

PATEL RESIDENCE/RUBY HILL SAMP HOUSE

1989 TICINO COURT, PLEASANTON, CA, 94566 MEDITERRANEAN ARCHITECTURAL STYLE





AGENCIES / UTILITIES

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CABLE SERVICE

PHONE SERVICE

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COUNTY NOTES

1. A SOIL OR CIVIL ENGINEER TO DETERMINE GRADING PERFORMED IS IN SUBSTAINTIAL CONFORMANCE WITH THE APPROVED PLANS ANS IS SUITABLE TO SUPPORT THE INTENDED STRUCTURE.

DEFERRED SUBMITTALS

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED AND APPROVED BY THE ARCHITECT OR ENGINEER OF RECORD. A COPY OF STAMPED OR APPROVED DOCUMENTS SHALL BE DELIVERED TO THE BUILDING DEPARTMENT WITH NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED AND APPROVED BY THE BUILDING DEPT. PRIOR TO INSTALLATION. DEFERRED SUBMITTALS ARE LISTED BELOW:

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1. FIRE SPRINKLERS 2. PV SOLAR SYSTEM

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recycling/salvage tickets to your account and submit back to the Building

Division for final approval. Again, when approved you will be allowed to

schedule your final inspection. For additional information, contact Green

at (925) 931-5300.

Halo Systems at (888) 525-1301 or the City of Pleasanton Building Division

B20-1140

RECEIVED By DeBara Senn at 3:01 pm, Nov 10, 2020

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VICINITY MAP



PLAN REVIEW ACCEPTANCE FOR COMPLIANCE WITH THE APPLICAE CALIFORNIA BUILDING, PLUMBING, MECHANI ELECTRICAL, AND ENERGY CODES AS AMEN BY THE JURISDICTION. PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, NOR LOCAL REGULATION. <u>CH, SM</u> DATE: <u>11/16/2020</u> WEST COAST CODE CONSULTANTS, INC. (WC³)

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				CHAPER 1 - ADMINISTRATION
				SECTION 101 - GENERAL 101.1 TITLE. THESE REGULATIONS SHALL BE KNOWN AS THE CALIFORNIA GREEN BUILDING STANDARDS CODE AND MAY BE CITED AS SUCH AND WILL BE REFERRED TO HEREIN AS "THIS CODE " IT IS INTENDED THAT IT SHALL ALSO BE KNOWN AS THE CALGREEN CODE. THE
				CALIFORNIA GREEN BUILDING STANDARDS CODE IS PART 11 OF TWELVE PARTS OF THE OFFICIAL COMPILATION AND PUBLICATION OF THE ADOPTION, AMENDMENT AND REPEAL OF BUILDING REGULATIONS TO THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, ALSO
_				REFERRED TO AS THE CALIFORNIA BUILDING STANDARDS CODE. 101.2 PURPOSE. THE PURPOSE OF THIS CODE IS TO IMPROVE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE BY ENHANCING THE DESIGN AND CONSTRUCTION OF BUILDINGS THROUGH THE USE OF BUILDING CONCEPTS HAVING A REDUCED NEGATIVE IMPACT OR
				POSITIVE ENVIRONMENTAL IMPACT AND ENCOURAGING SUSTAINABLE CONSTRUCTION PRACTICES IN THE FOLLOWING CATEGORIES: 1. PLANNING AND DESIGN
				 ENERGY EFFICIENCY WATER EFFICIENCY AND CONSERVATION MATERIAL CONSERVATION AND RESOURCE EFFICIENCY ENVIRONMENTAL QUALITY
	В			101.3 SCOPE. THE PROVISIONS OF THIS CODE SHALL APPLY TO THE PLANNING, DESIGN, OPERATION, CONSTRUCTION, USE AND OCCUPANCY OF EVERY NEWLY CONSTRUCTED BUILDING OR STRUCTURE, UNLESS OTHERWISE INDICATED IN THIS CODE, THROUGHOUT THE
				STATE OF CALIFORNIA. IT IS NOT THE INTENT THAT THIS CODE SUBSTITUTE OR BE IDENTIFIED AS MEETING THE CERTIFICATION REQUIREMENTS OF ANY GREEN BUILDING PROGRAM.
_				SECTION 102 - CONSTRUCTION DOCUMENTS & INSTALLATION VERIFICATION 102.1 SUBMITTAL DOCUMENTS. CONSTRUCTION DOCUMENTS AND OTHER DATA SHALL BE SUBMITTED IN ONE OR MORE SETS WITH EACH APPLICATION FOR A PERMIT. WHERE SPECIAL
				CONDITIONS EXIST, THE ENFORCING AGENCY IS AUTHORIZED TO REQUIRE ADDITIONAL CONSTRUCTION DOCUMENTS TO BE PREPARED BY A LICENSED DESIGN PROFESSIONAL AND MAY BE SUBMITTED SEPARATELY. EXCEPTION: THE ENFORCING AGENCY IS AUTHORIZED TO WAIVE THE SUBMISSION
				OF CONSTRUCTION DOCUMENTS AND OTHER DATA NOT REQUIRED TO BE PREPARED BY A LICENSED DESIGN PROFESSIONAL. 102.2 INFORMATION ON CONSTRUCTION DOCUMENTS . CONSTRUCTION DOCUMENTS SHALL
	С			BE OF SUFFICIENT CLARITY TO INDICATE THE LOCATION, NATURE AND SCOPE OF THE PROPOSED GREEN BUILDING FEATURE AND SHOW THAT IT WILL CONFORM TO THE PROVISIONS OF THIS CODE, THE CALIFORNIA BUILDING STANDARDS CODE AND OTHER RELEVANT LAWS, ORDINANCES, RULES AND REGULATIONS AS DETERMINED BY THE
				ENFORCING AGENCY. 102.3 VERIFICATION. DOCUMENTATION OF CONFORMANCE FOR APPLICABLE GREEN BUILDING MEASURES SHALL BE PROVIDED TO THE ENFORCING AGENCY. ALTERNATE
_				FINDS THAT THE PROPOSED ALTERNATE DOCUMENTATION IS SATISFACTORY TO DEMONSTRATE SUBSTANTIAL CONFORMANCE WITH THE INTENT OF THE PROPOSED GREEN BUILDING MEASURE.
				CHAPTER 4 - RESIDENTIAL MANDATORY MEASURES
				SECTION 4.106 - SITE DEVELOPMENT 4.106.1 GENERAL. PRESERVATION AND USE OF AVAILABLE NATURAL RESOURCES SHALL BE ACCOMPLISHED THROUGH EVALUATION AND CAREFUL PLANNING TO MINIMIZE NEGATIVE
	D			EFFECTS ON THE SITE AND ADJACENT AREAS. PRESERVATION OF SLOPES, MANAGEMENT OF STORM WATER DRAINAGE AND EROSION CONTROLS SHALL COMPLY WITH THIS SECTION. 4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. PROJECTS WHICH DISTURBLESS THAN ONE ACRE OF SOIL AND ARE NOT PART OF A LARGER COMMON
				PLAN OF DEVELOPMENT WHICH IN TOTAL DISTURBS ONE ACRE OR MORE, SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION. IN ORDER TO MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION, ONE OR MORE OF THE FOLLOWING MEASURES SHALL
_				RETAIN SOIL RUNOFF ON THE SITE. 1. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE UTILIZED TO RETAIN STORM WATER ON THE SITE.
				2. WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD APPROVED BY THE ENFORCING
	_			 COMPLIANCE WITH A LAWFULLY ENACTED STORM WATER MANAGEMENT ORDINANCE. 4.106.3 GRADING AND PAVING. CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE
	E			FROM ENERING BUILDINGS. EXAMPLES OF METHODS TO MANAGE SURFACE WATER INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: 1. SWALES
				 WATER COLLECTION AND DISPOSAL SYSTEMS FRENCH DRAINS WATER RETENTION GARDENS OTHER WATER AGASURES WHICH KEEP SURFACE WATER AWAY FROM BUILDINGS AND
-				AID IN GROUNDWATER RECHARGE 4.106.4 ELECTRIC VEHICLE (EV) CHARGING FOR NEW CONSTRUCTION. NEW CONSTRUCTION SHALL COMPLY WITH SECTIONS 4.106.4.1 AND 4.106.4.2 TO FACILITATE FUTURE INSTALLATION
				AND USE OF EVE CHARGERS. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) SHALL BE INSTALLED IN ACCORDANCE WITH THE ALIFORNIA ELECTRICAL CODE, ARTICLE 625. DIVISION 4.3 - WATER EFFICIENCY AND CONSERVATION
	F			SECTION 4.303 - INDOOR WATER USE 4.303.1 WATER CONSERVING PLUMBING FIXTURES & FITTINGS. PLUMBING FIXTURES (WATER CLOSETS & URINALS) AND FITTINGS (FALICETS & SHOWERHEADS) SHALL COMPLY WITH THE
				FOLLOWING: 4.303.1.1 WATER CLOSETS. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED
				TANK-TYPE TOILETS. NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE
				FULL FLUSH. 4.303.1.2 URINALS. THE EFFECTIVE FLUSH VOLUME OF URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH. 4.303.1.3 SHOWERHFADS.
				4.303.1.3.1 SINGLE SHOWERHEAD . SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 2.0 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA
	G			4.303.1.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE
				VALVE SHALL NOT EXCEED 2.0 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME.
				NOTE: A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD. 4.303.1.4 FAUCETS.
-				4.303.1.4.1 RESIDENTIAL LAVATORY FAUCETS. THE MAXIMUM FLOW RATE OF A RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI.
				4.303.1.4.2 LAVATORY FAUCETS IN COMMON AND PUBLIC AREAS. THE MAXIMUM FLOW RATE OF LAVATORY FAUCETS INSTALLED IN COMMON AND PUBLIC USE AREAS (OUTSIDE OF DWELLINGS OR SLEEPING UNITS) IN RESIDENTIAL BUILDINGS SHALL NOT EXCEED 0.5 GALLONS PER MINUTE AT 60 PSI
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CALIFORNIA GREEN BUILDING STANDARDS - RESIDENTIAL

SECTION 4.303 - INDOOR WATER USE CONTINUED

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4.303.1.4.3 METERING FAUCETS. METERING FAUCETS WHEN INSTALLED IN RESIDENTIAL BUILDINGS SHALL NOT DELIVER MORE THAN 0.25 GALLONS PER CYCLE.

4.303.1.4.4 KITCHEN FAUCETS. THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI, KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM SECTION 4.503 FIREPLACES FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

NOTE: WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION. 4.303.2 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1401.1 OF THE CALIFORNIA PLUMBING CODE.

SECTION 4.304 OUTDOOR WATER USE

LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY WITH THE FOLLOWING: 1. CONTROLLERS SHALL BE WEATHER- OR SOIL MOISTURE-BASED CONTROLLERS THAT AUTOMATICALLY ADJUST IRRIGATION IN RESPONSE TO CHANGES IN

- PLANTS' NEEDS AS WEATHER CONDITIONS CHANGE. . WEATHER-BASED CONTROLLERS WITHOUT INTEGRAL RAIN SENSORS OR COMMUNICATION SYSTEMS THAT ACCOUNT FOR LOCAL RAINFALL SHALL HAVE A SEPARATE WIRED OR WIRELESS RAIN SENSOR WHICH CONNECTS OR
- COMMUNICATES WITH THE CONTROLLER(S). SOIL MOISTURE-BASED CONTROLLERS ARE NOT REQUIRED TO HAVE RAIN SENSOR INPUT. **NOTE:** MORE INFORMATION REGARDING IRRIGATION CONTROLLER FUNCTION

AND SPECIFICATIONS IS AVAILABLE FROM THE IRRIGATION ASSOCIATION. DIVISION 4.4 - MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

4.406.1 RODENT PROOFING. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.

SECTION 4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING 4.408.1 CONSTRUCTION WASTE MANAGEMENT. RECYCLE AND/OR SALVAGE FOR REUSE A ORY TO DEMONSTRATE MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION DEBRIS, OR MEET A LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE, WHICHEVER IS MORE STRINGENT. EXCEPTIONS:

- 1. EXCAVATED SOIL AND LAND-CLEARING DEBRIS. 2. ALTERNATE WASTE REDUCTION METHODS DEVELOPED BY WORKING WITH LOCAL AGENCIES IF DIVERSION OR RECYCLE FACILITIES CAPABLE OF COMPLIANCE WITH THIS ITEM DO NOT EXIST OR ARE NOT LOCATED REASONABLY CLOSE TO THE JOBSITE.
- 4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN.SUBMIT A CONSTRUCTION WASTE MANAGEMENT PLAN IN CONFORMANCE WITH ITEMS 1 THROUGH 5. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE ENFORCING AGENCY: 1. IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED
- FROM DISPOSAL BY RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE. 2. SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON
- SITE OR BULK MIXED. IDENTIFY DIVERSION FACILITIES WHERE THE MATERIAL COLLECTED WILL BE TAKEN. 4. IDENTIFY CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF WASTE
- GENERATED. 5. SPECIFY THAT THE AMOUNT OF MATERIALS DIVERTED SHALL BE CALCULATED BY WEIGHT OR VOLUME, BUT NOT BY BOTH.
- 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LOW RISE]. PROJECTS THAT GENERATE A TOTAL COMBINED WEIGHT OF CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS, WHICH DO NOT EXCEED FOUR (4) LBS/SQ. FT. OF THE BUILDING AREA SHALL MEET THE MINIMUM 65 PERCENT CONSTRUCTION WASTE REDUCTION REQUIREMENT.
- 4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. AS ABOVE, BUT WHICH DO NOT EXCEED TWO (2) LBS/SQ. FT. OF THE BUILDING AREA
- 4.408.5 DOCUMENTATION. DOCUMENTATION SHALL BE PROVIDED TO THE ENFORCING AGENCY WHICH DEMONSTRATES COMPLIANCE WITH SECTION 4.408.2, ITEMS 1 THROUGH 5. THE WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND 4.504.3.2 CARPET ADHESIVE. ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF SHALL BE ACCESSIBLE DURING CONSTRUCTION FOR EXAMINATION BY THE ENFORCING AGENCY.
- NOTES: 1. SAMPLE FORMS FOUND IN CHAPTER 8 MAY BE USED TO ASSIST IN DOCUMENTING COMPLIANCE WITH THE WASTE MANAGEMENT PLAN. 2. MIXED CONSTRUCTION AND DEMOLITION DEBRIS (C&D) PROCESSORS CAN BE LOCATED AT THE CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CAIRECYCLE).

SECTION 4.410 BUILDING MAINTENANCE AND OPERATION 4.410.1 OPERATION AND MAINTENANCE MANUAL. AT THE TIME OF FINAL INSPECTION, A

MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE ENFORCING AGENCY WHICH INCLUDES ALL OF THE FOLLOWING SHALL BE PLACED IN THE building: 1. DIRECTIONS TO THE OWNER OR OCCUPANT THAT THE MANUAL SHALL REMAIN

- WITH THE BUILDING THROUGHOUT THE LIFE CYCLE OF THE STRUCTURE. 2. OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE FOLLOWING: A. EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS, WATER-HEATING SYSTEMS AND OTHER MAJOR APPLIANCES AND EQUIPMENT.
- B. ROOF AND YARD DRAINAGE, INCLUDING GUTTERS AND DOWNSPOUTS. C. SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS. D. LANDSCAPE IRRIGATION SYSTEMS. E. WATER REUSE SYSTEMS.
- 3. INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATIONS.
- 4. PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA. 5. EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF AN INTERIOR RELATIVE
- HUMIDITY BETWEEN 30-60 PERCENT AND WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE. 6. INFORMATION ABOUT WATER-CONSERVING LANDSCAPE AND IRRIGATION
- DESIGN AND CONTROLLERS WHICH CONSERVE WATER. 7. INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUTS AND THE
- IMPORTANCE OF DIVERTING WATER AT LEAST 5 FEET AWAY FROM THE FOUNDATION. 8. INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, INCLUDING,
- BUT NOT LIMITED TO, CAULKING, PAINTING, GRADING AROUND THE BUILDING,
- 9. INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVE PROGRAMS AVAILABLE.
- 10. A COPY OF ALL SPECIAL INSPECTION VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS CODE.

DIVISION 4.5 - ENVIRONMENTAL QUALITY

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SECTION 4.501 GENERAL 4.501.1 SCOPE. THE PROVISIONS OF THIS CHAPTER SHALL OUTLINE MEANS OF REDUCING THE QUANTITY OF AIR CONTAMINANTS THAT ARE ODOROUS, IRRITATING AND/OR HARMFUL TO THE COMFORT AND WELL-BEING OF A BUILDING'S INSTALLERS, OCCUPANTS AND NEIGHBORS.

4.503.1 GENERAL. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. ANY INSTALLED WOODSTOVE OR PELLET STOVE SHALL COMPLY WITH U.S. EPA PHASE II EMISSION LIMITS WHERE APPLICABLE. WOODSTOVES, PELLET STOVES AND FIREPLACES SHALL ALSO COMPLY WITH APPLICABLE LOCAL ORDINANCES.

- SECTION 4.504 POLLUTANT CONTROL 4.504.1 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING AND COO EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OF 4.304.1 IRRIGATION CONTROLLERS. AUTOMATIC IRRIGATION SYSTEM CONTROLLERS FOR SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACC
 - THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST OR DEBRIS WHICH COLLECT IN THE SYSTEM. 4.504.2 FINISH MATERIAL POLLUTANT CONTROL. FINISH MATERIALS SHALL COMP
 - THIS SECTION. 4.504.2.1 ADHESIVES, SEALANTS AND CAULKS. ADHESIVES, SEALANTS AND CAULI ON THE PROJECT SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDAR MORE STRINGENT LOCAL OR REGIONAL AIR POLLUTION OR AIR QUALITY MANA
 - DISTRICT RULES APPLY: 1. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS PRIMERS, AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR I CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLI SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLE 4.504.1 OR 4.504.2, AS APPLICABLE. SUCH PRODUCTS ALSO SHALL COMPLY WITH THE RULE 1168
 - PROHIBITION ON THE USE OF CERTAIN TOXIC COMPOUNDS (CHLOROFORM, ETHYLENE DICHLORIDE, METHYLENE CHLORIDE, PERCHLOROETHYLENE AND TRICHLOROETHYLENE), EXCEPT FOR AEROSOL PRODUCTS, AS SPECIFIED IN SUBSECTION 2 BELOW. 2. AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR
 - CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN 1 POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING

WITH SECTION 94507. 4.504.2.2 PAINTS AND COATINGS. ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS IN TABLE 1 OF THE ARB ARCHITECTURAL SUGGESTED CONTROL MEASURE, AS SHOWN IN TABLE 4.504.3, UNLESS MORE STRINGENT LOCAL LIMITS APPLY. THE VOC CONTENT LIMIT FOR COATINGS THAT DO NOT MEET THE DEFINITIONS FOR THE SPECIALTY COATINGS CATEGORIES LISTED IN TABLE 4.504.3 SHALL BE DETERMINED BY CLASSIFYING THE COATING AS A FLAT, NONFLAT OR NONFLAT-HIGH GLOSS COATING, BASED ON ITS GLOSS, AS DEFINED IN SUBSECTIONS 4.21, 4.36, AND 4.37 OF THE 2007 CALIFORNIA AIR RESOURCES BOARD, SUGGESTED CONTROL MEASURE, AND THE CORRESPONDING FLAT, NONFLAT OR NONFLAT-HIGH GLOSS VOC LIMIT IN TABLE 4.504.3 SHALL APPLY.

4.504.2.3 AEROSOL PAINTS AND COATINGS. AEROSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC IN SECTION 94522(A)(3) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS AND OZONE DEPLETING SUBSTANCES, IN SECTIONS 94522(C)(2) AND (D)(2) OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94520; AND IN AREAS UNDER THE JURISDICTION OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT ADDITIONALLY COMPLY WITH THE PERCENT VOC BY WEIGHT OF PRODUCT LIMITS OF REGULATION 8, RULE 49.

4.504.2.4 VERIFICATION. VERIFICATION OF COMPLIANCE WITH THIS SECTION SHALL BE PROVIDED AT THE REQUEST OF THE ENFORCING AGENCY.DOCUMENTATION MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING: 1. MANUFACTURER'S PRODUCT SPECIFICATION.

- 2. FIELD VERIFICATION OF ON-SITE PRODUCT CONTAINERS. **4.504.3 CARPET SYSTEMS.** ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING: I. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM. 2. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDARD PRACTICE FOR THE TESTING OF VOCS (SPECIFICATION 01350).
- 3. NSF/ANSI 140 AT THE GOLD LEVEL. 4. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE™GOLD. 4.504.3.1 CARPET CUSHION. ALL CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR
- SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE GREEN LABEL PROGRAM.
- TABLE 4.504.1.
- 4.504.4 RESILIENT FLOORING SYSTEMS. WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING:
- 1. PRODUCTS COMPLIANT WITH COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) LOW-EMITTING MATERIALS 2. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD. 3. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI)
- FLOORSCORE PROGRAM. 4. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH SPECIFICATION 01350 VERSION 1.1 FEBRUARY 2010.

4.504.5 COMPOSITE WOOD PRODUCTS. HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN ARB'S AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD (17 CCR 93120 ET SEQ.), BY OR BEFORE THE DATES SPECIFIED IN THOSE SECTIONS, AS SHOWN IN TABLE 4.504.5.

4.504.5.1 DOCUMENTATION. VERIFICATION OF COMPLIANCE WITH THIS SECTION SHALL BE PROVIDED AS REQUESTED BY THE ENFORCING DOCUMENTATION SHALL INCLUDE AT LEAST ONE OF THE FOLLOWING:

1. PRODUCT CERTIFICATIONS AND SPECIFICATIONS CHAIN OF CUSTODY CERTIFICATIONS

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3. OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY.

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TABLE 5.504.4.1 ADHESIVE VOC LIMIT	
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
	150
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
	65
VCT AND ASPHALT TILE ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
	50
SPECIALTY APPLICATIONS	
	510
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
	80
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP AND TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
HBERGLASS	80
TABLE 5,504.4.2 SFALANT VOC LIMIT	
SEALANTS	CURRENT VOC LIMIT
	250
	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
ARCHITECTURAL - POROUS	250
	775
MARINE DECK	760
OTHER	750
TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTUR/ COATING CATEGORY FLAT COATINGS	AL COATINGS VOC LIMIT, G/L 50
TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTUR, COATING CATEGORY FLAT COATINGS NONFLAT COATINGS NONFLAT HIGH GLOSS COATINGS	AL COATINGS VOC LIMIT, G/L 50 100 150
TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTUR, COATING CATEGORY FLAT COATINGS NONFLAT COATINGS NONFLAT HIGH GLOSS COATINGS	AL COATINGS VOC LIMIT, G/L 50 100 150
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TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTUR, COATING CATEGORY FLAT COATINGS NONFLAT COATINGS NONFLAT HIGH GLOSS COATINGS SPECIALTY COATINGS ALUMINUM ROOF COATINGS	AL COATINGS VOC LIMIT, G/L 50 100 150 400
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TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTUR, COATING CATEGORY FLAT COATINGS NONFLAT COATINGS NONFLAT HIGH GLOSS COATINGS SPECIALTY COATINGS ALUMINUM ROOF COATINGS BASEMENT SPECIALTY COATINGS BITUMINOUS ROOF COATINGS BITUMINOUS ROOF PRIMERS BOND BREAKERS CONCRETE CURING COMPOUNDS	AL COATINGS VOC LIMIT, G/L 50 100 150 400 400 50 350 350 350 350
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TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTUR, COATING CATEGORY FLAT COATINGS NONFLAT COATINGS NONFLAT HIGH GLOSS COATINGS SPECIALTY COATINGS ALUMINUM ROOF COATINGS BASEMENT SPECIALTY COATINGS BITUMINOUS ROOF COATINGS BITUMINOUS ROOF PRIMERS BOND BREAKERS CONCRETE CURING COMPOUNDS CONCRETE CURING COMPOUNDS CONCRETE/MASONRY SEALERS DRIVEWAY SEALERS DRIVEWAY SEALERS DRY FOG COATINGS	AL COATINGS VOC LIMIT, G/L 50 100 150 400 400 400 50 350 350 350 350 100 50 100 50 150 150
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CHAPTER 4 - RESIDENTIAL MANDATORY MEASURES - CONT.

SECTION 4.505 INTERIOR MOISTURE CONTROL

WITH AT LEAST ONE OF THE FOLLOWING:

4.505.1 GENERAL. BUILDINGS SHALL MEET OR EXCEED THE PROVISIONS OF THE CALIFO BUILDING STANDARDS CODE.

4.505.2 CONCRETE SLAB FOUNDATIONS. CONCRETE SLAB FOUNDATIONS REQUIRED TO HAVE A VAPOR RETARDER BY CALIFORNIA BUILDING CODE, CCR, TITLE 24, PART 2. CHAPTER 19, SHALL ALSO COMPLY WITH THIS SECTION. 4.505.2.1 CAPILLARY BREAK. A CAPILLARY BREAK SHALL BE INSTALLED IN COMPLIANC

1. A 4-INCH (101.6 MM) THICK BASE OF 1/2 INCH (12.7 MM) OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR BARRIER IN DIRECT CONTACT WITH CONCRETE AND A CONCRETE MIX DESIGN, WHICH WILL ADDRESS BLEEDING, SHRINKAGE, AND CURLING, SHALL BE USED. FOR ADDITIONAL INFORMATION, SEE AMERICAN CONCRETE INSTITUTE, ACI 302.2R-2. OTHER EQUIVALENT METHODS APPROVED BY THE ENFORCING AGENCY.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. BUILDING MATERIALS WITH VISIB SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHA NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19 % MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED IN COMPLIANCE WITH THE FOLLOWING:

3. A SLAB DESIGN SPECIFIED BY A LICENSED DESIGN PROFESSIONAL.

1. MOISTURE CONTENT SHALL BE DETERMINED WITH EITHER A PROBE-TYPE OR CONTACT-TYPE MOISTURE METER. 2. MOISTURE READINGS SHALL BE TAKEN AT A POINT 2 FEET (610 TO 4 FEET (1219 MM) FROM THE GRADE STAMPED END OF EACH PIECE TO BE VERIFIED. 3. AT LEAST THREE RANDOM MOISTURE READINGS SHALL BE PERFORMED ON WALL AND FLOOR FRAMING WITH DOCUMENTATION ACCEPTABLE TO THE ENFORCING AGENCY PROVIDED AT THE TIME OF APPROVAL TO ENCLOSE THE WALL AND FLOOR FRAMING.

INSULATION PRODUCTS WHICH ARE VISIBLY WET OR HAVE A HIGH MOISTURE CONTEN SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES. WET-APPLIED INSULATION PRODUCTS SHALL FOLLOW THE MANUFACTURERS DRYING RECOMMENDATIONS PRIOR TO ENCLOSURE.

SECTION 4.506 INDOOR AIR QUALITY AND EXHAUST 4.506.1 BATHROOM EXHAUST FANS. MECHANICAL EXHAUST FANS WHICH EXHAUST DIRECTLY FROM BATHROOMS SHALL COMPLY WITH THE FOLLOWING:

1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING. 2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE

READILY ACCESSIBLE. HUMIDISTAT CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF 50 TO 80 PERCENT.

NOTE: FOR THE PURPOSES OF THIS SECTION, A BATHROOM IS A ROOM WHICH CONTAINS A BATHTUB, SHOWER OR TUB/SHOWER COMBINATION. SECTION 4.507 ENVIRONMENTAL COMFORT

4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED, DESIGNED AND HAVE THEIR EQUIPMENT SELECTED USING THE FOLLOWING METHODS: 1. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ACCA

MANUAL J - 2004, ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS. 2. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D 2009, ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.

3. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ACCA 3 MANUAL S - 2004 OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS. **EXCEPTION:** USE OF ALTERNATE DESIGN TEMPERATURES NECESSARY TO ENSURE THE SYSTEMS FUNCTION ARE ACCEPTABLE.

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	Calculation Description: Title 24 Analysis		Input F	ile Name: Patel Resid	ence (Ticino Court) 20	19.ribd19x						
	01 Project / 02 Rui	Name Patel Residence										
	03 Project Loc	cation 1989 Ticino Court City Pleasanton	05	Standards Version 20	19							
	06 Zip 08 Climate	code 94566 2 Zone 12	07	Front Orienta	Software Version End	ergyPro 8.1						
	10 Building 12 Project :	s Type Single family Scope NewConstruction	11	Numb	er of Dwelling Units 1 umber of Bedrooms 11							
	14 Addition Cond. Floor Area 16 Existing Cond. Floor Area	a (ft ²) 0 a (ft ²) n/a	15	Fenestrati	Number of Stories 2 on Average U-factor 0.3							
	18 Total Cond. Floor Area (ft ²) 13128 19 Glazing Percentage (%) 15.79% 20 ADU Bedroom Count 0 21 ADU Conditioned Floor Area 0											
В	22 Is Natural Gas Avail	lable? Yes										
	COMPLIANCE RESULTS 01 Building Complies with Com	nputer Performance		544545 25452 1854 6 Form 52	1010 000405 41 M4 M2		1922 - 1945					
	02 This building incorporates fe 03 This building incorporates o	eatures that require field testing and/or one or more Special Features shown bel	r verification by a cel low	rtified HERS rater under	the supervision of a CEC	C-approved HER	tS provider.					
С	Registration Number:	Gentificor	Registration Date	⊳/Time∙	HERS	Provider						
	Registration Number: CA Building Energy Efficiency Standards - 201	.9 Residential Compliance	Registration Date Report Version: 2 Schema Version:	2019.1.108 rev 20200101	Repor	Provider: t Generated: 20)20-05-14 08:54:42					
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D	ENERGY DESIGN RATING		Energy Design Rating	s	Cor	npliance Margi	ns					
	Standard Design	Efficiency ¹ (ED	R)	Total ² (EDR)	Efficiency ¹ (EDR)		Total ² (EDR)					
	Proposed Design	30.9		20.5	4.9		4.8					
	1: Efficiency EDR includes improvements to the	building envelope and more efficient eq	RESULT: ^{3:} COMPLIES	S								
	2: Total EDR includes efficiency and demand resp 3: Building complies when efficiency and total co Standard Design PV Capacity: 6.43 kWdc	ponse measures such as photovoltaic (P ompliance margins are greater than or e	V) systems and batte equal to zero	ries								
	 Standard Design PV Capacity: 6.43 kWdc Proposed PV kWh output exceeds proposed electricity use by 3.3% which may violate NEM rules. Contact local utility. PV System resized to 6.43 kWdc (a factor of 6.432) to achieve 'Standard Design PV' PV scaling 											
E		E	NERGY USE SUMMAI	RY	1							
	Energy Use (kTDV/ft ² -yr) Space Heating	Standard Design 28.82	Pi	22.36	Compliance Ma	argin I	22.4					
	Space Cooling IAQ Ventilation	12.2		8.73 0.85	3.47 -0.06	3.47 2 -0.06 -						
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	Registration Number:		Registration Date/	Time:	HERS P	ovider:						
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	CERTIFICATE OF COMPLIANCE		Calcu	Ilation Date/Time: 20 t File Name: Patel Res	20-05-14T08:49:13-07 idence (Ticino Court) 2	2019.ribd19x	(Page 3					
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J	CERTIFICATE OF COMPLIANCE Project Name: Patel Residence Calculation Description: Title 24 Analys REQUIRED PV SYSTEMS - SIMPLIFIED 01 02 DC System Size Exception (kWdc) Exception 6.43 NA Colored Indoor air quality, balanced fan Colorof Insulation below roof deck Window overhangs and/or fins Exposed slab floor in conditioned zon Non-standard duct location (any local HERS FEATURE SUMMARY The following is a summary of the features t detail is provided in the building tables below Building-level Verifications: Quality insulation installation (QII) Indoor air quality ventilation Kitchen range hood Cooling System Verifications: Minimum Airflow Fan Efficiacy Watts/CFM Heating System Verifications: Ducts located entirely in conditioned Domestic Hot Water System Verifications: Ducts located entirely in conditioned Domestic Hot Water System Verifications: Pipe Insulation, All Lines	03 04 Module Type Array Type Standard Fixed (roof mount) talled as condition for meeting the mode talled as condition for meeting the mode that must be field-verified by a certified w. Registered CF2Rs and CF3Rs are required space confirmed by duct leakage testing 019 Residential Compliance	Input 05 Power Electronics none eled energy performa HERS Rater as a conc ired to be completed Registration Di Report Version Schema Version	06 07 CFI Azimuth (deg) true 150-270 nce for this computer and lition for meeting the main the HERS Registry ate/Time: ate/Time: ate/Time: ate/Time: ate/Time: ate/Time:	08 09 Tilt Array Angle (deg) n/a n/a n/a n/a nalysis. Image: Comparison of the second sec	10 Tilt: (x in 12) <=7:12	11 An Inverter Eff. An 96 1 96 1 puter analysis. Addit 2020-05-14 08:54:4					
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G H	CERTIFICATE OF COMPLIANCE Project Name: Patel Residence Calculation Description: Title 24 Analys REQUIRED PV SYSTEMS - SIMPLIFIED 01 02 DC System Size Exception (kWdc) Exception 6.43 NA 6.43 NA REQUIRED SPECIAL FEATURES The following are features that must be inst • Indoor air quality, balanced fan • Cool roof • Insulation below roof deck • Window overhangs and/or fins • Exposed slab floor in conditioned zon • Non-standard duct location (any local HERS FEATURE SUMMARY The following is a summary of the features t detail is provided in the building tables belos Building-level Verifications: • Quality insulation installation (QII) • Indoor air quality ventilation • Quality insulation installation (QII) • Indoor air quality ventilations: • Quality insulation installation (QII) • Indoor air quality ventilations: <td< td=""><td>03 04 Module Type Array Type Standard Fixed (roof mount) talled as condition for meeting the mode tall talled</td><td>Input 05 Power Electronics none eled energy performa HERS Rater as a conc ired to be completed Registration Da Report Version Schema Version</td><td>06 07 CFI Azimuth (deg) true 150-270 nce for this computer and in the HERS Registry lition for meeting the minima the HERS Registry ate/Time: a: 2019.1.108 n: rev 20200101</td><td>08 09 Tilt Array Angle (deg) n/a n/a n/a n/a odeled energy performant odeled energy performant HEF Rep</td><td>10 Tilt: (x in 12) <=7:12</td> nce for this com RS Provider: sort Generated:</td<>	03 04 Module Type Array Type Standard Fixed (roof mount) talled as condition for meeting the mode tall talled	Input 05 Power Electronics none eled energy performa HERS Rater as a conc ired to be completed Registration Da Report Version Schema Version	06 07 CFI Azimuth (deg) true 150-270 nce for this computer and in the HERS Registry lition for meeting the minima the HERS Registry ate/Time: a: 2019.1.108 n: rev 20200101	08 09 Tilt Array Angle (deg) n/a n/a n/a n/a odeled energy performant odeled energy performant HEF Rep	10 Tilt: (x in 12) <=7:12	11 An Inverter Eff. An 96 1 96 1 puter analysis. Addit 2020-05-14 08:54:4					
G H	CERTIFICATE OF COMPLIANCE Project Name: Patel Residence Calculation Description: Title 24 Analys REQUIRED PV SYSTEMS - SIMPLIFIED 01 02 DC System Size Exception (kWdc) Exception 6.43 NA 6.43 NA REQUIRED SPECIAL FEATURES The following are features that must be inst • Indoor air quality, balanced fan • Cool roof • Insolation below roof deck • Window overhangs and/or fins • Exposed slab floor in conditioned zon • Non-standard duct location (any local Duilding-level Verifications: • • Quality insulation installation (QII) • Indoor air quality ventilation • Quality insulation installation (QII) • Indoor air quality ventilations: • Quality insulation installation (QII) • Indoor air quality ventilations: • Na • Quality insulation installation (QII) • Indoor air quality ventilations:	03 04 Module Type Array Type Standard Fixed (roof mount) talled as condition for meeting the mode space confirmed by duct leakage testing 019 Residential Compliance	Input 05 Power Electronics none eled energy performa HERS Rater as a conc ired to be completed	06 07 CFI Azimuth (deg) true 150-270 nce for this computer and in the HERS Registry lition for meeting the minin the HERS Registry ate/Time: ate/Time: ate/Time: ate/Time: ate/Time: ate/Time:	08 09 Tilt Array Angle (deg) n/a n/a n/a n/a odeled energy performant odeled energy performant HEF Rep	10 Tilt: (x in 12) <=7:12	11 An Inverter Eff. An 96 1 96 1 puter analysis. Addit 2020-05-14 08:54:4					
G H	CENTIFICATE OF CONFILTANCE Project Name: Patel Residence Calculation Description: Title 24 Analys REQUIRED PV SYSTEMS - SIMPLIFIED 01 02 DC System Size Exception (KWdc) Exception 6.43 NA REQUIRED SPECIAL FEATURES The following are features that must be inst 0 Indoor air quality, balanced fan 0 Cool roof 1 Indoor air quality, balanced fan 0 Cool roof 1 Indoor air quality, balanced fan 0 Cool roof 1 Insulation below roof deck Window overhangs and/or fins Exposed slab filoor in conditioned zon Non-standard duct location (any local HERS FEATURE SUMMARY The following is a summary of the features t detail is provided in the building tables below Building-level Verifications: • Quality insulation installation (QII) • Indoor air quality wentilation • Na Cooling System Verifications: • Moninimum Airflow <t< td=""><td>03 04 Module Type Array Type Standard Fixed (roof mount) talled as condition for meeting the mode space confirmed by duct leakage testing 019 Residential Compliance</td><td>Input 05 Power Electronics none eled energy performa HERS Rater as a conc ired to be completed Registration Da Report Version Schema Version</td><td>06 07 CFI Azimuth (deg) true 150-270 nce for this computer and in the HERS Registry lition for meeting the minin the HERS Registry ate/Time: ate/Time: ate/Time: ate/Time: ate/Time: ate/Time:</td><td>08 09 Tilt Array Angle (deg) n/a n/a n/a n/a odeled energy performant odeled energy performant HEF Rep</td><td>10 Tilt: (x in 12) <=7:12</td> nce for this com RS Provider: cort Generated:</t<>	03 04 Module Type Array Type Standard Fixed (roof mount) talled as condition for meeting the mode space confirmed by duct leakage testing 019 Residential Compliance	Input 05 Power Electronics none eled energy performa HERS Rater as a conc ired to be completed Registration Da Report Version Schema Version	06 07 CFI Azimuth (deg) true 150-270 nce for this computer and in the HERS Registry lition for meeting the minin the HERS Registry ate/Time: ate/Time: ate/Time: ate/Time: ate/Time: ate/Time:	08 09 Tilt Array Angle (deg) n/a n/a n/a n/a odeled energy performant odeled energy performant HEF Rep	10 Tilt: (x in 12) <=7:12	11 An Inverter Eff. An 96 1 96 1 puter analysis. Addit 2020-05-14 08:54:4					

TIFICATE OF COMP ject Name: Patel Re culation Description	PLIANCE esidence n: Title 24 Analysis			C	alculation D nput File Na	ate/Time me: Pate	e: 2020-05-14T08 I Residence (Ticin	:49:13-07:00 o Court) 2019.ril	bd19x	CF1R-PRF-01 (Page 4 of 25
JILDING - FEATURES IN	FORMATION			2						
01	02		03	03 04 05						07
Project Name	Conditioned Flo	or Area (ft ²)	Number of Dwel Units	ling Number	Number of Bedrooms		nber of Zones	Number of Ventilation Cooling Systems		Number of Water Heating Systems
Patel Residence	1312	8	1		11	1	7	0		1
	-					2				-
NE INFORMATION	1	1	812 N			N				1022
01	02		U3	04		Aug. C	US	Ub		U/
zone Name	Zone Type		ic system Name	Zone Floor A	(ft ⁻)	Avg. C	ening neight	water neating sys	stem I	water neating system 2
Living Area 1.1	Conditioned		F-1 & CC-11	2224	0		12	DHW Sys 1		N/A
Living Area 1.2	Conditioned		F-2 & CC-22	2776	5		12	DHW Sys 1		N/A
Living Area 1.3	Conditioned		F-3 & CC-33	1650)		12	DHW Sys 1		N/A
Living Area 2.4	Conditioned		F-4 & CC-44	1418	3		10	DHW Sys 1		N/A
Living Area 2.5	Conditioned		F-5 & CC-55	1900)		10	DHW Sys 1		N/A
Living Area 2.6	Conditioned	1	F-6 & CC-66	2410)		10	DHW Sys 1		N/A
Living Area 2.7	Conditioned		MS-17	750			10	DHW Sys 1		N/A
			0		99 92	10				
01	02	1	03.0	04	05		06	07		08
Name	Zone	Cons	truction	Azimuth	Orientat	ion	Gross Area (ft ²)	²) Window and Door Area (ft2)		Tilt (deg)
Front Wall	Living Area 1.1	R2	1 Wall	270	Front		552	104		90
Left Wall	Living Area 1.1	_ 0 R2	1 Wall	0	Left		348	60		90
Rear Wall	Living Area 1.1	V R2	1 Wall	90	Back		408	96		90
Right Wall	Living Area 1.1	9 R2	1 Wall	180	Right		60	0		90
SW Wall	Living Area 1.1	R2	1 Wall	225	n/a		72	0		90
NW Wall	Living Area 1.1	R2	1 Wall	315	n/a		72	16	1	90
CERTIFICATE OF COI Project Name: Patel Calculation Descript	MPLIANCE Residence t ion: Title 24 Analysis				Calculation Input File I	n Date/Ti Name: Pa	ime: 2020-05-14T atel Residence (Ti	08:49:13-07:00 cino Court) 2019	.ribd19x	CF1R-PRF- (Page 5 of
OPAQUE SURFACES	N. N		1000		1			T	00.027	a la suate con
01	02		03	04	0	5	06	Mander	07	08
Name	Zone	Co	onstruction	Azimuth	Orien	tation	Gross Area (f	(²) Are	a (ft2)	" Tilt (deg)
Front Wall 2	Living Area 1.2		R21 Wall	270	Fro	ont 🔜	24		0	90
Left Wall 2	Living Area 1.2		R21 Wall	0	Le	eft	180	4	40.5	90
Rear Wall 2	Living Area 1.2	_	R21 Wall	90	Ba	ick	768	3	76.5	90
Right Wall 2	Living Area 1.2		K21 Wall	180	Ri	ght /-	84		48	90
NE Wall	Living Area 1.2			45		ya /a	120		12	90
Front Wall 3	Living Area 1.2		R21 Wall	270	C Fr	ont	384		48	90
Rear Wall 3	Living Area 1.3		R21 Wall	90	Ba	ick	288		84	90
Right Wall 3	Living Area 1.3		R21 Wall	180	Rie	ght	516		105	90
SE Wall 2	Living Area 1.3		R21 Wall	135	n	/a	156		0	90
Front Wall 4	Living Area 2.4		R21 Wall	270	Fre	ont	555	14	5.981	90
Left Wall 3	Living Area 2.4		R21 Wall	0	Le	eft	400		36	90
Rear Wall 4	Living Area 2.4		R21 Wall	5 90	Ba	ick	280		36	90
Right Wall 4	Living Area 2.4		R21 Wall	180	Ri	ght	10		0	90
SW Wall 2	Living Area 2.4		R21 Wall	225	n	/a	60		16	90
	Living Array 2.4	8.3	DO1 Wall	215		10	60	1 P	0	00

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Registration Number:

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Living Area 2.4	R21 Wall	225	n/a	60	16	90
Living Area 2.4	R21 Wall	315	n/a	60	0	90
Living Area 2.4	R21 Wall	45	n/a	130	54	90
Living Area 2.5	R21 Wall	90	Back	760	282.046	90
Living Area 2.6	R21 Wall	270	Front	590	129	90
Living Area 2.6	R21 Wall	0	Left	280	32	90
Living Area 2.6	R21 Wall	90	Back	260	36	90
Living Area 2.6	R21 Wall	180	Right	690	108	90
Living Area 2.6	R21 Wall	135	n/a	150	54	90
Living Area 2.7	R21 Wall	270	Front	240	63	90
Living Area 2.7	R21 Wall	0	Left	305	36	90
Living Area 2.7	R21 Wall	180	Right	295	32	90
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CA Building Energy Efficiency Standards - 2019 Residential Compliance

NE Wall 2

Rear Wall 5

Front Wall 5

Left Wall 4

Rear Wall 6

Right Wall 5

SE Wall 3

Front Wall 6

Left Wall 5

Right Wall 6

Registration Number:

Report Version: 2019.1.108 Schema Version: rev 20200101 Report Generated: 2020-05-14 08:54:42

CERTIFICATE OF COMP	LIANCE						0	CF1R-PRF-01
Project Name: Patel Re	sidence				Calculation Da	ate/Time: 2020-05-14	08:49:13-07:00	(Page 4 of 25
Calculation Description	1: Title 24 Analysis				Input File Nan	ne: Patel Residence (Ti	cino Court) 2019.ribd19x	
BUILDING - FEATURES IN	FORMATION		10 20	34. 76		.9		
01	02		03		04	05	06	07
Project Name	Conditioned Floor	Area (ft ²)	Number of Dwell Units	ing Num	ber of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Patel Residence	13128		1		11	7	0	1
				Ż.		~		in the second se
01	02	1	03	1	04	05	06	07
Zone Name	Zone Type	HVA	C System Name	Zone Flo	oor Area (ft ²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Living Area 1.1	Conditioned		F-1 & CC-11	8	2224	12	DHW Sys 1	N/A
Living Area 1.2	Conditioned		F-2 & CC-22		2776	12	DHW Sys 1	N/A
Living Area 1.3	Conditioned		F-3 & CC-33		1650	12	DHW Sys 1	N/A
Living Area 2.4	Conditioned		F-4 & CC-44	A.	1418	10	DHW Sys 1	N/A
Living Area 2.5	Conditioned		F-5 & CC-55	0	1900	10	DHW Sys 1	N/A
Living Area 2.6	Conditioned		F-6 & CC-66	2	2410	10	DHW Sys 1	N/A
Living Area 2.7	Conditioned		MS-17		750	10	DHW Sys 1	N/A
OPAQUE SURFACES						<u>í</u>		
01	02		03,0	04	05	06	07	08
Name	Zone	Cons	truction	Azimuth	Orientatio	on Gross Area (f	t ²) Window and Door Area (ft2)	Tilt (deg)
Front Wall	Living Area 1.1	R2	1 Wall	270	Front	552	104	90
Left Wall	Living Area 1.1	_ 🕖 R2	1 Wall	0	Left	348	60	90
Rear Wall	Living Area 1.1	🖉 R2	1 Wall	90	Back	408	96	90
Right Wall	Living Area 1.1	R2	1 Wall	180	Right	60	0	90
SW Wall	Living Area 1.1	R2	1 Wall	225	n/a	72	0	90
NW Wall	Living Area 1.1	R2	1 Wall	315	n/a	72	16	90

CA Building Energy Efficiency Standards - 2019 Residential Compliance

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Report Version: 2019.1.108 Schema Version: rev 20200101

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Report Generated: 2020-05-14 08:54:42

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Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance

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TIFICATE OF COMPLI ect Name: Patel Resi	ANCE idence			Calcul	ation Da	ate/Tim	e: 2020	-05-141	08:49:13-0	7:00			CF1R-PRF-01E (Page 8 of 25)
ulation Description:	Title 24 Analysis	s		Input	File Nar	ne: Pate	el Reside	ence (Ti	cino Court)	2019.ribd1	L9x		
STRATION / GLAZING								K	•		17-628-1		
01	02	03	04	05	06	07	08	209	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Sourc e	Exterior Shading
B1	Window	Left Wall	Left	0		~	1	24	0.3	NFRC	0.21	NFRC	Bug Screen
A1 3	Window	Rear Wall	Back	90		0	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
A1 4	Window	Rear Wall	Back	90		•	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
Door 23	Window	Rear Wall	Back	90	2		1	60	0.3	NFRC	0.21	NFRC	Bug Screen
A2	Window	NW Wall		315	24	e ar	1	16	0.3	NFRC	0.21	NFRC	Bug Screen
B5	Window	Left Wall 2	Left	0 🕜			1	19.5	0.3	NFRC	0.21	NFRC	Bug Screen
B4	Window	Left Wall 2	Left	0			1	21	0.3	NFRC	0.21	NFRC	Bug Screen
B5 2	Window	Rear Wall 2	Back	90		2	1	19.5	0.3	NFRC	0.21	NFRC	Bug Screen
B4 2	Window	Rear Wall 2	Back	90			1	21	0.3	NFRC	0.21	NFRC	Bug Screen
Door 25	Window	Rear Wall 2	Back	90			1	60	0.3	NFRC	0.21	NFRC	Bug Screen
Door 26	Window	Rear Wall 2	Back	90			1	60	0.3	NFRC	0.21	NFRC	Bug Screen
Door 27	Window	Rear Wall 2	Back	90	9	a are	1	60	0.3	NFRC	0.21	NFRC	Bug Screen
B1 2	Window	Rear Wall 2	Back	90			1	24	0.3	NFRC	0.21	NFRC	Bug Screen
B1 3	Window	Rear Wall 2	Back	90			1	24	0.3	NFRC	0.21	NFRC	Bug Screen
Door 28	Window	Rear Wall 2	Back	90		1	1	60	0.3	NFRC	0.21	NFRC	Bug Screen
B1 4	Window	Rear Wall 2	Back	90			1	24	0.3	NFRC	0.21	NFRC	Bug Screen
B1 5	Window	Rear Wall 2	Back	90			1	24	0.3	NFRC	0.21	NFRC	Bug Screen
B4 3	Window	Right Wall 2	Right	180			1	21	0.3	NFRC	0.21	NFRC	Bug Screen
Door 24	Window	Right Wall 2	Right	180		61C	1	27	0.3	NFRC	0.21	NFRC	Bug Screen
B5 3	Window	NE Wall		45			1	19.5	0.3	NFRC	0.21	NFRC	Bug Screen
B4 4	Window	NE Wall		45			1	21	0.3	NFRC	0.21	NFRC	Bug Screen
B4 5	Window	V NE Wall		45		900	1	21	0.3	NFRC	0.21	NFRC	Bug Screen
B4 6	Window	SE Wall		135			1	21	0.3	NFRC	0.21	NFRC	Bug Screen
B4 7	Window	SE Wall		135			1	21	0.3	NFRC	0.21	NFRC	Bug Screen
A1 5	Window	Front Wall 3	Front	270		2	1	18	0.3	NFRC	0.21	NFRC	Bug Screen

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

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Report Version: 2019.1.108 Schema Version: rev 20200101

Registration Date/Time:

Report Generated: 2020-05-14 08:54:42

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ct Name: Patel Resi	dence			Calcul	ation Da	ate/Tim	e: 2020	05-14T	08:49:13-0	7:00			(Page 9
lation Description:	Title 24 Analysis			Input	File Nan	ne: Pate	l Reside	ence (Ti	cino Court)	2019.ribd1	.9x		
STRATION / GLAZING		1221	7279	1 1222	1 323	1 1000		~	80.127				1 1212
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Sourc e	Exter Shad
A1 6	Window	Front Wall 3	Front	270			1	18	0.3	NFRC	0.21	NFRC	Bug So
B2	Window	Front Wall 3	Front	270		2	1	6	0.3	NFRC	0.21	NFRC	Bug So
B2 2	Window	Front Wall 3	Front	270	- 10		1	6	0.3	NFRC	0.21	NFRC	Bug So
B1 6	Window	Rear Wall 3	Back	90	2		1	24	0.3	NFRC	0.21	NFRC	Bug So
B1 7	Window	Rear Wall 3	Back	90	2		1	24	0.3	NFRC	0.21	NFRC	Bug So
A1 7	Window	Rear Wall 3	Back	90 🕑			1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 8	Window	Rear Wall 3	Back	90			1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 9	Window	Right Wall 3	Right	180			1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 10	Window	Right Wall 3	Right	180			1	18	0.3	NFRC	0.21	NFRC	Bug So
B1 8	Window	Right Wall 3	Right	180			1	24	0.3	NFRC	0.21	NFRC	Bug So
B1 9	Window	Right Wall 3	Right	180			1	24	0.3	NFRC	0.21	NFRC	Bug So
A2 2	Window	Front Wall 4	Front	270	4	4	1	16	0.3	NFRC	0.21	NFRC	Bug So
E	Window	Front Wall 4	Front	270	3	7	1	21	0.3	NFRC	0.21	NFRC	Bug So
Door 75	Window	Front Wall 4	Front	270	5.33	8	1	42.98	0.3	NFRC	0.21	NFRC	Bug So
C	Window	Front Wall 4	Front	270	4	6	1	24	0.3	NFRC	0.21	NFRC	Bug So
B2 3	Window	Front Wall 4	Front	270	2	3	1	6	0.3	NFRC	0.21	NFRC	Bug So
A1 11	Window	Front Wall 4	Front	270	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 12	Window	Front Wall 4	Front	270	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 13	Window	Left Wall 3	Left	0	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 14	Window	Left Wall 3	Left	0	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 15	Window	Rear Wall 4	Back	90	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug So
A1 16	Window	Rear Wall 4	Back	90	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug So
A2 3	Window	SW Wall 2		225	4	4	1	16	0.3	NFRC	0.21	NFRC	Bug So
B3	Window	NE Wall 2		45	3	6	1	18	0.3	NFRC	0.21	NFRC	Bug So
B3 2	Window	NE Wall 2		45	3	6	1	18	0.3	NFRC	0.21	NFRC	Bug So

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: Report Version: 2019.1.108

Schema Version: rev 20200101

Report Generated: 2020-05-14 08:54:42

CERTIFICATE OF COMPLIA							6				CF1R-PRF-01E		
Project Name: Patel Resid	dence			Calcul	ation D	ate/Tim	e: 2020	0-05-141	08:49:13-0	07:00		(Page 10 of 25)
Calculation Description:	Title 24 Analysi	is		Input	File Nar	me: Pate	el Resid	ence (Ti	cino Court)	2019.ribd	19x		
FENESTRATION / GLAZING	N/2	4.	м,		A.12	1011		N.	e.	day -			
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Sourc e	Exterior Shading
B3 3	Window	NE Wall 2		45	3	6	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
B3 4	Window	Rear Wall 5	Back	90	3	6	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
Door 73	Window	Rear Wall 5	Back	90	6	8	1	48	0.3	NFRC	0.21	NFRC	Bug Screen
B3 5	Window	Rear Wall 5	Back	90	3	6	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
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B7 2	Window	Rear Wall 5	Back	90	2.67	7	1	19.01	0.3	NFRC	0.21	NFRC	Bug Screen
B7 3	Window	Rear Wall 5	Back	90	2.67	7	1	19.01	0.3	NFRC	0.21	NFRC	Bug Screen
B7 4	Window	Rear Wall 5	Back	90	2.67	7	1	19.01	0.3	NFRC	0.21	NFRC	Bug Screen
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Door 57	Window	Rear Wall 5	Back	90	6	8	1	48	0.3	NFRC	0.21	NFRC	Bug Screen
B3 7	Window	Rear Wall 5	Back	90	3	6	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
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A1 18	Window	Front Wall 5	Front	270	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
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B2 4	Window	Front Wall 5	Front	270	2	3	1	6	0.3	NFRC	0.21	NFRC	Bug Screen
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A2 4	Window	Left Wall 4	Left	0	4	4	1	16	0.3	NFRC	0.21	NFRC	Bug Screen
A2 5	Window	Left Wall 4	Left	0	4	4	1	16	0.3	NFRC	0.21	NFRC	Bug Screen
A1 19	Window	Rear Wall 6	Back	90	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
A1 20	Window	Rear Wall 6	Back	90	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug Screen
A1 21	Window	Right Wall 5	Right	180	4	4.5	1	18	0.3	NFRC	0.21	NFRC	Bug Screen

Registration Date/Time: Report Version: 2019.1.108

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Schema Version: rev 20200101

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| Door 73 | 2 | 0.1 | 2 | 2 | 0 | 0 | 0

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| ERHANGS AND FINS
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Incutation Description: Title 01 VERHANGS AND FINS 01 Window A2 4 A2 5 A1 19 A1 20 A1 21 A1 22 B3 8 B3 9 B3 10 B3 11 B3 12 B3 13 B3 14 E 5 E 6 E 7 B3 15	O2 Depth I 2 2	03 Dist Up 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	04OverhangLeft Extent22222222222222	05 Right Extent 2 2 2 2 2 2	06 Flap Ht. 0 0	07 Depth	08 Left	09 Fin	10	11	13.LIDG13X	13	14	01	02 Surface Tvi
01 Window A2 4 A2 5 A1 19 A1 20 A1 20 A1 21 A1 22 B3 8 B3 9 B3 10 B3 10 B3 11 B3 12 B3 12 B3 13 B3 14 E 5 E 6 E 7 E 7 B3 15	02 Depth I 2 2	03 Dist Up 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	O4OverhangLeft Extent2222222222	05 Right Extent 2 2 2 2 2	06 Flap Ht. 0 0	07 Depth	08 Left	09 Fin	10	11	12	13	14		Surface Tv
Window A2 4 A2 5 A1 19 A1 20 A1 20 A1 21 A1 22 B3 8 B3 9 B3 10 B3 11 B3 12 B3 13 B3 14 E 5 E 6 E 7 B3 15	Depth I 2 2	Dist Up 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Left Extent 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Right Extent 2 2 2 2 2 2	Flap Ht. 0 0	Depth		FIN			Disk			Construction Name	Junacery
A2 4 A2 5 A1 19 A1 20 A1 20 A1 21 A1 22 B3 8 B3 9 B3 10 B3 10 B3 11 B3 12 B3 12 B3 13 B3 14 E 5 E 6 E 7 B3 15	Deptil 2	0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2 2 2 2 2 2 2 2 2 2	Extent 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0	Depth	I Ton Un	Diet I	Bot Un	Denth	Righ	t Fin Dict P	Bot Up		1
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A1 19 A1 20 A1 21 A1 22 B3 8 B3 9 B3 10 B3 10 B3 11 B3 12 B3 13 B3 14 E 5 E 6 E 7 B3 15	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.1 0.1 0.1 0.1 0.1 0.1 0.1	2 2 2 2 2	2	10.000	0	0	0	0	0	0	0	0		
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B3 12 B3 13 B3 14 E 5 E 6 E 7 B3 15	2 2 2	0.1	2	20	0	0	0	0	0	0	0	0	0		+
B3 13 B3 14 E 5 E 6 E 7 B3 15	2	0.1	2	<u>C2</u>	0	0	0	0	0	0	0	0	0	R-0 Floor No Crawlspace	Interior Fl
B3 14 E 5 E 6 E 7 B3 15	2	0.1	2	2	0	0	0	0	0	0	0	0	0		
E 5 E 6 E 7 B3 15	88	0.1	2	2	0	0	0	0	0	0	0	0	0		
E 6 E 7 B3 15	2	0.1	2	2	0	0	0	0	0	0	0	0	0	R-19 Floor No	Interior Fl
E 7 B3 15	2	0.1	2	2	0	0	0	0	0	0	0	0	0	Crawispace	
B3 15	2	0.1	2	2	0	0	0	0	0	0	0	0	0		<u> </u>
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RTIFICATE OF COMPLIANC oject Name: Patel Residen Iculation Description: Title /ERHANGS AND FINS	CE ice e 24 Analysis		T			Calculat Input Fi	tion Date/Tin le Name: Pat	ne: 2020-0! el Residenc	5-14T08:4 ce (Ticino	49:13-07:00 Court) 201) 9.ribd19x	CF: (Pag	LR-PRF-01E (e 15 of 25)	CERTIFICATE OF COMPI Project Name: Patel Re Calculation Descriptior	.IANCE sidence I: Title 24 Analy
01	02	03	04 Overbang	05	06	07	08	09 in	10	11	12 Pight	13 Fin	14	BUILDING ENVELOPE - HE	RS VERIFICATIO
Window			Overnang	Right	Elec III	D th			Det Un			FIN	0.11	01 Quality Insulation I	nstallation (QII)
201-12-22	Depth	Dist Up	Left Extent	Extent	нар нт.	Depth	Тор Ор	Dist L	вот Ор	Depth	тор Ор	DIST K	вот Ор	Requir	ed
B3 16	2	0.1	2	2	0	0	0	0	0	0	0	0	0	WATER HEATING SYSTEM	s
A2 6	2	0.1	2	2	0	0	S ⁰	0	0	0	0	0	0	01	02
A2 7	2	0.1	2	2	0	0	0	0	0	0	0	0	0	Name	System T
AB FLOORS	02	Ť	03	T	04	-		05		1	06	0.	7	DHW Sys 1	Domestic Ho (DHW
Name	Zone		Area (ft2)		Perimeter	(ft)	Edge Insul. R	-value and	Depth	Carpete	ed Fraction	Hea	ted	WATER HEATERS	
Slab	Living Area 1.1		2224		126		10 200	None			0%	N	D	01	02
Slab 2	Living Area 1.2		2776		105		20 7.1 3.1 3.1	None			0%	N	0		Heating
Slab 3	Living Area 1.3		1650	4	112			None			0%	N	0	Name	Iement Type
Slab 4	Garage		1311	0	240		Į	None			0%	N	o	DHW Heater 1	Gas
AQUE SURFACE CONSTRUCT	TIONS		1	9		~				-					
01	02		03	P	04		05	06		07		08		WATER HEATING - HERS V	ERIFICATION
Construction Name	Surface Type	Cons	struction Typ	e	Framing		Total Cavity R-value	Interior / E Continu	xterior lous	U-factor	Asse	nbly Layers	2	01	02
			<u></u>	_				R-valu	Je		Incido Einic	h: Gunsum E	loard		Pipe Insulatio
R-0 Wall	Exterior Walls	Woo	od Framed Wa	ม	2x4 @ 16 in. (D. C.	R-0	None / N	lone	0.361	Cavity / Fran Exterior Fin	ne: no insul ish: 3 Coat S	/ 2x4 tucco	Unive Sys 1 - 1/4	nequired
	**	9									Inside Finis	h: Gypsum F	Board		
R21 Wall	Exterior Walls	Woo	od Framed Wa	Щ (2x6 @ 16 in. (D. C.	R-21	None / N	lone	0.069	Cavity / Fi Exterior Fin	ame: R-21 / ish: 3 Coat S	2x6 tucco		
gistration Number:		_1		1	Regis	tration Date	/Time:	L	I	HERS F	Provider:				
Building Energy Efficiency S	itandards - 2019	Residentia	al Compliance		Repo Scher	ort Version: 2 ma Version: 1	019.1.108 rev 20200101			Report	: Generated: 202	0-05-14 08	:54:42	Registration Number: CA Building Energy Efficie	ncy Standards -
RTIFICATE OF COMPLIAN oject Name: Patel Resider alculation Description: Tit PAQUE SURFACE CONSTRUC	ICE nce tle 24 Analysis TIONS					Calcula Input F	ation Date/Ti ile Name: Pa	me: 2020-0 itel Residen	05-14T08 nce (Ticino	:49:13-07:0 o Court) 20	00 19.ribd19x	CF (Pa	1R-PRF-01E ge 16 of 25)	CERTIFICATE OF COMP Project Name: Patel Re Calculation Description	LIANCE sidence 1: Title 24 Analy
01	02		03		04		05	06 Interior /	e Exterior	07		08		01	
Construction Name	Surface Type	Cor	nstruction Ty	pe	Framing	g	R-value	Contin R-va	uous lue	U-factor	Asso	mbly Layer	5	Name	s
R-0 Roof No Attic C	Cathedral Ceiling	s V	Wood Framed Ceiling		2x4 @ 16 in.	0. C.	R-Q	None /	None	0.484	Roofing: Light Roof Siding/sl Cavity / Fra Inside Fin	Roof (Aspha Deck: Wood neathing/de ame: no insu	Ilt Shingle) d cking I. / 2x4 Board	F-1 & CC-11	Heating
R21 Wall1	Interior Walls	Wo	ood Framed W	/all	2x6 @ 16 in.	o. c.	R-21	None /	None	0.064	Inside Fin Cavity / I Other Side F	sh: Gypsum rame: R-21 inish: Gypsu	Board / 2x6 m Board	F-2 & CC-22	Heating a
R-0 Wall1	Interior Walls	Wo	ood Framed W	/all	2x4 @ 16 in.	o.c.	R-0	None /	None	0.277	Inside Fin Cavity / Fra Other Side F	sh: Gypsum ame: no insu inish: Gypsu	Board I. / 2x4 m Board	F-3 & CC-33	Heating
	Attic Roofs	v	Wood Framed Ceiling		2x4 @ 24 in.	0. C.	R-13	None /	None	0.078	Roofing: Light Roof Siding/sl Cavity / F	Roof (Aspha Deck: Woo neathing/de rame: R-13.0	lt Shingle) d cking) / 2x4	F-4 & CC-44	Heating
ttic RoofLiving Area 1.1		_		Ŏ	•		·				Around Roo Roofing: Light	of Joists: R-0	.0 insul.	F-5 & CC-55	Heating

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Registration Number:

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Attic RoofLiving Area 2.4

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Registration Date/Time: Report Version: 2019.1.108 Schema Version: rev 20200101

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R-13

None / None

0.078

2x4 @ 24 in. O. C.

4.9

100

Wood Framed Ceiling

Attic Roofs

CA Building Energy Efficiency Standards - 2019 Residential Compliance

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Roofing: Light Roof (Asphalt Shingle)

Roof Deck: Wood

Siding/sheathing/decking

Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-0.0 insul.

> Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance

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t Name: Patel Res	idence		Calculation Date/Time: 2020-05-14T08:49:13-07:00 (Page 1									
ation Description:	Title 24 Analysis		Input	File Name: Pat	tel Residence (Ticin	o Court) 2	019.ribd19x					
JE SURFACE CONST	RUCTIONS		C 200 Division		1							
01	02	03	04	05	06	07	08					
struction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers					
RoofLiving Area 2.5	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-13	None / None	0.078	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-0.0 insul.					
RoofLiving Area 2.6	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-13	None / None	0.078	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-0.0 insul.					
RoofLiving Area 2.7	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-13	None / None	0.078	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-0.0 insul.					
HP Attic Option B	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-28.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board					
oor No Crawlspace	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-0	None / None	0.196	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12 Ceiling Below Finish: Gypsum Board					
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Ceiling Below Finish: Gypsum Board					

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Registration Date/Time: Report Version: 2019.1.108

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DHW Sys 1-hers-dhw	
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Tank Location or Ambient Condition	
n/a	
08	
Shower Drain Water Heat Recovery	
Not Required	

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> Calculation Date/Time: 2020-05-14T08:49:13-07:00 Input File Name: Patel Residence (Ticino Court) 2019.ribd19x 60 03 04 06 07 08 09 05 VerifiedHeatingCoolingStatusExistingEquipmentEquipmentConditionCountCountCount Required Thermostat Type Heating Unit Cooling Unit Name Name Distribution Name Fan Name

> > Air

Air

System 3

Air

System 4

Air

System 5

Air

System 6

Air

System 7

3

Distribution

Setback

Setback

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System Type Heating Cooling Heating and cooling system Component Component HVAC Fan 1 Distribution other 1 System 1 1 Heating Cooling Air Component Component HVAC Fan 2 Distribution 2 2 2 System 2 Heating and cooling system other Heating Cooling Heating and cooling system Component Component HVAC Fan 3 Distribution other 3 3 Heating Cooling Component Component HVAC Fan 4 4 4 Heating and cooling system Distribution other Heating Cooling Component Component HVAC Fan 5 5 5 Heating and cooling system Distribution other - 17-Heating Cooling Component Component HVAC Fan 6 6 6 Heating and cooling system Distribution other

Heating Cooling

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Heating and cooling system Component Component HVAC Fan 7

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Registration Date/Time: Report Version: 2019.1.108 Schema Version: rev 20200101

HERS Provider: Report Generated: 2020-05-14 08:54:42

> PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS



X	Calculation Descript	Residence i on: Title 24 Anal	lysis				Input	File Name: F	atel Residenc	e (Ticino Cour	t) 2019.ribd19	(Pa	age 20 of 2
	HVAC - HEATING UNIT	TYPES 01			02		Ĩ		03	ľ		04	
	N Heating C	ame		Sy	stem Type			Num	ber of Units		He	ating Efficiency	
	Heating C	omponent 1 omponent 2		Centr	al gas furna	ce	_		1			AFUE-95	
	Heating C	omponent 3		Centr	al gas furna	ce		.9	1			AFUE-95	
	Heating C	omponent 4		Centr	al gas furna	ce	0	2j	1			AFUE-95	
	Heating C	omponent 6		Centr	al gas furna	ce			1			AFUE-95	
	Heating C	omponent 7		Centr	al gas furna	ce			1			AFUE-95	
	HVAC - COOLING UNIT	TYPES	25	02		-	-	05		oc	07		09
	Name	System Typ	be	Number of Units	s Eff	ficiency EER	Eff	iciency SEER	Zonally	Controlled	Mulit-speed	HERS	Verification
	Cooling Component 1	Central split	AC	1	0	11.7		14	Not	Zonal	Single Speed	Cooling	Compone ers-cool
_	Cooling Component 2	Central split	AC	1	2	11.7		14	Not	Zonal	Single Speed	Cooling 2-h	Compone ers-cool
	Cooling Component 3	Central split	AC	1		11.7		14	Not	Zonal	Single Speed	l Cooling 3-h	Compone ers-cool
	Cooling Component 4	Central split	AC	I		11.7		14	Not	Zonal	Single Speed	Cooling 4-h	Compone ers-cool
	Cooling Component 5	Central split	AC	G ¹		11.7		14	Not	Zonal	Single Speed	l Cooling 5-h	Compone ers-cool
	Cooling Component 6	Central split	AC	1		11.7		14	Not	Zonal	Single Speed	l Cooling 6-h	Componer ers-cool
-	Registration Number: CA Building Energy Eff CERTIFICATE OF C	iciency Standards	- 2019 Resi	dential Complian	ce	Regi Repo Sche	stration Dat ort Version: ema Version	te/Time: 2019.1.108 : rev 2020010	1	0	HERS Provider: Report Generate	d: 2020-05-14(08:54:42 CF1R-PI
	Project Name: Pat Calculation Descri HVAC - COOLING UI	el Residence ption: Title 24 A NIT TYPES	nalysis				Calc	ulation Date	e /Time: 2020 :: Patel Reside	-05-14T08:49: nce (Ticino Cc	13-07:00 ourt) 2019.ribd	19x	(Page 21
	01	02		03		04		05		06	07 Mulit-cor	ed	08
	Name	System	Туре	Number of Ur	nits	Efficiency EE	R	Efficiency SEE	R Zonal	ly Controlled	Compres	sor HER	S Verificat
	Cooling Componen	t 7 Central sp	olit AC	1		11.7		14		lot Zonal	Single Spo	eed ,	7-hers-cool
	HVAC COOLING - HE	RS VERIFICATION	0	2		03		904		ĺ	05		06
	Name Cooling Comp	onent	Verified	Airflow	Airf	low Target		Verified	EER	Verifie	ed SEER	Verified Refr	igerant Cha
	1-hers-con Cooling Comp	onent	Requ	iired		350		Not Reg	uired	Not R	equired	Not R	equired
	2-hers-col Cooling Comp	onent	Requ	iired		350	0	Not Req	uired	Not R	equired	Not R	equired
	Cooling Comp 4-hers-co	onent	Requ	iired		350		Not Req	uired	Not R	equired	Not R	equired
	Cooling Comp 5-hers-co	onent ol	Requ	uired		350		Not Req	uired	Not R	equired	Not R	equired
	Cooling Comp 6-hers-co	onent ol	Requ	iired	C	350		Not Req	uired	Not R	equired	Not R	equired
	Cooling Comp 7-hers-co	onent ol	Requ	iired	A.	350		Not Req	uired	Not R	equired	Not R	equired
	HVAC - DISTRIBUTIO	ON SYSTEMS		03	04	05	06	07	08	09	10	11	12
					Duct Ins	s. R-value	Duct	Location	Surf	ace Area	Bynass		HER
	Name	Туре		Design Type	Supply	Return	Supply	Return	Supply	Return	Duct	Duct Leakage	Verificat
	Air Distribution System 1	Condition space-enti	ned irely	Non-Verified	R-6	R-6	Conditio ned Zone	Conditio ned Zone	n/a	n/a	Bypass Duct	Sealed and Tested	Air Distribu
	Registration Numb	er:				R	egistration I	Date/Time:			HERS Provide	1	
	CA Building Energy	Efficiency Standar	ds - 2019 R	esidential Compli	ance	R Si	eport Versic chema Versi	on: 2019.1.10 ion: rev 20200	3 0101		Report Gener	ated: 2020-05-14	4 08:54:42
	CERTIFICATE OF CC Project Name: Pate Calculation Descrip	MPLIANCE I Residence	alvsis				Calco	ulation Date t File Name:	/Time: 2020-	05-14T08:49:1	.3-07:00 urt) 2019.ribd1	(9x	CF1R-PRF Page 22 o
	HVAC - DISTRIBUTIO	N SYSTEMS 02	1	03	04	05	06	07	08	09	10	11	12
7					Duct Ins.	. R-value	Duct L	ocation	Surfa	ice Area	Bypass		HERS
	Name	Туре	0-	Design Type	Supply	Return	Supply	Return	Supply	Return	Duct	Duct Leakage	Verificati
								4	<i></i>				1-hers-d Air
	Air Distribution System 2	Conditione space-entir	ed ely	Non-Verified	R-6	R-6	Conditio ned Zone	Conditio ned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Distributi System 2-hers-d
-			ed	Non-Verified	R-6	R-6	Conditio ned Zone	Conditio ned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distributi System 3-bers-d
_	Air Distribution System 3	Conditione space-entir	ely							n/a	No Bypass	Sealed and Tested	Air Distributi System
-	Air Distribution System 3 Air Distribution System 4	Conditione space-entir Unconditioned	ely d attic	Non-Verified	R-8	R-8	Attic	Attic	n/a	178	Duct		4-ners-a
	Air Distribution System 3 Air Distribution System 4 Air Distribution System 5	Conditione space-entir Unconditioned Unconditioned	d attic	Non-Verified Non-Verified	R-8	R-8	Attic Attic	Attic	n/a n/a	n/a	Duct No Bypass Duct	Sealed and Tested	Air Distribut Systen
	Air Distribution System 3 Air Distribution System 4 Air Distribution System 5 Air Distribution	Conditione space-entir Unconditioned Unconditioned	d attic	Non-Verified Non-Verified	R-8	R-8	Attic Attic Attic	Attic Attic Attic	n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass	Sealed and Tested Sealed and	Air Distribut System 5-hers-d Air Distributi
	Air Distribution System 3 Air Distribution System 4 Air Distribution System 5 Air Distribution System 6 Air Distribution	Conditione space-entir Unconditioned Unconditioned	d attic d attic d attic	Non-Verified Non-Verified	R-8 R-8 R-8	R-8 R-8	Attic Attic Attic	Attic Attic Attic	n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass Duct No	Sealed and Tested Sealed and Tested Sealed and	Air Distribut Systen 5-hers-d Air Distribut Systen 6-hers-d Air Distribut
	Air Distribution System 3 Air Distribution System 4 Air Distribution System 5 Air Distribution System 6 Air Distribution System 7	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic	Non-Verified Non-Verified Non-Verified	R-8 R-8 R-8	R-8 R-8 R-8	Attic Attic Attic Attic	Attic Attic Attic Attic	n/a n/a n/a	n/a n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct	Sealed and Tested Sealed and Tested Sealed and Tested	Air Distribut Systen 5-hers-d Distribut Systen 6-hers-d Air Distribut Systen 7-hers-d
	Air Distribution System 3 Air Distribution System 4 Air Distribution System 5 Air Distribution System 6 Air Distribution System 7	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic	Non-Verified Non-Verified Non-Verified	R-8 R-8 R-8	R-8 R-8 R-8	Attic Attic Attic Attic	Attic Attic Attic Attic	n/a n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct	Sealed and Tested Sealed and Tested Sealed and Tested	Air Distribut S-hers-d Air Distribut Systen 6-hers-d Air Distribut Systen 7-hers-d
	Air Distribution System 3 Air Distribution System 4 Air Distribution System 5 Air Distribution System 6 Air Distribution System 7 Registration Number	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic	Non-Verified Non-Verified Non-Verified	R-8 R-8 R-8	R-8 R-8 R-8 R-8	Attic Attic Attic Attic gistration D	Attic Attic Attic Attic	n/a n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct	Sealed and Tested Sealed and Tested Sealed and Tested	Air Distribut S-hers-d Air Distribut Systen 6-hers-d Air Distribut Systen 7-hers-d
	Air Distribution System 3Air Distribution System 4Air Distribution System 5Air Distribution System 6Air Distribution System 7Registration Number CA Building Energy F	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic d attic	Non-Verified Non-Verified Non-Verified	R-8 R-8 R-8	R-8 R-8 R-8 R-8 R-8 Re Re Sci	Attic Attic Attic Attic Attic gistration D port Version hema Version	Attic Attic Attic Attic Attic eate/Time: n: 2019.1.108 pn: rev 20200	n/a n/a n/a 101	n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct HERS Provider: Report Genera	Sealed and Tested Sealed and Tested Sealed and Tested	Air Distribut Syster 5-hers-o Air Distribut Syster 6-hers-o Air Distribut Syster 7-hers-o
	Air Distribution System 3Air Distribution System 4Air Distribution System 5Air Distribution System 6Air Distribution System 7Air Distribution System 7Registration Numbee CA Building Energy 6	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic d attic	Non-Verified Non-Verified Non-Verified	R-8 R-8 R-8	R-8 R-8 R-8 R-8 R-8 Re Sc	Attic Attic Attic Attic Attic gistration D port Version hema Version	Attic Attic Attic Attic Attic n: 2019.1.108 pn: rev 20200	n/a n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct HERS Provider: Report Genera	Sealed and Tested Sealed and Tested Sealed and Tested	Air Distribu Syste 5-hers- Air Distribu Syste 6-hers- Air Distribu Syste 7-hers- 08:54:42
	Air Distribution System 3Air Distribution System 4Air Distribution System 5Air Distribution System 6Air Distribution System 7Air Distribution System 7Registration Number CA Building Energy F	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic d attic	Non-Verified Non-Verified Non-Verified esidential Complia	R-8 R-8 R-8	R-8 R-8 R-8 R-8 Re Re Sc	Attic Attic Attic Attic Attic gistration D port Version hema Versio	Attic Attic Attic Attic Attic attic	n/a n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct HERS Provider: Report Genera	Sealed and Tested Sealed and Tested Sealed and Tested ted: 2020-05-14	Air Distribu Syste 5-hers- Air Distribu Syste 6-hers- Air Distribu Syste 7-hers-
	Air Distribution System 3Air Distribution System 4Air Distribution System 5Air Distribution System 6Air Distribution System 7Registration Number CA Building Energy B	Conditione space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic d attic	Non-Verified Non-Verified Non-Verified esidential Complia	R-8 R-8 R-8	R-8 R-8 R-8 R-8 Re Re Sc	Attic Attic Attic Attic dttic gistration D port Version hema Versio	Attic Attic Attic Attic Attic attic	n/a n/a n/a 101	n/a n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct HERS Provider: Report Genera	Sealed and Tested Sealed and Tested Sealed and Tested ted: 2020-05-14	Air Distribu Syste 5-hers- Air Distribu Syste 6-hers- Air Distribu Syste 7-hers- 08:54:42
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	Air Distribution System 3Air Distribution System 4Air Distribution System 5Air Distribution System 6Air Distribution System 7Registration Number CA Building Energy 6	Conditioned space-entir Unconditioned Unconditioned Unconditioned	d attic d attic d attic	Non-Verified Non-Verified Non-Verified esidential Complia	R-8 R-8 R-8	R-8 R-8 R-8 R-8 Re Re Sc	Attic Attic Attic Attic dttic gistration D port Version hema Version	Attic Attic Attic Attic Attic attic time: n: 2019.1.108 pon: rev 20200	n/a n/a n/a	n/a n/a	Duct No Bypass Duct No Bypass Duct No Bypass Duct HERS Provider: Report Genera	Sealed and Tested Sealed and Tested Sealed and Tested	Air Distribu Syste 5-hers- Air Distribu Syste 7-hers- 08:54:42

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AC DISTRIBUTION	HERS VERIFICATION	1	~			2					
01	02	03	04	05	06	07	08	09 Low Leakage			
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Ducts Entirely in Conditioned Space			
Air Distribution ystem 1-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Not Required	No			
Air Distribution /stem 2-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Not Required	No			
Air Distribution /stem 3-hers-dist	Yes	5.0	Required	Not Required	Not Required	Credit not taken	Not Required	No			
Air Distribution /stem 4-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No			
Air Distribution /stem 5-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No			
Air Distribution ystem 6-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No			
Air Distribution ystem 7-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No			
AC - FAN SYSTEMS			0	151		2 //////	10				
	01 Name		02 Тур	e	Fan Pow	03 ver (Watts/CFM)		04 Name			
	HVAC Fan 1	S	HVAC	Fan		0.45	HVA	C Fan 1-hers-fan			
	HVAC Fan 2 HVAC Fan 3	2	HVAC	Fan		0.45	HVAC Fan 2-hers-fan HVAC Fan 3-hers-fan				
egistration Number A Building Energy El	: ficiency Standards - 2	2019 Residential Comp	liance	Registration Date/ Report Version: 20 Schema Version: re	Time: 19.1.108 ev 20200101	HER	S Provider: ort Generated: 2020	0-05-14 08:54:42			
ERTIFICATE OF Co roject Name: Pat alculation Descri	OMPLIANCE el Residence ption: Title 24 Ana	lysis		Calcula Input F	tion Date/Time: 202 ile Name: Patel Resid	:0-05-14T08:49:13-0 dence (Ticino Court)	07:00 2019.ribd19x	CF1R-PRF-0 (Page 24 of			
	01 Name		ית	ype	Fan Po	03 ower (Watts/CFM)		04 Name			
	HVAC Fan 4		HVA	C Fan	1	0.45	HV	AC Fan 4-hers-fan			
	HVAC Fan 5 HVAC Fan 6		HVA	C Fan	0	0.45	HV	AC Fan 5-hers-fan AC Fan 6-hers-fan			
	HVAC Fan 7		HVA	C Fan	.9	0.45	нν	HVAC Fan 7-hers-fan			
IVAC FAN SYSTEMS	- HERS VERIFICATIO	N	1	C C	4	1					
	01 Name			02 Verified Fan Watt Di	raw	Requ	03 Iired Fan Efficacy (W	/atts/CFM)			
	HVAC Fan 1-hers-fa HVAC Fan 2-hers-fa	in in		Required Required		0.45					
	HVAC Fan 3-hers-fa	in In		Required		0.45					
	HVAC Fan 5-hers-fa HVAC Fan 6-hers-fa HVAC Fan 7-hers-fa	in in	0	Required Required Required		0.45 0.45 0.45 0.45					
AQ (INDOOR AIR Q	UALITY) FANS					1	05 06				
Dwelling U	nit	IAQ CFM	IAQ Watts/	сғм	IAQ Fan Type	IAQ Recovery Effec	tiveness (%)	IAQ Recovery Effectiveners (%) SREIAQ Recovery Effectiven - SRE			
SFam IAQVentF SFam IAQVentF	Rpt 1-1 Rpt 2-1	250	0.092		Balanced HRV Balanced HRV	90 90	90 90				
Registration Number	er: Efficiency Standards	- 2019 Residential Com	npliance	Registration Date Report Version: 2 Schema Version:	2/Time: 2019.1.108 rev 20200101	HI Re	ERS Provider: eport Generated: 20	20-05-14 08:54:42 CF1R-PRF-			
Project Name: Pa Calculation Descr DOCUMENTATION 1. I certify that this	tel Residence Fiption: Title 24 Ana AUTHOR'S DECLARA Certificate of Compli	alysis TION STATEMENT ance documentation is	accurate and comple	Calcul Input te.	ation Date/Time: 20 File Name: Patel Res	20-05-14 T08 :49:13- idence (Ticino Court	07:00 :) 2019.ribd19x	(Page 25 of			
Documentation Author Timothy	or Name: / Carstairs, CEA	A, HERS, GPR		Docume	entation Author Signature						
Carstain Address:	rs Energy Inc.			Signatur CEA/ HE	RS Certification Identifica	tion (If applicable):	Catterna Association of Building CERTIFIED ENERGY	EC ANALYST 3			
2238 Bi City/State/Zip:	ayview Heights	Drive, Suite E		Phone:	H16-06-10042		constant careta	to.			
LOS US RESPONSIBLE PERS I certify the following 1. I am eligit 2. I certify th	OS, CA 93402 ON'S DECLARATION under penalty of perjur ole under Division 3 of t	STATEMENT y, under the laws of the S he Business and Professio and performance specific	tate of California: Ins Code to accept respo ations identified on this	nsibility for the building	design identified on this C	ertificate of Compliance	nd Part 6 of the Califor	nia Code of Regulations			
3. The buildi calculatio Responsible Designer	ns, plans and specificati Name:	vstem design features ide ions submitted to the enfo	ntified on this Certificate procement agency for app	of Compliance are consi roval with this building p Respons	istent with the information permit application. ible Designer Signature:	n provided on other appl	icable compliance doc	uments, worksheets,			
^{Company:} Arris St	udio Architects			Date Sig	ned:						
	ohnson Ave.		õ	License:	2						
Address: 1306 Jo		20220	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Phone:	(805) 547-2240						
Address: 1306 Jc City/State/Zip: San Lui	is Obispo, CA 9	3401	0		(000) 011 2210						

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Registration Number:

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

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Registration Date/Time: Report Version: 2019.1.108 Schema Version: rev 20200101

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HERS Provider: Report Generated: 2020-05-14 08:54:42

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RESID	ENTIAL	MEAS	SURES S	SUMM	ARY						RMS-
Project Nar Patel Re	^{ne} sidence			Buil	ding Type	⊠ Sir □ Mu	ngle Fami Ilti Family	ly □ Additio	n Alone g+ Addition	/Alteration	Date 5/14/20
Project Add	Iress		0.200-00	Cali	fornia Ene	rgy Clim	ate Zone	Total Cond.	Floor Area	Addition	# of Ur
1989 Tic	ino Court I	Pleasai	nton	C	A Clima	ate Zo	ne 12	13,1	28	n/a	1
INSUL/	ATION uction Ty	ne		Cav	vitv	Area	S	necial Fe	aturas		Statue
Wall	Wood Framed	pe		P 21	nty	7.01			atures		New
Door	Opaque Door			- no in	sulation	7,510	, ,				New
Roof	Wood Framed	Attic		R 38	Sulation	7 94	, 1 Add=R	-13 0 Cool Ro	of		New
Slah	Unheated Slah-	on-Grade	17	- no in	sulation	6 65) Perim:	= 343'	01		New
Demisina	Wood Framed	0.11 0.1000	20 20	- no in	sulation	3.82	5	0.10			New
Demisina	Wood Framed v	v/o Crawl	Space	- no in	sulation	5.09)				New
Demisina	Wood Framed v	v/o Crawl	Space	R 19		1.38	3				New
- the second s			-p===								
FENES	TRATION		Total Area:	2.073	Glazing	Percent	age: 1	5.8 % New/A	Itered Avera	ne Il-Factor	0.30
Orienta	tion Are	$a(ft^2)$	U-Fac	SHGC	Overh	nand	Sidef	ins Fxte	erior Sha	des	Status
Front (W)		104.0	0.300	0.21	none	lang	none	N/A		1400	New
Left (N)		100.5	0.300	0.21	none		none	N/A			New
Rear (F)		556.5	0.300	0.21	none		none	N/A			New
Front (NW)		16.0	0.300	0.21	none		попе	N/A			New
Right (S)		132.0	0.300	0.21	none		none	N/A			New
Left (NE)		61.5	0.300	0.21	none		none	N/A			New
Rear (SF)		42.0	0.300	0.21	none		none	N/A			New
Front (W)		338.0	0.300	0.21	2.0		none	N/A			New
Left (N)		104.0	0.300	0.21	2.0		none	N/A			New
Rear (E)		354.0	0.300	0.21	2.0		none	N/A			New
Right (SW)		16.0	0.300	0.21	2.0		none	N/A			New
Left (NE)		54.0	0.300	0.21	2.0		none	N/A			New
Right (S)		140.0	0.300	0.21	2.0		none	N/A			New
Rear (SE)		54.0	0.300	0.21	2.0		none	N/A			New
HVAC	SYSTEMS										
Qty. H	leating		Min. Ef	f Co	oling		Min	. Eff	Ther	mostat	Status
1 0	Central Furnace		95% AFUE	E Spi	lit Air Cond	litioner	14.0	SEER	Setback		New
1 C	Central Furnace		95% AFUE	E Spi	lit Air Cond	litioner	14.0	SEER	Setback		New
1 0	Central Furnace		95% AFU	E Spi	lit Air Cond	litioner	14.0	SEER	Setback		New
HVAC I	DISTRIBUT	TION		23					D	uct	
Locatio	on	He	ating	Co	oling	Du	ct Loca	ation	R	-Value	Status
F-1 & CC-1		Ducted	1	Duc	ted	Cond	itioned		6.	0	New
2 & CC-2		Ducted	1	Duc	ted	Cond	itioned		6.	0	New
		Ducted	1	Duc	ted	Cond	itioned		6.	0	New
WATER	RHEATING	6							2005		
Qty. T	уре		Ga	llons	Min.	Eff	Distri	bution			Status
4 3	Small Instantane	ous Gas	0		0.97		All Pipes	s Ins (HERS)			New
EnorayPro	9 1 by Enorgy S	off 11s	or Number: 624	0				ID: 1	0_022110		Page 28 g

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	IDENTIAL	MEASURES S	UMMARY				RM
Project P <i>atel</i>	_{Name} Residence		Building Type	☑ Single Fa □ Multi Fan	mily □ Addit nily □ Exist	ion Alone ing+ Addition/Alter	ration Date 5/14/
Project	Address	N (California Ene	ergy Climate Zon	e Total Cond	. Floor Area A	ddition # of
989	Ticino Court F	Pleasanton	CA Clim	ate Zone 12	13,	128	n/a
NSU				Area		121	
Cons	struction Ty	pe	Cavity	(#*)	Special F	eatures	Statu
ENE	ESTRATION	Total Area	2.073 Glazing	Percentage:	15.8 % New	Altered Average U-F	Eactor 0.3
)rier	ntation Area	a(ff ²) U-Fac S	SHGC Over	hang Sid	efins Fr	terior Shades	s Statu
1101				lang ola		control officiates	o uu
IVA	C SYSTEMS						
IVA Qty.	C SYSTEMS Heating	Min. Eff	f Cooling		in. Eff	Thermos	stat Statu
IVA Qty.	C SYSTEMS Heating Central Furnace	Min. Ef 95% AFUE	f Cooling Split Air Cond	M ditioner 14	in. Eff	Thermos Setback	stat Statu
IVA 2ty. 1	C SYSTEMS Heating Central Furnace Central Furnace	Min. Ef 95% AFUE 95% AFUE	f Cooling Split Air Cond Split Air Cond	M ditioner 14 ditioner 14	in. Eff 1.0 SEER 1.0 SEER	Thermos Setback Setback	stat Statu New New
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Pr Pa	RESIDENTIAL MEASURES roject Name atel Residence roject Address	SUMMARY Building Type ☑ Single Family □ Addition □ Multi Family □ Existing California Energy Climate Zone ↓ Total Cond 5	Alone Date + Addition/Alteration Date 5/14/2020	§ 150.0(h)3A:	2019 Low-Rise Residential Mandatory Measures Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at I
	989 Ticino Court Pleasanton NSULATION Construction Type	CA Climate Zone 12 13,12 Area Cavity (ft ²) Special Fea	atures Status	§ 150.0(h)3B: § 150.0(j)1:	Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter of manufacturer's instructions. Storage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-val Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation the following the insulated as specified in Section 609 11 of the California Plumbing Code. In addition, the following the following the following the following the following tanks are constructed as the following tanks are conditioned by the following tanks are conditined by the following tan
				§ 150.0(j)2A:	insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all he than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating so buried below grade, and from the heating source to kitchen fixtures.*
E				§ 150.0(j)3:	wind as required by Section 120.3(b). Insulation must be protected from damage, including that due to sum insulation covering chilled water piping and refrigerant suction piping located outside the conditione Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterpro- Gas or Propage Water Heating Systems. Systems using gas or propage water heaters to serve in
F C	Tenestration Total Area (ft ²) U-Fac	ea: 2,073 Glazing Percentage: 15.8 % New/Al SHGC Overhang Sidefins Exte	ered Average U-Factor: 0.30 rior Shades Status	§ 150.0(n)1:	the following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unu word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the el for the branch circuit and labeled with the words "Future 240V Use"; a Category III or IV vent, or a T
				§ 150.0(n)2:	outside termination and the space where the water heater is installed; a condensate drain that is no of the water heater, and allows natural draining without pump assistance; and a gas supply line with Recirculating Loops. Recirculating loops serving multiple dwelling units must meet the requirement Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and re-
				§ 150.0(n)3: Ducts and Fans M	Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research agency that is approved by the Executive Director.
				§ 110.8(d)3:	CMC Compliance. All air-distribution system ducts and plenums must meet the requirements of the and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. P
E				§ 150.0(m)1:	space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the di surrounded by directly conditioned space are not required to be insulated. Connections of metal du mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system th 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or ta
H	IVAC SYSTEMS Qty. Heating Min.	Eff Cooling Min. Eff	Thermostat Status		inch, the combination of mastic and either mesh or tape must be used. Building cavities, support pla designed or constructed with materials other than sealed sheet metal, duct board or flexible duct me Building cavities and support platforms may contain ducts. Ducts installed in cavities and support plat reductions in the cross-sectional area."
E	1 Central Furnace 95% A	FUE Split Air Conditioner 14.0 SEER	Setback New	§ 150.0(m)2:	Factory-Fabricated Duct Systems. Factory-fabricated duct systems must comply with applicable connections, and closures; joints and seams of duct systems and their components must not be se tapes unless such tape is used in combination with mastic and draw bands. Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements specified for duct construction.
H L M	IVAC DISTRIBUTION ocation Heating S-1 Ducted	Cooling Duct Location Ducted Attic	Duct R-Value Status 8.0 New	§ 150.0(m)7: § 150.0(m)8:	Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors n Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have ei manually operated dampers in all openings to the outside, except combustion inlet and outlet air op
٧	VATER HEATING		2011	§ 150.0(m)9: § 150.0(m)10:	Protection of Insulation. Insulation must be protected from damage, sunlight, moisture, equipment to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, foam insulation must be protected as above or painted with a coating that is water retardant and properties in the protected by aluminum. Porous inner core flex ducts must have a non-porous laver between
Q	aty. Type C	3allons Min. Eff Distribution	Status	§ 150.0(m)11:	Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct sy occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field ve accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
E	nergyPro 8.1 by EnergySoft User Number: 6	6249 ID: 15	1-022110 Page 30 of 34	§ 150.0(m)12:	Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ven equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regu Space Conditioning System Airflow Rate and Fan Efficacy. Space conditioning systems that us
	2040 L	Dias Desidential Mandatana Masa	6	§ 150.0(m)13:	for the placement of a static pressure probe, or a permanently installed static pressure probe in the per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Refe
	<u>NOTE:</u> Low-rise residential buildings subject to used. Review the respective section for more in	KISE RESIDENTIAL MANDATORY MEAS the Energy Standards must comply with all applicable mandato nformation. *Exceptions may apply.	vres Summary		2010 Low-Pice Pesidential Mandatory Measur
	(01/2020) Building Envelope Measures: Air Leakage. Manufactured § 110.6(a)1: when tested per NERC 400	d fenestration, exterior doors, and exterior pet doors must limit a	ir leakage to 0.3 CFM per square foot or less	Requirements	for Ventilation and Indoor Air Quality:
	§ 110.6(a)5: Labeling. Fenestration pro § 110.6(b): Field fabricated exterior of 110.6-A, 110.6-B, or JA4.5	ducts and exterior doors must have a label meeting the requirer doors and fenestration products must use U-factors and solar of or exterior doors. They must be caulked and/or weather-stripp	nents of § 10-111(a). heat gain coefficient (SHGC) values from Tables ed.*	§ 150.0(o)1: § 150.0(o)1C:	and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified Single Family Detached Dwelling Units. Single family detached dwelling units, and attached o other dwelling units, occupiable spaces, public garages, or commercial spaces must have mech
	§ 110.7: Air Leakage. All joints, per gasketed, or weather stripp § 110.8(a): Insulation Certification by and Services (BHGS).	netrations, and other openings in the building envelope that are bed. y Manufacturers. Insulation must be certified by the Departmer	ootential sources of air leakage must be caulked, It of Consumer Affairs, Bureau of Household Goods	§ 150.0(o)1E:	determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C. Multifamily Attached Dwelling Units. Multifamily attached dwelling units must have mechanic accordance with Equation 150.0-B and must be either a balanced system or continuous supply system is not used, all units in the building must use the same system type and the dwelling-un
	§ 110.8(g): Insulation Requirements § 110.8(i): Roofing Products Solar R material must meet the requirements	for Heated Slab Floors. Heated slab floors must be insulated p Reflectance and Thermal Emittance. The thermal emittance ar guirements of § 110.8(i) and be labeled per §10-113 when the in	er the requirements of § 110.8(g). Id aged solar reflectance values of the roofing stallation of a cool roof is specified on the CF1R.	§ 150.0(o)1F:	(0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordan Multifamily Building Central Ventilation Systems. Central ventilation systems that serve mul ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specific with 20 percent of the unit with the lower of the sector of the individual wells.
	§ 110.8(j): Radiant Barrier. When req Ceiling and Rafter Roof Ir Minimum R-19 or weighted § 150.0(a): insulation using adhesive o	juired, radiant barriers must have an emittance of 0.05 or less a nsulation. Minimum R-22 insulation in wood-frame ceiling; or th d average U-factor of 0.054 or less in a rafter roof alteration. Atti- or mechanical fasteners. The attic access must be gasketed to p	nd be certified to the Department of Consumer Affairs. e weighted average U-factor must not exceed 0.043. c access doors must have permanently attached revent air leakage. Insulation must be installed in	§ 150.0(o)1G: § 150.0(o)2:	Kitchen Range Hoods. Kitchen range hoods must be rated for sound in accordance with Secti Field Verification and Diagnostic Testing. Dwelling unit ventilation airflow must be verified in Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residen
	direct contact with a continu to placing insulation either a § 150.0(b): Loose-fill Insulation. Loos Wall Insulation, Minimum	uous roof or ceiling which is sealed to limit infiltration and exfiltra above or below the roof deck or on top of a drywall ceiling." se fill insulation must meet the manufacturer's required density in R-13 insulation in 2x4 inch wood framing wall or have a U-factor.	tion as specified in § 110.7, including but not limited or the labeled R-value.	Pool and Spa S	rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 a Systems and Equipment Measures: Certification by Manufacturers. Any pool or spa heating system or equipment must be certifier that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the
	§ 150.0(c): have a U-factor of 0.071 or must meet Tables 150.1-A § 150.0(d): Raised-floor Insulation. M	 Iess. Opaque non-framed assemblies must have an overall ass or B. Minimum R-19 insulation in raised wood framed floor or 0.037 m 	embly U-factor not exceeding 0.102. Masonry walls	§ 110.4(a): § 110.4(b)1:	 without adjusting the thermostat setting; a permanent weatherproof plate or card with operating resistance heating.* Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches dedicated suction and return lines, or built-in or built-in connections to allow for future solar be.
	§ 150.0(f): Slab Edge Insulation. Slab facings, no greater than 0.3 UV light deterioration; and, Vanor Retarder. In climate	b edge insulation must meet all of the following: have a water at 3 percent; have a water vapor permeance no greater than 2.0 pr, when installed as part of a heated slab floor, meet the requirem	sorption rate, for the insulation material alone without arm per inch; be protected from physical damage and ients of § 110.8(g).	§ 110.4(b)2: § 110.4(b)3:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover. Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adeq will allow all pumps to be set or programmed to run only during off-peak electric demand period
	§ 150.0(g)1: retarder. This requirement a Vapor Retarder. In climate § 150.0(g)2: insulation in all exterior wal Fenestration Products. For	also applies to controlled ventilation crawl space for buildings of e zones 14 and 16, a Class I or Class II vapor retarder must be i ills, vented attics, and unvented attics with air-permeable insulat enestration, including skylights, separating conditioned space fr	Implying with the exception to § 150.0(d). Installed on the conditioned space side of all on.	§ 110.5: § 150.0(p):	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light. Pool Systems and Equipment Installation. Residential pool systems or equipment must mee rate, piping, filters, and valves."
	§ 150.0(q): maximum U-factor of 0.58; Fireplaces, Decorative Gas Appliances, and § 110.5(e) Pilot Light. Continuously b	or the weighted average U-factor of all fenestration must not ex Gas Log Measures: burning pilot lights are not allowed for indoor and outdoor firepla	ceed 0.58.*	§ 110.9:	Lighting Controls and Components. All lighting control devices and systems, ballasts, and lu of § 110.9.' Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A.
	§ 150.0(e)1: Closable Doors. Masonry § 150.0(e)2: Combustion Intake. Maso and is equipped with a read	or factory-built fireplaces must have a closable metal or glass d onry or factory-built fireplaces must have a combustion outside a dily accessible, operable, and tight-fitting damper or combustion	oor covering the entire opening of the firebox. ir intake, which is at least six square inches in area -air control device.'	§ 150.0(k)1B:	Blank Electrical Boxes. The number of electrical boxes that are more than five feet above the other device must be no greater than the number of bedrooms. These electrical boxes must be fan speed control.
	§ 150.0(e)3: Flue Damper. Masonry or 1 Space Conditioning, Water Heating, and Plue Certification. Heating, ven	factory-built fireplaces must have a flue damper with a readily an mbing System Measures: ntilation and air conditioning (HVAC) equipment, water heaters,	cessible control.*	§ 150.0(k)1C: § 150.0(k)1D:	 Recessed bownight Luminaires in Cenings. Luminaires recessed into cenings must meet a labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150. Electronic Ballasts for Fluorescent Lamps. Ballasts for fluorescent lamps rated 13 watts or goutput frequency no less than 20 kHz.
	§ 110.2(a): HVAC Efficiency. Equipme Controls for Heat Pumps must have controls that pre	a by the manufacturer to the California Energy Commission. ent must meet the applicable efficiency requirements in Table 1 with Supplementary Electric Resistance Heaters. Heat pum event supplementary heater operation when the heating load ca	10.2-A through Table 110.2-K.* ps with supplementary electric resistance heaters n be met by the heat pump alone; and in which the	§ 150.0(k)1E: § 150.0(k)1F:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by must meet the applicable requirements of § 150.0(k).*
	\$ 110.2(c): \$ 110.2(c): Cut-on temperature for com- compression heating is high Thermostats. All heating of setback thermostat.*	pression heating is higher than the cut-on temperature for supp her than the cut-off temperature for supplementary heating. or cooling systems not controlled by a central energy manageme	ementary heating, and the cut-off temperature for int control system (EMCS) must have a	§ 150.0(k)1G: § 150.0(k)1H:	Screw based luminaires. Screw based luminaires must contain lamps that comply with Refere Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light source temperature requirements, including marking requirements, must not be installed in enclosed or
	§ 110.3(c)4: Water Heating Recirculation § 110.3(c)4: meet the air release valve, § 110.3(c)4. Isolation Valves. Instantar	Ion Loops Serving Multiple Dwelling Units. Water heating red backflow prevention, pump priming, pump isolation valve, and r neous water heaters with an input rating greater than 6.8 kBtu p	arculation loops serving multiple dwelling units must ecirculation loop connection requirements of er hour (2 kW) must have isolation valves with hose	§ 150.0(k)11:	Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, or comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to more than 150 lumens, and are equipped with controls that automatically turn the lighting off with Interior Switches and Controls. All forward phase out dimmers used with LED.
	§ 110.3(C)0: bibbs or other fittings on bo Pilot Lights. Continuously appliances without an elect Building Cooling and Mag	un cold and hot water lines to allow for flushing the water heater burning pilot lights are prohibited for natural gas: fan-type centr trical supply voltage connection with pilot lights that consume le ating Loads. Heating and/or cooling loads are calculated in acc	when the valves are closed. al furnaces; household cooking appliances (except ss than 150 Btu per hour); and pool and spa heaters.* ordance with the ASHRAF Handbook	§ 150.0(k)2A: § 150.0(k)2B: § 150.0(k)2C:	Interior Switches and Controls. Exhaust fans must be controlled separately from lighting sys Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls turned ON and OFF.*
	§ 150.0(h)1: Equipment Volume, Applica Manual; or the ACCA Manu	ations Volume, and Fundamentals Volume; the SMACNA Resid ual J using design conditions specified in § 150.0(h)2.	ential Comfort System Installation Standards	§ 150.0(k)2D: § 150.0(k)2E:	Interior Switches and Controls. Controls and equipment must be installed in accordance with Interior Switches and Controls. Controls must not bypass a dimmer, occupant sensor, or vac comply with § 150.0(k).

2019 Low-Rise Residential Mandatory Measures Summary

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earances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
quid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the anufacturer's instructions.
orage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have 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.
ater Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum sulation 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 ater 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 an 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, iried below grade, and from the heating source to kitchen fixtures.*
sulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and nd as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). sulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a ass I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
as or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must include all of e following: A dedicated 125 volt, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG pper branch circuit, within three feet of the water heater without obstruction. Both ends of the unused conductor must be labeled with the ord "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker 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 tside termination and the space where the water heater is installed; a condensate drain that is no more than two inches higher than the base 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
circulating Loops. Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
olar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification orporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing ency that is approved by the Executive Director.
ures:
ucts. Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a ntractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
IC 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 d ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and enums 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 ace as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and irrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be echanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of 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 ch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums esigned or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Juliding cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause ductions in the cross-sectional area.*
actory-Fabricated Duct Systems. Factory-fabricated duct systems must comply with applicable requirements for duct construction, nnections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct pes unless such tape is used in combination with mastic and draw bands.
eld-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, astics, sealants, and other requirements specified for duct construction.

alded Demons. For evolves that evolves as between the conditioned ences and evidence must have backdooff or evidences demons.	
ickorant Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdrait or automatic dampers.	
ravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible,	
anually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.	ļ
otection of Insulation. Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation exposed weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular am insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.	
rous Inner Core Flex Duct. Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.	
Ict System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an cupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in cordance with § 150.0(m)11 and Reference Residential Appendix RA3.	
r Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or uivalent 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	

ops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.* pace Conditioning System Airflow Rate and Fan Efficacy. Space conditioning systems that use ducts to supply cooling must have a hole the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM r 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 M for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling it fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

2019 Low-Rise Residential Mandatory Measures Summary

Ventilation and Indoor Air Quality:
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.
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.
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.
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. Kitchen Range Hoods. Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
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.
tems and Equipment Measures:
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.*
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.
Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
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.
Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves."
5:
Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A.
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.
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.
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.
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.
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)."
Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
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.
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.
Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.*
Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
Interior Switches and Controls. Controls and equipment must be installed in accordance with manufacturer's instructions.
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).

	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 oth 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 lo 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 we 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 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 Bui	ldings:
§ 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 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 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 circ breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric"

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e used to comply with control requirements if it:

Certificate requirements of § 130.4; meets the comply with dimmer requirements in § 150.0(k) if it oplicable requirements in § 150.0(k)2. s, at least one luminaire in each of these spaces must ality. If an occupant sensor is installed, it must be

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in 150.0(k)2C. Reference Joint Appendix JA8 requirements for ng controls." m ceiling-installed lighting systems. rmanently mounted to a residential building, or to other switch) and the requirements in either § 150.0(k)3Aiii (astronomical time clock), or an EMCS. ng units, outdoor lighting for private patios, entrances,

cles per site must comply with either § 150.0(k)3A or . ng units, any outdoor lighting for residential parking lots lated by § 150.0(k)3B or § 150.0(k)3D must comply with with § 140.8; or must consume no more than 5 watts of

ousbar rating of 200 amps. pace to allow for the installation of a double pole circuit arked as "For Future Solar Electric".

> PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

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GreenPointRAT	NEW HOME RATING SYSTEM, VERSION 7.	
A PROSEAM OF BUILD IT GE The GreenPoint Rated	checklist tracks green features incorporated into the home. GreenPoint Rated is administered by	Build It Points Achieved: 76
Green, a non-profit who The minimum requirem category: Commuity (2	ise mission is to promote healthy, energy and resource efficient buildings in California. ents of GreenPoint Rated are: verification of 50 or more points; Earn the following minimum po I Energy (25), Indoor Air Quality/Health (6), Resources (6), and Water (6); and meet the prerequ	nts per Isites Certification Level: Certified
CALGreen Mandatory, Directions for Use: Col	E5.2 , H6.1 , J5.1 , O1, O7. Imn A is a dropdown menu with the options of "Yes", "No", or "TBD" or a range of percentages be appreciate dependence and the appreciate points will appear in the blue "opinte achieved" op	0
The criteria for the gre- more information plear	ne appropriate proposition and the appropriate points will appear in the blue "points achieved" co in building practices listed below are described in the GreenPoint Rated New Home Rating Man e visit www.builditgreen.org/greenpointrated	ann. POINTS REQUIRED
Build It Green is not a A home is only GreenP public version of the Cl	r code enforcement agency. sint Rated if all features are verified by a Certified GreenPoint Rater through Build It Green. This is ecklist and cannot be used for certification.	the 25 23.2 20.0 6 11.0
New Home Single Fam	ily Version 7.0	
Patel Residence		oints chieved nergy AQ/Health fater
CAI Green	MEASURES	Possible Points NOTES
Yes A. SITE	CALGreen Res (REQUIRED)	4 1 1 3 1
Yes	A1. Construction Footprint A2, Job Site Construction Waste Diversion	1 1
Yes	A2.1 75% C&D Waste Diversion(Including Alternative Daily Cover) A2.2 65% C&D Waste Diversion (Excluding Alternative Daily Cover)	2 2
TBD	A2.3 Recycling Rates from Third-Party Verified Mixed-Use Waste Facility A3. Recycled Content Base Material	
TBD	A4. Heat Island Effect Reduction (Non-Roof) A5. Construction Environmental Quality Management Plan Including Eluch-Quit	
	A6. Stormwater Control: Prescriptive Path	
TBD	A6.2 Filtration and/or Bio-Retention Features	
TBD	A6.4 Smart Stormwater Street Design	
TBD B. FOUNDATION	A7. Stormwater Control: Performance Path	
TBD	B1. Fly Ash and/or Slag in Concrete B2. Radon-Resistant Construction	
TBD	B3. Foundation Drainage System B4. Moisture Controlled Crawlspace	
TBD	B5. Structural Pest Controls B5.1 Termite Shields and Separated Exterior Wood-to-Concrete Connections	
TBD C. LANDSCAPE	B5.2 Plant Trunks, Bases, or Stems at Least 36 Inches from the Foundation	
0.00% TBD	Enter the landscape area percentage C1. Plants Grouped by Water Needs (Hydrozoning)	1
Yes	C2. Three Inches of Mulch in Planting Beds C3. Resource Efficient Landscapes	1 1
TBD TBD	C3.1 No Invasive Species Listed by Cal-IPC C3.2 Plants Chosen and Located to Grow to Natural Size	21 21 21 22 22 22 22 22 22 22 22 22 22 2
TBD	C3.3 Drought Tolerant, California Native, Mediterranean Species, or Other Appropriate Species C4. Minimal Turf in Landscape	3
TBD	C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Foet Wide	2
TBD	C4.2 Turf on a Small Percentage of Landscaped Area C5. Trees to Moderate Building Temperature	
TBD	C6. High-Efficiency Irrigation System C7. One Inch of Compost in the Top Six to Twelve Inches of Soil	
New Home Single Fa	Inity Version 7.0 J9. EPA Indoor airPlus Certification	0 2
K. FINISHES	K1. Entryways Designed to Reduce Tracked-In Contaminants	
Yes Yes	K1.1 Individual Entryways K2. Zero-VOC Interior Wall and Ceiling Paints	1 1 2 2
Yes	K3. Low-VOC Caulks and Adhesives K4. Environmentally Preferable Materials for Interior Finish	
TBD TBD	K4.1 Cabinets K4.2 Interior Trim	2
TBD TBD	K4.3 Shelving K4.4 Doors	2
твр	K4.5 Countertops K5. Formaldehyde Emissions in Interior Finish Exceed CARB	
тво тво	K5.1 Doors K5.2 Cabinets and Countertops	2
тво тво	K5.3 Interior Trim and Shelving K6. Products That Comply With the Health Product Declaration Open Standard	2
TBD	K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion K8. Comprehensive Inclusion of Low Emitting Finishes	2
L. FLOORING ≥50%	L1. Environmentally Preferable Flooring	
TBD Yes	L2. Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential	3
Yes M. APPI JANCES	L4. Thermal Mass Flooring AND LIGHTING	1 1
Yes	M1. ENERGY STAR® Dishwasher M2. Efficient Laundry Appliances	1 1
CEE Tier 2 Yes	M2.1 CEE-Rated Clothes Washer M2.2 Energy Star Dryer	2 1 2 2 2
TBD <25 cubic feet	M2.3 Solar Dryer/ Laundry Lines M3. Size-Efficient ENERGY STAR Refrigerator	0.5
Yes	M4. Permanent Centers for Waste Reduction Strategies	
TBD	M4.2 Built-In Composting Center	
Yes	M5. Lighting Efficiency M5.1 High-Efficacy Lighting M5.2 Lighting System Designed to IESNA Footcandle Standards or Designed by	2 2 2
твр	Lighting Consultant M6. Electric Vehicle Charging Stations and Infrastructure	1
N. COMMUNITY	N1. Smart Development	
TBD TBD	N1.1 Infill Site N1.2 Designated Brownfield Site	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
TBD TBD	N1.3 Conserve Resources by Increasing Density N1.4 Cluster Homes for Land Preservation	2 2 2 1 1
	N1.5 Home Size Efficiency Enter the area of the home, in square feet	9
	Enter the number of bedrooms N2. Home(s)/Development Located Near Transit	
TBD	N2.1 Within 1 Mile of a Major Transit Stop N 2.2. Within 1/2 mile of a Major Transit Stop	
	N3. Pedestrian and Bicycle Access N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services	
	Enter the number of Tier 1 services	
Yes	N3.2 Connection to Pedestrian Pathways	
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New Home Single Fami	lly Version 7.0	-			-	-		
TBD	C8. Rainwater Harvesting System		- X	1	-	с	3	
TBD	C9. Recycled Wastewater Irrigation System	-	-			-	1	
тво	C10 Submeter or Dedicated Meter for Landscape Irrigation		5 8	S		s - 3		
TBD	C11 Landscane Meets Water Burdnet	-	-				- 2	
	C11. Landscape meets water burget	-	1 10			2 - 22 	1	
700	C12. Environmentally Preferable Materials for 70% of Non-Plant Landscape	_		1		-		
TBD	Elements and Fencing		-			1	-	
TBD	C13. Reduced Light Pollution		1				-	
TBD	C14. Large Stature Tree(s)		1				1	
TBD	C15. Third Party Landscape Program Certification					-	1	
TBD	C16. Maintenance Contract with Certified Professional			li i			1	
D. STRUCTURAL FR	RAME AND BUILDING ENVELOPE							
	D1. Optimal Value Engineering							
TBD	D1.1 Joists, Rafters, and Studs at 24 linches on Center			1		2		
Yes	D1.2 Non-Load Bearing Door and Window Headers Sized for Load	(1)				_1		
TBD	D1.3 Advanced Framing Measures			1		2		
TBD	D2. Construction Material Efficiencies					1		
	D3. Engineered Lumber		3 6	ng		6 89 20 - 62		
Yes	D3.1 Engineered Beams and Headers	1				1		
TBD	D3.2 Wood I-Joists or Web Trusses for Floors			() (i		1	i i	
TBD	D3.3 Engineered Lumber for Roof Rafters		-			1		
TBD	D3.4 Engineered or Finger-Jointed Studs for Vertical Applications		1			1		
TBD	D3.5 OSB for Subfloor					0.5		
Yes	D3.6 OSB for Wall and Roof Sheathing	0.5	2			0.5	1	
TBD	D4. Insulated Headers			1				
	D5. FSC-Certified Wood	-						
TBD	D5.1 Dimensional Lumber, Studs, and Timber					6		
твр	D5.2 Panel Products	-				3		
	D6. Solid Wall Systems							
TBD	D6.1 At Least 90% of Floors		-					
TBD	D6.2 At Least 90% of Exterior Walls		-	-		4		
твр	D6.3 At Least 90% of Boofs							
Yes	D7 Energy Heels on Roof Trusses			2			- 7	
24 inches	DB Querhands and Gutters	-	-				-	
	DB. Reduced Bellution Entering the Home from the Garage	4	-	1 1				
TBD	DB 1 Detected Carros		-	<u> </u>		<u> </u>		
TBD	DB-1 Deaction Galage	-	0 0	-	2			
100	Da.2 miligaton Strategres for Attached Garage	-	-		1	1	<u> </u>	
V	D10. Structural Pest and Rot Controls		- X-		-	5		
Tes	D10.1 All Wood Located At Least 12 Inches Above the Soil D10.2 Wood Framing Treated With Borates or Factory-Impregnated, or Wall	1		-		1	-	
TBD	Materials Other Than Wood					1		
Yes	D11. Moisture-Resistant Materials in Wet Areas (such as Kitchen, Bathrooms, Utility Rooms, and Basements)	2			1			
E. EXTERIOR								
тво	E1. Environmentally Preferable Decking			1		1	l i	
TBD	E2. Flashing Installation Third-Party Verified					2		
TBD	E3. Rain Screen Wall System			li — i		2	í i	
Yes	E4. Durable and Non-Combustible Cladding Materials	1	1			1		
	E5. Durable Roofing Materials							
Yes	E5.1 Durable and Fire Resistant Roofing Materials or Assembly	1				4		
тво	E6. Vegetated Roof		2	2				
F. INSULATION						31		
	F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content							
TBD	F1.1 Walls and Floors					1		
твр	F1.2 Cellings					1		
	F2. Insulation that Meets the CDPH Standard Method-Residential for		5 5	0	50	2 S	8 - P	
THE	Low Emissions				1.000	- //	-	
Tab	F2.1 Walls and Floors			-	1		-	
IBD	rz.z Cellings		3		1			
	F3. Insulation That Does Not Contain Fire Retardants	1						

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New Home Single Family	Version 7.0	_	1	-	-	-			
Yes	N3.3 Traffic Calming Strategies	2	2						
	N4. Outdoor Gathering Places								
Yes	N4.1 Public or Semi-Public Outdoor Gathering Places for Residents	1	1			8	S		
Yes	N4.2 Public Outdoor Gathering Places with Direct Access to Tier 1 Community								
1000000	Services	1	1				_	 	
Vor	NS. Social Interaction		S	2		s - 35	aa		
Var	NS.1 Residence Entries with Views to Callers	1	1		-			 	
Tes .	N5.2 Entrançes Visible from Street and/or Uniter Front Doors	1	1			2			
165	N5.3 Porches Oriented to Street and Public Space	1	1					 	
700	N6. Passive Solar Design	_	8	12		8 8			
TBD	N6.1 Heating Load			2					
TBD	N6.2 Cooling Load	_	2 3	2		2 - 22			
	N7. Adaptable Building		1	1				 	
TBD	N7.1 Universal Design Principles in Units		1	-	1		-		
TBD	N7.2 Full-Function Independent Rental Unit		1						
	N8. Resiliency		_						
TBD	N8.1 Assessment		1		1	<u>a</u>		 	
TBD	N8.2 Strategies to Address Assessment Findings		1		1	1	_		
	N9. Social Equity in Community		া						
TBD	N9.1 Diverse Workforce		1			1			
TBD	N9.2 Community Location		1		11				
D. OTHER						o os			
Yes	O1. GreenPoint Rated Checklist in Blueprints	Y	R	R	R	R	R		
Yes	O2. Pre-Construction Kickoff Meeting with Rater and Subcontractors	2	<u>i i</u>	0,5		1	0.5	 	
Yes	O3. Orientation and Training to Occupants—Conduct Educational Walkthroughs	2		0.5	0.5	0.5	0.5		
TBD	04. Builder's or Developer's Management Staff are Certified Green Building Professionals			0.5	0.5	0.5	0.5		
	O5. Home System Monitors		2						
Yes	O5.1 Energy Home System Monitors	1		1					
TBD	O5.2. Water Home System Monitors		1 12				1		
	O6. Green Building Education		<u>.</u>			- 10			
TBD	O6.1 Marketing Green Building		2						
TBD	06.2 Green Building Signage		-	0.5			0.5		
Yes	07. Green Appraisal Addendum	v	P	R	P	P	P		
TBD	08. Detailed Durability Plan and Third-Party Verification of Plan Implementation	1				4			
			3						
	Summary								
	Total Available Points in Specific Categories	361.5	31	134.5	60	87	49		
	Minimum Points Required in Specific Categories	50	2	25	6	6	6		
	Total Points Achieved	70.0			100	20.0	11.0		
	Total Fonts Achieved	/5,/	8.0	23.2	13.5	20.0	11.0		

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Home Single Family	Version 7.0	-		-		-		
TBD	F3.1 Cavity Walls and Floors			î î	1	1	1	10
TBD	F3.2 Cellings				1			
TBD	F3.3 Interior and Exterior			i i	1	s - 35 	1	0
LUMBING					- 340 A	6 min		
	G1. Efficient Distribution of Domestic Hot Water							
Yes	G1.1 Insulated Hot Water Pipes	1		1				
TBD	G1.2 WaterSense Volume Limit for Hot Water Distribution	_					1	
TBD	G1.3 Increased Efficiency in Hot Water Distribution) (2	 3
	G2. Install Water-Efficient Fixtures							 _
Yes	G2.1 WaterSense Showerheads 1.8gpm with Matching Compensation Valve	2					2	
Yes	G2.2 WaterSense Bathroom Faucets 1.0 gpm	21)					. 1	 _
≤1.28 gpf	G2.3 WaterSense Tollets with a Maximum Performance (MaP) Threshold of No Less Than 500 Grams 1.28gpf OR 1.1 gpf	1					2	
TBD	G3. Pre-Plumbing for Graywater System	1		<u>(</u>		i – i	1	- ji
TBD	G4. Operational Graywater System						3	
TBD	G6. Thermostatic Shower Valve or Auto-Diversion Tub Spout			j () ()	1	- j
EATING, VENTILAT	TION, AND AIR CONDITIONING							
	H1. Sealed Combustion Units							0
Yes	H1.1 Sealed Combustion Furnace	1			1	ļ		 - 0
Yes	H1.2 Sealed Combustion Water Heater	2		î j	2	<u>i i</u>		_0
TBD	H2. High Performing Zoned Hydronic Radiant Heating System			1	1			 -0
	H3. Effective Ductwork							
Yes	H3.1 Duct Mastic on Duct Joints and Seams	1	_	1				
TBD	H3.2 Pressure Balance the Ductwork System			1				
Yes	H4. ENERGY STAR® Bathroom Fans Per HVI Standards with Air Flow Verified	1			1			
	H5. Advanced Practices for Cooling					-		
Yes	H5.1 ENERGY STAR Ceiling Fans in Living Areas and Bedrooms	1	. v.	1		i Ja		 33
	H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality					-		 -
Yes	H6.1 Meet ASHRAE 62.2-2010 Ventilation Residential Standards	Y	R	R	R	R	R	 _
TBD	H6.2 Advanced Ventilation Standards			_	2	_	_	 _
TBD	H6.3 Outdoor Air is Filtered and Tempered			J	1			- 2
	H7. Effective Range Hood Design and Installation	-		2 0		e		- 93
TBD	H7.1 Effective Range Hood Ducting and Design				1	-	-	-
TBD	H7.2 Automatic Range Hood Control				1			
TBD	H8. High Efficiency HVAC Filter (MERV 13+)				1		-	-
TBD	H9 Advanced Refrigerants		_	-7	1			- 10
Yes	H10. No Fireplace or Sealed Gas Fireplace	1			1			 - 22
TBD	H11. Humidity Control Systems			<u>8</u>	1	2 - 2 2 - 2	2	 -0
TED	H12. Register Design Per ACCA Manual T		-	1		6 - VI		
TRD	14 Des Direction des Cales Water Martine							
Yes	11, Pre-Plumping for Solar Water Realing			1			÷	- 12
0.00%	13. Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)	1		25	-		2 8	 - 33
220100	14. Net Zero Energy Home	0		25	_	5 57		-
TBD	14.1 Near Zero Energy Home			2	1	- 11		 -
TBD	14 2 Net Zero Electric			4				 -
TBD	15. Energy Storage System			4	_	i i		 -
UILDING PERFORM	IANCE AND TESTING			6 S		s - 59		- 23
TBD	J1. Third-Party Verification of Quality of Insulation Installation			1	4	1		
Yes	J2. Supply and Return Air Flow Testing	2		1	1	5 S	-	-8
Yes	J3. Mechanical Ventilation Testing	1			1	<u> </u>		Ĩ
TBD	J4. Combustion Appliance Safety Testing			9 <u></u>	1	S - 15		8
5	J5. Building Energy Performance			12 24		c 57	17 I	- 18
0.08%	J5.1 Home Meets or Exceeds Energy Compliance Pathway	5.16		60				
Yes	J6, Title 24 Prepared and Signed by a CABEC Certified Energy Analyst	1		1				
TBD	J7. Participation in Utility Program with Third-Party Plan Review			1				
TBD	J8. ENERGY STAR for Homes			1				

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A. REFER TO LANDSCAPE & CIVIL DRAWINGS FOR MORE INFORMATION.

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PROPERTY LINES. S.C.D. CONCRETE DRIVEWAY. S.C.D. SITE RETAINING WALL. S.S.D, S.C.D. PERMEABLE PAVERS. S.C.D.

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102 207 208

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- REFER TO STRUCTURAL FOW WALL FRAMING INFORMATION, U.N.O 2. 6" EXTERIOR WALLS SHALL HAVE R-19 INSULATION (4" WALLS SHALL HAVE R-13). ROOFS SHALL HAVE R-30 INSULATION. VERIFY WITH TITLE 24 REPORT.
- 3. FIRE BLOCKING SHALL BE PROVIDED. A. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS @ 10' INTERVALS BOTH HORIZONTAL AND VERTICAL.
- B. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL & HORIZONTAL SPACES SUCH AS SOFFITS, DROP CEILINGS AND COVE CEILINGS. C. IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES &
- SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING & FLOOR LEVELS, WITH NON-COMBUSTIBLE MATERIALS. D. AT OPENINGS BETWEEN ATTIC SPACES AND CHIMNEY CHASES FOR FACTORY-BUILT CHIMNEYS
- 4. SAFETY GLAZING SHALL BE IN CONFORMANCE WITH THE APPLICABLE UBC CHAPTER IN THE FOLLOWING AREAS: A. GLAZING WITHIN 24" OF DOORS AND 18" OF FLOORS
- B. WITHIN TUB ENCLOSURES C. WITHIN HOT-TUB WHIRLPOOLS. SAUNAS, STEAM ROOMS, GLAZING IN ANY portions of Saunas, steam rooms, tubs and showers where the
- BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE AND DRAIN INLET. D. GLAZING IN STAIR LANDINGS AND WITHIN 5'-0" OF THE BOTTOM AND TOP THE STAIRWAY AND WITHIN 5'-0" OF POOL EDGES. 5. ALL DIMENSIONS ARE TO FRAMING, NOT FINISH WALL
- 6. ALL WALLS TO BE 1/2" SHEET ROCK WITH KNOCKDOWN FINISH. 7. ALL FINISHES TO BE SPECIFIED BY OWNER.
- 8. OPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS, OR AN ORNAMENTAL PATTERN SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROUGH. 9. EXTERIOR GLAZING: EXTERIOR WINDOWS, WINDOW WALLS AND GLAZED DOORS, WINDOWS WITHIN EXTERIOR DOORS, AND SKYLIGHTS SHALL BE TEMPERED GLASS, MULTI LAYERED GLAZED PANELS, GLASS BLOCK OR HAVE A FIRE-PROTECTION
- RATING OF NOT LESS THAN 20 MINUTES. 10. EXTERIOR DOORS: EXTERIOR DOORS SHALL BE APPROVED NON-COMBUSTIBLE CONSTRUCTION, SOLID CORE WOOD NOT LESS THAN 1-3/4-INCH-THICK, OR HAVE A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES. WINDOWS WITHIN DOORS AND GLAZED DOORS SHALL BE IN ACCORDANCE WITH SECTION 8-3.106.G.7
- 11. HANDRAILS SHALL COMPLY WITH THE FOLLOWING: A. TOP OF HANDRAIL SHALL BE PLACED BETWEEN 34" & 38" ABOVE LANDINGS AND THE NOSING OF THE TREAD. B. HANDGRIP SHALL NOT BE LESS THAN 1 1/4" NOR MORE THAN 2" IN CROSS-SECTIONAL DIMENSION WITH NO SHARP CORNERS
- C. HANDRAILS PROJECTING FROM THE WALL SHALL NOT HAVE LESS THAN 1 1/2" BETWEEN WALL AND THE HANDRAIL 12. DRYER VENT SHALL BE VENTED TO THE OUTSIDE AND SHALL NOT EXCEED 14 FEET
- DISTANCE w/ MAX (2) 90° ELBOWS. EACH ADDITIONAL ELBOW SHALL REDUCE THE MAX LENGTH BY 2 FEET. TERMINATION OF VENT SHALL COMPLY WITH SECTION 806.6 OF THE UNIFORM MECHANICAL CODE. 13. SHOWERS AND SHOWER/TUB SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE
- BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION.
- 14. IF APPLICABLE, FIXTURES LOCATED BELOW THE NEXT UPSTREAM MANHOLE REQUIRE BACKWATER CHECK VALVES. UPPER LEVEL FIXTURES NOT TO DRAIN THROUGH 15. BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED
- Shower heads and in shower compartments shall be finished with a NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR. CRC R307.2 16. GYPSUM BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY. 17. PER CRC R311.3.1, LANDINGS AT EXTERIOR SIDE OF ALL EXTERIOR DOORS SHALL BE
- NO MORE THAN 7.75" BELOW THE DOOR THRESHOLD. 18. SHOWERS & SHOWER/TUB SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE / THERMOSTATIC MIXING VALVE TYPE THAT

PROVIDES SCALE & THERMAL SHOCK PROTECTION.

REFERENCE NOTES

- 304 SINK - OWNER SELECTED. INSTALL PER MANUF. SPECS. - PROVIDE HOT & COLD WATER. TOILET - OWNER SELECTED.
- 307 312 BATHROOM LAVATORY @ + 34" HIGH MAXIMUM. 314
- FREE STANDING TUB OWNER SELECTED.
- DIRECT VENT TANKLESS WATER HEATER SEE WATER HEATER SCHEDULE. 318 INSTALL PER MANUF. SPECS. SHOWER WITH PREFABRICATED PAN AND SURROUND - OWNER SELECTED
- WALK-IN SHOWER W/ SMOOTH TILE SURFACE TO A MIN. OF 70" ABOVE THE DRAIN INLET. TWO WAY RIBBON VENTLESS GAS FIREPLACE - OWNER SELECTED - INSTALL 365
- PER MANUFACTURER'S SPECS LINEN STORAGE. 376
- COUNTERTOP OWNER SELECTED. 377
- LAVATORY COUNTERTOP @ 34" A.F.F.
- SHELF AND POLE. PAINT TO MATCH INTERIOR (VERIFY COLOR W/ OWNER). 389 21" DEEP VANITY BASE CABINET. 473 MIRROR.

WALL LEGEND

	-		
	WALL TYPE	FIRE RATING (SEE FLOOR PLAN)	DETAIL
EXTERIOR	EX-W1	FULL HEIGHT NON-RATED WOOD STUD WALL	K6 / A8.0
INTERIOR	IN-W1	FULL HEIGHT HEIGHT NON-RATED WOOD STUD PARTITION	F4 / A8.0

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TANKLESS WH SCHEDULE

TANKLESS HIGH EFFICIENCY CONDENSING WATER HEATING									
MANUF.	MODEL	FUEL	gas line	BTU	ENERGY FACTOR	MAX GPN			
RINNAI	RUC98i	GAS	3/4"	199,000	0.95	9.80			







WALL LEGEND	

C	W. TY	ALL (PE	FIRE RATING (SEE FLOOR PLAN)	DETAIL
EXTERIO	EX-	-W1	FULL HEIGHT NON-RATED WOOD STUD WALL	K6 / A8
INTERIOR	IN-	-W1	FULL HEIGHT HEIGHT NON-RATED WOOD STUD PARTITION	F4 / A8

	TANKLESS HIGH EFFICIENCY CONDESING WATER HEATING						
	MANUF.	MODEL	FUEL	GAS LINE	BTU	ENERGY FACTOR	MAXG
	RINNAI	RU-98e	GAS	3/4"	199,000	0.95	9.80
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REFER TO STRUCTURAL DRAWINGS FOR MORE INFORMATION.

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REFERENCE NOTES

201 214

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CONCRETE COLUMNS. S.S.D. LINE OF BEAM BELOW (SHOWN DASHED), S.S.D.

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	GENERAL NOTES	
1.	REFER TO STRUCTURAL FOW WALL FRAMING INFORMATION, U.N.O	
2.	" EXTERIOR WALLS SHALL HAVE R-19 INSULATION (4" WALLS SHALL H ?OOFS SHALL HAVE R-30 INSULATION. VERIFY WITH TITLE 24 REPORT.	AVE R-13).
3.	 IRE BLOCKING SHALL BE PROVIDED. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUS SPACES, AT THE CEILING AND FLOOR LEVELS @ 10' INTERVALS BC 	JDING FURR DTH
	HORIZONTAL AND VERTICAL. 3. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL &	HORIZONTA
	SPACES SUCH AS SOFFITS, DROP CEILINGS AND COVE CEILINGS	ACES &
	SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEI	LING & FLO
	 AT OPENINGS BETWEEN ATTIC SPACES AND CHIMNEY CHASES FOR BUILT CHIMNEYS 	OR FACTOR
4.	GAFETY GLAZING SHALL BE IN CONFORMANCE WITH THE APPLICABL	EUBC
	A. GLAZING WITHIN 24" OF DOORS AND 18" OF FLOORS	
	 WITHIN TUB ENCLOSURES WITHIN HOT-TUB WHIRLPOOLS. SAUNAS, STEAM ROOMS, GLAZIN 	G IN ANY
	PORTIONS OF SAUNAS, STEAM ROOMS, TUBS AND SHOWERS WH BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE	A STANDING
	SURFACE AND DRAIN INLET. D. GLAZING IN STAIR LANDINGS AND WITHIN 5'-0" OF THE BOTTOM	AND TOP TH
5.	STAIRWAY AND WITHIN 5'-0" OF POOL EDGES. ALL DIMENSIONS ARE TO FRAMING, NOT FINISH WALL	
6. 7	ALL WALLS TO BE 1/2" SHEET ROCK WITH KNOCKDOWN FINISH.	
7. 8.	DPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS, OR AN ORNA	MENTAL
9.	'ATTERN SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROL EXTERIOR GLAZING: EXTERIOR WINDOWS, WINDOW WALLS AND GL	JGH. AZED DOOR
	WINDOWS WITHIN EXTERIOR DOORS, AND SKYLIGHTS SHALL BE TEMP	
	RATING OF NOT LESS THAN 20 MINUTES.	
10.	<u>:Xterior doors</u> : exterior doors shall be approved non-co <i>n</i> Construction, solid core wood not less than 1-3/4-inch-th	иbustible IICK, OR HA'
	a fire protection rating of not less than 20 minutes. Windo Doors and glazed doors shall be in accordance with sec	ws within Tion
11		
	A. TOP OF HANDRAIL SHALL BE PLACED BETWEEN 34" & 38" ABOVE	landings
	AND THE NOSING OF THE TREAD. 3. HANDGRIP SHALL NOT BE LESS THAN 1-1/4" NOR MORE THAN 2" I	n cross-
	SECTIONAL DIMENSION WITH NO SHARP CORNERS C. HANDRAILS PROJECTING FROM THE WALL SHALL NOT HAVE LESS	S THAN 1 1/2
12	BETWEEN WALL AND THE HANDRAIL	FED 14 FEFT
	DISTANCE W/ MAX (2) 90° ELBOWS. EACH ADDITIONAL ELBOW SHAL	
	306.6 OF THE UNIFORM MECHANICAL CODE.	
13.	,howers and shower/iub shall be provided with individual /alves of the pressure balance, thermostatic, or combinat	CONTROL TON PRESSU
	JALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALI THERMAL SHOCK PROTECTION.	D AND
14.	F APPLICABLE, FIXTURES LOCATED BELOW THE NEXT UPSTREAM MAN	IHOLE REQU
	ZALVE:	
15.	SATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHE	ED WITH A
È	VONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO VOT LESS THAN 6 FEET ABOVE THE FLOOR. CRC R307.2	A HEIGHT C
<u> </u>	GYPSUM BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT	EXPOSURE T
17.	PER CRC R311.3.1, LANDINGS AT EXTERIOR SIDE OF ALL EXTERIOR DC	ors shall
	VO MORE THAN 7.75 BELOW THE DOOR THRESHOLD.	uu
2	REFERENCE NOTES	5
$+_3$	4 SINK - OWNER SELECTED. INSTALL PER MANUF. SPECS P	ROVIDE HOT
3	FREE STANDING TUB - OWNER SELECTED.	
3	SHOWER WITH PREFABRICATED PAN AND SURROUND - C	
3	3 ONE WAY RIBBON VENILESS GAS FIRE PLACE - OWNER SI	ELECTED -

LAVATORY COUNTERTOP @ 34" A.F.F. OWNER). BUILT-IN SHOWER SEAT - OWNER SELECTED 22''X33'' ATTIC ACCESS HATCH. DRAWERS



	TANKLESS HIGH EFFICIENCY CONDESING WATER HEATING						
MANUF.	MODEL	FUEL	gas line	BTU	ENERGY FACTOR	MAX G	
RINNAI	RU-98e	GAS	3/4"	199,000	0.95	9.80	





GENERAL ROOF NOTES

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- A. ROOFS SHALL HAVE A ROOFING ASSEMBLY INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS B. VALLEY FLASHING SHALL NOT BE LESS THAN 0.019 INCHES (NO.26 GALVANIZED SHEET GAUGE) CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36 INCH WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP
- SHEET RUNNING THE FULL LENGTH OF THE VALLEY. C. PER THE SLO COUNTY GREEN BUILDING ORDINANCE FOR ALL NEW CONSTRUCTION, ROOF SHEATHING SHALL BE RADIANT BARRIER.

ATTIC VENT CALCS. ZONE ATTIC RATIO NFVA VENT VENT VENTS NFVA REQ'D TYPE AREA AREA PROVIDED A 588 SF 1/300 283 SF O'HAGIN 86 S.I. 4 344 S.I. B 7,415 SF 1/300 3,560 S.I. O'HAGIN 86 S.I. 42 3,612 S.I. C 588 SF 1/300 283 S.I. O'HAGIN 86 S.I. 4 516 S.I. D 298 SF 1/300 142 51

D	298 SF	1/300	143 S.I.	O'HAGIN	86 S.I.	2	172 S.I.
Е	298 SF	1/300	143 S.I.	O'HAGIN	86 S.I.	2	172 S.I.
F	298 SF	1/300	143 S.I.	O'HAGIN	86 S.I.	2	172 S.I.
Н	113 SF	1/300	54 S.I.	O'HAGIN	86 S.I.	1	86 S.I.
					TOTAL PRO	VIDED	5,160 S.I

NOTES:

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- A. ALL VENTS SHALL BE BACKED WITH CORROSION-RESISTANT METAL MESH WITH 1/16"- 1/8" OPENINGS.
- B. 50% OF REQUIRED VENT AREA SHALL BE IN THE UPPER PORTION OF THE ROOF
- C. GABLE AND DORMER VENTS SHALL BE INSTALLED A MIN. OF 36" ABOVE EAVES TO QUALIFY AS "UPPER" VENTILATION. D. CONFIRM FREE VENT AREA OF ACTUAL VENTS PRIOR TO INSTALLATION. ADJUST
- SIZE AND/OR NUMBER OF VENTS INSTALLED TO MEET REQUIRED MINIMUMS. E. VENTS SHALL BE EVENLY SPACES AND LOCATED TO PROVIDE CROSS VENTILATION.

REFERENCE NOTES

O'HAGIN, INC. TAPERED, LOW-PROFILE ROOF VENT (MATCH ROOFING 288 COLOR) ALUMINUM DOWNSPOUT TO SPLASH BLOCK BELOW. (MATCH EXTERIOR 290 COLOR) EXTRUDED ALUMINUM GUTTER 291 422 EXHAUST VENT TO COMPLY W/ CMC 502.2. 423 CLOTHES DRYER EXHAUST VENT EQUIPPED W/ BACK DRAFT DAMPER PER CMC 504.4.

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A. REFER TO MECHANICAL & ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.



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A. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR MORE INFORMATION.

REFERENCE NOTES

EXTERIOR LIGHT FIXTURE - OWNER SELECTED MECHANICAL DIFFUSER. S.M.D. INTERIOR LIGHT FIXTURE. S.E.D.

RCP LEGEND

~	SPOT ELEVATION MARKER
	MECHANICAL SUPPLY DIFFUSER, S.M.D.
	MECHANICAL RETURN REGISTER, S.M.D.
¢	RECESSED DOWNLIGHT, S.E.D.
0	4" SURFACE MOUNTED, S.E.D.
	EXTERIOR WALL MOUNTED LIGHT, S.E.D.
	STANDARD LIGHT W/ OPTIONAL CEILING FAN, S.E.D.
9	WALL MOUNTED LIGHT, S.E.D.
0	6" SURFACE MOUNTED LED, S.E.D.
	FLOURESCENT STRIP LIGHT, S.E.D.
O	EXHAUST FAN, S.E.D.

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A. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR MORE INFORMATION.

REFERENCE NOTES

EXTERIOR LIGHT FIXTURE - OWNER SELECTED MECHANICAL DIFFUSER. S.M.D. INTERIOR LIGHT FIXTURE. S.E.D.

RCP LEGEND

FLOURESCENT STRIP LIGHT, S.E.D.

× -•	SPOT ELEVATION MARKER
	MECHANICAL SUPPLY DIFFUSER, S.M.D.
	MECHANICAL RETURN REGISTER, S.M.D.
	RECESSED DOWNLIGHT, S.E.D.
0	4" SURFACE MOUNTED, S.E.D.
	EXTERIOR WALL MOUNTED LIGHT, S.E.D.
	STANDARD LIGHT W/ OPTIONAL CEILING FAN, S.E.D.
9	WALL MOUNTED LIGHT, S.E.D.
0	6" SURFACE MOUNTED LED, S.E.D.

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A. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR MORE INFORMATION.

REFERENCE NOTES

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EXTERIOR LIGHT FIXTURE - OWNER SELECTED MECHANICAL DIFFUSER. S.M.D. INTERIOR LIGHT FIXTURE. S.E.D.

RCP	LEGEND
~	SPOT ELEVATION MARKER
	MECHANICAL SUPPLY DIFFUSER, S.M.D.
	MECHANICAL RETURN REGISTER, S.M.D.
-\$-	RECESSED DOWNLIGHT, S.E.D.
0	4" SURFACE MOUNTED, S.E.D.
	exterior wall mounted light, s.e.d.
	STANDARD LIGHT W/ OPTIONAL CEILING FAN, S.E.D.
9	WALL MOUNTED LIGHT, S.E.D.
0	6" SURFACE MOUNTED LED, S.E.D.
	FLOURESCENT STRIP LIGHT, S.E.D.

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A. ARCHITECTURAL STYLE: MEDITERRANEAN

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A. GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE. B. REFER TO COLOR & MATERIALS FOR EXTERIOR FINISHES.

REFERENCE NOTES

202	ROUND TUSCAN COLUMN - OWNER SELECTED, S.S.D.
243	CLAY TILE ROOFING.
244	PRECAST BALUSTER - OWNER SELECTED
245	WINDOW TRIM - OWNER SELECTED
246	IRON RAILING - OWNER SELECTED
247	DECORATIVE CORBEL - OWNER SELECTED
248	DECORATIVE IRON WINDOW DETAILING - OWNER SELECTED
249	EXTERIOR LIGHT FIXTURE - OWNER SELECTED
250	VINYL WINDOW - OWNER SELECTED
252	DECORATIVE COLUMN - OWNER SELECTED
253	ENTRY DOOR - OWNER SELECTED
289	CLASS 'A' CLAY 'S-TILE ROOFING 0/2 LAYERS OF 30# FELT.
290	ALUMINUM DOWNSPOUT TO SPLASH BLOCK BELOW. (MATCH EXT COLOR)
298	FAUX RAFTER TAIL.
504	OVERHEAD ROLL UP DOOR - OWNER SELECTED. SEE DOOR SCHE
P-1	SHERWIN WILLIAMS SW7008 "ALABASTER."
S-1	BORAL EL DORADO STONE - SIERRACUT24 - "ZENITH GREY"
W-1	SHERWIN WILLIAMS SW7540 "ARTISAN TAN" ANDERSON 400 SERIES

COLORS & MATERIALS

- SHERWIN WILLIAMS SW7008 "ALABASTER"
- SHERWIN WILLIAMS SW7540 "ARTISAN TAN"
- ANDERSON 400 SERIES

W-1

S-1

R-1

- BORAL EL DORADO STONE SIERRACUT24 "ZENITH GREY"
- BORAL VILLA 900 "SEDONA GOLD"

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

A. GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE.
B. REFER TO COLOR & MATERIALS FOR EXTERIOR FINISHES.

REFERENCE NOTES

[202	ROUND TUSCAN COLUMN - OWNER SELECTED, S.S.D.
	245	WINDOW TRIM - OWNER SELECTED
	246	IRON RAILING - OWNER SELECTED
	247	DECORATIVE CORBEL - OWNER SELECTED
	248	DECORATIVE IRON WINDOW DETAILING - OWNER SELECTED
	249	EXTERIOR LIGHT FIXTURE - OWNER SELECTED
	250	VINYL WINDOW - OWNER SELECTED
	252	DECORATIVE COLUMN - OWNER SELECTED
	289	CLASS 'A' CLAY 'S-TILE ROOFING 0/2 LAYERS OF 30# FELT.
	290	ALUMINUM DOWNSPOUT TO SPLASH BLOCK BELOW. (MATCH E COLOR)
	298	FAUX RAFTER TAIL.
	504	OVERHEAD ROLL UP DOOR - OWNER SELECTED. SEE DOOR SCI
	P-1	SHERWIN WILLIAMS SW7008 "ALABASTER."

COLORS & MATERIALS

•	
P-1	SHERWIN WILLIAMS SW7008 "ALABASTER"
W-1	Sherwin Williams SW7540 "Artisan tan" Anderson 400 series
S-1	BORAL EL DORADO STONE - SIERRACUT24 - "ZENITH GREY"

BORAL VILLA 900 - "SEDONA GOLD"

R-1

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

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A. GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE.
B. REFER TO COLOR & MATERIALS FOR EXTERIOR FINISHES.

2

REFERENCE NOTES

I	
202	ROUND TUSCAN COLUMN - OWNER SELECTED, S.S.D.
243	CLAY TILE ROOFING.
245	WINDOW TRIM - OWNER SELECTED
246	IRON RAILING - OWNER SELECTED
247	DECORATIVE CORBEL - OWNER SELECTED
248	DECORATIVE IRON WINDOW DETAILING - OWNER SELECTED
249	EXTERIOR LIGHT FIXTURE - OWNER SELECTED
250	VINYL WINDOW - OWNER SELECTED
289	CLASS 'A' CLAY 'S-TILE ROOFING 0/2 LAYERS OF 30# FELT.
290	ALUMINUM DOWNSPOUT TO SPLASH BLOCK BELOW. (MATC

- COLOR) 298 FAUX RAFTER TAIL.
- P-1 SHERWIN WILLIAMS SW7008 "ALABASTER."

COLORS & MATERIALS

SHERWIN WILLIAMS SW7008 "ALABASTER"	

W-1 SHERWIN WILLIAMS SW7540 "ARTISAN TAN"

P-1

S-1

- ANDERSON 400 SERIES
- BORAL EL DORADO STONE SIERRACUT24 "ZENITH GREY"
- R-1 BORAL VILLA 900 "SEDONA GOLD"

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

A. GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE.B. REFER TO COLOR & MATERIALS FOR EXTERIOR FINISHES.

	REFERENCE NOTES
202	Round Tuscan Column - Owner Selected, S.S.D.
245	WINDOW TRIM - OWNER SELECTED
246	IRON RAILING - OWNER SELECTED
247	DECORATIVE CORBEL - OWNER SELECTED
248	DECORATIVE IRON WINDOW DETAILING - OWNER SELECTED
249	EXTERIOR LIGHT FIXTURE - OWNER SELECTED
250	VINYL WINDOW - OWNER SELECTED
251	DECORATIVE STONE VENEEER.
252	DECORATIVE COLUMN - OWNER SELECTED
289	CLASS 'A' CLAY 'S-TILE ROOFING 0/2 LAYERS OF 30# FELT.
290	ALUMINUM DOWNSPOUT TO SPLASH BLOCK BELOW. (MATCH EX COLOR)
291	EXTRUDED ALUMINUM GUTTER.
298	FAUX RAFTER TAIL.
504	OVERHEAD ROLL UP DOOR - OWNER SELECTED. SEE DOOR SCH
P-1	SHERWIN WILLIAMS SW7008 "ALABASTER."

COLORS & MATERIALS

•		
	P-1	SHERWIN WILLIAMS SW7008 "ALABASTER"
	W-1	Sherwin Williams SW7540 "Artisan tan" Anderson 400 series
	S-1	BORAL EL DORADO STONE - SIERRACUT24 - "ZENITH GREY"

R-1

BORAL VILLA 900 - "SEDONA GOLD"

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

WEST COAST CODE CO

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GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE

2

REFERENCE NOTES

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

1

1. GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE

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PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS 1

1

GRADES SHOWN AS SCHEMATIC. SEE CIVIL DRAWINGS FOR DETAIL GRADES AND DRAINAGE

REFERENCE NOTES

2

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

	DC	OOR SCHEDULE	
	NO. TYPE SIZE 1 B 6' - 0" 8' - 0" 2 D 5' - 4" 8' - 0" 3 A 2' - 8" 8' - 0" 4 A 3' - 0" 8' - 0" 5 A 2' - 4" 8' - 0" 6 A 3' - 0" 8' - 0" 7 A 3' - 0" 8' - 0" 8 A 3' - 0" 8' - 0" 9 E 9' - 0" 8' - 0"	NOTES	 PROVIDE SMOKE SEALS. PROVIDE SELF CLOSER. SOLID CORE DOOR.
В	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		DOOR TYPES
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		NOTE: "T" DESIGNATES TEMPERED GLAZING LOCATIONS.
С	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		HEIGHT
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		TYPE A FLUSH PANEL DOUBLE DOOR ENTRY
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		HEIGHT
E	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		TYPE F FRENCH SINGLE DOOR
_	63 A 2 - 8 8 - 0 64 A 3' - 0" 8' - 0" 65 A 2' - 4" 8' - 0" 66 D 3' - 0" 8' - 0" 67 A 2' - 4" 8' - 0" 68 D 3' - 0" 8' - 0" 69 D 3' - 0" 8' - 0" 70 D 3' - 0" 8' - 0" 71 D 3' - 0" 8' - 0"		
F	72 D 3' - 0" 8' - 0" 73 C 6' - 0" 8' - 0" 74 E 6' - 0" 8' - 0" 75 C 5' - 4" 8' - 0" 76 A 2' - 4" 8' - 0" 77 D 3' - 0" 8' - 0" 78 A 2' - 8" 8' - 0" 79 A 2' - 8" 6' - 8"		
_			
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	12	11	10 9

6

TYPE C FRENCH DOUBLE DOORS

8

WIDTH

EQ

EQ

WIDTH

WIDTH

6

WINDOW SCHEDULE

WIDTH

CASEMENT W/ MUNTINS

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TYPE F

 \triangleleft

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4

1/4" dual glazed, clear - tempered as noted. * see plan for additional locations Comments GENERAL WINDOW NOTES GLAZING IN THE FOLLOWING LOCATIONS SHOULD BE OF SAFETY GLAZING MATERIAL IN ACCORDANCE WITH SECTION 2406.4 (SEE EXCEPTIONS): D 4' - 0" 6' - 0" FRENCH CASEMENT W/ FULL ARCH TRANSOM & INSULATED GLASS 1. FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24 INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE. WINDOW TYPES 2. INDIVIDUAL FIXED OR OPERABLE PANELS, OTHER THAN THOSE LOCATIONS DESCRIBED ABOVE, THAT MEET ALL OF THE FOLLOWING CONDITIONS: a. EXPOSED ARE OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQ. FEET. b. EXPOSED BOTTOM EDGE IS LESS THAN 18 INCHES ABOVE THE FLOOR, AND: NOTE: "TEMP" DESIGNATES TEMPERED GLAZING LOCATIONS. SEE FLOOR PLANS FOR TEMPERED LOCATIONS. C. EXPOSED TOP EDGE IS GREATER THAN 36 INCHES ABOVE THE FLOOR, PER CRC R310.1, ONE EMERGENCY ESCAPE OR RESCUE OPENING IS REQUIRED AT EVERY MIN. EGRESS CLEAR MIN. EGRESS CLEAR SLEEPING ROOM: OPENING = 5.7 SQ. FT. OPENING = 5.7 SQ. FT. A. OPENINGS SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER ≻ MIN. WIDTH = 20" MIN. WIDTH = 20" WIDTH WIDTH THAN 44 INCHES, MEASURED FROM THE FLOOR. MIN. HEIGHT = 24" , MIN. HEIGHT = 24" ___/ B. THE NET CLEAR OPENING SHALL BE 5.7 SQUARE FEET MINIMUM (GRADE FLOOR WIDTH OPENINGS MAY HAVE A NET CLEAR OPENING OF 5.0 SQ. FEET MINIMUM). C. THE NET CLEAR HEIGHT SHALL BE 24" MIN. D. THE NET CLEAR WDITH SHALL BE 20" MIN. PER CRC R312.2.2, IN DWELLING UNITS WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24" ABOVE THE FINISH FLOOR AND GREATER THAN 72 INCHES ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL BE PROVIDED WITH AN OPENING CONTROL DEVICE WHICH COMPLIES WITH CRC R312.2.2. A. THE WINDOW OPENING CONTROL DEVICE SHALL COMPLY WITH ASTM F2090. THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW AS REQUIRED BY R310.2.1. _____ **type b** Fixed W/ Muntins **TYPE C** DOUBLE CASEMENT **TYPE D** CASEMENT W/ FIXED

ARCH

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GLAZING TYPES

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

9 TYPICAL I	NOTCHING & B	ORING	
PENETRATIONS IN TO	OP PLATES & SILL PL	ATES	
Space Notches @ 72" o.c., Min.	N.	1-1/	/4"Ø Max.
<u>4x</u>	;≓ ₩ 		*0-+
MSTA21 Center	<u>, , , , , , , , , , , , , , , , , , , </u>	/in 1'-0" Min	1/2"
on Notch	Max.	1 -0 Min. 1	+ +
Space Notches @ 72" o.c., Min.	<u>\</u>	2"Ø	Max. Bor
<u>6x</u>			
MSTA26 Center	<u>++++</u> ↓ 5-1/2"↓ 1'-0"	Hin 1'-0" Min	1/2"
on Notch	Max.	Y 10 Will.	- ∤ ∾
Space Notches @	\backslash	∕ ^{3"∅}	Max. Bor
8x	Max.		\sim
MSTA26, Center	5-1/2" 1'-0"	Min. 1'-0" Min.	3-1/2"
$T \wedge T$	$T\sqrt{T}$		
	v	0.6w	
× w ×	↓ w ↓		+
		<u></u>	Min.
Ma	Ma 1.5		1-6"
,0.4w	0.25w	$ $ $+$ \otimes	$\mathbf{+}$
1 Max.	¹ Max.		
Non-Bearing Interior Wall	Bearing &/or Exterior Wall	Non-Bearing Interior Wall	B E
TYPICAL SHEA	R WALL FRAM	<u>NG NOTES:</u>	
 Single sided shear v Sill plates on mason 	valls may be placed on ry or concrete to be pre	EITHER side of the fra	imed wall. per / Lumb
 Wall studs and blkg. Where plywood is ap 	are required at all adjo oplied on both faces of	ining panel edges. Thi a wall, edge nails shall	ckness of be stagge
offset to fall on differ 5. Plywood panels sha	ent framing members. Il butt along centerlines d at least 2/8" from all t	Plywood joint and sill p of framing members.	late nailin Minimum
 Nails shall be locate The use of pnuemat review and approval 	ic nail guns for shear w	all nailing is subject to	continued
would be normal for	a hand held hammer, of	or if the minimum edge	distances ar wall nail
 At all bearing walls (between joists and r 	both exterior and interior afters with LTP4 or A35	or walls) not noted as s to top plates @ 16" or	hear walls c at floors
9. <u>Refer to material spe</u>	ecifications for additiona	al framing requirement	<u>S</u> .
SHEAR W	ALL LEGEND	צד (10) דצ	<u>PICAL</u>
	ID Strap from Abv., Ali	gn "T"	INTERSE CAL OR V
	v/ HD Post Blw.		
	HD to Blw.		Å.
	Sched. for Shtg., Nailing		16c
	ength of SW (Min.)		
	HD Strap from Abv., NC	т Д	
	Post Blw. to Match HD I	n Post	SECTION
	HD to Blw.		-HD
Dofor to Diana fr. 0	opific Transfer 9		
Connection Detail at	ecific Transfer & each Shear Wall Locati	on	
·			160 – 160 per
			∫ └─ sw └─ un
			⊥ — HD

1989 Ticino Court

DEFERRED SUBMITTALS	 STATEMENT OF SPECIAL INSPECTIONS, 2016 CBC This Statement of Special Inspection is submitted in fulfillment of the requirements of t Coversing Building Code, costion 1704 and 1705
Prior to installation of manufactured roof and floor trusses, fully-detailed shop drawings	 Special Inspections and Testings will be preformed in accordance with the approved p and specifications, this statement and the Governing Building Code, Section 1704, 17
and calculations shall be submitted to the EOR for review & approval. Final approved shop drawings shall be submitted to the Building Department for review and approval prior	 1707, and 1708. The schedule of Special Inspections summarizes the Special Inspections and tests red
to raprication. Manufactured Trusses shall be designed for the following minimum criteria:	Special Inspectors will refer to the approved plans and specifications for detailed speci inspection requirements. Any additional tests and inspections required by the approved and approved approved and approved appro
Roof Trusses	 Interim reports will be submitted to the Building Official and the Registered Design Professional in Responsible Charge in accordance with the Governing Building Code S
Top Chord DL: 15 psf Bot, Chord DL: 10 psf	1704.2.4.5. A Final Report of Special Inspections documenting required Special Inspections, testir
Top Chord LL: 20 psf Bot. Chord LL: 20 psf	correction of any discrepancies noted in the inspections shall be submitted prior to issu of a Certificate of Use and Occupancy (Section 1704.2.4). The Final Report will docum
Live Load Defl: L/240 Total Load Defl: L/180	 (a) Required special inspections. (b) Correction of discrepancies noted in inspections. 6 The Owner recognizes his or her obligation to ensurve that the construction complies to an advect the construction complies.
Floor Trusses	approved permit documents and to implement this program of special inspections. In p fulfillment of these obligations, the Owner will retain and directly pay for the Special
Top Chord DL: 18 psf Bot. Chord DL: 6 psf Top Chord LL: 40 psf	Inspections as required in the Governing Building Code, Section 1704.2.7. 1704.4 Contractor responsibility. Each contractor responsible for the construction of a
Live Load Defl: L/360 Total Load Defl: L/240	wind- or Seismic-force-resisting system, designated seismic system or a wind- or seismic system or a wind- or seismic system of special inspections shall submit a written the building official and the super prior to the second system.
Floor Trusses @ Deck/ Balconies	of work on the system or component. The contractor's statement of responsibility shall contain acknowledgement of awareness of the special requirements contained in the
Top Chord DL: 18 psf Bot. Chord DL: 6 psf	statement of special inspection.
Top Chord LL: 60 psf Live Load Defl: L/360 Total Lead Defl: L/240	 Reinforcing Placement Shearwalls and Floor Systems Used as Shear Diaphragms
Total Load Dell. L/240	3) Holdowns and Anchor Bolts
2) Steel Spiral Stair	*At the Discretion of the Building Department, the Engineer of Record may be Retained to Perform the Required Visual Special Inspection for Epoxy
calculations shall be submitted to the EOR for review & approval. Final approved shop drawings shall be submitted to the Building Department ffor review and approval prior to	SEISMIC REQUIREMENTS (Section 1705.12)
fabrication.	Description of seismic-force-resisting system and designated seismic systems subject to
	Light-framed walls sheathed with wood structural panels rated for shear resistance or ste
	The extent of the main seismic-force-resisting system is defined in more detail in the
	Column Header Notation Used in Table:
	 P Indicates periodic inspections are required. The notes and/or contract documents clarify.
	Box Entry Notation Used in Table: X Is placed in the appropriate column to denote either "C" continuous or "P" periodic
	Inspections. Denotes a one-time activitiy or one whose frequency is defined in some other man Additional details regarding inspections are provided in the project specifications or notes (
	drawings.
	Verification & Inspection C P Notes 1705.6 Solida
	1. Verify materials below shallow footings are adequate X
	to achieve the desired bearing capacity 2 Verify excavations are extended to proper depth and X
	have reached proper material
	3. Perform classification and testing of compacted fill X materials
	4. Verify use of proper materials, densities, and lift X thicknesses during placement and compaction of
	compacted fill
	and verify that site has been prepared properly
	1705.8 - Cast-in-Place Deep Foundations
	Inspect drilling operations and maintain complete and X
	2. Verify placement locations and plumbness, confirm X
	element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and
	concrete or grout volumes
	3. For concrete elements, perform tests and additional inspections in accordance with Section 1705.3
	1705.12.2 - Seismic Resistance - Structural Wood 1. Inspect field gluing operations of elements of the main
	seismic force-resisting system
	2. Inspect nailing, boiling, anchoring, and other fastening of elements of the main seismic force-resisting system, including wood shear walls, wood
	diaphragms, collectors (drag struts), braces, shear panels, and hold-downs
	1705.2 - Steel 1. Material verification of high-strength bolts, nuts, and X
	washers
	a. Identification markings to conform to ASTM X standards specified in the approved construction
	b. Manufacturer's certificate of compliance required X
	2. Inspection of high-strength bolting:
	a. Bearing-type connections
	b. Sup-critical connections 3. Material verification of structural steel:
	a. Identification markings to conform to ASTM
	standards specified in the approved construction documents
	b. Manufacturer's mill test reports 4. Material verification of world filler material.
	4. Internal vertication of weighting materials: a. Identification markings to conform to AWS
	designation listed in the WPS
	b. manuacturer's certificate of compliance required 5. Inspection of Welding:
	a. Structural Steel
	2) Multi-pass fillet welds
	3) Single-pass fillet welds > 5/16"
	4) Single-pass fillet welds < 5/16"
	5) Floor and root deck welds b. Reinforcing Steel
	1) Verification of weldability of reinforcing steel
	other than ASTM A706 2) Reinforcing steel resisting flexural and axial
	forces in intermediate and special moment frames, and boundary elements of special
	reinforced concrete shear walls, and shear reinforcement
	3) Shear reinforcement
	4) Other reinforcing steel
	o. Inspection of steel frame joint details for compliance with approved construction documents (bracing & stiffening member locations, application of joint
	details at each connection, etc.)
	7. Welded studs when used for structural diaphragms X 8. Welding of cold formed sheet steel framing members
	9. Welding of stairs and railing systems X

ne requirements of the with the approved plans e, Section 1704 , 1705 .	<u>GI</u> 1.	ENERAL NOTES The following notes, details, schedules & specifications shall apply to all phases of this project unless specifically noted otherwise. Notes and details on the structural plans shall take precedence over general notes and typical details. Where no details are given, construction shall be as shown for similar work.	<u>CC</u> 1.	ONCRETE All concrete shall have: (a) an ultimate compressive strength (f'c) of 3,000 psi at 28 days (UNO). (b) a maximum slump of 5" at point of placement. (c) a W/C ratio of 0.55 or less for all slabs, walls, and columns. and 0.60
ections and tests required. ns for detailed special ired by the approved plans	2.	All drawings are considered to be part of the contract documents. The Contractor shall be responsible for the review and coordination of all drawings and specifications prior to the start of construction. Any discrepancies shall be brought to the attention of the Engineer prior to the start of construction so that a clarification can be issued. Any work performed in conflict with the contract documents or any applicable code requirements about the start of the terms and the the contract documents or any applicable code requirements about the start of the terms and the terms are terms and the terms and terms are terms a	2.	foundations. (d) a normal dry-weight density (UNO). Special inspection is NOT required as the foundations have been <u>designed</u> wi psi in accordance with the Governing Building Code, section 1705.3, exception 2.3 unless explicitly specified boroin, on the structural place
gistered Design ning Building Code Section	3.	Contractor at no expense to the Owner or Engineer. All information on existing conditions shown on the structural plans are based on best present knowledge available, but without guarantee of accuracy. The Contractor shall be		 As a minimum, special inspection is always required on: (a) structural slabs, flat plates (b) walls, columns, beams
al Inspections, testing and ubmitted prior to issuance al Report will document:		responsible for the verifications of all dimension and conditions at the site. Any discrepancies between actual site conditions and information shown on the drawings or in the specifications shall be brought to the attention of the EOR prior to the start of construction.		 (c) piles, caissons (d) welding of reinforcement, installation of mechanical bar splice devices application
nstruction complies with the cial inspections. In partial ay for the Special	4.	 Refer to the Architectural plans for the following: (a) Dimensions (b) Size and location of all interior and exterior wall locations. (c) Size and location of all floor, roof and wall openings (d) Size and location of all drains, slopes, depressions, steps, etc. 		When required or specified, special inspection services shall conform to the G Building Code, Chapter 17 and shall be provided by an ICC certified inspector Department approved engineer. The Building Department reserves the right to require the special inspection requirements [Section 1704.1 and 1704.4]. Not plans waives the Building Department's right to require special inspection at a
704.2. he construction of a main m or a wind- or seismic-	5.	 (e) Specification of all finishes & waterproofing (f) All other non-structural elements Refer to the mechanical, electrical and plumbing plans for the following: (a) Size and leastion of all equipment 	3.	any material. Testing of materials used in concrete construction must be performed as noted plans or at the request of the Building Department to determine if materials and encoding Tests of materials and of concrete shall be made by an encrypted of
f responsibility shall	6	 (a) Size and location of all equipment (b) Pipe runs, sleeves, hangers and trenches (c) All other mechanical, electrical or plumbing related elements DO NOT scale structural plans. Contractor shall use all written dimensions on Architectural 		the expense of the contractor; such tests shall be made in accordance with the listed in the Governing Building Code, Table 1704.4. When testing of concrete four (4) test cylinders shall be taken from each 150 yards, or fraction thereof, the second secon
	7.	plans. Construction materials shall be uniformly spread out if placed on floor or roof so as to not overload the framing. Load shall not exceed the design live load per square foot. It is the		one day. One (1) cylinder shall be tested at seven (7) days; two (2) at 28 days be held in reserve. If Contractor elects to have additional tests performed for " results, additional test cylinders must be taken. At no time shall the Contractor
	8.	Contractor's responsibility to provide adequate shoring and/or bracing as required. Specifications and detailing of all waterproofing and drainage items, while sometimes shown on the structural plans for general information purposes only, are solely the design		testing agency to perform tests on a schedule different than above without the authorization of the Engineer. Contractor is responsible for complying with apprequirements of theBuilding Department. Copies of all test reports shall be pro
may xy	9.	The Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the construction delineated by these plans. It should be	4.	The Contractor shall remove and replace any concrete which fails to attain spectrum compressive strength if so directed by the Engineer. Any defects in the harder shall be repaired to the satisfaction of the Engineer and/or Architect or the harder
systems subject to		understood that the Contractor or his/her agent(s) shall supervise and direct all work and shall be solely and completely responsible for all construction means, methods, techniques, sequences, procedures and conditions on the job site, including safety of all persons and	5. 6.	concrete shall be replaced at the Contractor's expense. All concrete work shall conform with the Governing Building Code, Chapter 19 All cement shall be Portland Cement Type I or II and shall conform to ASTM C
ear resistance or steel	10	property during the entire period of construction. Periodic observations by the Engineer, his staff or representatives are not intended to include verification of dimensions or review the adequacy of the Contractor's safety measures on or near the construction site.	7. 8	All aggregates shall conform to ASTM C33. Maximum aggregate sizes: (a) Footings: 1-1/2" (b) All other work: 3/4" Where not specifically detailed, the minimum concrete cover on reinforcing sta
ore detail in the	11	 and specifications shall hot be permitted without prior approval from the Engineer. 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. 	0.	 (a) Permanently exposed to earth or weather i. Cast against earth: 3" ii. Cast against forms: 2"
	12	. It is the Contractor's responsibility to ensure that only approved structural plans are used during the course of construction. The use of unapproved documents shall be at the contractor's own risk. Corrections of all work based on such documents shall be performed at	-	 (b) Not exposed to earth or weather i. Slabs, walls, joists: 3/4" ii. Beams, girders, columns: 1-1/2"
contract documents should	13	 the Contractor's expense. These plans and specifications represent the structural design only. No information nor warranty is provided for the work of any other Consultant (Architect, Mechanical, Electrical, etc.). This includes but is not limited to waterproofing drainage wontiletion accessibility. 	9. 10	The minimum lap splice length for all reinforcing steel shall be as noted in the on sheet S-1.1. All lap splices to be staggered. All reinforcing steel, anchor bolts, dowels, inserts, and any other hardware to be concerned as a second to be second to
d in some other manner. cifications or notes on the	<u>FC</u>	dimensions.	11	installed in accordance with respective manufacturer's specifications. Refer to and structural plans for locations of embedded items.
Notes	1. 2.	Refer to Structural Design Parameters section on sheet S-1.1 for all soil design values used in calculations. Soils values per geologic/geotechnical report (or "soils report") by Earth Systems,		approved by the Architect and Engineer prior to forming. Construction joints sh thoroughly air and water cleaned and heavily roughened so as to expose coar All surfaces to receive fresh concrete shall be maintained continuously wet at
	3.	File No. 302712-001, dated December 27th, 2018. This report and all recommendations contained therein are to be considered a part of these plans. It is the Contractor's responsibility to obtain a copy of the soils report from the Owner. A copy of the soils report shall be on the job site during the course of construction	10	hours in advance of concrete placement. Unless specifically detailed or otherv construction and control joints shall be provided in all concrete slabs-on-grade be located such that the area does not exceed 400 sq. feet.
	4.	Unexpected Soil Conditions: Allowable values and subsequent foundation designs are based on soil conditions which are shown by test borings. Actual soil conditions which deviate appreciably from that shown in the test borings shall be reported to the Engineer	12	 The Architect, Engineer and appropriate inspectors shall be notified in a timely reinforcement inspection prior to the placement of any concrete. The Contractor shall obtain approval from the Architect and the Engineer prior sleeves, pipes, ducts, chases, coring and opening on or through structural cor
	5.	immediately. All compaction, fill, backfilling and site preparation shall be performed in accordance with project soils report or the Governing Building Code Chapter 18 & Appendix J. All such work		walls, floors, and roof slabs unless specifically detailed or noted on the plans. conduits passing through concrete members shall be sleeved with standard st sections.
	6.	shall be performed per the recommendations of the project soils engineer. Excavate to required depths and dimensions (as indicated in the drawings), cut square and smooth with firm level bottoms. Care shall be taken not to over-excavate foundation at lower elevation and prevent disturbance of soils around high elevation.	14	A. The Contractor is responsible for design, installation, maintenance and remove formwork. Forms shall be properly constructed, sufficiently tight to prevent lea sufficiently strong, and braced to maintain their shape and alignment until no le for concrete support, joints in formwork shall be tightly fitted and blocked, and
	7. 8.	Foundations shall be poured in neat excavations. Excavate all foundations to required depths into compacted fill or natural soil (as per plans and details) and as verified by the building official and/or soils engineer.	15	a finished concrete surface that is true and free from blemishes. Forms for exp shall be pre-approved by the Architect to ensure conformance with design inte . Remove form work in accordance with the following schedule:
	9. 10	All foundations shall be inspected and approved by the appropriate building official and/or a representative of the soils engineer prior to forming and placement of reinforcing or concrete. . Foundations shall not be poured until all required reinforcing steel, framing hardware, sleeves, inserts, conduits, pipes, etc. and formwork is properly placed and inspected by the appropriate building official/inspector(s).		 (a) Forms at slab edge: 1 day (b) Side forms at footings: 2 days (c) All other vertical surfaces: 7 days (d) Beams, columns, girders: 15 days (e) Elevated slabs: 28 days
	11	. It is the responsibility of the contractor in charge of framing to properly position all holdown bolts, anchor bolts, column bases, and all other cast-in-place hardware. Refer to typical details. All hardware to be secured prior to foundation inspections.	16	Engineer reserves the right to modify removal schedule above based on field concrete conditions, and/or concrete test results. 5. All concrete (except slabs-on-grade 6" or less) shall be mechanically vibrated
	12	 The sides and bottoms of dry excavations must be molsteried just prior to placing concrete. Conversely, de-water footings as required to remove standing water and to maintain optimum working conditions. The Contractor shall be solely responsible for all excavation procedures including lagging. 	17	Vibrator to be operated by experienced personnel. The vibrator shall be used the concrete. The vibrator shall not be used to convey concrete, nor shall it be reinforcing and/or forms.
		shoring, and the protection of adjacent property, structures, streets, and utilities in accordance with all federal, state and local safety ordinances. The Contractor shall provide for the design and installation of all cribbing, bracing and shoring required.	18 19	 Concrete shall not be permitted to free fall more than six (6) feet. For heights (6) feet, use tremie, pump or other method consistent with applicable standard. When specified ultimate compressive strength is greater than 2500 psi, Contra
	<u>ST</u> 1.	RUCTURAL STEEL All structural steel and connections shall be fabricated and erected in accordance with AISC specifications. Seismic Provisions Supplements No. 1 and 2, and Code of Standard Practice	00	submit mix designs to Architect and Engineer for approval seven (7) days prio Mix designs shall be prepared by an approved testing laboratory. Sufficient da provided for all admixtures.
Inspection of shear walls	2.	as amended to date. Steel fabrication shop drawings shall be submitted for review by the Architect and Engineer prior to fabrication.	20 <u>RE</u>	curbs, and control joints.
and diaphragms with fasteners spaced greater than 4" oc is not required	3.	Special Inspection: Continuous special inspection of structural welding is required by an inspector pre-qualified by the Building Department. The following exceptions are permitted for welds not in Special Moment-Resisting Frames:	1. 2.	Reinforcing steel shall be to deformed, clean, free of rust, grease or any other to impair concrete bond. All bars shall conform to ASTM A615, Grade 60 minimum (UNO on structural
		 (a) Weight performed in an approved fabricator's shop in accordance with fatest editoring of the following Building Code, Section 1704.2. (b) The inspector need not be continuously present during welding of the following items, provided the materials, welding procedures, and welders qualifications are 	3. 4.	Reinforcing steel that is to be welded shall conform to ASTM A785. reinforcement shall be subject to special inspection. Contractor shall take necessary steps (standard ties, anchorage devices, etc.)
		verified prior to the start of work; Periodic inspections are made of work in progress; and visual inspection of all completed welds is made prior to shipment: i. Single-pass fillet welds not exceeding 5/16"	5.	reinforcing steel in their true position and prevent displacement during concret Fabrication, placement and installation of reinforcing steel shall conform to: (a) Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Pract
		 iii. Welded studs (for nailers, diaphragms or composite deck systems) iv. Welded light gauge cold-formed frmmaming members (studs, joists, etc.) v. Welding of stairs and railing systems 	6.	(b) the Governing Building Code, Section 1907. Shop drawings for fabrication of reinforcing steel shall be approved by the Cor submitted to the Architect and Engineer for review and approval prior to fabric drawings are not required for slabs-on-grade or foundations unless specifically
	4.	Testing Procedures: All complete joint penetration welds (aka full penetration, FP, or CJP) groove or butt welded joints and splices in Special Moment-Resisting Frames shall be tested 100 percent in accordance with AISC Seismic Part I, Section 16 by either ultrasonic testing	7.	structural plans. Heating of reinforcing steel to aid in bending and shaping of bars is not permit in reinforcing steel are to be made cold. All bend radii shall conform to CRSI N
		 ("UT") or radiography (x-ray). The following exceptions are permitted: (a) Ultrasonic or radiographic testing is not required for all complete joint penetration welds on material less than 5/16" thick; continuous visual inspection is required. (b) At the discretion of the Building Official, the ultrasonic or radiographic testing rate for 	8.	Standard Practice. Refer to Concrete and Masonry notes for specific minimum splice length and s staggering requirements. Lap welded wire fabric (WWF) reinforcement two (2)
		 (c) At the discretion of the Building Official, the ultrasonic or radiographic testing net that (c) At the discretion of the Building Official, the ultrasonic or radiographic testing may be 	<u>TR</u> 1.	Refer to the structural and architectural plans for additional design loads and o
		performed in the shop of an approved fabricator by a qualified inspector of their employ.(d) It is the responsibility of the Contractor to verify all the testing requirements of the local Building Department as the requirements you with each appropriate access.	2.	Bottom chords shall be designed to resist a minimum ceiling live load of 10 ps Truss calculations and details shall be submitted to the Architect/Engineer and department for review and approval prior to fabrication.
		testing procedures outlined above apply on to those complete joint penetration welds specified in Special Moment-Resisting Frames only; Ordinary Moment-Resisting Frames are exempt.	4.	building department. Each truss shall be legibly branded, marked or otherwise have permanently at the following information located within 2 feet of the center of the span on the
	5.	Materials: (a) Wideflange (W) sections shall conform to ASTM A992 except in moment frames.		bottom chord: (a) Identity of the company manufacturing the truss (b) the design load, and
		 (c) HONOW Steel Sections sections (HSS) shall conform to ASTM A500 Gr. B. (d) Pipe sections shall be welded seamless pipe conforming to ASTM A53 Gr. B. i. STD indicates Standard Wall ii. EXT indicates Extra Strong 	5.	 (c) the spacing of the trusses. Walls: (a) Trusses shall bear on exterior walls only unless specifically noted otherwise. (b) All interior walls shall be non-bearing unless specifically noted otherwise.
		 iii. DBL indicates Double Extra Strong (e) All other material(plate, bars, etc.) shall conform to ASTM A36, UNO specifically. (f) All plate material specified in steel moment frame connections shall conform to 	6.	 (c) All approved interior bearing locations shall be specifically noted on the plans. Bearing:
	6.	ASTM A572 Gr. 50 or ASTM A992. Bolts: (a) All bolts shall be ASTM A307 Gr. A, UNO specifically on the structural plans. (b) High strength bolts complying with ASTM A325 and A490 when encoified shall		 (a) Securing of bearing walls, unless noted otherwise, trusses shall be se bearing points with Simpson seismic anchors (e.g. H1). (b) Interior non-bearing walls shall be isolated from the trusses with Simp (e.g. STC, DTC, HTC4) or approved equal.
		 (c) Fight storing bots complying with ASTM A325 and A490, when specified, shall require special inspection in accordance with the Governing Building Code, Section 1704.3.3. (c) Threaded rod, where specified, shall conform with ASTM A307 unless specifically 	7.	 (c) Trusses to be manufactured with necessary camber to account for de deflections and eliminate accidental bearing on interior non-bearing w Blocking and bracing shall be installed per manufacturer's recommendations.

noted otherwise on the structural plans. (d) Bolt holes shall be drilled 1/32" to 1/16" larger than the specified bolt diameter. Welding: (a) All welding shall be performed using SMAW, GMAW or FCAW processes.

(b) All welded connections to be in accordance with the latest edition of the AWS D1.1. (c) All welding shall be performed by certified welders. (d) All welding shall be performed with E70XX electrodes with a minimum CVN toughness of 20 ft-lb at -20°F. (e) Weld lengths specified on the plans are the net effective length required. Where fillet

- weld symbol is given without indication of size, use the minimum size welds as specified in section 1.17.2 of the AISC Manual of Steel Construction 9th Ed. (f) No field welding shall be permitted, UNO specifically on the plans or details. 8. No holes other than those specifically detailed shall be allowed through structural steel
- members. Burning or torching of holes is not permitted under any circumstances. 9. All structural steel shall be painted one shop coat and touched-up in the field with read lead
- (or approved zinc chromate primer) as necessary. 10. Any steel member interfacing with wood framing shall have 1/2" diameter nelson studs at 24"
- oc for attachment of wood nailers. Thru-bolting of nailers shall not be permitte dunless specifically noted on the plans or details.
- 11. Provide hot dip galvanizing or 3" min. concrete cover around all structural steel below grade.

CONCRETE 1. All concrete shall have:	ROUGH CARPENTRY Refer to latest edition of the the Governing Building Code, Table 2304.10.1. for all minimum 	ENGINEERED LUMBER 1. Glu-laminated Beams (GLB):
 (a) an ultimate compressive strength (f'c) of 3,000 psi at 28 days (UNO). (b) a maximum slump of 5" at point of placement. (c) a W/C ratio of 0.55 or less for all slabs, walls, and columns, and 0.60 or less for all foundations. 	 nailing requirements, shown below for reference. 2. Refer to individual sections for applicable material specifications. 3. Fabricate, size, install, connect, fasten, bore, notch, and cut wood and plywood with joints true, tight, and well-nailed, screwed or bolted as required, all members to have solid bearing 	 (a) shall be 24F-V4 for simple single spans and 24F-V8 for beams that are cantil &/or continuous over interior supports. They shall have the following min. pro i. Fb = 2400 psi ii. Fv = 265 psi
 (d) a normal dry-weight density (UNO). 2. Special inspection is NOT required as the foundations have been <u>designed</u> with f'c = 2,500 psi in accordance with the Governing Building Code, section 1705 3, exceptions 1, 2, 1, and 	without being shimmed, unless noted otherwise. Set horizontal members subject to bending with the crown up. Install framing plumb, square, true and cut for full bearing. Splices are not permitted between bearings. Use full lengths unless otherwise specified	 III. Fc = 650 psi iv. E = 1800 ksi (b) shall not be notched, cut or drilled without prior approval from the Engineer
 2.3, unless explicitly specified herein, on the structural plans. As a minimum, special inspection is always required on: (a) structural slabs, flat plates 	 Metal framing angles, anchor, clips, straps, ties, holdowns, etc. shall be mfg by Simpson Strong-Tie Co. No substitutions shall be permitted without prior approval of the Engineer. All walls are to have continuous double 2x top plates spliced as followings unless specifically 	 (c) shall have exterior glue and weather-treatment prior to installation (d) shall be fabricated by an approved manufacturer. An A.I.T.C. Certificate of Compliance shall be given to the building inspector prior to installation
(b) walls, columns, beams(c) piles, caissons	noted otherwise on the plans and details. 6. Wall Studs:	(e) shall have factory standard camber, except where noted otherwise on the pla2. Laminated Veneer Lumber (LVL) :
(a) weiging of reinforcement, installation of mechanical bar splice devices, epoxy application When required or specified, special inspection services shall conform to the Coversing	 (a) Unless specifically noted on the plan and details, use the following guidelines for wall framing: i Use 2x4 stude at 16" or for walls less than 9'-0" toll 	(a) snall be 1-3/4" minimum thickness with the following minimum properties: i. E = 2000 ksi ii. Fh = 2600 psi
Building Code, Chapter 17 and shall be provided by an ICC certified inspector or Building Department approved engineer. The Building Department reserves the right to waive or	 ii. Walls 9'-0" to 16'-0" tall shall be constructed of 2x6 studs at 16" oc iii. Request specifically engineered wall details for walls greater that 16'-0" tall. 	ii. $FV = 285 \text{ psi}$ iv. Fc (parallel) = 2500 psi
require the special inspection requirements [Section 1704.1 and 1704.4]. Nothing in these plans waives the Building Department's right to require special inspection at any point and on	7. Blocking:(a) Provide min. one row of nominal 2" thick blocking of same width as stud, fitted snugly	v. Fc (perp.) = 750 psi vi. Ft (parallel) = 1500 psi
any material.3. Testing of materials used in concrete construction must be performed as noted on structural	and spiked into studs at mid-height of partitions or walls over 8' high. (b) All foundation cripple walls (or "pony walls") less than 14" in height shall be solid	 vii. Specific Gravity = 0.50 (b) shall be fabricated by an approved manufacturer
plans or at the request of the Building Department to determine if materials are quality specified. Tests of materials and of concrete shall be made by an approved agency and at the expense of the contractor: such tests shall be made in accordance with the standards	 blocking. (c) Refer to shearwall section for additional blocking requirements. 8 Notching: 	 (c) shall bear a minimum of 3-1/2" on specified supports. Provide full depth solid blocking at all bearing points (d) shall be nailed in accordance with mfd's specifications. Unless otherwise app
listed in the Governing Building Code, Table 1704.4. When testing of concrete is required, four (4) test cylinders shall be taken from each 150 yards, or fraction thereof, poured in any	 (a) Is not permitted of any structural member without prior approval (b) In exterior and bearing walls, notches shall not exceed 25% of the stud depth. 	nailing into the top edge shall not be spaced any closer than: i. 16d @ 6" oc, 10d @ 4" oc, and 8d @ 3" oc
one day. One (1) cylinder shall be tested at seven (7) days; two (2) at 28 days; one (1) shall be held in reserve. If Contractor elects to have additional tests performed for "early-break"	(c) Non-bearing partition walls, notches shall not exceed 40% of the stud depth.(d) Successive notches in the same member shall be spaced a min of 18" apart.	ii. When nailing must be reduced, stagger rows a minimum of 1/2" apart wh maintaining proper edge distances.
results, additional test cylinders must be taken. At no time shall the Contractor instruct the testing agency to perform tests on a schedule different than above without the prior authorization of the Engineer. Contractor is responsible for complying with applicable testing	 9. Boring: (a) Is not permitted of any structural member without prior approval (b) In exterior and bearing walls, holes shall not exceed 40% of the stud depth 	 (e) shall be, when comprised of multiple members, connected with 16d hall, 1/2" 1/4" lag screws in accordance with manufacturer's specifications. (f) shall not be cut, notched or drilled without specific written approval of the EOI
requirements of theBuilding Department. Copies of all test reports shall be provided to Engineer and Building Department for review in a timely manner.	 (c) Non-bearing partition walls, may be drilled not greater than 60% of stud depth. (d) Successive holes in the same member shall be spaced a minimum of 18" apart. 	 3. Laminated Strand Lumber (LSL) : (a) shall be 1-1/4" minimum thickness with the following minimum properties:
4. The Contractor shall remove and replace any concrete which fails to attain specified 28 day compressive strength if so directed by the Engineer. Any defects in the hardened concrete	 10. Bearing: (a) Provide a min. of 1-1/2" of bearing for all 2x joists and hdrs 4x10 / 6x8 & smaller. 	i. E = 1550 ksi ii. Fb = 2325 psi
shall be repaired to the satisfaction of the Engineer and/or Architect or the hardened concrete shall be replaced at the Contractor's expense.	 (b) Provide a min. of 3" of bearing for all beams and nors 4x12 / 6x10 & larger, UNO on plans. (c) Members bearing on prefabricated bangers are to have full bearing and pailing per 	iii. $FV = 310 \text{ psi}$ iv. Fc (parallel) = 2500 psi v Fc (perp.) = 800 psi
 All cement shall be Portland Cement Type I or II and shall conform to ASTM C 150. All aggregates shall conform to ASTM C33. Maximum aggregate sizes: 	manufacturer's specifications. 11. Posts:	vi. Ft (parallel) = 1070 psi vii. Specific Gravity = 0.50
(a) Footings: 1-1/2" (b) All other work: 3/4"	 (a) Posts inside walls shall bear on sill plates and shall be continuous between top and bottom plates, unless specifically noted otherwise. 	(b) shall be fabricated by an approved manufacturer(c) shall bear a minimum of 3-1/2" on specified supports. Provide full depth solid
 Where not specifically detailed, the minimum concrete cover on reinforcing steel shall be: (a) Permanently exposed to earth or weather i Cast against earth: 3" 	 (b) Provide posts under all beams, girders or double joists equal to the width of the supported member. (c) Posts on upper levels are to be stacked on posts of equal size at levels below. 	 (d) shall be nailed in accordance with mfg's specifications. Unless otherwise app nailing into the top edge shall not be spaced any closer than:
ii. Cast against forms: 2" (b) Not exposed to earth or weather	 (d) Vertically oriented blocking ("squash blocking") shall be used to fully transfer the post 	 i. 16d @ 6" oc, 10d @ 4" oc, and 8d @ 3" oc ii. When nailing must be reduced, stagger rows a minimum of 1/2" apart wh
i. Slabs, walls, joists: 3/4" ii. Beams, girders, columns: 1-1/2"	area through floors to foundation. Vertical blocking shall be equal to floor thickness plus 1/16".	maintaining proper edge distances. (e) shall be, when comprised of multiple members, connected with 16d nail, 1/2"
 The minimum lap splice length for all reinforcing steel shall be as noted in the typical details on sheet S-1.1. All lap splices to be staggered. All reinforcing steel, another better, doweld, inserter, and any other bordware to be cast in 	 (e) Headers framing into continuous posts without trimmer studs shall be supported in Simpson HUC hangers unless noted otherwise on the plans. (f) Posts when incluted, shall be seated in Simpson post or column bases, unless noted 	 1/4" lag screws in accordance with manufacturer's specifications. (f) shall not be cut, notched or drilled without specific written approval of the EOI 4 Parallel Strand Lumber (PSL):
concrete shall be well secured in position prior to foundation inspection. All hardware to be installed in accordance with respective manufacturer's specifications. Refer to architectural	 (i) Posts when isolated, shall be seated in Simpson post or column bases, unless noted otherwise on the plans 12. Roof Framing: 	 4. Parallel Strand Lumber (PSL): (a) shall be 2-1/2" minimum thickness with the following minimum properties: i. E = 2000 ksi
and structural plans for locations of embedded items. 11. Locations of all construction joints, other than specified on the structural plans, shall be	 (a) Provide wood joists, as specified, laid with the crown up and spaced as indicated. (b) Provide a minimum of 1-1/2" end bearing unless otherwise shown. 	ii. $Fb = 2900 \text{ psi}$ iii. $Fv = 290 \text{ psi}$
approved by the Architect and Engineer prior to forming. Construction joints shall be thoroughly air and water cleaned and heavily roughened so as to expose coarse aggregates.	(c) Provide full depth solid 2x blkg or cross-bridging between the joists at 8' oc max.(d) Provide all cricket framing required to achieve positive drainage per Arch.	iv. Fc (parallel) = 2900 psi v. Fc (perp.) = 750 psi
All surfaces to receive fresh concrete shall be maintained continuously wet at least three (3) hours in advance of concrete placement. Unless specifically detailed or otherwise noted, construction and control joints shall be provided in all concrete slabs on grade. Joints shall	 (e) Install plywood panels with the face grain across the framing and close joints and nail at each support. Fully nail with common nails per the plans. (f) Plywood panels shall not be loss than 4' x 8' except at boundaries and changes in 	 vi. Ft (parallel) = 2025 psi vii. Specific Gravity = 0.50 (b) shall be fabricated by an approved manufacturer.
be located such that the area does not exceed 400 sq. feet. 12. The Architect. Engineer and appropriate inspectors shall be notified in a timely manner for a	framing direction, where the minimum panel dimension shall be no less than 24", unless all edges of undersized panels are supported by and fastened to framing	 (b) shall be rabicated by an approved manufacturer (c) shall bear a minimum of 3-1/2" on specified supports. Provide full depth solid blocking at all bearing points
reinforcement inspection prior to the placement of any concrete. 13. The Contractor shall obtain approval from the Architect and the Engineer prior to placing	members or blocking. (g) Provide Simpson "PSCL" clips at all plywood joints perpendicular to framing. Provide	 (d) shall be nailed in accordance with manufacturer's specifications. Unless othe approved, nailing shall not be spaced any closer than:
sleeves, pipes, ducts, chases, coring and opening on or through structural concrete beams, walls, floors, and roof slabs unless specifically detailed or noted on the plans. All piles or	clips midway between framing members at the unsupported edges of plywood when members are spaced at 24" oc or greater. If clips are not used, provide solid blocking	 i. Narrow face: 16d @ 6" oc, 10d @ 4" oc, and 8d @ 3" oc ii. Wide Face: 16d @ 8" oc, and 10d & 8d @ 6" oc
conduits passing through concrete members shall be sleeved with standard steel pipe sections. 14 The Contractor is responsible for design installation, maintenance and removal of all	for joints perpendicular to framing. 13. Floor Framing: (a) Provide wood joists, as specified, laid with the crown up and spaced as indicated	 When nailing must be reduced, stagger rows a minimum of 1/2" apart wh maintaining proper edge distances (a) shall not be cut, notched or drilled without specific written approval of the EOI
formwork. Forms shall be properly constructed, sufficiently tight to prevent leakage, sufficiently strong, and braced to maintain their shape and alignment until no longer needed	 (a) Provide wood joists, as specified, and with the clown up and spaced as indicated. (b) Provide a minimum of 1-1/2" end bearing unless otherwise shown. (c) Provide full depth solid 2x blkg or cross-bridging between the joists at 8' oc max. For 	 5. Plywood I Joists: (a) type and manufacturer shall be clearly noted on the plans. Substitutions shall
for concrete support. Joints in formwork shall be tightly fitted and blocked, and shall produce a finished concrete surface that is true and free from blemishes. Forms for exposed concrete	floors framed with I joists, refer to the mfg's spec's for blkg requirements.(d) Provide full depth solid 2x blocking between the joists under all walls and partitions	permitted without prior approval of the Engineer. (b) shall be installed in accordance with applicable code approvals and mfg's spe
shall be pre-approved by the Architect to ensure conformance with design intent. 15. Remove form work in accordance with the following schedule:	where the wall or partition is perpendicular to the floor framing (including floors framed with I joists)	 (c) shall bear a minimum of 1-3/4" at all end supports, and 3-1/2" at intermediate supports. Provide full depth solid blocking at all bearing points. (d) shall be installed with intermediate blocking or bridging as specified by the Minimum of the second se
(b) Side forms at footings: 2 days (c) All other vertical surfaces: 7 days	staggered, and the edges of sheets centered over supports. If T&G plywood issused, blocking need not be provided at all plywood edges (UNO per plan). If T&G plywood	 (d) shall be installed with intermediate blocking of bridging as specified by the Minimum omit intermediate blocking when specifically allowed by the Mfr. (e) shall not be cut, notched or drilled without specific written approval of the EOI
(d) Beams, columns, girders: 15 days (e) Elevated slabs: 28 days	is not used, blocking shall be provided at all plywood edges. Glue plywood to joists and fully nail with common nails per the plans.	FASTENERS
Engineer reserves the right to modify removal schedule above based on field observations, concrete conditions, and/or concrete test results.	(f) Plywood panels shall not be less than 4' x 8' except at boundaries and changes in framing direction, where the minimum panel dimension shall be no less than 24", unless all edges of undersized panels are supported by and fastened to framing	 (a) shall be with "common" nails unless noted otherwise. (b) shall not be driven closer than 1/2 their length nor closer than 1/4 of their length
Vibrator to be operated by experienced personnel. The vibrator shall be used to consolidate the concrete. The vibrator shall not be used to convey concrete, nor shall it be placed on	members or blocking. 14. Shear Walls:	(c) shall be installed in pre-drilled lead holes if necessary to avoid splitting.
reinforcing and/or forms. 17. Concrete shall be maintained in a moist condition for a min. of five (5) days after placement.	(a) Refer to plans for all shearwall locations, length type and nailing.(b) Refer to Shearwall Schedule on title sheet for additional information.	 (d) shall be hot-dipped zinc-coated galvanized steel, or stainless steel when in co with preservative-treated wood.
 Concrete shall not be permitted to free fall more than six (6) feet. For heights greater than six (6) feet, use tremie, pump or other method consistent with applicable standards. When specified ultimate compressive strength is greater than 2500 psi. Contractor shall 	 (c) Shear wall lengths specified on plans are minimum required. (d) Shear walls to be nailed with common nails. All nails to have minimum 3/8" edge distance to panel or framing member. 	accordance with the treated wood or bolt manufacturer's Recs. A Min. of A653, type G185 zinc-coated galvanized steel (or equiv.) shall be used.
submit mix designs to Architect and Engineer for approval seven (7) days prior toplacement. Mix designs shall be prepared by an approved testing laboratory. Sufficient data must be	 (e) Where 3x framing is required per the shear wall schedule, stagger edge nailing. (f) Oriented Strand Board (OSB) may be used in lieu of plywood. 	 When used in an interior, dry environment in SBX/DOT or zinc borate preservative-treated wood, plain carbon nails shall be permitted.
provided for all admixtures. 20. Refer to Architectural plans for locations of all dimensions, slab depressions, slopes, drains,	2019 CBC TABLE 2304.10.1	(e) All nailing shall conform to the Governing Building Code, Table 2304.10.1.2. Lag screws:
curbs, and control joints.	FASTENING SCHEDULE FASTENING ^{a,m}	 (a) shall be installed into pre-drilled lead noies. Lubricant (or soap) shall be used facilitate installation and prevent damage to the screws. (b) shall be hot-dipped zinc-coated galvanized steel or stainless steel when in coated galvanized steel or steel when steel when in coated galvanized steel or steel when steel w
 Reinforcing steel shall be to deformed, clean, free of rust, grease or any other material likely to impair concrete bond. 	2. Ceiling joists to plate, toenail 3-8d 3. Ceiling joists, laps over partitions, face nail 3-16d	 with preservative-treated wood. i. When used in exterior applications, bolts shall have coating types and we
2. All bars shall conform to ASTM A615, Grade 60 minimum (UNO on structural plans). All weld wire fabric (WWF) shall conform to ASTM A185.	4. Ceiling joists to parallel rafters, face nail Per CBC Table 2308.7.3.1 5. Collar tie to rafter, face nail 3-10d 6. Define percent true to plate toppil 3.10d	accordance with the treated wood or bolt manufacturer's rec's. A minimur ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be u
 Reinforcing steel that is to be welded shall conform to ASTM A706. All welding of reinforcement shall be subject to special inspection. Contractor shall take necessary steps (standard ties, anchorage devices, etc.) to secure all 	6. Raiter of roof truss to plate, toenali 3-10d 7. Roof rafters to ridge valley or hip, toe nail / end nail 3-10d / 2-16d Roof rafter to 2x ridge beam, toe nail / end nail 3-10d / 2-16d	 When used in dry interior environments in SBX/DOT or zinc borate prese treated wood, plain carbon screws, nuts, and washers shall be permitted. Bolts:
 reinforcing steel in their true position and prevent displacement during concrete placement. Fabrication, placement and installation of reinforcing steel shall conform to: 	8. Double studs, face nail 16d at 24" oc 9. Built-up corner studs 16d @ 16" oc	 (a) shall conform to ASTM A307, UNO specifically on plans and details. (b) shall be installed in pre-drilled holes a max of 1/16" larger than the specified b
(a) Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice(b) the Governing Building Code, Section 1907.	10. Continuous header, two pieces 16d at 16" oc along each edge 11. Continuous header to stud, toenail 4-8d 12. Double top plates, twoical face pail 16d at 16" oc	(c) when installed against wood surfaces, shall have standard washers under the and nuts.
 Shop drawings for fabrication of reinforcing steel shall be approved by the Contractor and submitted to the Architect and Engineer for review and approval prior to fabrication. Shop drawings are not required for alpha on grade or foundations unloss appointing the provided on the 	13. Double top plates, lap splice 8-16d 14. Sole plate to joist or blocking, typical face nail 16d at 16" o.c.	 (d) shall be hot-dipped zinc-coated galvanized steel or stainless steel when in co with preservative-treated wood. When used in exterior applications, bolts shall have coating types and we
structural plans. 7. Heating of reinforcing steel to aid in bending and shaping of bars is not permitted. All bends	15. Sole plate to joist or blocking at braced wall panels2-16d @ 16" o.c.	accordance with the treated wood or bolt manufacturer's rec's. A minimur
in reinforcing steel are to be made cold. All bend radii shall conform to CRSI Manual of Standard Practice.	16. Stud to to or bottom plate 4-8d, toenail or 2-16d, end nail 17. Toe so bottom plate 2.40d	ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be u
	16. Stud to to or bottom plate4-8d, toenail or 2-16d, end nail17. Top or bottom plate to stud, end nail2-16d18. Top plates, laps and intersections, face nail2-16d19. 1" diagonal brace to each stud and plate, face nail2-8d	ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be u ii. When used in dry interior environments in SBX/DOT or zinc borate prese treated wood, plain carbon screws, nuts, and washers shall be permitted.
8. Refer to Concrete and Masonry notes for specific minimum splice length and splice staggering requirements. Lap welded wire fabric (WWF) reinforcement two (2) modules	16. Stud to to or bottom plate4-8d, toenail or 2-16d, end nail17. Top or bottom plate to stud, end nail2-16d18. Top plates, laps and intersections, face nail2-16d19. 1" diagonal brace to each stud and plate, face nail2-8d20. 1" x 6" sheathing each bearing (or less), face nail2-8d21. 1" x 8" and wider sheathing to each bearing, face nail3-8d	 ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be u ii. When used in dry interior environments in SBX/DOT or zinc borate prese treated wood, plain carbon screws, nuts, and washers shall be permitted. 4. Anchor Bolts: (a) shall be installed at all exterior walls and all interior shear and/or bearing wall (b) shall be 5/8" diameter with 2x2x0.220" steel plate washers at shearwalls
 Refer to Concrete and Masonry notes for specific minimum splice length and splice staggering requirements. Lap welded wire fabric (WWF) reinforcement two (2) modules minimum (UNO). All splices are to be staggered. TRUSSES	16. Stud to to or bottom plate 4-8d, toenail or 2-16d, end nail 17. Top or bottom plate to stud, end nail 2-16d 18. Top plates, laps and intersections, face nail 2-16d 19. 1" diagonal brace to each stud and plate, face nail 2-8d 20. 1" x 6" sheathing each bearing (or less), face nail 2-8d 21. 1" x 8" and wider sheathing to each bearing, face nail 3-8d 22. Joist to sill or girder, toenail 3-8d 23. Rim joist to top plate, toenail 8d at 6" oc 24. 1" x 6" subfloar or less to conch init, face nail 2.9d	 ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be u ii. When used in dry interior environments in SBX/DOT or zinc borate prese treated wood, plain carbon screws, nuts, and washers shall be permitted. 4. Anchor Bolts: (a) shall be installed at all exterior walls and all interior shear and/or bearing wall (b) shall be 5/8" diameter with 3x3x0.229" steel plate washers at shearwalls. (c) shall be 5/8" diameter with 2x2x3/16" steel plate washers at non-shearwalls. (d) shall have 7" minimum embedment. (Contractor to coordinate length of bolts)
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Anchor Bolts: (a) shall be installed at all exterior walls and all interior shear and/or bearing wall (b) shall be 5/8" diameter with 3x3x0.229" steel plate washers at shearwalls. (c) shall be 5/8" diameter with 2x2x3/16" steel plate washers at non-shearwalls. (d) shall be 7" minimum embedment. (Contractor to coordinate length of bolts plate thicknesses). (e) shall be hot-dipped zinc-coated galvanized steel or stainless steel when in co with preservative-treated wood. i. When used in exterior applications, bolts shall have coating types and we accordance with the treated wood or bolt manufacturer's rec's. A minimur ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be 1 ii. When used in dry interior environments in SBX/DOT or zinc borate prese treated wood, plain carbon screws, nuts, and washers shall be permitted. (g) shall not be spaced greater than 72" oc Refer to shearwalls chedule for specianchor bolt spacing requirements. (h) shall be placed a maximum of 12" from wall corners, wall ends, and sill plate (but not less than 7 dia.), and a min. of two bolts per piece of sill plate is required. (j) shall be secured in place prior to foundation inspection. 5. Powder Actuated Shot Pins: (a) shall be installed at all interior non-bearing, non-shearwalls. (b) shall be cated and zincer steel washers. (c) shall not be spaced greater than 32" o.c. 1IMBER / LUMBER 1. All structural lumber shall be Douglas Fir-Larch, S4S and shall conform to the Govern Building Code, section 2303.1.1. 2. The minimum lumber grade of each member shall be as follows (unless specifically notedotherwise o
 Refer to Concrete and Masonry notes for specific minimum splice length and splice staggering requirements. Lap welded wire fabric (WWF) reinforcement two (2) modules minimum (UNO). All splices are to be staggered. TRUSSES Refer to the structural and architectural plans for additional design loads and conditions. Bottom chords shall be designed to resist a minimum celling live load of 10 psf. Truss calculations and details shall be submitted to the Architect/Engineer and the building department for review and approval prior to fabrication. All trusses shall be fabricated in the shop of a licensed fabricator approved by the governing building department. Each truss shall be legibly branded, marked or otherwise have permanently affixed thereto the following information located within 2 feet of the center of the span on the face of the bottom chord: (a) Identity of the company manufacturing the truss (b) the design load, and (c) the spacing of the trusses. Walls: (a) Trusses shall bear on exterior walls only unless specifically noted otherwise. (b) All interior walls shall be non-bearing unless specifically noted on the structural plans. Bearing: (a) Securing of bearing walls, unless noted otherwise, trusses shall be secured at all bearing points with Simpson seismic anchors (e.g. H1). (b) Interior non-bearing walls shall be isolated from the trusses with Simpson truss clips (e.g. STC, DTC, HTC4) or approved equal. (c) Trusses to be manufactured with necessary camber to account for dead load deflections and eliminate accidental bearing on interior non-bearing walls. Blocking and bracing shall be installed per manufacturer's recommendations.	16. Stud to be obtion plate 4-8d, toenal or 2-16d, and nal 17. Toor pototic plate to stud, and nal 2-18d 18. Toop plates, laps and intersections, face nall 2-18d 19. 17.8 or pototic plate to stud, and and plate, face nall 2-4d 21. 17.8 of and wider sheathing to each bearing, face nall 2-4d 22. Jost to grider, torenal 3-8d 22. Jost to grider, torenal 3-8d 22. Jost to grider, torenal 2-8d 23. Parks, face nall 2-16d 24. 17.8 of and wider sheathing ach bearing 2-8d 23. Jost to baj ard grider, torenall 2-8d 24. 17.8 far dwider sheath face nall 2-16d 25. Zublack, face nall 2-16d 26. 2-2d granks, face nall 2-16d 26. 2-2d granks, face nall 2-16d 28. Ledger stip, face nall 2-16d 29. Jost band joit, conal and and not stap 2-8d 30. Moder shaped stap, face nall 2-16d 30. Moder shaped stap, face nall 2-16d	 ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be it. When used in dry interior environments in SBX/DOT or zinc borate prese treated wood, plain carbon screws, nuts, and washers shall be permitted. Anchor Bolts: (a) shall be installed at all exterior walls and all interior shear and/or bearing wall (b) shall be 5/8" diameter with 3x3x0.229" steel plate washers at non-shearwalls. (c) shall be 5/8" diameter with 2x2x3/16" steel plate washers at non-shearwalls. (d) shall have 7" minimum embedment. (Contractor to coordinate length of bolts plate thicknesses). (e) shall conform to ASTM F1554 Gr. 36. (f) shall be hot-dipped zinc-coated galvanized steel or stainless steel when in co with preservative-treated wood. i. When used in exterior applications, bolts shall have coating types and we accordance with the treated wood or bolt manufacturer's rec's. A minimu ASTM A653, type G185 zinc-coated galvanized steel (or equal) shall be to space greater than 72" oc Refer to shearwall schedule for specianchor bolt spacing requirements. (f) shall be placed a maximum of 12" from wall corners, wall ends, and sill plate (but not less than 7 dia.), and a min. of two bolts per piece of sill plate is requ (i) shall be secured in place prior to foundation inspection. Powder Actuated Shot Pins: (a) shall be installed at all interior non-bearing, non-shearwalls. (b) shall be spaced greater than 32" o.c. TIMEER / LUMBER 1. All structural lumber shall be Douglas Fir-Larch, S4S and shall conform to the Govern Building Code, section 2303.1.1. 2. The minimum lumber grade of each member shall be as follows (unless specifically notedotherwise on plans and details): (a) 2x studs, blocking, plates:Stud (b) 2x joist #2 or better (c) 4x4, 4x6, or 6x 6 beams or posts #1 or better 1 (d) 4x8, 6x8, or larger beams or po

- utions shall be permitted without prior approval of the Engineer.
- (b) shall be located per structural plans (c) shall be installed in accordance with applicable code approvals and manufacturer's specifications.
- 2. Hardy Frames: (a) shall be fabricated by Hardy Frames, Inc. No substitutions shall be permitted without
- prior approval of the Engineer. (b) shall be located per structural plans (c) shall be installed in accordance with applicable code approvals and manufacturer's specifications.
 - PLAN REVIEW ACCEPTANCE

Nov 16 2020

eams that are cantilevered e following min. properties:

from the Engineer T.C. Certificate of otherwise on the plans mum properties:

ovide full depth solid nless otherwise approved,

num of 1/2" apart while d with 16d nail, 1/2" bolts c approval of the EOR.

ovide full depth solid nless otherwise approved,

um of 1/2" apart while d with 16d nail, 1/2" bolts or approval of the EOR. mum properties:

ovide full depth solid cations. Unless otherwise

num of 1/2" apart while approval of the EOR. s. Substitutions shall not be ovals and mfg's spec's.

1/2" at intermediate s specified by the Mfr. Only approval of the EOR.

than 1/4 of their length to

less steel when in contact oating types and weights in er's Recs. A Min. of ASTM

T or zinc borate Table 2304.10.1. soap) shall be used to

ess steel when in contact

oating types and weights in er's rec's. A minimum of l (or equal) shall be used. or zinc borate preservatives shall be permitted.

than the specified bolt dia. d washers under the heads

ess steel when in contact oating types and weights in er's rec's. A minimum of I (or equal) shall be used. or zinc borate preservatives shall be permitted.

and/or bearing walls. rs at shearwalls. at non-shearwalls.

inate length of bolts with sill ess steel when in contact

oating types and weights in Re er's rec's. A minimum of l (or equal) shall be used. or zinc borate preservatives shall be permitted. Il schedule for specific

ends, and sill plate splices ce of sill plate is required.

nform to the Governing unless specifically

e Select Structural or better reated Douglas Fir. eated material, all newlycut

ceed 19% at time of with exterior glue. All d 23-2 and grade-marked by 0 for floors and 24/0 for

restricted to the original site for which they were prepared and publication thereof is expressly limited to such use. Reproduction or publication by any method, in whole or in part, is prohibited. Title to these plans and specifications remain with Ashley & Vance Engineering, Inc. without prejudice. Visual contact with these plans and specifications shall constitute prima facie evidence of the acceptance of these restrictions. Engineer of Record:

/isi	ons:				
	Permit	Set		20 July	202
	Plan C	heck #1		15 Sept.	202
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эj.	Engr.:	T. Holmes	6	Phone Ext.:	152
oj.	Mngr.:	T. Vance		Phone Ext.:	112
te	: 20 Ju	ly 2020	Sc	ale: NTS	

A&V Job No.: 18219

NOT SCALE THESE DRAWINGS. Refer to Architectural plans for all dimensions.

S-1.2

GRADE BEAM SCHEDULE									
MARK	LONGITUNDAL REINFORCEMENT	SHEAR REINFORCEMENT							
(B1)	3 - #5 T&B	#3 @ 9" o.c.	<u>T</u>						
(B2)	5 - #5 T&B	#3 @ 9" o.c.							

DRILLED PIER SCHEDULE

MARK	EMBEDMENT						
P1	16'-0"	Τ					
P2	20'-0"	<u>Ty</u> <u>Gr</u>					
All embedments are in to competent m as determined by the soils enginee Total pier length will vary.							

If Drilling Refusal met prior to reaching these depths, contact the Soils and Structural EOR for further instruction.

GENERAL FOUNDATION NOTES

Please see Soils Report for additional specifications and recommendations. It is the contractor's responsibility to obtain a copy of the soils report from the owner or owners representative.	
Prior to the contractor requesting a Building Department oundation inspection, the Soils Engineer shall advise the building nspector in writing that:	®X ⊑

- a) Building pad was prepared in accordance with soils report b) Utility trenches have been properly backfilled and
- compacted, and c) Foundation excavations, the soil's expansive characteristics
- and bearing capacity conform to the soils report.
- See General Notes & Specifications for additional
- requirements and material specifications.

All dimensions per Architectural plans Contractor to VERIFY all dimensions w/ Architectural

plans PRIOR to commencement of construction.

TYPE	HOLDOWN ¹	MIN. POST	ANCHOR / EMBEDMENT
Α	CS14	(2) 2x	N/A
В	CMSTC16	(2) 2x	N/A
С	CMST14	4x6	N/A
D	CMST12	4x6	N/A
E	MSTC66B3	(2) 2x	N/A
1	HDU4	(2) 2x	Per Details
2	HDU8	4x6	Per Details
3	HDU11	6x6	Per Details
4	HDU14	6x6	Per Details
5	HD19	6x6	Per Details

1. Shared holdowns to be installed per detail **10/S-1.1**, *Typical Shearwall Intersections*, (UNO)

SHEARWALL SCHEDULE

FOOTNOTES:

	DESCRIP	NAILING		TRANSFERS (2x - 1488#) (282#) ⁶ (3x - 1888#) (282#) ⁶			3			
No.	MATERIALS	2 SIDES	SILL PLATE	B'DRY	SIZE	SPACING	5/8" dia. ² AB	SDS ³ Screw	A-35 / ⁷ LTP4/LTP5	
6	15/32" STRUC I PLY	Ν	2x	2x	10d	6"	48"	9"	18"	
4	15/32" STRUC I PLY	N	2x	Зx	10d	4"	35"	6"	12"	
3	15/32" STRUC I PLY	Ν	2x	3x	10d	3"	26"	5"	9"	
2⁄	15/32" STRUC I PLY	N	2x	Зx	10d	2"	20"	3 " ^{8,9}	7"	
44	15/32" STRUC I PLY	Y	Зx	3x	10d	4"	17"	3 " ^{8,9}	6"	
22/	15/32" STRUC I PLY	Y	3x	3x	10d	2"	10"	2" ^{8,9}	3 " ¹⁰	

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WEST COAST CODE CONSULTANTS

MANUFACTURED SHEAR WALLS

WSW Simpson Strong-Wall Wood Shearwall WSW24x12 w/ WSW-AB1 x 30 Install per Mfr. Specs. & ICC-ES ESR-2652 1 All nails to be COMMONS. Do NOT use box type nails. All "field" nailing to be 12" o.c., U.N.O. 2 All shearwalls to have 5/8" AB's with 3" x 3" x .229" thick plate washers, minimum. Washers shall be slotted (slot length not to exceed 1-3/4") w/ standard cut washer placed between nut and plate washer. Washers shall extend within 1/2" of the

edge of the bottom plate on the sheathed side. At walls sheathed on 2 sides, plate washers shall be alternated to each side of plate. [CBC 2308.12.8 & 2308.12.9] [AF&PA SDPWS 4.3.6.4.3] 3 Simpson SDS 1/4"x4-1/2" Screws through 2x sill, or SDS 1/4"x6" Screws through 3x sill or double plates. [ICC ER-5268] 4 All transfers to be installed into min. 1-1/2" thick members, UNO. Where clips are spaced less than 6" o.c., stagger clips on each side of wall.

5 16d common nails through the sill plate to rim member or blocking. 6 Capacity reduced by plan irregularity factor(ASCE 12.3.3.4).

7 See details for permitted transfer clip types and locations.

8 Install screws into 3-1/2" wide continuous member, staggered 1-1/2" apart. 9 Install screws into Glulams or solid sawn member, LSL, LVL, or PSL members are NOT acceptable, UNO.

10 Provide both A35 and LTP4 clips on opposite sides of shearwall in order to acheive net spacing requirement.

5¼"x9½" PSL, Centered on Elevator Rail, Typ. of 2. Attach to Top Plates & Sill Plate w/ HGA10KT Ea. Side, Refer to Elevator Drawings for Exact Locations of Rails.

OT SCALE THESE DRAWINGS. Refer to Architectural plans for all dimension

8"

-Blocked Diaphragm Per General Framing Notes

Full Length CMSTC16 from Shearwall Top Plates to side of Drag/Girder Truss. Fully Nail Strap over 3x blocking along Baloon Framed Elevator Wall. See 11/S-3.3 for Relevant End Lengths and Nailing.

- 5¼"x9½" PSL, Centered on Elevator Rail, Typ. of 2. Attach to Top Plates & Sill Plate w/ HGA10KT Ea. Side, Refer to Elevator Drawings for Exact Locations of Rails.

- Contractor to Provide AOR & EOR w/ Shop Drawings for Review

Structural Engineer. Refer to the Material Specifications for additional requirements. Truss drawings shall include (but are not limited to) the following:

TRUSS DRAWINGS

- 1. All connections related to trusses (i.e. truss to truss, conventional framing to truss, truss to top plate, etc. 2. All related bracing for trusses. 3. Any camber needed to minimize excessive deflection. 4. Adequate design to prevent any lateral movement.
- 5. Adequate design to sustain any vertical load. 6. The builder agrees to hold the Architect (or Designer) & the Engineer harmless for omissions due to delayed receipt of truss drawings.

All truss engineering, drawings, truss types, and detailed shop drawings shall be approved by the project engineer prior to the installation of the trusses.

GENERAL FRAMING NOTES

Beams (per Call-out)

All Beams to Bear on Plates w/ Indicated Post or Doubler Below Unless Noted Otherwise All Lumber 4x6, 6x6 and Smaller to be DF #2 UNO All Lumber 4x8, 6x8 and Larger to be DF #1 UNO Floor sheathing to be 3/4" plywood or OSB, T & G, PI 40/20,

glued and nailed w/ 10d commons at 6", 6", 12" Blocked Diaphragm: (Where Occurs Per Plan) Floor sheathing to be 3/4" plywood or OSB, T & G, PI 40/20, glued and nailed w/ 10d commons at 6", 6", 12". Block Diaphragm w/ 2x4 Flat Min. Blocking at <u>All</u> Panel Joints. All Walls to have Continuous Double Top Plates, All Splices to be per Detail 7/S-1.1

All Drag Trusses to be Boundary nailed full-length and designed for a minimum drag force of **5000 lbs**, UNO per

✓ Pre-Fabricated Roof Trusses (by Others) @ 24" oc All Truss to Truss Hangers per Mfr., Typ. (UNO)

in Hangers by Others as Req'd Denotes Step in Framing.

Step Ht. & Extent per Arch.

Waterproofing, flashing, & finish details per Architecturals. See General Notes & Specifications for additional requirements and material specifications. All dimensions per Architectural plans

Contractor to VERIFY all dimensions w/ Architectural plans PRIOR to commencement of construction.

WALL SCHEDULE

Stud wall locations per Architecturals. Non-Bearing Wood-Framed Wall, Thk. per Arch.

2x4 D.F. Stud @ 16" oc, Min. Struc. Wood-Framed Wall, Thk. per Arch.

2x6 D.F. Stud @ 16" oc, Min.

2x8 D.F. #2 @ 16" oc, Min.

Provide wall length continuous full depth solid blocking (where floor joists perpendicular) or double floor joist (where joists parallel) for all walls above.

Walls above

(shown for clarity)

HOLDOWN SCHEDULE

TYPE	HOLDOWN ¹	MIN. POST	ANCHOR / EMBEDMENT	DE				
Α	CS14	(2) 2x	N/A	Ho				
В	CMSTC16	(2) 2x	N/A	E x				
С	CMST14	4x6	N/A	In 10				
D	CMST12	4x6	N/A	24				
Ε	MSTC66B3	(2) 2x	N/A	Ste 23				
1	HDU4	(2) 2x	Per Details	Woo 22				
2	HDU8	4x6	Per Details	Floo 2´				
3	HDU11	6x6	Per Details	<u>s</u>				
4	HDU14	6x6	Per Details	Floo 21				
5 HD19 6x6 Per Details								
FOOTNOTES: 1. Shared holdowns to be installed per detail 10/S-1.1 , <i>Typical Shearwall</i> <i>Intersections</i> , (UNO)								

SHEARWALL SCHEDULE

	DESCRIP	TION			NAIL	.INĜ	(2x - 1488#)	T	RANSFER	5 ⁴
No.	MATERIALS	2 SIDES	SILL PLATE	B'DRY	SIZE	SPACING	<u>(3x - 1888#)</u> 5/8" dia. ² AB	SDS ³ Screw	(536#) A-35 / ⁷ LTP4/LTP5	1
6	15/32" STRUC I PLY	N	2x	2x	10d	6"	48"	9"	18"	
4⁄	15/32" STRUC I PLY	N	2x	Зx	10d	4"	35"	6"	12"	
3⁄	15/32" STRUC I PLY	N	2x	3x	10d	3"	26"	5"	9"	
2⁄	15/32" STRUC I PLY	N	2x	3x	10d	2"	20"	3 " ^{8,9}	7"	
44	15/32" STRUC I PLY	Y	3x	3x	10d	4"	17"	3" ^{8,9}	6"	
22/	15/32" STRUC I PLY	Y	3x	3x	10d	2"	10"	2" ^{8,9}	3" ¹⁰	

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Nov 16 2020

WEST COAST CODE CONSULTANTS

MANUFACTURED SHEAR WALLS

WSW Simpson Strong-Wall Wood Shearwall WSW24x12 w/ WSW-AB1 x 30 ∖Ą⁄ Install per Mfr. Specs. & ICC-ES ESR-2652 FOOTNOTES: 1 All nails to be COMMONS. Do NOT use box type nails. All "field" nailing to be 12" o.c., U.N.O. 2 All shearwalls to have 5/8" AB's with 3" x 3" x .229" thick plate washers, minimum. Washers shall be slotted (slot length not

to exceed 1-3/4") w/ standard cut washer placed between nut and plate washer. Washers shall extend within 1/2" of the edge of the bottom plate on the sheathed side. At walls sheathed on 2 sides, plate washers shall be alternated to each side of plate. [CBC 2308.12.8 & 2308.12.9] [AF&PA SDPWS 4.3.6.4.3] 3 Simpson SDS 1/4"x4-1/2" Screws through 2x sill, or SDS 1/4"x6" Screws through 3x sill or double plates. [ICC ER-5268] 4 All transfers to be installed into min. 1-1/2" thick members, UNO. Where clips are spaced less than 6" o.c., stagger clips on each side of wall.

5 16d common nails through the sill plate to rim member or blocking.

6 Capacity reduced by plan irregularity factor(ASCE 12.3.3.4). 7 See details for permitted transfer clip types and locations.

8 Install screws into 3-1/2" wide continuous member, staggered 1-1/2" apart. 9 Install screws into Glulams or solid sawn member, LSL, LVL, or PSL members are NOT acceptable, UNO.

10 Provide both A35 and LTP4 clips on opposite sides of shearwall in order to acheive net spacing requirement.

	DESCRIPTION					.ING	(2x - 1488#) (3x - 1888#)	T (282#) ⁶	RANSFERS	3 ⁴
No.	MATERIALS	2 SIDES	SILL PLATE	B'DRY	SIZE	SPACING	5/8" dia. ² AB	SDS ³ Screw	A-35 / ⁷ LTP4/LTP5	
6	15/32" STRUC I PLY	Ν	2x	2x	10d	6"	48"	9"	18"	
4	15/32" STRUC I PLY	Ν	2x	Зx	10d	4"	35"	6"	12"	
$\!$	15/32" STRUC I PLY	Ν	2x	Зx	10d	3"	26"	5"	9"	
2	15/32" STRUC I PLY	Ν	2x	Зx	10d	2"	20"	3 " ^{8,9}	7"	
₩4	15/32" STRUC I PLY	Y	Зx	Зx	10d	4"	17"	3" ^{8,9}	6"	
22/	15/32" STRUC I PLY	Y	3x	3x	10d	2"	10"	2" ^{8,9}	3 " ¹⁰	

- 5¼"x9½" PSL, Centered on Elevator Rail, Typ. of 2. Attach to Top Plates & Sill Plate w/ HGA10KT Ea. Side, Refer to Elevator Drawings for Exact Locations of Rails.

- Contractor to Provide AOR & EOR w/ Shop Drawings for Review

- (2) Bays of Full height Truss Blkg. By Others Centered on Guiderail Posts Ea. Side w/ Roof B.N. from Roof Sheathing. Clip to Top Plates Directly Above Ea. Post w/ HGA10KT Ea. Side of Truss Block

Struc. Wood-Framed Wall, Thk. per Arch.

Stud wall locations per Architecturals.

Vertical Supports @ 48" o.c., Staggered.

TRUSS DRAWINGS

are not limited to) the following:

2. All related bracing for trusses.

receipt of truss drawings.

prior to the installation of the trusses.

All Beams to Bear on Plates w/ Indicated

and nailed w/ 10d commons at 6", 6", 12"

requirements and material specifications.

PRIOR to commencement of construction.

All dimensions per Architectural plans

All Splices to be per Detail 7/S-1.1

Post or Doubler Below Unless Noted Otherwise

Beams (per Call-out)

Girder/Drag Truss By Others Approx. Locations Shown

2x6 D.F. Stud @ 16" oc, Min. (N) Struc. Balloon-Framed Wall, Thk. per Arch. 2x8 D.F. Stud @ 16" oc, Min.

HOLDOWN SCHEDULE										
TYPE	HOLDOWN ¹	MIN. POST	ANCHOR / EMBEDMENT							
Α	CS14	(2) 2x	N/A							
В	CMSTC16	(2) 2x	N/A							
С	CMST14	4x6	N/A							
D	CMST12	4x6	N/A							
E	MSTC66B3	(2) 2x	N/A							
1	HDU4	(2) 2x	Per Details							
2	HDU8	4x6	Per Details	F						
3	HDU11	6x6	Per Details							
4	HDU14	6x6	Per Details	F						
5	HD19	6x6	Per Details							
FOOTNOTES:										

Shared holdowns to be installed per detail 10/S-1.1, *Typical Shearwall Intersections*, (UNO)

SHEARWALL SCHEDULE

-										
	DESCRIP	TION			NAIL	ING	(2x - 1488#) (3x - 1888#)	T (282#) ⁶	RANSFERS	5 ⁴ (3
No.	MATERIALS	2 SIDES	SILL PLATE	B'DRY	SIZE	SPACING	5/8" dia. ² AB	SDS ³ Screw	A-35 / ⁷ LTP4/LTP5	F
6	15/32" STRUC I PLY	N	2x	2x	10d	6"	48"	9"	18"	
4	15/32" STRUC I PLY	N	2x	Зx	10d	4"	35"	6"	12"	
3	15/32" STRUC I PLY	N	2x	3x	10d	3"	26"	5"	9"	
2⁄	15/32" STRUC I PLY	N	2x	3x	10d	2"	20"	3 " ^{8,9}	7"	
44	15/32" STRUC I PLY	Y	3x	3x	10d	4"	17"	3 " ^{8,9}	6"	
22/	15/32" STRUC I PLY	Y	3x	3x	10d	2"	10"	2" ^{8,9}	3 " ¹⁰	

PLAN REVIEW ACCEPTANCE

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WEST COAST CODE CONSULTANTS

MANUFACTURED SHEAR WALLS

WSW Simpson Strong-Wall Wood Shearwall WSW24x12 w/ WSW-AB1 x 30 ∖Ą⁄ Install per Mfr. Specs. & ICC-ES ESR-2652 FOOTNOTES: 1 All nails to be COMMONS. Do NOT use box type nails. All "field" nailing to be 12" o.c., U.N.O. 2 All shearwalls to have 5/8" AB's with 3" x 3" x .229" thick plate washers, minimum. Washers shall be slotted (slot length not

to exceed 1-3/4") w/ standard cut washer placed between nut and plate washer. Washers shall extend within 1/2" of the edge of the bottom plate on the sheathed side. At walls sheathed on 2 sides, plate washers shall be alternated to each side of plate. [CBC 2308.12.8 & 2308.12.9] [AF&PA SDPWS 4.3.6.4.3] 3 Simpson SDS 1/4"x4-1/2" Screws through 2x sill, or SDS 1/4"x6" Screws through 3x sill or double plates. [ICC ER-5268] 4 All transfers to be installed into min. 1-1/2" thick members, UNO. Where clips are spaced less than 6" o.c., stagger clips on each side

of wall. 5 16d common nails through the sill plate to rim member or blocking.

6 Capacity reduced by plan irregularity factor(ASCE 12.3.3.4). 7 See details for permitted transfer clip types and locations.

8 Install screws into 3-1/2" wide continuous member, staggered 1-1/2" apart.

9 Install screws into Glulams or solid sawn member, LSL, LVL, or PSL members are NOT acceptable, UNO. 10 Provide both A35 and LTP4 clips on opposite sides of shearwall in order to acheive net spacing requirement.

	21
27 NOT USED	22
28	23
29 NOT USED	24 NOT USED
30 NOT USED	25 NOT USED

26 NOT USED	21 NOT USED
28	
29 NOT USED	
30 NOT USED	NOT USED

16 NOT USED (11)(17) NOT USED (12)-18 NOT USED 19 NOT USED (14) _____

15-

20 NOT USED

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GENERAL ELEC. NOTES

- 1. SMOKE DETECTORS SHALL BE PROVIDED IN AREAS LEADING TO BEDROOMS & WITHIN EACH BEDROOM SMOKE DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS OF
- THE RESIDENCE. LIGHT SWITCHES MUST BE EFFECTIVELY GROUNDED, PER NEC 380-9(b)

4

- PER NEC ART.210-11 (c)3, PROVIDE BATHROOM CIRCUITING WHERE AT LEAST ONE 20
- AMPERE CIRCUIT SHALL SUPPLY BATHROOM RECPTACLES OUTLET(S) PROVIDE TWO 20 AMP BRANCH CIRCUITS TO SUPPLY COUNTERTOP RECEPTACLES FOR KITCHEN, DINING ROOM, AND SIMILAR ROOMS.
- 6. KITCHEN LIGHTING TO COMPLY WITH MF-1R OF TITLE 24.LIGHTING MUST BE OF HIGH EFFICACY LUMINAIRES.
- 7. MECHANICAL SYSTEM (INCLUDING DUCTING FOR FAU, DRYER, AND GAS FIREPLACES) SHALL BE DESIGN/BUILD. CONTRACTOR TO SUBMIT CUTSHEETS OF
- SPECIFIC BOOSTER FANS TO COUNTY PRIOR TO INSTALLATION. 8. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS, AT LEAST ONE LUMINAIRE SHALL BE CONTROLLED BY A VACANCY SENSOR
- 9. AT ROOMS OTHER THAN KITCHENS, BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS (EXCEPT CLOSETS LESS THAN 70 SF) ALL LUMINAIRES SHALL BE HIGH EFFICACY OR SHALL BE CONTROLLED BY A DIMMER SWITCH OR AN OCCUPANT SENSOR THAT DOES NOT TURN ON AUTOMATICALLY OR HAVE AN ALWAYS ON OPTION.
- 10. ALL OUTDOOR LIGHTING LUMINAIRES MOUNTED TO THE BUILDING SHALL BE HIGH EFFICACY LUMINAIRES AND SHALL BE CONTROLLED BY A PHOTO CONTROL/MOTION SENSOR COMBINATION.
- 11. ELECTRICAL SERVICE PANEL SHALL BE GROUNDED PER CALIFORNIA ELECTRICAL
- CODE REQUIREMENTS. PROVIDE 1/2 DIA. 8' LONG COPPER GROUNDING ROD 12. ALL OUTLETS IN RATED PROPERTY LINE WALLS SHALL BE IN RATED BOXES AND SEALED WITH FIRE RATED CAULK.
- 13. EXHAUST FANS IN PRIVATE TOILET ROOMS SHALL PROVIDE A MINIMUM OF 50 CFM, AND BE CONTROLLED BY A HUMIDISTAT. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO THE EXTERIOR. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY HUMIDITY CONTROL. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF 50% TO A MAX. OF 80%, A HUMIDITY CONTROL MAY UTILIZE MANUAL OF AUTOMATIC MEANS OF ADJUSTMENT. HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E. BUILT-IN).

- PROVIDE ARC-FUALT CIRCUIT INTERRUPTER PROTECTION FOR ALL OUTLETS (NOT JUST RECEPTACLES) FOR ALL DWELLING UNIT FAMILY ROOMS, DINING ROOMS, KITCHENS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS 15. PER CRC R315.3 CARBON MONOXIDE ALARMS SHALL BE LOCATED OUTSIDE OF
- EACH SLEEPING AREA IN IMMEDIATE VICINITY OF BEDROOMS, ON EVERY LEVEL INCLUDING THE BASEMENT. CARBON MONOXIDE ALARMS SHALL RECEIVE POWER FROM THE BUILDING WIRING
- (WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE) AND SHALL BE EQUIPPED WITH A BATTERY BACKUP PER CRC R315.1.1, INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE WILL ACTIVATE ALL PER CRC R315.1.2
- 17. CARBON MONOXIDE ALARMS SHALL BE LISTED PER UL 2034 AND CARBON MONOXIDE DETECTORS SHALL BE LISTED PER UL 2075
- 18. FOR OUTLET BOXES IN A COMMON WALL WITH THE GARAGE. SUCH BOXES ON OPPOSITE SIDES OF THE WALL OR PARTITION SHALL BE SEPARATED AS FOLLOWS: 18.1 BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES.
- 18.2 BY SOLID FIRE BLOCKING IN ACCORDANCE WITH SECTION 717.2.1
- 18.3 BY PROTECTING BOTH BOXES WITH LISTED PUTTY PADS 19. ALL DWELLING UNIT RECEPTACLES REQUIRED BY 210.52 ARE REQUIRED TO BE LISTED
- TAMPER-RESISTANT RECEPTACLES (PER CBC 406.11) 20. LIGHTING INSTALLED IN ATTACHED & DETACHED GARAGES, LAUNDRY ROOMS & UTILITY ROOMS SHALL BE HIGH EFFICACY LUMINAIRES AND CONTROLLED BY
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- ENLCOSED LAMP 21.2. A SURFACE MOUNTED OR RECESSED FLOURESCENT FIXTURE.
- 21.3. INCANDESCENT LUMINAIRES WITH OPEN OR PARTIALLY ENCLOSED LAMPS & PENDANT LUMINAIRES OR LAMPHOLDERS SHALL NOT BE PERMITTED IN CLOSET IN ALL HABITABLE ROOMS, AN ELECTRICAL OUTLET SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL OR SPACE IS MORE THAN 6'-0" MEASURED HORIZONTALLY FROM ANY OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE TWO FEET OR MORE IN WIDTH, THE WALL SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS AND FIXED ROOM DIVIDERS, RECEPTACLE INSTALLED OUTDOORS IN A LOCATION PROTECTED FROM THE
- WEATHER OR IN OTHER DAMP LOCATIONS SHALL HAVE AN ENCLOSURE FOR THE RECEPTACLE THAT IS WEATHERPROOF WHEN THE RECETPACLE IS COVERED (ATTACHMENT PLUG CAP NOT INSERTED AND RECEPTACLE COVERS CLOSED). PER ČEC 406.9

ELECTRICAL LEGEND

ALL LIGHTING FIXTURES SHALL BE HIGH EFFICACY LUMINAIRES ALL LIGHT FIXTURES LOCATED IN TUB OR SHOWER SHALL BE SUITABLE FOR WET LOCATIONS PER CEC 410.10(A).

Φ	DUPLEX OUTLET ARC-FAULT CIRCUIT INTERRUPTER	\$	EI S'
220V	DUPLEX OUTLET 220 VOLTS	\$ ₃	EI S'
GFI D	DUPLEX OUTLET GROUND FAULT INTERRUPTER	\$4	EI S'
GFI WP Ø	DUPLEX OUTLET WATERPROOF GROUND FAULT INTERRUPTER	KR C	E) E) C
P	DUPLEX OUTLET AFCI-HALF HOT	$\bigcirc \bigcirc_{P}$	Ρ
РВ	DOOR BELL BUTTON/GARAGE DOOR OPENER BUTTON	\diamondsuit	SI LI
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۲	SMOKE	\bigcirc_{FL}	R D
SD ④	CARBON MONOXIDE	igodot	M LI
co ۲		FL	V Fl
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-cw	COLD WATER STUB	M	M FI
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DUPLEX OUTLET ARC-FAULT CIRCUIT INTERRUPTER	\$	Electrical Switch
DUPLEX OUTLET 220 VOLTS	\$3	ELECTRICAL SWITCH-THREE WAY
DUPLEX OUTLET GROUND FAULT INTERRUPTER	\$4	ELECTRICAL SWITCH-FOUR WAY
DUPLEX OUTLET WATERPROOF GROUND FAULT NTERRUPTER		EXHAUST FAN EXHAUST FAN/LIGHT COMBINATION
DUPLEX OUTLET AFCI-HALF HOT	$\bigcirc \oplus_{\mathbf{P}}$	PENDANT LIGHT
DOOR BELL BUTTON/GARAGE DOOR OPENER BUTTON	\diamondsuit	SURFACE MOUNTED LIGHT
	$\bigcirc_{\rm FL}$	SURFACE MOUNTED FLOURESCENT LIGHT
CABLE TELEVISION OCATION	\bigcirc	RECESSED DOWNLIGHT
SMOKE DETECTOR/ALARM	Θ_{FL}	RECESSED FLOURESCENT DOWNLIGHT
CARBON MONOXIDE DETECTOR/ALARM	Φ	WALL MOUNTED LIGHT
ORCED AIR UNIT, PROVIDE	FL ♀	WALL MOUNTED FLOURESCENT LIGHT
.IGHT, SWITCH, DEDICATED 110 DUTLET IN ATTIC	VS	VACANCY SENSOR

MOTION SENSOR LOURESCENT STRIP IGHT

UNDER CABINET LOURESCENT LIGHT

STANDARD LIGHT W/ OPTIONAL CEILING FAN

ASHRAE STANDARD CALC.

EQUATION 4.1a FROM ASHRAE 62.2

- Q-FAN = 0.01 x A-FLOOR + 7.5 x (N-BR + 1)
- $Q-FAN = 0.01 \times 13,128 SF + 7.5 \times (8 + 1)$

Q-FAN = 198.78 CFM

RESULT: PROVIDE WHOLE HOUSE FAN W/ 198.78 CFM MINIMUM

REFERENCE NOTES

- 249 EXTERIOR LIGHT FIXTURE OWNER SELECTED
- 456 200 AMP ELECTRICAL PANEL & CATV SERVICE. S.E.D. 463 RACEWAY DEDICATED TO ACCOMMODATE 208/240 VOLT BRANCH CIRCUIT 1" IN DIAMETER FOR FUTURE EV CHARGING. SERVICE PANEL SHALL PROVIDE CAPACITY TO INSTALL 40-AMP MIN. DEDICATED BRANCH CIRCUIT & PERMIT FUTURE INSTALLATION OF BRANCH CIRCUIT OVERCURRENT PROTECTION DEVICE LABELED "EV CAPABLE." RACEWAY TO ORIGINATE AT MAIN PANEL & TERMINATE IN BOX PERMANENTLY LABELED "EV CAPABLE" (CGBC 4.106.4.1).
- 464 FUTURE 1" CONDUIT FOR PV SOLAR SYSTEM (PER TABLE 19.08.040(H)(1))

GENERAL MECH. NOTES

- 1. PLAN OUTLINE BASIC ROUTING AND LAYOUT, CONTRACTOR TO SIZE EQUIPMENT AND REFINE LAYOUT.
- 2. PORTIONS OF SUPPLY-AIR AND RETURN-AIR DUCTS AND PLENUMS SHALL EITHER BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 OR BE ENCLOSED ENTIRELY IN CONDITIONED SPACE.
- 3. THE KITCHEN EXHAUST FAN SHALL BE DUCTED TO THE OUTSIDE WITH A MINIMUM VENTILATION RATE OF 100 CFM. THE DUCTING SHALL BE SIZED ACCORDING TO ASHRAE STANDARD 62.2 TABLE 7.1 4. THE WHOLE HOUSE FAN SHALL HAVE A CONTIUOUSLY OPERATING EXHAUST FAN
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- EXHAUST FAN MEETS THE MINIMUM VENTILATION RATES FOR BOTH THE LOCAL AND WHOLE HOUSE VENTILATION REQUIREMENTS. (SEE CALCULATIONS ON THIS SHEET) 5. DUCT PENETRATIONS OF THE FIRE-RESISTIVE CEILING OR WALL MATERIALS AT THE GARAGE SHALL BE 26 GA. SHEET METAL PER SECTION R302.5.2 CRC 6. ALL OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING
- AND FLOOR LEVEL SHALL BE SEALED WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. 7. PROVIDE 100 SQ IN. OPENING FOR MAKE UP AIR IN LAUNDRY ROOM PER SECTION
- CMC-504.4.1. 8. ALL EXHAUST FANS SHALL BE ENERGY STAR RATED AND DUCTED TO TERMINATE OUTSIDE THE BUILDING. PER CMC 502.2.1, AIR DUCTS SHALL TERMINATE NOT LESS
- THAN 3 FEET FROM PROPERTY LINE, 10 FEET FROM FORCED AIR INLET, AND 3 FEET FROM OPENINGS INTO BUILDING.

GREEN POINT RATED NOTES

- DISWASHER SHALL BE AN ENERGY STAR APPLIANCE PER GREEN POINT RATED (GPR) CHECKLIST M.1. 2. CLOTHES WASHER SHALL BE AN ENERGY STAR CLOTHES WASHER APPLIANCE PER
- GPR CHECKLIST M.2.A. 3. ALL LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LIGHITNG FIXTURES PER GPR CHECKLIST M.5.A.
- 4. INSTALL ONLY HIGH EFFICIENCY PLUMBING FIXTURES AND TOILETS PER GPR CHECKLIST CATEGORY G:
- A. HIGH EFFICIENCY SHOWERHEADS < 1.8 GALLONS PER MIN B. HIGH EFFICIENCY BATHROOM FAUCETS < 1.0 GPM
- C. HIGH EFFICIENCY KITCHEN & UTILITY FACUETS <1.8 GPM D. INSTALL ONLY DUAL FLUSH OR 1.28 GALLONS PER FLUSH TOILETS. 5. HVAC SYSTEM SHALL BE DESIGNED AND INSTALLED PER ACCA MANUAL J, D, AND

GPR CHECKLIST H.8.

- S RECOMMENDATIONS, AND SHALL BE IN COMPLIANCE WITH ASHRAE 62.2 MECHANICAL VENTILATION STANDARDS AS ADOPTED IN TITLE 24 PART 6, PER GPR CHECKLIST CATEGORY H. 6. INSTALL SEALED COMBISTION UNITS PER GPR CHECKLIST H.1.
- 7. PROVIDE DUCT MASTIC ON DUCT JOINTS AND SEAMS PER GPR CHECKLIST H.3.1. 8. INSTALL HIGH EFFICIENCY HVAC FILTER (MERV 6+, PER GPR CHECKLIST H.6. 9. BATHROOM FANS SHALL BE ENERGY STAR FANS ON TIMER OR HUMIDSTAT, PER

- PLAN REVIEW ACCEPTANCE Nov 16 2020
- WEST COAST CODE CONSULTANTS

3

GENERAL ELEC. NOTES

- 1. SMOKE DETECTORS SHALL BE PROVIDED IN AREAS LEADING TO BEDROOMS & WITHIN EACH BEDROOM SMOKE DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS OF
- THE RESIDENCE. LIGHT SWITCHES MUST BE EFFECTIVELY GROUNDED, PER NEC 380-9(b)

4

- 4. PER NEC ART.210-11 (c)3, PROVIDE BATHROOM CIRCUITING WHERE AT LEAST ONE 20
- AMPERE CIRCUIT SHALL SUPPLY BATHROOM RECPTACLES OUTLET(S) PROVIDE TWO 20 AMP BRANCH CIRCUITS TO SUPPLY COUNTERTOP RECEPTACLES FOR KITCHEN, DINING ROOM, AND SIMILAR ROOMS.
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ALL LIG ELGEKORET RICE HALFFICACEOREND

DUPLEX OUTLET ARC-FAULT CIRCUIT INTERRUPTER DUPLEX OUTLET 220 VOLTS DUPLEX OUTLET GROUND FAULT INTERRUPTER DUPLEX OUTLET WATERPROOF GROUND FAULT INTERRUPTER DUPLEX OUTLET AFCI-HALF HOT DOOR BELL BUTTON/GARAGE DOOR OPENER BUTTON CABLE TELEVISION $\overline{\mathbf{W}}$ LOCATION Smoke DETECTOR/ALARM CARBON MONOXIDE DETECTOR/ALARM \$ Ò FORCED AIR UNIT, PROVIDE LIGHT, SWITCH, DEDICATED 110 OUTLET IN ATTIC COLD WATER STUB CW OUT HOT WATER STUB OUT WATER HOSE BIBB GAS STUB OUT

FOR WET LOCATIONS PER CEC 410.10(A).

- $\bigcirc \bigcirc_{\mathsf{P}}$ \bigcirc \bigcirc_{FL} Ð \bigcirc VS Μ
- ELECTRICAL SWITCH ELECTRICAL SWITCH-THREE WAY ELECTRICAL

SWITCH-FOUR WAY

\$

\$4

- EXHAUST FAN EXHAUST FAN/LIGHT Combination
- PENDANT LIGHT SURFACE MOUNTED
- LIGHT SURFACE MOUNTED FLOURESCENT LIGHT
- RECESSED DOWNLIGHT
- RECESSED FLOURESCENT DOWNLIGHT
- WALL MOUNTED LIGHT
- WALL MOUNTED FLOURESCENT LIGHT
- VACANCY SENSOR MOTION SENSOR
- FLOURESCENT STRIP light
- UNDER CABINET FLOURESCENT LIGHT
 - STANDARD LIGHT W/ OPTIONAL CEILING FAN

ASHRAE STANDARD CALC.

EQUATION 4.1a FROM ASHRAE 62.2

- Q-FAN = 0.01 x A-FLOOR + 7.5 x (N-BR + 1)
- Q-FAN = 0.01 x 13,128 SF + 7.5 x (8 + 1)
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REFERENCE NOTES

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- 6. ALL OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL SHALL BE SEALED WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
- 7. PROVIDE 100 SQ IN. OPENING FOR MAKE UP AIR IN LAUNDRY ROOM PER SECTION CMC-504.4.1. 8. ALL EXHAUST FANS SHALL BE ENERGY STAR RATED AND DUCTED TO TERMINATE OUTSIDE THE BUILDING. PER CMC 502.2.1, AIR DUCTS SHALL TERMINATE NOT LESS THAN 3 FEET FROM PROPERTY LINE, 10 FEET FROM FORCED AIR INLET, AND 3 FEET
- FROM OPENINGS INTO BUILDING.

GREEN POINT RATED NOTES

- . DISWASHER SHALL BE AN ENERGY STAR APPLIANCE PER GREEN POINT RATED (GPR) CHECKLIST M.1. 2. CLOTHES WASHER SHALL BE AN ENERGY STAR CLOTHES WASHER APPLIANCE PER
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- C. HIGH EFFICIENCY KITCHEN & UTILITY FACUETS <1.8 GPM D. INSTALL ONLY DUAL FLUSH OR 1.28 GALLONS PER FLUSH TOILETS.
- 5. HVAC SYSTEM SHALL BE DESIGNED AND INSTALLED PER ACCA MANUAL J, D, AND S RECOMMENDATIONS, AND SHALL BE IN COMPLIANCE WITH ASHRAE 62.2 MECHANICAL VENTILATION STANDARDS AS ADOPTED IN TITLE 24 PART 6, PER GPR CHECKLIST CATEGORY H. 6. INSTALL SEALED COMBISTION UNITS PER GPR CHECKLIST H.1.
- 7. PROVIDE DUCT MASTIC ON DUCT JOINTS AND SEAMS PER GPR CHECKLIST H.3.1. 8. INSTALL HIGH EFFICIENCY HVAC FILTER (MERV 6+, PER GPR CHECKLIST H.6. 9. BATHROOM FANS SHALL BE ENERGY STAR FANS ON TIMER OR HUMIDSTAT, PER GPR CHECKLIST H.8.

PLAN REVIEW ACCEPTANCE Nov 16 2020

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- A. PLUMBING DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL VERIFY PIPE SIZE CALCULATIONS & DIMENSIONS BEFORE INSTALLATION AND ADJUST PIPE SIZES ACCORDINGLY. B. VERIFY ALL GAS LINE CONNECTIONS TO APPLIANCES W/ MANUFACTURER'S
- REQUIREMENTS PRIOR TO GAS LINE INSTALLATION AND ADJUST PIPE SIZES ACCORDINGLY.

GAS LINE CALCULATIONS

LONGEST RUN IS FROM SERVICE TO THE FAU - 2ND FLOOR - 6 @ 121' [ACTUAL VALUES ROUNDED FOR TABLE 1216.2(27)]

-		
APPLIANCES	DISTANCE	#BTUs
*WATER HEATER	3'	200,000 BTU
*WATER HEATER	5'	200,000 BTU
*WATER HEATER	18'	200,000 BTU
*WATER HEATER	20'	200,000 BTU
RANGE	117'	65,000 BTU
RANGE	130'	65,000 BTU
FAU - 1ST FLOOR - 1	17'	100,000 BTU
FAU - 1ST FLOOR - 2	30'	100,000 BTU
FAU - 1ST FLOOR - 3	68'	100,000 BTU
FAU - 2ND FLOOR - 4	60'	100,000 BTU
FAU - 2ND FLOOR - 5	73'	100,000 BTU
FAU - 2ND FLOOR - 6	121'	100,000 BTU
DRYER - 1ST FLOOR - 1	75'	35,000 BTU
DRYER - 2ND FLOOR - 2	62'	35,000 BTU
VENTLESS FIRE PLACE	68'	40,000 BTU
TOTAL		1,640,000 BTU

CONVERT BTU'S TO CFH 975,000/(1100 NATURAL GAS) (SCHEDULE 40 METALLIC PIPE)

TOTAL CFH ALLOWED ON 3" SIZE PIPE @ 150' 2,610 CFH

1,490 CFH

- NOTES: 1. TOTAL ALLOWABLE CFH & APPLIANCE LOADS ARE BASED OFF 2019 CPC TABLE 208.1 & TABLE 1216.2(1). CONTRACTOR SHALL VERIFY LOADS, CALCULATIONS, & DIMENSIONS & ADJUST SIZING TO COMPLY W/ 2019 CPC BEFORE INSTALLATION.
- 2. ACTUAL DISTANCE VALUES ARE ROUNDED UP FOR CALCULATIONS.
- 3. PLUMBING DRAWINGS ARE DIAGRAMATTIC. CONTRACTOR SHALL VERIFY PIPE SIZE CALCULATIONS & DIMENSIONS PRIOR TO INSTALLATION AND ADJUST PIPE SIZES ACCORDINGLY.
- 4. VERIFY ALL GAS LINE CONNECTIONS TO APPLIANCES W/MANUFACTURER'S REQUIREMENTS PRIOR TO GAS LINE INSTALLATION AND ADJUST PIPE SIZES ACCORDINGLY.
- 5. UNDERGRAOUND GAS PIPING TO BE POLYETHYLENE
- * CALCULATIONS SHOWN LOAD SIZED FOR TANKLESS WATER HEATER OPTION.

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GASI		LATION
LONGEST RUN IS FR	OM SERVICE TO THE FAU - 2ND FLOOR	- 6 @ 121'
		4 0 .111
APPLIANCES		
	5 5'	200,000 BTU 200,000 BTU
	18'	200,000 BTU 200,000 BTU
*WATER HEATER	20'	200,000 BTU 200,000 BTU
	117'	200,000 DT0 65 000 BTI
RANGE	130'	65 000 BTU
FALL - 1ST FLOOR - 1	17'	100 000 BTU
FAU - 1ST FLOOR - 2	> 30'	100,000 BTU
FAU - 1ST FLOOR - 3	3 68'	100.000 BTU
FAU - 2ND FLOOR -	4 60'	100,000 BTU
FAU - 2ND FLOOR -	5 73'	100.000 BTU
FAU - 2ND FLOOR -	6 121'	100,000 BTU
DRYER - 1ST FLOOR	- 1 75'	35,000 BTU
DRYER - 2ND FLOO	R - 2 62'	35,000 BTU
VENTLESS FIRE PLAC	CE 68'	40,000 BTU
TOTAL		1,640,000 BTU
CONVERT BTU'S TO	CFH 975,000/(1100 NATURAL GAS)	1,490 CFF
(SCHEDULE 40 META		
TOTAL CFH ALLOW	ED ON 3" SIZE PIPE @ 150'	2,610 CFF
NOTES: 1. TOTAL ALLOWA 208.1 & TABLE 1	ABLE CFH & APPLIANCE LOADS ARE BASE	ED OFF 2019 CPC TABL
CONTRACTOR SIZING TO CON	SHALL VERIFY LOADS, CALCULATIONS, 8 APLY W/ 2019 CPC BEFORE INSTALLATIO	& DIMENSIONS & ADJU N.
2. ACTUAL DISTAN	ICE VALUES ARE ROUNDED UP FOR CA	lculations.
3. PLUMBING DRA SIZE CALCULAT SIZES ACCORD	AWINGS ARE DIAGRAMATTIC. CONTRA IONS & DIMENSIONS PRIOR TO INSTALL INGLY.	CTOR SHALL VERIFY PI ATION AND ADJUST PI

- 4. VERIFY ALL GAS LINE CONNECTIONS TO APPLIANCES W/MANUFACTURER'S REQUIREMENTS PRIOR TO GAS LINE INSTALLATION AND ADJUST PIPE SIZES ACCORDINGLY.
- 5. UNDERGRAOUND GAS PIPING TO BE POLYETHYLENE
- * CALCULATIONS SHOWN LOAD SIZED FOR TANKLESS WATER HEATER OPTION.

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BACK OF SIDEWALK

- SANDBAGS TO

Civil Engineering • Land Surveying

2

2290 Diamond Boulevard, Suite 100 Concord, CA 94520 PLAN REVIEW ACCEP Phone (925) 685-4569 Fax (925) 685-4838

1

Site Plan

Vicinity Map

Patel Residence

1989 Ticino Ct. - Pleasanton, CA

Landscape Plan

Site Aerial Map

4

4

NTS

Prior to Completion: Contractor to Provide the Following

- A) A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
- B) A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
- C) AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.
- D) A LANDSCAPE WASTE DIVERSION PLAN SHALL BE COMPLETED AND SUBMITTED WITH THE CERTIFICATE OF COMPLETION.

Additional Submittals Required by the Contractor at Construction Completion

- I) CERTIFICATE OF COMPLETION
- 2) LANDSCAPE DIVERSION REPORT (CAN BE SUBMITTED SEPARATELY IF BUILDING CONSTRUCTION IS PART OF THE PROJECT.)
- 3) AS-BUILTS OR RECORD DRAWINGS, IF CHANGES ARE MADE TO APPROVED LANDSCAPE DOCUMENTS.
- 4) IRRIGATION SCHEDULE, LANDSCAPE MAINTENANCE SCHEDULE, LANDSCAPE IRRIGATION AUDIT REPORT.
- 5) SOIL MANAGEMENT REPORT IF NOT SUBMITTED PREVIOUSLY.

1989 Ticino Ct.

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

A) DA	ATE:	OCTOBER 26, 2020
B) PR	ROJECT APPLICANT:	RAMESH PATEL/ VISHAL 'BJ' PATEL
C) PF	ROJECT ADDRESS:	1989 TICINO CT. PLEASANTON, CA 94566
D) TC E) PR	DTAL LANDSCAPE AREA: ROJECT TYPE:	7,427 SF NEW RESIDENTIAL
F) WA	ATER SUPPLY TYPE:	CITY OF PLEASANTON, POTABLE WATER
G) NA	\	
H) PR	COJECT CONTACTS:	
	PROJECT APPLICANT:	RAMESH PATEL/ VISHAL 'BJ' PATEL 550 GATEWAY BLVD. SOUTH SAN FRANCISCO, CA 94080 C: 650-280-1475 BJ@SHSHOTELUS.COM
	PROPERTY OWNER:	RAMESH PATEL 84 GRAND VIEW CIRCLE BRANDON, MS 39047 C: 601-940-0020 ROY@SHSHOTELUS.COM
I) "I A Efi LA	AGREE TO COMPLY WITH FICIENT LANDSCAPE ORI NDSCAPE DOCUMENTATIO	THE REQUIREMENTS OF THE WELO (WATER DINANCE AND SUBMIT A COMPLETE ON PACKAGE."
 SI6	 GNATURE	

Sheet List

L0.0	COVER SHEET
	LAYOUT PLAN
L2.1	GRADING PLAN
L3.1	IRRIGATION PLAN
<u></u> 4.1	TREE PLANTING PLAN
L4.2	SHRUB PLANTING PLAN
L5.1	IRRIGATION DETAILS
L5.2	HARDSCAPE DETAILS
L5.3	PLANTING & LIGHTING DETAILS
L6.1	LIGHTING PLAN
L6.2	LIGHTING CUT SHEETS
L6.3	LIGHTING CUT SHEETS
L₫.	FINISH SCHEDULE

CITY OF PLEASANTON REQUIREMENTS: I) SUBMITTAL OF A CERTIFICATE OF COMPLETION TO THE CITY IS REQUIRED PRIOR TO FINAL ACCEPTANCE PER SECTION 492.9 OF THE PLEASANTON LANDSCAPE ORDINANCE. 2) AN IRRIGATION AUDIT IS REQUIRED PRIOR TO FINAL ACCEPTANCE. 3) SOILS ANALYSIS (IF NOT ALREADY SUBMITTED) SHALL BE SUBMITTED AS PART OF THE CERTIFICATE OF COMPLETION.

WEST COAST CODE CONSULTANTS

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LIG	HTING LEG	SEND						
	MANUFACTURER	ITEM	WATTS/VA	MODEL	QTY	VA		
◄	19FX LUMINAIRE	UP LIGHT	8.2/ 9.7	NP-6LED-LS-FB, MOUNTING OPT: SUPER J-BOX	25	243	(II) (L5.3)	
M	FX LUMINAIRE	MOON LIGHT	2.0/ 2.4	LE-ILED-FB	3	8	(12) (15.3)	
Φ	FX LUMINAIRE	PATH LIGHT	4.2/ 4.5	JS-3LED-12RA-FB, MOUNTING OPT: SUPER J-BOX	36	162	10 L5.3	
—	FX LUMINAIRE	WALL LIGHT	2.0/ 2.4	LF-ILED-AL	17	41	(4) 15.3	
	FX LUMINAIRE	STEP LIGHT	4.2/ 4.5	PD-2LED-AL	5	23	8 15.3	
T	FX LUMINAIRE	TRANSFORMER		PX-600-TPC-55	I		13 L5.3	
				<u>TOT</u>	<u>AL VA</u>	<u>477</u>		
LIGHTING COUNT NOTE: LANDSCAPE LIGHT LOCATIONS ARE DIAGRAMMATIC AND MAY BE INCREASED AT THE OWNER'S DISCRETION.								

PLAN REVIEW ACCEPTANCE Nov 16 2020 WEST COAST CODE CONSULTANTS

TRANSFORMER SIZING NOTE: TRANSFORMERS TO BE SIZED PER THE OVERALL VOLT AMPS (VA) NOT PER WATTS USED.

I. THIS PLAN IS INTENDED FOR LANDSCAPE LIGHTING PURPOSES ONLY. ALL LIGHTING FIXTURES AND TRANSFORMERS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN COMPLIANCE WITH ALL LOCAL BUILDING SAFETY CODES AND ORDINANCES.

2. FIXTURES ARE SHOWN IN APPROXIMATE LOCATION. THE CONTRACTOR SHOW FIELD VERIFY THE ACTUAL

3. ALL PATH LIGHTS ARE TO BE INSTALLED AT A MINIMUM OF 12 INCHES FROM ANY SIDEWALK OR VERTICAL

4. ALL LOW-VOLTAGE DIRECT BURIAL WIRE TO BE INSTALLED AT >/= 6" BELOW FINISH GRADE PER ELECTRICAL

5.IN ORDER TO MINIMIZE FUTURE DISTURBANCE, ALL WIRE RUNS SHALL BE INSTALLED PARALLEL AND ADJACENT

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING SLEEVES UNDER ALL HARDSCAPE SURFACES

7. ALL UNDERGROUND SPLICES SHALL BE UL-486RATED AND INSTALLED IN UNDERGROUND J-BOXES WITH WATER

8.ALL EXTERIOR 120 - VOLT ELECTRICAL OUTLETS SHALL BE GFI PROTECTED AS PER NATIONAL ELECTRICAL

9.ALL TRANSFORMERS PLUGGED INTO AN OUTDOOR RECEPTACLE SHALL HAVE AN "IN USE" COVER. CONTRACTOR

12. THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE FIXTURES AT NIGHT TO HELP

13. CONTRACTOR TO VERIFY A MINIMUM OF 10 VOLTS AT THE LAST FIXTURE FOR OPTIMAL OPERATION. 14. CONTRACTOR TO CENTER FEED THE SYSTEM WHEN AT ALL POSSIBLE and VERIFY ALL WIRE CONNECTIONS

Architectural Design Review: RUBY HILL OWNERS ASSOCIATION 2900 E. RUBY HILL DR.

Sierra

Designs, inc

Landscape Architecture • Planning 113 N. Church Street Suite 310 Visalia, CA 93291 T: 559.733.3690 F: 559.733.3694 khutmacher@sierradesignsla.com

dan@sierradesignsla.com

2019/08/13: HOA SUBMITTAL SET 2019/12/19: RUBY HILL HOA REVIEW SET 2020/01/27: DRC COMMENTS

Revision/Issued for:

2020/03/06: PERMIT SET

essional Seal:

Project Name:

PATEL

RESIDENCE

1989 Ticino Ct.

Pleasanton, CA

DATE: XXX.X

PLEASANTON, CA 94566 A Project For:

SOUTHERN HOSPITALITY SERVICES, LLC. 300 GATEWAY BLVD. SAN FRANCISCO, CA 650.616.6185

IO of *I*∃ Sheets

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16 F T

	PROJECT CATALOG # TYPE	Fixture NP*	Luxor Option (default) Zone Dim	Output 3LED 135 Lumens 6LED 280 Lumens 9LED	Compliance	Shroud [default] Standard Shroud (45°)	Finish BZ Bronze Metall DG Desert Granite
Optional Long Shroud	Notes		Zone/Dim/Colo	360 Lumens			Weathered Iro SB Sedona Brown FB Black FW Flat White WG White Gloss AL Almond
 NP Up Light DESIGNER PLUS Expertly engineered with 45° or 60° shroug illuminate a variety of spaces in 3, 6, or 9 Light version is also available for use with Luxor Die-cast aluminum Two-layer marine-grade anodization and powder coat finish Cree® integrated LEDs ProAim[™] adjustability 	d options to ED. An RGBW De ZDC systems. sistant features e with Luxor PWM dimmable ge: 10-15V	EXAMPLE FI * Ships with S	XTURE CONFIGURAT	ION: NP-ZD-6LED-BZ	NP	6LED (LS - FB
FXI uminaira		LANDSC		J			
<section-header></section-header>	<section-header></section-header>	LANDSC ORDERINC F/ St EX PI	CONTRORMA	TION E: Dowr Down ED OPTIONS: Order Code LE D ZD (Refer to the Laxor 1LED (50,000 avg. life AB; AT; CU, NP; WG, ED-BZ = LE - ZD Option -	1 Light 1 + 2 (optional) + 3 + 4 <i>page in the Lighting Control sec</i> hours) FW, AL, BZ, DG, WI, VF, SB, FB - 1 LED Board - Bronze Metallic	LED-FB ction)-	MCON METALS METALS AB = Antic AT = Antic CU = Copp CU = Copp NP = Nicke POWDER COAT WG = Whit
<section-header></section-header>	<section-header></section-header>	CRDERINC GRDERINC F St E St E St E St E St E St E St E St	APELIGHINA APELIGHINA CINFORMA L A ACTORY INSTALI Performance A ACTORY INSTALI Performance A ACTORY INSTALI Performance A A A A A A A A A A A A A	TION E: Down E: Down ED OPTIONS: Order Code LE D ZD (Refer to the Laxor 1LED (50,000 avg. life AB*, AT*, CU, NP*, WG, ED-BZ = LE - ZD Option - LE 1LED ILLU Center Bear 1.7 ft 11.99 fc 3.3 ft 3.00 fc 3.3 ft 3.00 fc 5.0 ft 1.33 fc 6.7 ft 0.75 fc 8.3 ft 0.48 fc 10.0 ft 0.33 fc Vertical Spread. 58	1 Light 1+2 (optional) + 3 + 4 page in the Lighting Control sections) FW, AL, BZ, DG, WI, VF, SB, FB 1 LED Board - Bronze Metallic JMINANCE AT A DISTANCE n FC Beam Widt 1.9 ft 3.7 ft 5.6 ft 7.5 ft 9.3 ft 1.1.2 ft 25° Forceontal Spread 576°	ED-FB inini th 18 ft 3.7 ft 5.5 ft 7.3 ft 9.2 ft 11.0 ft inini eximum."	METALS METALS

MOUNTING OPTIONS: Spec	ify Separately		COUPLING OPTI	ONS: Spec	ify Separately	
Mounts	Catalog No).	Couplings		Code	
SUPER SLOT SPIKE 2.5" (64 mm) x 10" (254 mm)	753900		STRAIGHT 1.3" (32 mm) x 2.0	" (51 mm)	COUP-XX*	
LONG SLOT SPIKE 2.5" (64 mm) x 12" (305 mm)	25001584000		90° ELBOW 1.3" (32 mm) x 2.0	" (51 mm)	ELBW-050-XX*	
SUPER J-BOX 2.5" (64 mm) x 12" (305 mm)	SJ-XX*					
POST MOUNT 2.5" (64 mm) x 13" (330 mm)	PM-XX*	(((((((((((((((((((3.0" (76 mm) x 2.2	?" (57 mm)	TMNT-050-XX*	
JUNCTION BOX SPIKE KIT	EKITSDIKE		LENS ACCESSOF	RIES: Spec	ify Separately	
12" (305 mm)	ERIISPIRE		Item		Code	
GROUND MOUNT 2.7" (67 mm) Diameter	GM-XX*		HEX BAFFLE MR-16 Size		250015260000	0
VERSABOX® 2.2" (57 mm) x 1.5" (39 mm)	VB-050-XX*		LINEAR SPREAD I MR-16 Size	ENS	250013550000	
MINI J-BOX 3.5" (89 mm) x 1.3" (34 mm)	MJ-050-XX*		SOLITE SPREAD L	ENS	250015240000	0
TREEBOX 5.4" (138 mm) x 1.9" (49 mm)	TB-XX*					
GUTTER MOUNT	GM-SS	1000	BEAM ANGLE LE	ENSES: Sp	ecify Separately	
4.0" (102 mm) x 4.0" (102 mm)	WD 10		Lens Options	1LED	3LED	6/9LED
3.4" (85 mm) x 5.1" (129 mm)	050-XX*		DIFFUSER 18° (preassembled)	■ 770600	771300	771600
WALL PLATES 5.0" (127 mm) Diameter	WP-RD- 050-XX*		FLOOD LENS 35° (1 notch)	ILEDFLLEN	IS 3LEDFLLENS	9LEDFLLENS
RISER OPTIONS: Specify Ser	parately		WIDE FLOOD LENS			
Riser	Code		60° (2 notches)	1LEDWFLLI	ENS 3LEDWFLLENS	9LEDWFLLENS
RISER 0.8" (21 mm) Diameter	YY-R-XX*					
SIGN LIGHT RISER 0.8" (21 mm) Diameter w/ 45° Inward Curve	YY-R-SL-XX*					

Learn more. Visit: fxl.com | +1760.744.5240

LIG	HTING LEG	SEND				
	MANUFACTURER	ITEM	WATTS/VA	MODEL	QTY	
	19FX LUMINAIRE	UP LIGHT	8.2/ 9.7	NP-6LED-LS-FB, MOUNTING OPT: SUPER J-BOX	25	243
M	FX LUMINAIRE	MOON LIGHT	2.0/ 2.4	LE-ILED-FB	3	8
•	FX LUMINAIRE	PATH LIGHT	4.2/ 4.5	JS-3LED-12RA-F MOUNTING OPT: SUPER J-BOX	B, 36	162
	FX LUMINAIRE	WALL LIGHT	2.0/ 2.4	LF-ILED-AL	17	41
	FX LUMINAIRE	STEP LIGHT	4.2/ 4.5	PD-2LED-AL	5	23
T	FX LUMINAIRE	TRANSFORMER		PX-600-TPC-55	I	
					TOTAL VA	477

JS Path Light ordering information LED Path Lights Luxor Fixture Option Output Riser Finish 1LED
30 Lumens08RA
8" (203 mm) RiserCU
Natural CopperFW
Flat White [default] ILED JS* Zone PROJECT Zone/Dim BZ AL (12" (305 mm) Riser Bronze Metallic Almond 3LED CATALOG # 90 Lumens 3LEDT** 18RA DG Wildlife-Friendly 18"(457 mm) Riser Desert Granite Amber (585-595 nm) Silver TYPE NOTES ZDC [default] 24RA WI AB Zone/Dim/Color 66 Lumens 24" (610 mm) Riser Weathered Iron Antique Bronze **36RA** 36" (914 mm) Riser Antique Tumbled WG White Gloss NP Nickel Plate EXAMPLE FIXTURE CONFIGURATION: JS-ZD-3LED-24RA-SV JS - - ⁻ 3LED - 12RA - FB * Ships with Long Slot Spike (250015840000) ** Available with ZD Luxor option and CU, AB, or AT finishes only RISER OPTIONS: Specify Separately MOUNTING OPTIONS: Specify Separately Code Mounts Code Riser (2.5" (64 mm) x 12" (305 mm) 1.0" (25 mm) Diameter YY-R-GT-XX* (POST MOUNT 2.5" (64 mm) x 13" (330 mm) *YY = riser height in inches (6" increments between 6" and 36"; 150 mm increments between 150 mm and 900 mm), XX = finish code) ■ GROUND MOUNT 2.7" (67 mm) Diameter GM-XX* ((6) ■ VERSABOX® VB-050-2.2" (57 mm) x 1.5" (39 mm) XX* 6.3" (160 mm) PROAIM RATCHETING **SPIKE** PAF 4.0" (102 mm) x 4.0" (102 mm) PARS **3-PRONG SPIKE** 2500200-5.1" (129 mm) x 9" (229 mm) 20000 Learn more. Visit: fxl.com | +1760.744.5240

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FXLuminaire.		LF Wall L	ight orde	RING INFORMA	TION
	LED Wall Lights	Fixture-Size	Luxor Option	Output	, F
		LF	Zone	(<mark>1LED)</mark> (78 Lumens)	
	CATALOG #		ZD Zone/Dim		
	TYPE NOTES		Zone/Dim/Co	le [default ZDC o blor 34 Lumens	option]
LF Wall Light		EXAMPLE FIXTURE C	ONFIGURATION: LF-	-ZD-1LED-BSAT	
Under-the-cap hardscape wall light with modular bracket design for easy installation. Available in brass, copper, stainless steel, and aluminum.					
 Die-cast brass Stainless steel, brass, or copper faceplate as natural metal, powder coated, or antiqued Cree[®] integrated LEDs Tamper-resistant features Color temperature filters Compatible with Luxor[®] technology Phase and PWM dimmable Input voltage: 10-15V 	6.7"/17.0 cm				
		LANDSCAPE LIG	HTING		
FXLuminaire	STEP LIGHT LED Wall Lights	PD Wall L	ight ordi	ERING INFORM	ATION
		Fixture	Luxor Option	Output	Finish
	PROJECT	PD*	[default]	2LED (26 Lumens)	BS Natu
	CATALOG #		Zone/Dim		Bron:
h					Dese
					■ WI Weat
					Sedo
					E FB Black
					■ WG White
					≡ FW Flat V
					AL
					Silver
VVall Light Designer PREMIUM					Nicke
Subtle, curved design elements adds style to this					AB Antio
recessed wall light. 2 LED. Available in brass.	9.1" (231 mm)				Antic
Quick FactsDie-cast brass constructionColor temperature filtersNatural, powder coated, or antiquedCompatible with Luxor®	(Eu 68) "6"	EXAMPLE FIXTURE C PD-ZD-2LED-BZ *Includes Sleeve With	ONFIGURATION: 1 Cover (250022030))000) PD -	
brass finish technology Cree® integrated LEDs Phase and PWM dimmabl Tamper-resistant features Input voltage: 10–15V	e	ACCESSORIE	S: Specify Sep	arately	
		Accessories WALL LIGHT CC		Code EKITWALL	
LANDSCAPE LIGHTING		LANDSCAPE LI	UNITE		

ininh			
inisn			
[blank] No Faceplate		White Gloss	
BZ Bronze Metallic	200	Flat White	
F B Flat Black		Almond	
BS Natural Brass		DG Desert Granite	
BSAB Antique Bronze on Brass	li mi	Sedona Brown	
BSAT Antique Tumbled on Brass	<u> </u>	Wi Weathered Iron	
CU Natural Copper	13	CUAB Bronze Metallic on Copper	
CUAT Antique Tumbled on Copper	6.3	Stainless Steel	

LIG	HTING LEG	SEND				
	MANUFACTURER	ITEM	WATTS/VA	MODEL	QTY	
•	19FX LUMINAIRE	UP LIGHT	8.2/ 9.7	NP-6LED-LS-FB, MOUNTING OPT: SUPER J-BOX	25	243
M	FX LUMINAIRE	MOON LIGHT	2.0/ 2.4	LE-ILED-FB	3	8
Φ	FX LUMINAIRE	PATH LIGHT	4.2/ 4.5	JS-3LED-12RA-F MOUNTING OPT: SUPER J-BOX	⁼B, 36	162
-	FX LUMINAIRE	WALL LIGHT	2.0/ 2.4	LF-ILED-AL	٦	41
	FX LUMINAIRE	STEP LIGHT	4.2/ 4.5	PD-2LED-AL	5	23
Τ	FX LUMINAIRE	TRANSFORMER		PX-600-TPC-SS	I	
					TOTAL VA	<u>477</u>

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