" min. clear space in front shall be provided. CPC 407.5

A plumbing fixture certification must be completed and signed by either a licensed general contractor, or a plumbing

subcontractor or the building owner certifying the flow rate of the fixtures installed.

Joints and openings, annular spaces around pipes, electric cables, conduits, or other openings in plates of exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method accepted by agency. (Section 4.406.1)

#### **Bathroom Exhaust Fans**

Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control. Humidity controls shall be capable of adjustment between a relative humidity range of:::; 50 percent to a maximum of 80 percent. A humidity control may utilize manual or automatic means of adjustment. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in).

Water Closet Flush: Water Closets, either flush tank, flushometer tank, or flushometer valve operated, shall have an average consumption of not more than 1.28 gallons of water per flush. Lavatory Faucets shall have a maximum flow rate of 1.2 gpm at 60 psi, Kitchen faucets: Max 1.8 gpm at 60 psi, Showerheads: Max 1.8 gpm at 80 psi and multiple showerheads serving one shower shall have a combined flow rate of all showerheads of 1.8 gpm at 80 psi. 2016 California Green Building Code Section 4.303"

#### **Title 24 Notes**

-Residential Outdoor Lighting CEC 150 (k) 3; In addition to meeting the requirements of Section 150.0(k) 1A, luminaires providing residential outdoor lighting shall meet the following requirements;

- Controlled by a manual ON and OFF switch.
- Controlled by a photocell and motion sensor. Controlled by one of the following methods:
- Photocontrol and automatic time switch control Astronomical time clock
- Energy management control -In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces shall be

controlled by a vacancy sensor. CEC 150.0 Show the lighting control device on the plans.

-The bathroom lighting and exhaust fan are utilizing the same switch. The exhaust fan shall be separately switched.

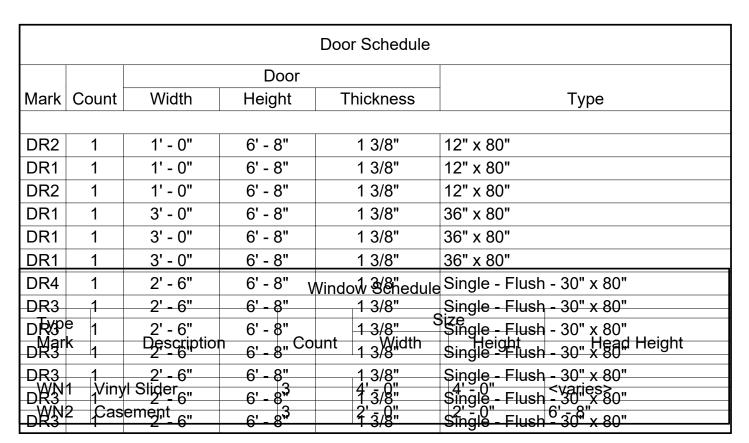
-Exhaust fans must be switched separate from lighting or utilize a device where lighting can be turned OFF while the fan is running. The exhaust fans will achieve the minimum 31 CFM of IAQ specified in the Title 24 report.

-Dimmers or vacancy sensors shall control all luminaires required to have light sources compliant with Reference Joint Appendix JA8. Show lighting control device on the plans. Exception: Luminaires in closets less than 70 square

-Luminaires that must use JAB-Certified Light Sources or Lamps; Sheet A 1.1, keynote 2, what type of high efficacy and show the type of lighting control device to be installed.

- Light sources in ceiling recessed downlight luminaires LED luminaires with integral sources
- Screw-based LED lamps (A-lamps, PAR lamps, etc.) Pin-based LED lamps (MR-16-AR-111, etc.)
- GU-24 based LED light source

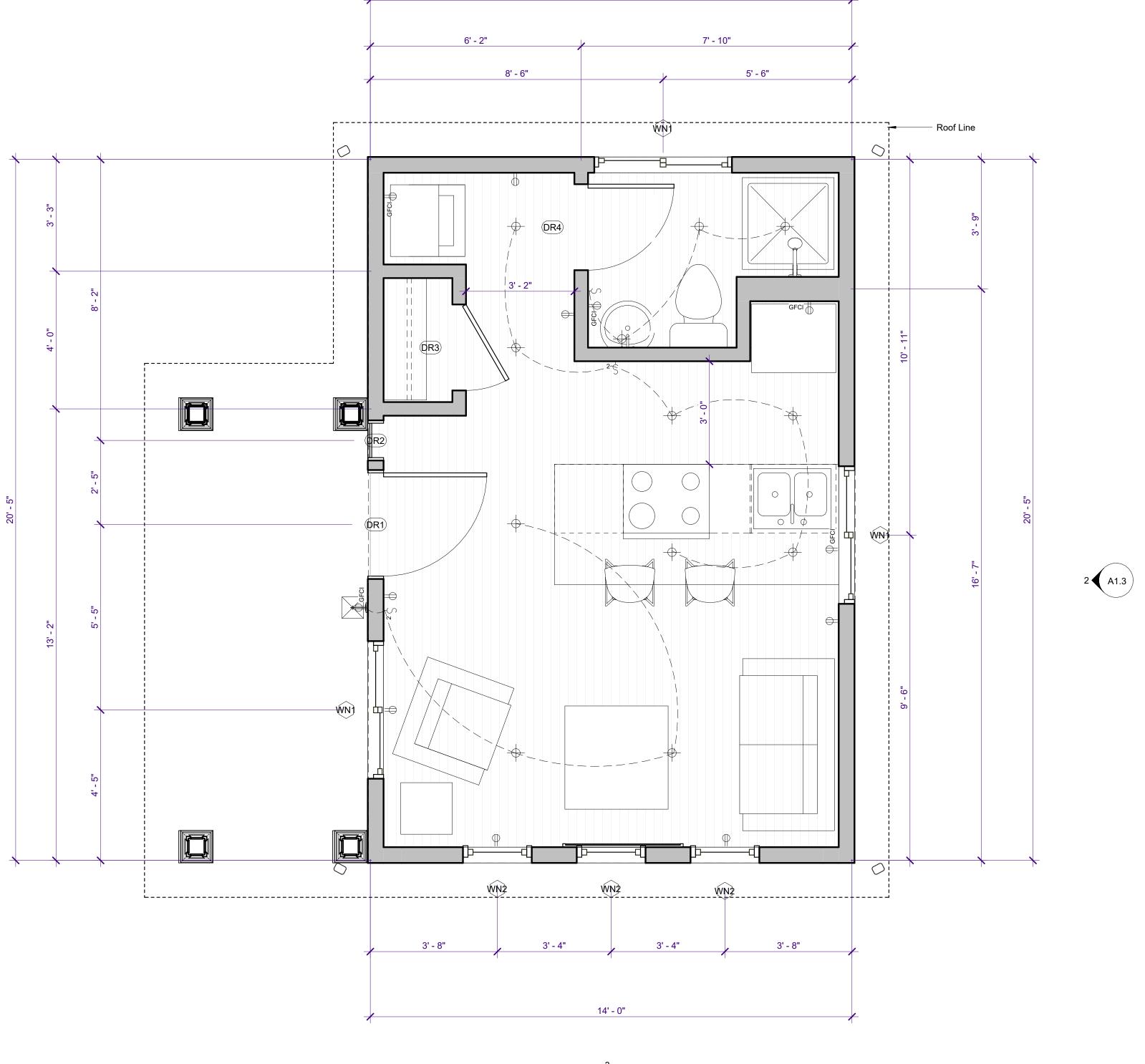
**Note:** 10.01 at the time of final inspection, an operation & maintenance manual, compact disc or web based reference shall be placed in the building. This manual shall include all of the items listed on California Green Building Standards Code Section 4.410.1. [CGBSC 4.410]



	Keynotes - Floor Plans	
Note	Comment	

14' - 0"







2 Floorplans - Furniture Layout 1  $\sqrt{1/2}$ " = 1'-0"

Proto of A City

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.









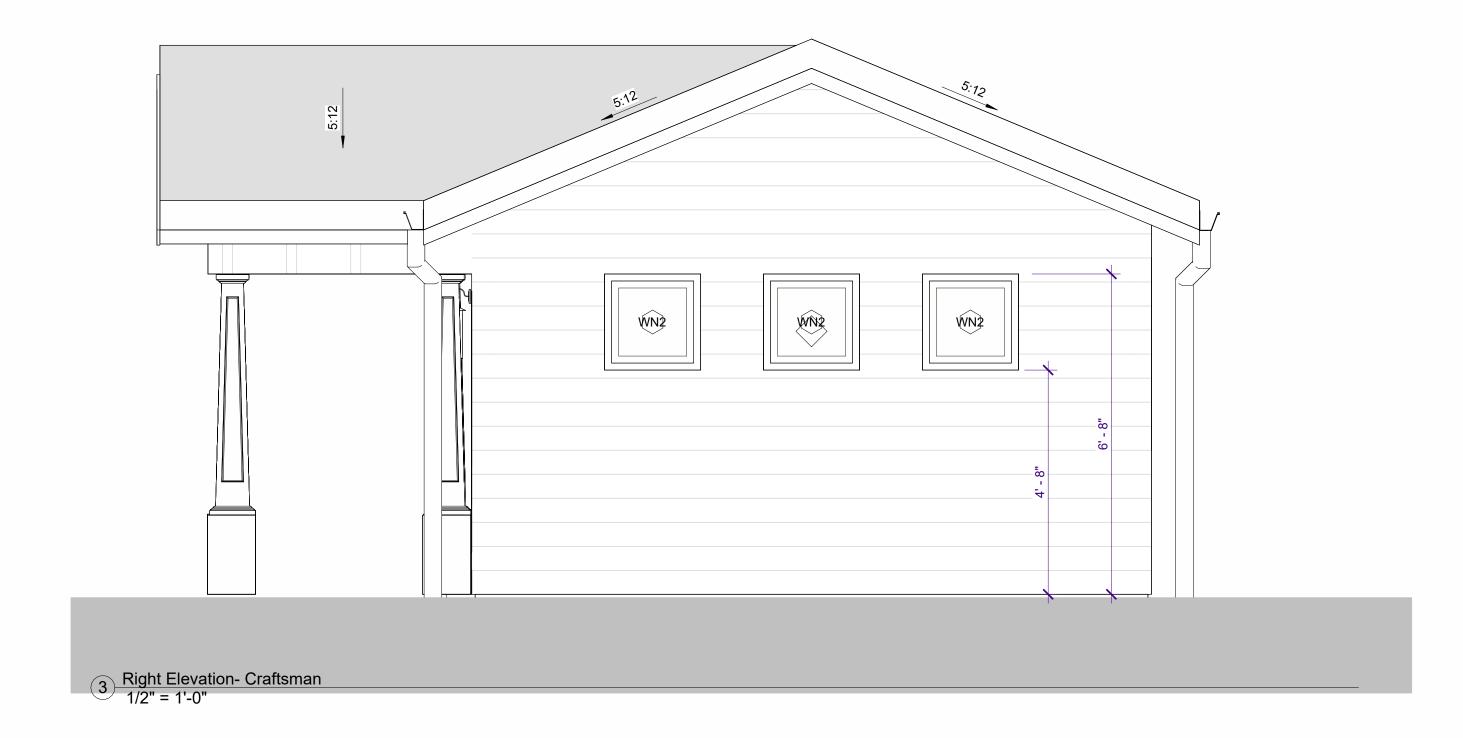


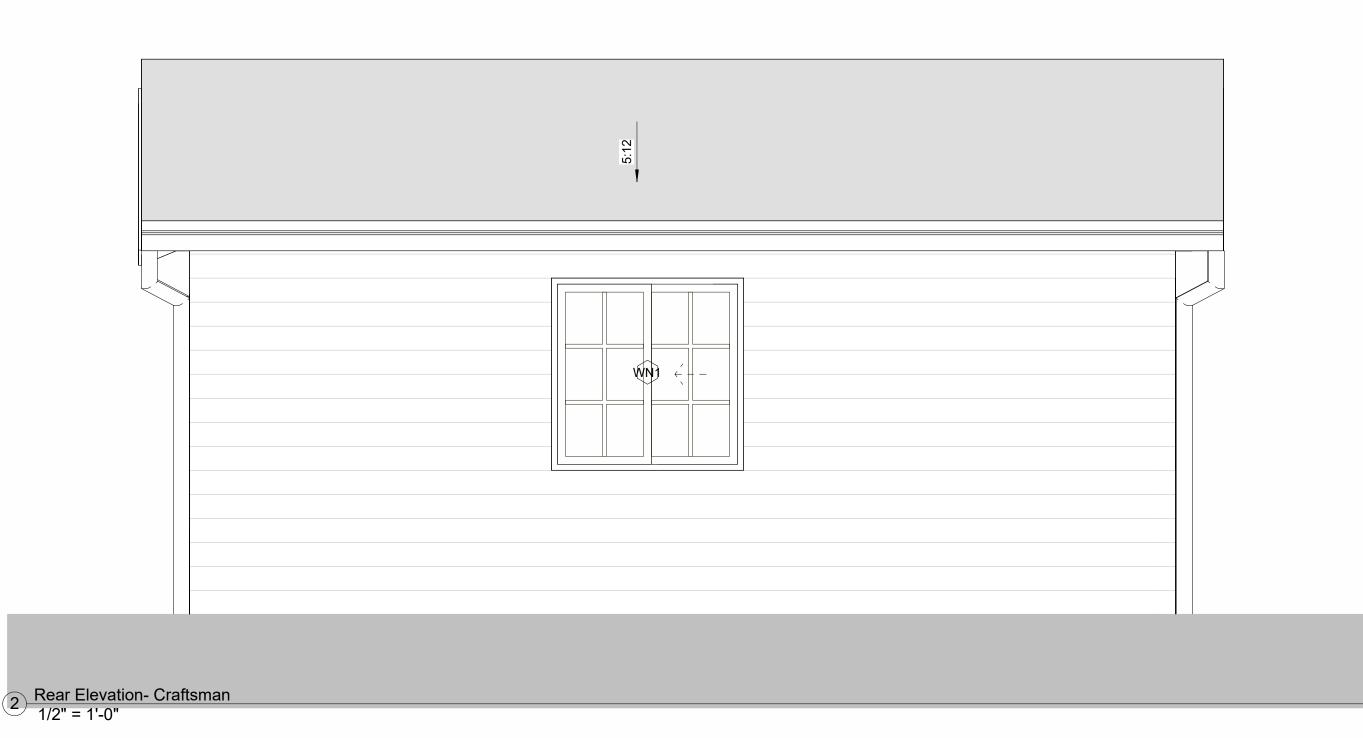
Stamp/Signature: Lucrezia DeLeon

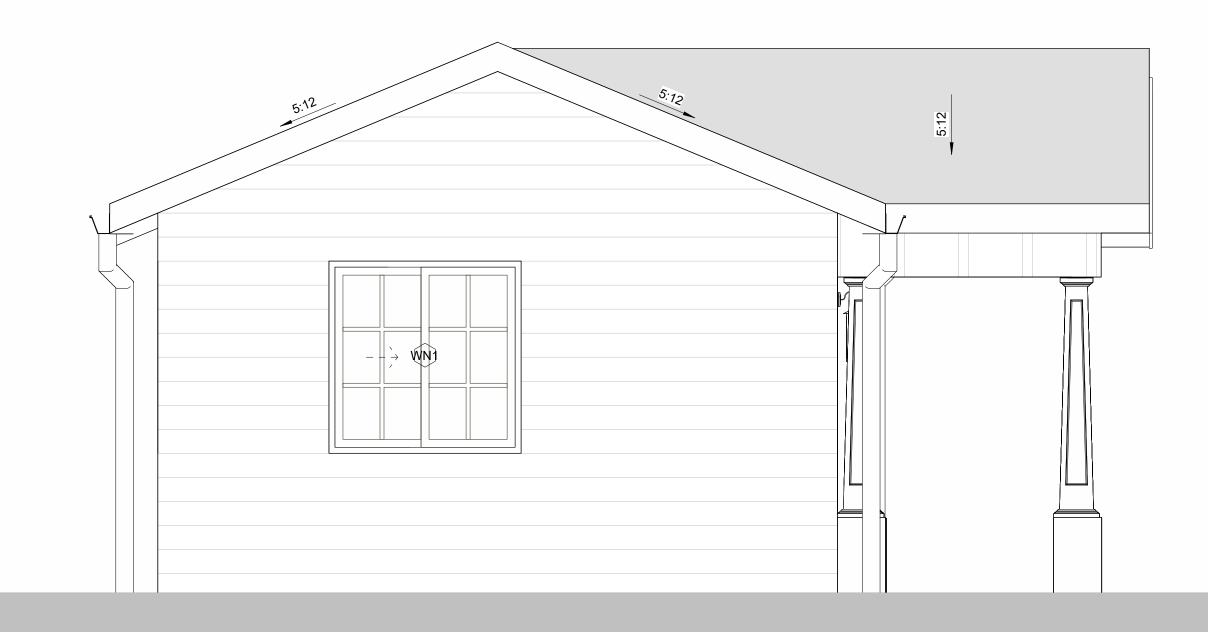
Initia	al Submittal
Revis	ions:

Floor plans - 250 **SF ADU** 









4 Left Elevation- Craftsman

Note: CRC Section R308.4

1. **R308.4.1** Glazing in fixes and operatons apnels of swingings, slidng, and bifold doors shall be considered to be a hazardous leasting.

Exceptions:
1. Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass.

Decorative glazing.
 R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
 Where the glazing is on a wall less than 180 degrees (3.14 rad) from the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:
1. Decorative glazing.

Where there is an intervening wall or other per-manent barrier between the door and the glazing.
 Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this

application shall comply with Section R308.4.3.
Glazing that is adjacent to the fixed panel of patio doors.

3. **R308.4.3** Glazing in windows. Glazing in an individual fixed or operable panel that meets all of the following con-ditions shall be considered to be a hazardous location:

1. The exposed area of an individual pane is larger than 9 square feet (0.836 m2).

The bottom edge of the glazing is less than 18 inches (457 mm) above the floor.
 The top edge of the glazing is more than 36 inches (914 mm) above the floor.
 U- factor of new glazing is not to exceed 0.30 and SHGC shall not exceed 0.23.

TABLE R308.3.1(1)

MINIMUM CATEGORY CLASSIFICATION OF GLAZING USING CPSC 16 CFR 1201

EXPOSED SURFACE AREA OF ONE SIDE OF ONE LITE

OF ONE LITE

9 square feet or less

I I NR I II II

More than 9 square feet

II II II II II II III

For SEL Jaccomp for an One of the property of the prop

EXPOSED SURFACE AREA OF ONE SIDE OF ONE LITE	GLAZED PANELS REGULATED BY SECTION R308.4.3 (Category Class)	GLAZED PANELS REGULATED BY SECTION R308.4.2 (Category Class)	DOORS AND ENCLOSURES REGULATED BY SECTION R308.4.5* (Category Class)
9 square feet or less	No requirement	В	A
More than 9 square feet	A	A	A

Outdoor Electrical Notes:
60.01 Outdoor lighting permanently mounted to a single family dwelling or other buildings in the same lot shall be high efficacy and must be controlled by an on/off switch that does not override to ON as listed below. Also, the lighting must by one of the following methods:

1. Controlled by photocell and motion sensor. Controls that override to ON shall not be allowed unless the override automatically reactivates

the motion sensor within 6 hours, or
Controlled by any of the following:

1. Photocell and automatic time switch control. Controls that

override to ON shall not be allowed unless the override automatically return the photocontrol and automatic time switch control to its normal operation within 6 hours, or Astronomical time clock. Controls that override to ON shall not be allowed unless the override automatically return the astronomical clock its normal operation within 6 hours and which is programmed to automatically turn the outdoor

lighting OFF during daylight hours, or
Energy management control system which meets all of the
following requirements. At a minimum provides the
functionality of an astronomical time clock in accordance with
Section 110.9 of the standards; meets the Installation
Certification requirements in Section 130.4 of the standards;
meets the requirements for an EMCS in Section 130.5 of the
standards; does not have an override or bypass switch that
allows the luminaire to be always ON; and, is programmed to
automatically turn the outdoor lighting OFF during daylight

Note: Unvented attic assemblies can be approved provided the unvented attic space is completelycontained within the building thermal envelope and no interior vapor retarder is installed on the ceiling side of the unvented attic assembly. Insulation shall be applied in direct contact with the underside of the structural roof sheathing and shall either be entirely

air-impermeable product or shall have a layer of air-impermeable product installed in direct contact with the underside of the structural roof sheathing for proper condensation control with the balance of the insulation being air-impermeable below it. (Note: Air-permeable insulation alone may be applied directly below the structural sheathing when rigid insulation with an R-value of R-5 minimum is installed directly above the structural roof sheathing for condensation control) [CRC R806.5]

City of Santa Barbara ADU Proto Types

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.





customhome.ai





Stamp/Signature:

Lucrezia DeLeon

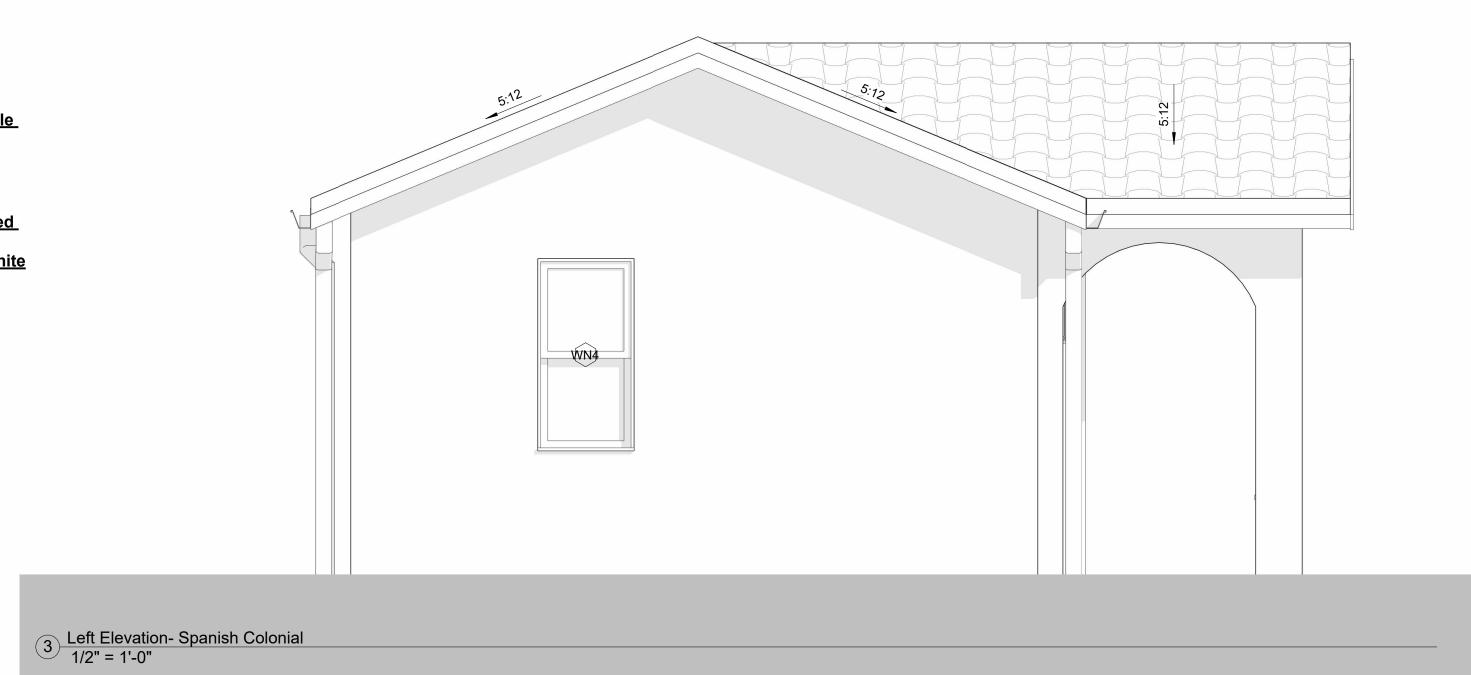
Initia	al Submittal
Revis	ions:

Elevations -Craftsman - 250 SF

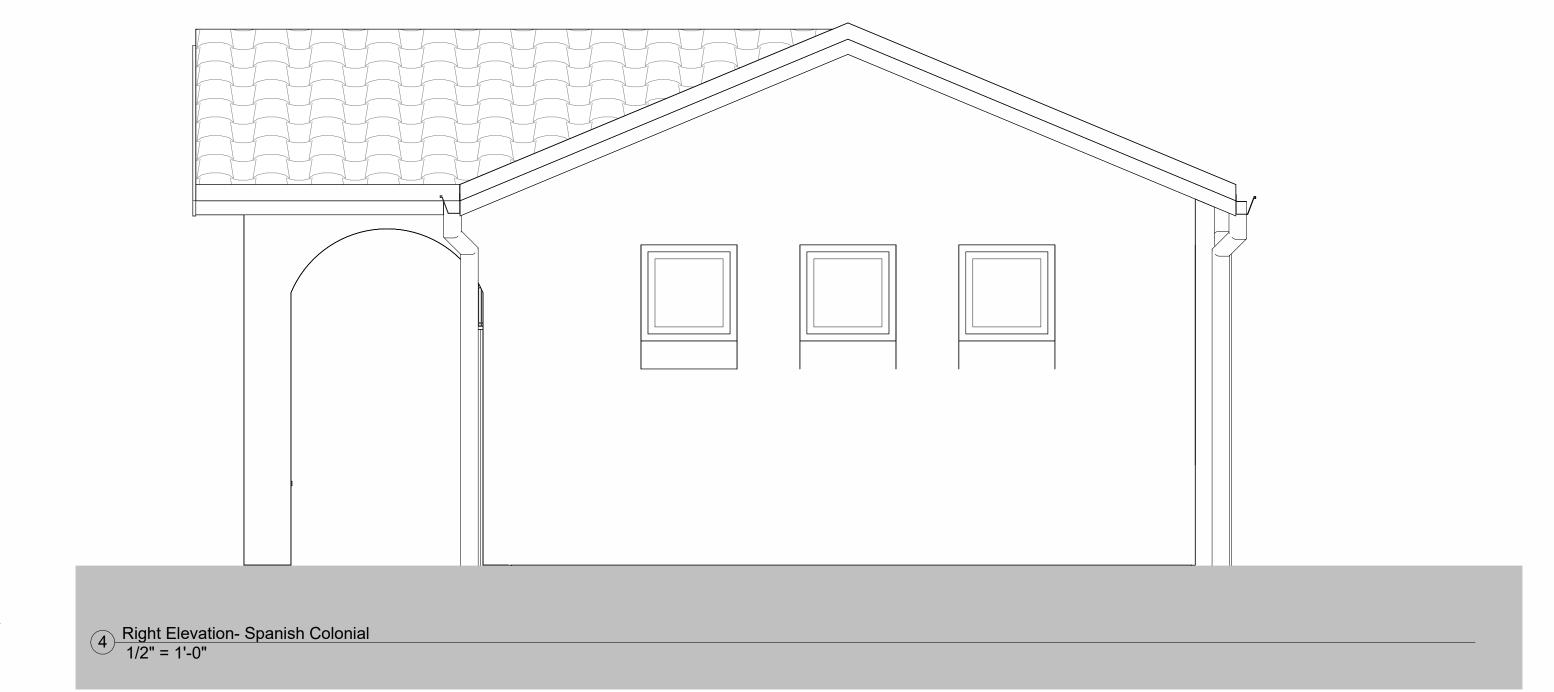
Sheet No.:

41.3









Note: CRC Section R308.4 1. **R308.4.1** Glazing in fixes and operatons apnels of swingings, slidng, and bifold doors shall be considered to be a hazardous location.

Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass. Decorative glazing.

2. **R308.4.2** Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position. Where the glazing is on a wall less than 180 degrees (3.14 rad) from the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Decorative glazing.

Where there is an intervening wall or other per-manent barrier between the door and the glazing. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.

Glazing that is adjacent to the fixed panel of patio doors.

4. U- factor of new glazing is not to exceed 0.30 and SHGC shall not exceed 0.23.

The bottom edge of the glazing is less than 18 inches (457 mm) above the floor. The top edge of the glazing is more than 36 inches (914 mm) above the floor.

3. **R308.4.3** Glazing in windows. Glazing in an individual fixed or operable panel that meets all of the following con-ditions shall be considered to be a hazardous location: The exposed area of an individual pane is larger than 9 square feet (0.836 m2).

GLAZING IN
STORM OR
COMBINATION
DOORS
(Category Class)

GLAZING IN
Category Class)

GLAZING IN
DOORS
GLAZING IN
DOORS
GLAZING IN
DOORS
REGULATED BY
SECTION R308.4.3
(Category Class)

GLAZED PANELS
REGULATED BY
SECTION R308.4.3
(Category Class)

GLAZING IN
DOORS AND
ENCLOSURES
DOORS PATIO TYPE
SECTION 308.4.5
(Category Class)

GLAZED PANELS REGULATED BY SECTION R308.4.3 GLAZED PANELS REGULATED BY SECTION R308.4.5 (Category Class) DOORS AND ENCLOSURES REGULATED BY SECTION R308.4.5 (Category Class) (Category Class)

TABLE R308.3.1(2)
MINIMUM CATEGORY CLASSIFICATION OF GLAZING USING ANSI Z97.1

No requirement

EXPOSED SURFACE AREA OF ONE SIDE OF ONE LITE

guare feet or less

For SI: 1 square foot = 0.0929 m<sup>2</sup>.

a. Use is permitted only by the exception to Section R308.3.1.

More than 9 square feet

60.01 Outdoor lighting permanently mounted to a single family dwelling or other buildings in the same lot shall be high efficacy and must be controlled by an on/off switch that does not override to ON as listed below. Also, the lighting must by one of the following methods:

- Controlled by photocell and motion sensor. Controls that override to ON shall not be allowed unless the override automatically reactivates the motion sensor within 6 hours, or
- Controlled by any of the following: Photocell and automatic time switch control. Controls that override to ON shall not be allowed unless the override automatically return the photocontrol and automatic time
- switch control to its normal operation within 6 hours, or Astronomical time clock. Controls that override to ON shall not be allowed unless the override automatically return the astronomical clock its normal operation within 6 hours and which is programmed to automatically turn the outdoor lighting OFF during daylight hours, or
- Energy management control system which meets all of the following requirements. At a minimum provides the functionality of an astronomical time clock in accordance with Section 110.9 of the standards; meets the Installation Certification requirements in Section 130.4 of the standards; meets the requirements for an EMCS in Section 130.5 of the standards; does not have an override or bypass switch that allows the luminaire to be always ON; and, is programmed to automatically turn the outdoor lighting OFF during daylight

Note: Unvented attic assemblies can be approved provided the unvented attic space is completelycontained within the building thermal envelope and no interior vapor retarder is installed on the ceiling side of the unvented attic assembly. Insulation shall be applied in direct contact with the underside of the structural roof sheathing and shall either be entirely

air-impermeable product or shall have a layer of air-impermeable product installed in direct contact with the underside of the structural roof sheathing for proper condensation control with the balance of the insulation being air-impermeable below it. (Note: Air-permeable insulation alone may be applied directly below the structural sheathing when rigid insulation with an R-value of R-5 minimum is installed directly above the structural roof sheathing for condensation control) [CRC R806.5]

of City arbara

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.









Stamp/Signature:

Lucrezia DeLeon

Initia	al Submittal
Revis	ions:

**Elevations -**Spanish Colonial -250 SF

2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.

3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. 4. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom

that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section Required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a

commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection. (CRC R314.6) Smoke alarms shall be installed not less than 3 feet horizontally from the door or opening of a bathroom that

contains a bathtub or shower unless this would prevent placement of a smoke alarm required by CRC R314.3. The smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. (CRC R314.4)

Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection. (CRC R315.5)

Required carbon monoxide alarms shall be installed in the following locations per CRC R315.3:

1. Outside of each separate sleeping area in the immediate vicinity of the bedrooms. 2. On every occupiable level of a dwelling unit, including basements.

3. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217. (CRC R315.1.1)

#### **Electrical Notes**

See Sheet A0.4 for 2016 Low-Rise Residential Mandatory Measures

All 125-volt, 15-amp, and 20-amp receptacles shall be listed as tamper-resistant receptacles. [§ 406.12 CEC]

Vent fans must be switched separately from lighting. 2019 California Energy Code 150(k)2B Provide arc-fault circuit interrupter protection for all outlets in the entire dwelling unit. 210.12 CEC

Small Appliance Branch Circuits: Provide two or more 20-ampere small appliance branch circuits in kitchen. CEC Bathroom Receptacles: Outlets shall be supplied by a least one 20-amp branch circuit. Such circuits shall have no other

outlets. CEC 210.11 (C)(3) Arc-Fault Circuit Interrupter: All branch circuits that supply 120-volt, single phase, 15 and 20 ampere branch circuits upplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms,

sunrooms, recreation rooms, closets, hallways, laundry rooms or similar rooms or areas shall be protected by an arc-fault circuit interrupter(s). CEC 210.12(A) & (B). Laundry Branch Circuits: Provide a minimum of one 20-ampere branch circuit for laundry receptacles. CEC 210.52(F) Where branch-circuit wiring is modified, replaced or extended in areas specified in CEC 210.12(A), the branch circuit shall be

protected by either a listed combination-type AFCI located at the origin of the branch circuit or a listed outlet branch-circuit type AFCI located at the first receptacle of the existing branch circuit. [CEC 210.12 (D)] 10. All interior residential lighting is to be high efficacy. Luminaires with integral sources (e.g., LED luminaires) and changeable

lamps must be CEC certified as meeting the requirements of JA8. 11. Lighting not automatically classified as high efficacy by the CA Energy Commission (e.g., pin-based fluorescent I

uminaires, pulse-start halide luminaires, high pressure sodium luminaries) is to have a light source or lamp installed in

them at the time of inspection that meets the requirements of Joint Appendix JA8. 12. Recessed downlighting is to contain light sources that are JA8-certified, shall not contain screw based lamps and shall not contain light sources that are labeled "not for use in enclosed fixtures" or "not for use in recessed fixtures". They shall be listed for zero clearance, have a label that certifies the luminaire as airtight when tested in accordance with ASTM E283 (with the exception of exhaust fan housings) and be readily accessible for ballast or driver maintenance and replacement

The NFRC thermal performance labels shall remain on the windows until final inspection All exterior outlets shall be waterproof/GFCI outdoor receptacles. [CEC 210.52 (E)(1)].

Except for closets less than 70 square feet and hallways, all luminaires that are installed with JA8-certified light sources are

required to be controlled by either a dimmer or vacancy sensor. Please note or show this on plans. At least one luminaire each bathroom, garage, laundry room, and utility room shall be controlled by a manual on/automatic-off vacancy sensor. Please indicate this on the plans. [California Energy Code Section 150 (k) 2 (J)]

#### Plumbing Notes

-All water closets shall have an effective flush volume of not more than 1.28 gallons per flush. Tank type water closet shall be certified to the performance criteria of the U.S. EPA Water Sense Specification for tank type toilets.

-Urinals shall have an effective flush volume not to exceed 0.5 gallons per flush. -Single shower heads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Multiple shower heads when served by a single valve shall have a combined flow rated not to exceed 1.8 gallons per minute. -Residential lavatory faucets shall have a maximum rate of 1.2 gallons per minute at 60 psi and a minimum flow rate of not less than 0.8 gallons per minute at 20 psi.

-Faucets in common and public areas (outside dwellings and sleeping units) in residential buildings must have a maximum

flow rate of 0.5 gallons per minute at 60 psi. -Metering faucets when installed in residential buildings must not deliver more than 0.25 gallons per cycle.

-Kitchen faucets shall have a maximum of flow rate of 1.8 gallons per minute at 60 psi. -Kitchen faucets temporarily increase the flow rate to a maximum of 2.2 gallons at 60 psi but must default back to the 1.8

-The WC shall be located in a space of 30" min. width, and 24" min. clear space in front shall be provided. CPC 407.5

A plumbing fixture certification must be completed and signed by either a licensed general contractor, or a plumbing subcontractor or the building owner certifying the flow rate of the fixtures installed.

Joints and openings, annular spaces around pipes, electric cables, conduits, or other openings in plates of exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method accepted by agency. (Section 4.406.1)

#### **Bathroom Exhaust Fans**

Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control. Humidity controls shall be capable of adjustment between a relative humidity range of:::; 50 percent to a maximum of 80 percent. A humidity control may utilize manual or automatic means of adjustment. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in).

Water Closet Flush: Water Closets, either flush tank, flushometer tank, or flushometer valve operated, shall have an average consumption of not more than 1.28 gallons of water per flush. Lavatory Faucets shall have a maximum flow rate of 1.2 gpm at 60 psi, Kitchen faucets: Max 1.8 gpm at 60 psi, Showerheads: Max 1.8 gpm at 80 psi and multiple showerheads serving one shower shall have a combined flow rate of all showerheads of 1.8 gpm at 80 psi. 2016 California Green Building Code Section 4.303"

#### **Title 24 Notes**

-Residential Outdoor Lighting CEC 150 (k) 3; In addition to meeting the requirements of Section 150.0(k) 1A,

luminaires providing residential outdoor lighting shall meet the following requirements; Controlled by a manual ON and OFF switch.

Controlled by a photocell and motion sensor.

Controlled by one of the following methods: Photocontrol and automatic time switch control

Astronomical time clock Energy management control

-In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces shall be controlled by a vacancy sensor. CEC 150.0 Show the lighting control device on the plans.

-The bathroom lighting and exhaust fan are utilizing the same switch. The exhaust fan shall be separately switched.

-Exhaust fans must be switched separate from lighting or utilize a device where lighting can be turned OFF while the fan is running. The exhaust fans will achieve the minimum 31 CFM of IAQ specified in the Title 24 report. -Dimmers or vacancy sensors shall control all luminaires required to have light sources compliant with Reference

Joint Appendix JA8. Show lighting control device on the plans. Exception: Luminaires in closets less than 70 square

-Luminaires that must use JAB-Certified Light Sources or Lamps; Sheet A 1.1, keynote 2, what type of high efficacy and show the type of lighting control device to be installed.

Light sources in ceiling recessed downlight luminaires

LED luminaires with integral sources Screw-based LED lamps (A-lamps, PAR lamps, etc.)

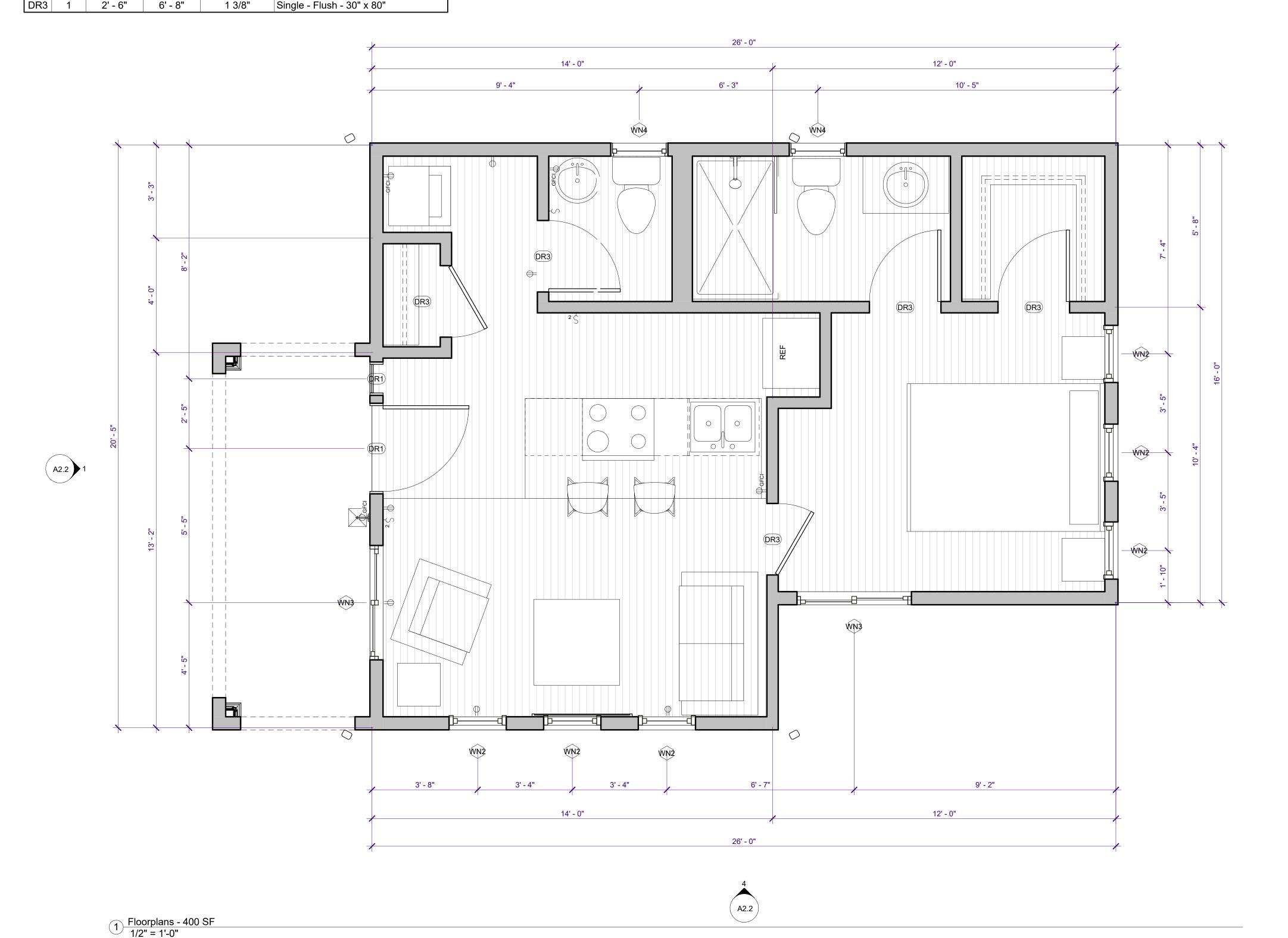
Pin-based LED lamps (MR-16-AR-111, etc.) GU-24 based LED light source

**Note:** 10.01 at the time of final inspection, an operation & maintenance manual, compact disc or web based reference shall be placed in the building. This manual shall include all of the items listed on California Green Building Standards Code Section 4.410.1. [CGBSC 4.410]

				Door Schedule	
			Door		
lark	Count	Width	Height	Thickness	Туре
R2	1	1' - 0"	6' - 8"	1 3/8"	12" x 80"
R1	1	1' - 0"	6' - 8"	1 3/8"	12" x 80"
R2	1	1' - 0"	6' - 8"	1 3/8"	12" x 80"
R1	1	3' - 0"	6' - 8"	1 3/8"	36" x 80"
R1	1	3' - 0"	6' - 8"	1 3/8"	36" x 80"
R1	1	3' - 0"	6' - 8"	1 3/8"	36" x 80"
R4	1	2' - 6"	6' - 8"	1 3/8"	Single - Flush - 30" x 80"
R3	1	2' - 6"	6' - 8"	1 3/8"	Single - Flush - 30" x 80"
R3	1	2' - 6"	6' - 8"	1 3/8"	Single - Flush - 30" x 80"
R3	1	2' - 6"	6' - 8"	1 3/8"	Single - Flush - 30" x 80"
R3	1	2' - 6"	6' - 8"	1 3/8"	Single - Flush - 30" x 80"
R3	1	2' - 6"	6' - 8"	1 3/8"	Single - Flush - 30" x 80"

Туре			S	ize	
Mark	Description	Count	Width	Height	Head Height
WN2	Casement	6	2' - 0"	2' - 0"	6' - 8"
WN3	Vinyl Slider	2	4' - 0"	4' - 0"	6' - 8"
WN4		2	2' - 0"	4' - 0"	6' - 8"
	<u>K</u>	<u>Ceynotes -</u>	Floor Plans		
Note			Comment		
		•	•		<u> </u>

Window Schedule



Proto City

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.









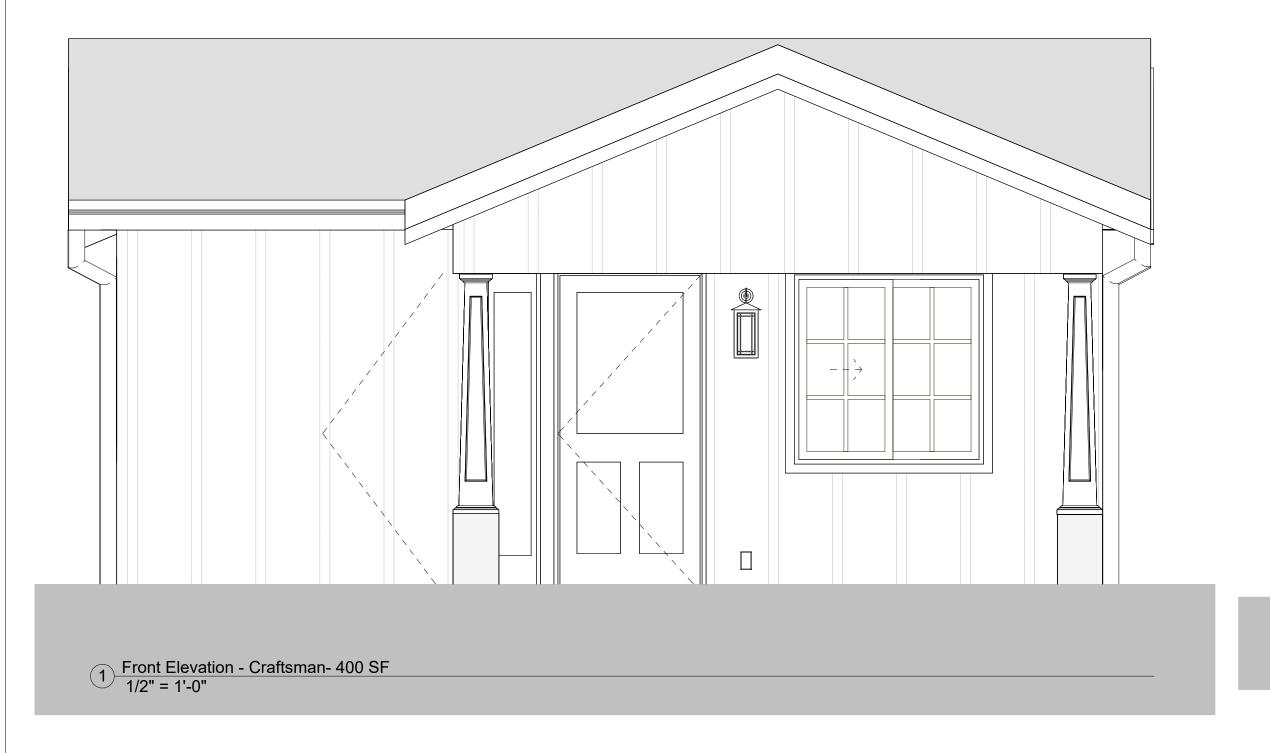


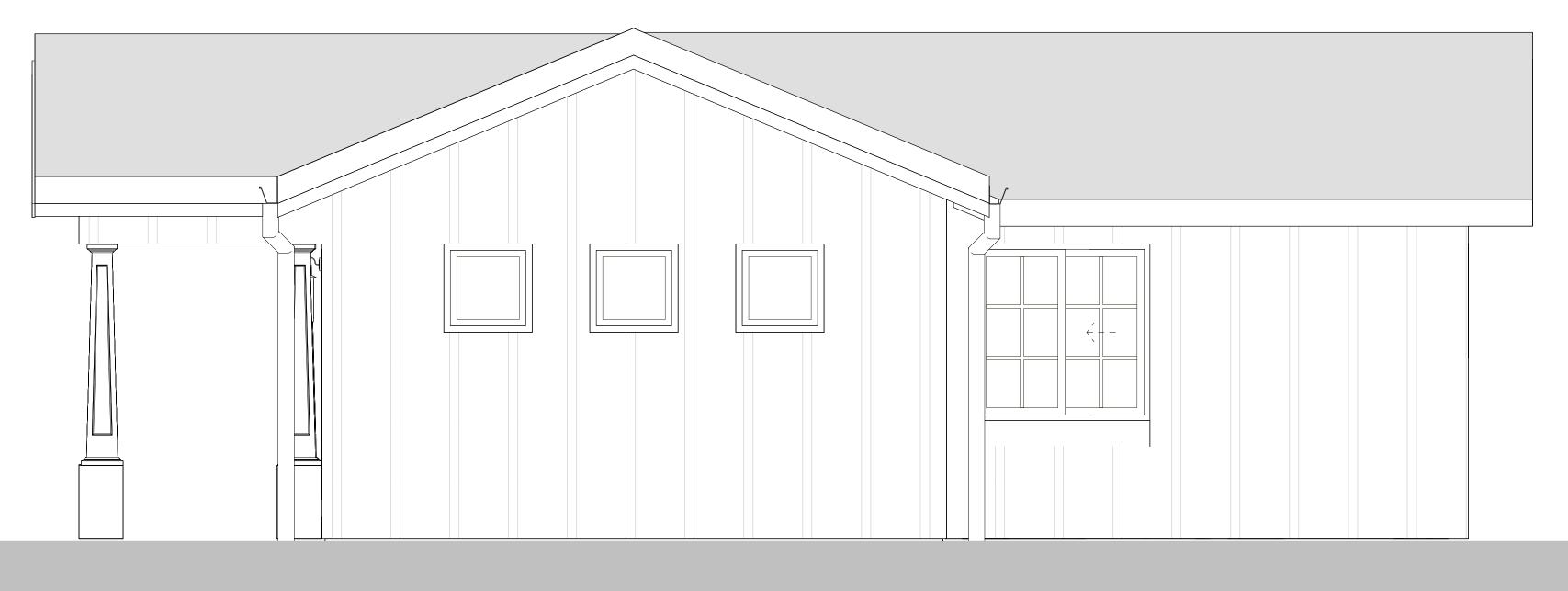
Stamp/Signature:

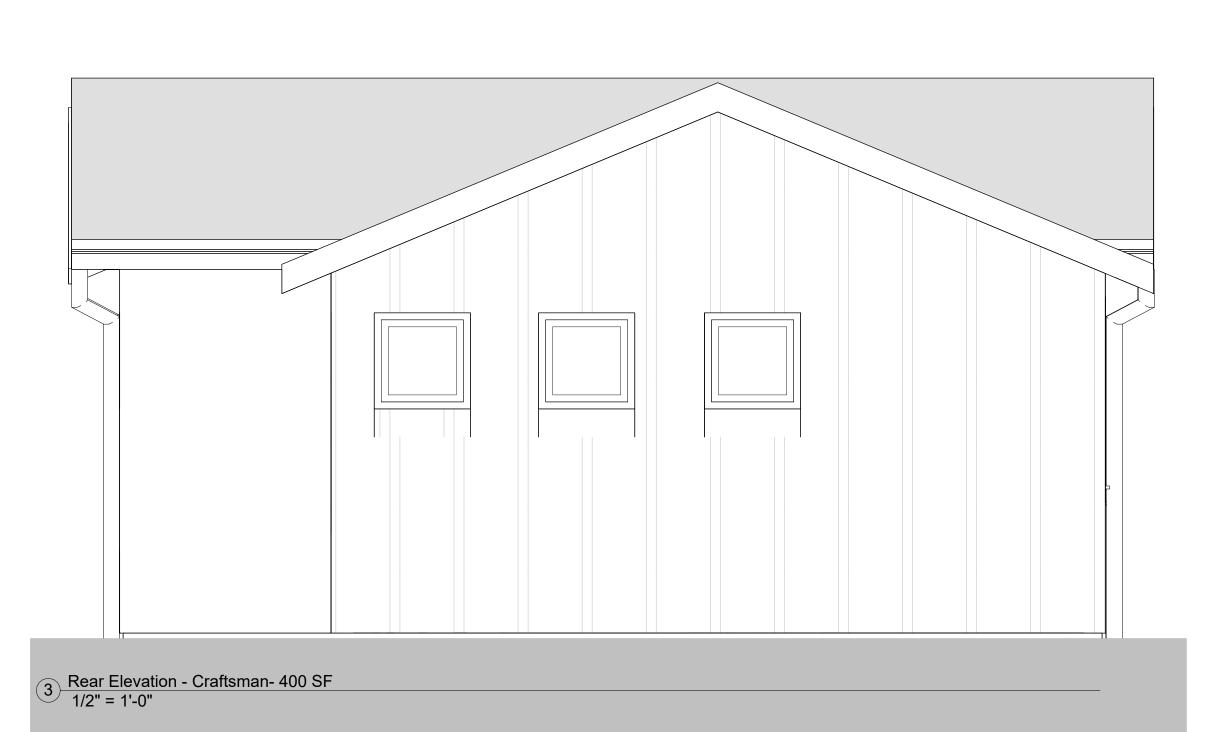
Lucrezia DeLeon

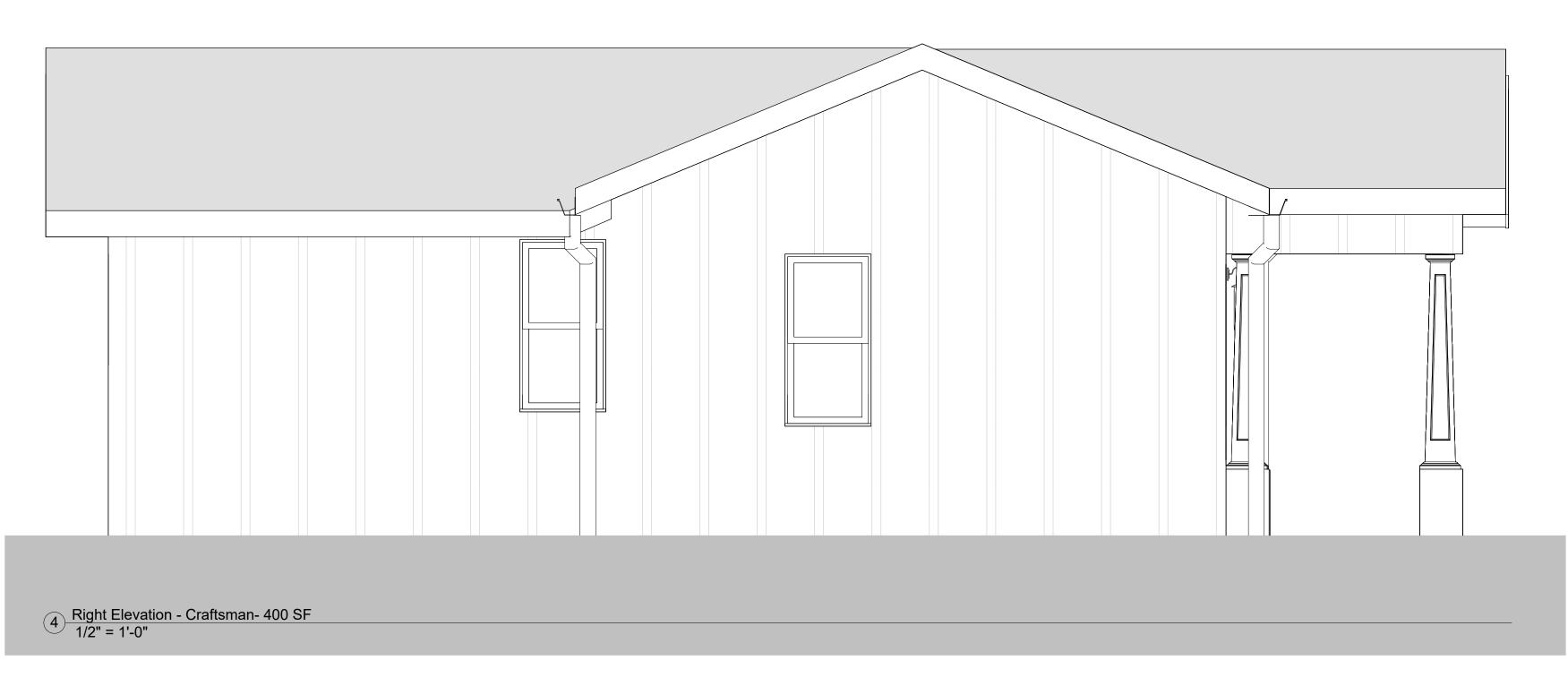
Initia	al Submittal
Revis	ions:

Floor plans - 450 SF - ADU









Note: CRC Section R308.4 1. **R308.4.1** Glazing in fixes and operatons apnels of swingings, slidng, and bifold doors shall be considered to be a hazardous location.

Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass.

Decorative glazing. 2. R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position. Where the glazing is on a wall less than 180 degrees (3.14 rad) from the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:

Decorative glazing.

Where there is an intervening wall or other per-manent barrier between the door and the glazing. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3. Glazing that is adjacent to the fixed panel of patio doors.

3. R308.4.3 Glazing in windows. Glazing in an individual fixed or operable panel that meets all of the following con-ditions shall be considered to be a hazardous location:

The exposed area of an individual pane is larger than 9 square feet (0.836 m2). The bottom edge of the glazing is less than 18 inches (457 mm) above the floor. The top edge of the glazing is more than 36 inches (914 mm) above the floor. 4. U- factor of new glazing is not to exceed 0.30 and SHGC shall not exceed 0.23.

GLAZING IN DOORS
(Category Class)

GLAZED PANELS REGULATED BY REGULATED BY SECTION R308.4.3 (Category Class)

GLAZING IN DOORS AND ENCLOSURES REGULATED BY SECTION R308.4.2 (Category Class)

GLAZING IN DOORS AND ENCLOSURES REGULATED BY SECTION 308.4.5 (Category Class)

2 Left Elevation - Craftsman- 400 SF 1/2" = 1'-0"

EXPOSED SURFACE AREA OF ONE SIDE OF ONE LITE	GLAZED PANELS REGULATED BY SECTION R308.4.3 (Category Class)	GLAZED PANELS REGULATED BY SECTION R308.4.2 (Category Class)	DOORS AND ENCLOSURES REGULAT BY SECTION R308.4.5* (Category Class)
9 square feet or less	No requirement	В	A
More than 9 square feet	A	A	A

60.01 Outdoor lighting permanently mounted to a single family dwelling or other buildings in the same lot shall be high efficacy and must be controlled by an on/off switch that does not override to ON as listed below. Also, the lighting must by one of the following methods:

- Controlled by photocell and motion sensor. Controls that override to ON shall not be allowed unless the override automatically reactivates the motion sensor within 6 hours, or
- Controlled by any of the following: Photocell and automatic time switch control. Controls that override to ON shall not be allowed unless the override
- automatically return the photocontrol and automatic time switch control to its normal operation within 6 hours, or Astronomical time clock. Controls that override to ON shall not be allowed unless the override automatically return the astronomical clock its normal operation within 6 hours and which is programmed to automatically turn the outdoor
- lighting OFF during daylight hours, or Energy management control system which meets all of the following requirements. At a minimum provides the functionality of an astronomical time clock in accordance with Section 110.9 of the standards; meets the Installation Certification requirements in Section 130.4 of the standards; meets the requirements for an EMCS in Section 130.5 of the standards; does not have an override or bypass switch that allows the luminaire to be always ON; and, is programmed to automatically turn the outdoor lighting OFF during daylight

Note: Unvented attic assemblies can be approved provided the unvented attic space is completelycontained within the building thermal envelope and no interior vapor retarder is installed on the ceiling side of the unvented attic assembly. Insulation shall be applied in direct contact with the underside of the structural roof sheathing and shall either be entirely

air-impermeable product or shall have a layer of air-impermeable product installed in direct contact with the underside of the structural roof sheathing for proper condensation control with the balance of the insulation being air-impermeable below it. (Note: Air-permeable insulation alone may be applied directly below the structural sheathing when rigid insulation with an R-value of R-5 minimum is installed directly above the structural roof sheathing for condensation control) [CRC R806.5]

Santa DU Proto City Barbara

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.







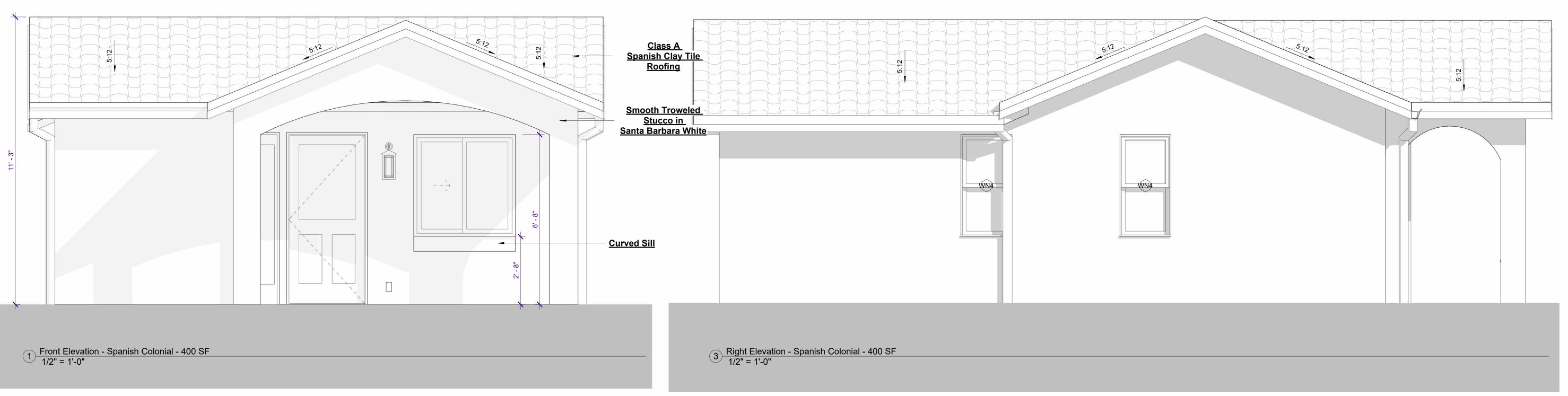




Stamp/Signature: Lucrezia DeLeon

Initia	al Submittal
Revis	ions:

Elevations -Craftsman - 450 SF



City of Santa
Barbara ADU Proto
Types
Santa Barbara County, CA

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.





customhome.ai





Stamp/Signature:

Lucrezia DeLeon

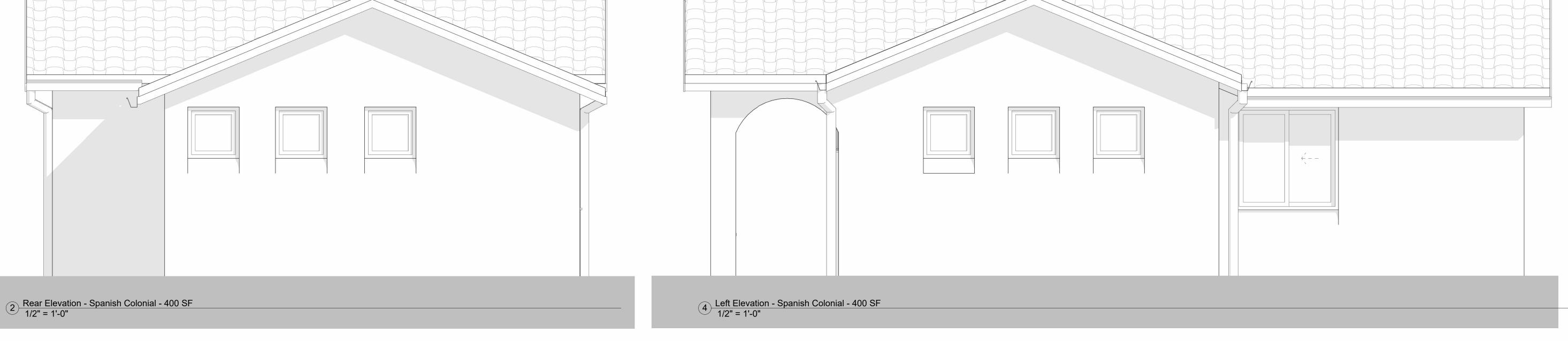
Initial Submittal

Revisions:

Elevations Spanish Colonial 450 SF

Sheet No :

A2.2



Note: CRC Section R308.4

1. **R308.4.1** Glazing in fixes and operatons apnels of swingings, slidng, and bifold doors shall be considered to be a hazardous location.

Exceptions:

1. Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass.

2. Decorative glazing.

Decorative glazing.
 R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
 Where the glazing is on a wall less than 180 degrees (3.14 rad) from the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exception

Decorative glazing.

Where there is an intervening wall or other per-manent barrier between the door and the glazing.
 Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
 Glazing that is adjacent to the fixed panel of patio doors.

3. **R308.4.3** Glazing in windows. Glazing in an individual fixed or operable panel that meets all of the following con-ditions shall be considered to be a hazardous location:

The exposed area of an individual pane is larger than 9 square feet (0.836 m2).
 The bottom edge of the glazing is less than 18 inches (457 mm) above the floor.
 The top edge of the glazing is more than 36 inches (914 mm) above the floor.
 U- factor of new glazing is not to exceed 0.30 and SHGC shall not exceed 0.23.

TABLE R308.3.1(1)

MINIMUM CATEGORY CLASSIFICATION OF GLAZING USING CPSC 16 CFR 1201

EXPOSED SURFACE AREA OF ONE SIDE OF ONE LITE OF ONE

a. Use is permitted only by the exception to Section R308.3.1.

Outdoor Electrical Notes:
60.01 Outdoor lighting permanently mounted to a single family dwelling or other buildings in the same lot shall be high efficacy and must be controlled by an on/off switch that does not override to ON as listed below. Also, the lighting must by one of the following methods:

 Controlled by photocell and motion sensor. Controls that override to ON shall not be allowed unless the override automatically reactivates the motion sensor within 6 hours, or
 Controlled by any of the following:

 Photocell and automatic time switch control. Controls that override to ON shall not be allowed unless the override automatically return the photocontrol and automatic time

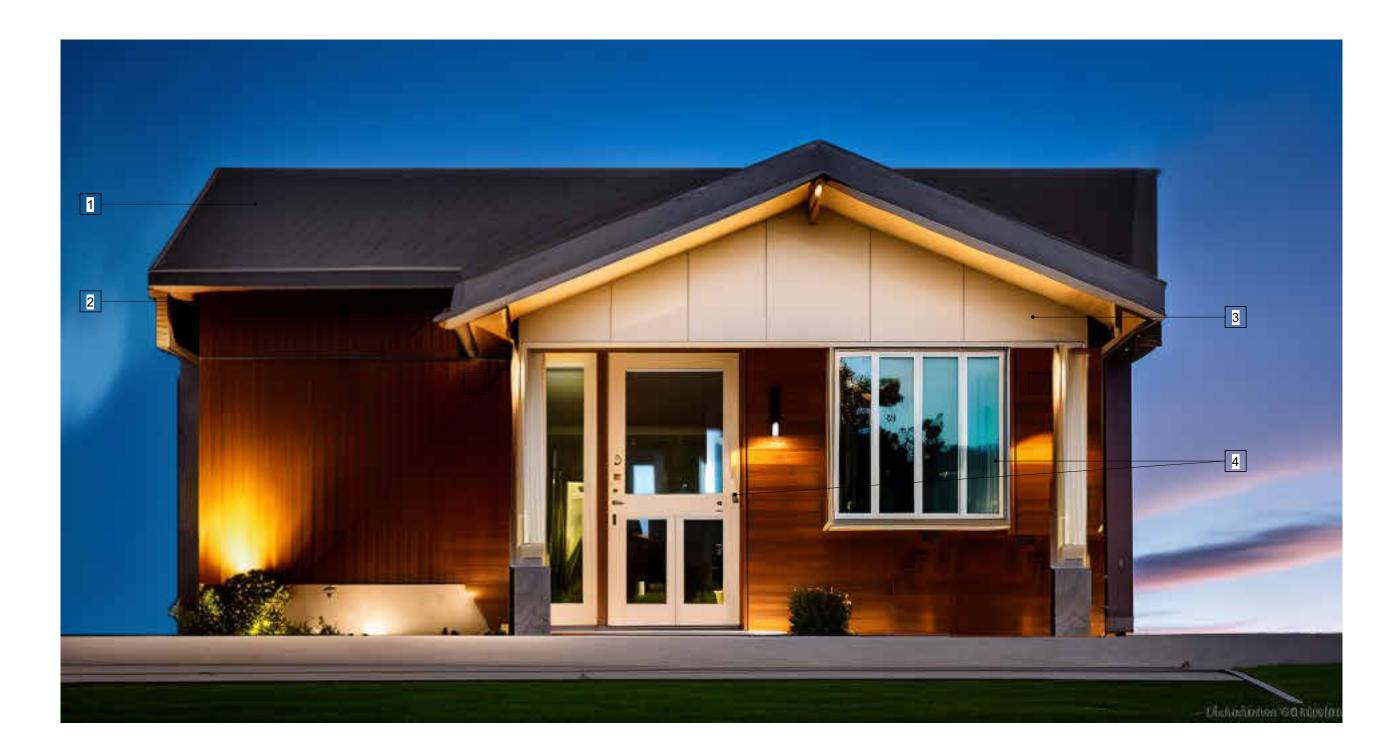
switch control to its normal operation within 6 hours, or

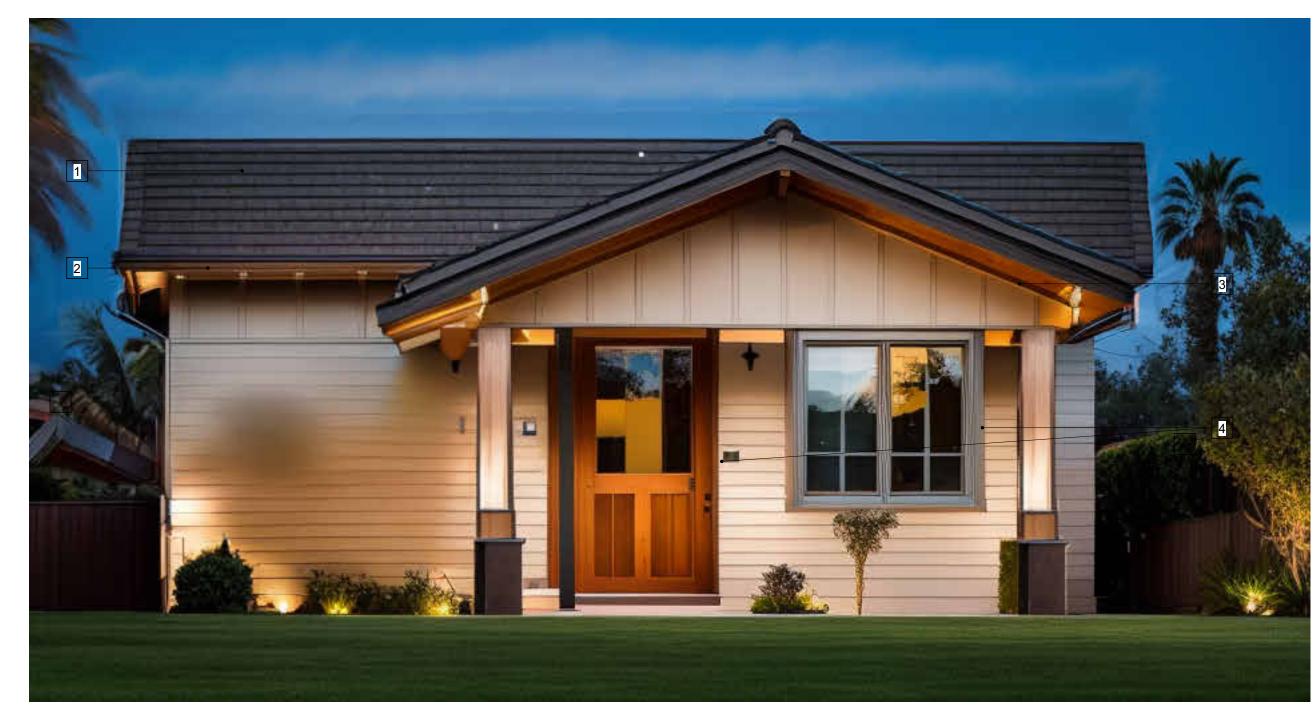
2. Astronomical time clock. Controls that override to ON shall not be allowed unless the override automatically return the astronomical clock its normal operation within 6 hours and which is programmed to automatically turn the outdoor lighting OFF during daylight hours, or

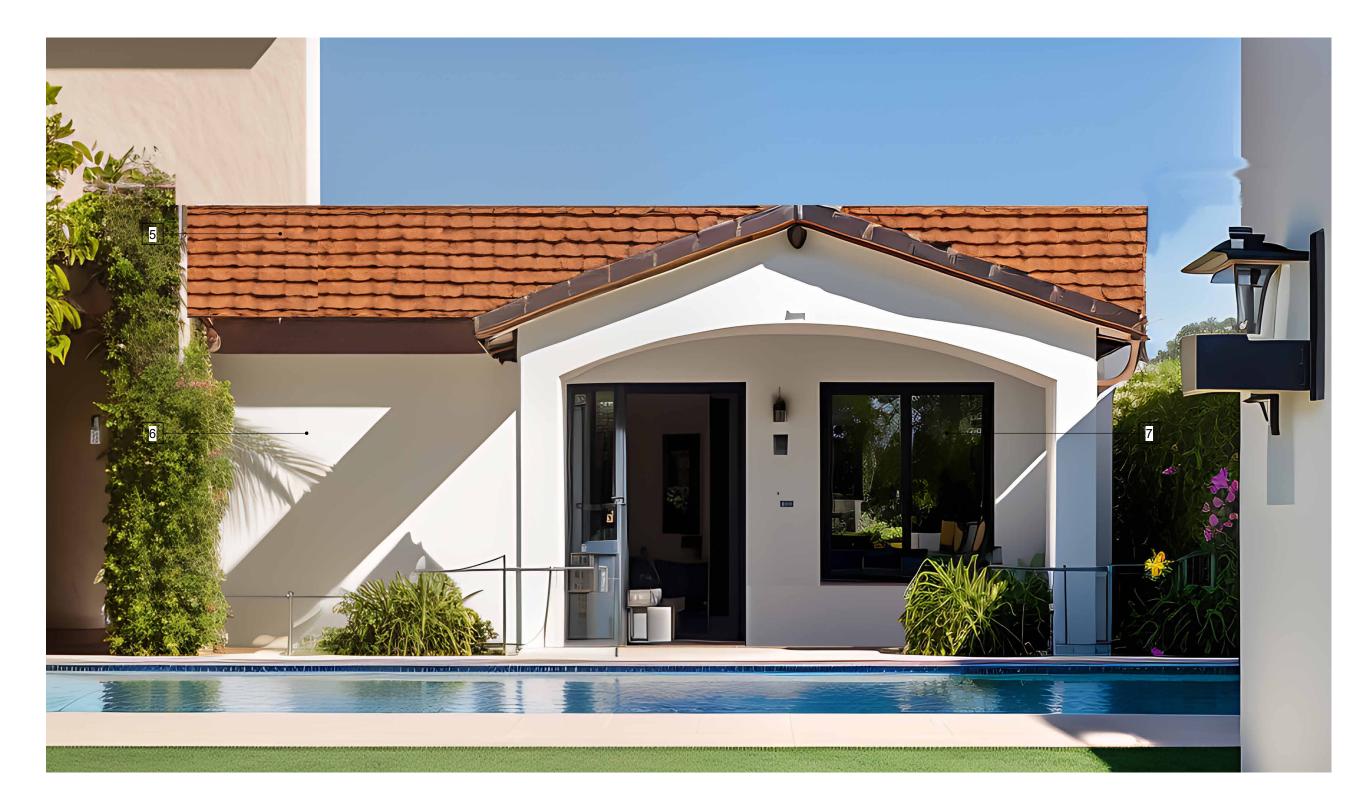
Energy management control system which meets all of the following requirements. At a minimum provides the functionality of an astronomical time clock in accordance with Section 110.9 of the standards; meets the Installation Certification requirements in Section 130.4 of the standards; meets the requirements for an EMCS in Section 130.5 of the standards; does not have an override or bypass switch that allows the luminaire to be always ON; and, is programmed to automatically turn the outdoor lighting OFF during daylight hours.

Note: Unvented attic assemblies can be approved provided the unvented attic space is completelycontained within the building thermal envelope and no interior vapor retarder is installed on the ceiling side of the unvented attic assembly. Insulation shall be applied in direct contact with the underside of the structural roof sheathing and shall either be entirely

air-impermeable product or shall have a layer of air-impermeable product installed in direct contact with the underside of the structural roof sheathing for proper condensation control with the balance of the insulation being air-impermeable below it. (Note: Air-permeable insulation alone may be applied directly below the structural sheathing when rigid insulation with an R-value of R-5 minimum is installed directly above the structural roof sheathing for condensation control) [CRC R806.5]







	Keynotes - Exterior Elevations
<u>Note</u>	<u>Comment</u>
1	Asphalt Shingle Roofing
<u>2</u>	James Harding Panel Siding
<u>3</u>	Board and Batten Vertical Siding
<u>4</u>	Craftsman Style Exterior Trim Window and Door
<u>5</u>	Spanish S-Tile Clay Roofing
<u>6</u>	Smooth Trowel Stucco - Santa Barbara White
7	Slider window with Matte Black Trim

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.









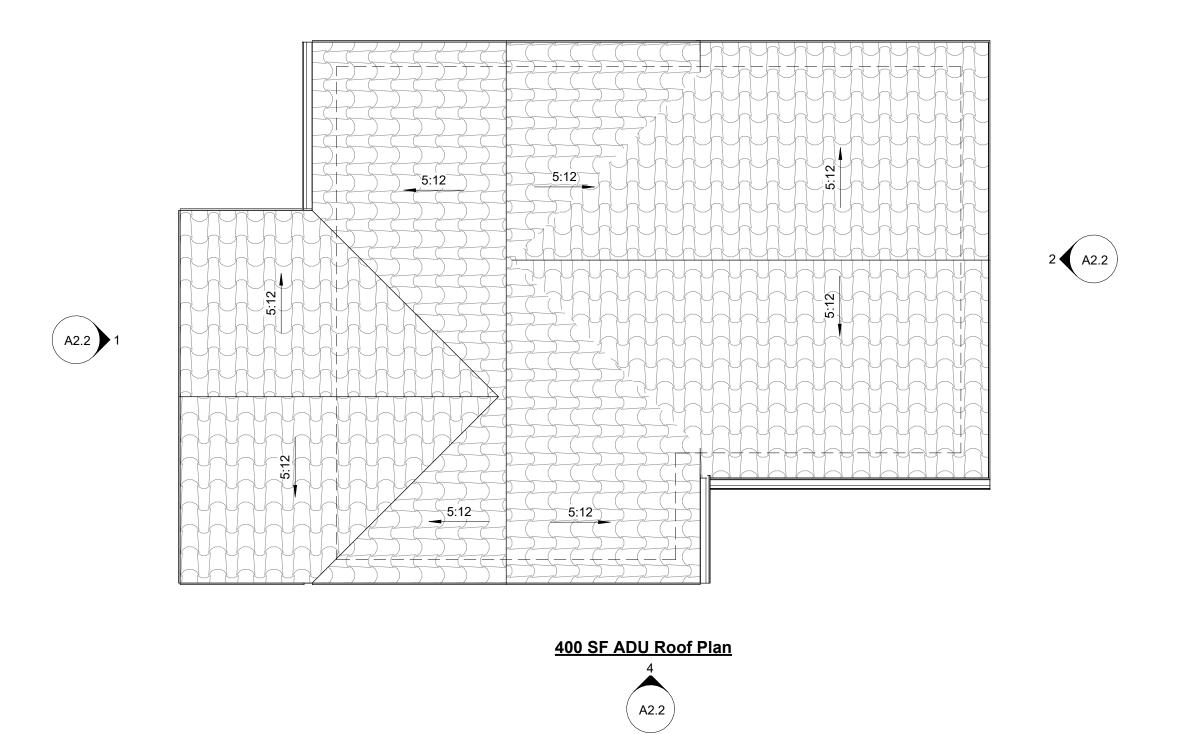


Stamp/Signature:	
Lucrezia DeLeon	
1 - 0	
$\mathcal{A}(\mathcal{X})$	
(1) <b>4</b> () -	

Initial Submittal		
Revisions:		
$\triangle$		

Materials Board Craftsman +
Spanish Colonial
Revival Options

**A3.1** 



1 Roof Plan - 250 SF + 400 SF - Studio ADU 1/4" = 1'-0"

of Santa a ADU Proto City o Barbara

By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.











mp/Signature:	
Lucrezia DeLeon	
$\mathcal{I}$	
O O De la companya della companya della companya de la companya della companya de	

Initia	al Submittal		
Revis	ions:		
$\wedge$			

eet Title:	
<b>Roof Plans</b>	

**A4.0** 

# Residential/Commercial Gas

Tankless Water Heaters

### **Tankless Non-Condensing Water Heaters**

Fully modulating, gas fired, tankless water heater specifically designed for residential and commercial applications. Supplies hot water to domestic hot water systems and can be used with water storage tanks, recirculation systems, and/or combined domestic & heating applications.

VENTING AND COMBUSTION

• 50' Max Length, 5 Elbows max (90°

Power Vent Power Vent or Power Direct

• 3" Combustion Air Intake (with optional

Vertical or Horizontal Installation

elbows = 5' equivalent length)

Electronic Ignition - No Pilot Light

**OPTIONAL ACCESSORIES** 

Recess Box (outdoor models)

Pipe Cover

Isolation Valve Kits

Backflow Preventer

WARRANTY

Concentric Termination Kits

Complete Line of Category III Venting

Direct Vent Conversion Kit (indoor

 15-year limited warranty on heat exchanger in residential applications

5-year limited warranty on all parts

exchanger in commercial applications

5-year limited warranty on heat

4" Category III Vent

#### **FEATURES:**

MAXIMUM FLOW RATES UP TO 10.0 GPM AVAILABLE IN NATURAL GAS

OR PROPANE (LP)
OUTDOOR MODELS INCLUDE
REMOTE CONTROL AS A
STANDARD FEATURE

INDOOR MODELS INCLUDE BOTH A REMOTE CONTROL AND POWER CORD AS STANDARD FEATURES

LOW NOX EMISSIONS
COMPLIES WITH LEAD FREE

STANDARDS
HEAT EXCHANGER (T-D2
MODELS) IS CONSTRUCTED OF

# COMMERCIAL GRADE COPPER SAFETY FEATURES:

- Built in Freeze Protection
- Manual Reset Hi-LimitOverheat Cutoff Fuse
- Inlet and Outlet Thermistors for Constant Temperature Monitoring
  Flame Sensor
- EASY-LINK UP TO 4 UNITS (T-D2 MODELS):
- With no additional parts or accessories needed

#### INDOOR MODELS T-KJR2-IN, T-K4-IN, T-D2-IN



OUTDOOR MODELS





© January 2019 Takagi | Takagi.com

Page 1 of 4
TRGSS01613

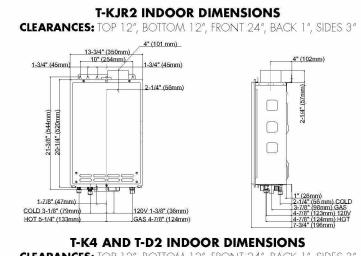
# TAKAGI

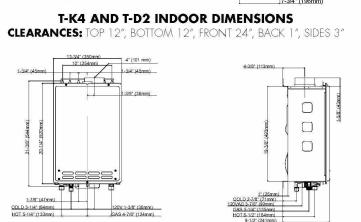
MODEL NUMBER	TYPE	GAS CONSUMPTION INPUT		INLET GAS PRESSURE		UEF	MAXIMUM	HOT/COLD	GAS	DIMENSIONS IN INCHES			APPROX SHIPPING
	TIPE	MINIMUM BTU/H	MAXIMUM BTU/H	MINIMUM IN. W.C.	MAXIMUM IN. W.C.		GPM*	CONNECTIONS		HEIGHT	WIDTH	DEPTH	WEIGHT (LBS)
Indoor Models													
T-KJr2-IN-N	Natural	19,500	140,000	4.0	10.5	0.79	6.6	3/4" NPT	3/4" NPT	20-1/4	13-3/4	7-3/4	38
T-KJr2-IN-P	Propane	19,500	140,000	8.0	14.0	0.79	6.6	3/4" NPT	3/4" NPT	20-1/4	13-3/4	7-3/4	38
T-K4-IN-N	Natural	11,000	190,000	4.0	10.5	0.80	8	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	43
T-K4-IN-P	Propane	11,000	190,000	8.0	14.0	0.80	8	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	43
T-D2-IN-N**	Natural	11,000	199,000	4.0	10.5	0.80	10	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	45
T-D2-IN-P**	Propane	11,000	199,000	8.0	14.0	0.80	10	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	45
Outdoor Mode													
T-K4-OS-N	Natural	11,000	190,000	4.0	10.5	0.80	8	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	43
T-K4-OS-P	Propane	11,000	190,000	8.0	14.0	0.80	8	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	43
T-D2-OS-N**	Natural	11,000	199,000	4.0	10.5	0.80	10	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	45
T-D2-OS-P**	Propane	11.000	199,000	8.0	14.0	0.80	10	3/4" NPT	3/4" NPT	20-1/4	13-3/4	9-1/2	45

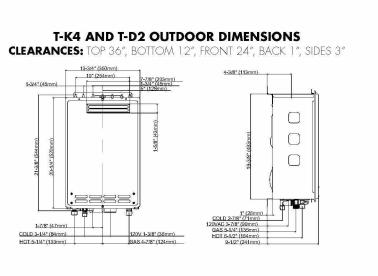
15-150 PSI water pressure. 40 PSI or above recommended for maximum flow.

\*Current numbers based on factory testing, 0.5 GPM required for activation, 0.4 GPM required for continuous fire after initial ignition.

\*\*Suitable for commercial applications.
Indoor models are certified from sea level to 6,000 ft. elevation. Outdoor models are certified from sea level to 6,000 ft. elevation.







Page 2 of 4 TRGSS01613

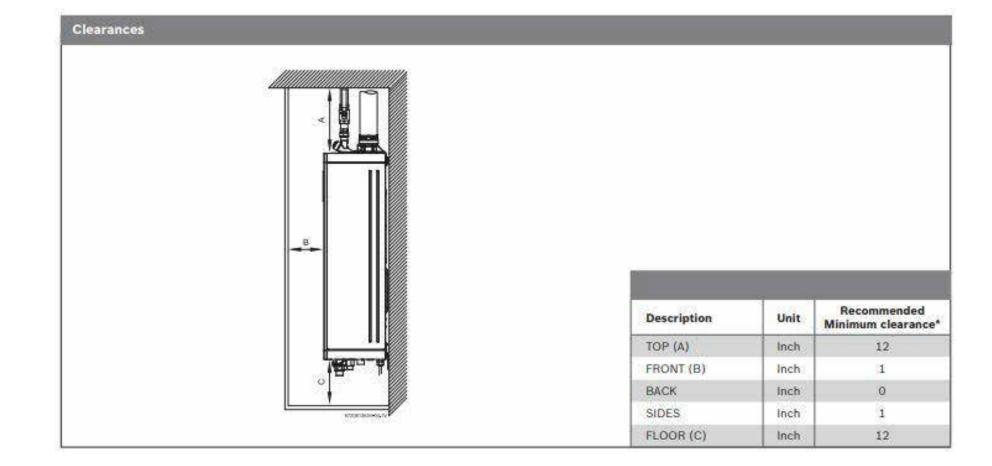
#### DuctlessAire Model # DA1221-H2 ★★★★★ (503) \$1,00582 Energy Star 12,000 BTU 1 Ton Ductless Mini Split Air Conditioner and H... Product Overview Specifications Questions & Answers Customer Reviews 7.44 13.11 Condenser depth (in.) Air handler depth (in.) 11.69 Condenser height (in.) 21.81 Air handler height (in.) 31,57 31.50 Air handler width (in.) Condenser width (in.) Details Air Conditioner Product Type Mini Split Unit Decibel Rating 24 dBA Filter Type Air direction/circulation 2-way Washable Heater,Remote Control,Self-diagnostic tools 18.1 Air handler weight (lb.) Included 4.05 Mini Split Features Auto cool, Automatic shutoff, Fan only Amperage (amps) option,Overload protection,Sleep setting, Timer, Wireless remote control 12000 BTU Minimum Outdoor Temperature (F) BTU Cooling Rating 12000 Wall Mount BTU Cooling Rating Mount Location 12000 Number of Fan Speeds BTU Heat Rating BTU Heat Rating 12000 BTU Number of cool settings Returnable 90-Day White 220v Color Family White Voltage (v) Color/Finish White Voltage (volts) 1080,920 Condenser weight (lb.) 81.60 Wattage (watts) Zone Capacity Single Zone 600 Coverage Area (sq. ft.)

Bosch 160,000 BTU .92 UEF Tankless Water Heater Indoor Direct Vent Model: T9800 SE 160 Item Number: 73648

24 dBA

Decibel (Sound) Rating

Features	Specifications	Reviews
Product Line	Greentherm	
Medium ①	Hot Water	
Fuel Type ①	Natural Gas	
Combustion Type	Condensing	
Vent Type ①	Direct Vent	
Storage Type	Tankless	
Mount Type	Wall	
Installation Location	Indoor	
Includes Pump	No	
Gas Conversion Kit	Included	
UPC	052575110431	
Performance Flow Rate at 40F Temperature Rise ①	8.0 GPM	
Flow Rate at 50F Temperature Rise ①	6.4 GPM	
Flow Rate at 60F Temperature Rise ①	5.4 GPM	
Flow Rate at 70F Temperature Rise ①	4.6 GPM	
	4.0 01 10	
<u> </u>	160000 BTU	
Maximum Input Capacity ①		
Maximum Input Capacity  Minimum Input Capacity	160000 BTU	
Maximum Input Capacity  Minimum Input Capacity  Uniform Energy Factor   Minimum Flow Rate	160000 BTU 9000 BTU	



By using these "ADU Plans" plans, the user agrees to release the City of Santa Barbara from any and all claims, liabilities, suits, and demands on account of any injury, damage, or loss to persons or property, including injury or death, or economic losses, arising out of the use of these construction documents. The use of these plans does not eliminate or reduce the user's responsibility to verify any and all information.



Stamp/Signature:

Lucrezia DeLeon

Initial Submittal

Revisions:

Sheet Title:

**Equipment Specs** 

Sheet No

**A4.0**