BMP TABLE

TOTAL DISTURBANCE AREA:	0.00 S.F.
EXISTING AMOUNT OF IMPERVIOUS AREA:	3,000 S.F.
PROPOSED AMOUNT OF IMPERVIOUS AREA:	0.00 S.F.
TOTAL IMPERVIOUS AREA:	3,000 S.F.

IMPERVIOUS AREA SHALL INCLUDE: ROOF, SIDEWALK. PARKING AREA, WALKWAYS, POOLS, POOL DECK ETC.

NO WORK WILL BE PERFORMED IN THE RIGHT OF WAY.

GRADING TABLE

EARTHWORK QUANTITIES TABLE

CUT QUANTITY:	0 C.Y.
FILL QUANTITY:	0.0 C.Y.
EXPORT:	0.0 C.Y.
MAX. CUT DEPTH:	0 C.Y.
MAX. FILL DEPTH:	0

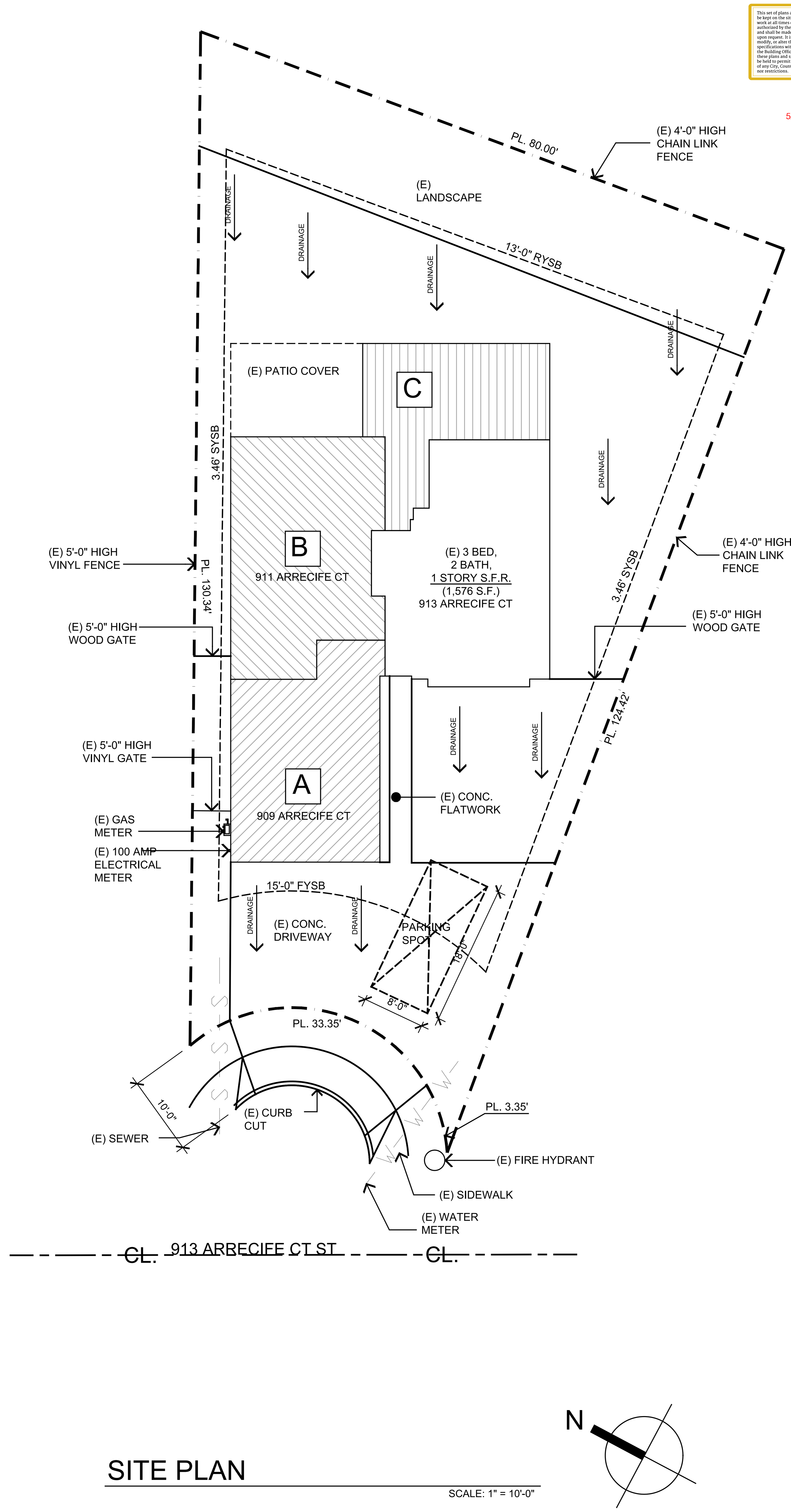
THE PROJECT PROPOSES TO EXPORT 0 CUBIC YARDS OF MATERIAL FROM SITE. ALL EXPORT MATERIAL SHALL BE DISCHARGED TO A LEGAL DISPOSAL SITE. THE APPROVAL OF THIS PROJECT DOES NOT ALLOW PROCESSING AND SALE OF THE MATERIAL, ALL SUCH ACTIVITIES REQUIRE A SEPARATE CONDITIONAL USE PERMIT.

NOTE:
IMPERVIOUS AREA SHALL INCLUDE: ROOF, SIDEWALK, PARKING AREA, WALKWAYS, POOLS, POOL DECKS ETC.

This set of plans and specifications shall be kept on the site of the structure of work at all times during which work authorized by these plans is in progress, and shall be made available to City officials upon request. It is unlawful to change, modify, or alter the approved plans and specifications without authorization of the Building Official. The stamping of these plans and specifications SHALL NOT be held to permit nor approve the violation of any City, County, State, or Federal laws, nor restrictions.

THE CITY OF SAN DIEGO PERMIT ISSUED

5/13/2022, 6:06:27 AM
PRJ-1039503
Ethel Adams



SITE PLAN

SCALE: 1" = 10'-0"

ABBREVIATIONS

@	AT
A.A.	ATTIC ACCESS
A.B.	ANCHOR BOLT
ABV.	ANCHOR BOLT
A.C.A.P.	AS CLOSE AS POSSIBLE
A/C	AIR CONDITIONER
AL.	ALUMINUM
AWG.	AWNING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
B.N.	BOUNDARY NAIL
C/O	CASED OPENING
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COMPO	COMPOSITION
CONT.	CONTINUOUS
CONC.	CONCRETE
CSMT	CASEMENT
D.	DRYER
DBL	DOUBLE
DW	DRIVEWAY
D/W	DISHWASHER
E.N.	EDGE NAIL
EQ.	EQUAL
E.W.	EACH WAY
(E.)	EXISTING
EXSTG	EXISTING
EXT	EXT
F.A.U.	FORCED AIR UNIT
F.F.	FINISHED FLOOR
F.G.	FINISHED GRADE
FGL	FIBERGLASS
F.N.	FIELD NAIL
F.O.S.	FACE OF STUD
F.O.P.	FACE OF POST
F.P.	FIRE PLACE
FTG	FOOTING
F.V.	FLAT VALLEY
G.B.	GYPSUM BOARD
G.D.	GARBAGE DISPOSAL
G.F.C.I.	GROUND FAULT CIRCUIT INTERRUPT
GL	GLASS
GR	GUARDRAIL
H.B.	HOSE BIBB
HDR	HEADER
H.R.	HANDRAIL
HTR	HEATER
INT.	INTERIOR
MAX.	MAXIMUM
M.B.	MACHINE BOLT
M.C.	MEDICINE CABINET
MIN.	MINIMUM
MIR.	MIRROR
MFR.	MANUFACTURER
O/	OVER
OBSC.	OBSCURE
O.C.	ON CENTER
O.H.	OVERHANG
OPNG	OPENING
P.C.C.	PORTLAND CONC. CEMENT
PKT.	POCKET
PL.	PLATE
P.T.	PRESSURE TREATED
RAD.	RADIUS
REF.	REFRIGERATOR
RMVD	REMOVED
REQD	REQUIRED
R.O.	ROUGH OPENING
SGD	SLIDING GLASS DOOR
SGW	SLIDING GLASS WINDOW
SHW	SINGLE HUNG WINDOW
SHT	SHEET
SHTG	SHEATHING
SHWR	SHOWER
S.M.	SHEET METAL
S & P	SHELF & POLE
T.B.	TOWEL BAR
T.C.	TRASH COMPACTOR
T & B	TOP & BOTTOM
T & G	TOUNGE & GROOVE
TEMP	TEMPERED
T.N.	TOE NAIL
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.	VINYL
V.B.	VAPOR BARRIER
W.	WASHER
W/	WITH
W.C.	WATER CLOSET
WDO	WINDOW
W.H.	WATER HEATER
W.P.	WATER PROOF
V.I.A.	VERIFY IN FIELD

AREA TOTALS

HABITABLE AREA

(E) HABITABLE AREA	1,576 SQ. FT.
NON-PERMITTED JADU	498 SQ. FT.
TOTAL BUILDING FLOOR AREA:	2,074 SQ. FT.

THE EXISTING BUILDING IS NOT PROTECTED WITH FIRE SPRINKLERS.

PROJECT DATA

BASE ZONE:	RS-1-7
OCCUPANCY/GROUP SFR	R-3
CONSTRUCTION TYPE:	V-B

SETBACKS	ZONE REQUIREMENTS
FRONT	15'-0"
LEFT SIDE YARD	3.46'
RIGHT SIDE YARD	3.46'
REAR YARD	13'-0"
MAX. BUILDING HEIGHT	N/A

LOT AREA:	6,837 S.F.
YEAR BUILT:	1973

FAR CALCULATION

FAR .58

6,837 SF x .58 =3,965.46 S.F.

ALLOWABLE 3,965.46 S.F.

PROVIDED 2,074 S.F.

OWNER

FREDY ROMERO
913 ARRECIFE CT
SAN DIEGO CA 92154

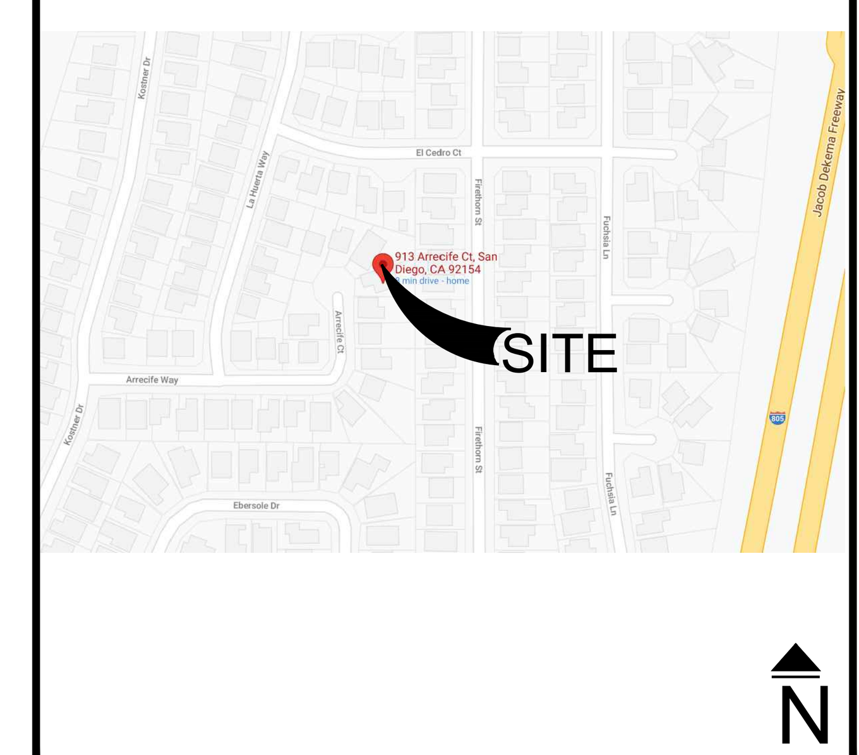
JUNIOR ADU
909 ARRECIFE CT
SAN DIEGO CA 92154

ADU
911 ARRECIFE CT
SAN DIEGO CA 92154

LEGAL

A.P.N. :	631-254-18-00
LOT NO.:	93
MAP NO:	6998
COMMUNITY:	MAPLEWOOD HILLS NO. 2

VICINITY MAP



SCOPE OF WORK

A EXISTING GARAGE TO BE CONVERTED INTO A NON-PERMITTED JUNIOR ADU (498 SQ. FT.)

B EXISTING 2 BEDROOM, BATH AND KITCHEN CONVERTED INTO A NON-PERMITTED ADU (568 SQ. FT.)

C EXISTING FAMILY ROOM CONVERTED INTO 2 NON PERMITTED BEDROOMS AND A NON PERMITTED BATHROOM (356 SQ. FT.)

SHEET INDEX

SP	SITE PLAN
MCS	MINIMUM CONSTRUCTION SPECS
SW	STORM WATER FORMS 560
GN.1	GENERAL NOTES
GN.2	GENERAL NOTES
A1	EXISTING / DEMO FLOOR PLAN
A2	PROPOSED FLOOR PLAN
A3	ELECTRICAL PLAN
A4	EXTERIOR ELEVATIONS/SECTION
T1	TITLE 24
T2	TITLE 24
T3	TITLE 24
T4	TITLE 24
S1	FOUNDATION PLAN
S3	ROOF FRAMING PLAN
D1	DETAILS

DLRJR

GERARDO SERGIO DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

Page #

SP

A. General

Applicable codes. All projects shall comply with the *2019 California Building Code* (CBC) *and/or California Residential Code* (CRC)*, 2019 California Green Building Standards Code* (CalGreen), *2019 California Electrical Code* (CEC), 2019 *California Mechanical Code* (CMC), 2019 *California Plumbing Code* (CPC), 2019 *California Fire Code* (CFC), 2019 *California Building Energy Efficiency Standards* (CBEES), and all County of San Diego amendments.

A. Electrical, Plumbing, and Mechanical

1. **Exterior lighting.** All projects shall comply with the County of San Diego lighting ordinance.
2. **GFCI outlets.** Ground Fault Circuit Interrupter (GFCI) outlets are required in bathrooms, at kitchen countertops, at laundry and wet bar sinks, in garages, in crawlspaces, in unfinished basements, and outdoors. (CEC 210.8)
3. **AFCI outlets.** Electrical circuits in bedrooms, living rooms, dining rooms, dens, closets, hallways, or similar rooms must be protected by Arc Fault Circuit Interrupters (AFCI). (CEC 210.12)
4. **Luminaire requirements.** Installed luminaires shall meet the efficacy and fixture requirements of CBEES 150.0(k).
5. **Smoke detectors in building remodels**. Smoke detectors are required in each existing sleeping room, outside each separate sleeping area in the immediate vicinity of sleeping rooms, and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R314.3)
6. **Carbon monoxide detectors in building remodels**. Carbon monoxide detectors are required outside each separate sleeping area in the immediate vicinity of sleeping rooms and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R315.3)
7. **Water heater seismic strapping.** Minimum two 3/4-inch-by-24-gauge straps required around water heaters, with 1/4-inch-by-3-inch lag bolts attached directly to framing. Straps shall be at points within upper third and lower third of water heater vertical dimension. Lower connection shall occur minimum 4 inches above controls. (CPC 507.2)
8. **Gas appliances in garages.** Water heaters and heating/cooling equipment capable of igniting flammable vapors shall be placed on minimum 18-inch-high platform unless listing report number provided showing ignition-resistant appliance. (CPC 507.13 and CMC 305.1)
9. **Impact protection of appliances.** Water heaters and heating/cooling equipment subject to vehicular impact shall be protected by bollards or an equivalent measure. (CPC 507.13.1 and CMC 305.11)
10. **Water closet clearance.** Minimum 30-inch-wide by 24-inch-deep clearance required at front of water closets. (CPC 402.5)
11. **Shower size.** Shower compartments shall have minimum area of 1024 square inches and be able to encompass a 30-inch-diameter circle. Shower doors shall have a minimum 22-inch unobstructed width. (CPC 408.5 and CPC 408.6)
12. **Fireplace appliances.** Fireplaces with gas appliances are required to have the flue damper permanently fixed in the open position and fireplaces with LPG appliances are to have no 'pit' or 'sump' configurations. (CMC 303.7.1)
13. **Chimney clearance.** Minimum 2-foot chimney clearance required above building within 10-foot horizontally of chimney. The chimney shall extend minimum 3 feet above highest point where chimney passes through roof. (CRC R1003.9)

C. Mechanical Ventilation and Indoor Air Quality (ASHRAE 62.2-2010)

1. **Transfer air.** Ventilation air shall be provided directly from the outdoors and not as transfer air from adjacent dwelling units or other spaces, such as garages, unconditioned crawlspaces, or unconditioned attics. (CBEES 150.0(o))
2. **Instructions and labeling.** Ventilation system controls shall be labeled and the home owner shall be provided with instructions on how to operate the system. (CBEES 150.0(o))
3. **Combustion and solid-fuel burning appliances.** Combustion appliances shall be properly vented and air systems shall be designed to prevent back drafting. (CBEES 150.0(o))
4. **Garages.** The wall and openings between occupiable spaces and the garage shall be sealed. HVAC systems that include air handlers or return ducts located in garages shall have total air leakage of no more than 6% of total fan flow when measured at 0.1 in. w.c. using California Title 24 or equivalents. (CBEES 150.0(o))
5. **Minimum filtration.** Mechanical systems supplying air to occupiable space through ductwork shall be provided with a filter having a minimum efficiency of MERV 6 or better. (CBEES 150.0(o))
6. **Air inlets.** Air inlets (not exhaust) shall be located away from known contaminants. (CBEES 150.0(o))
7. **Air moving equipment.** Air moving equipment used to meet either the whole-building ventilation requirement or the local ventilation exhaust requirement shall be rated in terms of airflow and sound. (CBEES 150.0(o))
   - **a.** All continuously operating fans shall be rated at a maximum of 1.0 sone.
   - **b.** Intermittently operated whole-building ventilation fans shall be rated at a maximum of 1.0 sone.
   - **c.** Intermittently operated local exhaust fans shall be rated at maximum of 3.0 sone.
   - **d.** Remotely located air-moving equipment (mounted outside of habitable spaces) need not meet sound requirements if at least 4 feet of ductwork between fan and intake grill.

D. Foundation and Underfloor

1. **Foundation reinforcement.** Continuous footings and stem walls shall be provided with a minimum two longitudinal No. 4 bars, one at the top and one at the bottom of the footing. (CRC R403.1.3.3)
2. **Shear wall foundation support.** Shear walls shall be supported by continuous foundations. (CRC 403.1.2)
3. **Concrete slabs-on-grade.** Slabs-on-grade shall be minimum 3-1/2-inches thick. (CRC R506.1)
4. **Vapor retarder.** A 6-mil polyethylene or approved vapor retarder with joints lapped minimum 6 inches shall be placed between a concrete slab-on-grade and the base course or subgrade. (CRC 506.2.3)
5. **Anchor bolts and sills.** Foundation plates or sills shall be bolted or anchored to the foundation or foundation wall per the following (CRC R403.1.6 and CRC R602.11.1):
   - **a.** Minimum 1/2-inch-diameter steel bolts
   - **b.** Bolts embedded at least 7 inches into concrete or masonry
   - **c.** Bolts spaced maximum 6 feet on center
   - **d.** Minimum two bolts per plate/sill piece with one bolt located maximum 12 inches and minimum 7 bolt diameters from each end of each sill plate/piece
   - **e.** Minimum 3-inch by 3-inch by 0.299-inch steel plate washer between sill and nut on each bolt
6. **Hold-downs.** All hold-downs must be tied in place prior to foundation inspection.
7. **Protection of wood against decay**. Naturally durable or preservative-treated wood shall be provided in the following locations (CRC R317.1):
   - **a.** All wood in contact with ground, embedded in concrete in direct contact with ground, or embedded in concrete exposed to weather
   - **b.** Wood joists within 18 inches and wood girders within 12 inches of the exposed ground in crawl spaces shall be of naturally durable or preservative-treated wood
   - **c.** Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or preservative-treated wood
   - **d.** Wood framing, sheathing, and siding on the exterior of the building and having clearance less than 6 inches from the exposed ground or less than 2 inches vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surface exposed to weather
   - **e.** Sills and sleepers on concrete or masonry slab in direct contact with ground unless separated from such slab by impervious moisture barrier

D. Foundation and Underfloor (Continued)

   - **f.** Ends of wood girders entering masonry or concrete walls with clearances less than 1/2 inch on tops, sides, and ends
   - **g.** Wood structural members supporting moisture-permeable floors or roofs exposed to weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier
   - **h.** Wood furring strips or other wood framing members attached directly to interior of exterior concrete or masonry walls below grade except where vapor retarder applied between wall and furring strips or framing members
8. **Underfloor ventilation.** Underfloor areas shall have ventilation openings through foundation walls or exterior walls, with minimum net area of ventilation openings of 1 square foot for each 150 square feet of underfloor area. On such ventilating opening shall be within 3 feet of each corner of the building. (CRC R408.1)
9. **Underfloor access.** Underfloor areas shall be provided with a minimum 18-inch by 24-inch access opening. (CRC R408.4)

E. Wood Framing

1. **Fastener requirements.** The number, size, and spacing of fasteners connecting wood members/elements shall not be less than that set forth in CRC Table R602.3(1). (CRC R502.9, CRC R602.3, and CRC R802.2)
2. **Stud size, height, and spacing.** The size, height, and spacing of studs shall be in accordance with CRC Table R602.3(5). (CRC R602.3.1)
3. **Sill plate.** Studs shall have full bearing on nominal 2-inch thick or larger sill plate with width at least equal to stud width. (CRC R602.3.4)
4. **Bearing studs.** Where joists, trusses, or rafters are spaced more than 16 inches on center and the bearing studs below are spaced 24 inches on center, such members shall bear within 5 inches of the studs beneath. (CRC R602.3.3)
5. **Drilling and notching of studs.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40% of a single stud width. Any stud may be bored or drilled, provided the diameter of the resulting hole is no more than 60% of the stud width, the edge of the hole is no more than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior wall or bearing partitions drilled over 40% and up to 60% shall also be doubled with no more than two successive studs bored. (CRC R602.6)
6. **Top plate.** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates shall be offset at least 24 inches. Joints in plates need not occur over studs. Plates shall be minimum nominal 2 inches thick and have width at least equal to width of studs. (CRC R602.3.2)
7. **Top plate splices.** Top plate lap splices shall be face-nailed with minimum 8 16d nails on each side of splice. (CRC R602.10.8.1)
8. **Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling, or notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054-inch thick and 1-1/2-inches wide shall be fastened across and to the plate at each side of the opening with not less than 8 10d nails having a minimum length of 1-1/2 inches at each side or equivalent. The metal tie must extend minimum 6 inches past the opening. (CRC R602.6.1)
9. **Cripple walls.** Foundation cripple walls shall be framed of studs not less in size than the studding above. Cripple walls more than 4 feet in height shall have studs sized as required for an additional story. Cripple walls with stud height less than 14 inches shall be sheathed on at least one side with a wood structural panel fastened to both the top and bottom plates in accordance with Table R602.3(1), or the cripple walls shall be constructed of solid blocking. Cripple walls shall be supported on continuous foundations. (CRC R602.9)
10. **Wall bracing.** Buildings shall be braced in accordance with the methods allowed per CRC R602.10.2, CRC R602.10.4, and/or CRC R602.10.5.
11. **Braced wall line spacing.** Spacing between braced wall lines shall not exceed 20 feet or alternate provisions of CRC R602.10.1.3.
12. **Shear wall cumulative length.** The cumulative length of shear walls within each braced wall line shall meet the provisions of CRC Table R602.10.3(1) for wind loads and CRC Table R602.10.3(2) for seismic loads. (CRC R602.10.1.1)
13. **Shear wall spacing.** Shear walls shall be located not more than 25 feet on center. (CRC R602.10.2.2)
14. **Shear wall offset.** Shear walls may be offset out-of-plan not more than 4 feet from the designated braced wall line and not more than 8 feet from any other offset wall considered part of the same braced wall line. (CRC R602.10.1.2)
15. **Shear wall location.** Shear walls shall be located at the ends of each braced wall line or meet the alternate provisions of CRC R602.10.2.2.
16. **Individual shear wall length.** Shear walls shall meet minimum length requirements of CRC R602.10.6.5.1.
17. **Cripple wall bracing.** Cripple walls shall be braced per CRC R602.10.11.
18. **Shear wall and diaphragm nailing.** All shear walls, roof diaphragms, and floor diaphragms shall be nailed to supporting construction per CRC Table R602.3(1). (CRC R604.3)
19. **Shear wall joints.** All vertical joints in shear wall sheathing shall occur over, and be fastened to, common studs. Horizontal joints in shear walls shall occur over, and be fastened to, minimum 1-1/2-inch-thick blocking. (CRC R602.10.10)
20. **Framing over openings.** Headers, double joists, or trusses of adequate size to transfer loads to vertical members shall be provided over window and door openings in load-bearing walls and partitions. (CBC 2304.3.2)
21. **Joists under bearing partitions.** Joists under parallel bearing partitions shall be of adequate size to support the load. Double joists, sized to adequately support the load, that are separated to permit the installation of piping or vents shall be full-depth solid-blocked with minimum 2-inch nominal lumber spaced at maximum 4 feet on center. Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls, or partitions more than the joist depth unless such joists are of sufficient size to carry the additional load. (CRC R502.4)
22. **Joists above or below shear walls.** Where joists are perpendicular to a shear wall above or below, a rim joist, band joist, or blocking shall be provided along the entire length of the shear wall. Where joists are parallel to a shear wall above or below, a rim joist, end joist, or other parallel framing shall be provided directly above and/or below the shear wall. Where a parallel framing member cannot be located directly above and/or below the shear wall, full-depth blocking at 16-inch spacing shall be provided between the parallel framing members to each side of the shear wall. (CRC R602.10.8)
23. **Floor member bearing.** The ends of each floor joist, beam, or girder shall have minimum 1-1/2 inches of bearing on wood or metal and minimum 3 inches of bearing on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjoining stud or by the use of approved joist hangers. (CRC R502.6)
24. **Floor joist lap.** Floor joists framing opposite sides over a bearing support shall lap minimum 3 inches and shall be nailed together within minimum 3 10d face nails. A wood or metal splice with strength equal to or greater than that provided by the lap is permitted. (CRC R502.6.1)
25. **Floor joist-to-girder support.** Floor joists framing into the side of a wood girder shall be supported by approved framing anchors or on ledger strips minimum nominal 2 inches by 2 inches. (CRC R502.6.2)
26. **Floor joist lateral restraint.** Floor joists shall be supported laterally at ends and each intermediate support by minimum 2-inch full-depth blocking, by attachment to full-depth header, band joist, or rim joist, to an adjoining stud, or shall be otherwise provided with lateral support to prevent rotation. (CRC R502.7)
27. **Floor joist bridging.** Floor joists exceeding nominal 2 inches by 12 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at maximum 8-foot intervals. (CRC R502.7.1)
28. **Framing of floor openings.** Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)

E. Wood Framing (Continued)

29. **Girders.** Girders for single-story construction or girders supporting loads from a single floor shall not be less than 4 inches by 6 inches for spans 6 feet or less, provided that girders are spaced not more than 8 feet on center. Other girders shall be designed to support the loads specified in the CBC. Girder end joints shall occur over supports. When a girder is spliced over a support, an adequate tie shall be provided. The ends of beams or girders supported on masonry or concrete shall not have less than 3 inches of bearing. (CBC 2308.7)
30. **Ridges, hips, and valleys**. Rafters shall be framed to a ridge board or to each other with a gusset plate as a tie. Ridge boards shall be minimum 1-inch nominal thickness and not less in depth than the cut end of the rafter. At all valley and hips, there shall be a valley or hip rafter not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than 3:12 slope (25% gradient), structural members that support rafters and ceilings joists, such as ridges, hips, and valleys, shall be designed as beams. (CRC R802.3)
31. **Ceiling joist and rafter connections.** Ceiling joists and rafters shall be nailed to each other per CRC Table R802.5.1(9), and the rafter shall be nailed to the wall top plate per CRC Table R602.3(1). Ceiling joists shall be continuous or securely joined per CRC Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to rafters. Where ceiling joists are not connected to the rafters at the wall top plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be minimum 2 inches by 4 inches nominal, installed per CRC Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceilings joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or engineer-designed girder. (CRC R802.3.1)
32. **Ceiling joists lapped.** Ends of ceiling joists shall be lapped minimum 3 inches or butted over bearing partitions or beams and toenailed to the bearing element. Where ceiling joists provide resistance to rafter thrust, lapped joists shall be nailed together per CRC Table R602.3(1) and butted joists shall be tied together in a manner to resist such thrust. (CRC R802.3.2)
33. **Collar ties.** Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space. Collar ties shall be a minimum 1 inch by 4 inches nominal and spaced at maximum 4 feet on center. (CRC R802.3.1)
34. **Purlins.** Purlins installed to reduce the span of rafters shall be sized not less than the required size of the rafters they support. Purlins shall be continuous and shall be supported by 2-inch-by-4-inch nominal braces installed to bearing walls at a minimum 45-degree slope from horizontal. The braces shall be spaced maximum 4 feet on center with a maximum 8-foot unbraced length. (CRC R802.5.1)
35. **Roof/ceiling member bearing.** The ends of each rafter or ceiling joist shall have not less than 1-1/2 inches of bearing on wood or metal and not less than 3 inches of bearing on masonry or concrete. (CRC R802.6)
36. **Roof/ceiling member lateral support.** Roof framing members and ceiling joists with a nominal depth-to-thickness ratio exceeding 5:1 shall be provided with lateral support at points of bearing to prevent rotation. (CRC R802.8)
37. **Roof/ceiling bridging.** Rafters and ceiling joists with a nominal depth-to-thickness ratio exceeding 6:1 shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch wood strip nailed across the rafters or ceiling joists at maximum 8-foot intervals. (CRC R802.8.1)
38. **Framing of roof/ceiling openings.** Openings in roof and ceiling framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the ceiling joist or rafter. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the ceiling joists or rafters framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)
39. **Roof framing above shear walls.** Rafters or roof trusses shall be connected to top plates of shear walls with blocking between the rafters or trusses. (CRC R602.10.8)
40. **Roof diaphragm under fill framing.** Roof plywood shall be continuous under California fill framing.
41. **Roof diaphragm at ridges.** Minimum 2-inch nominal blocking required for roof diaphragm nailing at ridges.
42. **Blocking of roof trusses.** Minimum 2-inch nominal blocking required between trusses at ridge lines and at points of bearing at exterior walls.
43. **Truss clearance**. Minimum 1/2-inch clearance required between top plates of interior non-bearing partitions and bottom chords of trusses.
44. **Drilling, cutting, and notching of roof/floor framing.** Notches in solid lumber joists, rafters, blocking, and beams shall not exceed one-sixth the member depth, shall be not longer than one-third the member depth, and shall not be located in the middle one-third of the span. Notches at member ends shall not exceed one-fourth the member depth. The tension side of members 4 inches or greater in nominal thickness shall not be notched except at member ends. The diameter of holes bored or cut into members shall not exceed one-third the member depth. Holes shall not be closer than 2 inches to the top or bottom of the member or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch. (CRC R502.8.1)
45. **Exterior landings, decks, balconies, and stairs.** Such elements shall be positively anchored to the primary structure to resist both vertical and lateral forces or shall be designed to be self-supporting. Attachment shall not be accomplished by use of toenails or nails subject to withdrawal. (CRC R311.3)
46. **Fireblocking.** Fireblocking shall be provided in the following locations (CRC R302.11 and CRC R1003.19):
   - **a.** In concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs, as follows:
   - **i.** Vertically at the ceiling and floor levels
   - **ii.** Horizontally at intervals not exceeding 10 feet
   - **b.** At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, and cove ceilings
   - **c.** In concealed spaces between stair stringers at the top and bottom of the run
   - **d.** At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion
   - **e.** At chimneys and fireplaces per item E.49
   - **f.** Cornices of a two-family dwelling at the line of dwelling-unit separation
47. **Fireblocking materials.** Except as otherwise specified in items E.48 and E.49, fireblocking shall consist of the following materials with the integrity maintained (CRC R302.11.1):
   - **a.** Two-inch nominal lumber
   - **b.** Two thicknesses of one-inch nominal lumber with broken lap joints
   - **c.** One thickness of 23/32-inch wood structural panel with joints backed by 23/32-inch wood structural panel
   - **d.** One thickness of 3/4-inch particleboard with joints backed by 3/4-inch particleboard
   - **e.** 1/2-inch gypsum board
   - **f.** 1/4-inch cement-based millboard
   - **g.** Batts or blankets of mineral or glass fiber of other approved materials installed in such a manner as to be securely retained in place. Batts or blankets of mineral or glass fiber or other approved non-rigid materials shall be permitted for compliance with the 10-foot horizontal fireblocking in walls constructed using parallel rows of studs or staggered studs. Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross-section of the wall cavity to a minimum height of 16 inches measured vertically. When piping, conduit, or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction. Loose-fill insulation material shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.
48. **Fireblocking at openings around vents, pipes, ducts, cables, and wires at ceiling and floor level.** Such openings shall be fireblocked with an approved material to resist the free passage of flame and products of combustion. (CRC R302.11)

E. Wood Framing (Continued)

49. **Fireblocking of chimneys and fireplaces.** All spaces between chimneys and floors and ceilings through which chimneys pass shall be fireblocked with noncombustible material securely fastened in place. The fireblocking of spaces between chimneys and wood joists, beams, or headers shall be self-supporting or be placed on strips of metal or metal lath laid across the spaces between combustible material and the chimney. (CRC R1003.19)
50. **Draftstopping.** In combustible construction where there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1000 square feet. Draftstopping shall divide the concealed space into approximately equal areas. Where the assembly is enclosed by a floor membrane above and a ceiling membrane below, draftstopping shall be provided in floor/ceiling assemblies under the following circumstances (CRC R302.12):
   - **a.** Ceiling is suspended under the floor framing
   - **b.** Floor framing is constructed of truss-type open-web or perforated members
51. **Draftstopping materials.** Draftstopping shall not be less than 1/2-inch gypsum board, 3/8-inch wood structural panels, or other approved materials adequately supported. Draftstopping shall be installed parallel to the floor framing members unless otherwise approved by the building official. The integrity of draftstops shall be maintained. (CRC R302.12.1)
52. **Combustible insulation clearance.** Combustible insulation shall be separated minimum 3 inches from recessed luminaires, fan motors, and other heat-producing devices. (CRC R302.14)

F. General Material Specifications

1. **Lumber.** All joists, rafters, beams, and posts 2-inches to 4-inches thick shall be No. 2 grade Douglas Fir-Larch or better. All posts and beams 5 inches and thicker shall be No. 1 grade Douglas Fir-Larch or better. Studs not more than 8 feet long shall be stud-grade Douglas Fir-Larch or better when supporting not more than one floor, roof, and ceiling. Studs longer than 8 feet shall be No. 2 grade Douglas Fir-Larch or better.
2. **Concrete.** Concrete shall have a minimum compressive strength of 2,500 psi at 28 days and shall consist of 1 part cement, 3 parts sand, 4 parts 1-inch maximum size rock, and not more than 7-1/2 gallons of water per sack of cement. (CRC R402.2)
3. **Mortar.** Mortar used in construction of masonry walls, foundation walls, and retaining walls shall conform to ASTM C 270 and shall consist of 1 part portland cement, 2-1/4 to 3 parts sand, and 1/4 to 1/2 part hydrated lime. (CBC 2103.2)
4. **Grout.** Grout shall conform to ASTM C 476 and shall consist of 1 part portland cement, 1/10 part hydrated lime, 2-1/4 to 3 parts sand, and 1 to 2 parts gravel. Grout shall attain a minimum compressive strength of 2,000 psi at 28 days. (CBC 2103.3)
5. **Masonry.** Masonry units shall comply with ASTM C 90 for load-bearing concrete masonry units. (CBC 2103.1)
6. **Reinforcing steel.** Reinforcing steel used in construction of reinforced masonry or concrete structures shall be deformed and comply with ASTM A 615. (CBC 2103.4)
7. **Structural steel.** Steel used as structural shapes such as wide-flange sections, channels, plates, and angles shall comply with ASTM A36. Pipe columns shall comply with ASTM A53. Structural tubes shall comply with ASTM A500, Grade B.
8. **Fasteners for preservative-treated wood.** Fasteners for preservative-treated and fire-retardant-treated wood - including nuts and washers -- shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. (CRC R317.3.1)

   Exception: 1/2-inch diameter or greater steel bolts

   Exception: Fasteners other than nails and timber rivets may be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum

   Exception: Plain carbon steel fasteners acceptable in SBX/DOT and zinc borate preservative-treated wood in an interior, dry environment
9. **Fasteners for fire-retardant-treated wood.** Fasteners for fire-retardant-treated wood used in exterior applications or wet or damp locations shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. (CRC R317.3.3)

G. Roofing and Weatherproofing

1. **Roof covering.** All roof covering shall be installed per applicable requirements of CBC 1507. Roof coverings shall be at least Class A rated in accordance with ASTM E 108 or UL 790, which shall include coverings of slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets. (County Building Code 92.1.1505.1)
2. **Roof flashing.** Flashing shall be installed at wall and roof intersections, at gutters, wherever there is a change in roof slope or direction, and around roof openings. Where flashing is of metal, the metal shall be corrosion-resistant with a thickness of not less than 0.019 inch (No. 26 galvanized sheet). (CRC R903.2.1)
3. **Crickets and saddles.** A cricket or saddle shall be installed on the ridge side of any chimney or penetration more than 30 inches wide as measured perpendicular to the slope. Cricket or saddle covering shall be sheet metal or the same material as the roof covering. (CRC R903.2.2)
4. **Water-resistive barrier.** A minimum of one layer of No. 15 asphalt felt shall be attached to studs or sheathing of all exterior walls. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer minimum 2 inches. Where joints occur, felt shall be lapped minimum 6 inches. The felt shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to maintain a weather-resistant exterior wall envelope. (CRC R703.2)
5. **Wall flashing.** Approved corrosion-resistant flashing shall be applied shingle fashion at the following locations to prevent entry of water into the wall cavity or penetration of water to the building structural framing components (CRC R703.8):
   - **a.** Exterior door and window openings, extending to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage
   - **b.** At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings
   - **c.** Under and at the ends of masonry, wood, or metal copings and sills
   - **d.** Continuously above all projecting wood trim
   - **e.** Where exterior porches, decks, or stairs attach to a wall or floor assembly of wood-frame construction
   - **f.** At wall and roof intersections
   - **g.** At built-in gutters
6. **Dampproofing.** Dampproofing materials for foundation walls enclosing usable space below grade shall be installed on the exterior surface of the wall, and shall extend from the top of the footing to finished grade. (CRC R406.1)
7. **Weep screed.** A minimum 0.019-inch (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed with a minimum vertical attachment flange of 3-1/2 inches shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 92. The weep screed shall be placed a minimum 4 inches above the earth or 2 inches above paved areas and shall be of a type allowing trapped water to drain to the exterior of the building. (CRC R703.7.2.1)

H. Grading and soils

1. **Grading permit**. Grading permit required if volume of earth moved exceeds 200 cubic yards or if any cuts or fills exceed 8 feet in height/depth. (County Grading Ordinance 202)
2. **Compaction report.** Compaction report required for fill material 12 inches or more in depth. (CBC 1803.5.8)

I. Green Building Standards Code (CALGreen) Requirements

1. **Applicability**. CalGreen residential mandatory measures shall apply to every newly constructed building or structure and within any addition or alteration increasing a building's conditioned area, volume, or size. (CalGreen 101.3, CalGreen 301.1.1)

   Exception: All residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures per CalGreen 301.1.1 and CalGreen 4.303.1

I. (CALGreen) Requirements (Continued)

2. **Water conserving plumbing fixtures and fittings.** Plumbing fixtures and fittings shall comply with the following per CalGreen 4.303.1:
   - **a.** Water closets: Maximum 1.28 gallons per flush
   - **b.** Urinals: Maximum 0.5 gallons per flush
   - **c.** Single showerheads: Maximum flow rate of 2.0 gallons per minute at 80 psi
   - **d.** Multiple showerheads serving one shower: Maximum combined flow rate of 2.0 gallons per minute at 80 psi
   - **e.** Lavatory faucets: Maximum flow rate of 1.2 gallons per minute at 60 psi, minimum flow rate of 0.8 gallons per minute at 20 psi
   - **f.** Kitchen faucets: Maximum flow rate of 1.8 gallons per minute at 60 psi

   Exception: Temporary increase allowed to maximum 2.2 gallons per minute at 60 psi if faucet defaults back to maximum 1.8 gallons per minute at 60 psi
3. **Irrigation controllers.** Automatic irrigation system controllers for landscaping shall comply with the following (CalGreen 4.304.1):
   - **a.** Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
   - **b.** 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.
4. **Joints and openings.** Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate utility and other penetrations must be sealed in compliance with the *California Energy Code*. (CALGreen 4.406.1)

   Exception: Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such opening with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.
5. **Construction waste reduction, disposal, and recycling.** Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3, or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance. (CalGreen 4.408.1)

   Exception: Excavated soil and land-clearing debris.

   Exception: 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 The County of San Diego, Department of Public Works, Construction & Demolition (C&D) Facilities Guide is online at:
   https://www.sandiegocounty.gov/content/dam/sdc/dpw/SOLID_WASTE_PLANNING_and_RECYCLING/UpdatedCDResources/CDFacility_QuickGuide.pdf

   Exception: The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.
6. **Construction waste management plan.** A construction waste management plan in conformance with Items 1-5 shall be completed and available on the job site. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency. (CalGreen 4.408.2)
   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 (source-separated) or bulk mixed (single stream).
   3. Identify diversion facilities where the construction and demolition waste materials will be taken.
   4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
   5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.
7. **Waste management company.** Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1. (CalGreen 4.408.3)

   Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste company.
8. **Waste stream reduction alternative [LR].** Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 pounds per square foot of the building area shall meet the 65 percent construction waste reduction requirement in Section 4.408.1. (CalGreen 4.408.4)

   4.408.4.1 Waste stream reduction alternative. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area shall meet the 65 percent construction waste reduction requirement in Section 4.408.1.
9. **Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, Items 1-5, Section 4.408.3, or Section 4.408.4.
10. **Operation and maintenance manual.** Prior to final inspection, a manual, compact disc, web-based reference, or other acceptable media which includes all of the following shall be placed in the building (CALGreen 4.410.1):
   - **a.** Directions to owner or occupant that manual shall remain with the building throughout the life cycle of the structure.
   - **b.** Operation and maintenance instructions for the following:
   - **i.** Equipment and appliances, including water-saving devices and systems, HVAC system, photovoltaic systems, water-heating systems and other major appliances and equipment.
   - **ii.** Roof and yard drainage, including gutters and downspouts.
   - **iii.** Space conditioning systems, including condensers and air filters.
   - **iv.** Landscape irrigation systems.
   - **v.** Water reuse systems.
   - **c.** Information from local utility, water, and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
   - **d.** Public transportation and/or carpool options available in the area.
   - **e.** 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.
   - **f.** Information about water-conserving landscape and irrigation design and controllers which conserve water.
   - **g.** Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
   - **h.** Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
   - **i.** Information about state solar energy and incentive programs available.
   - **j.** A copy of all special inspection verifications required by the enforcing agency or code.
11. **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 cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system. (CALGreen 4.504.1)
12. **Adhesives, sealants, caulks, paints, and coatings pollutant control.** Adhesives (including carpet adhesives), sealants, caulks, paints, and coatings shall comply with VOC limits per CALGreen 4.504.2. Verification of compliance shall be provided at the request of the enforcing agency. (CALGreen 4.504.2.1)
13. **Carpet systems.** All carpet installed in the building interior shall meet the testing and product requirements of one of the following (CALGreen 4.504.3):
   - **a.** Carpet and Rug Institute's Green Label Plus Program (all carpet cushion must meet the requirements of this program).
   - **b.** California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350).
   - **c.** NSF/ANSI 140 at the Gold level.
   - **d.** Scientific Certifications Systems Indoor Advantage™ Gold.
14. **Resilient flooring systems.** At least 80 percent of the floor area receiving resilient flooring shall comply with one of or more of the following (CALGreen 4.504.4):
   - a. VOC emission limits defined in the Collaborative for High Performance Schools (CHPS) High Performance Products Database
   - b. Products compliant with CHPS criteria certified under the Greenguard Children & Schools program
   - c. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program
   - d. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)
15. **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 CalGreen Table 4.504.5. The following limits are in parts per million (CALGreen 4.504.5):

a.	Hardwood plywood veneer core	0.05
b.	Hardwood plywood composite core	0.05
c.	Particle board	0.09
d.	Medium-density fiberboard (MDF)	0.11
e.	Thin MDF (5/16 inch or less)	0.13

I. (CALGreen) Requirements (Continued)

16. **Moisture content of building materials.** Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following (CALGreen 4.505.3):
   - **a.** Moisture content shall be determined with either a probe-type or contact-type moisture meter.
   - **b.** Moisture readings shall be taken at a point 2 feet to 4 feet from the grade stamped end of each piece to be verified.
   - **c.** 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 high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.
17. **B**athrooms with a bathtub and/or shower shall be mechanically ventilated per the following (CalGreen 4.506.1):
   - **a.** Fans shall be ENERGY STAR compliant and ducted to terminate outside building
   - **b.** Unless functioning as a component of a whole-house ventilation system, fans shall have humidity controls capable of adjustment - manually or automatically -- between a relative humidity range of 50% to 80%.
18. **Heating and air-conditioning system design.** Heating and air-conditioning systems shall be sized, designed, and have their equipment selected using the following methods (CALGreen 4.507.2):
   - **a.** The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J, ASHRAE handbooks, or other equivalent design software or methods.
   - **b.** Duct systems are sized according to ANSI/ACCA 1 Manual D 2009, ASHRAE handbooks, or other equivalent design software or methods.
   - **c.** Select heating and cooling equipment according to ACCA 36-S Manual S or other equivalent design software or methods

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

TABLE R602.3(1)
FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
	Roof		
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2½" × 0.113") or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions [see Sections R802.3.1, R802.3.2 and Table R802.5.1(9)]	4-10d box (3" × 0.128"); or 3-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) [see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9)]	Table R802.5.1(9)	Face nail
5	Collar tie to rafter, face nail or 1¼" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3½" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3½" × 0.135"); or 3-10d common (3½" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box 3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
	Wall		
8	Stud to stud (not at braced wall panels)	16d common (3½" × 0.162")	24" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
		16d common (3½" × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with ½" spacer)	16d common (3½" × 0.162")	16" o.c. each edge face nail
		16d box (3½" × 0.135")	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box (2½" × 0.113"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common (3½" × 0.162")	16" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
13	Double top plate splice for SDCs A-D_2 with seismic braced wall line spacing < 25'	8-16d common (3½" × 0.162"); or 12-16d box (3½" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Double top plate splice SDCs D_0, D_1, or D_2; and braced wall line spacing ≥ 25'	12-16d (3½" × 0.135")	

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3½" × 0.162")	16" o.c. face nail
		16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box (2½" × 0.113"); or 3-16d box (3½" × 0.135"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3½" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1¾"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1¾" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1¾" long Wider than 1" × 8" 4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1¾" long	Face nail
	Floor		
21	Joist to sill, top plate or girder	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2½" × 0.113")	4" o.c. toe nail
		8d common (2½" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. toe nail
23	1" × 6" subfloor or less to each joist	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1¾" long	Face nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
	Floor		
24	2" subfloor to joist or girder	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	Blind and face nail
25	2" planks (plank & beam—floor & roof)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	At each bearing, face nail
26	Band or rim joist to joist	3-16d common (3½" × 0.162") 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, 7/16" crown	End nail
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" × 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
		10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides
		And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	4-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail
29	Bridging to joist	2-10d (3" × 0.128")	Each end, toe nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING OF FASTENERS: Edges (inches)[h]	SPACING OF FASTENERS: Intermediate supports[c, e] (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing [see Table R602.3(3) for wood structural panel exterior wall sheathing to wall framing]			
30	3/8" – 1/2"	6d common (2" × 0.113") nail (subfloor, wall)/ 8d common (2½" × 0.131") nail (roof)	6	12[f]
31	19/32" – 1"	8d common nail (2½" × 0.131")	6	12[f]
32	1⅛" – 1¼"	10d common (3" × 0.148") nail; or 8d (2½" × 0.131") deformed nail	6	12
	Other wall sheathing[g]			
33	1/2" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1¼" long	3	6
34	25/32" structural cellulosic fiberboard sheathing	1¾" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1¼" long	3	6
35	1/2" gypsum sheathing[d]	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7	7
36	5/8" gypsum sheathing[d]	1¾" galvanized roofing nail; staple galvanized, 1⅝" long; 1⅝" screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
37	3/4" and less	6d deformed (2" × 0.120") nail; or 8d common (2½" × 0.131") nail	6	12
38	7/8" – 1"	8d common (2½" × 0.131") nail; or 8d deformed (2½" × 0.120") nail	6	12
39	1⅛" – 1¼"	10d common (3" × 0.148") nail; or 8d deformed (2½" × 0.120") nail	6	12

TABLE R602.3(1)—continued
FASTENING SCHEDULE

a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.
c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
f. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.
h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

THESE ARE MINIMUM REQUIREMENTS AND SHALL NOT SUPERSEDE MORE RESTRICTIVE SPECIFICATIONS ON THE PLANS OR AS REQUIRED BY APPLICABLE CODE.

BUILDING RECORD ID:

OWNER OR CONTRACTOR SIGNATURE:
Gerardo De La Riva

Sheet Number

MCS

CONSTRUCTION BMP'S

THIS PROJECT SHALL COMPLY WITH ALL CURRENT REQUIREMENTS OF THE STATE PERMIT: CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (SDRWQCB), SAN DIEGO MUNICIPAL STORM WATER PERMIT, THE CITY OF SAN DIEGO LAND DEVELOPMENT CODE, AND THE STORM WATER STANDARDS MANUAL.

PRIOR TO ANY SOIL DISTURBANCE, TEMPORARY SEDIMENT CONTROLS SHALL BE INSTALLED BY THE CONTRACTOR OR QUALIFIED PERSON(S) AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY OF SAN DIEGO "STORM WATER STANDARDS MANUAL" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND/OR WATER POLLUTION CONTROL PLAN (WPCP) FOR CONSTRUCTION LEVEL BMPS AND, IF APPLICABLE, STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR POST-CONSTRUCTION BMPS.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL STORM DRAIN INLET PROTECTION. INLET PROTECTION IN THE PUBLIC RIGHT-OF-WAY MUST BE TEMPORARILY REMOVED PRIOR TO A RAIN EVENT TO ENSURE NO FLOODING OCCURS AND REINSTALLED AFTER RAIN IS OVER.
3. ALL CONSTRUCTION BPS SHALL BE INSTALLED AND PROPERLY MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
4. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING, AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED CONTRACT PERSON CAN PROVIDE EROSION AND SEDIMENT CONTROL MEASURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SUB-CONTRACTORS AND SUPPLIERS ARE AWARE OF ALL STORM WATER BMPS AND IMPLEMENT SUCH MEASURES. FAILURE TO COMPLY WITH THE APPROVED SWPPP/WPCP WILL RESULT IN THE ISSUANCE OF CORRECTION NOTICES, CITATION, CIVIL PENALTIES, AND/OR STOP WORK NOTICES.
6. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF ALL SILT, DEBRIS AND MUD ON AFFECTED AND ADJACENT STREET(S) AND WITHIN STORM DRAIN SYSTEM DUE TO CONSTRUCTION VEHICLES/EQUIPMENT AND CONSTRUCTION ACTIVITY AT THE END OF EACH WORK DAY.
7. THE CONTRACTOR SHALL PROTECT NEW AND EXITING STORM WATER CONVEYANCE SYSTEMS FROM SEDIMENTATION, CONCRETE RINSE, OR OTHER CONSTRUCTION-RELATED DEBRIS AND DISCHARGES WITH THE APPROPRIATE BPS THAT ARE ACCEPTABLE TO THE CITY RESIDENT ENGINEER AND AS INDICATED IN THE SWPPP/WPCP.
8. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CLEAR DEBRIS, SILT, AND MUD FROM ALL DITCHES AND SWALES PRIOR TO AND WITHIN 3 BUSINESS DAYS AFTER EACH RAIN EVENT OR PRIOR TO THE NEXT RAIN EVENT, WHICHEVER IS SOONER.
9. IF A NON-STORM WATER DISCHARGES LEAVES THE SITE, THE CONTRACTOR SHALL IMMEDIATELY STOP THE ACTIVITY AND REPAIR THE DAMAGES. THE CONTRACTOR SHALL NOTIFY THE CITY RESIDENT ENGINEER OF THE DISCHARGES, PRIOR TO RESUMING CONSTRUCTION ACTIVITY. ANY AND ALL WASTE MATERIAL, SEDIMENT, AND DEBRIS FROM EACH NON-STORM WATER DISCHARGE SHALL BE REMOVED FROM THE STORM DRAIN CONVEYEANCE SYSTEM AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
10. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ONSITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID DEPLOYMENT OF CONSTRUCTION BPS WHEN RAIN IS IMMINENT.
11. THE CONTRACTOR SHALL RESTORE AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO WORKING ORDER YEAR-ROUND.
12. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DUE TO UNFORESEEN CIRCUMSTANCES TO PREVENT NON-STORM WATER AND SEDIMENT-LADEN DISCHARGES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
14. ALL EROSION AND SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED SWPPP/WPCP SHALL BE INSTALLED AND MAINTAINED. ALL EROSION AND SEDIMENT CONTROLS FOR INTERIM CONDITIONS SHALL BE PROPERLY DOCUMENT AND INSTALLED TO THE SATISFACTION OF THE CITY RESIDENT ENGINEER.
15. AS NECESSARY, THE CITY RESIDENT ENGINEER SHALL SCHEDULE MEETINGS FOR THE PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED CONTACT PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER. AND THE CITY RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION AND SEDIMENT CONTROL MEASURES AND OTHER BMPS RELATIVE TO ANTICIPATED CONSTRUCTION ACTIVITIES.
16. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CONDUCT VISUAL INSPECTIONS AND MAINTAIN ALL BMPS DAILY AND AS NEEDED. VISUAL INSPECTIONS AND MAINTENANCE OF ALL BMPS SHALL BE CONDUCTED BEFORE, DURING, AND AFTER EVERY RAIN EVENT AND EVERY 24 HOURS DURING ANY PROLONGED RAIN EVENT, THE CONTRACTOR SHALL MAINTAIN AND REPAIR ALL BMPS AS SOON AS POSSIBLE AS SAFETY ALLOWS.
17. CONSTRUCTION ENTRANCE AND EXIT AREA. TEMPORARY CONSTRUCTION ENTRANCE AND EXITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CASQDA FACT SHEET TC-1 OR CALTRANS FACE SHEET TC-01 TO PREVENT TRACKING OF SEDIMENT AND OTHER POTENTIAL POLLUTANTS ONTO PAVED SURFACES AND TRAVELED WAYS, WIDTH SHALL BE 10' OR THE MINIMUM NECESSARY TO ACCOMMODATE VEHICLES AND EQUIPMENT WITHOUT BY-PASSING THE ENTRANCE. (A) NON-STORM WATER DISCHARGES SHALL BE EFFECTIVELY MANAGED PER THE SAN DIEGO MUNICIPAL CODE CHAPTER 4, ARTICLE 3, DIVISION 3 "STORM AFTER MANAGEMENT AND DISCHARGED CONTROL.

GENERAL PLAN NOTES:

1. NOTICE TO THE APPLICANT/OWNER/OWNER'S AGENT/ARCHITECT OR ENGINEER OR RECORD: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF CITY OF SAN DIEGO FOR SPECIAL INSPECTION, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND, AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.
2. NOTICE TO THE CONTRACTOR/BUILDER/INSTALLER/SUB-CONTRACTOR/ OWNER-BUILDER: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGED AND ARE AWARE OF, THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS. YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF CITY OF SAN DIEGO FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND, AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.
3. THE CONTRACTOR SHALL TAKE THE NECESSARY TIME AND CARE TO BECOME FAMILIAR WITH THE APPROVED SET OF DRAWINGS AND REFER ONLY TO APPROVED SETS OF DRAWINGS DURING THE CONSTRUCTION OF THIS PROJECT.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE EXISTING STRUCTURE, ELEVATIONS AND SITE CONDITIONS AFFECTED BY PROPOSED WORK, VERIFY ALL PLAN DIMENSIONS OF "NEW" ADDED OR REMODELED AREA PRIOR TO STARTING WORK. THIS INCLUDES EXISTING WINDOWS & DOORS TO BE REPLACED OR RETRO-FITTED. THE CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONAL AND/OR THE ENGINEER IMMEDIATELY OF ALL DISCREPANCIES.
5. ALL VERIFICATIONS OF NEW AND EXISTING DIMENSIONS ARE TO BE DONE PRIOR TO THE START OF WORK AND ORDERING OF WINDOWS, DOORS, LUMBER AND/OR FLOOR OR ROOF TRUSSES.
6. ALL CHANGES ARE TO BE APPROVED BY A DESIGN PROFESSIONAL AND THE BUILDING DEPARTMENT BEFORE CHANGES ARE MADE IN THE FIELD.
7. UNLESS OTHERWISE NOTED OR SHOWN ELSEWHERE ON THE PLANS, TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE JOB.
8. WHERE CONSTRUCTION DETAILS OR NOTES ARE NOT SHOWN FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR SIMILAR WORK SHOWN IN THE DRAWING.
9. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES
10. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THE CONSTRUCTION DRAWINGS.
11. CONTRACTOR SHALL VERIFY AND DETERMINE LOCATION OF ALL EXISTING UTILITIES AND SHALL NOT PERFORM ANY WORK THAT WILL DAMAGE EXISTING UTILITIES.
12. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL AND LOCAL SAFETY REQUIREMENTS.
13. ALL MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL STANDARDS AND TO THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE U.B.C.
14. METAL CONNECTORS, STRAPS, HANGERS, HOLDOWNS, ETC., CALLED OUT ON PLANS ARE TO BE SIMPSON "STRONG TIE" OR APPROVED EQUAL.
15. THIS PLAN DOES NOT PROVIDE COMPLETE FLASHING AND WATERPROOFING DETAILS THE DESIGNER AND ENGINEER DO NOT REPRESENT THEMSELVES TO BE EXPERTS IN THE FIELD OF WATERPROOFING IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR THE ROOF/DECKING SUBCONTRACTOR TO PROVIDE THE NECESSARY STANDARD OF CARE IN WORKMANSHIP AND MATERIALS TO COMPLETE THE ROOF AND DECKS IN A WATERTIGHT CONDITION ROOF AND/OR DECK DRAINAGE SHALL NOT BE ALLOWED TO RUN BEHIND ANY FASCIA BOARDS OR ONTO THE EXTERIOR FINISH OF THE STRUCTURE.
16. COMPLIANCE WITH THE DOCUMENTATION REQUIREMENTS OF THE 2016 ENERGY EFFICIENCY STANDARDS IS NECESSARY FOR THIS PROJECT. REGISTERED, SIGNED, AND DATED COPIES OF THE APPROPRIATE CF1R, CF2R, AND CF3R FORMS SHALL BE MADE AVAILABLE AT NECESSARY INTERVALS FOR BUILDING INSPECTOR REVIEW. FINAL COMPLETED FORMS WILL BE AVAILABLE FOR THE BUILDING OWNER.
17. ALL NEW WINDOWS AND SLIDING GLASS DOORS SHALL BE DUAL GLAZED UNLESS OTHERWISE SPECIFIED BY AN ACCREDITED ENERGY DESIGNER.
18. CONTRACTOR SLOPE ALL DISTURBED GRADES TO DRAIN SURFACE WATER AWAY FROM STRUCTURE ON ALL SIDES OF GROUND LEVEL ADDITION. CONTRACTOR TO SLOPE ALL NEW IMPERMEABLE SURFACES TO DRAIN AWAY FROM POOL AND TOWARD PERMEABLE SURFACES SUCH AS LANDSCAPING.
19. STATE HEALTH AND SAFETY CODE SEC17921.9 BANS THE USE OF CHLORINATED POLYVINYL CHLORIDE (CPVC) AND CROSS LINKED POLYETHYLENE (PEX) FOR INTERIOR WATER-SUPPLY PIPING.
20. FIRE PLACES WITH GAS APPLIANCES ARE REQUIRED TO HAVE THE FLUE DAMPER PERMANENTLY FIXED IN THE OPEN POSITION AND FIREPLACES WITH LPG APPLIANCES ARE TO HAVE NO PIT OR "SUPM" CONFIGURATIONS. (U.M.C. 9.04.5)
21. JOINTS AND OPENINGS , ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS,OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY. (CGBSC 4.406.1)
22. A MINIMUM OF 50 PERCENT OF THE CONSTRUCTION WASTE GENERATED AT THE SITE IS DIVERTED TO RECYCLE OR SALVAGE PER CGBSC SECTION 4.408.1 AND CITY ORDINANCE.
23. ADHESIVES, SEALANTS AND CAULKS SHALL BE COMPLIANT WITH "VOC" AND OTHER TOXIC COMPOUND LIMITS. (CGBSC 4.504.2.1)
24. PAINTS, STAINS AND OTHER COATINGS SHALL BE COMPLIANT WITH "VOC" LIMITS (CGBSC 4.504.2.3)
25. AEROSOL PAINTS AND COATINGS SHALL BE COMPLIANT WITH PRODUCT WEIGHTED "MIR" LIMITS FOR "VOC" AND OTHER TOXIC COMPOUNDS. (CGBSC 4.504.2.3)
26. DOCUMENTATION SHALL BE PROVIDED TO VERIFY THAT COMPLIANT "VOC" LIMIT FINISH MATERIALS HAVE BEEN USED. A LETTER FROM THE CONTRACTOR AND OR THE BUILDING OWNER CERTIFYING WHAT MATERIAL HAS BEEN USED AND ITS COMPLIANCE WITH THE CODE MUST BE SUBMITTED TO THE BUILDING INSPECTOR. (CGBSC 4.504.2.4)
27. CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH "VOC" LIMITS. A LETTER FROM THE CONTRACTOR AND OR THE BUILDING OWNER CERTIFYING WHAT MATERIAL HAS BEEN USED AND ITS COMPLIANCE WITH THE CODE MUST BE SUBMITED TO THE BUILDING INSPECTOR. (CGBSC 4.504.3)
28. PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF), AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTMES SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS. A LETTER FROM THE INSTALLER AND OR THE BUILDING OWNER CERTIFYING WHAT MATERIAL HAS BEEN USED AND DOCUMENTING ITS COMPLIANCE WITH THE CODE MUST BE SUBMITED TO THE BUILDING INSPECTOR. (CGBSC 4.504.5)
29. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN FRAMING MEMBERS EXCEED 19% MOISTURE CONTENT.
30. THE MOISTURE CONTENT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING IS CHECKED BEFORE ENCLOSURE. MOISTURE CONTENT SHALL BE VERIFIED BY EITHER A PROBE TYPE OF CONTACT TYPE MOISTURE METER. A CERTIFICATE OF COMPLIANCE INIDCATING DATE OF TEST, LOCATION AND RESULTS ISSUED BY THE FRAMING SUB-CONTRACTOR OR GENERAL CONTRACTOR MUST BE SUBMITTED TO THE BUILDING INSPECTOR. (CGBSC 4.505.3)
31. SITE SHALL BE PLANNED AND DEVELOPED TO KEEP SURFACE WATER AWAY FROM BUILDINGS. PLANS SHALL BE PROVIDED AND APPROVED BY THE CITY ENGINEER THAT SHOW SITE GRADING AND PROVIDE FOR STORM WATER RETENTION AND DRAINAGE DURING CONSTRUCTION. BMP'S THAT ARE CURRENTLY ENFORCED BY THE COTY ENGINEER MUST BE IMPLEMENTED PRIOR TO INITAIL INSPECTION BY THE BUILDING DEPARTMENT. CGC 4.106.3
32. A PRE-CONSTRUCTION MEETING SHALL BE HELD PRIOR TO WORK BEGINNING.
33. CONTROLLERS SHALL BE WEATHER- OR SOIL MOISTURE~BASED CONTROLLERS THAT AUTOMATICALLY ADJUST IRRIGATION IN RESPONSE TO CHANGES IN PLANTS' NEEDS AS WEATHER CONDITIONS CHANGE.
34. WEATHER-BASED CONTROLLERS WITHOUT INTEGRAL RAIN SENSORS OR COMMUNICATION SYSTEMS THAT ACCOUNT FOR LOCAL RAINFALL SHALL HAVE A SEPARATE WIRED OR WIRELESS RAIN SENSOR
35. AN ELECTRONICALLY SIGNED AND REGISTERED INSTALLATION CERTIFICATE(S) (CF2R) POSTED BY THE INSTALLING CONTRACTOR SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION AT THE BUILDING SITE. A REGISTERED CF2R WILL HAVE A UNIQUE 21-DIGLT REGISTRATION NUMBER FOLLOWED BY FOUR ZEROS LOCATED AT THE BOTTOM OF EACH PAGE. THE FIRST 12 DIGITS OF THE NUMBER WILL MATCH THE REGISTRATION NUMBER OF THE ASSOCIATED CF1 R. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL FORMS CF2R IS REVIEWED AND APPROVED.
36. AN ELECTRONICALLY SIGNED AND REGISTERED CERTIFICATE(S) OF FIELD VERIFICATION AND DIAGNOSTIC TESTING (CF3R) SHALL BE POSTED AT THE BUILDING SIGNED AND REGISTERED CERTIFICATE(S) OF FIELD VERIFICATION AND DIAGNOSTIC TESTING (CF3R) SHALL BE POSTED AT THE BUILDING SITE BY A CERTIFIED HERS RATER. A REGISTERED CF3R WILL HAVE A UNIQUE 25-DIGIT REGISTRATION NUMBER LOCATED AT THE BOTTOM OF EACH PAGE. THE FIRST 20 DIGITS OF THE NUMBER WILL MATCH THE REGISTRATION NUMBER OF THE ASSOCIATED CF2R. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL CF3R IS REVIEWED AND APPROVED.
37. IRRIGATION CONTROLLERS SHALL BE WEATHER- OR SOIL MOISTURE~BASED CONTROLLERS THAT AUTOMATICALLY ADJUST IRRIGATION IN RESPONSE TO CHANGES IN PLANTS' NEEDS AS WEATHER CONDITIONS CHANGE.
38. WEATHER-BASED IRRIGATION CONTROLLERS WITHOUT INTEGRAL RAIN SENSORS OR COMMUNICATION SYSTEMS THAT ACCOUNT FOR LOCAL RAINFALL SHALL HAVE A SEPARATE WIRED OR WIRELESS RAIN SENSOR

GENERAL DOOR NOTES

1. DIMENSIONS INDICATED ON PLANS AND SCHEDULES ARE NOMINAL COORDINATE PRIOR TO FABRICATION.
2. THE GENERAL CONTRACTOR AND/OR WINDOW SUBCONTRACTOR/SUPPLIER SHALL FIELD VERIFY SIZE,STYLE OF ALL EXISTING DOORS TO BE REPLACED OR RETROFITTED PRIOR TO ORDER.
3. PAINT GRADE OR STAIN GRADE PER OWNER OR CONTRACTOR
4. PAINT / STAIN COLOR AND BRAND PER OWNER
5. DOOR MANUFACTURER PER OWNER OR CONTRACTOR. ALL GLAZING SHALL BE LOW "E" RATED AND HAVE THE FOLLOWING MINIMUM SPECIFICATIONS:

   U-FACTOR: .32
   SHGC: .25
6. LANDINGS AT EXTERIOR DOORWAY: LANDINGS SHALL NOT BE MORE THAN 7.75 INCHES BELOW THE TOP OF THE THRESHOLD, PROVIDED THE DOOR OTHER THAN AN EXTERIOR STORM OR SCREEN DOOR, DOES NOT SWING OVER THE LANDING (SEC 1008.1.4, EXCEPTION 3).
7. DOORS BETWEEN GARAGES AND OCCUPIABLE SPACES (ENCLOSED SPACES INCLUDING HABITABLE SPACES, BATHROOMS, CLOSETS, HALLS, STORAGE AND UTILITY AREAS, ETC) SHALL BE GASKETED OR MADE SUBSTANTIALLY AIRTIGHT WITH WEATHER STRIPPING.
8. EXTERIOR DOOR ASSEMBLIES SHALL CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7A-2 OR SHALL BE OF APPROVED NONCOMBUSTIBLE CONSTRUCTION, OR SOLID CORE WOOD HAVING STILES AND RAILS NOT LESS THAN 1 3/8" THICK WITH INTERIOR FIELD PANEL THICKNESS OF NO LESS THAN 1 1/4" THICK, OR SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 20 MINUTES WHEN TESTED ACCORDING TO NFPA 257. (CRC SEC. 327.8.2.1)
9. EXTERIOR DOORS SHALL COMPLY WITH (CRC SEC. 327.8.3)
10. EXTERIOR DOOR GLAZING SHALL COMPLY WITH (CRC SEC. 327.8.3.1)
11. DOOR OPENINGS BETWEEN GARAGE AND RESIDENCE SHALL BE SELF-CLOSING AND SELF-LATCHING, AND SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8" THICK SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1 3/8" THICK OR 20-MIN. FIRE-RATED DOORS PER CRC SEC. R302.5.1
12. THRESHOLDS: THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 0.75 INCHES IN HEIGHT FOR SLIDING GLASS DOORS SERVING DWELLIN UNITS OR 0.5 INCHES FOR OTHER DOORS.

GENERAL WINDOW NOTES

1. ALL NEW WINDOWS TO BE WHITE VINYL, DUAL-GLAZED, LOW-E OR EQUAL VERIFY WITH SCOPE OF WORK.
2. WINDOW AND DOOR FINISH COLORS PER OWNER & GENERAL CONTRACTOR.
3. ALL WINDOWS TO HAVE CLEAR GLASS U.O.N., ANY MUNTINS/GRIDS SHALL BE PER ELEVATIONS- STYLE TO BE VERIFIED WITH OWNER.
4. THE GENERAL CONTRACTOR AND/OR WINDOW/DOOR CONTRACTOR/SUPPLIER SHALL FIELD VERIFY SIZE, STYLE OF ALL EXISTING WINDOWS TO BE REPLACED OR RETRO-FITTED PRIOR TO ORDER.
5. TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED AND VISIBLE WHEN THE UNIT IS INSTALLED
6. NEW MANUFACTURED WINDOWS SHALL HAVE A LABEL ATTACHED WHICH INDICATES CERTIFICATION BY THE NATIONAL FENESTRATION RATING COUNCIL (NFRC) AND SHOWING COMPLIANCE WITH THE ENERGY CALCULATIONS.
7. CONTRACTOR SHALL REFER TO TITLE 24 CALCULATIONS AFFIXED TO THESE PLANS FOR WINDOW U-VALUES AND SHADING COEFFICIENTS (SHGC).
8. GLAZING FRAMES MADE OF VINYL MATERIAL SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN THE INTERLOCKING AREA AND BE CERTIFIED TO THE MOST CURRENT EDITION OF ANSI/AAMA/NWWDA 101/I.S.2 STRUCTURAL REQUIREMENTS. (SDMC SEC. 145.0705 (a) 1)
9. SILL HEIGHT: EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44-INCHES MEASURED FROM THE FINISH FLOOR (SEC. 1026.3).
10. GLAZING MATERIALS USED IN SKYLIGHTS, ROOFS, AND SLOPED WALLS ON BUILDINGS LOCATED WITHIN 300-FT. IN ANY DIRECTION, OF THE BOUNDARY BETWEEN BRUSH MANAGEMENT ZONES ONE AND TWO AS DEFINED IN SECTION 142.0412 OF THE LANDS DEVELOPMENT CODE, SHALL BE TEMPERED GLASS OR MULTI-LAYERED GLASS (SDMC SEC 145.0706 (c)).
11. EXTERIOR WINDOWS, WINDOW WALLS, GLAZED DOORS, AND GLAZED OPENINGS WITHIN EXTERIOR DOORS SHALL BE INSULATED-GLASS UNITS WITH A MINIMUM OF ONE TEMPERED PANE, OR GLASS BLOCK UNITS OR HAVE FIRE-RESISTANCE RATING OF NTO LESS THAN 20 MINUTES, WHEN TESTED ACCORDING TO NFPA 257, OR CONFORM TO THE PERFORMANCE REQUIREMENTS OF SFM 12-7A-2 (CBC SEC 704A.3.2.2)

ABBREVIATIONS

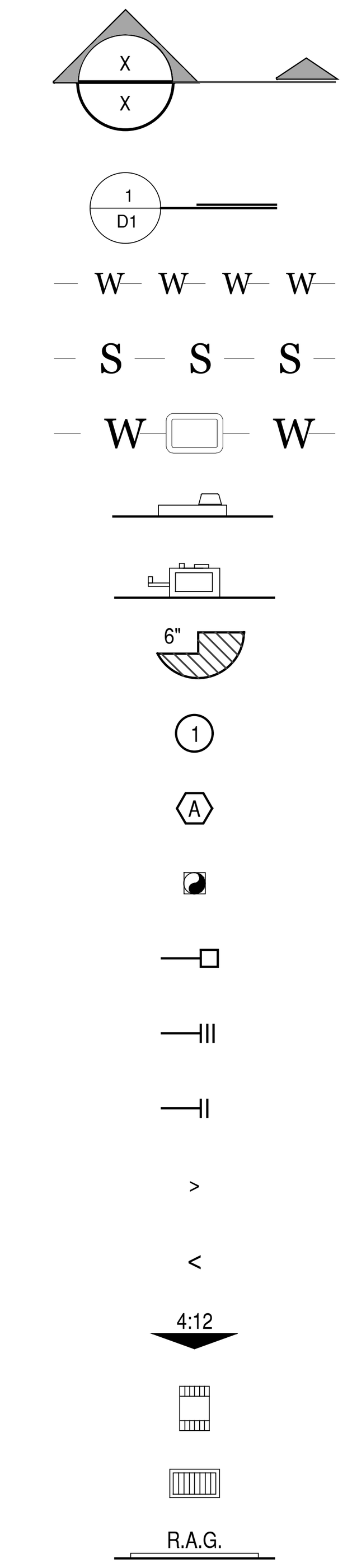
@	AT
A.A	ATTIC ACCESS
A.B.	ANCHOR BOLT
ABV.	ABOVE
A.C.A.P.	AS CLOSE AS POSSIBLE
A/C	AIR CONDITIONER
ADJ.	ADJACENT
A.F.F	ABOVE FINISH FLOOR
AL.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE(LY)
ARCH.	ARCHITECTURAL
AWG.	AWING
BLDG.	BUILDING
BLK	BLOCK
BLKG.	BLOCKING
BM	BEAM
B.N.	BOUNDARY NAIL
BRG.	BEARING
BTM.	BOTTOM
BTWN	BETWEEN
C	CHAMBER(ED)
CANT	CANTILEVER
C.A.	CLEAN OUT
C/O	CASED OPENING
C.I.P.	CAST-IN-PLACE
CL.	CENTERLINE
CLG	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CMU	CONCRETE MASONRY UNIT
COMPO	COMPOSITION
COND.	CONDENSER
CONT.	CONTINUOUS
CONC.	CONCRETE
CSMT	CASEMENT
CTR.	CENTER(ED)
d	PENNEY (NAILS)
D.	DRYER
DBL.	DOUBLE
D.F.	DOUGLAS FIR
DIA. (⌀)	DIAMETER
DIAG.	DIAGONAL
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
do	DITTO (REPEAT)
DP.	DEEP (DEPTH)
D.W.	DRIVEWAY
D/W	DISHWASHER
DWG.	DRAWING
EA.	EACH
EF.	EACH FACE
E.F.W.	ENTIRE FACE OF WALL
ELEV.	ELEVATION
EMBD.	EMBEDMENT
E.N.	EDGE NAIL
EQ.	EQUAL
E.W.	EACH WAY
EXSTG. (E)	EXISTING
EXT	EXTERIOR
F.A.U.	FORCED AIR UNIT
F.F.	FINISH FLOOR
F.G.	FINISH GRADE
FGL	FIBERGLASS
FLG.	FLANGE
FLR.	FLOOR
FIN.	FINISH
F.N.	FIELD NAIL
FND.	FOUNDATION
F.O.S.	FACE OF STUD
F.O.P.	FACE OF POST
F.P.	FIRE PLACE
FRM'G	FRAME(ING)
FT	FEET
FTG	FOOTING
F.V.	FLAT VALLEY
FX	FIXED
GA.	GUAGE
GALV.	GALVANIZE(D)
GB.	GRADE BEAM
GYP. BD.	GYPSUM BOARD
G.B.	GARBAGE DISPOSAL
G.F.C.I.	GROUND FAULT CIRCUIT INTERUPT
GL.	GLASS
GLB.	GLUE LAMINATED BEAM
GR	GUARDRAIL
H.B.	HOSE BIB
HD.	HOLD DOWN
HDR.	HEADER
HGR.	HANGER
HORZ.	HORIZONTAL
H.R.	HANDRAIL
HT.	HEIGHT
IN. (")	INCHES
INT.	INTERIOR
JST	JOIST
K	KIPS (1000)
KSI	KIPS PER SQUARE INCH
L	ANGLE
LB	LAG BOLT
lbs (#)	POUNDS
LDGR.	LEGER
LG	LONG(ITUDINAL)
LTWT	LIGHT WEIGHT
MAT'L	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
M.C.	MEDICINE CABINET
MECH.	MECHANICAL
MEZZ	MEZZANINE
MF	MOMENT FRAME
MIN.	MINIMUM
MIR	MIRROR
MISC.	MISCELLANEOUS
MFR.	MANUFACTURER
MTL.	METAL
(N)	NEW
NTS	NOT TO SCALE
O/	OVER
OBSC	OBSCURE
O.C.	ON CENTER
O.H.	OVERHANG
OPNG	OPENING
O.W.	OPEN WEB
P/C	PRECAST CONCRETE
P.C.C	PORTLAND CONC. CEMENT
PCF	POUNDS PER CUBIC FT.
PKT.	POCKET
PL.	PLATE
PLY.	PLYWOOD
PERP.	PERPENDICULAR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P/T	POST-TENSIONED
P.T.	PRESSURE TREADED
P.T.D.F.	PRESSURE TREADED DOUGLAS FIR
QTY.	QUANTITY
RAD.	RADIUS
R.A.G.	RETURN AIR GRILLE
REFRIG	REFRIGERATOR
REINF	REINFORCEMENT
RMV'D	REMOVED
REQ'D	REQUIRED
R.J.	ROOF JOIST
R.O.	ROUGH OPENING
R.R.	ROOF RAFTER
SCH.	SCHEDULE
SGD	SLIDING GLASS DOOR
SGW	SLIDING GLASS WINDOW
SIM.	SIMILAR
SHW	SINGLE HUNG WINDOW
SHT	SHEET
SHT'G	SHEATHING
SHWR	SHOWER
SPEC.	SPECIFICATIONS
S.M.	SHEET METAL
S & P	SHELF & POLE
STGR	STAGGER(ED)
STRUC	STRUCTURAL
SQ.	SQUARE
SW.	SHEARWALL
T.B.	TOWEL BAR
T.C.	TRASH COMPACTOR
T & B	TOP & BOTTOM
T & G	TONGUE & GROOVE
TEMP	TEMPERED
THK	THICK
T.M.E.	TO MATCH EXISTING
T.N.	TOE NAIL
T.O.A.	TOP OF FOOTING
T.O.P.	TOP OF PLATE
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.F.A.	UNDER FLOOR ACCESS
U.O.N.	UNLESS OTHERWISE NOTED
V.	VINYL
V.B.	VAPOR BARRIER
W.	WASHER
W/	WITH
W.A.	WATER CLOSET
WDO.	WINDOW
WWF	WELDED WIRE FABRIC
W.H.	WATER HEATER
W.P.	WATERPROOF
WT.	WEIGHT
VERT.	VERITICAL
V.I.F.	VERIFY IN FIELD

This set of plans and specifications shall be kept on the site of the structure of work at all times during which work authorized by these plans is in progress, and shall be made available to City officials upon request. It is unlawful to change, modify, or alter the approved plans and specifications without authorization of the Building Official. The stamping of these plans and specifications SHALL NOT be held to permit nor approve the violation of any City, County, State, or Federal laws, nor restrictions.

THE CITY OF SAN DIEGO Development Services Department PERMIT ISSUED

5/13/2022, 6:06:27 AM
PRJ-1039503
Ethel Adams

ARCH. SYMBOLS



SECTION
DETAIL CALL-OUT
WATER LINE MAIN
SEWER LINE MAIN
WATER METER
ELECTRIC SERVICE METER
GAS METER
FLOOR ELEVATION CHANGE
DOOR CALL-OUT
WINDOW CALL-OUT
BATHROOM EXHAUST FAN (5 AIR CHANGES/ HR, 50 CFM)
HOSE BIB
GAS CONNECTION
SEWER CLEAN OUT (C.O.)
PROPERTY LINE
CENTER LINE
ROOF SLOPE
ROOF ATTIC VENT
SUPPLY AIR REGISTER
RETURN AIR GRILLE

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #
Drawn By GERARDO
Date 08.26.21
Recheck #1 10.12.21
Recheck #1
Recheck #1
APN : 631-254-18-00
Scale
PER DRAWING
Page #

GN.1

ADDITIONAL NOTES

1. A listed raceway shall be provided to facilitate future installation of Electric vehicle charger in new one- and two-family dwellings and townhouses with attached private garages.

2. Raceway shall be not less than trade size 1 (nominal 1-in.inside diameter) to accommodate a dedicated 2018/240- volt branch circuit.

3. The EVCS raceway shall originate at the main service or subpanel and terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of the EV space.

4. The EVCS raceway shall be continuous at enclosed, inaccessible or concealed areas and spaces.

5. The EVCS services panel or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcorrent protective device.

6. The EVCS services panel or subpanel circuit directory shall identify:
   a) The overcurrent protective devise space(s) for future EV charging purposes as "EV CAPABLE)
   b) The raceway termination location as " EV CAPABLE"

7. During construction, at least one extinguisher shall be provided on each floor level at each stairway, in all storage and construction sheds, in locations where flammable or combustible liquids are stored or used, and where other special hazards are present per CFC Section 3315.1.

8. Building undergoing construction, alteration, or demolition shall conform to CFC chapter 33. Welding, Cutting, and other hot work shall be in conformance with CFC Chapter 35.

9. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter. All roof gutters and downspouts shall be constructed of non-combustible materials. [CRC R337.5.4; SDMC 149.0327(e)(1)]

10. Drip edge flashing used at the free edges of roofing materials shall be non-combustible. [SDMC 149.0327(e)(2)]

11. Valley flashing's shall be not less than 0.019- inch(No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inche-wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley. [CRC R337.5.3]

12. Chimneys, flues or stovepipes attached to any fireplace, stove barbeque or other solid or liquid fuel burning equipment or device shall be equipped with an approves spark arrestor. [SDMC 149.0327(h)].

13. Turbine attic vents shall be equipped to allow one-way direction rotation only and shall not free spin in both directions. [SDMC 149.0327(F)(3)]

14. Glazing frames made of vinyl materials shall have welded corners, metal 101/1.S.2 structural requirements. [SDMC 149.0327(g)]

15. A plumbing fixture certification must be completed and signed by either a licensed general contractor, a plumbing subcontractor, or the building owner certifying the flow rate of fixtures installed. A copy of the certification can be obtained from the development services department.

16. New residential development with a landscape area over 500 sq.ft. shall comply with one of the following [CAL Green 4.304,1]:

1) Local water efficient landscape ordinance or current California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO)
2) Landscape areas less than 2500 sq.ft. may comply with MWELO's Appendix D Prescriptive Compliance Option.

17. Joints and openings, annular spaces around pipes, electric cables, conduits, or other openings in plates at exterior walls shall be protected against the passage of rodents. [CAL Green 4.406.1]

18. Before final inspection, a complete operation and maintenance manual shall be placed in the building. A sample of the manual is available on the Housing and community Development (HCD) web site. The manual should include the items listed in 2016 CAL Green 4.410.1.

19. All duct and other related air distribution component openings shall be covered during with tape, plastic, or sheet metal until the final startup of the heating cooling, and ventilation equipment. [CAL Green 4.504.1]

20. Paints, stains, coatings, adhesives, sealants and caulks shall comply with the Volatile organic Compound(VOC) limits listed in 2016 CALGreen Section 4.504.2.1.

21. The VOC Content Verification shall be made available to the City staff upon request.

22. All new and carpet cushions installed in the building interior shall meet the testing and product requirements of one of the follow:

1) Carpet and Rug Institute's Green label plus program
2) California Department of Public Health Specification 01350
3) NSF/ANSI 140 at the Gold Level
4) Scientific Certification Systems indoor Advantage TM Gold.

23. Eighty percent of the floor area receiving resilient flooring shall comply with one or more of the following [CAL GREEN 4.504.4]
1) VOC emission limits defined in the CHPS High Performance Products Database.
2) Certified under UL GREENGUARD Gold
3) Certification under the resilient Floor Covering institute(RFCI) Floors Score Program
4) Meet the California Department of public Health specification 01350

24. New hardwood plywood, particle board, and medium density fiberboard(MDF) composite wood product used in the building shall meet the formaldehyde limits listed in 2016 CAL Green Table 4.504.5.

25. The Formaldehyde Emissions Verification shall be made available to City staff upon request.

26. Building materials with visible signs of water damage shall not be installed. Walls and floors framing shall not be enclosed when framing members exceed 19% moisture content.

27. Newly installed bathroom exhaust fans shall be Energy Star compliant and be ducted to terminate outside of the building. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidistat which can adjust between 50 to 80 percent. [2016 CAL Green 4.506.1]

LIGHTING MEASURES

MANDATORY (CBEES 150.0(k)): LIGHTING RESIDENTIAL

1. ALL LUMINAIRES SHALL BE HIGH-EFFICACY IN ACCORDANCE WITH CBEES TABLE 150.0-A.
2. ALL LED LUMINAIRES AND LAMPS SHALL BE MARKED "JA8-2016" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT http://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx
3. ALL RECESS DOWNLIGHT AND ENCLOSED LUMINAIRES SHALL BE MARKED "JA8-2016-E" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT http://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx
4. RECESSED DOWN LUMINARES IN CEILING SHALL NOT BE SCREW-BASED.
5. BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS: AT LEAST ONE LUMINAIRE IN EACH SPACE SHALL BE CONTROLLED BY A VACANCY SENSOR.
6. ALL LUMINAIRES REQUIRING "JA8-2016" OR "JA8-2016-E" MARKING SHALL BE CONTROLLED BY A DIMMER OR VACANCY SENSOR.
7. OUTDOOR LIGHTING PERMANENTLY MOUNTED TO BUILDING SHALL BE CONTROLLED BY ONE OF THE FOLLOWING:
   -PHOTOCONTROL AND MOTION SENSOR
   -PHOTOCONTROL AND AUTOMATIC TIME-SWITCH CONTROL
   -ASTRONOMICAL TIME CLOCK
   -ENERGY MANAGEMENT CONTROL SYSTEM PER CBEES 150.0(k)3Aiiic
8. OTHER ROOMS: ALL LUMINARIES SHALL BE HIGH EFFICACY AND SHALL HAVE A MANUAL ON/OFF IN ADDITION TO A VACANCY SENSOR OR DIMMER.
9. KITCHENS: ALL THE INSTALLED WATTAGE OF LUMINAIRES IN KITCHENS SHALL BE HIGH EFFICACY AND SHALL HAVE A MANUAL ON/OFF IN ADDITION TO A VACANCY SENSOR OR DIMMER .. UNDER CABINET LIGHTING SHALL BE SWITCHED SEPARATELY.
10. ALL INSTALLED LUMINAIRES SHALL BE HIGH-EFFICACY IN ACCORDANCE WITH ES TABLE 150.0-A. LIGHT SOURCES THAT ARE NOT MARKED "JA8-2016-E" SHALL NOT BE INSTALLED IN ENCLOSED LUMINAIRES. ES 150.0(K)
11. RECESSED CAN LIGHT FIXTURES SHALL BE IC LISTED, AIR-TIGHT LABELED, AND NOT BE EQUIPPED WITH A STANDARD MEDIUM BASE SCREW SHELL LAMP HOLDER. ES 150.0 (K)
12. DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LED STYLE LUMINAIRES. TWO EXCEPTIONS: FIXTURES INSTALLED IN HALLWAY OR (CLOSETS UNDER 70 SQUARE FEET.
13. SFD OUTDOOR LIGHTING FIXTURES THAT ARE ATTACHED TO A BUILDING ARE REQUIRED TO BE HIGH EFFICACY, BE MANUALLY ON/OFF SWITCH CONTROLLED, AND HAVE BOTH MOTION SENSOR AND PHOTOCELL CONTROL. SEE ES 150.0(K) 3 FOR ADDITIONAL CONTROL OPTIONS.

INSULATION NOTES

1. ROOF CAVITY/ATTIC INSULATION: MIN. R-30 BATT OR BLOWN IN FIBER INSULATION OR PER TITLE 24.
2. PROVIDE MIN. R-15 BATT OR BLOWN IN FIBER INSULATION AT AFFECTED EXTERIOR WALLS

ELECTRICAL NOTES

1. ELECTRICAL OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 210.52
2. LIGHTING OUTLETS CONTROLLED BY A SWITCH SHALL BE PROVIDED IN ACCORDANCE WITH NEC ARTICLE 210.70.
3. LIGHT FIXTURES INSTALLED IN CLOTHES CLOSETS SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 410.8.
4. LIGHT FIXTURES ABOVE TUB/SHOWERS SHALL BE WATERPROOF RATED AND COMPLY WITH NEC ARTICLE 410.10
5. CONVENIENCE OUTLETS IN BATHROOMS, AT KITCHEN COUNTER TOPS WITHIN 6 FEET OF THE KITCHEN SINK, GARAGES AND IN BASEMENTS (OTHER THAN FOR LAUNDRY AND SIMILAR EQUIPMENT) SHALL BE G.F.C.I. PROTECTED. ALL OTHER OUTLETS EXPOSED TO THE ELEMENTS SHALL BE G.F.C.I. WEATHER PROOF OUTLETS. PER NEC ARTICLE 210.8.
6. ELECTRICAL PANELS ARE NOT PERMITTED IN CLOTHES CLOSETS PER NEC ARTICLE 240.24 (D)
7. R314.1 GENERAL. SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND SECTION R314.
8. R314.1.1 LISTINGS. SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217, COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND UL 2034. SYSTEMS AND COMPONENTS SHALL BE CALIFORNIA STATE FIRE MARSHAL LISTED AND APPROVED IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATIONS, TITLE 19, DIVISION 1 FOR THE PURPOSE FOR WHICH THEY ARE INSTALLED.
9. R314.6 POWER SOURCE. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING PROVIDED THAT SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. SMOKE ALARMS WITH INTEGRAL STROBES THAT ARE NOT EQUIPPED WITH BATTERY BACKUP SHALL BE CONNECTED TO AN EMERGENCY ELECTRICAL SYSTEM. SMOKE ALARMS SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN AS REQUIRED FOR OVERCURRENT PROTECTION.
10. R314.4 INTERCONNECTION. WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING OR SLEEPING UNIT, THE SMOKE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED.
11. R315.6.1 GENERAL. HOUSEHOLD CARBON MONOXIDE DETECTION SYSTEMS SHALL COMPLY WITH NFPA 720. CARBON MONOXIDE DETECTORS SHALL BE LISTED IN ACCORDANCE WITH UL 2075.
12. R315.5 POWER SOURCE. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.
13. R315.4 COMBINATION ALARMS. COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF CARBON MONOXIDE ALARMS, COMBINATION CARBON MONOXIDE/SMOKE ALARMS SHALL COMPLY WITH SECTION R315 AND ALL REQUIREMENTS FOR LISTING AND APPROVAL BY THE OFFICE OF THE STATE FIRE MARSHAL FOR SMOKE ALARMS.
14. R315.7 INTERCONNECTION. WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN A DWELLING UNIT OR WITHIN A SLEEPING UNIT IN GROUP R OCCUPANCIES, THE ALARMS SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
15. RECEPTACLES SHALL BE TAMPER-RESISTANT FOR ALL RECEPTACLES IN DWELLING UNIT FAMILY, DINING, LIVING, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS AND AREAS PER NEC ARTICLE 210.52(A) & NEC ARTICLE 406.12.
16. BATHROOM BRANCH CIRCUIT: IN ADDITION TO THE NUMBER OF BRANCH CIRCUITS REQUIRED BY NEC. SECTION 210. AT LEAST ONE 120-VOLT, 20-AMPERE BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY BATHROOM(S) RECEPTACLE OUTLET(S). SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS. EXCEPTION: WHERE THE 20-AMPERE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED IN ACCORDANCE WITH 210.23(A)(1) AND (A)(2)
17. PROVIDE "UFER" GROUND PER NEC ARTICLE 250.52.
18. SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE, AND TWO-FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MARKED ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED.

    DATE OF MANUFACTURER MARKED ON EXISTING SMOKE ALARM UNITS: 2010, SEP. 17
19. PROVIDE A PERMANENT ELECTRICAL RECEPTACLE OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH LOCATED AT THE ENTRANCE FOR FURNACES LOCATED IN AN ATTIC. CMC SECTION 904.10.
20. INCLUDE ON THE PLANS THE FOLLOWING SPECIFICATIONS FOR ELECTRICAL DEVICES INSTALLED IN DWELLINGS: CEC ARTICLE 210 & 406

a. ARC-FAULT PROTECTION FOR ALL OUTLETS LOCATED IN ROOMS DESCRIBED IN NEC 210.12 (A): KITCHEN LAUNDRY AREAS, FAMILY, LIVING, BEDROOM, DINING, HALLS, ETC.

b. GFCI PROTECTED OUTLETS FOR LOCATIONS DESCRIBED IN NEC 210.8(A): KITCHENS, GARAGES BATHROOMS, OUTDOORS WITHIN 6' OF A SINK, ETC & OUTDOORS.

21. PROVIDE A WALL RECEPTACLE WITHIN 36" OF EACH LAVATORY IN THE BATHROOMS. CEC 210.52(D).
22. ANY EXISTING SMOKE ALARMS THAT ARE MORE THAN 10 YEARS OLD WILL BE REPLACED. SECTION R314.3.1

MECHANICAL NOTES

1. 5 AIR CHANGES PER HOUR IS REQUIRED FOR ALL MECHANICAL VENTILATION IN BATHROOMS AND LAUNDRY ROOMS. PROVIDE BACKDRAFT DAMPERS EXHAUSTING AIR FROM BUILDING. PROVIDE A MIN. 50 CFM'S PER UNIT
2. THE RETURN AIR PLENUM SERVING THE MECHANICAL EQUIPMENT MUST BE FULLY DUCTED FROM THE EQUIPMENT TO THE CONDITIONED SPACE. DROP CEILINGS, WALL CAVITIES AND EQUIPMENT PLATFORMS MAY NOT BE USED AS PLENUMS.
3. MECHANICAL DUCTING CONNECTIONS MAY USE DUCT TAPE AS A MINIMUM, PROVIDED THE TAPE MEETS THE REQUIREMENTS OF UL181, 181A, 181B, OR ADDITIONAL DUCT ATTACHMENT DEVICES SUCH AS TIE WRAPS OR MASTIC SHALL BE USED FOR INSTALLING MECHANICAL DUCTING.
4. OR NEW HEATING AND OR COOLING SYSTEMS A SETBACK THERMOSTAT SHALL BE PROVIDED PER TITLE 24.
5. BATHROOMS SHALL BE MECHANICALLY VENTILATED IN ACCORDANCE WITH THE MECHANICAL CODE, PER 2016 SEC. 1203.5.2.1
6. ALL ROOMS TO HAVE HEAT DUCT INSTALLED PER SPECIFICATIONS.
7. THE MAXIMUM HORIZONTAL AND VERTICAL LENGTH FOR A 4" DIA. CLOTHES DRYER(S) VENT(S) IS 14 FEET WITH TWO OFFSETS. THE MAXIMUM LENGTH IS REDUCED 2 FEET FOR EACH ADDITIONAL BEND. PROVIDE BACKDRAFT DAMPERS EXHAUSTING AIR FROM BUILDING.

    EXCEPTION #1 - 4" DIA. DUCT WITH AN IN-LINE FAN. "FANTECH DBF4XLT"
    EXCEPTION #2 - DUCT UP TO 25 FEET
    EXCEPTION #3 - PROVIDE CALCULATIONS AND COMPLETE DETAILS
8. A MECHANICAL EXHAUST SYSTEM, SUPPLY SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DWELLING UNIT TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR COMPLYING WITH ASHRAE STANDARD 62.2-2007 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION.
9. DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION. (CGBSC 4.504.1)
10. EXHAUST FANS SHALL TERMINATE NOT LESS THAN 3 FEET FROM ANY OPENING THAT ALLOWS AIR INTO OCCUPIED PORTIONS OF THE BUILDING.
11. EXTERIOR VENT TO BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLES WITH OPENINGS 1/4-INCH TO 1/2-INCH IN SIZE. (CMC 504.1, 504.5, CRC R303.5)
12. DURING CONSTRUCTION, ENDS OF DUCT OPENINGS ARE TO BE SEALED AND MECHANICAL EQUIPMENT IS TO BE COVERED.
13. MECHANICAL EXHAUST FANS WHICH VENT DIRECTLY FROM BATHROOM SHALL COMPLY WITH THE FOLLOWING: (PER 2016 GREEN CODE SEC 4.506.1):

    A. BATHROOM FANS SHALL BE "ENERGY STAR" COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING

    B. 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.
14. THE PASSAGEWAY TO THE MECHANICAL EQUIPMENT IN THE ATTIC SHALL BE UNOBSTRUCTED, HAVE CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE, AND BE NOT MORE THAN 20 FEET IN LENGTH FROM THE ACCESS OPENING TO THE APPLIANCE. CMC SECTION 904.10.
15. RESIDENTIAL VENTILATION REQUIREMENTS:
    - KITCHENS REQUIRE EXHAUST FANS WITH A MINIMUM 100 CFM DUCTED TO THE EXTERIOR. DETAIL COMPLIANCE BY INCLUDING A COMPLYING EXHAUST FAN OR A DUCTED RANGE HOOD TO THE EXTERIOR.
    - BATHROOMS REQUIRE EXHAUST FANS (MINIMUM 50 CFM) TO BE DUCTED TO THE EXTERIOR. A BATHROOM IS DEFINED "AS A ROOM WITH A BATHTUB, SHOWER, OR SPA OR SOME SIMILAR SOURCE OF MOISTURE".
    - ALL FANS INSTALLED TO MEET ALL OF THE PRECEDING REQUIREMENTS MUST BE SPECIFIED AT A NOISE RATING OF A MAXIMUM 1 "SONE" (FOR THE CONTINUOUS USE CALCULATION) OR 3 "SONE" (FOR THE INTERMITTENT USE CALCULATION).
17. CALGREEN CODE - RESIDENTIAL MANDATORY MEASURES. SECTION 4.507.2: HEATING AND AIR CONDITIONING SYSTEMS SHALL BE SIZED, DESIGNED, AND EQUIPMENT SELECTED USING THE FOLLOWING METHODS:

1. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ANSI/ACCA 2 MANUAL J - 2011 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.
2. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D - 2014 (RESIDENTIAL DUCT SYSTEMS), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.
3. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S - 2014 (RESIDENTIAL EQUIPMENT SELECTION) OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.

    EXCEPTION: USE OF ALTERNATE DESIGN TEMPERATURES NECESSARY TO ENSURE THE SYSTEMS FUNCTIONS ARE ACCEPTABLE.

18. PER 2016 GREEN CODE, 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.
19. PROVIDE A WATERTIGHT PAN OF CORROSION RESISTANT MATERIALS BENEATH THE WATER HEATER, WITH A MINIMUM ¾" INCH DIAMETER DRAIN LINE TO A DRAIN.

PLUMBING NOTES:

1. IN SHOWERS AND TUB/SHOWER COMBINATIONS, CONTROL VALVES MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES. CPC SECTION 420.0
2. PERMANENT VACUUM BREAKERS SHALL BE INCLUDED WITH ALL NEW HOSE BIBBS.
3. STATE HEALTH AND SAFETY CODE SEC. 17921.9 BANS THE USE OF CHLORINATED POLYVINYL CHLORIDE (CPVC) AND CROSS LINKED POLYETHYLENE (PEX) FOR INTERIOR WATER-SUPPLY PIPING.
4. THE CALIFORNIA PLUMBING CODE SECTION 507.02 REQUIRES THAT ALL WATER HEATERS ARE TO BE SUPPORTED AND STRAPPED TO PREVENT MOVEMENT DURING AN EARTHQUAKE. SUPPORT TO BE A STAND OR PLATFORM, AT LEAST 18" ABOVE FINISH FLOOR. TWO STRAPS ARE TO BE USED. STRAPPING TO BE NOT LESS THAN 22 GAUGE AND NOT LESS THAT 5/8" WIDE. ONE STRAP TO BE LOCATED IN THE UPPER 1/3 OF THE WATER HEATER, AND ONE STRAP TO BE LOCATED IN THE BOTTOM 1/3 OF THE WATER HEATER. CONNECTION TO WALL FRAMING TO BE MADE BY THE USE OF SCREWS NOT LESS THAT 1/4" IN SIZE AND WITH A MINIMUM PENETRATION OF 1-1/2" INTO FRAMING MEMBER. A CUT WASHER SHALL BE USED BETWEEN THE SCREW HEAD AND THE STRAP TO ENSURE POSITIVE SUPPORT.
5. PROVIDE AN 18" HIGH PLATFORM FOR ANY FAU OR ANY OTHER DEVICE (SEE WATER HEATER NOTE#7) IN THE GARAGE WHICH MAY GENERATE A FLAME OR SPARK. CPC SECTION 508.14
6. SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS INSTALLED SHALL BE FINISHED WITH A SMOOTH, NONABSORBENT SURFACE TO A HEIGHT OF NOT LESS THAN 72" ABOVE THE FLOOR. CRC R307.2
7. ALL PLUMBING FIXTURES AND FITTINGS WILL BE WATER CONSERVING AND WILL COMPLY WITH THE 2016 CGBSC. (SEE CALGREEN WATER FIXTURE FLOW RATES BELOW)
8. FOR ADDITIONS OR IMPROVEMENTS TO A RESIDENCE BUILT BEFORE 1994, EXISTING "NONCOMPLIANT" FIXTURES (TOILETS THAT USE MORE THAN 1.6 GALLONS OF WATER PER FLUSH, URINALS THAT USE MORE THAN ONE GALLON OF WATER PER FLUSH, SHOWERHEADS THAT HAVE A FLOW CAPACITY OF MORE THAN 2.5 GALLONS OF WATER PER MINUTE, AND INTERIOR FAUCETS THAT EMIT MORE THAN 2.2 GALLONS OF WATER PER MINUTES) SHALL BE REPLACED. CERTIFICATION OF COMPLIANCE SHALL BE GIVEN TO THE BUILDING INSPECTOR PRIOR TO FINAL PERMIT APPROVAL. CALIFORNIA SB407.
9. ALL DOMESTIC HOT WATER PIPING TO HAVE THE FOLLOWING MINIMUM INSULATION INSTALLED: 1/2" PIPE (1/2" INSULATION), 3/4" PIPE (1" INSULATION), 1" TO 1-1/2" PIPE (1-1/2" INSULATION) CPC 609.11 & ES 150.0(J)

    ADDITIONALLY: THE 1/2" HOT WATER PIPE TO THE KITCHEN SINK, AND THE COLD WATER PIPE WITHIN 5' OF THE WATER HEATER BOTH REQUIRE 1" MINIMUM INSULATION. ES 150.0 (J).
10. BELOW GRADE HOT WATER PIPING IS REQUIRED TO BE INSTALLED IN A WATERPROOF AND NON-CRUSHABLE SLEEVE OR CASING THAT ALLOWS FOR REPLACEMENT OF BOTH THE PIPING AND INSULATION.

CALGREEN
WATER FIXTURE FLOW RATES

SECTION 4.303
INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND 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 TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR 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 WALL MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH. THE EFFECTIVE FLUSH VOLUME OF ALL OTHER URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

4.303.1.3 SHOWERHEADS.

4.303.1.3.1 SINGLE SHOWERHEAD. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATER SENSE SPECIFICATION FOR SHOWERHEADS.

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 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 USE 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.

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 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 1701.1 OF THE CALIFORNIA PLUMBING CODE.

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

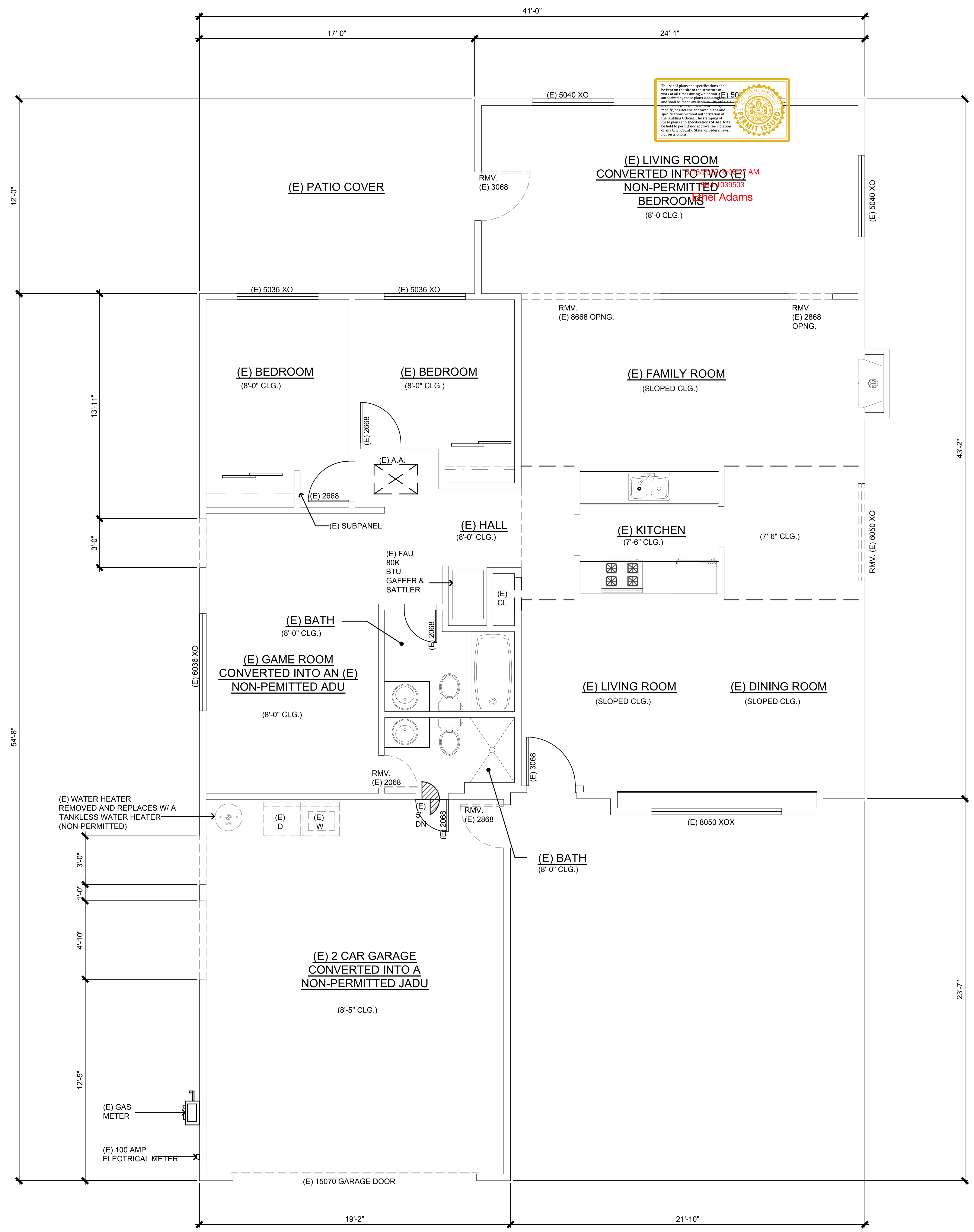
Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

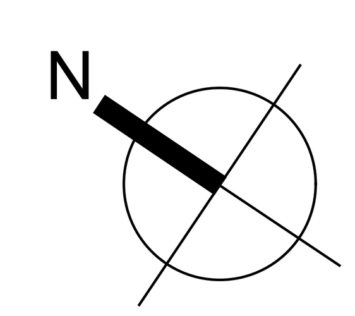
Page #

GN.2



EXISTING / DEMO FLOOR PLAN

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



WALL LEGEND

┄	WALL TO BE REMOVED
═	EXISTING 2 x STUD WALL TO REMAIN
▨	(E) NON-PERMITTED 2 x 4 STUD WALL FRAMED @ 16" O.C.
▩	NEW 2 x 6 STUD WALL FRAMED @ 16" O.C.

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

Page #

A.1

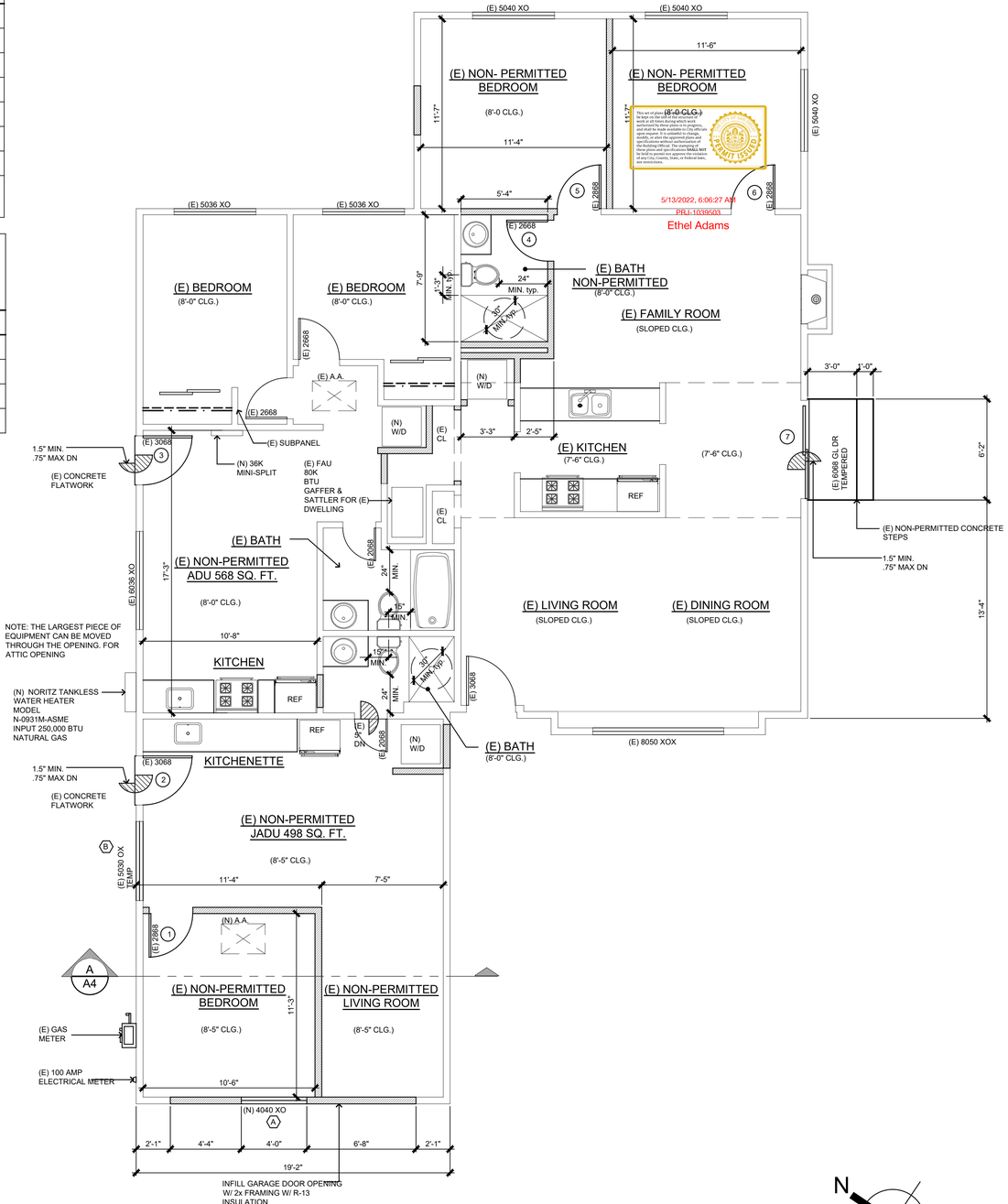
DOOR SCHEDULE

FINISH: ST. = STAIN GRD., PT. = PAINT GRD. TYPE: HC. = HOLLOW CORE, SC. = SOLID CORE STYLE: PNL. = RAISED PANEL, FL. = FLUSH

SYMBOL	SIZE	TYPE	STYLE				REMARKS:
1	2868	HC	HC				(E) NON-PERMITTED
2	3068	HC.	HC				(E) NON-PERMITTED
3	3068	HC.	HC.				(E) NON-PERMITTED
4	2668	HC.	HC.				(E) NON-PERMITTED
5	2868	HC.	HC.				(E) NON-PERMITTED
6	2868	HC.	HC.				(E) NON-PERMITTED
7	6060	GLASS	SLIDING				(E) NON-PERMITTED TEMPERED

WINDOW SCHEDULE

SYMBOL	"L"	"H"	TYPE	S.F.	UFACTOR	SHGC	NOTES
A	4'-0"	4'-0"	XO	16	.32	.25	
B	5'-0"	3'-0"	XO	15	.32	.25	(E) NON-PERMITTED WINDOW TEMPERED

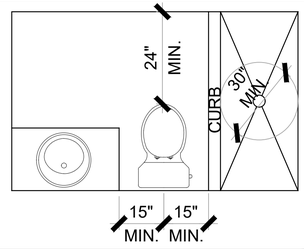


EXISTING NON-PERMITTED FLOOR PLAN

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

N

CLEARANCES



WALL LEGEND

- WALL TO BE REMOVED
- EXISTING 2 x STUD WALL TO REMAIN
- (E) NON-PERMITTED 2 x 4 STUD WALL FRAMED @ 16" O.C.
- NEW 2 x 6 STUD WALL FRAMED @ 16" O.C.

DLRJR

GERARDO SERGIO DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

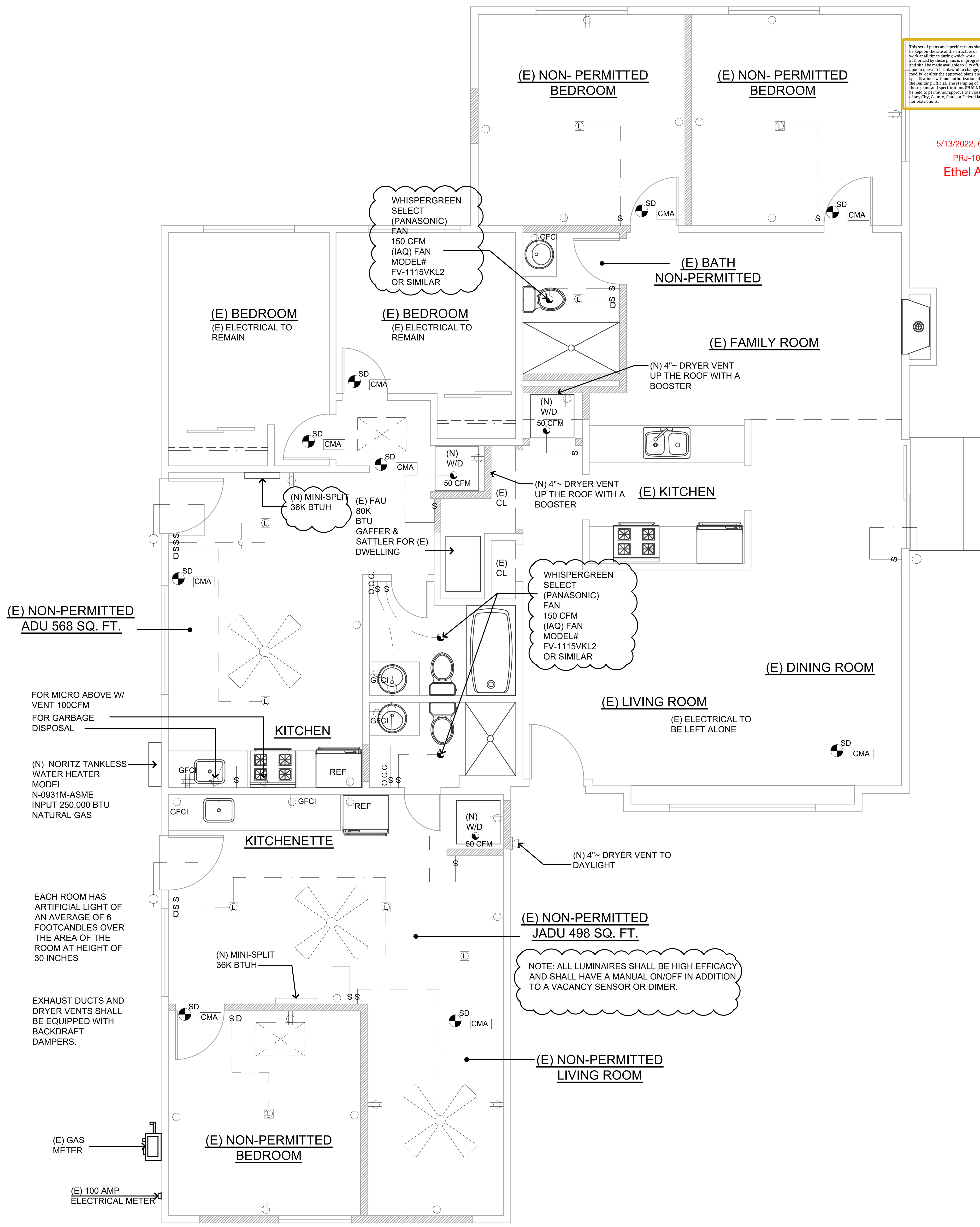
Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

Page #

A.2



This set of plans and specifications shall be kept on the site of the structure of work at all times during which work authorized by these plans is in progress, and shall be made available to City officials upon request. It is unlawful to change, modify, or alter the approved plans and specifications without authorization of the Building Official. The stamping of these plans and specifications SHALL NOT be held to permit nor approve the violation of any City, County, State, or Federal laws, nor restrictions.

THE CITY OF SAN DIEGO PERMIT ISSUED

5/13/2022, 6:06:27 AM
PRJ-1039503
Ethel Adams

ELECTRICAL FLOOR PLAN

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

N

ELECTRICAL SYMBOLS LEGEND

DUPLEX 110V OUTLET	SURFACE MOUNTED LIGHT FIXTURE (HOT TAIL)
QUADRUPLE 110V OUTLET	SURFACE MOUNTED LIGHT FIXTURE (WITH TIMER)
220V OUTLET	SURFACE MOUNTED LIGHT FIXTURE (PHOTOVOLTAIC WITH TIMER)
G.F.C.I. OUTLET	SURFACE MOUNTED LIGHT FIXTURE
WATERPROOF G.F.C.I.	PENDANT LIGHT
SWITCHED OUTLET	AREA FLOOD LIGHT w/ DAYLIGHT/MOTION SENSOR
CEILING OUTLET	BATTERY OPERATED SMOKE DETECTOR
DISHWASHER OUTLET	CARBON MONOXIDE ALARM - PERMANENTLY WIRED w/ BATTERY BACK UP
SINGLE POLE SWITCH	CABLE TV HOOK-UP
THREE WAY SWITCH	CAT 5 CABLE JACK
FOUR WAY SWITCH	TELEPHONE JACK
DIMMER SWITCH	DOOR BELL BUTTON
MANUALLY -ON OCCUPANCY SENSOR SWITCH	SURFACE MOUNTED FLUORESCENT FIXTURE
WALL MOUNTED LIGHT FIXTURE	LED SURFACE MOUNTED FLUORESCENT FIXTURE
WALL MOUNTED LIGHT FIXTURE w/ DAYLIGHT / MOTION SENSOR	RECESSED FLUORESCENT FIXTURE
EMERGENCY FLOOD LIGHT w/ BATTERY BACKUP	WALL MTD. PERM. WIRED SMOKE DET. W/ BATTERY BACK-UP
FAN/LIGHT COMBO	CLG. MTD. PERM. WIRED SMOKE DET. W/ BATTERY BACK-UP
VENT FAN	DOOR CHIME
INTERCOM PANEL	THERMOSTAT
ELECTRIC SERVICE PANEL	CEILING FAN
FIRE PLACE ELECTRICAL IGNITION	ALARM KEY PAD
RECESSED FLUORESCENT FIXTURE 4 PIN CFL 26 WATT	ELECTRIC SUB-PANEL
LED CAN LIGHT FIXTURE HIGH EFFICIENCY	GAS
RECESSED LIGHT FIXTURE W/ DIRECTIONALITY	HOSE BIB
PUCK LIGHT FIXTURE	UNDER CABINET LED LIGHTING
RECESSED SPOT LIGHT FIXTURE	UNDER CABINET POWER STRIPS
JUNCTION BOX	

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

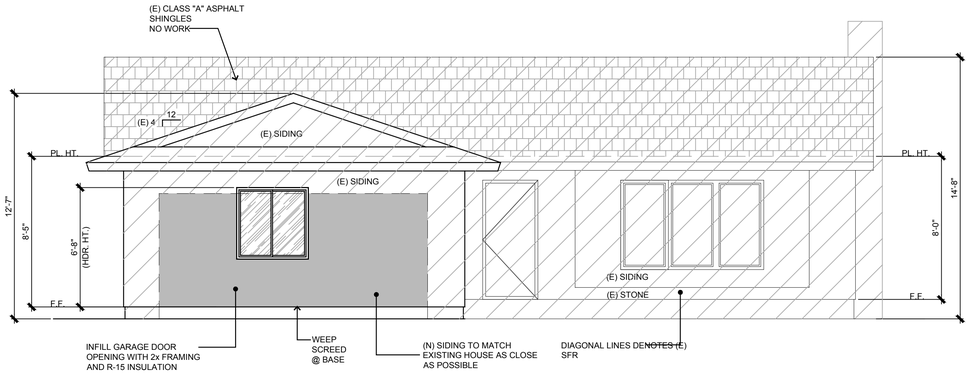
Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

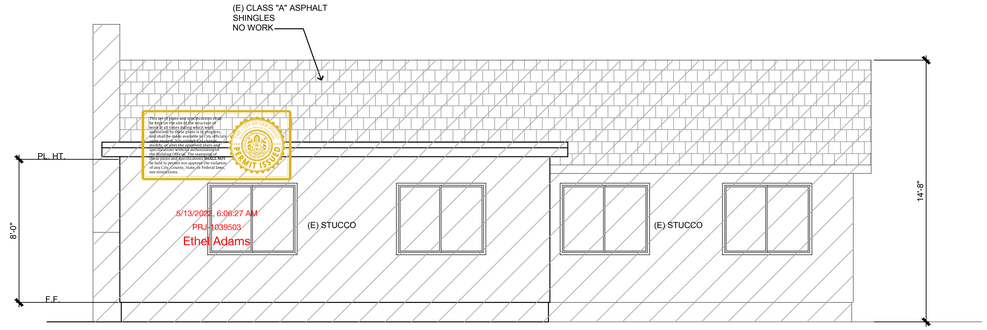
Page #

A.3



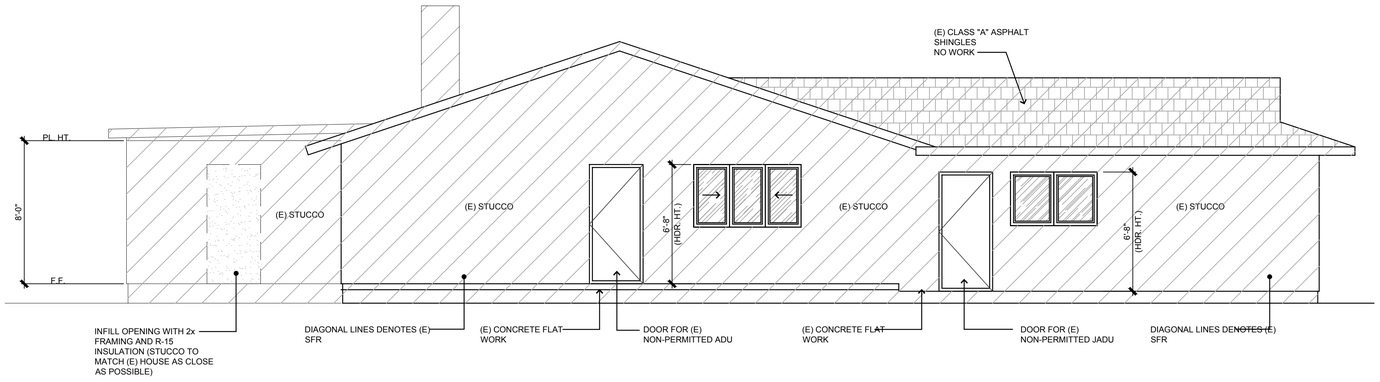
FRONT ELEVATION

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



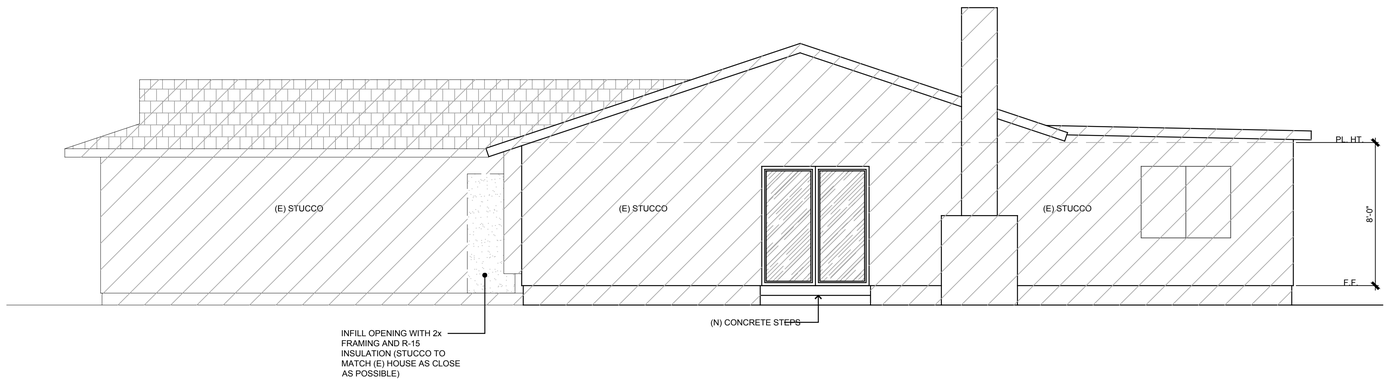
REAR ELEVATION

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



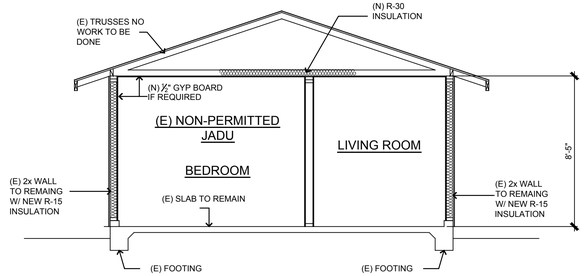
LEFT ELEVATION

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



RIGHT ELEVATION

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



SECTION A

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

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

Page #

A.4

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Heating Equipment Count	Cooling Equipment Count	Status	Verified Existing Condition	Existing HVAC System
Ex System 1	Heating and cooling system other	Ex Furnace	Ex Cooling	HVAC Fan	Ducts	n/a	2	2	Existing	No	n/a

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 40 ft
Ducts	Uncondition ed attic	Non-Verified	R-4.2	R-4.2	Attic	Attic	n/a	n/a	No Bypass Duct	Existing (not specified)	Ducts-hers-dist	Existing	No	n/a	n/a

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan	HVAC Fan	0.45	HVAC Fan-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan-hers-fan	Not Required	0

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(E) Window 1	Window	FRONT EXTERIOR WALL 1	Front	237	8	5	1	40	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No
(E) Window 2	Window	REAR EXTERIOR WALL 1	Back	57	5	4	1	20	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No
Door 7(1)	Window	RIGHT EXTERIOR WALL 1	Right	147	6	6.67	1	40.02	0.3	NFRC	0.23	NFRC	None	New	n/a
(E) Window 3	Window	REAR EXTERIOR WALL 1	Back	57	5	4	1	20	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No
(E) Window 4	Window	RIGHT EXTERIOR WALL 1	Right	147	5	4	1	20	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft^2)	U-factor	Status	Verified Existing Condition
(E) Door 1	FRONT EXTERIOR WALL 1	20	0.2	Existing	No

GENERAL INFORMATION

01	Project Name	913 ARRECIFE COURT ALTERATION	
02	Run Title	TITLE 24 COMPLIANCE	
03	Project Location	913 ARRECIFE COURT	
04	City	SAN DIEGO, CA	
05	Standards Version	2019	
06	Zip code	92157	
07	Software Version	CBECC-Res 2019.1.1 (1107)	
08	Climate Zone	7	
09	Front Orientation (deg/ Cardinal)	237	
10	Building Type	SingleFamily	
11	Number of Dwelling Units	1	
12	Project Scope	AdditionAlteration	
13	Number of Bedrooms	2	
14	New Cond. Floor Area (ft^2)	0	
15	Number of Stories	1	
16	Existing Cond. Floor Area (ft^2)	1008	
17	Fenestration Average U-factor	0.3	
18	Total Cond. Floor Area (ft^2)	1008	
19	Glazing Percentage (%)	13.89%	
20	ADU Bedroom Count	n/a	
21	ADU Conditioned Floor Area	n/a	

COMPLIANCE RESULTS

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

ENERGY USE SUMMARY

Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	20.81	19.95	0.86	4.1
Space Cooling	47.3	47.54	-0.24	-0.5
IAQ Ventilation	0	0	0	
Water Heating	20.19	20.01	0.18	0.9
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**88.3**	**87.5**	**0.8**	**0.9**

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: LAWRENCE GORDON	Documentation Author Signature:
Company: LRG DESIGNS,LLC	Signature Date: 2021-08-25 17:35:39
Address: 1207 W. 112TH STREET	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

Responsible Designer Name: LAWRENCE GORDON	Responsible Designer Signature:
Company: LRG DESIGNS,LLC	Date Signed: 2021-08-25 17:35:39
Address: 1207 W. 112TH STREET	License: NA
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

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

Easy to Verify at CalCERTS.com

SLAB FLOORS

01	02	03	04	05	06	07	08	09
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
(E) Slab On Grade 1	EXISTING SFD	1008	101.079	None	80%	No	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
(E) R-0 STUCCO WALL	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco
(E) R-0 VAULTED ROOF	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-0	None / None	0.475	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x10 Inside Finish: Gypsum Board
R-15 INTERIOR WALL	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.086	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Other Side Finish: Gypsum Board
(E) Asphalt Shingle Roof	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd
(E) CEILING	Ceilings (below attic)	Wood Framed Ceiling	2x4 Bottom Chord of Truss @ 24 in. O. C.	R-0	None / None	0.481	Cavity / Frame: no insul. / 2x4 Btm Chrd Inside Finish: Gypsum Board

REQUIRED SPECIAL FEATURES

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

- NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY

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

Building-level Verifications:
- -- None --

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- Duct Sealing required if a duct system component, plenum, or air handling unit is altered

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

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
913 ARRECIFE COURT ALTERATION	1008	1	2	1	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
EXISTING SFD	Conditioned	Ex System 1	1008	8	DHW System	N/A

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFMS0
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Fraction (%)	Compact Distribution	HERS Verification	Status	Verified Existing Condition	Existing Water Heating System
DHW System	Domestic Hot Water (DHW)	Standard Distribution System	Tankless (1)	n/a	None	n/a	New	NA	

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model / Other	Tank Location or Ambient Condition	Status	Verified Existing Condition
Tankless	Natural Gas	Consumer Instantaneous	1	0	0.83-UEF	200000-Btu/Hr	0	n/a	n/a	n/a	n/a	New	

WATER HEATING - HERS VERIFICATION

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

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Status	Verified Existing Condition	Existing Construction
REAR EXTERIOR WALL 1	EXISTING SFD	(E) R-0 STUCCO WALL	57	Back	192.664	40	90	Existing	No	
FRONT EXTERIOR WALL 1	EXISTING SFD	(E) R-0 STUCCO WALL	237	Front	174.64	60	90	Existing	No	
RIGHT EXTERIOR WALL 1	EXISTING SFD	(E) R-0 STUCCO WALL	147	Right	384.425	60.02	90	Existing	No	
LEFT EXTERIOR WALL 1	EXISTING SFD	(E) R-0 STUCCO WALL	327	Left	104	0	90	Existing	No	
(E) Ceiling (below attic) 1	EXISTING SFD	(E) CEILING	n/a	n/a	573	n/a	n/a	Existing	No	

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Type	Azimuth	Orientation	Area (ft^2)	Skylight Area (ft^2)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof	Status	Verified Existing Condition	Existing Construction
FRONT VAULTED Ceiling 1	EXISTING SFD	(E) R-0 VAULTED ROOF	0	Front	268.75	0	4	0.1	0.85	No	Existing	No	
REAR VAULTED Ceiling 1	EXISTING SFD	(E) R-0 VAULTED ROOF	180	Back	166.25	0	4	0.1	0.85	No	Existing	No	

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
(E) Attic	(E) Asphalt Shingle Roof	Ventilated	4	0.1	0.85	No	No	Existing	No

REVISION / DATE

LRG DESIGNS
P.O. BOX 47418
LOS ANGELES, CA 90047
(323)955-9827
EMAIL:LRGDESIGNS914@GMAIL.COM

PROJECT:SFD ALTERATION, ADU, AND JADU
SITE ADDRESS: 909, 911, 913 ARRECIFE COURT SAN DIEGO, CA 92154
OWNER: MORENO RESIDENCE

DATE 10/12/2021

SCALE

SHEET T-1

OF SHEETS

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 7 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Not Required	0	Not Required	Not Required	No	No	No	No

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan	HVAC Fan	0.45	HVAC Fan-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan-hers-fan	Not Required	0

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	HERS Verification
SFam ADU IAQVentRpt	40	0.25	Default	0	Yes

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 8 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	Documentation Author Signature:
LAWRENCE GORDON	
Company: LRG DESIGNS,LLC	Signature Date: 2021-10-12 10:57:58
Address: 1207 W. 112TH STREET	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

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

Responsible Designer Name:	Responsible Designer Signature:
LAWRENCE GORDON	
Company: LRG DESIGNS,LLC	Date Signed: 2021-10-12 10:57:58
Address: 1207 W. 112TH STREET	License: NA
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

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

Easy to Verify at CalCERTS.com

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 4 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(E) Window 1	Window	LEFT EXTERIOR WALL 1	Left	57	6	3.5	1	21	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft^2)	U-factor	Status	Verified Existing Condition
(E) Door 3	LEFT EXTERIOR WALL 1	20	0.2	Existing	No

SLAB FLOORS

01	02	03	04	05	06	07	08	09
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
(E) Slab On Grade 1	ADU CONVERSION	568	48.087	None	80%	No	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
(E) R-0 STUCCO WALL	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 5 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-15 INTERIOR WALL	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.086	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Other Side Finish: Gypsum Board
(E) Asphalt Shingle Roof	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd
(E) CEILING	Ceilings (below attic)	Wood Framed Ceiling	2x4 Bottom Chord of Truss @ 24 in. O. C.	R-0	None / None	0.481	Cavity / Frame: no insul. / 2x4 Btm Chrd Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Fraction (%)	Compact Distribution	HERS Verification	Status	Verified Existing Condition	Existing Water Heating System
DHW System	Domestic Hot Water (DHW)	Standard Distribution System	Tankless (1)	n/a	None	n/a	New	NA	

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 6 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model / Other	Tank Location or Ambient Condition	Status	Verified Existing Condition
Tankless	Natural Gas	Consumer Instantaneous	1	0	0.83-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Heating Equipment Count	Cooling Equipment Count	Status	Verified Existing Condition	Existing HVAC System
NEW HVAC System	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	HVAC Fan	None	Setback	1	1	New	No	n/a

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Number of Units	Heating			Cooling		Zonally Controlled	Compressor Type	HERS Verification
			HSPF/COP	Cap 47	Cap 17	SEER	EER			
Heat Pump System 1	Ductless MiniSplit HP	1	8.2	24000	24000	14	11.7	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 1 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

GENERAL INFORMATION

01	Project Name: 913 ARRECIFE COURT ADU ALTERATION		
02	Run Title: TITLE 24 COMPLIANCE		
03	Project Location: 911 ARRECIFE COURT		
04	City: SAN DIEGO, CA	05	Standards Version: 2019
06	Zip code: 92157	07	Software Version: CBECC-Res 2019.1.1 (1107)
08	Climate Zone: 7	09	Front Orientation (deg/ Cardinal): 327
10	Building Type: SingleFamily	11	Number of Dwelling Units: 1
12	Project Scope: AdditionAlteration	13	Number of Bedrooms: 2
14	New Cond. Floor Area (ft^2): 0	15	Number of Stories: 1
16	Existing Cond. Floor Area (ft^2): 568	17	Fenestration Average U-factor: 0
18	Total Cond. Floor Area (ft^2): 568	19	Glazing Percentage (%): 9.86%
20	ADU Bedroom Count: 2	21	ADU Conditioned Floor Area: 568

COMPLIANCE RESULTS

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

ENERGY USE SUMMARY

Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	13.67	13.3	0.37	2.7
Space Cooling	49.27	46.2	3.07	6.2
IAQ Ventilation	4.2	4.2	0	0
Water Heating	61.88	61.36	0.52	0.8
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**129.02**	**125.06**	**3.96**	**3.1**

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 2 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

REQUIRED SPECIAL FEATURES

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

- NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY

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

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

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

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

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
913 ARRECIFE COURT ADU ALTERATION	568	1	2	1	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
ADU CONVERSION	Conditioned	NEW HVAC System	568	8	DHW System	N/A

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

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

Project Name: 913 ARRECIFE COURT ADU ALTERATION **Calculation Date/Time:** 2021-10-12T10:13:21-07:00 **(Page 3 of 8)**

Calculation Description: TITLE 24 COMPLIANCE **Input File Name:** 913 ARRECIFE COURT ADU ALTERATION (E+A+A1).ribd19

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Status	Verified Existing Condition	Existing Construction
REAR EXTERIOR WALL 1	ADU CONVERSION	(E) R-0 STUCCO WALL	147	Back	136	35	90	Existing	No	
LEFT EXTERIOR WALL 1	ADU CONVERSION	(E) R-0 STUCCO WALL	57	Left	248.696	41	90	Existing	No	
(E) Ceiling (below attic) 1	ADU CONVERSION	(E) CEILING	n/a	n/a	568	n/a	n/a	Existing	No	

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
(E) Attic	(E) Asphalt Shingle Roof	Ventilated	4	0.1	0.85	No	No	Existing	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(E) Window 2	Window	REAR EXTERIOR WALL 1	Back	147	5	3.5	1	17.5	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No
(E) Window 3	Window	REAR EXTERIOR WALL 1	Back	147	5	3.5	1	17.5	0.58	Tables 110.6-A and 110.6-B	0.53	Tables 110.6-A and 110.6-B	Bug Screen	Existing	No

Registration Number: 221-P0101786998-000-000-0000000-0000 Registration Date/Time: 2021-10-12 10:57:58 HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2021-10-12 10:14:21

5/13/2022, 6:06:27 AM PRJ-039503 Ethel Adams

REVISION / DATE

LRG DESIGNS
P.O. BOX 47478
LOS ANGELES, CA 90047
(323)955-9827
EMAIL:LRGDESIGNS914@GMAIL.COM

PROJECT:SFD ALTERATION, ADU, AND JADU
SITE ADDRESS: 909, 911, 913 ARRECIFE COURT SAN DIEGO, CA 92154
OWNER: MORENO RESIDENCE

DATE 10/12/2021

SCALE

SHEET T-2

OF SHEETS

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan-hers-fan	Not Required	0

IAQ (INDOOR AIR QUALITY) FANS					
01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	HERS Verification
SFam ADU IAQVentRpt	30	0.25	Default	0	Yes

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: LAWRENCE GORDON	Documentation Author Signature: [illegible]
Company: LRG DESIGNS,LLC	Signature Date: 2021-10-12 11:06:32
Address: 1207 W. 112TH STREET	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

Responsible Designer Name: LAWRENCE GORDON	Responsible Designer Signature: [illegible]
Company: LRG DESIGNS,LLC	Date Signed: 2021-10-12 11:06:32
Address: 1207 W. 112TH STREET	License: NA
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

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

Easy to Verify at CalCERTS.com

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Door 2	FRONT EXTERIOR WALL 1	20	0.2

SLAB FLOORS						
01	02	03	04	05	06	
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	
Slab On Grade 1	JADU	498	66.332	None	80%	No

This set of plans and specifications shall be kept on the site of the structure of work at all times during which work authorized by these plans is in progress, and shall be made available to City officials upon request. It is unlawful to change, modify, or alter the approved plans and specifications without authorization of the Building Official. The stamping of these plans and specifications SHALL NOT be held to permit nor approve the violation of any City, County, State, or Federal laws, nor restrictions.

THE CITY OF SAN DIEGO Development Services Department THE CITY OF SAN DIEGO • STATE OF CALIFORNIA SEMPER VIGILANS PERMIT ISSUED

5/13/2022, 6:[illegible]6:27 AM
PRJ-1039503
Ethel Adams

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-15 Wall Stucco	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.087	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Sheathing / Insulation: Wood Siding/sheathing/decking Exterior Finish: 3 Coat Stucco
R-15 INTERIOR WALL	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.086	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Other Side Finish: Gypsum Board
(E) Asphalt Shingle Roof	Attic Roofs	Wood Framed Ceiling	2x6 @ 16 in. O. C.	R-0	None / None	0.624	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x6
R-30 Ceiling	Ceilings (below attic)	Wood Framed Ceiling	2x6 @ 16 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-15.7 insul. Cavity / Frame: R-14.3 / 2x6 Inside Finish: Gypsum Board

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

WATER HEATING SYSTEMS						
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Fraction (%)	Compact Distribution	HERS Verification
DHW System	Domestic Hot Water (DHW)	Standard Distribution System	Tankless Water Heater 1 (1)	n/a	None	n/a

WATER HEATERS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model / Other	Tank Location or Ambient Condition	Status	Verified Existing Condition
Tankless Water Heater 1	Natural Gas	Consumer Instantaneous	1	0	0.83-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	n/a

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

SPACE CONDITIONING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Heating Equipment Count	Cooling Equipment Count
New HVAC System 1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	HVAC Fan	None	Setback	1	1

HVAC - HEAT PUMPS										
01	02	03	04	05	06	07	08	09	10	11
			Heating			Cooling				
Name	System Type	Number of Units	HSPF/COP	Cap 47	Cap 17	SEER	EER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Ductless MiniSplit HP	1	8.2	24000	24000	14	11.7	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION								
01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Not Required	0	Not Required	Not Required	No	No	No	No

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan	HVAC Fan	0.45	HVAC Fan-hers-fan

GENERAL INFORMATION					
01	Project Name	913 ARRECIFE COURT JADU CONVERSION			
02	Run Title	TITLE 24 COMPLIANCE			
03	Project Location	909 ARRECIFE COURT			
04	City	SAN DIEGO, CA	05	Standards Version	2019
06	Zip code	92154	07	Software Version	CBECC-Res 2019.1.1 (1107)
08	Climate Zone	7	09	Front Orientation (deg/ Cardinal)	327
10	Building Type	SingleFamily	11	Number of Dwelling Units	1
12	Project Scope	AdditionOnly	13	Number of Bedrooms	0
14	New Cond. Floor Area (ft^2)	498	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	0	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft^2)	498	19	Glazing Percentage (%)	6.22%
20	ADU Bedroom Count	1	21	ADU Conditioned Floor Area	498

Addition Alone Project Analysis Parameters					
01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
0	498	498	0	1	1

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

ENERGY USE SUMMARY				
Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	0.39	0.52	-0.13	-33.3
Space Cooling	18.03	18.52	-0.49	-2.7
IAQ Ventilation	3.63	3.63	0	0
Water Heating	64.89	63.84	1.05	1.6
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**86.94**	**86.51**	**0.43**	**0.5**

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
- NO SPECIAL FEATURES REQUIRED

HERS FEATURE SUMMARY

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

Building-level Verifications:
- Quality insulation installation (QII)
- Indoor air quality ventilation
- Kitchen range hood

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

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

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
JADU	Conditioned	New HVAC System 1	498	8.416	DHW System	N/A

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
FRONT EXTERIOR WALL 1	JADU	R-15 Wall Stucco	327	Front	198.474	35	90
RIGHT EXTERIOR WALL 1	JADU	R-15 Wall Stucco	237	Right	161.301	16	90
REAR EXTERIOR WALL 1	JADU	R-15 Wall Stucco	147	Back	198.474	0	90
Ceiling (below attic) 1	JADU	R-30 Ceiling	n/a	n/a	498	n/a	n/a

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic	(E) Asphalt Shingle Roof	Ventilated	4	0.1	0.85	No	No

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window B(1)	Window	FRONT EXTERIOR WALL 1	Front	327	5	3	1	15	0.3	NFRC	0.23	NFRC	Bug Screen
Window A(1)	Window	RIGHT EXTERIOR WALL 1	Right	237	4	4	1	16	0.3	NFRC	0.23	NFRC	Bug Screen

REVISION / DATE

△
△
△
△
△

LRG DESIGNS
P.O. BOX 47478
LOS ANGELES, CA 90047
(323)955-9827
EMAIL:LRGDESIGNS914@GMAIL.COM

PROJECT:SFD ALTERATION, ADU, AND JADU
SITE ADDRESS: 909, 911, 913 ARRECIFE COURT
SAN DIEGO, CA 92154
OWNER: MORENO RESIDENCE

DATE 10/12/2021

SCALE

SHEET T-3

OF SHEETS

2019 Low-Rise Residential Mandatory Measures Summary

*NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.*
(Original 08/2019)

Building Envelope Measures:	
§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfm per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of Section 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather stripped.*
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of Section 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Ceiling and Rafter Roof Insulation.** Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.*
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less, (R-19 in 2x6 or U-factor of 0.074 or less). Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102, equivalent to an installed value of R-13 in a wood framed assembly. Masonry walls must meet Table 150.1-A or B.*
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings no greater than 0.3%; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*
Fireplaces, Decorative Gas Appliances, and Gas Log Measures:	
§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Conditioning, Water Heating, and Plumbing System Measures:	
§ 110.0-§ 110.3:	**Certification.** Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the Energy Commission.*
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.*
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)4:	**Water Heating Recirculation Loops Serving Multiple Dwelling Units.** Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBTU per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt); and pool and spa heaters.*
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

This set of plans and specifications shall be kept on the site of the structure of work at all times during which work authorized by these plans is in progress, and shall be made available to City officials upon request. It is unlawful to change, modify, or alter the approved plans and specifications without authorization of the Building Official. The stamping of these plans and specifications SHALL NOT be held to permit nor approve the violation of any City, County, State, or Federal laws nor restrictions.

THE CITY OF SAN DIEGO Development Services Department
PERMIT ISSUED

5/13/2022, 6:06:27 AM
PRJ-1039503
Ethel Adams

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

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

REVISION / DATE

△

△

△

△

△

LRG DESIGNS
P.O. BOX 47478
LOS ANGELES, CA 90047
(323)955-9827
EMAIL:LRGDESIGNS914@GMAIL.COM

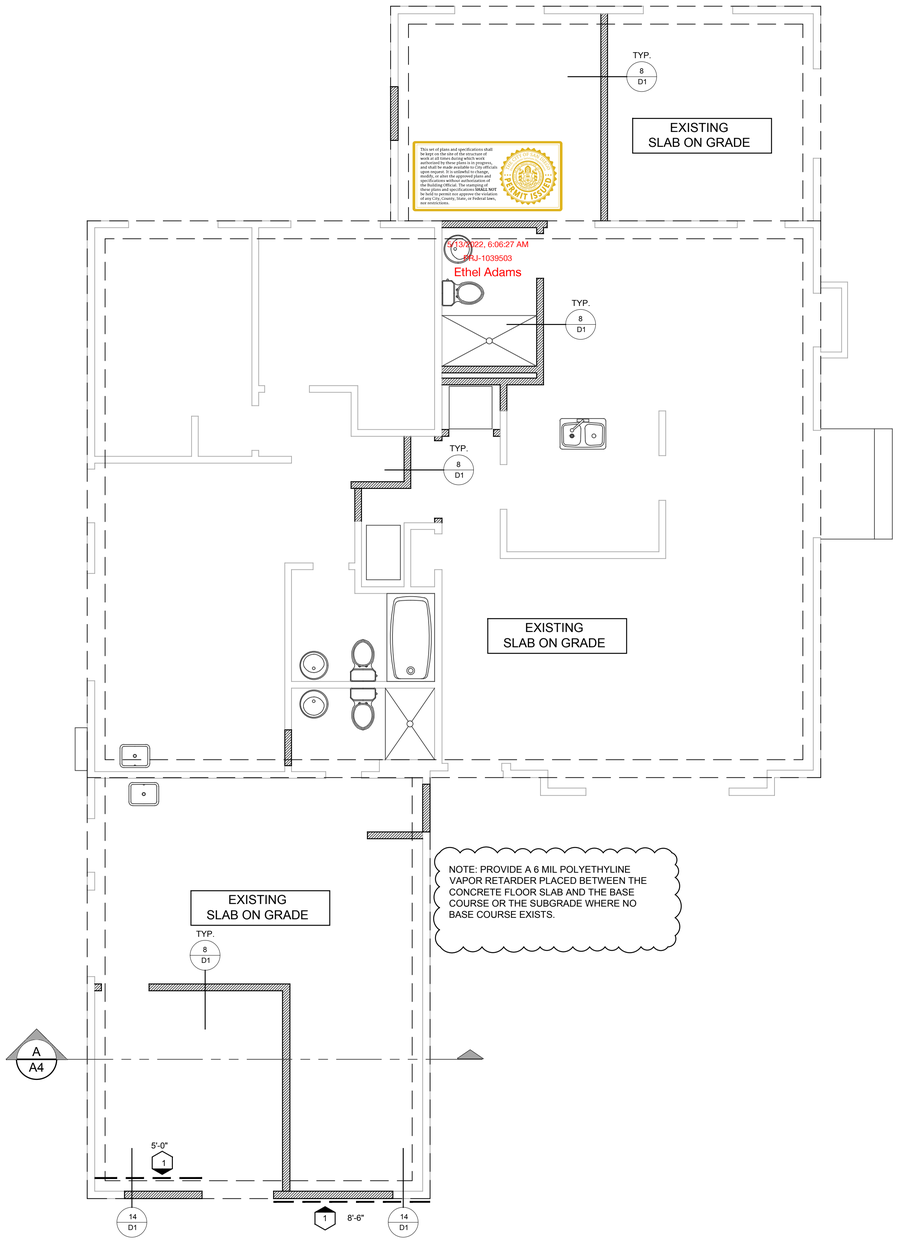
PROJECT:SFD ALTERATION, ADU, AND JADU
SITE ADDRESS: 909, 911, 913 ARRECIFE COURT
SAN DIEGO, CA 92154
OWNER: MORENO RESIDENCE

DATE
10/12/2021

SCALE

SHEET
T-4

OF SHEETS



FOUNDATION PLAN

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

FOUNDATION NOTES

1. ALL ANCHORS BOLTS SHALL BE $\frac{5}{8}$" DIAMETER AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES INTO CONCRETE (UNO) AND NOT SPACED MORE THAN 6 FEET APART
2. 3"X3"X0.229" PLATE WASHERS SHALL BE USED ON EACH SILL PLATE ANCHOR BOLT
3. FOR STANDARD CUT WASHERS PLACED BETWEEN PLATE WASHER AND NUT, HOLE IN PLATE WASHER MAY BE DIAGONALLY SLOTTED WITH MAXIMUM $\frac{3}{16}$" LARGER WIDTH THAN BOLT DIAMETER AND MAXIMUM 1-3/4" SLOT LENGTH
4. PROVIDE A MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE WITH ONE BOLT LOCATED MAXIMUM 12" AND MINIMUM 7 BOLT DIAMETERS FROM EACH END OF EACH SECTION.
5. BOLTS LOCATED IN THE MIDDLE THIRD OF THE SILL PLATE WIDTH
6. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED, STAINLESS STEEL OR COPPER
7. NO LPG PIPING ASSEMBLIES ALLOWED IN OR BENEATH SLABS WITHIN THE STRUCTURE

WOOD STRUCTURAL PANEL SHEATHING

MARK	MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMUNAL PANEL THICKNESS (in)	MAXIMUM WALL STUD SPACING (in)	PANEL NAIL SPACING	
	SIZE	PENETRATION (in)				EDGES (inches o/c)	FIELD (inches o/c)
1	6D COMMON	1.5	24:0	$\frac{3}{8}$"	16	6	12
	8D COMMON	1.75	24:16	$\frac{7}{16}$"	16	6	12

WOOD STRUCTURAL PANELS SHALL CONFORM TO DOC PS 1, DOC PS 2 OR ANSI/APA PRP 210, CSA O437 OR CSA O325. PANELS SHALL BE IDENTIFIED BY A GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY

VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON STUDS.
HORIZONTAL JOINTS IN BRACED WALL PANELS SHALL OCCUR OVER AND BE FASTENED TO COMMON BLOCKING OF A MINIMUM 1 $\frac{1}{2}$ INCH THICKNESS.

WALL LEGEND

- EXISTING WALL TO BE REMOVED
- EXISTING 2 x STUD WALL TO REMAIN
- NEW 2 x 4 STUD WALL FRAMED @ 16" O.C.
- NEW 2 x 6 STUD WALL FRAMED @ 16" O.C.

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

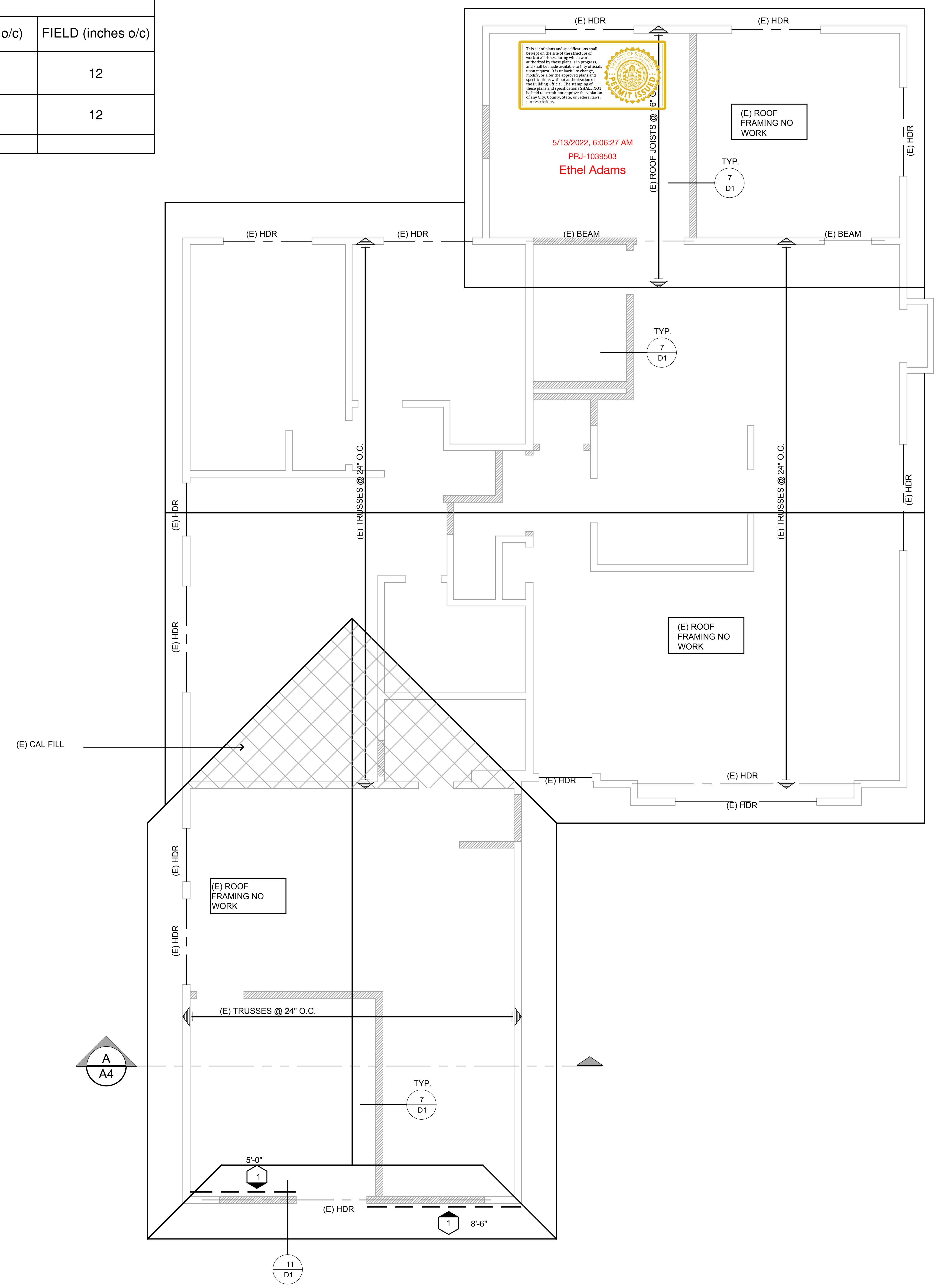
Page #

S.1

WOOD STRUCTURAL PANEL SHEATHING							
MARK	MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMUNAL PANEL THICKNESS (in)	MAXIMUM WALL STUD SPACING (in)	PANEL NAIL SPACING	
	SIZE	PENETRATION (in)				EDGES (inches o/c)	FIELD (inches o/c)
1	6D COMMON	1.5	24:0	$\frac{3}{8}$"	16	6	12
	8D COMMON	1.75	24:16	$\frac{7}{16}$"	16	6	12

WOOD STRUCTURAL PANELS SHALL CONFORM TO DOC PS 1, DOC PS 2 OR ANSI/APA PRP 210, CSA O437 OR CSA O325. PANELS SHALL BE IDENTIFIED BY A GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY AN APPROVED AGENCY

VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON STUDS.
HORIZONTAL JOINTS IN BRACED WALL PANELS SHALL OCCUR OVER AND BE FASTENED TO COMMON BLOCKING OF A MINIMUM 1 $\frac{1}{2}$ INCH THICKNESS.



ROOF FRAMING PLAN

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

WALL LEGEND

- - - - - -	EXISTING WALL TO BE REMOVED
═	EXISTING 2 x STUD WALL TO REMAIN
▨	NEW 2 x 4 STUD WALL FRAMED @ 16" O.C.
▩	NEW 2 x 6 STUD WALL FRAMED @ 16" O.C.

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

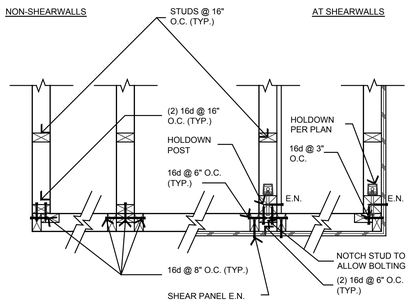
Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

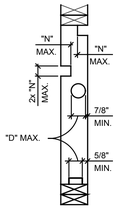
Page #

S.2



1 TYP. STUD PLACEMENT @ INT. (PLAN)

SCALE: NONE



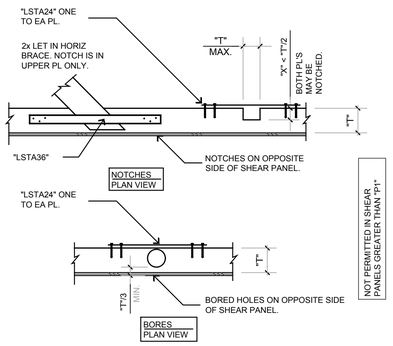
NOTES :

1. ONLY ONE MAX. SIZE OF NOTCH OR BORED HOLE IS ALLOWED PER STUD
2. NON-BEARING STUD WALL IS DEFINED AS A PARTITION WALL SUPPORTING NO LOAD OTHER THAN ITS OWN WEIGHT
3. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH

STUD WALL	BEARING & EXT.		NON-BEARING	
	"N"	"D"	"N"	"D"
2 x 4	7/8"	1-3/8" DIA.	1-3/8"	2" DIA.
2 x 6	1-3/8"	2-1/8" DIA.	2-1/8"	3-1/4" DIA.
2 x 8	1-7/8"	3" DIA.	3"	4-1/2" DIA.
2 x 10	2-3/8"	3-3/4" DIA.	3-3/4"	5-5/8" DIA.

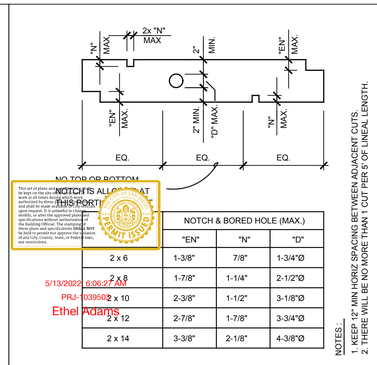
2 CUTS IN STUDS & DBL TOP PL'S

SCALE: NONE



3 OVER-CUTS IN DBL. TOP PLATES

SCALE: NONE CUT = NOTCH OR BORE FW-25A1r

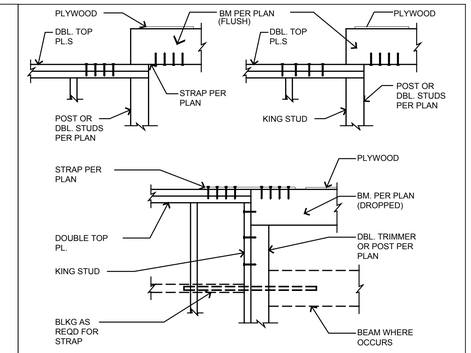


	NOTCH & BORED HOLE (MAX.)		
	"EN"	"N"	"D"
2 x 6	1-3/8"	7/8"	1-3/4"Ø
2 x 8	1-7/8"	1-1/4"	2-1/2"Ø
2 x 10	2-3/8"	1-1/2"	3-1/8"Ø
2 x 12	2-7/8"	1-7/8"	3-3/4"Ø
2 x 14	3-3/8"	2-1/8"	4-3/8"Ø

NOTES:
1. KEEP 12" MIN HORIZ SPACING BETWEEN ADJACENT CUTS.
2. THERE WILL BE NO MORE THAN 1 CUT PER 9' OF LINEAL LENGTH.

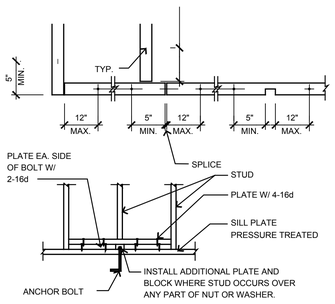
4 CUTS IN JOIST & RAFTERS

SCALE: NONE CUT = NOTCH OR BORE



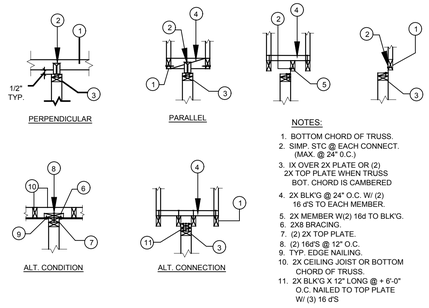
5 TYP. BM. TO TOP PLATE

SCALE: NONE



6 ANCHOR BOLTS LAYOUT

SCALE: NONE FW-01r

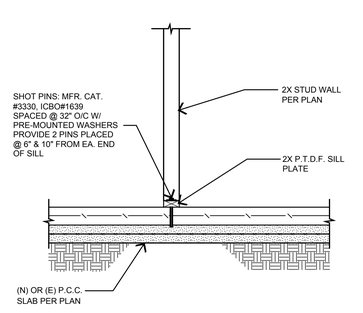


NOTES:

1. BOTTOM CHORD OF TRUSS.
2. SIMP. STC @ EACH CONNECT. (MAX. @ 24" O.C.)
3. IX OVER 2X PLATE OR (2) 2X TOP PLATE WHEN TRUSS BOT. CHORD IS CAMBERED
4. 2X BLK'G @ 24" O.C. W/ (2) 16 d'S TO EACH MEMBER.
5. 2X MEMBER W(2) 16d TO BLK'G.
6. 2X8 BRACING.
7. (2) 2X TOP PLATE.
8. (2) 16d'S @ 12" O.C.
9. TYP. EDGE NAILING.
10. 2X CEILING JOIST OR BOTTOM CHORD OF TRUSS.
11. 2X BLK'G X 12" LONG @ + 6'-0" O.C. NAILED TO TOP PLATE W/ (3) 16 d'S

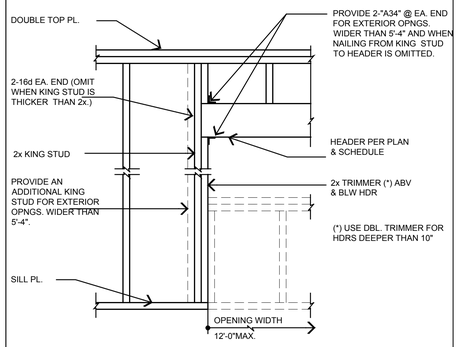
7 NON BEARING WALL CONNECTION

SCALE: NONE



8 TYP. PARTITION WALL BASE

SCALE: NONE



9 TYPICAL LINTEL DETAIL

SCALE: NONE

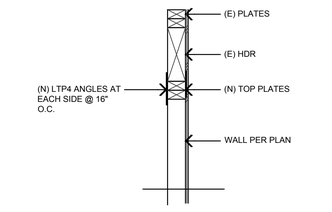
ROOF		FLOOR	
SPAN	SIZE	SPAN	SIZE
0'-0" TO 3'-11"	4 x 4	0'-0" TO 3'-11"	4 x 6
4'-0" TO 5'-11"	4 x 6	4'-0" TO 5'-11"	4 x 8
6'-0" TO 7'-11"	4 x 8	6'-0" TO 7'-11"	4 x 10
8'-0" TO 9'-11"	4 x 10	8'-0" TO 9'-11"	4 x 12
10'-0" TO 11'-11"	4 x 12	10'-0" TO 11'-11"	4 x 14

1) FOR 2x6 STUD WALLS USE 6x AND SAME SAME DEPTH AS SCHEDULE ABOVE.

2) REFER TO DETAILS 9 / D-1 FOR CONNECTIONS.

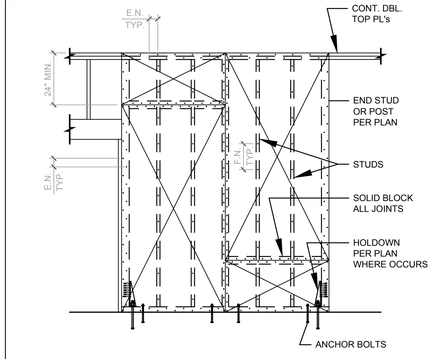
10 TYP. BEAM HEADER SCHEDULE

SCALE: N.T.S.



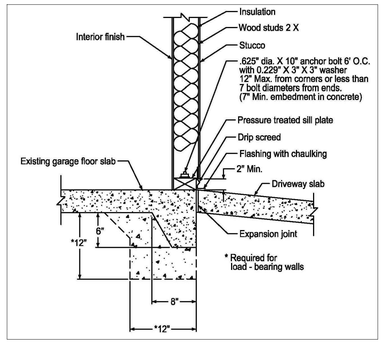
11 SHEAR TRANSFER

SCALE: NONE



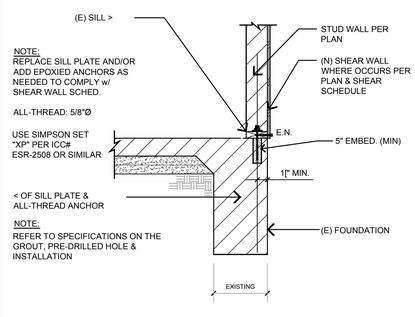
12 SHEARWALL ELEVATION

SCALE: NONE



13 GARAGE SECTION DETAIL

SCALE: NONE



14 (E) EXT. WALL

SCALE: NONE

WALLS AND INTERIOR PARTITIONS, WOOD FRAMED

GA FILE NO. WP 3241	PROPRIETARY†	1 HOUR FIRE	50 to 54 STC SOUND

GYPSUM WALLBOARD, RESILIENT CHANNELS, MINERAL FIBER INSULATION, WOOD STUDS

Resilient channels 24" o.c. attached at right angles to ONE SIDE of 2 x 4 wood studs 16" or 24" o.c. with 1 1/4" Type S drywall screws. One layer 5/8" proprietary type X gypsum wallboard or gypsum veneer base applied parallel to channels with 1" Type S drywall screws 12" o.c. End joints backblocked with resilient channels. 3" mineral fiber insulation, 2.0 or 2.3 pcf, in stud space.

OPPOSITE SIDE: one layer 5/8" proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to studs with 1 1/4" Type W drywall screws 12" o.c.

Vertical joints staggered 48" on opposite sides. Sound tested with studs 16" o.c. and open face of mineral fiber insulation blankets toward resilient channel-side of stud space. **(LOAD-BEARING)**

Thickness: 5 3/8"
Approx. Weight: 7 psf
Fire Test: Based on UL R3650-7, 11-12-87; UL R2717-41, 8-18-87; UL R7094, 10-24-90; UL Design U311
Sound Test: Estimated

PROPRIETARY GYPSUM BOARD

American Gypsum Company	5/8" FIREBLOC TYPE C
CertainTeed Gypsum, Inc.	5/8" ProRock Type C Gypsum Panels
G-P Gypsum	5/8" ToughRock® Fireguard® C
Lafarge North America Inc.	5/8" Firechaid® Type C
National Gypsum Company	5/8" Gold Bond® Brand FIRE-SHIELD C Gypsum Wallboard
PABCO Gypsum	1/2" FLAME CURB® Super 'C'
Temple-Inland Forest Products Corporation	5/8" TG-C

†Contact the manufacturer for more detailed information on proprietary products.

15 1 HOUR RATED WALL

SCALE: NONE

- NOT USED

SCALE: NONE

- NOT USED

SCALE: NONE

- NOT USED

SCALE: NONE

- NOT USED

SCALE: NONE

- NOT USED

SCALE: NONE

DLRJR

GERARDO SERGIO
DE LA RIVA JR.
1484 ORO VISTA RD 104
SAN DIEGO CA 92154
CELL 619.554.6422

CODE VIOLATION # CE-0509836
MORENO RESIDENCE
913 ARRECIFE CT
JADU 909 ARRECIFE CT &
ADU 911 ARRECIFE CT
SAN DIEGOCA, 92154

PROJECT #

Drawn By GERARDO

Date 08.26.21

Recheck #1 10.12.21

Recheck #1

Recheck #1

APN : 631-254-18-00

Scale
PER DRAWING

Page #

D1