DEL PLAYA RESIDENCE - ADU

(EXISTING GARAGE CONVERSION)
6513 DEL PLAYA DRIVE
ISLA VISTA, CA

MEP GENERAL NOTES

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2019 CALIFORNIA ELECTRICAL CODE (CEC) AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. CONTRACTOR TO FURNISH AND INSTALL ALL EQUIPMENT, MATERIALS AND FIXTURES UNLESS OTHERWISE NOTED.
3. ALL ELECTRICAL EQUIPMENT AND FIXTURES SHALL BE LISTED AND APPROVED BY A RECOGNIZED TESTING LAB AND INCLUDE APPROPRIATE LABELS
4. GROUNDING AND BONDING SHALL BE PER CODE
5. ALL CONDUIT RUNS SHALL INCLUDE A CODE SIZED GREEN GROUND WIRE
6. FEEDER CONDUCTORS SHALL BE IN CONDUIT
7. CONDUCTORS SHALL BE COPPER WITH APPROPRIATE INSULATION
8. CONVENIENCE OUTLETS SHALL BE LOCATED AND SPACED PER 2016 CEC 210.52. 11. WITH A RECEPTACLE REQUIRED AT ANY WALL SPACE 2' OR WIDER, NOT MORE THAN 6' FROM OPENINGS AND NOT MORE THAN 12' ON CENTER.
9. ARC-FAULT CIRCUIT INTERRUPTER REQUIRED WHERE BRANCH CIRCUITS ARE MODIFIED, REPLACED OR EXTENDED THAT SUPPLY 120-V, SINGLE PHASE, 15 AND 20 AMP OUTLETS IN BEDROOMS, FAMILY ROOMS, LIVING ROOMS, DINING ROOMS, CLOSETS, AND DINING ROOMS, CLOSETS AND HALLWAYS,
10. ALL OUTLETS SERVING KITCHEN COUNTERTOP SHALL BE GROUND FAULT CIRCUIT INTERRUPTER PROTECTED (GFI) PER CEC 210 -8(A)(1)
11. KITCHEN COUNTER OUTLETS SHALL BE 4'-0" O.C. MAX. WITH NO POINT ALONG THE WALL MORE THAN 2'-0" FROM AN OUTLET (EXCEPT AT SINK) PER CEC 210-52 (C)(1)
12. KITCHEN ISLANDS TO BE PROVIDED WITH AT LEAST ONE RECEPTACLE OUTLET PER CEC 210-52(C)(2)
13. ALL NON-LOCKING TYPE 125-VOLT 15 & 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT 2019 CEC 406.12 EXCEPTIONS 1) THOSE MORE THAN 66' ABOVE THE FLOOR 2) PART OF A LUMINAIRE OR APPLIANCE 3) SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES THAT ARE NOT EASILY MOVED AND LOCATED WITHIN DEDICATED SPACE AND ARE CHORD AND PLUG CONNECTED AS PER CEC 400.7 OR 4) NON-GROUNDING RECPTACLES USED FOR REPLACEMENTS AS PERMITTED IN CEC 406.4 (D)(2)(a)
14. PROVIDE A MIN. OF 2 SEPARATE 20 AMP CIRCUITS TO KITCHEN PER CEC 210-52(B)
15. BATHROOM RECEPTACLE OUTLETS TO BE GFI PROTECTED PER CEC 210-8(A)(6)
16. PROVIDE A MIN. OF 1 SEPARATE 20 AMP CIRCUIT TO EA. BATHROOM PER CEC-10(C-3)
17. GFCI TYPE OUTLETS REQUIRED IN BATHROOMS, KITCHEN COUNTERTOPS, PRIVATE GARAGES AND EXTERIOR RECEPTACLES PER 2019 CEC SECTION 210.8.

LIGHTING NOTES:

ALL NEW FIXTURES ARE TO BE HIGH EFFICACY PER 2019 TITLE 24 REQUIREMENTS PER NOTES BELOW AND ADDITIONAL NOTES THIS SHEET
THE FOLLOWING LIGHTING IS HIGH-EFFICACY:
PIN BASED LINEAR FLUORESCENT, PIN BASED COMPACT FLUORESCENT, PULSE START METAL HALIDE, HIGH PRESSURE SODIUM, GU-24 (OTHER THAN LEDS), INSEPARABLE SOLID STATE LUMINAIRES (SSLS) INSTALLED OUTDOORS OR INSEPARABLE SSL LUMINAIRES WITH COLORED LIGHT SOURCES FOR DECORATIVE PURPOSES.
THE FOLLOWING LAMPS AND LIGHT SOURCES ARE HIGH EFFICACY IF THEY ARE JOINT APPENDIX JA8-CERTIFIED:
JA-8 CERTIFIED LAMPS AND LIGHT SOURCES ARE MARKED AS 'JA8-2016' OR 'JA82016-E'. THESE FIXTURES INCLUDE: LED LUMINAIRES WITH INTEGRAL SOURCES THAT ARE CERTIFIED BY THE ENERGY COMMISSION, SCREW BASED LED LAMPS (A-LAMPS, PAR LAMPES, ETC), PIN-BASED LED LAMPS (MR-16, AR-111, ETC) GU-24 BASED LED LIGHT SOURCES AND OTHER LUMINAIRES.

AND A DIMMER OR VACANCY SENSORS SHALL CONTOL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8

A MINUMUM OF ONE LIGHT IN BATHROOMS, LAUNDRY ROOMS, UTILITY ROOMS AND GARAGES TO BE CONTROLLED BY A MANUAL ON/ AUTOMATIC OFF OCCUPANCY SENSOR - SEE PLAN BELOW FOR IDENTIFICATION OF FIXTURES THAT ARE DESIGNATED TO MEET THIS REQUIREMENT ' OOS*'

PLUMBING NOTES:

1. ALL NEW INDOOR & OUTDOOR WATER USE TO COMPLY WITH 2019 CALGREEN STANDARDS
2. DOMESTIC HOT WATER PIPING SYSTEM SHALL BE INSULATED PER 2019 CEC SEC 150.0(j) CH 7.
3. PRESSURE BALANCING OR THERMOSTATIC MIXING VALVES REQUIRED AT NEW SHOWERS PER CPC 420.0
4. WATER HEATERS INSTALLED IN BEDROOMS AND BATHROOMS SHALL COMPLY WITH 2019 CPC SECTION 505
5. ALL FIXTURES COMING INTO CONTACT WITH POTABLE WATER MUST BE LEAD FREE .

PLUMBING FIXTURE REQUIREMENTS PER 2019 CALIFORNIA GREEN BLDG CODE:

- WATER CLOSETS/TOILETS: NOT TO EXCEED 1.28 GALLONS PER FLUSH
- LAVATORY FAUCETS FLOW RATES NOT TO EXCEED 1.2 GPM @ 60 PSI
- COMBINED FLOWRATE OF ALL SHOWER HEADS SERVIING A SINGLE SHOWER STALL SHALL NOT EXCEED 2.0 GPM @ 80 PSI OR DESIGNED SO THAT ONLY ONE SHOWER HEAD/ HAND HELD CAN BE USED AT A TIME)
- KITCHEN FAUCET MAX FLOW RATE SHALL NOT EXCEED 1.8 GPM @ 60 PSI (MAY TEMPORARILY INCREASE THE FLOW TO ABOVE MAX. RATE BUT NOT EXCEED 2.2 GPM AT 60 PSI AND MUST DEFAULT TO A MAX FLOW F 1.8 GPM AT 60 PSI)

GAS WATER HEATER NOTES:

- PROVIDE A CAT II OR IV VENT OR TYPE B VENT W/ STAIGHT PIPE BTWN THE OUTSDIE TERMIANTION AND THE SPACE WHERE THE WATER HEATER IS INSTALLED
- A CONDENSATE DRAIN THAT IS NO MORE THAN 2" HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE
- GAS SUPPLY LINE WITH A CAPACITY OF AT LEAST 200,000 BTU

HVAC NOTES:

1. PROVIDE NATURAL VENTILATION A MINIMUM OF 4% OF FLOOR AREA PER CBC 1203.4.1
2. BATHROOMS CONTAINING A SHOWER OR TUB SHALL BE MECHANICALLY VENTED WITH AN EXHAUST FAN OF 50 CFM , (20 CFM FOR CONTINUOUS OPERATION).
3. EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMITATE OUTSIDE THE BUILDING. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENT SYSTEM FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE.
4. INTERIOR SPACES INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH ACTIVE OR PASSIVE SPACE-HEATING SYSTEMS CAPABLE OF MAINTAINING A MIN. INDOOR TEMPERATURE OF 68 DEGREES F AT A POINT 3 FEET ABOVE THE FLOOR. 2016 CBC SECTION 1204/ CRC 303.8.
5. VENT DRYER TO OUTSIDE WITH 14' MAX. LENGTH INCLUDING A MAX. OF TWO 90 DEGREE BENDS.
6. FUEL BURNING EQUIPMENT SHALL BE INSTALLED PER 20196 CPC SEC 304
7. ALL EXHAUST AND INTAKE OPENINGS TERMINATING OUTDOORS SHALL BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLES WITH OPENINGS OF $\frac{1}{4}$ - $\frac{1}{2}$ IN ANY DIMENSION PER CRC R303.6

GENERAL NOTES

1. THE FOLLOWING NOTES, DETAILS SCHEDULES AND SPECIFICATIONS SHALL APPLY TO ALL PHASES OF THIS PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE. NOTES AND DETAILS ON THE ARCHITECTURAL PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
2. ALL DRAWINGS ARE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWING AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION SO THAT CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE THE OWNER OR ARCHITECT.
3. ALL INFORMATION OF EXISTING CONDITIONS SHOWN ON THE PLANS ARE BASED ON BEST PRESENT KNOWLEDGE AVAILABLE BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE. ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
4. CONTRACTOR SHALL USE WRITTEN DIMENSIONS FROM THE CONTRACT DOCUMENTS, DO NOT SCALE THE PLANS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING AS REQUIRED.
6. THE ARCHITECT WILL NOT BE RESPONSIBLE FOR OR HAVE CONTROL OR CHARGE OF THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION DELINEATED IN THESE PLANS.
7. THE CONTRACTOR OR HIS/HER AGENTS SHALL SUPERVISE AND DIRECT ALL WORK AND SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION.
8. ALL WORKMANSHIP SHALL CONFORM TO THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES PERFORMING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
9. SEE STRUCTURAL GENERAL NOTES FOR MINIMUM REQUIREMENTS PERTAINING TO, BUT NOT LIMITED TO SOILS, FOUNDATIONS/ CONCRETE, LUMBER/ FRAMING, LATERAL BRACING
10. ALL WORK DONE UNDER THIS CONTRACT SHALL BE IN COMPLIANCE WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND INSTALL ALL TEMPORARY BRACING AND SHORING TO INSURE SAFETY UNTIL THE WORK IS COMPLETED.
12. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND COORDINATING ALL DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND NON-STRUCTURAL ITEMS NOT SHOWN ON STRUCTURAL PLANS.
13. ALL SCAFFOLDING AND SHORING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE INDUSTRIAL SAFETY COMMISSION OF THE STATE OF CALIFORNIA.
14. THE CONTRACTOR IS REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT MADE TO BE APPLIED CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE ARCHITECT FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ARCHITECT.
15. ALL WATERPROOFING, DRAINAGE, SEALING, OR ANY AND ALL WATER AND/OR MOISTURE RELATED ISSUES ARE THE FULL RESPONSIBILITY OF THE CONTRACTOR.
16. ANY DISCREPANCIES OR ABIGUITIES BETWEEN ON THE DRAWINGS AND/ OR SPECIFICATIONS BETEWEEN ACTUAL CONDITIONS FOUND ON SITE, BETWEEN ANY OTHER DRAWING OR SPECIFICATION OR WITHIN THE SAME DRAWING, THEY; CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH WORK.
17. NOTE: THE INTENT OF DESIGN CONTAINED IN THESE DRAWINGS IS, ALTERATIONS . ALTHOUGH SOME SHEAR LINES ARE BEING STRENGTHEDNED, THE BUILDING IS NOT BEING UPGRADED FULLY TO CURRENT CODE. THE ARCHITECT AND ENGINEER ARE NOT RESPONSIBLE FOR FULL CURRENT CODE COMPLIANCE. NO SIGNIFICANT FOUNDATION WORK IS BEING PERFORMED.

HAZARDOUS MATERIALS

ARCHITECT IS NOT RESPONSIBLE OR QUALIFIED TO HANDLE EXISTING HAZARDOUS MATERIALS (I.E. LEAD, ASBESTOS, FORMALDHYDE).

LEAD SAFE WORK PRACTICES AND CONTAINMENT ARE REQUIRED ON ALL STRUCTURES BUILT BEFORE 1978. PRACTICES AND CONTAINMENT APPLY TO ANY KNOWN LEAD-BASED PAINT (PAINT THAT HAS BEEN TESTED) OR ANY AMOUNT OF PRE-1978 PAINT THAT HASN'T BEEN TESTED AS UNTESTED PAINT IS 'PRESUMED' LEAD BASED.
OWNERS, MANAGERS, CONTRACTORS AND OTHER INDIVIDUALS WHO PERFORM, RENOVATE, OR PAINT ON PRE-1978 BUILDING MUST COMPLY WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) CERTIFICATION, TRAINING, AND SAFE WORK PRACTICE REQUIREMENTS. RENOVATION IS BROADLY DEFINED AS ANY ACTIVITY THAT DISTURBS PAINTED SURFACES AND INCLUDES MOST REPAIR, REMODELING, AND MAINTENANCE ACTIVITIES. THE WORK CAN ONLY BE PERFORMED BY AN INDIVIDUAL WHO HAS BEEN TRAINED AND IS EITHER CERTIFIED OR SUPERVISED BY SOMEONE WHO IS.

APPROVED SORTING AND RECYCLING FACILITY:

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 BUILDING STANDARDS CODE SECTION 4.408.1 (MINIMUM 65% NON-HAZARDOUS MATERIALS RECYCLED AND/OR SALVAGED FOR RE-USE)

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119 N. QUARANTINA ST SANTA BARBARA, CA
PH: 805.963.1852

CONTACTS

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GEORGE & KAREN WILLIAMS 2000 TRUST
173 HOT SPRINGS ROAD
SANTA BARBARA, CA 93108
PHONE: 310-382-6388

TITLE 24 REPORT

MECHANICAL ENGINEERING
CONSULTANTS, INC. (M.E.C.)
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SANTA BARBARA, CA 93101
PH: 805-957-4632 X 207

ARCHITECT:

SHELTER ARCHITECTURE & URBAN DESIGN
MICHELLE MCTOLDRIDGE
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CA LIC. C29526

CODES

APPLICABLE CODES

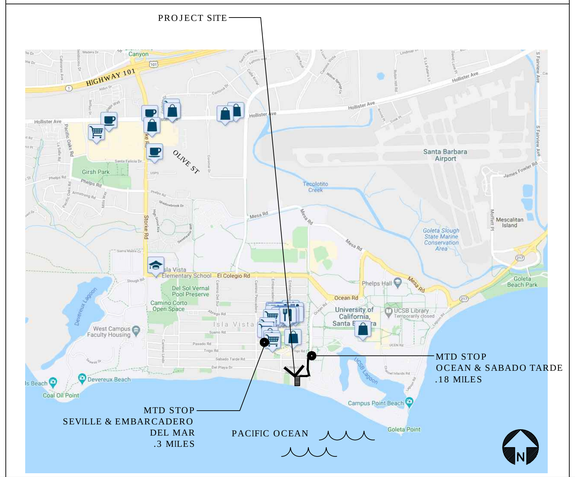
GROUP R-3/TYPE V-N' NON-RATED CONSTRUCTION
ALL WORK TO COMPLY WITH THE FOLLOWING CODES:
2019 CALIFORNIA BUILDING CODE (C.B.C.)
2019 CALIFORNIA RESIDENTIAL CODE (TWO UNITS/ MAX 3 STORIES)
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA MECHANICAL CODE 2016 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
& SBCO TITLE II COASTAL ZONING ORDINANCE

NO FIRE SPRINKLERS PROPOSED OR REQUIRED
(EXISTING RESIDENCE DOES NOT HAVE FIRE SPRINKLERS)

SHEET INDEX

ARCHITECTURAL	
A 1.0	PROJECT DATA & NOTES
A 1.1	SITE PLAN
A 2.0	EXISTING AND PROPOSED FIRST FLOOR PLAN
A 2.1	EXISTING 2ND FLOOR PLAN, BUILDING SECTION
A 3.0	EXTERIOR ELEVATIONS
T 1	TITLE 24 (RMS-1 AND MANDATORY MEASURES)
T 2	TITLE 24 (CF1R SHEETS)

VICINITY MAP



PROJECT DATA

SCOPE OF WORK

CONVERT AN EXISTING 325 NET SF (350 GROSS SF) ATTACHED GARAGE OF AN EXISTING SFD TO A STUDIO ACCESSORY DWELLING UNIT. PURSUANT TO GOV CODE 65852.2 POST JAN 1, 2020.
WORK INCLUDES ADDING KITCHEN AND BATHROOM FACILITIES AND REPLACING EXISTING GARAGE DOOR WITH NEW WINDOWS.
WATER SERVICE IS PROVIDED BY GOLETA WATER DISTRICT AND SANITARY BY GOLETA SANITARY WEST. EXISTING SCE ELECTRICAL METER SERVES BOTH UNIT AND HOUSE.

PROJECT ADDRESS:	6513 DL PLAYA DRIVE
APN:	075-223-025
ZONE:	SR-M-8
GENERAL PLAN:	
SLOPE:	12% (PER CITY GIS)
LOT SIZE:	6,244 SQ. FT / .14 ACRES
HIGH FIRE:	NO
FLOOD ZONE:	NO
GRADING:	NONE PROPOSED
SWMP:	N/A

FLOOR AREAS:	NET	GROSS
(E) 2-STORY RESIDENCE		
1ST FLOOR	900 SF	975 SF
2ND FLOOR	1,275 SF	1,370 SF
TOTAL HABITABLE	2,175 SF	2,345 SF
(E) ATTACHED GARAGE	339 SF	370 SF
(E) SITE TOTAL	2,514 SF	2,715 SF
CONVERT (E) GARAGE TO ACCESSORY DWELLING UNIT	339 SF	370 SF
TOTAL PROPOSED FLOOR AREA	NO CHANGE	

PARKING	EXISTING	PROPOSED	REQUIRED
PRIMARY RESIDENCE	2 COVERED 2 UNCOVERED	0 COVERED 2 UNCOVERED	0 REQUIRED PER GOV CODE 65852.2 POST JAN 1, 2020
ADU	N/A	0 COVERED	0 REQUIRED*

*PARKING REQUIREMENT FOR ADU IS EXEMPT PER GOV CODE 65852.2 POST JAN 1, 2020 BASED ON PROXIMITY TO PUBLIC TRANSIT, SEE VICINITY MAP

SITE TOTAL:	4	2 UNCOVERED	0 REQUIRED

RESERVED FOR APPROVAL STAMPS

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MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

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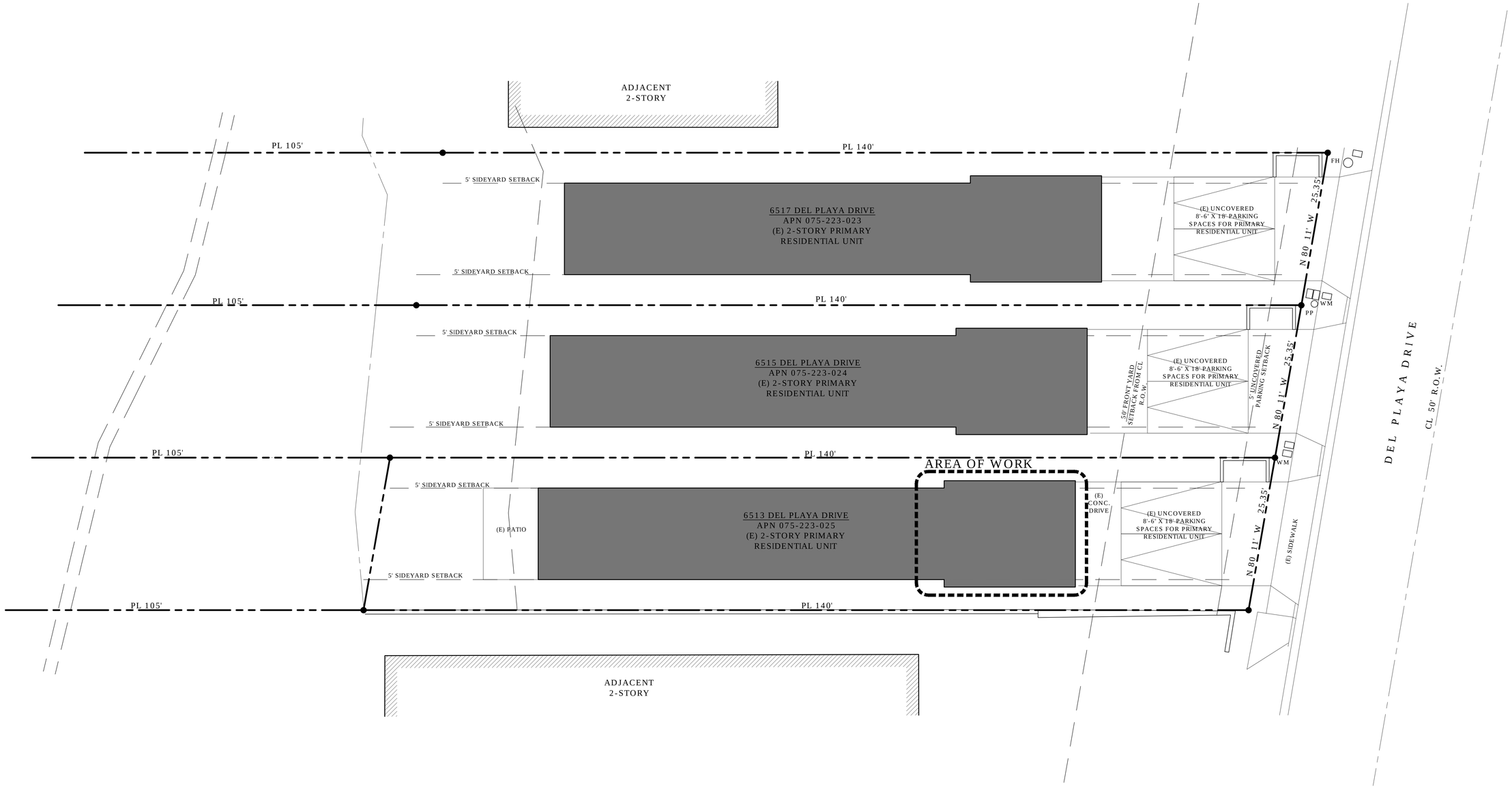
WILLIAMS ADU
GARAGE COVNERSION

6513 DEL PLAYA DRIVE
SANTA BARBARA, CA

A1.0

DATE: BLDG 06.10.20



SITE PLAN

SCALE: 1/8" = 1'-0"

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WILLIAMS ADU
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6513 DEL PLAYA DRIVE
SANTA BARBARA, CA

A1.1

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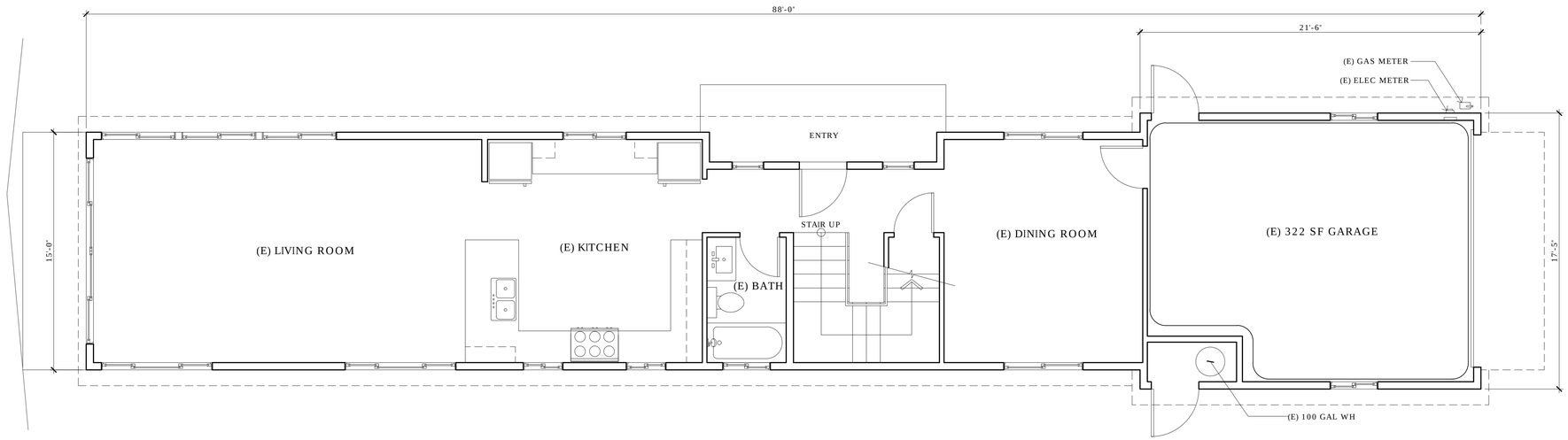


EXISTING FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

PLAN LEGEND

- EXISTING WALLS
- NEW WALLS
- (S) HARDWIRED SMOKE DETECTOR PER SEC R314.3
- (CM) CARBON MONOXIDE (CO2) DETECTOR PER CRC R315.1 & R315.2 NOTE: CO2 DETECTOR CAN BE SOLELY BATTERY OPERATED WHEN INSTALLED IN EXISTING BUILDINGS
- PANASONIC FV-05 WHISPER SOFT CEILING FAN, FAN TO HAVE A MIN. EXHAUST RATE OF 50 CFM INTERMITTENT AND DUCTED TO EXTERIOR OF BUILDING. FAN SHALL BE CONTROLLED BY A READILY ACCESSIBLE HUMIDISTAT AND IS CAL GREEN & ENERGY STAR COMPLIANT. EXHAUST FANS IN ROOMS WITH BATHING FIXTURES (TUB AND/OR SHOWER) TO BE PROVIDED WITH PANASONIC CONDENSATION SENSOR MODULE
- ELECTRICAL RECEPTICAL NOTE: PROVIDE TAMPER RESISTANT OUTLETS IN ALL REMODELED AND NEW AREAS PER CEC 406.12 (EXCEPTION WHEN LOCATED > 5.5', WITHIN A CABINET OR CUPBOARD OR WHEN PART OF A LUMINAIRE OR APPLIANCE.
- GFIC GROUND FAULT CIRCUIT INTERUPTER PROTECTED OUTLET AS REQUIRED PER CEC 210.8 NOTE: PROVIDE TAMPER RESISTANT OUTLETS IN ALL REMODELED AND NEW AREAS PER CEC 406.12 (SEE EXCEPTIONS)

NOTE: ALL NEW LIGHT FIXTURES ARE TO BE HIGH EFFICACY PER 2019 TITLE 24 REQUIREMENTS. SEE ADDITIONAL ELECTRICAL NOTES (THIS PAGE) FOR DETAILED REQUIREMENTS AND INFORMATION

RECESSED LIGHTS

THE FOLLOWING LED RECESSED FIXTURES DO NOT HAVE SCREW BASED SOCKETS, AND SHALL BE APPROVED FOR ZERO CLEARANCE INSULATION COVER IC RATED BY UL OR OTHER TESTING LAB RECOGNIZED BY THE BUILDING OFFICIAL AND SHALL BE AIR TIGHT TO SHOW AIR LEAKAGE LESS THAN 2.0 DFM AT 0.011 PSI IN ACCORDANCE WITH ASTM E283 AND SEALED WITH A GASKET OR CAULK BETWEEN HOUSING AND CEILING PER CEC 150K.

- 3' - 4" LED ROUND RECESSED DOWLIGHT

SCREW BASED LIGHTS

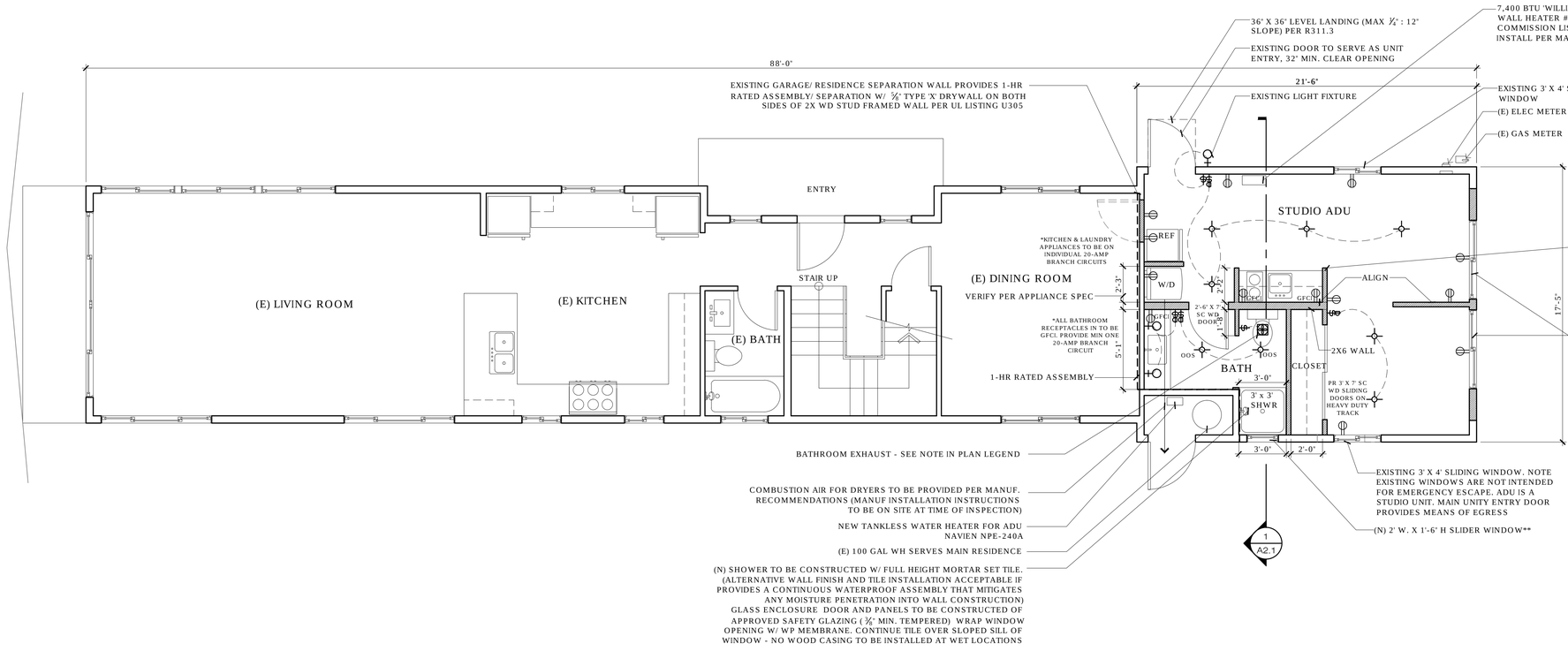
SCREW BASED LIGHTS ARE ACCEPTABLE IF THEY MEET THE FOLLOWING REQUIREMENTS:

A. NOT A RECESSED DOWN LIGHT
B. LAMP COMPLIES WITH REF. JOINT APPENDIX JA8
C. LAMP IS MARKED WITH 'JA8-2016' OR 'JA-82016E'

- SURFACE MOUNT FIXTURE/ WALL SCONCE.

LIGHTING ABBREVIATIONS:

WP LENSED/ WET LOCATION RATED
OOS ON/ OFF OCCUPANCY SENSOR (SEE LIGHTING NOTES)



PROPOSED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

PLUMBING FIXTURE REQUIREMENTS FOR PROPOSED ADU FIXTURES (PER 2019 CGBC):

- TOILETS: NOT TO EXCEED 1.28 GALLONS PER FLUSH
- LAV FAUCETS: FLOW RATES NOT TO EXCEED 1.2 GPM @ 60 PSI
- COMBINED FLOWRATE OF ALL SHOWER HEADS SERVING A SINGLE SHOWER STALL SHALL NOT EXCEED 2.0 GPM @ 80 PSI
- MULTIPLE SHOWER HEADS IN SAME SHOWER COMBINED FLOW RATE OF 2.0 GPM @ 80 PSI OR DESIGNED SO THAT ONLY ONE SHOWER HEAD/ HAND HELD CAN BE USED AT A TIME
- KITCHEN FAUCET MAX FLOW RATE SHALL NOT EXCEED 1.8 GPM @ 60 PSI (MAY TEMPORARILY INCREASE THE FLOW TO ABOVE MAX. RATE BUT NOT EXCEED 2.2 GPM AT 60 PSI AND MUST DEFAULT TO A MAX FLOW F 1.8 GPM AT 60 PSI)

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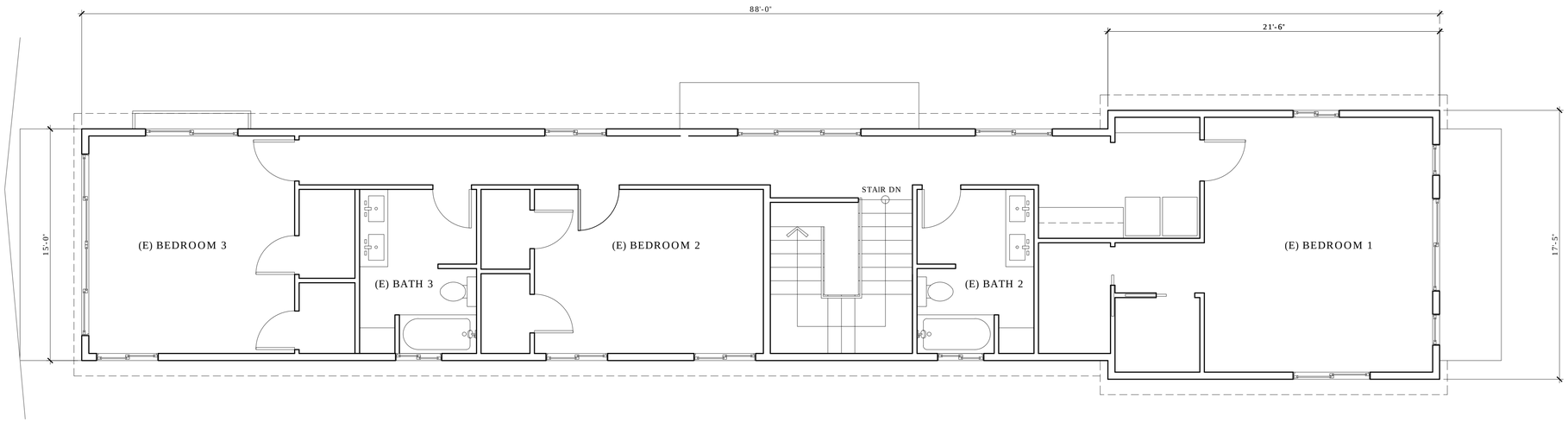
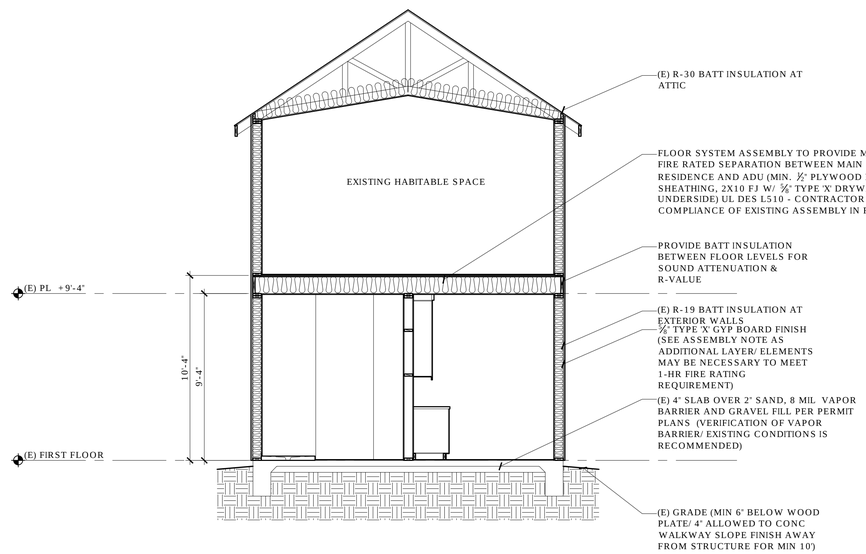


EXISTING SECOND FLOOR PLAN (FOR REFRENCE ONLY - NO WORK PROPOSED)

SCALE: 1/4" = 1'-0"



1 BUILDING SECTION

SCALE: 1/4" = 1'-0"

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GARAGE COVNERSION

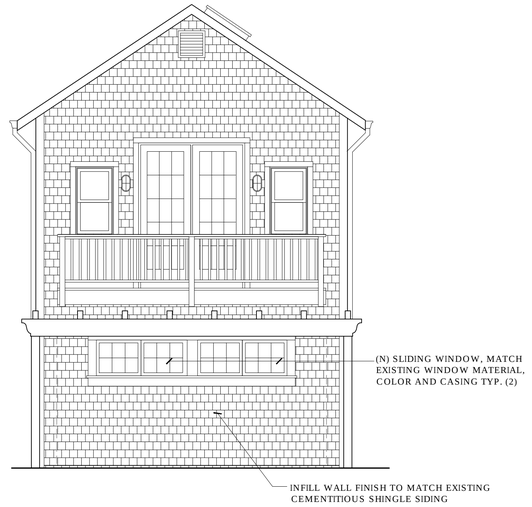
6513 DEL PLAYA DRIVE
SANTA BARBARA, CA

A2.1

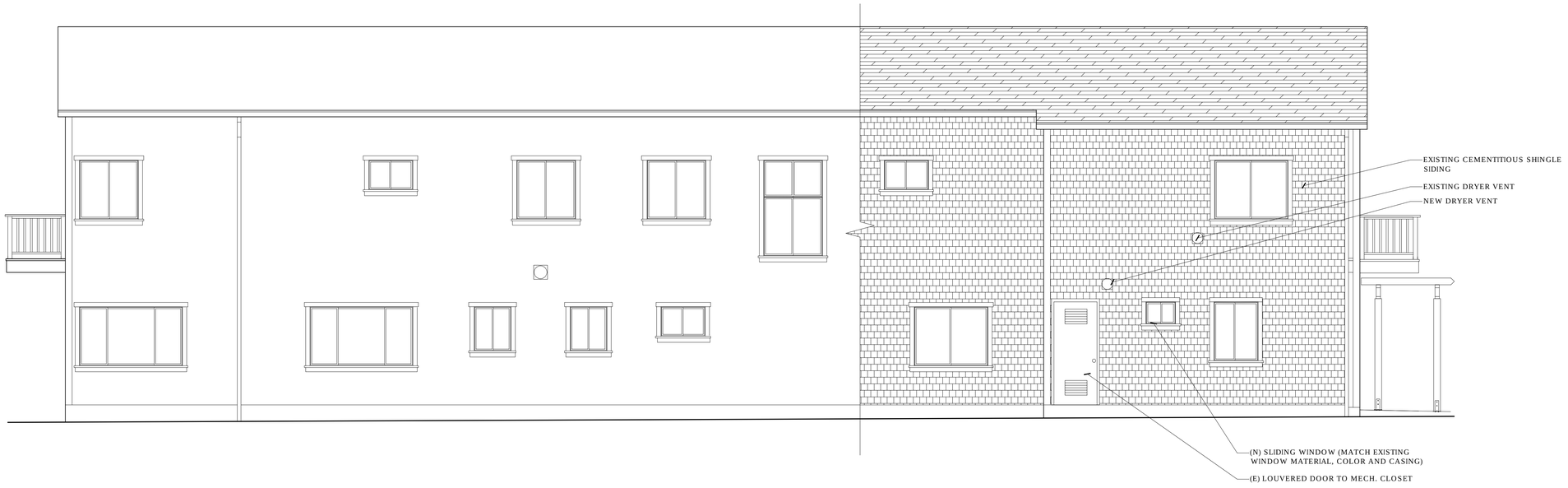
DATE: BLDG 06.10.20

WEST ELEVATION
(NO WORK PROPOSED)

EXISTING NORTH ELEVATION



PROPOSED NORTH ELEVATION



PROPOSED EAST ELEVATION

SHELTER
architecture
urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

LICENSED ARCHITECT
MICHELLE B. McTOLDRIDGE
No. C-29526
9-30-21
RENEWAL DATE
STATE OF CALIFORNIA

PO BOX 5755
SANTA BARBARA CA 93150
shelter-architecture.com

WILLIAMS ADU
GARAGE COVNERSION

6513 DEL PLAYA DRIVE
SANTA BARBARA, CA

A3.0

DATE: BLDG 06.10.20

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type		Date
Williams ADU Garage Conversion	☑ Single Family ☑ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration		*6/29/2020*
Project Address	**California Energy Climate Zone**	**Total Cond. Floor Area** / **Addition**	**# of Units**
6513 Del Playa Drive Santa Barbara	*CA Climate Zone 06*	*370* / *370*	*1*

INSULATION

Construction Type	Cavity	Area (ft^2)	Special Features	Status
Wall — Wood Framed	*R 19*	*526*		*New*
Door — Opaque Door	*- no insulation*	*20*		*New*
Demising — Wood Framed w/o Crawl Space	*R 19*	*370*		*New*
Slab — Unheated Slab-on-Grade	*- no insulation*	*370*	*Perim = 63'*	*New*

FENESTRATION

Total Area: *47* Glazing Percentage: *12.7%* New/Altered Average U-Factor: *0.44*

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (W)	*12.0*	*0.550*	*0.67*	*none*	*none*	*N/A*	*New*
Left (N)	*20.0*	*0.320*	*0.25*	*none*	*none*	*N/A*	*New*
Rear (E)	*3.0*	*0.320*	*0.25*	*none*	*none*	*N/A*	*New*
Rear (E)	*12.0*	*0.550*	*0.67*	*none*	*none*	*N/A*	*New*

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	*Gravity Wall Furnace*	*72% AFUE*	*No Cooling*	*14.0 SEER*	*Setback*	*New*

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
Wall Furnace	*Ductless / with Fan*	*Ductless*	*n/a*	*n/a*	*New*

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	*Small Instantaneous Gas*	*0*	*0.96*	*Standard*	*New*

2019 Low-Rise Residential Mandatory Measures Summary

Requirements for Ventilation and Indoor Air Quality:	
§ 150.0(o)1:	**Requirements for Ventilation and Indoor Air Quality**. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	**Single Family Detached Dwelling Units.** Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	**Multifamily Attached Dwelling Units.** Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	**Multifamily Building Central Ventilation Systems.** Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 percent of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(o)1G:	**Kitchen Range Hoods.** Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Systems and Equipment Measures:	
§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.'
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.'
Lighting Measures:	
§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.'
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	**Electronic Ballasts for Fluorescent Lamps.** Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	**Night Lights, Step Lights, and Path Lights.** Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).'
§ 150.0(k)1G:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.'
§ 150.0(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems.'
§ 150.0(k)2C:	**Interior Switches and Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	**Interior Switches and Controls.** Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	**Interior Switches and Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	**Interior Switches and Controls.** Lighting controls must comply with the applicable requirements of § 110.9.

2019 Low-Rise Residential Mandatory Measures Summary

*NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.* (01/2020)

Building Envelope Measures:	
§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped.'
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Ceiling and Rafter Roof Insulation.** Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.'
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.'
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.'
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.'
Fireplaces, Decorative Gas Appliances, and Gas Log Measures:	
§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.'
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.'
Space Conditioning, Water Heating, and Plumbing System Measures:	
§ 110.0-§ 110.3:	**Certification.** Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.'
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.'
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.'
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.'
§ 110.3(c)4:	**Water Heating Recirculation Loops Serving Multiple Dwelling Units.** Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.'
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(k)2G:	**Interior Switches and Controls.** An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	**Interior Switches and Controls.** A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	**Interior Switches and Controls.** In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.(k)2C.
§ 150.0(k)2J:	**Interior Switches and Controls.** Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.'
§ 150.0(k)2K:	**Interior Switches and Controls.** Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, shall meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aiii (astronomical time clock), or an EMCS.
§ 150.0(k)3B:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either § 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by § 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c).
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Buildings:	
§ 110.10(a)1:	**Single Family Residences.** Single family residences located in subdivisions with 10 or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	**Low-rise Multifamily Buildings.** Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.'
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.'
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.'
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".

2019 Low-Rise Residential Mandatory Measures Summary

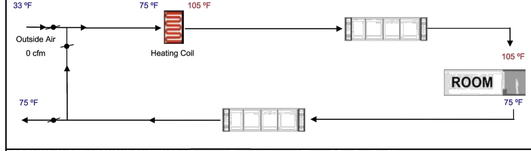
§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Storage Tank Insulation.** Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is not indicated on the exterior of the tank.
§ 150.0(j)2A:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.'
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

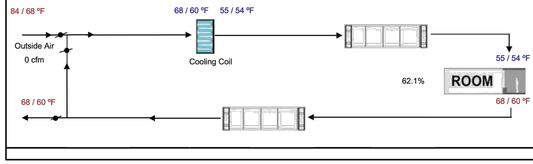
Project Name	Date
Williams ADU Garage Conversion	6/29/2020
System Name	**Floor Area**
Wall Furnace	370

ENGINEERING CHECKS		SYSTEM LOAD	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Number of Systems	1						
Heating System							
Output per System	10,200	Total Room Loads	250	3,515	339	166	5,388
Total Output (Btuh)	10,200	Return Vented Lighting		0			0
Output (Btuh/sqft)	27.6	Return Air Ducts		0			0
Cooling System		Return Fan		0			0
Output per System	0	Ventilation	0	0	0	0	0
Total Output (Btuh)	0	Supply Fan		0			0
Total Output (Tons)	0.0	Supply Air Ducts		0			0
Total Output (Btuh/sqft)	0.0						
Total Output (sqft/Ton)	0.0	TOTAL SYSTEM LOAD		3,515	339		5,388
Air System							
CFM per System	0	**HVAC EQUIPMENT SELECTION**					
Airflow (cfm)	0	Williams Wall Furnace (2)		0	0		10,200
Airflow (cfm/sqft)	0.00						
Airflow (cfm/Ton)	0.0						
Outside Air (%)	0.0%	**Total Adjusted System Output** (Adjusted for Peak Design conditions)		0	0		10,200
Outside Air (cfm/sqft)	0.00						
Note: values above given at ARI conditions		**TIME OF SYSTEM PEAK**			Aug 3 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



SHELTER
architecture
urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

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WILLIAMS ADU
GARAGE COVNERSION

6513 DEL PLAYA DRIVE
SANTA BARBARA, CA

T 1

DATE: BLDG 06.10.20

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 1 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

GENERAL INFORMATION					
01	Project Name	6513 Del Playa Residence ADU			
02	Run Title	Title 24 Analysis			
03	Project Location	6513 Del Playa Drive			
04	City	Santa Barbara	05	Standards Version	2019
06	Zip code	93109	07	Software Version	EnergyPro 8.1
08	Climate Zone	6	09	Front Orientation (deg/ Cardinal)	270
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	AdditionOnly	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	370	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	2345	17	Fenestration Average U-factor	0.44
18	Total Cond. Floor Area (ft^2)	2715	19	Glazing Percentage (%)	12.70%
20	ADU Bedroom Count	1	21	ADU Conditioned Floor Area	370
22	Is Natural Gas Available?	Yes			

Addition Alone Project Analysis Parameters

01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
2345	370	2715	3	1	4

COMPLIANCE RESULTS

01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	Building does not incorporate Special Features

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 2 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

ENERGY USE SUMMARY

Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	4.19	9.36	-5.17	-123.4
Space Cooling	8.99	15.16	-6.17	-68.6
IAQ Ventilation	4.18	4.18	0	0
Water Heating	92.3	80.29	12.01	13
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**109.66**	**108.99**	**0.67**	**0.6**

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the buildng tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications:
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

Domestic Hot Water System Verifications:
- -- None --

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
First Floor	Conditioned	Wall Furnace1	370	8	DHW Sys 1	N/A

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 3 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status
N Wall	First Floor	R-19 Wall	270	Front	201	32	90	none	New
E Wall	First Floor	R-19 Wall	0	Left	163	20	90	none	New
S Wall	First Floor	R-19 Wall	90	Back	201	15	90	none	New
W Wall	First Floor	R-19 Wall	180	Right	28	0	90	none	New
Habitable Space Above	First Floor	R-19 Floor No Crawlspace	n/a	n/a	370	n/a	n/a		New

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window	Window	N Wall	Front	270			1	12	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen
Window 2	Window	E Wall	Left	0			1	10	0.32	NFRC	0.25	NFRC	Bug Screen
Window 3	Window	E Wall	Left	0			1	10	0.32	NFRC	0.25	NFRC	Bug Screen
Window 4	Window	S Wall	Back	90			1	3	0.32	NFRC	0.25	NFRC	Bug Screen
Window 5	Window	S Wall	Back	90			1	12	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Entry Door	N Wall	20	0.5

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 4 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

SLAB FLOORS

01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	First Floor	370	63	None	80%	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-19 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Exterior Finish: 3 Coat Stucco
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x10 @ 16 in. O. C.	R-19	None / None	0.045	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x10 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 5 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.96-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
Wall Furnace1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1		Non-setback thermostat	New	NA	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Gas wall furnace	1	AFUE-72

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 6 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Mulit-speed Compressor	HERS Verification
Cooling Component 1	No Cooling	1			Not Zonal	Single Speed	n/a

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	n/a

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	IAQ Recovery Effectiveness - SREIAQ Recovery Effectiveness - SRE
SFam ADU IAQVentRpt	26	0.25	Default	0	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6513 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:20:12-07:00 **(Page 7 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6513.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Scott Baer	Documentation Author Signature: Scott Baer
Company: MEC	Signature Date: 2020-06-29 15:34:30
Address: 1616 Anacapa St.	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Santa Barbara, CA 93101	Phone: 805-957-4632 206

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Michelle McToldridge	Responsible Designer Signature: Michelle McToldridge
Company: Shelter Architecture	Date Signed: 2020-06-29 19:54:22
Address: 540 Barker Pass	License: C29526
City/State/Zip: Santa Barbara, CA 93108	Phone: 805-895-3879

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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SHELTER architecture urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

LICENSED ARCHITECT MICHELLE R. McTOLDRIDGE No. C-29526 9-30-21 RENEWAL DATE STATE OF CALIFORNIA

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WILLIAMS ADU
GARAGE COVNERSION

6513 DEL PLAYA DRIVE
SANTA BARBARA, CA

T 2

DATE: BLDG 06.10.20

DEL PLAYA RESIDENCE - ADU

(EXISTING GARAGE CONVERSION)
6515 DEL PLAYA DRIVE
ISLA VISTA, CA

MEP GENERAL NOTES

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2019 CALIFORNIA ELECTRICAL CODE (CEC) AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. CONTRACTOR TO FURNISH AND INSTALL ALL EQUIPMENT, MATERIALS AND FIXTURES UNLESS OTHERWISE NOTED.
3. ALL ELECTRICAL EQUIPMENT AND FIXTURES SHALL BE LISTED AND APPROVED BY A RECOGNIZED TESTING LAB AND INCLUDE APPROPRIATE LABELS
4. GROUNDING AND BONDING SHALL BE PER CODE
5. ALL CONDUIT RUNS SHALL INCLUDE A CODE SIZED GREEN GROUND WIRE
6. FEEDER CONDUCTORS SHALL BE IN CONDUIT
7. CONDUCTORS SHALL BE COPPER WITH APPROPRIATE INSULATION
8. CONVENIENCE OUTLETS SHALL BE LOCATED AND SPACED PER 2016 CEC 210.52. 11. WITH A RECEPTACLE REQUIRED AT ANY WALL SPACE 2' OR WIDER, NOT MORE THAN 6' FROM OPENINGS AND NOT MORE THAN 12' ON CENTER.
9. ARC-FAULT CIRCUIT INTERRUPTER REQUIRED WHERE BRANCH CIRCUITS ARE MODIFIED, REPLACED OR EXTENDED THAT SUPPLY 120-V, SINGLE PHASE, 15 AND 20 AMP OUTLETS IN BEDROOMS, FAMILY ROOMS, LIVING ROOMS, DINING ROOMS, CLOSETS, AND DINING ROOMS, CLOSETS AND HALLWAYS,
10. ALL OUTLETS SERVING KITCHEN COUNTERTOP SHALL BE GROUND FAULT CIRCUIT INTERRUPTER PROTECTED (GFI) PER CEC 210 -8(A)(1)
11. KITCHEN COUNTER OUTLETS SHALL BE 4'-0" O.C. MAX. WITH NO POINT ALONG THE WALL MORE THAN 2'-0" FROM AN OUTLET (EXCEPT AT SINK) PER CEC 210-52 (C)(1)
12. KITCHEN ISLANDS TO BE PROVIDED WITH AT LEAST ONE RECEPTACLE OUTLET PER CEC 210-52(C)(2)
13. ALL NON-LOCKING TYPE 125-VOLT 15 & 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT 2019 CEC 406.12 EXCEPTIONS 1) THOSE MORE THAN 66' ABOVE THE FLOOR 2) PART OF A LUMINAIRE OR APPLIANCE 3) SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES THAT ARE NOT EASILY MOVED AND LOCATED WITHIN DEDICATED SPACE AND ARE CHORD AND PLUG CONNECTED AS PER CEC 400.7 OR 4) NON-GROUNDING RECPTACLES USED FOR REPLACEMENTS AS PERMITTED IN CEC 406.4 (D)(2)(a)
14. PROVIDE A MIN. OF 2 SEPARATE 20 AMP CIRCUITS TO KITCHEN PER CEC 210-52(B)
15. BATHROOM RECEPTACLE OUTLETS TO BE GFI PROTECTED PER CEC 210-8(A)(6)
16. PROVIDE A MIN. OF 1 SEPARATE 20 AMP CIRCUIT TO EA. BATHROOM PER CEC-10(C-3)
17. GFCI TYPE OUTLETS REQUIRED IN BATHROOMS, KITCHEN COUNTERTOPS, PRIVATE GARAGES AND EXTERIOR RECEPTACLES PER 2019 CEC SECTION 210.8.

LIGHTING NOTES:

ALL NEW FIXTURES ARE TO BE HIGH EFFICACY PER 2019 TITLE 24 REQUIREMENTS PER NOTES BELOW AND ADDITIONAL NOTES THIS SHEET
THE FOLLOWING LIGHTING IS HIGH-EFFICACY:
PIN BASED LINEAR FLUORESCENT, PIN BASED COMPACT FLUORESCENT, PULSE START METAL HALIDE, HIGH PRESSURE SODIUM, GU-24 (OTHER THAN LEDS), INSEPARABLE SOLID STATE LUMINAIRES (SSLS) INSTALLED OUTDOORS OR INSEPARABLE SSL LUMINAIRES WITH COLORED LIGHT SOURCES FOR DECORATIVE PURPOSES.
THE FOLLOWING LAMPS AND LIGHT SOURCES ARE HIGH EFFICACY IF THEY ARE JOINT APPENDIX JA8-CERTIFIED:
JA-8 CERTIFIED LAMPS AND LIGHT SOURCES ARE MARKED AS 'JA8-2016' OR 'JA82016-E'. THESE FIXTURES INCLUDE: LED LUMINAIRES WITH INTEGRAL SOURCES THAT ARE CERTIFIED BY THE ENERGY COMMISSION, SCREW BASED LED LAMPS (A-LAMPS, PAR LAMPES, ETC), PIN-BASED LED LAMPS (MR-16, AR-111, ETC) GU-24 BASED LED LIGHT SOURCES AND OTHER LUMINAIRES.

AND A DIMMER OR VACANCY SENSORS SHALL CONTOL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8

A MINUMUM OF ONE LIGHT IN BATHROOMS, LAUNDRY ROOMS, UTILITY ROOMS AND GARAGES TO BE CONTROLLED BY A MANUAL ON/ AUTOMATIC OFF OCCUPANCY SENSOR - SEE PLAN BELOW FOR IDENTIFICATION OF FIXTURES THAT ARE DESIGNATED TO MEET THIS REQUIREMENT ' OOS*'

PLUMBING NOTES:

1. ALL NEW INDOOR & OUTDOOR WATER USE TO COMPLY WITH 2019 CALGREEN STANDARDS
2. DOMESTIC HOT WATER PIPING SYSTEM SHALL BE INSULATED PER 2019 CEC SEC 150.0(j) CH 7.
3. PRESSURE BALANCING OR THERMOSTATIC MIXING VALVES REQUIRED AT NEW SHOWERS PER CPC 420.0
4. WATER HEATERS INSTALLED IN BEDROOMS AND BATHROOMS SHALL COMPLY WITH 2019 CPC SECTION 505
5. ALL FIXTURES COMING INTO CONTACT WITH POTABLE WATER MUST BE LEAD FREE .

PLUMBING FIXTURE REQUIREMENTS PER 2019 CALIFORNIA GREEN BLDG CODE:

- WATER CLOSETS/TOILETS: NOT TO EXCEED 1.28 GALLONS PER FLUSH
- LAVATORY FAUCETS FLOW RATES NOT TO EXCEED 1.2 GPM @ 60 PSI
- COMBINED FLOWRATE OF ALL SHOWER HEADS SERVIING A SINGLE SHOWER STALL SHALL NOT EXCEED 2.0 GPM @ 80 PSI OR DESIGNED SO THAT ONLY ONE SHOWER HEAD/ HAND HELD CAN BE USED AT A TIME)
- KITCHEN FAUCET MAX FLOW RATE SHALL NOT EXCEED 1.8 GPM @ 60 PSI (MAY TEMPORARILY INCREASE THE FLOW TO ABOVE MAX. RATE BUT NOT EXCEED 2.2 GPM AT 60 PSI AND MUST DEFAULT TO A MAX FLOW F 1.8 GPM AT 60 PSI)

GAS WATER HEATER NOTES:

- PROVIDE A CAT II OR IV VENT OR TYPE B VENT W/ STAIGHT PIPE BTWN THE OUTSDIE TERMIANTION AND THE SPACE WHERE THE WATER HEATER IS INSTALLED
- A CONDENSATE DRAIN THAT IS NO MORE THAN 2" HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE
- GAS SUPPLY LINE WITH A CAPACITY OF AT LEAST 200,000 BTU

HVAC NOTES:

1. PROVIDE NATURAL VENTILATION A MINIMUM OF 4% OF FLOOR AREA PER CBC 1203.4.1
2. BATHROOMS CONTAINING A SHOWER OR TUB SHALL BE MECHANICALLY VENTED WITH AN EXHAUST FAN OF 50 CFM , (20 CFM FOR CONTINUOUS OPERATION).
3. EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMITATE OUTSIDE THE BUILDING. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENT SYSTEM FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE.
4. INTERIOR SPACES INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH ACTIVE OR PASSIVE SPACE-HEATING SYSTEMS CAPABLE OF MAINTAINING A MIN. INDOOR TEMPERATURE OF 68 DEGREES F AT A POINT 3 FEET ABOVE THE FLOOR. 2016 CBC SECTION 1204/ CRC 303.8.
5. VENT DRYER TO OUTSIDE WITH 14' MAX. LENGTH INCLUDING A MAX. OF TWO 90 DEGREE BENDS.
6. FUEL BURNING EQUIPMENT SHALL BE INSTALLED PER 20196 CPC SEC 304
7. ALL EXHAUST AND INTAKE OPENINGS TERMINATING OUTDOORS SHALL BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLES WITH OPENINGS OF $\frac{1}{4}$ - $\frac{1}{2}$ IN ANY DIMENSION PER CRC R303.6

GENERAL NOTES

1. THE FOLLOWING NOTES, DETAILS SCHEDULES AND SPECIFICATIONS SHALL APPLY TO ALL PHASES OF THIS PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE. NOTES AND DETAILS ON THE ARCHITECTURAL PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
2. ALL DRAWINGS ARE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWING AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION SO THAT CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE THE OWNER OR ARCHITECT.
3. ALL INFORMATION OF EXISTING CONDITIONS SHOWN ON THE PLANS ARE BASED ON BEST PRESENT KNOWLEDGE AVAILABLE BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE. ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
4. CONTRACTOR SHALL USE WRITTEN DIMENSIONS FROM THE CONTRACT DOCUMENTS, DO NOT SCALE THE PLANS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING AS REQUIRED.
6. THE ARCHITECT WILL NOT BE RESPONSIBLE FOR OR HAVE CONTROL OR CHARGE OF THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION DELINEATED IN THESE PLANS.
7. THE CONTRACTOR OR HIS/HER AGENTS SHALL SUPERVISE AND DIRECT ALL WORK AND SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION.
8. ALL WORKMANSHIP SHALL CONFORM TO THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES PERFORMING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
9. SEE STRUCTURAL GENERAL NOTES FOR MINIMUM REQUIREMENTS PERTAINING TO, BUT NOT LIMITED TO SOILS, FOUNDATIONS/ CONCRETE, LUMBER/ FRAMING, LATERAL BRACING
10. ALL WORK DONE UNDER THIS CONTRACT SHALL BE IN COMPLIANCE WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND INSTALL ALL TEMPORARY BRACING AND SHORING TO INSURE SAFETY UNTIL THE WORK IS COMPLETED.
12. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND COORDINATING ALL DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND NON-STRUCTURAL ITEMS NOT SHOWN ON STRUCTURAL PLANS.
13. ALL SCAFFOLDING AND SHORING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE INDUSTRIAL SAFETY COMMISSION OF THE STATE OF CALIFORNIA.
14. THE CONTRACTOR IS REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT MADE TO BE APPLIED CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE ARCHITECT FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ARCHITECT.
15. ALL WATERPROOFING, DRAINAGE, SEALING, OR ANY AND ALL WATER AND/OR MOISTURE RELATED ISSUES ARE THE FULL RESPONSIBILITY OF THE CONTRACTOR.
16. ANY DISCREPANCIES OR ABIGUITIES BETWEEN ON THE DRAWINGS AND/ OR SPECIFICATIONS BETEWEEN ACTUAL CONDITIONS FOUND ON SITE, BETWEEN ANY OTHER DRAWING OR SPECIFICATION OR WITHIN THE SAME DRAWING, THEY; CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH WORK.
17. NOTE: THE INTENT OF DESIGN CONTAINED IN THESE DRAWINGS IS, ALTERATIONS . ALTHOUGH SOME SHEAR LINES ARE BEING STRENGTHEDNED, THE BUILDING IS NOT BEING UPGRADED FULLY TO CURRENT CODE. THE ARCHITECT AND ENGINEER ARE NOT RESPONSIBLE FOR FULL CURRENT CODE COMPLIANCE. NO SIGNIFICANT FOUNDATION WORK IS BEING PERFORMED.

HAZARDOUS MATERIALS

ARCHITECT IS NOT RESPONSIBLE OR QUALIFIED TO HANDLE EXISTING HAZARDOUS MATERIALS (I.E. LEAD, ASBESTOS, FORMALDHYDE).

LEAD SAFE WORK PRACTICES AND CONTAINMENT ARE REQUIRED ON ALL STRUCTURES BUILT BEFORE 1978. PRACTICES AND CONTAINMENT APPLY TO ANY KNOWN LEAD-BASED PAINT (PAINT THAT HAS BEEN TESTED) OR ANY AMOUNT OF PRE-1978 PAINT THAT HASN'T BEEN TESTED AS UNTESTED PAINT IS 'PRESUMED' LEAD BASED.
OWNERS, MANAGERS, CONTRACTORS AND OTHER INDIVIDUALS WHO PERFORM, RENOVATE, OR PAINT ON PRE-1978 BUILDING MUST COMPLY WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) CERTIFICATION, TRAINING, AND SAFE WORK PRACTICE REQUIREMENTS. RENOVATION IS BROADLY DEFINED AS ANY ACTIVITY THAT DISTURBS PAINTED SURFACES AND INCLUDES MOST REPAIR, REMODELING, AND MAINTENANCE ACTIVITIES. THE WORK CAN ONLY BE PERFORMED BY AN INDIVIDUAL WHO HAS BEEN TRAINED AND IS EITHER CERTIFIED OR SUPERVISED BY SOMEONE WHO IS.

APPROVED SORTING AND RECYCLING FACILITY:

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 BUILDING STANDARDS CODE SECTION 4.408.1 (MINIMUM 65% NON-HAZARDOUS MATERIALS RECYCLED AND/OR SALVAGED FOR RE-USE)

MARBORG INDUSTRIES
119 N. QUARANTINA ST SANTA BARBARA, CA
PH: 805.963.1852

CONTACTS

OWNER:

GEORGE & KAREN WILLIAMS 2000 TRUST
173 HOT SPRINGS ROAD
SANTA BARBARA, CA 93108
PHONE: 310-382-6388

TITLE 24 REPORT

MECHANICAL ENGINEERING
CONSULTANTS, INC. (M.E.C.)
1616 ANACAPA STREET
SANTA BARBARA, CA 93101
PH: 805-957-4632 X 207

ARCHITECT:

SHELTER ARCHITECTURE & URBAN DESIGN
MICHELLE MCTOLDRIDGE
PO BOX 5755
SANTA BARBARA, CA 93150
PHONE: (805) 895-3879
CA LIC. C29526

CODES

APPLICABLE CODES

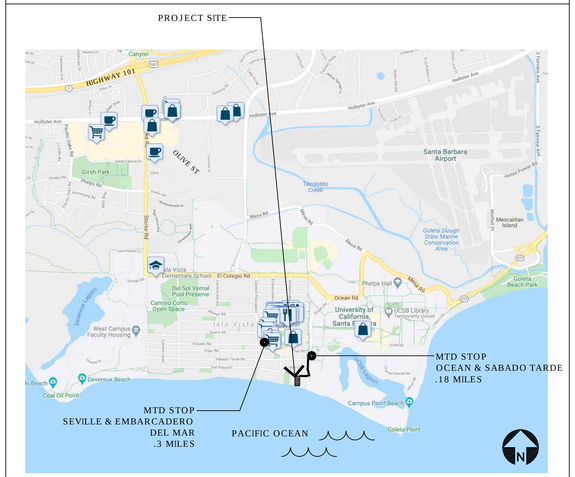
GROUP R-3/TYPE V-N' NON-RATED CONSTRUCTION
ALL WORK TO COMPLY WITH THE FOLLOWING CODES:
2019 CALIFORNIA BUILDING CODE (C.B.C.)
2019 CALIFORNIA RESIDENTIAL CODE (TWO UNITS/ MAX 3 STORIES)
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA MECHANICAL CODE 2016 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
& SBCO TITLE II COASTAL ZONING ORDINANCE

NO FIRE SPRINKLERS PROPOSED OR REQUIRED
(EXISTING RESIDENCE DOES NOT HAVE FIRE SPRINKLERS)

SHEET INDEX

ARCHITECTURAL	
A 1.0	PROJECT DATA & NOTES
A 1.1	SITE PLAN
A 2.0	EXISTING AND PROPOSED FIRST FLOOR PLAN
A 2.1	EXISTING 2ND FLOOR PLAN, BUILDING SECTION
A 3.0	EXTERIOR ELEVATIONS
T 1	TITLE 24 (RMS-1 AND MANDATORY MEASURES)
T 2	TITLE 24 (CF1R SHEETS)

VICINITY MAP



PROJECT DATA

SCOPE OF WORK

CONVERT AN EXISTING 325 NET SF (350 GROSS SF) ATTACHED GARAGE OF AN EXISTING SFD TO A STUDIO ACCESSORY DWELLING UNIT. PURSUANT TO GOV CODE 65852.2 POST JAN 1, 2020.
WORK INCLUDES ADDING KITCHEN AND BATHROOM FACILITIES AND REPLACING EXISTING GARAGE DOOR WITH NEW WINDOWS.
WATER SERVICE IS PROVIDED BY GOLETA WATER DISTRICT AND SANITARY BY GOLETA SANITARY WEST. EXISTING SCE ELECTRICAL METER SERVES BOTH UNIT AND HOUSE.

PROJECT ADDRESS:	6515 DL PLAYA DRIVE
APN:	075-223-024
ZONE:	SR-M-8
GENERAL PLAN:	
SLOPE:	12% (PER CITY GIS)
LOT SIZE:	6,244 SQ. FT / .14 ACRES
HIGH FIRE:	NO
FLOOD ZONE:	NO
GRADING:	NONE PROPOSED
SWMP:	N/A

FLOOR AREAS:	NET	GROSS
(E) 2-STORY RESIDENCE		
1ST FLOOR	900 SF	975 SF
2ND FLOOR	1,275 SF	1,370 SF
TOTAL HABITABLE	2,175 SF	2,345 SF
(E) ATTACHED GARAGE	339 SF	370 SF
(E) SITE TOTAL	2,514 SF	2,715 SF
CONVERT (E) GARAGE TO ACCESSORY DWELLING UNIT	339 SF	370 SF
TOTAL PROPOSED FLOOR AREA	NO CHANGE	

PARKING	EXISTING	PROPOSED	REQUIRED
PRIMARY RESIDENCE	2 COVERED 2 UNCOVERED	0 COVERED 2 UNCOVERED	0 REQUIRED PER GOV CODE 65852.2 POST JAN 1, 2020
ADU	N/A	0 COVERED	0 REQUIRED*
SITE TOTAL:	4	2 UNCOVERED	0 REQUIRED

*PARKING REQUIREMENT FOR ADU IS EXEMPT PER GOV CODE 65852.2 POST JAN 1, 2020 BASED ON PROXIMITY TO PUBLIC TRANSIT, SEE VICINITY MAP

RESERVED FOR APPROVAL STAMPS

SHELTER architecture urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

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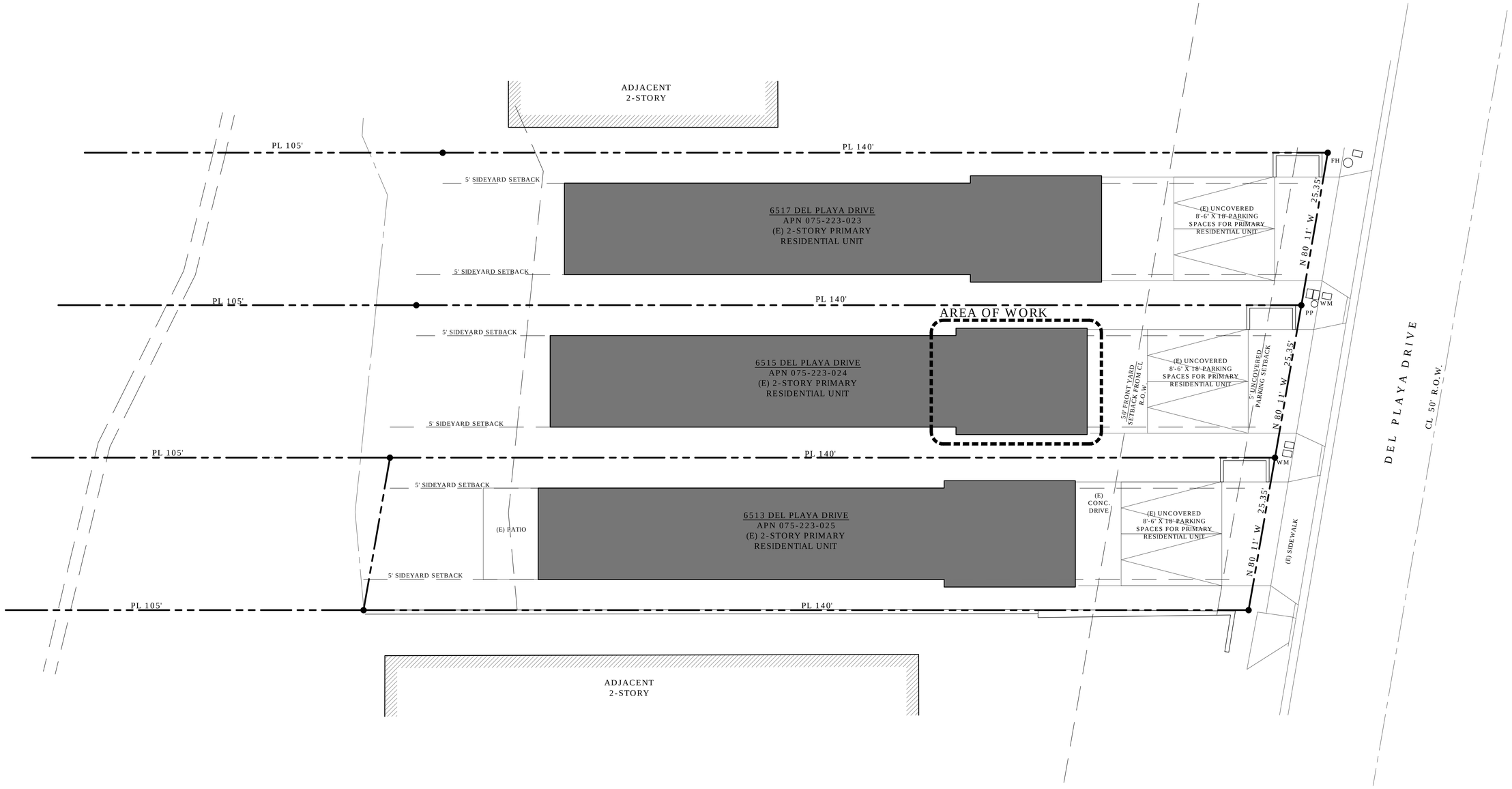
WILLIAMS ADU
GARAGE COVNERSION

6515 DEL PLAYA DRIVE
SANTA BARBARA, CA

A1.0

DATE: BLDG 06.10.20



SITE PLAN

SCALE: 1/8" = 1'-0"

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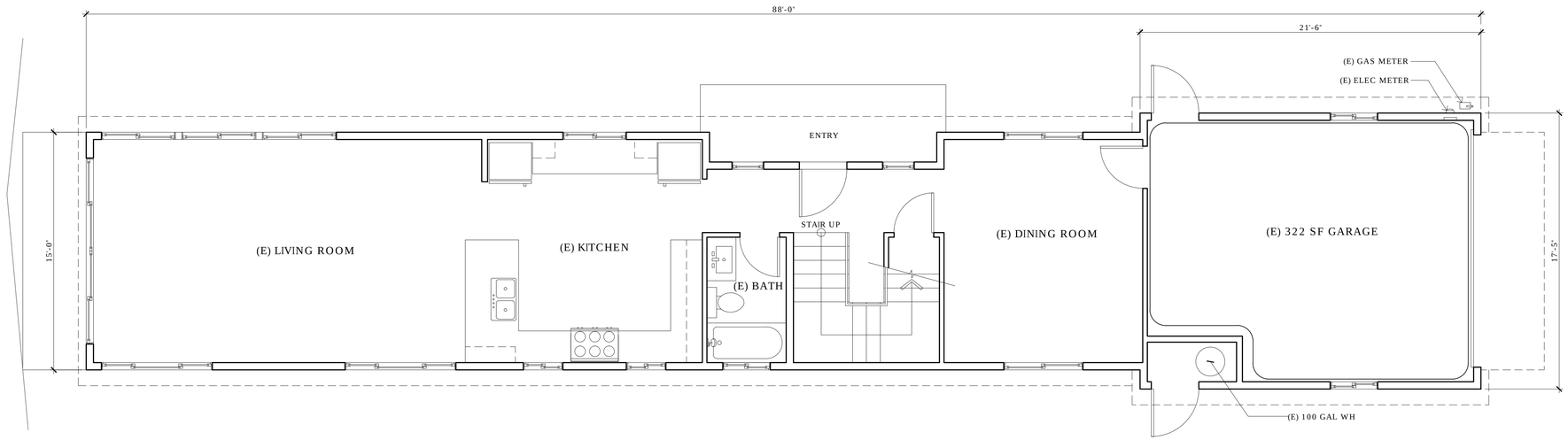


EXISTING FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

PLAN LEGEND

- EXISTING WALLS
- NEW WALLS
- (S) HARDWIRED SMOKE DETECTOR PER SEC R314.3
- (CM) CARBON MONOXIDE (CO2) DETECTOR PER CRC R315.1 & R315.2 NOTE: CO2 DETECTOR CAN BE SOLELY BATTERY OPERATED WHEN INSTALLED IN EXISTING BUILDINGS
- PANASONIC FV-05 WHISPER SOFT CEILING FAN, FAN TO HAVE A MIN. EXHAUST RATE OF 50 CFM INTERMITTENT AND DUCTED TO EXTERIOR OF BUILDING. FAN SHALL BE CONTROLLED BY A READILY ACCESSIBLE HUMIDISTAT AND IS CAL GREEN & ENERGY STAR COMPLIANT. EXHAUST FANS IN ROOMS WITH BATHING FIXTURES (TUB AND/OR SHOWER) TO BE PROVIDED WITH PANASONIC CONDENSATION SENSOR MODULE
- ELECTRICAL RECEPTICAL NOTE: PROVIDE TAMPER RESISTANT OUTLETS IN ALL REMODELED AND NEW AREAS PER CEC 406.12 (EXCEPTION WHEN LOCATED > 5.5', WITHIN A CABINET OR CUPBOARD OR WHEN PART OF A LUMINAIRE OR APPLIANCE.
- GFIC GROUND FAULT CIRCUIT INTERUPTER PROTECTED OUTLET AS REQUIRED PER CEC 210.8
  NOTE: PROVIDE TAMPER RESISTANT OUTLETS IN ALL REMODELED AND NEW AREAS PER CEC 406.12 (SEE EXCEPTIONS)

NOTE: ALL NEW LIGHT FIXTURES ARE TO BE HIGH EFFICACY PER 2019 TITLE 24 REQUIREMENTS. SEE ADDITIONAL ELECTRICAL NOTES (THIS PAGE) FOR DETAILED REQUIREMENTS AND INFORMATION

RECESSED LIGHTS

THE FOLLOWING LED RECESSED FIXTURES DO NOT HAVE SCREW BASED SOCKETS, AND SHALL BE APPROVED FOR ZERO CLEARANCE INSULATION COVER IC RATED BY UL OR OTHER TESTING LAB RECOGNIZED BY THE BUILDING OFFICIAL AND SHALL BE AIR TIGHT TO SHOW AIR LEAKAGE LESS THAN 2.0 DFM AT 0.011 PSI IN ACCORDANCE WITH ASTM E283 AND SEALED WITH A GASKET OR CAULK BETWEEN HOUSING AND CEILING PER CEC 150K.

- 3' - 4" LED ROUND RECESSED DOWLIGHT

SCREW BASED LIGHTS

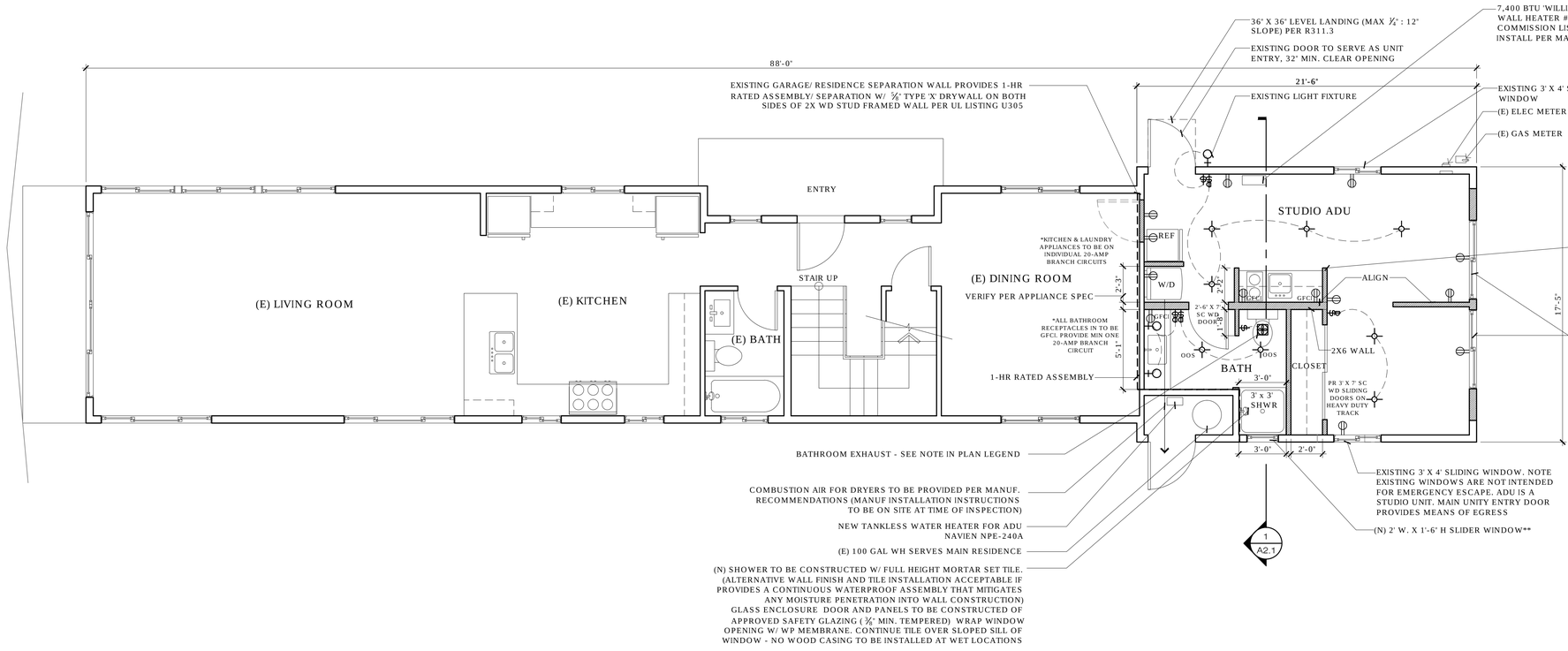
SCREW BASED LIGHTS ARE ACCEPTABLE IF THEY MEET THE FOLLOWING REQUIREMENTS:

A. NOT A RECESSED DOWN LIGHT
B. LAMP COMPLIES WITH REF. JOINT APPENDIX JA8
C. LAMP IS MARKED WITH 'JA8-2016' OR 'JA-82016E'

- SURFACE MOUNT FIXTURE/ WALL SCONCE.

LIGHTING ABBREVIATIONS:

WP LENSED/ WET LOCATION RATED
OOS ON/ OFF OCCUPANCY SENSOR (SEE LIGHTING NOTES)



PLUMBING FIXTURE REQUIREMENTS FOR PROPOSED ADU FIXTURES (PER 2019 CGBC):

- TOILETS: NOT TO EXCEED 1.28 GALLONS PER FLUSH
- LAV FAUCETS: FLOW RATES NOT TO EXCEED 1.2 GPM @ 60 PSI
- COMBINED FLOWRATE OF ALL SHOWER HEADS SERVING A SINGLE SHOWER STALL SHALL NOT EXCEED 2.0 GPM @ 80 PSI
- MULTIPLE SHOWER HEADS IN SAME SHOWER COMBINED FLOW RATE OF 2.0 GPM @ 80 PSI OR DESIGNED SO THAT ONLY ONE SHOWER HEAD/ HAND HELD CAN BE USED AT A TIME
- KITCHEN FAUCET MAX FLOW RATE SHALL NOT EXCEED 1.8 GPM @ 60 PSI (MAY TEMPORARILY INCREASE THE FLOW TO ABOVE MAX. RATE BUT NOT EXCEED 2.2 GPM AT 60 PSI AND MUST DEFAULT TO A MAX FLOW F 1.8 GPM AT 60 PSI)

PROPOSED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

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WILLIAMS ADU
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A2.0

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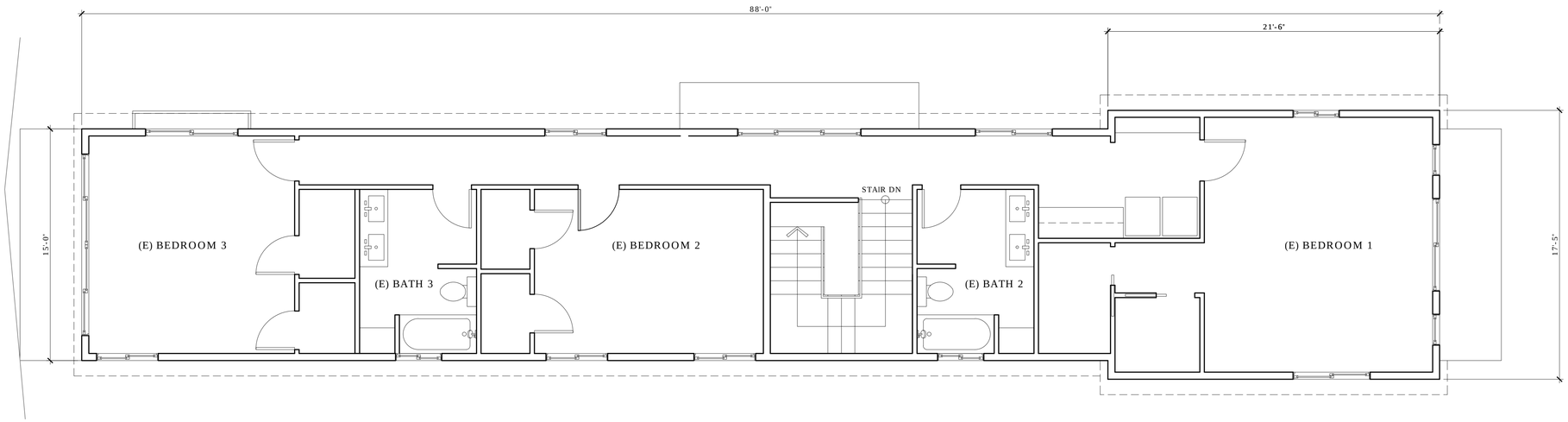
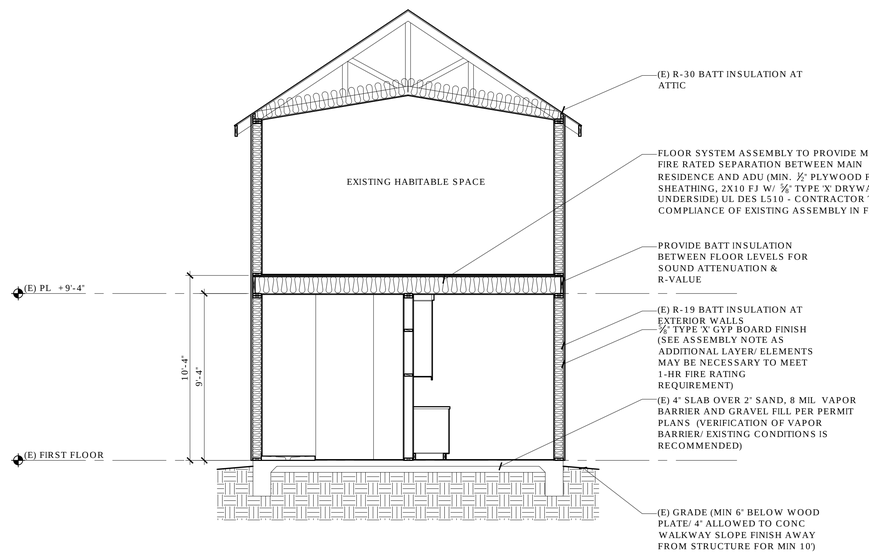


EXISTING SECOND FLOOR PLAN (FOR REFRENCE ONLY - NO WORK PROPOSED)

SCALE: 1/4" = 1'-0"



1 BUILDING SECTION

SCALE: 1/4" = 1'-0"

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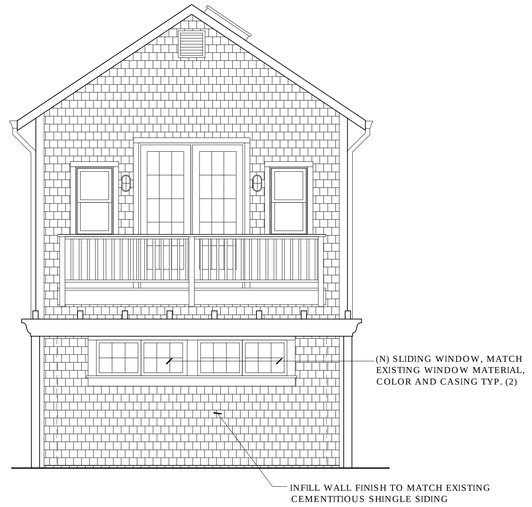
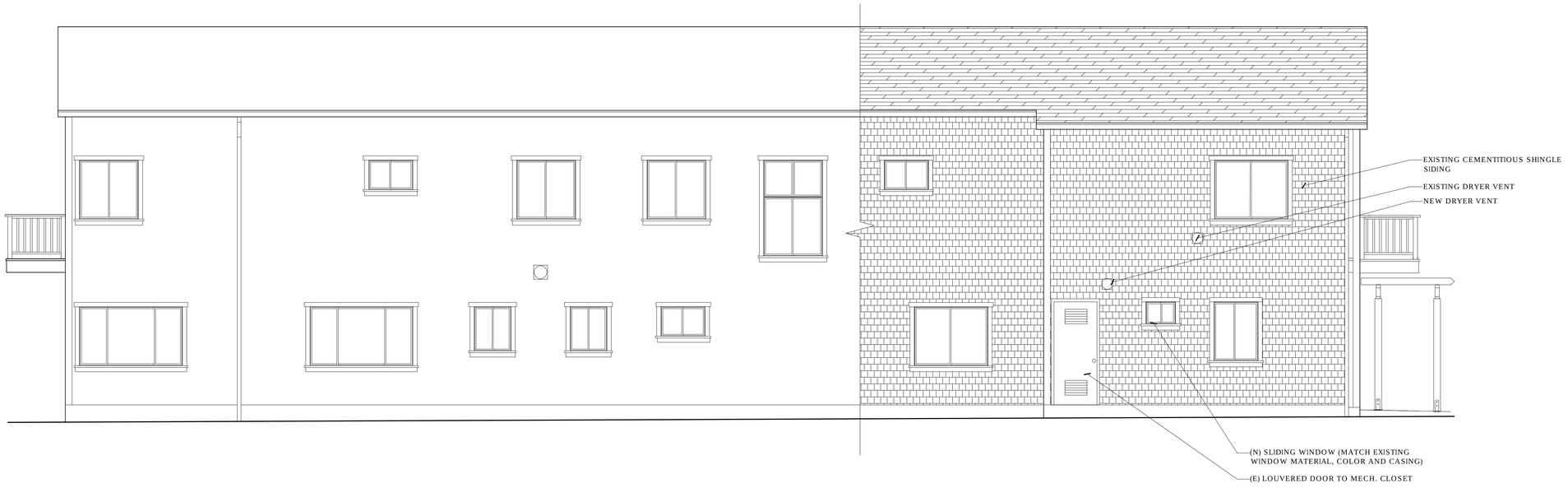
WEST ELEVATION
(NO WORK PROPOSED)

EXISTING NORTH ELEVATION



PROPOSED NORTH ELEVATION



PROPOSED EAST ELEVATION

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A3.0

DATE: BLDG 06.10.20

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type			Date
Williams ADU Garage Conversion	☐ Multi Family	☑ Single Family ☑ Addition Alone ☐ Existing+ Addition/Alteration		6/29/2020
Project Address	**California Energy Climate Zone**	**Total Cond. Floor Area**	**Addition**	**# of Units**
6515 Del Playa Drive Santa Barbara	CA Climate Zone 06	370	370	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	Wood Framed	R 19	526		New
Door	Opaque Door	- no insulation	20		New
Demising	Wood Framed w/o Crawl Space	R 19	370		New
Slab	Unheated Slab-on-Grade	- no insulation	370	Perim = 63'	New

FENESTRATION

Total Area: 47 | Glazing Percentage: 12.7% | New/Altered Average U-Factor: 0.44

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (W)	12.0	0.550	0.67	none	none	N/A	New
Left (N)	20.0	0.320	0.25	none	none	N/A	New
Rear (E)	3.0	0.320	0.25	none	none	N/A	New
Rear (E)	12.0	0.550	0.67	none	none	N/A	New

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	Gravity Wall Furnace	72% AFUE	No Cooling	14.0 SEER	Setback	New

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
Wall Furnace	Ductless / with Fan	Ductless	n/a	n/a	New

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	Small Instantaneous Gas	0	0.96	Standard	New

2019 Low-Rise Residential Mandatory Measures Summary

Requirements for Ventilation and Indoor Air Quality:	
§ 150.0(o)1:	**Requirements for Ventilation and Indoor Air Quality**. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	**Single Family Detached Dwelling Units.** Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	**Multifamily Attached Dwelling Units.** Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	**Multifamily Building Central Ventilation Systems.** Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 percent of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(o)1G:	**Kitchen Range Hoods**. Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Systems and Equipment Measures:	
§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.'
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.'
Lighting Measures:	
§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.'
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	**Electronic Ballasts for Fluorescent Lamps.** Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	**Night Lights, Step Lights, and Path Lights.** Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).'
§ 150.0(k)1G:	**Screw based luminaires**. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.'
§ 150.0(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems.'
§ 150.0(k)2C:	**Interior Switches and Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	**Interior Switches and Controls.** Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	**Interior Switches and Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	**Interior Switches and Controls.** Lighting controls must comply with the applicable requirements of § 110.9.

2019 Low-Rise Residential Mandatory Measures Summary

*NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.* (01/2020)

Building Envelope Measures:	
§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.'
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped.'
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers**. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Ceiling and Rafter Roof Insulation.** Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.'
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.'
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.'
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.'
Fireplaces, Decorative Gas Appliances, and Gas Log Measures:	
§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.'
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.'
Space Conditioning, Water Heating, and Plumbing System Measures:	
§ 110.0-§ 110.3:	**Certification.** Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.'
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.'
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.'
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.'
§ 110.3(c)4:	**Water Heating Recirculation Loops Serving Multiple Dwelling Units.** Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.'
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(k)2G:	**Interior Switches and Controls.** An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	**Interior Switches and Controls.** A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	**Interior Switches and Controls.** In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	**Interior Switches and Controls.** Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.'
§ 150.0(k)2K:	**Interior Switches and Controls.** Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3AI (ON and OFF switch) and the requirements in either § 150.0(k)3AII (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3AIi (astronomical time clock), or an EMCS.
§ 150.0(k)3B:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either § 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by § 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c).
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Buildings:	
§ 110.10(a)1:	**Single Family Residences.** Single family residences located in subdivisions with 10 or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	**Low-rise Multifamily Buildings.** Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.'
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.'
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.'
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".

2019 Low-Rise Residential Mandatory Measures Summary

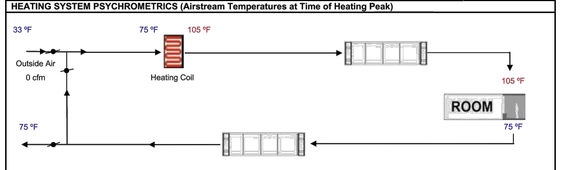
§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Storage Tank Insulation.** Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.'
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

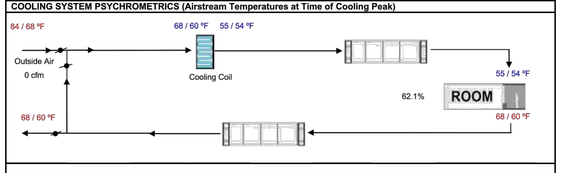
Project Name		Date
Williams ADU Garage Conversion		6/29/2020
System Name		**Floor Area**
Wall Furnace		370

ENGINEERING CHECKS		SYSTEM LOAD	COIL COOLING PEAK		COIL HTG. PEAK	
			CFM	Sensible	Latent	CFM	Sensible
Number of Systems	1						
Heating System							
Output per System	10,200	**Total Room Loads**	250	3,515	339	166	5,388
Total Output (Btuh)	10,200	**Return Vented Lighting**		0			
Total Output (Btuh/sqft)	27.6	**Return Air Ducts**		0			0
Cooling System		**Return Fan**		0			0
Output per System	0	**Ventilation**	0	0	0	0	0
Total Output (Btuh)	0	**Supply Fan**		0			0
Total Output (Tons)	0.0	**Supply Air Ducts**		0			0
Total Output (Btuh/sqft)	0.0						
Total Output (sqft/Ton)	0.0	**TOTAL SYSTEM LOAD**		3,515	339		5,388
Air System							
CFM per System	0	**HVAC EQUIPMENT SELECTION**					
Airflow (cfm)	0	Williams Wall Furnace (2)		0	0		10,200
Airflow (cfm/sqft)	0.00						
Airflow (cfm/Ton)	0.0						
Outside Air (%)	0.0%	**Total Adjusted System Output** (Adjusted for Peak Design conditions)		0	0		10,200
Outside Air (cfm/sqft)	0.00						
Note: values above given at ARI conditions		**TIME OF SYSTEM PEAK**		Aug 3 PM			Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



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WILLIAMS ADU
GARAGE COVNERSION

6515 DEL PLAYA DRIVE
SANTA BARBARA, CA

T 1

DATE: BLDG 06.10.20

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 1 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

GENERAL INFORMATION

01	Project Name	6515 Del Playa Residence ADU			
02	Run Title	Title 24 Analysis			
03	Project Location	6515 Del Playa Drive			
04	City	Santa Barbara	05	Standards Version	2019
06	Zip code	93109	07	Software Version	EnergyPro 8.1
08	Climate Zone	6	09	Front Orientation (deg/ Cardinal)	270
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	AdditionOnly	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	370	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	2345	17	Fenestration Average U-factor	0.44
18	Total Cond. Floor Area (ft^2)	2715	19	Glazing Percentage (%)	12.70%
20	ADU Bedroom Count	1	21	ADU Conditioned Floor Area	370
22	Is Natural Gas Available?	Yes			

Addition Alone Project Analysis Parameters

01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
2345	370	2715	3	1	4

COMPLIANCE RESULTS

01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	Building does not incorporate Special Features

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 2 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

ENERGY USE SUMMARY

Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	4.19	9.36	-5.17	-123.4
Space Cooling	8.99	15.16	-6.17	-68.6
IAQ Ventilation	4.18	4.18	0	0
Water Heating	92.3	80.29	12.01	13
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**109.66**	**108.99**	**0.67**	**0.6**

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications:
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

Domestic Hot Water System Verifications:
- -- None --

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
First Floor	Conditioned	Wall Furnace1	370	8	DHW Sys 1	N/A

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 3 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status
N Wall	First Floor	R-19 Wall	270	Front	201	32	90	none	New
E Wall	First Floor	R-19 Wall	0	Left	163	20	90	none	New
S Wall	First Floor	R-19 Wall	90	Back	201	15	90	none	New
W Wall	First Floor	R-19 Wall	180	Right	28	0	90	none	New
Habitable Space Above	First Floor	R-19 Floor No Crawlspace	n/a	n/a	370	n/a	n/a		New

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window	Window	N Wall	Front	270			1	12	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen
Window 2	Window	E Wall	Left	0			1	10	0.32	NFRC	0.25	NFRC	Bug Screen
Window 3	Window	E Wall	Left	0			1	10	0.32	NFRC	0.25	NFRC	Bug Screen
Window 4	Window	S Wall	Back	90			1	3	0.32	NFRC	0.25	NFRC	Bug Screen
Window 5	Window	S Wall	Back	90			1	12	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Entry Door	N Wall	20	0.5

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 4 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

SLAB FLOORS

01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	First Floor	370	63	None	80%	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-19 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Exterior Finish: 3 Coat Stucco
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x10 @ 16 in. O. C.	R-19	None / None	0.045	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x10 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 5 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.96-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
Wall Furnace1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1		Non-setback thermostat	New	NA	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Gas wall furnace	1	AFUE-72

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 6 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Mulit-speed Compressor	HERS Verification
Cooling Component 1	No Cooling	1			Not Zonal	Single Speed	n/a

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	n/a

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	IAQ Recovery Effectiveness - SREIAQ Recovery Effectiveness - SRE
5Fam ADU IAQVentRpt	26	0.25	Default	0	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6515 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:23:20-07:00 **(Page 7 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6515.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Scott Baer	Documentation Author Signature: Scott Baer
Company: MEC	Signature Date: 2020-06-29 15:34:30
Address: 1616 Anacapa St.	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Santa Barbara, CA 93101	Phone: 805-957-4632 206

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Michelle McToldridge	Responsible Designer Signature: Michelle McToldridge
Company: Shelter Architecture	Date Signed: 2020-06-29 20:07:39
Address: 540 Barker Pass	License: C29526
City/State/Zip: Santa Barbara, CA 93108	Phone: 805-895-3879

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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SHELTER architecture urban design
MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT
LICENSED ARCHITECT MICHELLE B. McTOLDRIDGE No. C-29526 9-30-21 RENEWAL DATE STATE OF CALIFORNIA
PO BOX 5755
SANTA BARBARA CA 93150
shelter-architecture.com

WILLIAMS ADU
GARAGE COVNERSION
6515 DEL PLAYA DRIVE
SANTA BARBARA, CA

T 2

DATE: BLDG 06.10.20

DEL PLAYA RESIDENCE - ADU

(EXISTING GARAGE CONVERSION)
6517 DEL PLAYA DRIVE
ISLA VISTA, CA

MEP GENERAL NOTES

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2019 CALIFORNIA ELECTRICAL CODE (CEC) AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. CONTRACTOR TO FURNISH AND INSTALL ALL EQUIPMENT, MATERIALS AND FIXTURES UNLESS OTHERWISE NOTED.
3. ALL ELECTRICAL EQUIPMENT AND FIXTURES SHALL BE LISTED AND APPROVED BY A RECOGNIZED TESTING LAB AND INCLUDE APPROPRIATE LABELS
4. GROUNDING AND BONDING SHALL BE PER CODE
5. ALL CONDUIT RUNS SHALL INCLUDE A CODE SIZED GREEN GROUND WIRE
6. FEEDER CONDUCTORS SHALL BE IN CONDUIT
7. CONDUCTORS SHALL BE COPPER WITH APPROPRIATE INSULATION
8. CONVENIENCE OUTLETS SHALL BE LOCATED AND SPACED PER 2016 CEC 210.52. 11. WITH A RECEPTACLE REQUIRED AT ANY WALL SPACE 2' OR WIDER, NOT MORE THAN 6' FROM OPENINGS AND NOT MORE THAN 12' ON CENTER.
9. ARC-FAULT CIRCUIT INTERRUPTER REQUIRED WHERE BRANCH CIRCUITS ARE MODIFIED, REPLACED OR EXTENDED THAT SUPPLY 120-V, SINGLE PHASE, 15 AND 20 AMP OUTLETS IN BEDROOMS, FAMILY ROOMS, LIVING ROOMS, DINING ROOMS, CLOSETS, AND DINING ROOMS, CLOSETS AND HALLWAYS,
10. ALL OUTLETS SERVING KITCHEN COUNTERTOP SHALL BE GROUND FAULT CIRCUIT INTERRUPTER PROTECTED (GFI) PER CEC 210 -8(A)(1)
11. KITCHEN COUNTER OUTLETS SHALL BE 4'-0" O.C. MAX. WITH NO POINT ALONG THE WALL MORE THAN 2'-0" FROM AN OUTLET (EXCEPT AT SINK) PER CEC 210-52 (C)(1)
12. KITCHEN ISLANDS TO BE PROVIDED WITH AT LEAST ONE RECEPTACLE OUTLET PER CEC 210-52(C)(2)
13. ALL NON-LOCKING TYPE 125-VOLT 15 & 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT 2019 CEC 406.12 EXCEPTIONS 1) THOSE MORE THAN 66' ABOVE THE FLOOR 2) PART OF A LUMINAIRE OR APPLIANCE 3) SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES THAT ARE NOT EASILY MOVED AND LOCATED WITHIN DEDICATED SPACE AND ARE CHORD AND PLUG CONNECTED AS PER CEC 400.7 OR 4) NON-GROUNDING RECPTACLES USED FOR REPLACEMENTS AS PERMITTED IN CEC 406.4 (D)(2)(a)
14. PROVIDE A MIN. OF 2 SEPARATE 20 AMP CIRCUITS TO KITCHEN PER CEC 210-52(B)
15. BATHROOM RECEPTACLE OUTLETS TO BE GFI PROTECTED PER CEC 210-8(A)(6)
16. PROVIDE A MIN. OF 1 SEPARATE 20 AMP CIRCUIT TO EA. BATHROOM PER CEC-10(C-3)
17. GFCI TYPE OUTLETS REQUIRED IN BATHROOMS, KITCHEN COUNTERTOPS, PRIVATE GARAGES AND EXTERIOR RECEPTACLES PER 2019 CEC SECTION 210.8.

LIGHTING NOTES:

ALL NEW FIXTURES ARE TO BE HIGH EFFICACY PER 2019 TITLE 24 REQUIREMENTS PER NOTES BELOW AND ADDITIONAL NOTES THIS SHEET
THE FOLLOWING LIGHTING IS HIGH-EFFICACY:
PIN BASED LINEAR FLUORESCENT, PIN BASED COMPACT FLUORESCENT, PULSE START METAL HALIDE, HIGH PRESSURE SODIUM, GU-24 (OTHER THAN LEDS), INSEPARABLE SOLID STATE LUMINAIRES (SSLS) IN INSTALLED OUTDOORS OR INSEPARABLE SSL LUMINAIRES WITH COLORED LIGHT SOURCES FOR DECORATIVE PURPOSES.
THE FOLLOWING LAMPS AND LIGHT SOURCES ARE HIGH EFFICACY IF THEY ARE JOINT APPENDIX JA8-CERTIFIED:
JA-8 CERTIFIED LAMPS AND LIGHT SOURCES ARE MARKED AS 'JA8-2016' OR 'JA82016-E'. THESE FIXTURES INCLUDE: LED LUMINAIRES WITH INTEGRAL SOURCES THAT ARE CERTIFIED BY THE ENERGY COMMISSION, SCREW BASED LED LAMPS (A-LAMPS, PAR LAMPES, ETC), PIN-BASED LED LAMPS (MR-16, AR-111, ETC) GU-24 BASED LED LIGHT SOURCES AND OTHER LUMINAIRES.

AND A DIMMER OR VACANCY SENSORS SHALL CONTOL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8

A MINUMUM OF ONE LIGHT IN BATHROOMS, LAUNDRY ROOMS, UTILITY ROOMS AND GARAGES TO BE CONTROLLED BY A MANUAL ON/ AUTOMATIC OFF OCCUPANCY SENSOR - SEE PLAN BELOW FOR IDENTIFICATION OF FIXTURES THAT ARE DESIGNATED TO MEET THIS REQUIREMENT ' OOS*'

PLUMBING NOTES:

1. ALL NEW INDOOR & OUTDOOR WATER USE TO COMPLY WITH 2019 CALGREEN STANDARDS
2. DOMESTIC HOT WATER PIPING SYSTEM SHALL BE INSULATED PER 2019 CEC SEC 150.0(j) CH 7.
3. PRESSURE BALANCING OR THERMOSTATIC MIXING VALVES REQUIRED AT NEW SHOWERS PER CPC 420.0
4. WATER HEATERS INSTALLED IN BEDROOMS AND BATHROOMS SHALL COMPLY WITH 2019 CPC SECTION 505
5. ALL FIXTURES COMING INTO CONTACT WITH POTABLE WATER MUST BE LEAD FREE .

PLUMBING FIXTURE REQUIREMENTS PER 2019 CALIFORNIA GREEN BLDG CODE:

- WATER CLOSETS/TOILETS: NOT TO EXCEED 1.28 GALLONS PER FLUSH
- LAVATORY FAUCETS FLOW RATES NOT TO EXCEED 1.2 GPM @ 60 PSI
- COMBINED FLOWRATE OF ALL SHOWER HEADS SERVIING A SINGLE SHOWER STALL SHALL NOT EXCEED 2.0 GPM @ 80 PSI OR DESIGNED SO THAT ONLY ONE SHOWER HEAD/ HAND HELD CAN BE USED AT A TIME)
- KITCHEN FAUCET MAX FLOW RATE SHALL NOT EXCEED 1.8 GPM @ 60 PSI (MAY TEMPORARILY INCREASE THE FLOW TO ABOVE MAX. RATE BUT NOT EXCEED 2.2 GPM AT 60 PSI AND MUST DEFAULT TO A MAX FLOW F 1.8 GPM AT 60 PSI)

GAS WATER HEATER NOTES:

- PROVIDE A CAT II OR IV VENT OR TYPE B VENT W/ STAIGHT PIPE BTWN THE OUTSDIE TERMIANTION AND THE SPACE WHERE THE WATER HEATER IS INSTALLED
- A CONDENSATE DRAIN THAT IS NO MORE THAN 2" HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE
- GAS SUPPLY LINE WITH A CAPACITY OF AT LEAST 200,000 BTU

HVAC NOTES:

1. PROVIDE NATURAL VENTILATION A MINIMUM OF 4% OF FLOOR AREA PER CBC 1203.4.1
2. BATHROOMS CONTAINING A SHOWER OR TUB SHALL BE MECHANICALLY VENTED WITH AN EXHAUST FAN OF 50 CFM , (20 CFM FOR CONTINUOUS OPERATION).
3. EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMITATE OUTSIDE THE BUILDING. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENT SYSTEM FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE.
4. INTERIOR SPACES INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH ACTIVE OR PASSIVE SPACE-HEATING SYSTEMS CAPABLE OF MAINTAINING A MIN. INDOOR TEMPERATURE OF 68 DEGREES F AT A POINT 3 FEET ABOVE THE FLOOR. 2016 CBC SECTION 1204/ CRC 303.8.
5. VENT DRYER TO OUTSIDE WITH 14' MAX. LENGTH INCLUDING A MAX. OF TWO 90 DEGREE BENDS.
6. FUEL BURNING EQUIPMENT SHALL BE INSTALLED PER 20196 CPC SEC 304
7. ALL EXHAUST AND INTAKE OPENINGS TERMINATING OUTDOORS SHALL BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLES WITH OPENINGS OF $\frac{1}{4}$ - $\frac{1}{2}$ IN ANY DIMENSION PER CRC R303.6

GENERAL NOTES

1. THE FOLLOWING NOTES, DETAILS SCHEDULES AND SPECIFICATIONS SHALL APPLY TO ALL PHASES OF THIS PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE. NOTES AND DETAILS ON THE ARCHITECTURAL PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
2. ALL DRAWINGS ARE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWING AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION SO THAT CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE THE OWNER OR ARCHITECT.
3. ALL INFORMATION OF EXISTING CONDITIONS SHOWN ON THE PLANS ARE BASED ON BEST PRESENT KNOWLEDGE AVAILABLE BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE. ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
4. CONTRACTOR SHALL USE WRITTEN DIMENSIONS FROM THE CONTRACT DOCUMENTS, DO NOT SCALE THE PLANS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING AS REQUIRED.
6. THE ARCHITECT WILL NOT BE RESPONSIBLE FOR OR HAVE CONTROL OR CHARGE OF THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION DELINEATED IN THESE PLANS.
7. THE CONTRACTOR OR HIS/HER AGENTS SHALL SUPERVISE AND DIRECT ALL WORK AND SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION.
8. ALL WORKMANSHIP SHALL CONFORM TO THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES PERFORMING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
9. SEE STRUCTURAL GENERAL NOTES FOR MINIMUM REQUIREMENTS PERTAINING TO, BUT NOT LIMITED TO SOILS, FOUNDATIONS/ CONCRETE, LUMBER/ FRAMING, LATERAL BRACING
10. ALL WORK DONE UNDER THIS CONTRACT SHALL BE IN COMPLIANCE WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND INSTALL ALL TEMPORARY BRACING AND SHORING TO INSURE SAFETY UNTIL THE WORK IS COMPLETED.
12. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND COORDINATING ALL DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND NON-STRUCTURAL ITEMS NOT SHOWN ON STRUCTURAL PLANS.
13. ALL SCAFFOLDING AND SHORING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE INDUSTRIAL SAFETY COMMISSION OF THE STATE OF CALIFORNIA.
14. THE CONTRACTOR IS REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT MADE TO BE APPLIED CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE ARCHITECT FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ARCHITECT.
15. ALL WATERPROOFING, DRAINAGE, SEALING, OR ANY AND ALL WATER AND/OR MOISTURE RELATED ISSUES ARE THE FULL RESPONSIBILITY OF THE CONTRACTOR.
16. ANY DISCREPANCIES OR ABIGUITIES BETWEEN ON THE DRAWINGS AND/ OR SPECIFICATIONS BETEWEEN ACTUAL CONDITIONS FOUND ON SITE, BETWEEN ANY OTHER DRAWING OR SPECIFICATION OR WITHIN THE SAME DRAWING, THEY; CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH WORK.
17. NOTE: THE INTENT OF DESIGN CONTAINED IN THESE DRAWINGS IS, ALTERATIONS . ALTHOUGH SOME SHEAR LINES ARE BEING STRENGTHEDNED, THE BUILDING IS NOT BEING UPGRADED FULLY TO CURRENT CODE. THE ARCHITECT AND ENGINEER ARE NOT RESPONSIBLE FOR FULL CURRENT CODE COMPLIANCE. NO SIGNIFICANT FOUNDATION WORK IS BEING PERFORMED.

HAZARDOUS MATERIALS

ARCHITECT IS NOT RESPONSIBLE OR QUALIFIED TO HANDLE EXISTING HAZARDOUS MATERIALS (I.E. LEAD, ASBESTOS, FORMALDHYDE).

LEAD SAFE WORK PRACTICES AND CONTAINMENT ARE REQUIRED ON ALL STRUCTURES BUILT BEFORE 1978. PRACTICES AND CONTAINMENT APPLY TO ANY KNOWN LEAD-BASED PAINT (PAINT THAT HAS BEEN TESTED) OR ANY AMOUNT OF PRE-1978 PAINT THAT HASN'T BEEN TESTED AS UNTESTED PAINT IS 'PRESUMED' LEAD BASED.
OWNERS, MANAGERS, CONTRACTORS AND OTHER INDIVIDUALS WHO PERFORM, RENOVATE, OR PAINT ON PRE-1978 BUILDING MUST COMPLY WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) CERTIFICATION, TRAINING, AND SAFE WORK PRACTICE REQUIREMENTS. RENOVATION IS BROADLY DEFINED AS ANY ACTIVITY THAT DISTURBS PAINTED SURFACES AND INCLUDES MOST REPAIR, REMODELING, AND MAINTENANCE ACTIVITIES. THE WORK CAN ONLY BE PERFORMED BY AN INDIVIDUAL WHO HAS BEEN TRAINED AND IS EITHER CERTIFIED OR SUPERVISED BY SOMEONE WHO IS.

APPROVED SORTING AND RECYCLING FACILITY:

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 BUILDING STANDARDS CODE SECTION 4.408.1 (MINIMUM 65% NON-HAZARDOUS MATERIALS RECYCLED AND/OR SALVAGED FOR RE-USE)

MARBORG INDUSTRIES
119 N. QUARANTINA ST SANTA BARBARA, CA
PH: 805.963.1852

CONTACTS

OWNER:

GEORGE & KAREN WILLIAMS 2000 TRUST
173 HOT SPRINGS ROAD
SANTA BARBARA, CA 93108
PHONE: 310-382-6388

TITLE 24 REPORT

MECHANICAL ENGINEERING
CONSULTANTS, INC. (M.E.C.)
1616 ANACAPA STREET
SANTA BARBARA, CA 93101
PH: 805-957-4632 X 207

ARCHITECT:

SHELTER ARCHITECTURE & URBAN DESIGN
MICHELLE MCTOLDRIDGE
PO BOX 5755
SANTA BARBARA, CA 93150
PHONE: (805) 895-3879
CA LIC. C29526

CODES

APPLICABLE CODES

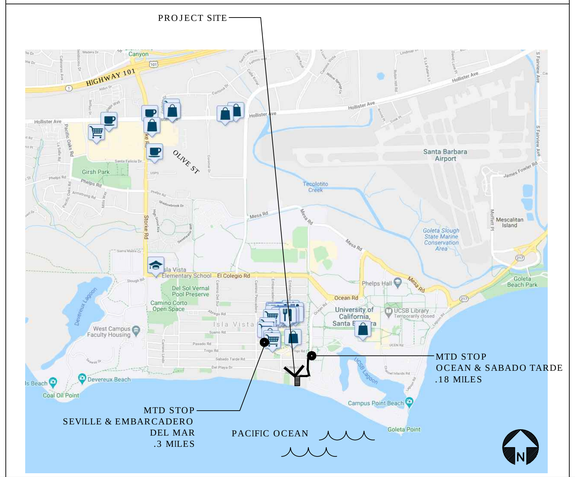
GROUP R-3/TYPE V-N' NON-RATED CONSTRUCTION
ALL WORK TO COMPLY WITH THE FOLLOWING CODES:
2019 CALIFORNIA BUILDING CODE (C.B.C.)
2019 CALIFORNIA RESIDENTIAL CODE (TWO UNITS/ MAX 3 STORIES)
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA MECHANICAL CODE 2016 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
& SBCO TITLE II COASTAL ZONING ORDINANCE

NO FIRE SPRINKLERS PROPOSED OR REQUIRED
(EXISTING RESIDENCE DOES NOT HAVE FIRE SPRINKLERS)

SHEET INDEX

ARCHITECTURAL	
A 1.0	PROJECT DATA & NOTES
A 1.1	SITE PLAN
A 2.0	EXISTING AND PROPOSED FIRST FLOOR PLAN
A 2.1	EXISTING 2ND FLOOR PLAN, BUILDING SECTION
A 3.0	EXTERIOR ELEVATIONS
T 1	TITLE 24 (RMS-1 AND MANDATORY MEASURES)
T 2	TITLE 24 (CF1R SHEETS)

VICINITY MAP



PROJECT DATA

SCOPE OF WORK

CONVERT AN EXISTING 325 NET SF (350 GROSS SF) ATTACHED GARAGE OF AN EXISTING SFD TO A STUDIO ACCESSORY DWELLING UNIT. PURSUANT TO GOV CODE 65852.2 POST JAN 1, 2020.
WORK INCLUDES ADDING KITCHEN AND BATHROOM FACILITIES AND REPLACING EXISTING GARAGE DOOR WITH NEW WINDOWS.
WATER SERVICE IS PROVIDED BY GOLETA WATER DISTRICT AND SANITARY BY GOLETA SANITARY WEST. EXISTING SCE ELECTRICAL METER SERVES BOTH UNIT AND HOUSE.

PROJECT ADDRESS:	6517 DL PLAYA DRIVE
APN:	075-223-023
ZONE:	SR-M-8
GENERAL PLAN:	
SLOPE:	12% (PER CITY GIS)
LOT SIZE:	6,244 SQ. FT / .14 ACRES
HIGH FIRE:	NO
FLOOD ZONE:	NO
GRADING:	NONE PROPOSED
SWMP:	N/A

FLOOR AREAS:	NET	GROSS
(E) 2-STORY RESIDENCE		
1ST FLOOR	900 SF	975 SF
2ND FLOOR	1,275 SF	1,370 SF
TOTAL HABITABLE	2,175 SF	2,345 SF
(E) ATTACHED GARAGE	339 SF	370 SF
(E) SITE TOTAL	2,514 SF	2,715 SF
CONVERT (E) GARAGE TO ACCESSORY DWELLING UNIT	339 SF	370 SF
TOTAL PROPOSED FLOOR AREA	NO CHANGE	

PARKING	EXISTING	PROPOSED	REQUIRED
PRIMARY RESIDENCE	2 COVERED 2 UNCOVERED	0 COVERED 2 UNCOVERED	0 REQUIRED PER GOV CODE 65852.2 POST JAN 1, 2020
ADU	N/A	0 COVERED	0 REQUIRED*
SITE TOTAL:	4	2 UNCOVERED	0 REQUIRED

*PARKING REQUIREMENT FOR ADU IS EXEMPT PER GOV CODE 65852.2 POST JAN 1, 2020 BASED ON PROXIMITY TO PUBLIC TRANSIT, SEE VICINITY MAP

RESERVED FOR APPROVAL STAMPS

SHELTER architecture urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

PO BOX 5755
SANTA BARBARA CA 93150
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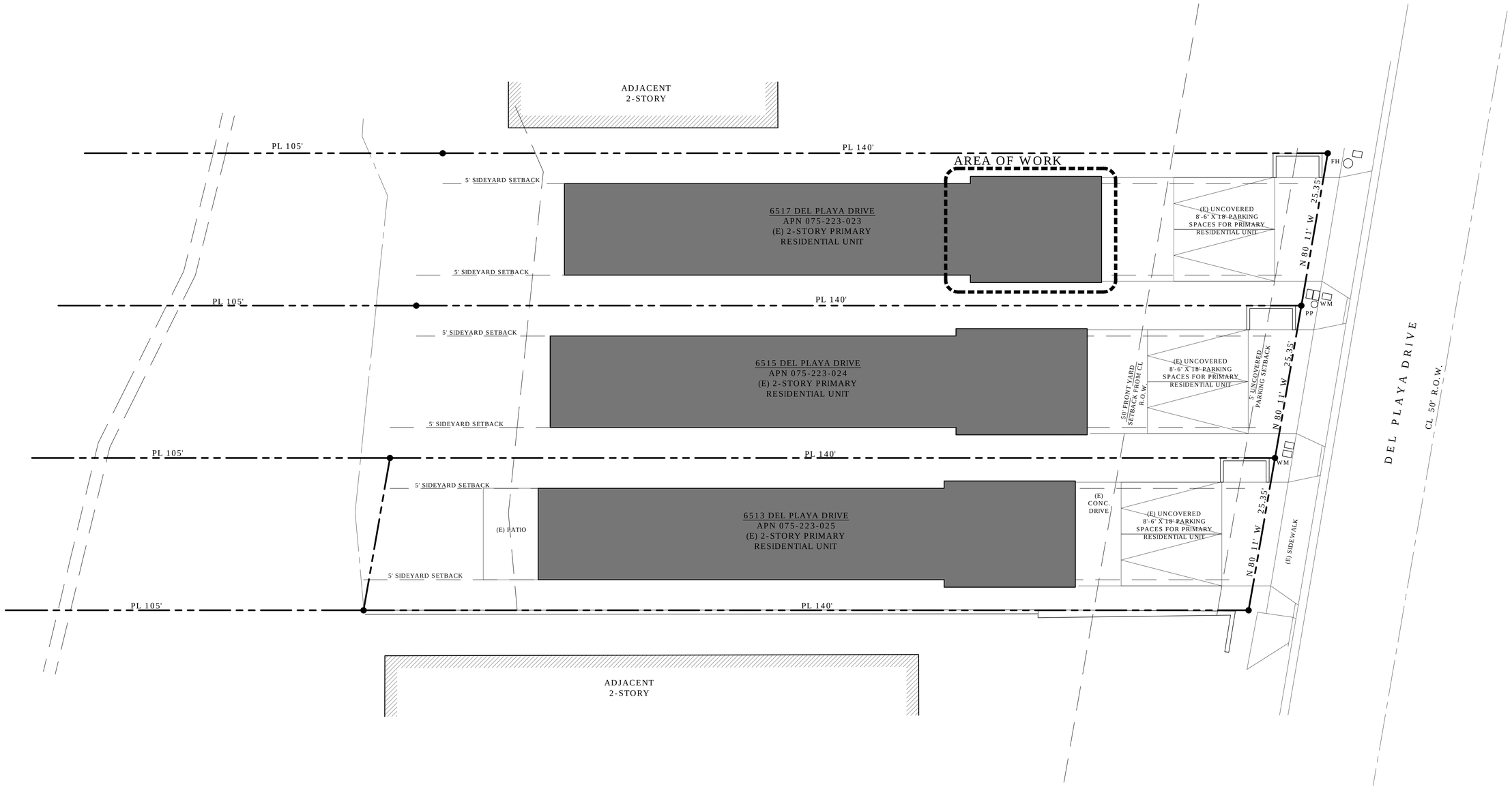
WILLIAMS ADU
GARAGE COVNERSION
6517 DEL PLAYA DRIVE
SANTA BARBARA, CA

A1.0

DATE: BLDG 06.10.20



SITE PLAN

SCALE: 1/8" = 1'-0"

SHELTER
architecture
urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

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MICHELLE B. McTOLDRIDGE
No. C-29526
9-30-21
RENEWAL DATE
STATE OF CALIFORNIA

PO BOX 5755
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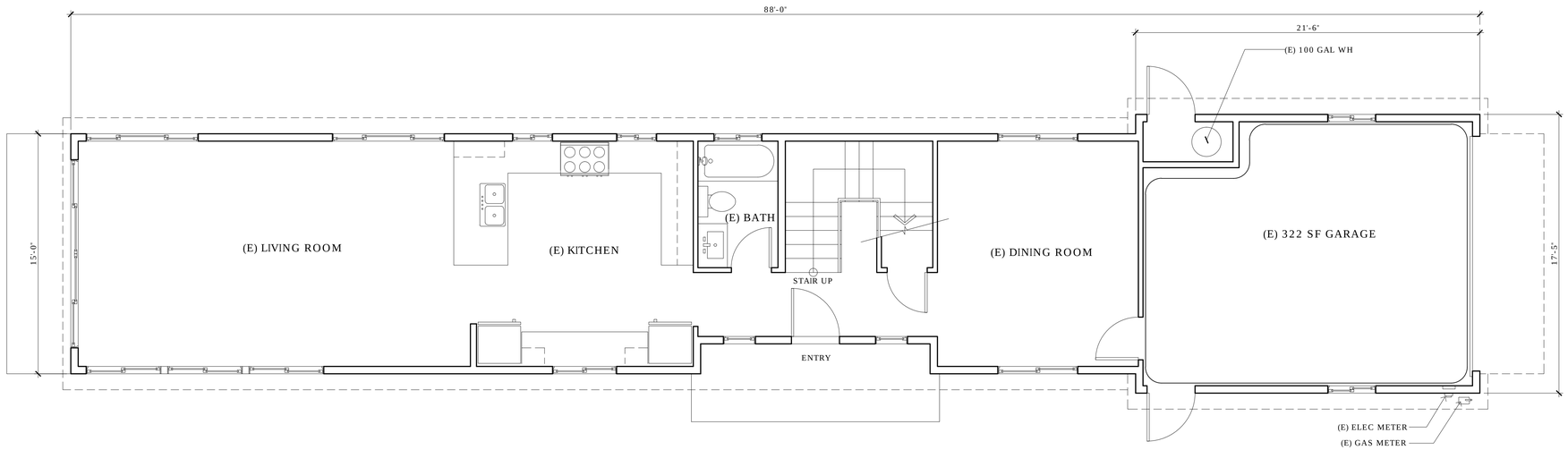
shelter-architecture.com

WILLIAMS ADU
GARAGE COVNERSION

6517 DEL PLAYA DRIVE
SANTA BARBARA, CA

A1.1

DATE: BLDG 06.10.20



EXISTING FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

PLAN LEGEND

- EXISTING WALLS
- NEW WALLS
- S — HARDWIRED SMOKE DETECTOR PER SEC R314.3
- CM — CARBON MONOXIDE (CO2) DETECTOR PER CRC R315.1 & R315.2 NOTE: CO2 DETECTOR CAN BE SOLELY BATTERY OPERATED WHEN INSTALLED IN EXISTING BUILDINGS
- PANASONIC FV-05 WHISPER SOFT CEILING FAN, FAN TO HAVE A MIN. EXHAUST RATE OF 50 CFM INTERMITTENT AND DUCTED TO EXTERIOR OF BUILDING. FAN SHALL BE CONTROLLED BY A READILY ACCESSIBLE HUMIDISTAT AND IS CAL GREEN & ENERGY STAR COMPLIANT. EXHAUST FANS IN ROOMS WITH BATHING FIXTURES (TUB AND/OR SHOWER) TO BE PROVIDED WITH PANASONIC CONDENSATION SENSOR MODULE
- ELECTRICAL RECEPTICAL NOTE: PROVIDE TAMPER RESISTANT OUTLETS IN ALL REMODELED AND NEW AREAS PER CEC 406.12 (EXCEPTION WHEN LOCATED > 5.5', WITHIN A CABINET OR CUPBOARD OR WHEN PART OF A LUMINAIRE OR APPLIANCE.
- GFIC — GROUND FAULT CIRCUIT INTERUPTER PROTECTED OUTLET AS REQUIRED PER CEC 210.8
  NOTE: PROVIDE TAMPER RESISTANT OUTLETS IN ALL REMODELED AND NEW AREAS PER CEC 406.12 (SEE EXCEPTIONS)

NOTE: ALL NEW LIGHT FIXTURES ARE TO BE HIGH EFFICACY PER 2019 TITLE 24 REQUIREMENTS. SEE ADDITIONAL ELECTRICAL NOTES (THIS PAGE) FOR DETAILED REQUIREMENTS AND INFORMATION

RECESSED LIGHTS

THE FOLLOWING LED RECESSED FIXTURES DO NOT HAVE SCREW BASED SOCKETS, AND SHALL BE APPROVED FOR ZERO CLEARANCE INSULATION COVER IC RATED BY UL OR OTHER TESTING LAB RECOGNIZED BY THE BUILDING OFFICIAL AND SHALL BE AIR TIGHT TO SHOW AIR LEAKAGE LESS THAN 2.0 DFM AT 0.011 PSI IN ACCORDANCE WITH ASTM E283 AND SEALED WITH A GASKET OR CAULK BETWEEN HOUSING AND CEILING PER CEC 150K.

- 3' - 4" LED ROUND RECESSED DOWLIGHT

SCREW BASED LIGHTS

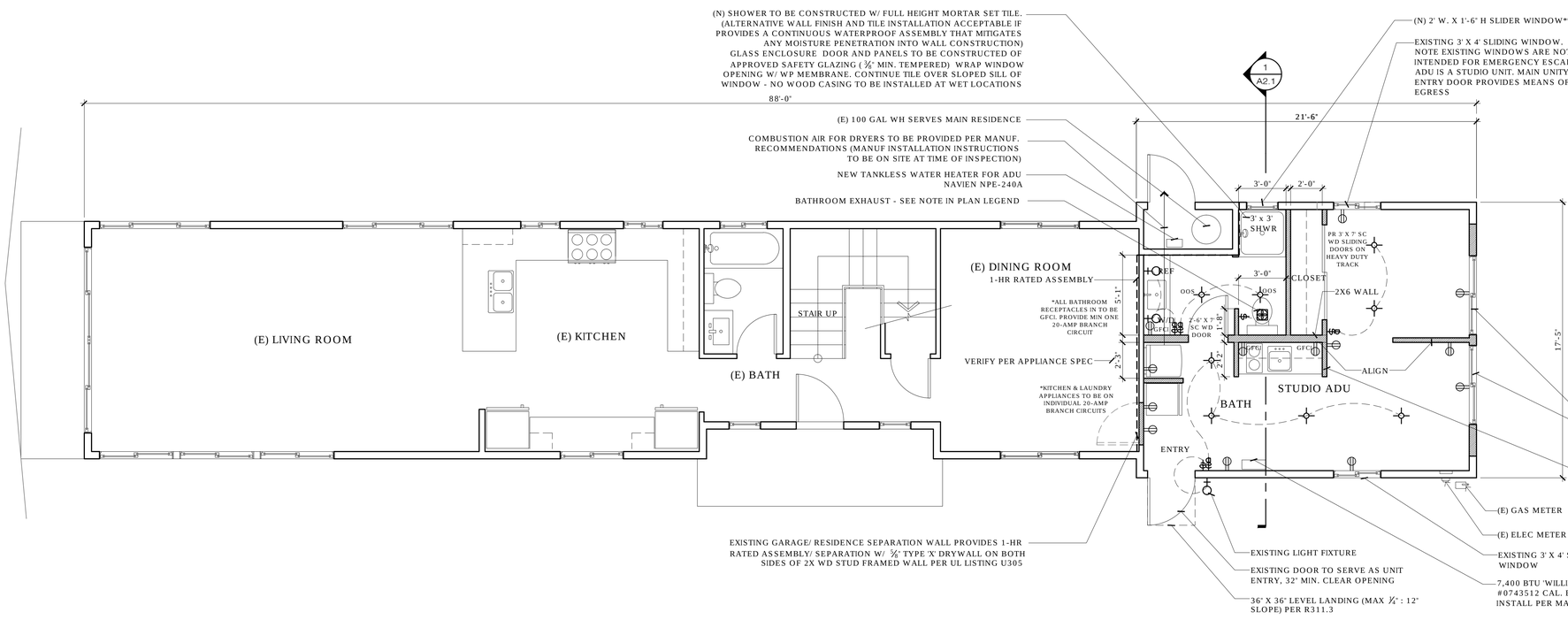
SCREW BASED LIGHTS ARE ACCEPTABLE IF THEY MEET THE FOLLOWING REQUIREMENTS:

A. NOT A RECESSED DOWN LIGHT
B. LAMP COMPLIES WITH REF. JOINT APPENDIX JA8
C. LAMP IS MARKED WITH 'JA8-2016' OR 'JA-82016E'

- SURFACE MOUNT FIXTURE/ WALL SCONCE.

LIGHTING ABBREVIATIONS:

WP — LENSED/ WET LOCATION RATED
OOS — ON/ OFF OCCUPANCY SENSOR (SEE LIGHTING NOTES)



WINDOW INSTALLATION NOTES:

WINDOW/ DOOR OPENING FLASHING TO BE A MINIMUM OF 9" WIDE COPPER KRAFT PAPER LAMINATE BSK GRADE 714 ALUM. BUILDING PAPER VAPOR BARRIER GRACE 'VYCOR PLUS' OR SIMILAR MATERIAL FLASHING SHALL PROVIDE 4-HOUR PROTECTION FROM WATER PENETRATION PER ASTM D-779 AND SHALL COMPLY WITH DETAILS IN ASTM E-2112
INSTALL FLASHING AS REQUIRED BY WINDOW AND FLASHING MANUFACTURER
SEAL WINDOW/ DOOR OPENING WITH APPROVED CAULKING AS REQUIRED BY WINDOW MANUFACTURER AND PER GOOD PRACTICE
PATCH AND REPAIR ANY INTERRUPTION TO EXISTING OR NEW WEATHER-RESISTIVE BARRIER OVER ANY EXTERIOR WALL WHERE WORK IS PERFORMED

NEW WINDOW INSTALLATION SEQUENCE

1. INSTALL SILL FLASHING
2. INSTALL JAMB FLASHING
3. INSTALL WINDOW, ALLOW BUILDING PAPER TO BE INSTALLED BELOW WINDOW FRAME
4. INSTALL HEAD FLASHING OVER WINDOW HEAD

PLUMBING FIXTURE REQUIREMENTS FOR PROPOSED ADU FIXTURES (PER 2019 CGBC):

- TOILETS: NOT TO EXCEED 1.28 GALLONS PER FLUSH
- LAV FAUCETS: FLOW RATES NOT TO EXCEED 1.2 GPM @ 60 PSI
- COMBINED FLOWRATE OF ALL SHOWER HEADS SERVING A SINGLE SHOWER STALL SHALL NOT EXCEED 2.0 GPM @ 80 PSI
- MULTIPLE SHOWER HEADS IN SAME SHOWER COMBINED FLOW RATE OF 2.0 GPM @ 80 PSI OR DESIGNED SO THAT ONLY ONE SHOWER HEAD/ HAND HELD CAN BE USED AT A TIME
- KITCHEN FAUCET MAX FLOW RATE SHALL NOT EXCEED 1.8 GPM @ 60 PSI (MAY TEMPORARILY INCREASE THE FLOW TO ABOVE MAX. RATE BUT NOT EXCEED 2.2 GPM AT 60 PSI AND MUST DEFAULT TO A MAX FLOW F 1.8 GPM AT 60 PSI)

**NOTE: NEW WINDOWS TO HAVE A MAX U-FACTOR OF .32 AND MAX SHGC .25. NFRC THERMAL PERFORMANCE LABELS SHALL REMAIN ON WINDOWS UNTIL FINAL INSPECTION

TYPICAL NEW FULL HEIGHT, NON-BEARING PARTITION WALLS 2X4 WD STUDS @ MIN 16" O.C. W/ ⅝" TYPE 'X' GYP BD FINISH

ALL HIGH EFFICACY RECESSED LED LIGHT FIXTURES - SEE LEGEND ABOVE

PROPOSED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

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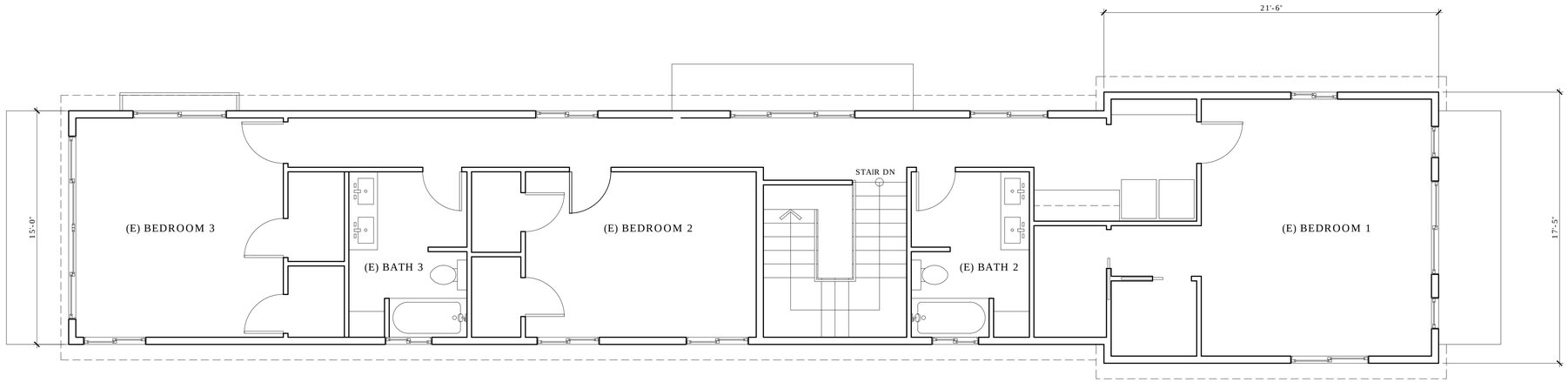
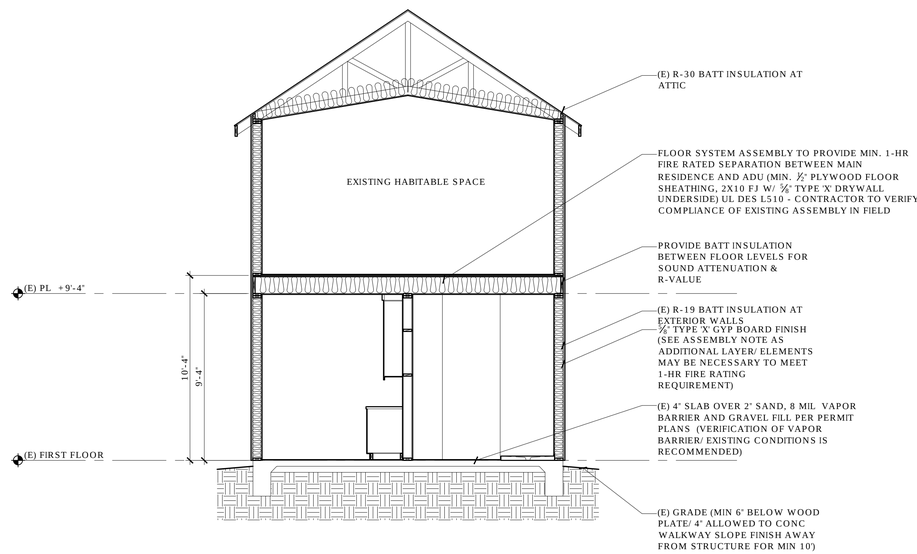


EXISTING SECOND FLOOR PLAN (FOR REFRENCE ONLY - NO WORK PROPOSED)

SCALE: 1/4" = 1'-0"



1 BUILDING SECTION

SCALE: 1/4" = 1'-0"

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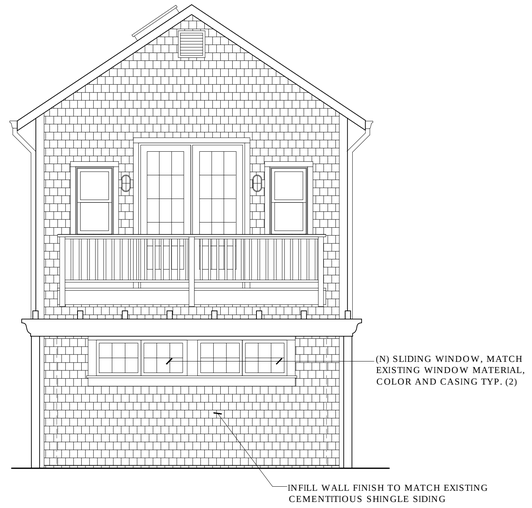
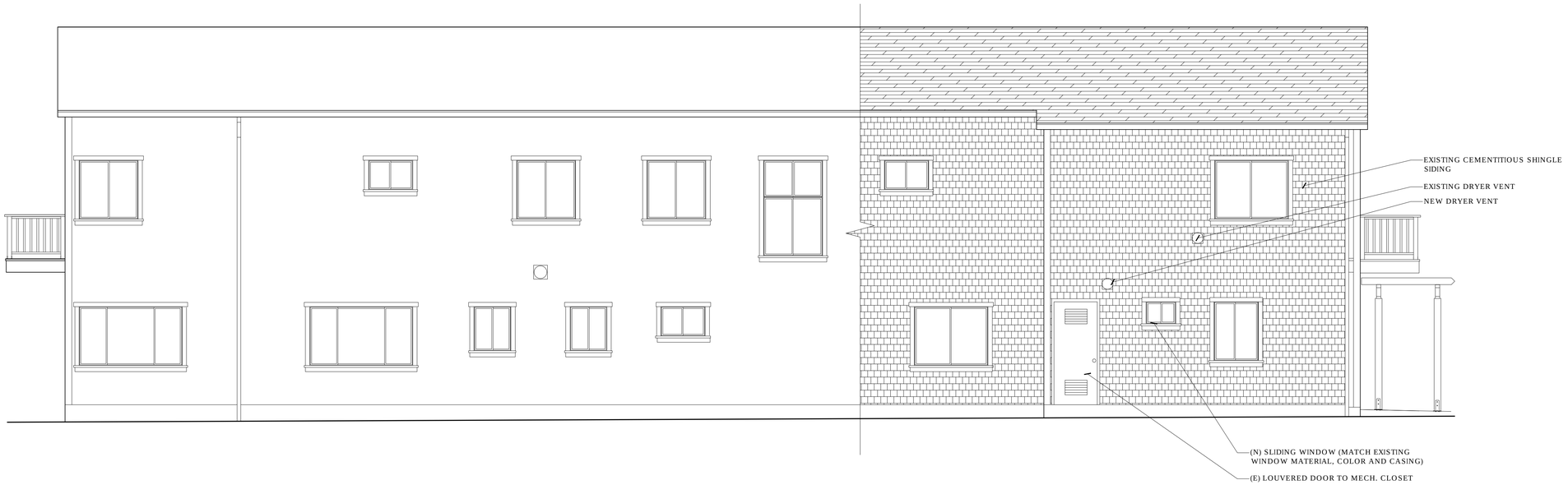
EAST ELEVATION
(NO WORK PROPOSED)

EXISTING NORTH ELEVATION



PROPOSED NORTH ELEVATION



PROPOSED WEST ELEVATION

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A3.0

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RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type		Date
Williams ADU Garage Conversion	☑ Single Family ☑ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration		*6/29/2020*
Project Address	**California Energy Climate Zone**	**Total Cond. Floor Area** / **Addition**	**# of Units**
6517 Del Playa Drive Santa Barbara	*CA Climate Zone 06*	*370* / *370*	*1*

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	*Wood Framed*	*R 19*	*526*		*New*
Door	*Opaque Door*	*- no insulation*	*20*		*New*
Demising	*Wood Framed w/o Crawl Space*	*R 19*	*370*		*New*
Slab	*Unheated Slab-on-Grade*	*- no insulation*	*370*	*Perim = 63'*	*New*

FENESTRATION — Total Area: *47* Glazing Percentage: *12.7%* New/Altered Average U-Factor: *0.44*

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (E)	*12.0*	*0.550*	*0.67*	*none*	*none*	*N/A*	*New*
Right (N)	*20.0*	*0.320*	*0.25*	*none*	*none*	*N/A*	*New*
Rear (W)	*3.0*	*0.320*	*0.25*	*none*	*none*	*N/A*	*New*
Rear (W)	*12.0*	*0.550*	*0.67*	*none*	*none*	*N/A*	*New*

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	*Gravity Wall Furnace*	*72% AFUE*	*No Cooling*	*14.0 SEER*	*Setback*	*New*

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
Wall Furnace	*Ductless / with Fan*	*Ductless*	*n/a*	*n/a*	*New*

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	*Small Instantaneous Gas*	*0*	*0.96*	*Standard*	*New*

2019 Low-Rise Residential Mandatory Measures Summary

Requirements for Ventilation and Indoor Air Quality:	
§ 150.0(o)1:	**Requirements for Ventilation and Indoor Air Quality**. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	**Single Family Detached Dwelling Units.** Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	**Multifamily Attached Dwelling Units.** Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	**Multifamily Building Central Ventilation Systems.** Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 percent of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(o)1G:	**Kitchen Range Hoods.** Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Systems and Equipment Measures:	
§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*
Lighting Measures:	
§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	**Electronic Ballasts for Fluorescent Lamps.** Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	**Night Lights, Step Lights, and Path Lights.** Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*
§ 150.0(k)1G:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
§ 150.0(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)2C:	**Interior Switches and Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	**Interior Switches and Controls.** Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	**Interior Switches and Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	**Interior Switches and Controls.** Lighting controls must comply with the applicable requirements of § 110.9.

2019 Low-Rise Residential Mandatory Measures Summary

*NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.* (01/2020)

Building Envelope Measures:	
§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped.*
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Ceiling and Rafter Roof Insulation.** Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.*
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.*
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*
Fireplaces, Decorative Gas Appliances, and Gas Log Measures:	
§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Conditioning, Water Heating, and Plumbing System Measures:	
§ 110.0-§ 110.3:	**Certification.** Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.*
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.*
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)4:	**Water Heating Recirculation Loops Serving Multiple Dwelling Units.** Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.*
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(k)2G:	**Interior Switches and Controls.** An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	**Interior Switches and Controls.** A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	**Interior Switches and Controls.** In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	**Interior Switches and Controls.** Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.*
§ 150.0(k)2K:	**Interior Switches and Controls.** Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aiii (astronomical time clock), or an EMCS.
§ 150.0(k)3B:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either § 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by § 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c).
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	**Interior Common Areas of Low-rise Multifamily Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Buildings:	
§ 110.10(a)1:	**Single Family Residences.** Single family residences located in subdivisions with 10 or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	**Low-rise Multifamily Buildings.** Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.'.
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.'
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.'
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".

2019 Low-Rise Residential Mandatory Measures Summary

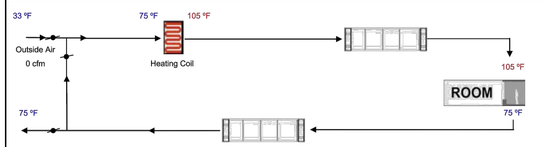
§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(i)1:	**Storage Tank Insulation.** Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(j)2A:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.
§ 150.0(n)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 or a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area.*
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

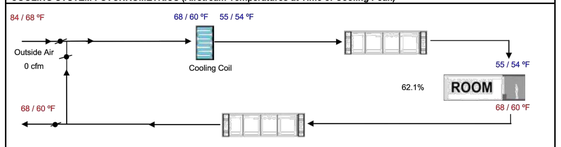
Project Name	Date
Williams ADU Garage Conversion	6/29/2020
System Name	**Floor Area**
Wall Furnace	370

ENGINEERING CHECKS		SYSTEM LOAD	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Number of Systems	1						
Heating System							
Output per System	10,200	**Total Room Loads**	250	3,515	339	166	5,388
Total Output (Btuh)	10,200	**Return Vented Lighting**		0			
Output (Btuh/sqft)	27.6	**Return Air Ducts**		0			0
Cooling System		**Return Fan**		0			0
Output per System	0	**Ventilation**	0	0	0	0	0
Total Output (Btuh)	0	**Supply Fan**		0			0
Total Output (Tons)	0.0	**Supply Air Ducts**		0			0
Total Output (Btuh/sqft)	0.0						
Total Output (sqft/Ton)	0.0	**TOTAL SYSTEM LOAD**		3,515	339		5,388
Air System							
CFM per System	0	**HVAC EQUIPMENT SELECTION**					
Airflow (cfm)	0	Williams Wall Furnace (2)		0	0		10,200
Airflow (cfm/sqft)	0.00						
Airflow (cfm/Ton)	0.0						
Outside Air (%)	0.0%	**Total Adjusted System Output** (Adjusted for Peak Design conditions)		0	0		10,200
Outside Air (cfm/sqft)	0.00						
Note: values above given at ARI conditions		**TIME OF SYSTEM PEAK**		Aug 3 PM			Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



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MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

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WILLIAMS ADU
GARAGE COVNERSION

6517 DEL PLAYA DRIVE
SANTA BARBARA, CA

T 1

DATE: BLDG 06.10.20

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6517 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:28:33-07:00 **(Page 1 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6517.ribd19x

GENERAL INFORMATION					
01	Project Name	6517 Del Playa Residence ADU			
02	Run Title	Title 24 Analysis			
03	Project Location	6517 Del Playa Drive			
04	City	Santa Barbara	05	Standards Version	2019
06	Zip code	93109	07	Software Version	EnergyPro 8.1
08	Climate Zone	6	09	Front Orientation (deg/ Cardinal)	90
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	AdditionOnly	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	370	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	2345	17	Fenestration Average U-factor	0.44
18	Total Cond. Floor Area (ft^2)	2715	19	Glazing Percentage (%)	12.70%
20	ADU Bedroom Count	1	21	ADU Conditioned Floor Area	370
22	Is Natural Gas Available?	Yes			

Addition Alone Project Analysis Parameters					
01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
2345	370	2715	3	1	4

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	Building does not incorporate Special Features

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6517 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:28:33-07:00 **(Page 2 of 7)**

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ENERGY USE SUMMARY				
Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	4.19	9.17	-4.98	-118.9
Space Cooling	8.99	14.83	-5.84	-65
IAQ Ventilation	4.18	4.18	0	0
Water Heating	92.3	80.29	12.01	13
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**109.66**	**108.47**	**1.19**	**1.1**

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications:
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

Domestic Hot Water System Verifications:
- -- None --

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
First Floor	Conditioned	Wall Furnace1	370	8	DHW Sys 1	N/A

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status
S Wall	First Floor	R-19 Wall	90	Front	201	32	90	none	New
E Wall	First Floor	R-19 Wall	0	Right	163	20	90	none	New
N Wall	First Floor	R-19 Wall	270	Back	201	15	90	none	New
W Wall	First Floor	R-19 Wall	180	Left	28	0	90	none	New
Habitable Space Above	First Floor	R-19 Floor No Crawlspace	n/a	n/a	370	n/a	n/a		New

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window	Window	S Wall	Front	90			1	12	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen
Window 2	Window	E Wall	Right	0			1	10	0.32	NFRC	0.25	NFRC	Bug Screen
Window 3	Window	E Wall	Right	0			1	10	0.32	NFRC	0.25	NFRC	Bug Screen
Window 4	Window	N Wall	Back	270			1	3	0.32	NFRC	0.25	NFRC	Bug Screen
Window 5	Window	N Wall	Back	270			1	12	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Entry Door	S Wall	20	0.5

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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SLAB FLOORS

01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	First Floor	370	63	None	80%	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-19 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Exterior Finish: 3 Coat Stucco
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x10 @ 16 in. O. C.	R-19	None / None	0.045	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x10 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.96-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	n/a

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
Wall Furnace1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1		Non-setback thermostat	New	NA	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Gas wall furnace	1	AFUE-72

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 6517 Del Playa Residence ADU **Calculation Date/Time:** 2020-06-29T15:28:33-07:00 **(Page 6 of 7)**

Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6517.ribd19x

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Mulit-speed Compressor	HERS Verification
Cooling Component 1	No Cooling	1			Not Zonal	Single Speed	n/a

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	n/a

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	IAQ Recovery Effectiveness - SREIAQ Recovery Effectiveness - SRE
SFam ADU IAQVentRpt	26	0.25	Default	0	n/a

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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Calculation Description: Title 24 Analysis **Input File Name:** T24SA-2001_6517.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Scott Baer	Documentation Author Signature: Scott Baer
Company: MEC	Signature Date: 2020-06-29 15:34:30
Address: 1616 Anacapa St.	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Santa Barbara, CA 93101	Phone: 805-957-4632 206

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Michelle McToldridge	Responsible Designer Signature: Michelle McToldridge
Company: Shelter Architecture	Date Signed: 2020-06-29 20:09:31
Address: 540 Barker Pass	License: C29526
City/State/Zip: Santa Barbara, CA 93108	Phone: 805-895-3879

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SHELTER architecture urban design

MICHELLE MCTOLDRIDGE
LICENSED ARCHITECT

LICENSED ARCHITECT MICHELLE B. McTOLDRIDGE No. C-29526 9-30-21 RENEWAL DATE STATE OF CALIFORNIA

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WILLIAMS ADU
GARAGE COVNERSION

6517 DEL PLAYA DRIVE
SANTA BARBARA, CA

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DATE: BLDG 06.10.20