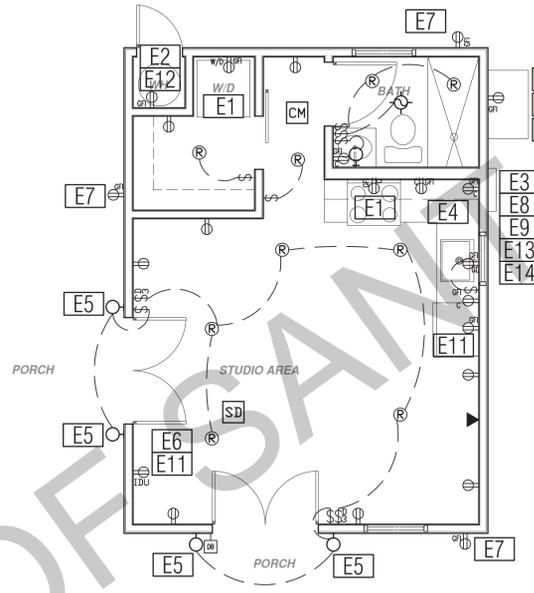


MECHANICAL / PLUMBING PLAN

1/4" = 1'-0"



ELECTRICAL PLAN

1/4" = 1'-0"

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project
Santa Ana
ADU

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revisions
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MECHANICAL / PLUMBING KEYNOTES		ELECTRICAL KEYNOTES		MECHANICAL / PLUMBING LEGEND		ELECTRICAL LEGEND	
MP1 INDOOR UNIT MINI SPLIT SYSTEM.	MP9 DRYER EXHAUST OUTLET FROM DRYER TO EXTERIOR MAX LENGTH 14' WITH MAXIMUM OF TWO 90° ELBOWS. EXHAUST VENT MUST TERMINATE MIN. OF 3' FROM ANY OPENING. MIN. TYPE 1 CLOTHES DRYER EXHAUST DUCTS SHALL BE OF RIGID METAL & SHALL HAVE SMOOTH INTERIOR SURFACES. THE DIAMETER SHALL BE NOT LESS THAN 4 INCHES NOMINAL (100 MM), & THE THICKNESS SHALL BE NOT LESS THAN 0.016 OF AN INCH (0.406 MM). EXHAUST DUCTS & DRYER VENTS SHALL BE EQUIPPED WITH BACK DRAFT DAMPERS	E1 DEDICATED 50 AMP/240V POWER FOR ELECTRIC COOKTOP AND 30AMP/240V FOR ELECTRIC DRYER TO BE WITHIN 3FT OF APPLIANCES.	E11 A DISCONNECTING MEANS CAPABLE OF DISCONNECTING AIR-CONDITIONING AND REFRIGERATING EQUIPMENT, INCLUDING MOTOR-COMPRESSORS AND CONTROLLERS FROM THE CIRCUIT CONDUCTOR IS REQUIRED WITHIN SIGHT FROM THE EQUIPMENT LOCATION PER SEC SECTION 440.11	M EXHAUST FAN: MINIMUM 50 CFM TO BE DUCTED TO THE EXTERIOR AND SHALL PROVIDE FIVE AIR CHANGES PER HOUR SECTION 1203.3. CFM AND NOISE RATING MAXIMUM 3 SONE FOR INTERMITTENT USE. SHALL BE ENERGY STAR RATED AND CONTROLLED BY A HUMIDISTAT CAPABLE OF AN ADJUSTMENT BETWEEN 50-80% HUMIDITY.	SD SMOKE DETECTORS PER SECTION R314 DETECTORS SHALL BE PERMANENTLY WIRED WITH BATTERY BACKUP. SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS. ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT.	P TAMPER RESISTANT RECEPTACLE WALL MOUNTED, 110 V DUPLEX U.O.N.	S SWITCH MOUNT AT 43" AFF
MP2 WATER CONSERVING FIXTURES: NEW WATER CLOSETS SHALL USE NO MORE THAN 1.28 GAL OF WATER PER FLUSH. LAVATORIES LIMITED TO 1.2 GPM. KITCHEN FAUCETS NOT TO EXCEED 1.8 GPM AT 60 PSI THEY CAN INCREASE THE FLOW MOMENTARILY BUT CANT EXCEED 2.2GALLONS PER MIN. AT 60 PSI & MUST DEFAULT TO A MAX. FLOW RATE OF 1.8GALLONS PER MIN AT 60 PSI. & SHOWERS NOT EXCEED 1.8 GPM AT 80 PSI AND ALL SHALL BE CERTIFIED TO MEET THE PERFORMANCE CRITERIA OF THE EPA WATERSENSE SPECIFICATIONS FOR SHOWERHEADS. CPC SECTIONS 407, 408, 411, 412 AND SECTION 301.11 CAL GREEN CODE AND CIVIL CODE 1101.3(a)	MP10 NEW WATER HEATER WITH T&P RELIEF VALVE AND DISCHARGE PIPE AT EXTERIOR. PROVIDE COMBUSTION AIR AND CLEARANCES PER MANUFACTURER REQUIREMENTS.	E2 OUTLET FOR NEW WATER HEATER WITHIN 3' OF WATER HEATER.	E12 PER CEC 2022 150.0(N). 1.A. THE DESIGNATED SPACE AND WATER HEATER IS TO COMPLY WITH ELECTRICAL NOTES 15816 ON SHEET G0.2. A DEDICATED 125 VOLT, 20AMP ELECTRICAL RECEPTACLE THAT IS CONNECTED TO THE ELECTRICAL PANEL WITH A 120/240 VOLT 3 CONDUCTOR, 10AWG COPPER BRANCH CIRCUIT, WITHIN 3 FT FROM THE WATER HEATER.	D DUCT SYSTEMS ARE SIZED, DESIGNED AND EQUIPMENT IS SELECTED USING THE FOLLOWING METHODS: 1. ESTABLISH HEAT LOSS AND HEAT GAIN VALUES ACCORDING TO ANSI/ACCA 2 MANUAL J-2011 OR EQUIVALENT. 2. SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA 1 MANUAL D-2014 OR EQUIVALENT. 3. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S-2014 OR EQUIVALENT.	CF CARBON MONOXIDE ALARM PERMANENTLY WIRED WITH BATTERY BACKUP PER SECTION R315. ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT.	W WATERPROOF OUTLET FLOOR MOUNTED DUPLEX RECEPTACLE. VERIFY LOCATION IN FIELD.	3 THREE-WAY SWITCH
MP3 EXHAUST HOOD ABOVE/ TO BE SMOOTH METALLIC INTERIOR SURFACE. (CMC 504.3)	MP11 NEW WATER HEATER SHALL HAVE ISOLATION VALVES ON BOTH THE COLD AND THE HOT WATER PIPING LEAVING THE WATER HEATER COMPLETE WITH HOSE BIBS OR OTHER FITTINGS ON EACH VALVES FOR FLUSHING THE WATER HEATER WHEN THE VALVES ARE CLOSED	E3 ELECTRICAL - SUB PANEL LOCATION	E13 CONTRACTOR TO VERIFY MAIN PANEL	W WEATHER RESISTANT TYPE RECEPTACLES GFCI PROTECTED	CF COOKTOP GRILL 30AMPS/240 V	4 FOUR-WAY SWITCH	
MP4 NEW WATER HEATER - TO HAVE CONDENSATE DRAIN INSTALLED NO HIGHER THAN 2' ABOVE THE BASE OF THE HEATER THAT ALSO ALLOWS GRAVITY DRAINAGE	MP12 ALL DOMESTIC HOT WATER PIPING TO HAVE THE FOLLOWING MINIMUM INSULATION INSTALLED: ¾" PIPE (¾" INSULATION); 1" TO 1-1/2" PIPE (1-1/2" INSULATION)	E4 OUTLET AT COUNTER HEIGHT - SHALL COMPLY WITH CEC ARTICLE 210.52(C); IN KITCHENS A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH COUNTER SPACE 12" OR WIDER. SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL IS MORE THAN 24" ISLAND IN PENINSULAR COUNTERTOPS 12" X 24" LONG (OR GREATER) SHALL HAVE AT LEAST ONE RECEPTACLE	E14 MAIN PANELBOARD LOCATION SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS. ALL SINGLE-FAMILY RESIDENCES THAT INCLUDE ONE OR TWO DWELLING UNITS SHALL MEET THE FOLLOWING ENERGY STORAGE SYSTEMS (ESS) READY REQUIREMENTS. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CEC. SEE SHEET G0.2, ELECTRIC READY 150.0(N) FOR REQUIREMENTS. SUFFICIENT SPACE SHALL BE RESERVED TO ALLOW FUTURE INSTALLATION OF A SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH WITHIN 3FT OF THE MAIN PANELBOARD & THE SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH LOCATION TO ALLOW THE CONNECTION OF BACKUP POWER SOURCE.	W OVER-CURRENT FEEDER TO EXTEND TO EXISTING PANEL- ALUMINUM CONDUCTOR BURIED UNDER GROUND WITH AWG ALLOWABLE VOLTAGE DROP PER CEC 250.4	OW OVEN 240 V	5 DIMMER SWITCH	
MP5 CONTROL VALVES IN SHOWERS, BATHTUBS, & BIDETS MUST BE PRESSURE BALANCED OR THERMOSTATIC MIX VALVES	MP13 OUTDOOR CONDENSING UNIT TO BE PIPED TO INDOOR HVAC UNIT	E5 OUTLET DEDICATED FOR INDOOR HVAC UNIT		W WEATHER RESISTANT TYPE RECEPTACLES GFCI PROTECTED	MW MICROWAVE 110 V	6 MOUNT 6" ABV COUNTER	
MP6 CLEARANCE FOR WATER CLOSET TO BE A MIN. OF 24" IN FRONT, AND 15" FROM ITS CENTER TO ANY SIDE WALL OR OBSTRUCTION. (CPC 402.5)	MP14 RANGE HOOD DUCTED TO EXTERIOR. FAN IS TO BE EITHER INTERMITTENT 1'00CFM OR CONTINUOUS 1.5 AIR CHANGES PER HOUR AND MUST HAVE A SONE RATING OF 1 FOR CONTINUOUS FAN AND 3 FOR INTERMITTENT FAN.	E6 OUTLET DEDICATED FOR INDOOR HVAC UNIT		W WASHING MACHINE RECEPTACLE. VERIFY LOCATION IN FIELD.	GD GARbage DISPOSAL 110 V	7 CIRCUIT WIRING	
MP7 THE 1/2" SIZE HOT WATER PIPE TO THE KITCHEN SINK AND THE COLD WATER PIPE WITHIN 5' OF WATER HEATER BOTH REQUIRE 1" INSULATION	MP15 WATER HEATER TO BE DUCTED AND EXHAUST TO ROOF PER MANUFACTURES SPECIFICATIONS	E7 WEATHER RESISTANT TYPE RECEPTACLES GFCI PROTECTED		W WASHING MACHINE RECEPTACLE. VERIFY LOCATION IN FIELD.	R RANGE 220V	8 DOOR BELL BUTTON	
		E8 OVER-CURRENT FEEDER TO EXTEND TO EXISTING PANEL- ALUMINUM CONDUCTOR BURIED UNDER GROUND WITH AWG ALLOWABLE VOLTAGE DROP PER CEC 250.4		W WATERPROOF OUTLET FLOOR MOUNTED DUPLEX RECEPTACLE. VERIFY LOCATION IN FIELD.	IDU INDOOR UNIT POWER 84" AFF 30AMP/240V	9 UNDER COUNTER LIGHTING	
		E9 SEPARATE GROUND ELECTRODE SYSTEM PER CEC 250.4		W WEATHER RESISTANT TYPE RECEPTACLES GFCI PROTECTED		10 LOW VOLTAGE, LANDSCAPE LIGHT	
		E10 OUTDOOR CONDENSING UNIT RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVING OF THE HEATING AND COOLING EQUIPMENT AND SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF THE EQUIPMENT. THIS RECEPTACLE SHALL BE GFCI-WP PROTECTED.		W WEATHER RESISTANT TYPE RECEPTACLES GFCI PROTECTED		11 FLUORESCENT FIXTURE (USE SHALLOW TYPE WHEN UNDER COUNTER)	

description

Electrical / Mechanical Plan

date MAY 2023

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A2.1