ADMINISTRATIVE COASTAL DEVELOPMENT PLAN APN 148-012-05-00

SHOSHONE ST LOT 8 RESIDENCE WEST

CITY OF OCEANSIDE Building Division 300 N Coast Highway Oceanside, CA 92054 760-435-3950	I.B. 127
	2019 California Building Code
	1/1/2020 - 12/31/2022 *Effective Date*

STATEMENT OF SPECIAL INSPECTIONS
INFORMATION BULLETIN

PURPOSE

The purpose of this bulletin is to specify how to remain in compliance with 2019 CBC chapter 17, **Special Inspections and Tests,** when special inspections are mandated by the Engineer of Record on a project within the City of Oceanside.

POLICY

When a special inspection is mandated, a Statement of Special Inspections form shall be imprinted on the coversheet of the approved set of plans. The Statement of Special Inspections form is to be completed and signed prior to being imprinted into the project plans. The plan must be revised accordingly if the Statement of Special Inspections changes, i.e., a change in special inspector(s) or special inspection agency during the construction process.

BACKGROUND

If the registered design professional requires special inspection on a project, 2019 CBC Section 1704.3, Statement of Special Inspections, and Section 1705, Required Special Inspections and Tests, require the registered design professional to prepare a Statement of Special Inspections. The statement is to be approved by the Building Official **PRIOR** to the issuance of the building permit.

The Statement of Special Inspections must designate the portions of the work that require special inspection, the name or names of the individuals or firms who are to perform the special inspections, and indicate any additional duties of the special inspectors.

When structural observations are required by CBC Section 1704.6, the Statement of Special Inspections shall name the individuals or firms who are to perform structural observations and describe the stages of construction at which structural observations are to occur. Structural observations are to be performed by the registered design professional or a designated representative with prior approval by the Building Official.

PROCEDURE

A special inspector/special inspection agency shall be chosen to perform special inspections on the project. The architect or engineer of record shall imprint onto the plans a completed Statement of Special Inspections reflecting special inspections needed on the project. Plan approval shall be contingent on approval of the imprinted Statement of Special Inspections.

The owner or the architect/engineer of record will be responsible for employing the special inspector(s) (contractors may not employ the special inspector).

Special Inspectors shall check in with the city, present their credentials, and be approved at least 24 hours Prior to beginning work on the job site.

Special inspectors shall conform to, at a minimum, the guidelines contained in the City of Oceanside Procedures for Special Inspection.

CITY OF OCEANSIDE Building Division 300 N Coast Highway Oceanside, CA 92054 760-435-3950	I.B. 127
	2019 California Building Code
	1/1/2020 - 12/31/2022 *Effective Date*

STATEMENT OF SPECIAL INSPECTIONS

I, as the engineer/architect of record, certify that I have prepared the following statement of special inspections as required by CBC Section 1705 for this construction project. I have informed the project owner of these requirements.

Job Address: 1413 SHOSHONE ST Permit Number: BLDG24-0479

Engineer/Architect of Record Signature: _____ Date: _____

Work Requiring Special Inspection:

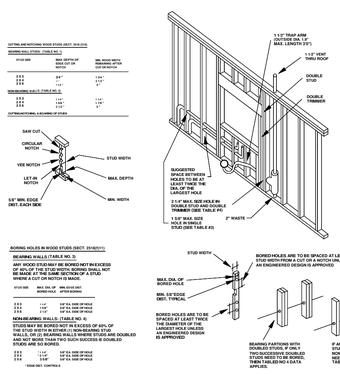
☐ Reinforced Concrete	☐ Smoke Control
☐ Pre-Stressed/Post-Tensioned Concrete	☒ Wood Construction (specify below)
☒ Structural Masonry	☐ Mastic and Intumescent fire-resistant coatings ☐ Spray-applied fire-proofing
☐ Structural Welding	☐ Exterior Insulation and Finish Systems (EIFS)
☐ High-Strength Bolting	☐ Storage Racks and Access Floors
☒ Soils	☐ Mechanical and Electrical Components
☐ Driven Piles	☐ Designated Seismic Systems Verification
☐ Pier Foundations	☐ Seismic Isolation Systems
☐ Structural Observations (see below)	☐ Other:

Person/Firm conducting Special Inspections: Nick Narbeth, Narbeth Structural Inspections, 420 Compass Road, Oceanside, CA 92054, 760-453-2144; #962, 760-277-0404, NAN2270@HOTMAIL.COM

Testing Laboratory:

Specific items not covered above:

Structural Observations:
PLYWOOD SHEAR NAILING 4" OC OR LESS



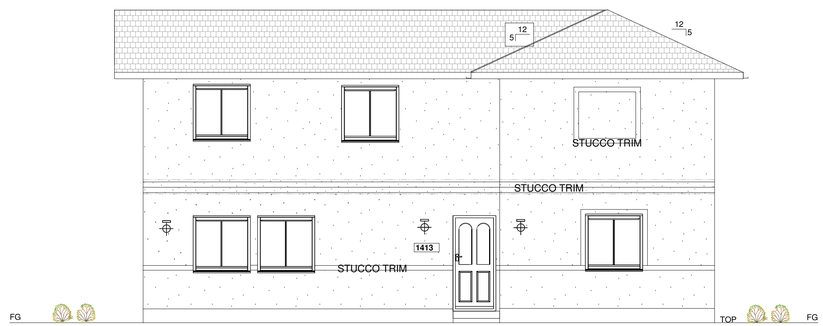
a minimum of 65% of nonhazardous construction and demolition debris shall be recycled or salvaged for reuse in accordance with either Section 4.408.2, 4.408.3, or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

1. The discharge of pollutants to any storm drainage system is prohibited. No solid waste, petroleum byproducts, soil particulates, construction waste materials, or wastewater generated on construction sites or by construction activities shall be placed, conveyed, or discharged into the street, gutter or storm drain system.
2. Buildings shall be provided with approved address identification in accordance with Section R319 of the 2022 California Residential Code.
3. The finish grade and impervious surfaces shall drain away from the foundation walls at a minimum slope of 2% or shall fall 6 inches within the first ten feet where possible.
4. A Foundation Forms Certification that is certified by a licensed land surveyor will be required to be provided to the building inspector at the first footing inspection.

Submission of PV solar plans for the ADU in accordance with the CF1R form is required prior to permit issuance. The solar PV solar permit must be completed prior to the final inspection of the ADU. Note on the plan that the PV solar plans will be submitted on a separate building permit and will be finaled prior to final inspection of the ADU.

LOT COVERAGE:

LOT 8 AREA = 4997 SF
(P) JADU AREA = 447 SF + (E) RES AREA = 1st 679 + 2nd 1126 SF + 626 SF ADU = 2896 SF HABITABLE
TOTAL (P) AREA = 2896 SF / 4998 SF = 57.95% COVERAGE > 40%
PROPERTY SERVED BY SEWER, ELECTRICAL GRID, NAT GAS SERVICE



a backwater valve per CPC 710. 1 will be provided. Note on the plan that fixtures above such elevation shall not discharge through the backwater valve.

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Note: Building permit applications submitted on or after January 1, 2023 shall comply with the following codes:

1. **2022 Edition of the California Building Code**
2. **2022 Edition of the California Residential Code**
3. **2022 Edition of the California Mechanical Code**
4. **2022 Edition of the California Plumbing Code**
5. **2022 Edition of the California Electrical Code**
6. **2022 Edition of the California Fire Code**
7. **2022 Edition of the California Green Building Standard**
8. **2022 Edition of the California Energy Code**

All work shall be done in accordance with the City of Oceanside Municipal code which include amendments to the 2022 California Code of Regulations.

Footing Depth and location within native soil is to be verified by a geotechnical engineer. Report of verification is to be provided to the building inspector at footing inspection.

Underground Service Alert
DIGALERT
Call Toll Free: 1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

DEFERRED SUBMITTALS

1. Photovoltaic system to be deferred submittal under separate permit.
2. Fire sprinklers to be deferred submittal under separate permit.

- NO GAS LINE ALLOWED UNDER HOUSE, PATIO COVER, DECK, OVERHANG OR ROOF EAVES
- NO MATERIAL OR EQUIPMENT TO BE STORED IN STREET R.O.W.
- STORMWATER BMP PRACTICES TO BE IN PLACE DURING EXCAVATION
- DIMENSIONS TAKE PRECEDENTS OVER SCALING.

COUNTY STANDARD DRAWING ARE A PART OF THIS PLAN

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PROPERTY SERVED BY SEWER, ELECTRICAL GRID, NAT GAS SERVICE

ABBREVIATIONS

A.B.S	ACRYLONITRILE BUTADIENE STYRENE
A.C	ASPHALT CONCRETE
A.F.F	ABOVE FINISH FLOOR
ACOUS.	ACOUSTIC(AL)
A.C.T	ACOUSTICAL CEILING TILE
ADD.	ADDENDUM
ADJ.	ADJUSTABLE/ ADJACENT
ALT.	ALTERNATE
ALUM.	ALUMINUM
ARCH.	ARCHITECT(URAL)
A.T.S.F	ARCHTSON, TOPEKA & SANTA FE
B.C	BASE CABINET
BD.	BOARD
B.I.D	BUILDING INSPECTION DEPARTMENT
BLDG.	BUILDING
BLK(S).	BLOCK(ING)
B.N	BOUNDARY NAIL
BOT.	BOTTOM
CAB.	CABINET
C.A.C	CALIFORNIA ADMINISTRATIVE CODE
C.B.C	CALIFORNIA BUILDING CODE
C.E.C	CALIFORNIA ELECTRICAL CODE
C.G.C	CALIORNIA GREEN CODE
CHEM.	CHEMICAL
C.J	CONTROL JOINT
CLG.	CEILING
CLR.	CLEAR/COLOR
C.M.C	CALIFORNIA MECHANICAL CODE
C.M.U	CONCRETE MASONRY UNIT
C.O	CLEANOUT/ CASED OPENING
COL.	COLUMN
COMP.	COMPARTMENT
CONC.	CONCRETE
CONT.	CONTINUOUS
CPC	CALIFORNIA PLUMBING CODE
CPT.	CARPET
C.T	CERAMIC TILE
D.F	DRINKING FOUNTAIN
DBL.	DOUBLE
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DWG.	DRAWING
E	EAST
EA.	EACH
E.J	EXPANSION JOINT
EL.	ELEVATION (VERTICAL)
ELEC.	ELECTRIC(AL)
ELEV.	ELEVATION
E.N	END NAIL
ENCL.	ENCLOSURE
EQ.	EQUAL
EX.	EXISTING
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
F.D	FLOOR DRAIN
F.E.(C)	FIRE EXTINGUISHER (CABINET)
FDN.	FOUNDATION
F.F	FINISH FLOOR
FIN.	FINISH(ED)
FLR(G)	FLOOR(ING)
F.N	FINISH NAIL
F.O.C	FACE OF CONCRETE
F.O.F	FACE OF FINISH
F.O.M	FACE OF MASONRY
F.O.S	FACE OF STUD
FT.	FOOT/ FEET
FTG.	FOOTING
F.S	FLOOR SINK
GA	GAUGE
GAL.	GALLON
GALV.	GALVANIZED
GEN.	GENERAL
GYP.	GYPSUM
H.C	HANDICAPPED
H.B	HOSE BIBB
HDWR.	HARDWARE
HR.	HOUR
H.V.A.C	HEATING, VENTILATION AND AIR CONDITIONING
I.C.B.O INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	
I.E	INVERTED ELEVATION
IN.	INCH/ INCHES
INSUL.	INSULATION
INT.	INTERIOR
JT.	JOINT
LAB.	LABORATORY
LAV.	LAVATORY
LT.	LIGHT/ LITE
MACH.	MACHINE
MECH.	MECHANICAL
MEMB.	MEMBER/ MEMBRANE
MFR.	MANUFACTURE(R)S
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTD.	MOUNTED
MTL.	METAL
MTR.	METER
N	NORTH
N.I.C	NOT IN CONTRACT
NO.	NUMBER
N.S.F	NET SQUARE FEET
N.T.S	NOT TO SCALE
O.C	ON CENTER
OZ.	OUNCE
P.C	PORTLAND CEMENT
POC.	POINT OF CONNECTION
PL.	PLATE/ PROPERTY LINE
PLYWD.	PLYWOOD
PNT.	PAINT
PR.	PAIR
PREFAB.	PREFABRICATED
P.V.C	POLYMERIZING VINYL CHLORIDE
Q.T	QUARRY TILE
RAD.	RADIUS
R.B	RESILIENT BASE
REF.	REFRIGERATOR
REINF.	REINFORCING
REQD.	REQUIRED
RESIL.	RESILIENT
R.O	ROUGH OPENING
RR.	RESTROOM
S	SOUTH
SCH.	SCHEDULE
SDAE.	SAN DIEGO & ARIZONA EASTERN
SHT.	SHEET
SH.	SINGLE HUNG
SHTG.	SHEATHING
SIM.	SIMILAR
SLNT.	SEALANT
S.O.G	SLAB ON GRADE
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
S.W	SLIDING WINDOW
TEL.	TELEPHONE
T.O	TOP OF
TYP.	TYPICAL
U.B.C	UNIFORM BUILDING CODE
U.C	UPPER CABINET
U.F.C	UNIFORM FIRE CODE
UL.	UNDERWRITER'S LABORATORY
U.O.N	UNLESS OTHERWISE NOTED
VAR.	VARIES
V.T.R	VENT THROUGH ROOF
V.I.F	VERIFY IN FIELD
W	WEST
W/	WITH
W.C	WATER CLOSET
WD.	WOOD
WDW.	WINDOW
W.H	WATER HEATER
WP.	WATERPROOFING
WTR.	WATER METER

MONTI
DRAFTING & DESIGN
DRAW4U2@GMAIL.COM

BUILDING CODE ANALYSIS

DESCRIPTION OF USE:	SINGLE FAMILY RESIDENCE
OCCUPANCY:	R-3
NUMBER OF STORIES:	THREE STORY
TYPE OF CONSTRUCTION:	TYPE VB
SPRINKLERED:	SPRINKLERED? YES DEFERRED
NEW FLOOR AREA:	3 Story 2878 SF HABITABLE
BUILDING HEIGHT:	32'-0"

PROJECT INFORMATION

PROJECT DATA

OWNER NAME: THE JESSICA AND KRISTINA BRANDT LIVING TRUST
OWNERS ADDRESS: 3512 EL PASO ALTO, VISTA, CA. 92084

SITE ADDRESS: 1413 SHOSHONE ST., OCEANSIDE, CA. 92058

LEGAL INFO:
LEGAL DESCRIPTION:
LOTS 7 & 8, BLOCK 8, OF REESE'S ADDITION, IN THE CITY OF OCEASIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF NO. 324, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, SEPTEMBER 2, 1887.

ZONE R-3, MAX HEIGHT = 36'-0"

PROPERTY SERVED BY SEWER
PROPERTY SERVED BY NAT GAS — PROPERTY CONNECTED TO ELECTRICAL GRID

SCHOOL / UTILITY INFORMATION

FIRE DISTRICT:
OCEANSIDE FIRE DEPT
760-435-4101

WATER DISTRICT: 619-670-2222
OCEANSIDE WATER DEPT
300 N COAST HWY
OCEANSIDE, CA. 92054
760-435-3900

ELEMENTARY SCHOOL:
LAUREL ELEMENTARY SCHOOL
1410 LAUREL ST
OCEANSIDE, CA. 92054
760-966-4200

MIDDLE SCHOOL:
LINCOLN MIDDLE SCHOOL
2000 CALIFORNIA ST
OCEANSIDE, CA. 92054
760-901-8900

HIGH SCHOOL:
OCEAN SHORES HIGH SCHOOL
3131 OCEANSIDE BLVD
OCEANSIDE, CA. 92054
760-901-8600

GAS & ELECTRIC:
SDG&E CO
4760 CLAIREMONT MESA DR
SAN DIEGO, CA. 92117
800-644-6133

SYMBOLS

101 — ROOM NUMBER REFERENCE
A — DOOR REFERENCE
A — WINDOW REFERENCE
1 — KEY NOTE REFERENCE

BUILDING SECTION REFERENCE
A / 7 — INDICATES SECTION NUMBER; INDICATES SHEET ON WHICH SECTION IS SHOWN

DETAIL REFERENCE
7 / 7 — INDICATES DETAIL NUMBER; INDICATES SHEET ON WHICH DETAIL IS SHOWN

CHANGE IN ELEVATION SYMBOL

ELEVATION REFERENCE
A / 7 — INDICATES ELEVATION NUMBER; INDICATES SHEET ON WHICH ELEVATION IS SHOWN

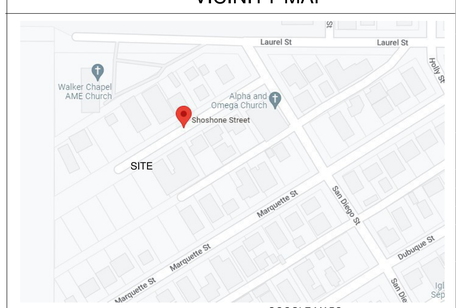
City of Oceanside Building Division Requirements

Provide the following at requested foundation inspection:

- ☑ Geotechnical/Soils field evaluation/observation report
- ☐ Concrete special inspection field evaluation report
- ☑ Surveyor's Form Board Elevation/Location report
- ☐ Other:
- ☐ Other:

TRUSS CALCS BY:
RAMONA LUMBER CO, INC.
425 MAPLE ST
RAMONA, CA. 92065
760-789-1080
JOB # 230003
ED@RAMONALUMBER.COM

VICINITY MAP



GOOGLE MAPS

SHEET INDEX

A-0	COVER SHEET & PROPERTY INFO
A-1	SITE PLAN
A-2-0	FIRST FLOOR PLAN
A-2-1	SECOND FLOOR & ADU PLAN
A-3	EXTERIOR ELEVATIONS
A-4	BUILDING SECTIONS
A-5	ELECTRICAL PLAN, NOTES
A-6	MANUFACTURERS SHEET
AIA CA	2022 CBC REQ
CS-1	MINIMUM CONSTRUCTION SPECIFICATIONS
T24-1	TITLE 24
T24-2	TITLE 24
T24-3	TITLE 24
T24-M	TITLE 24 MANDATORY MEASURES
S-1	FOUNDATION PLAN
S-2	BASEMENT FLOOR FRAMING
S-3	FLOOR FRAMING
S-4	ROOF FRAMING
SD-1	DETAILS
SS	STRUCTURAL SPECS
SSD	STANDARD STRUCTURAL DETAILS
C1	CIVIL ENGINEERING FOOTPRINT PLAN

SCOPE OF WORK

NEW 3 STORY RESIDENCE W/ ADU, JADU 2,878 SF, 32' HIGH
4.5 BATHS, 8 BEDROOMS TOTAL

(P) 5' WIDE WOOD DECK & STAIRS AROUND SIDE & BACK OF RESIDENCE FOR ENTRY ACCESS TO ADU. 370 SF

(P) 1ST FLR = 626 SF
(P) 2ND FLR = 1126 SF
(P) 3RD FLR = 1126 SF

TOTAL = 2,878 SF

CONSULTANTS

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:26 PM

STRUCTURAL ENGINEERING BY:
NADER'S DESIGN CONSULTING, INC.
5959 MISSION GORGE RD STE 203
SAN DIEGO, CA. 92120
619-284-1848
JOB # MJ-642-23
LIC NO. C-68179

GEOTECH ENG:
UES ENG CONSULTANTS
1441 MONTIEL RD STE 115
ESCONDIDO, CA. 92026
7-1-2025

CONTRACTOR: Geotechnical information only
SAN DIEGO CONSTRUCTION& DEVELOPMENT INC.
DOMINIQUE ST. PIERRE
867 N. 2ND ST STE 2242
EL CAJON, CA. 92021
619-436-8579
LIC # B 1131213

CIVIL ENGINEER:
CIVIL LANDWORKS
110 COPPERWOOD WAY, STE P
OCEANSIDE, CA. 92058
760-908-8745
LIC. NO. C070066
DAVE@CIVILLANDWORKS.COM

SHOSHONE ST RESIDENCES
ADMINISTRATIVE COASTAL DEVELOPMENT PLAN
OCEANSIDE, CA. 92058
APN 148-012-05-00
LOT 8

JOB:

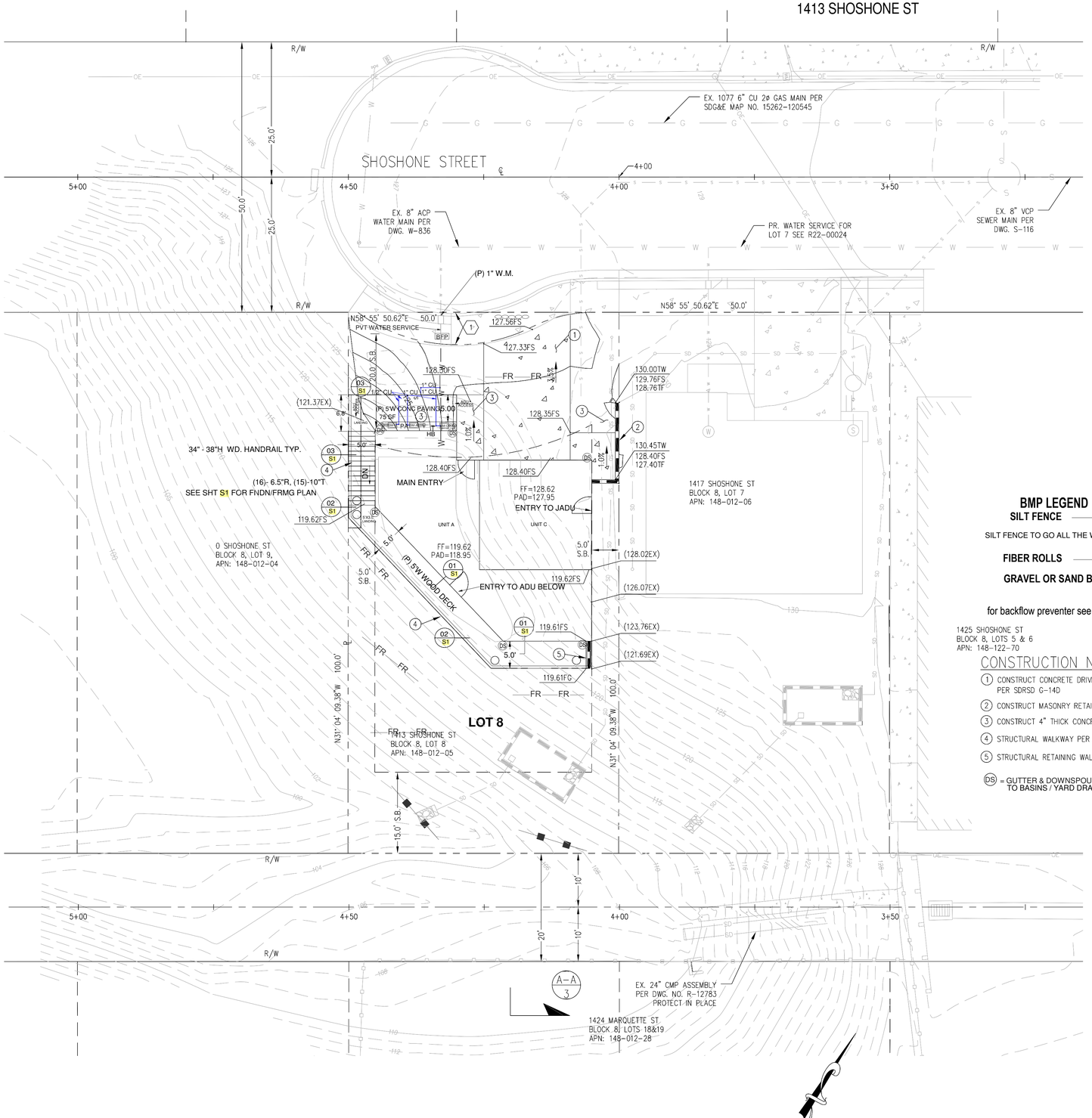
DATE:	MAY 15, 2025
SHEET TITLE:	COVER SHEET & INFO
REVISIONS:	REV 05/15/2025
DESIGNERS SIGNATURE:	

SHEET A-0

BLDG24-0479 REV 05/17/2025 LOT 8 1413 SHOSHONE ST NEW RESIDENCE ADU JADU

ADMINISTRATIVE COASTAL DEVELOPMENT PLAN APN 148-012-05-00
SHOSHONE ST LOT 8 RESIDENCE WEST

1413 SHOSHONE ST



EQUIVALENT FIXTURE UNITS
(Includes Combined Hot and Cold Water Demand)

Number of Fixture Units Per Fixture

Types of Fixtures	Private Use	Public Use	Quantity	Total
Bar Sink	1	2		
Bathtub (with or without shower over)	4	4	2	8
Dental unit or cuspidor	-	1		
Drinking fountain (each head)	1	2		
Hose bibb (standard type faucet)	2.5	5	1	2.5
House trailer (each)	6	6		
Laundry tub or clothes washer	4	4	1	4
Lavatory	1	2	4	4
Lavatory (dental)	1	2		
Lawn sprinklers (standard type each head)	1	1		
Shower (each head)	2	4	2	4
Sink (bar)	1	2		
Sink or dishwasher	1.5	4	5	7.5
Sink (flushing rim, clinic)	-	10		
Sink (washup, each set of faucets)	-	2		
Sink (washup, circular spray)	-	4		
Toilet (flush tank)	2.5	5	4	10
Toilet (flushometer valve)	6	10		
Urinal (pedestal or similar type)	-	10		
Urinal (stall or wall)	-	5		
Urinal (flush tank)	-	3		
Other (please specify) _____	-	-		

Water supply outlets for items not listed above shall be computed at their maximum demand, but in no case less than:

3/8 inch	1	2		
½ inch	2	4		
¾ inch	3	6		
1 inch	6	10		

TOTAL FIXTURE UNITS 40

Then measure the approximate distance between the water meter and the most distant fixture.
Insert distance in 55 feet from water meter to furthest fixture.

NOTES:

- ALL SPOILS TO GO TO AN APPROVED LANDFILL
- NO GAS LINE ALLOWED UNDER HOUSE, PATIO COVER, DECK, OVERHANG OR ROOF EAVES
- NO MATERIAL OR EQUIPMENT TO BE STORED IN STREET R.O.W.
- STORMWATER BMP PRACTICES TO BE IN PLACE DURING EXCAVATION
- DIMENSIONS TAKE PRECEDENTS OVER SCALING.

LOT COVERAGE:

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PROPERTY SERVED BY SEWER, ELECTRICAL GRID, NAT GAS SERVICE

BMP LEGEND

SILT FENCE

SILT FENCE TO GO ALL THE WAY AROUND THE PERIMETER OF THE PROPERTY

FIBER ROLLS —FR—FR—

GRAVEL OR SAND BAGS

for backflow preventer see w-12 on sheet a-6

1425 SHOSHONE ST
BLOCK 8, LOTS 5 & 6
APN: 148-122-70

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE DRIVEWAY (FOR CONFINED RIGHT-OF-WAY) PER SDRSD G-14D
2. CONSTRUCT MASONRY RETAINING WALL PER SDRSD C-06
3. CONSTRUCT 4" THICK CONCRETE SIDEWALK PER GEOTECHNICAL RECOMMENDATIONS
4. STRUCTURAL WALKWAY PER OTHERS
5. STRUCTURAL RETAINING WALL PER OTHERS

(DS) = GUTTER & DOWNSPOUT CONNECTED TO BASINS / YARD DRAINS

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE DRIVEWAY (FOR CONFINED RIGHT-OF-WAY) PER SDRSD G-14D
2. CONSTRUCT CONCRETE PAVEMENT PER O.S.D. T-2
3. CONSTRUCT 4" THICK CONCRETE SIDEWALK PER GEOTECHNICAL RECOMMENDATIONS
4. CONSTRUCT FOUNDATION WALL PER SEPARATE PERMIT
5. CONSTRUCT MASONRY RETAINING WALL PER SDRSD C-04
6. CONSTRUCT NDS 6" CIRCULAR STORM WATER YARD INLET OR EQUIVALENT
7. CONSTRUCT NDS 12"X12" STORM WATER DRAINAGE CATCH BASIN OR EQUIVALENT
8. CONSTRUCT CONCRETE STAIRS
9. CONSTRUCT 6" HDPE SD
10. CONSTRUCT RIP RAP ENERGY DISSIPATER PER SDRSD D-40, TYPE 2, NO. 2 BACKING, T=1.1 FT
11. CONSTRUCT STRAIGHT HEADWALL – TYPE A PER SDRSD D-30, H=2'-8", L=5',
12. CONSTRUCT DETENTION BASIN
13. CONSTRUCT CONCRETE PATH
14. STORM DRAIN-RETAINING WALL INTERSECTION
15. SEWER EJECTION PUMP - SEE SHT A-6
16. SEWER EJECTION TANK - SEE SHT A-6

EASEMENTS:

1. PROPOSED 6' R.O.W. DEDICATION

EASEMENT NOTES:

1. PROPOSED 6' R.O.W. DEDICATION

UTILITY NOTES:

21. CONSTRUCT 1" WATER SERVICE W/ METER PER R22-00025
22. CONSTRUCT 4" PVC SEWER SERVICE PER C.O.S. S-3
23. CONSTRUCT PVC SEWER CLEANOUT PER SDRSD SC-01 & SEWAGE BACKWATER VALVE ASSEMBLY PER C.O.S. S-4
24. 36"ø 72" DEEP FIBERGLASS BASIN W/ SHINMAYWA NORUS SERIES 50CR2.4S SEWER PUMP
25. 2" SEWER FORCEMAIN PER R22-00025
26. CONNECT TO EXISTING SEWER MANHOLE PER R22-00025

1" PRIVATE SUB METER W/ UNIT ID
MECH METER HORIZ INSTALL
PRESSURE REDUCER
SHUT OFF VALVE
BFP APPROVED BACKFLOW PREVENTER

ABBREVIATIONS

PL = PROPERTY LINE
CL = CENTER LINE
FG = FINISH GRADE
WL = WATERLINE
DA = DOOR ALARM REQ'D
PA = PLANTED AREA
TOS = TOP OF SLOPE
BOS = BOTTOM OF SLOPE
(E) = EXISTING
(P) = PROPOSED
(N) = NEW
FYSB = FRONT YARD SET BACK
SYSB = SIDE YARD SET BACK
RYSB = REAR YARD SET BACK
W.I. = WROUGHT IRON
C.L. = CHAIN LINK FENCE
FF = FINISH FLOOR ELEVATION
TOP = TOP OF PLATE
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BOW = BOTTOM OF WALL
TBR = TO BE REMOVED
RBB = RAISED BOND BEAM
EP = EDGE OF PAVING
FS = FINISH SURFACE

(P) 1ST FLR = 679 SF
(P) 2ND FLR = 1126 SF
(P) JADU = 447 SF
(P) ADU = 626 SF
TOTAL = 2,896 SF

GRAPHIC SCALE
SCALE: 1" = 10'

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:26 PM

A PERMIT, SUPPLEMENTED WITH A TRAFFIC CONTROL PLAN, SHALL BE SUBMITTED TO THE CITY FOR ANY WORK WITHIN EXISTING CITY RIGHT-OF-WAY AND/OR EASEMENTS. TRAFFIC CONTROL DESIGN & PROCEDURES; AND TRAFFIC CONTROL WARNING SIGNS, LIGHTS AND DEVICES SHALL CONFORM TO THE CURRENT EDITTION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN THAT MEETS THE CITY AND CALTRANS REQUIREMENTS. TRAFFIC CONTROL PLAN SHALL BE IN OPERATION FROM 9:00 A.M. TO 3:00 P.M., UNLESS OTHERWISE APPROVED.

MONTI DRAFTING & DESIGN
DRAW4U2@GMAIL.COM
442-333-8173
DESIGNERS SIGNATURE: ANTONIO E MONTI

REGISTERED PROFESSIONAL ENGINEER ANTONIO T. MONTI No.2665 GEOTECHNICAL STATE OF CALIFORNIA
REGISTERED PROFESSIONAL GEOLOGIST MARTIN J. STARR No. 2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

SHOSHONE ST RESIDENCES
ADMINISTRATIVE COASTAL DEVELOPMENT PLAN
OCEANSIDE, CA. 92058
APN 148-012-05-00
LOT 8

LOT 8 1413 SHOSHONE ST NEW 2 STORY RESIDENCE ADU JADU

APPLICANT:
THE JESSICA AND KRISTINA BRANDT LIVING TRUST
3512 EL PASO ALTO
VISTA, CA. 92084

LEGAL DESCRIPTION:
LOTS 8, BLOCK 8, OF REESE'S ADDITION, IN THE CITY OF OCEASIDE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF NO. 324, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, SEPTEMBER 2, 1887.

MAY 15, 2025

APN 148-012-05-00
LOT 8

PROJECT ADDRESS:	1413 SHOSHINE ST OCEANSIDE, CA. 92058
DATE:	03/25/2024
SHEET TITLE:	SITE PLAN SCALE: 1" = 10'-0"
REVISIONS:	08/24/2022 HOUSE REVISED 04/23/2024 eng corr 02/11/2025 2 REV 07/19/2024 corrections water dept corr 02/11/2025 1 REV 05/15/2025

SHEET A-1

BLDG24-0479

ADMINISTRATIVE COASTAL DEVELOPMENT PLAN APN 148-012-05-00

SHOSHONE ST LOT 8 RESIDENCE WEST

MONTI DRAFTING & DESIGN
442-333-8173
DRAW4U2@GMAIL.COM

NOTES:

VENT NOTE:
ALL VENTS (ROOF, FOUNDATION, COMBUSTION AIR, ETC) SHALL BE PROTECTED BY LOUVERES AND 1/8" NON-COMBUSTIBLECORROSION RESISTANT MESH

MECHANICAL EXHAUST FANS FROM BATHROOMS SHALL COMPLY WITH THE FOLLOWING: (CAL GREEN 4.506.1)
ENERGY STAR COMPLIANT AND DUCTED TO TERMINATE OUTSIDE BUILDING CONTROLLED BY READILY ACCESSIBLE HUMIDSTAT-UNLESS FAN FUNCTIONS AS COMPONENT OF WHOLE HOUSE VENTILATION SYSTEM
- WITHCONTROLS CAPABLE OF ADJUSTMENT BETWEEN RELATIVE HUMIDITY RANGE OF 50% TO 80%.

WALL COVERING IN SHOWER TO BE CERAMIC TILE, MIN. 70" ABOVE DRAIN WITH A GREENBOARD WATERPROOF BACKING.
ANTI-SCALDING SHOWER VALVES REQUIRED

BATHROOM: LIGHTING FIXTURES AND SWITCHES SHOWN ON FLOOR PLAN
SHALL DEMONSTRATE THE FOLLOWING:
1. AT LEAST ONE HIGH EFFICACY FIXTURE SHALL BE INSTALLED IN EACH BATHROOM.
2. ALL OTHER BATHROOM LIGHTING SHALL BE HIGH EFFICACY OR CONTROLLED BY A VACANCY SENSOR.
GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS: LIGHTING SHALL BE HIGH EFFICACY AND CONTROLLED BY A VACANCY SENSOR.
ROOMS OTHER THAN KITCHENS, BATHROOMS, GARAGES LAUNDRY ROOMS, OR UTILITY ROOMS: LIGHTING SHALL BE HIGH EFFICACY OR CONTROLLED BY A VACANCY SENSOR OR DIMMER
OUTDOOR LIGHTING: ALL LIGHTING SHALL BE HIGH EFFICACY.

OUTDOOR LIGHTING SHALL BE HIGH EFFICACY LUMINARES OR SHALL BE CONTROLLED BY A PHOTO/MOTION SENSOR COMBINATION.

GUTTERS AND DOWNSPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL AND DESIGNED TO REDUCE ACCUMULATION OF LEAVES, LITTER & DEBRIS.
STUCCO & ROOF TILES COLOR MUST MATCH EXISTING RESIDENCE IN COLOR & TEXTURE

FAN IN BATHROOM TO BE CAPABLE OF MIN. 5 AIR CHANGES PER HOUR.

VENT NOTE:
ALL VENTS (ROOF, FOUNDATION, COMBUSTION AIR, ETC) SHALL COMPLY WITH THE COUNTY BLDG CODE 92.1.706A.1: PROTECTED BY LOUVERES AND 1/8" NON COMBUSTIBLE CORROSION RESISTANT MESH

Glazing in doors are safety glazing material inaccordance with Section R308.4:
Receptacle outlet locations will comply with CEC Article 210.52
Water conserving fixtures: New water closets shall use no more than 1.28 gallons of water per flush, kitchen faucets may not exceed 1.8 GPM, lavatories are limited to 1.2 GPM, and showerheads may not exceed 1.8 GPM of flow. CPC Sections 407, 408, 411, 412.

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Water closets 1.28 gallons/flush
Urinals (wall-mounted) 0.125 gallon/flush
Urinals (others) 0.5 gallonflush
Showerheads 1.8 gpm @ 80 psi
Lavatory faucets 1.2 gpm @ 60 psi1
Kitchen faucets 1.8 gpm @ 60 psi
Metering faucets 0.25 gallons per cycle
1. Lavatory faucets shall not have a flow rate less than 0.8 gpm at 20 psi.
When a shower is provided with multiple shower heads, the sum of flow to all the heads shall not exceed 1.8 gpm lii) 80 P.S. or the shower shall be designed so that only one head is on at alime. CGC Section 4.303.1.3.2.

"A mechanical exhaust ventilation system, supply ventilation or combination thereof shall be installed for each dwelling unit to provide whole-building ventilation with outdoor air in compliance with ASH RAE Standard 62.2 as adopted by the California Energy Commission."

"An intermittently or continuously operating local mechanical exhaust ventilation system shall be ins talle d in e ach bathroom with a bathtub, shower, or similar moisture source and in each kitchen in compliance with ASHRAE Standard adopted by the California Energy Commission. Intennittent lo ca l exhaust ventilation airflow rates shall be 50 cfm in bat hrooms and 100 cfm in kitchens. Continuous lo ca l exhaust ventilation airflow rates shall be 20 cfm in bathroom & 5 air changes per hour in kitchens based on kitchen volume."

"The ma in electrical service panel shall include reserved space allowing for installation of a circuit breaker for a future electric vehicle charging system. The reserved space sha ll be permanently an d visibly marked as 'EV Capable."

"The ma in elec trical se rvice panel shall not be of a type with a center-fed main circuit breaker and shall include reser ved space allowing for installation of double-pole circuit breakers for a fut ure solar photovoltaic system. Such reserved space shall be positioned at the opposite (load) end from the inp ut feeder or ma in circuit breaker location. The re served space shall be pennanently and visibly marked as 'For Future Solar Photovoltaic."

AN INTERMITTENTLY OR CONTINUOUS OPERATING LOCAL MECHANICAL EXHAUST SYSTEM (WITH OUTDOOR AIR) SHALL BE INSTALLED IN EACH KITCHEN AND BATHROOM COMPLYING WITH ASHRAE STANDARD 62 2-2007 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL VENTILATION EXHAUST AIRFLOW RATES SHALL BE50 CFM IN BATHROOMS AND 100 CFM IN KITCHENS. CONTINUOUS LOCAL VENTILATION EXHAUST AIRFLOW RATES SHALL BE 20CFM IN BATHROOMS AND 5 ACH (AIR CHANGES PER HOUR) IN KITCHENS BASED ON KITCHEN VOLUME.
MECHANICAL EXHAUST FANS FROM BATHROOMS SHALL COMPLY WITH THE FOLLOWING: (CAL GREEN 4.506.1)
ENERGY STAR COMPLIANT AND DUCTED TO TERMINATE OUTSIDE BUILDING CONTROLLED BY READILY ACCESSIBLE HUMIDSTAT-UNLESS FAN FUNCTIONS AS COMPONENT OF WHOLE HOUSE VENTILATION SYSTEM
- WITHCONTROLS CAPABLE OF ADJUSTMENT BETWEEN RELATIVE HUMIDITY RANGE OF 50% TO 80%.

EXPOSED VALLEY FLASHING SHALL BE CONSTRUCTED WITH MIN 26 GAUGE CORROSION RESISTANT METAL INSTALLED OVER MIN. 36 INCH WIDE SINGLE LAYER OF NO 72 ASTM CAP SHEET RUNNING FULL LENGTH OF VALLEY.
ALL FLASHING AND COUNTER FLASHING TO BE INSTALLED BY ROOFING CONTRACTOR
ALL LUMBER SHALL BE GRADE DFL#2 OR BETTER U.N.O.

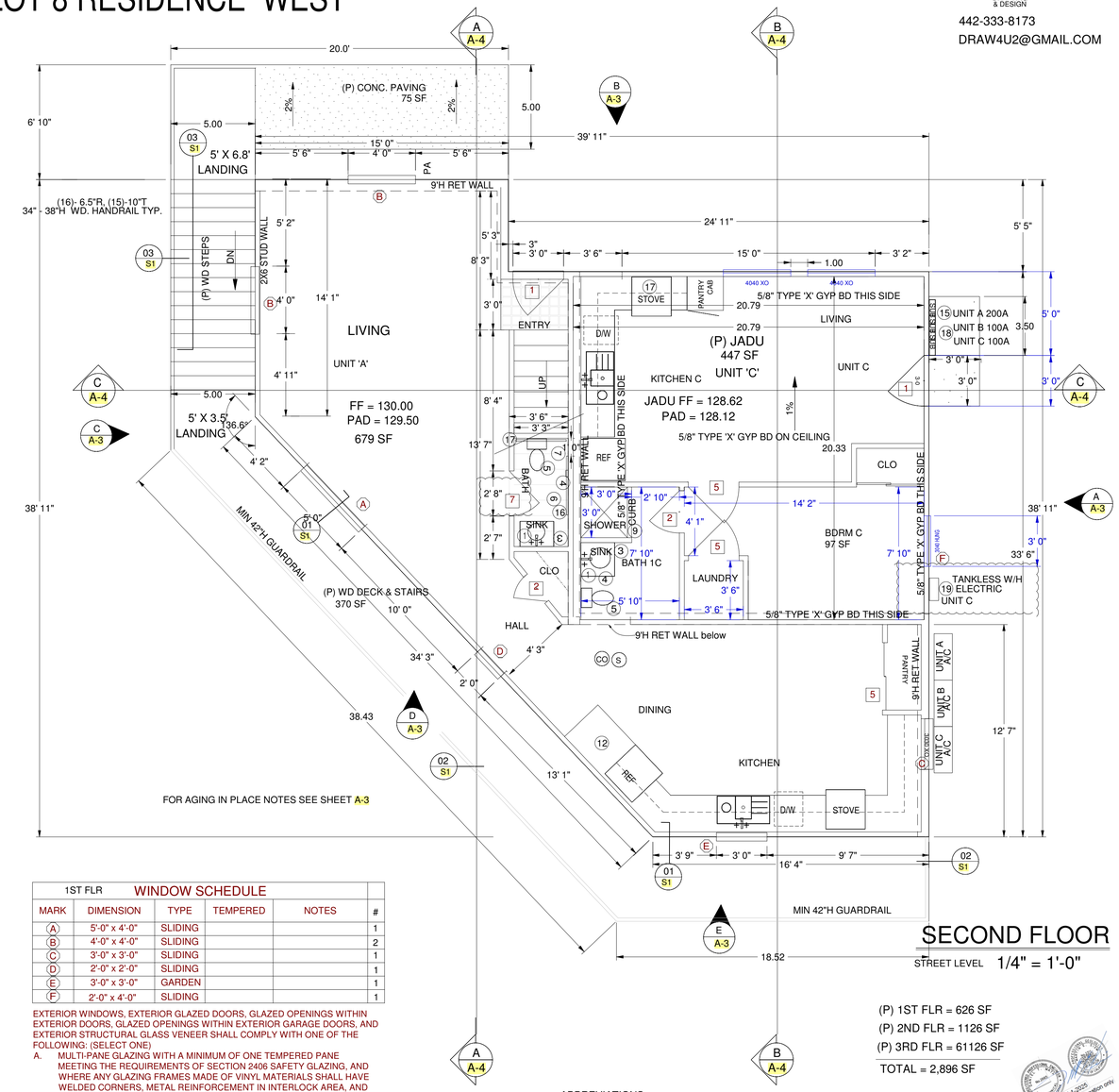
ROOF SHEATHING SHALL BE :
1/2" CDX PLYWOOD 24/0 PI
NAILS @ 6" O.C. B.N.& E.N.
8D COMMON NAILS @ 12" O.C.F.N.

"The inspector will recheck for expansive soils and/or grading requirements at first foundation inspection."
"The main electrical service panel shall not be of a type with a center-fed main circuit breaker and shall include reserved space allowing for installation of double-pole circuit breakers for a future solar photovoltaic system. Such reserved space shall be positioned at the opposite (load) end from the input feeder or main circuit breaker location. The reserved space shall be permanently and visibly marked as 'For Future Solar Photovoltaic.'"
"Electrical junction box and segment of metallic raceway in the attic shall be permanently and visibly marked as 'For Future Solar Photovoltaic.'"
"The main electrical service panel shall include reserved space allowing for installation of a circuit breaker for a future electric vehicle charging system. The reserved space shall be permanently and visibly marked as 'EV Capable.'"

"Roofing shall have a class A fire rating." (County Building Code 92.2.R902 and County Building Code 92.1.1505.1)
exterior garage doors shall include weather stripping as necessary to reduce any gaps at the bottom, sides, and top of the door to 1/8 inch or less. (CRC R337.8.4, CBC 708A.4)
Paper-faced insulation prohibited in attics or other ventilated spaces. (County Building Code 92.1.711A.1)

KEY NOTES

1. MIRROR, TYP
2. 110V 75W LIGHT/FAN FIXTURE TYP.
3. SINK WHITE W/ CABINET LIGHT OAK FINISH
4. TOILET PAPER ROLL HOLDER CHROME FINISH
5. KOHLER BRAND ELONGATED TOILET LOW VOLUME FLUSH WHITE, H.C. HEIGHT
6. SLIP RESISTANT CERAMIC TILE FLOOR - WHITE
7. 6" X 6" C.T. W/ WOOD BASE
8. HEAT PUMP LOCATION 220V SEE SHT A-7 FOR SPECS Mitsubishi Electric AC msy-gl18na, 18k BTU, 20.5 SEER, above door
9. ROD & CURTAIN @ SHOWER
10. O'HAGIN ROOF VENT 70 SQ INCHES EACH
11. STUCCO PER BLDG CODE
12. Rheem XE50T10H45U0 TANK ELECTRIC WATER HEATERS
13. MIN 22" X 36" ATTIC ACCESS
14. A/C CONDENSER LOCATION
15. (1) 200A ELECTRICAL PANEL
16. MIN 42" GRAB BAR
17. MIN 36" GRAB BAR
18. (2) 100A ELECTRICAL PANELS
19. Rheem TANKLESS RETEX 11 ELECTRIC WATER HEATER

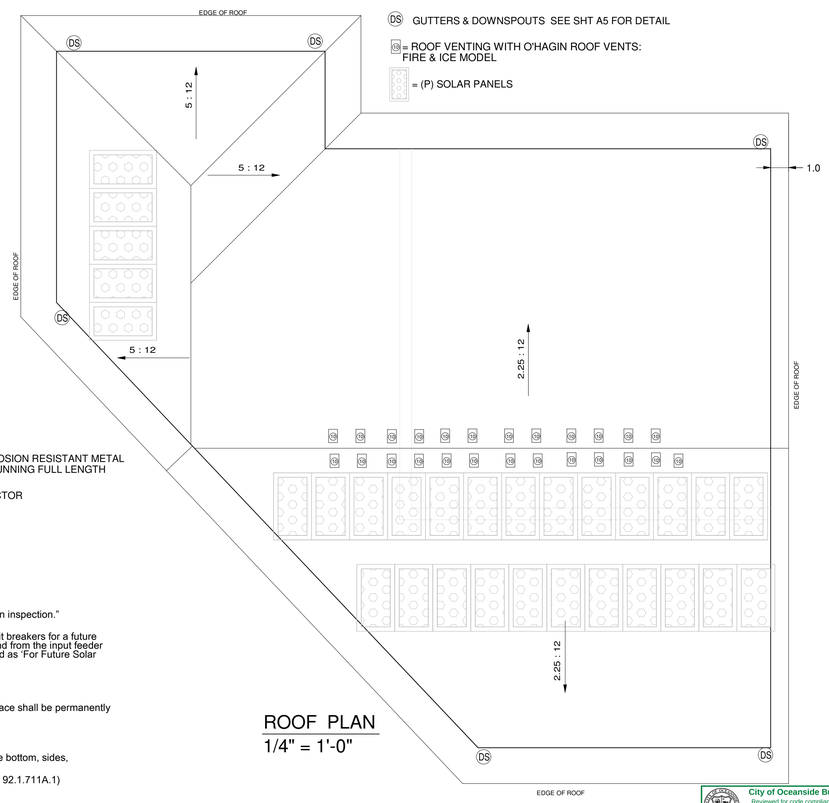


FOR AGING IN PLACE NOTES SEE SHEET A-3

SECOND FLOOR

STREET LEVEL 1/4" = 1'-0"

(P) 1ST FLR = 626 SF
(P) 2ND FLR = 1126 SF
(P) 3RD FLR = 61126 SF
TOTAL = 2,896 SF



ROOF PLAN

1/4" = 1'-0"

WINDOW SCHEDULE

1ST FLR

MARK	DIMENSION	TYPE	TEMPERED	NOTES	#
A	5'-0" x 4'-0"	SLIDING			1
B	4'-0" x 4'-0"	SLIDING			2
C	3'-0" x 3'-0"	SLIDING			1
D	2'-0" x 2'-0"	SLIDING			1
E	3'-0" x 3'-0"	GARDEN			1
F	2'-0" x 4'-0"	SLIDING			1

EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)
A. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/I.S.2/A40
B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.
C. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2

NET OPENING FOR EMERGENCY EGRESS WINDOWS IN BDRMS NEEDS TO BE MIN 20"W X 24" H.

DOOR SCHEDULE

MARK	DIMENSION	TYPE	TEMPERED	NOTES
1	3'-0" x 6'-8"	SWINGING		1-3/8" SOLID CORE
2	2'-6" x 6'-8"	SWINGING		HOLLOW CORE
3	3'-0" x 6'-8"	BI-FOLD		LAUNDRY ROOM
4	3'-0" x 6'-8"	SLIDING		CLOSET
NOT USED				
6	2'-6" x 6'-0"	SWINGING		HOLLOW CORE
7	2'-8" x 6'-0"	SWINGING		HOLLOW CORE

EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)
A. EXTERIOR SURFACE OR CLADDING OF NON-COMBUSTIBLE OR IGNITION-RESISTANT MATERIAL
B. SOLID CORE WOOD COMPLYING WITH THE FOLLOWING:
- STILES AND RAILS MINIMUM 1-3/8 INCHES THICK
- RAISED PANELS MINIMUM 1-1/4 INCHES THICK
EXCEPTION: EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK
C. MINIMUM 20-MIN FIRE RATED WHEN TESTED PER NFPA 252
D. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

ABBREVIATIONS

PL = PROPERTY LINE
CL = CENTER LINE
FG = FINISH GRADE
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City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:26 PM

PAR 5, LOT 8

SHEET TITLE: SECOND FLOOR PLAN
DATE: 11/18/2023
ESCALA : SCALE: 1/4" = 1'-0"
REVISIONS: 07/25/2024 change water htrs
05/15/2025 ADD WD DECK & STAIRS

OWNER INFORMATION:
THE JESSICA AND KRISTINA BRANDT LIVING TRUST
3512 EL PASO ALTO
VISTA, CA. 92084

SHEET: A-2-0

05/15/2025 LOT 8 1413 SHOSHONE ST NEW RESIDENCE ADU JADU

ADMINISTRATIVE COASTAL DEVELOPMENT PLAN APN 148-012-05-00
SHOSHONE ST LOT 8 RESIDENCE WEST

MONTI DRAFTING & DESIGN
442-333-8173
DRAW4U2@GMAIL.COM

NOTES:

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ANTI-SCALDING SHOWER VALVES REQUIRED

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ROOMS OTHER THAN KITCHENS, BATHROOMS, GARAGES LAUNDRY ROOMS, OR UTILITY ROOMS: LIGHTING SHALL BE HIGH EFFICACY OR CONTROLLED BY A VACANCY SENSOR OR DIMMER
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FIXTURE TYPE MAXIMUM FLOW RATE
Water closets 1.28 gallons/flush
Urinals (wall-mounted) 0.125 gallon/flush
Urinals (others) 0.5 gallonflush
Showerheads 1.8 gpm @ 80 psi
Lavatory faucets 1.2 gpm @ 60 psi1
Kitchen faucets 1.8 gpm @ 60 psi
Metering faucets 0.25 gallons per cycle
1. Lavatory faucets shall not have a flow rate less than 0.8 gpm at 20 psi.
When a shower is provided with multiple shower heads, the sum of flow to all the heads shall not exceed 1.8 gpm [iii] 80 P.SI. or the shower shall be designed so that only one head is on at alime. CGC Section 4.303.1.3.2.

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ALL FLASHING AND COUNTER FLASHING TO BE INSTALLED BY ROOFING CONTRACTOR
ALL LUMBER SHALL BE GRADE DFL#2 OR BETTER U.N.O.

ROOFING SHALL HAVE A CLASS A FIRE RATING

ROOF SHEATHING SHALL BE :
1/2" CDX PLYWOOD 24/0 PI
NAILS @ 6" O.C. B.N.& E.N.
8D COMMON NAILS @ 12" O.C.F.N.

(P) PENTAIR MYERS 1/2 HP SEWAGE EJECTOR # MSW50T10BP-R

Capacity	9000 gallon per hour	Connection Type	FIP
For Use With	Sewage pump applications	Inlet Connection Size	4-3/4 inch
Manufacturer Warranty	2 year	Material	Cast iron
Overall Height	31 inch	Overall Length	22 inch
Overall Width	22 inch	Product Type	Sewage and Sump Basins
Special Features	Pre-plumbed for easy installation	Weight	60 pounds
Shipping Dimensions	31.00 H x 22.00 W x 22.00 D	Shipping Weight	60.0 lbs
Return Policy	Regular Return (view Return Policy)		

SEE SHT A-5 FOR LINE DIAGRAM

STATIC HEAD = 34.65
DYNAMIC HEAD = 19
1/2 HP PUMP

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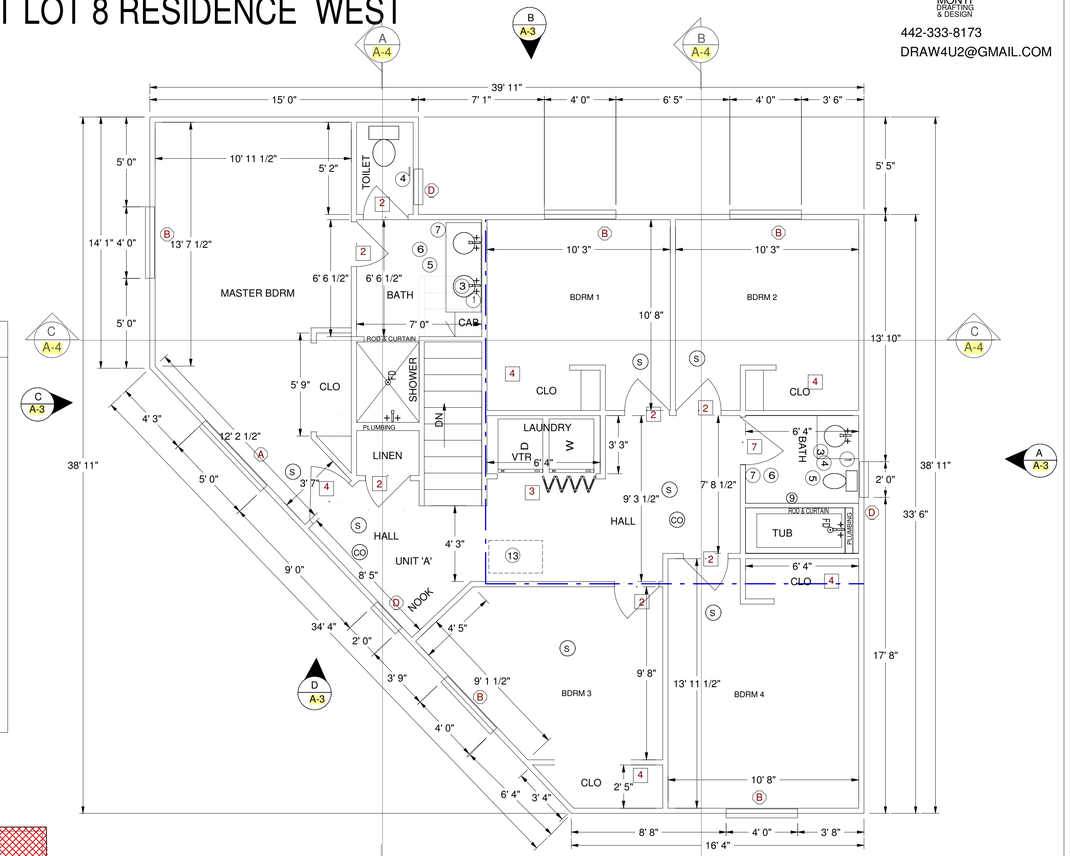
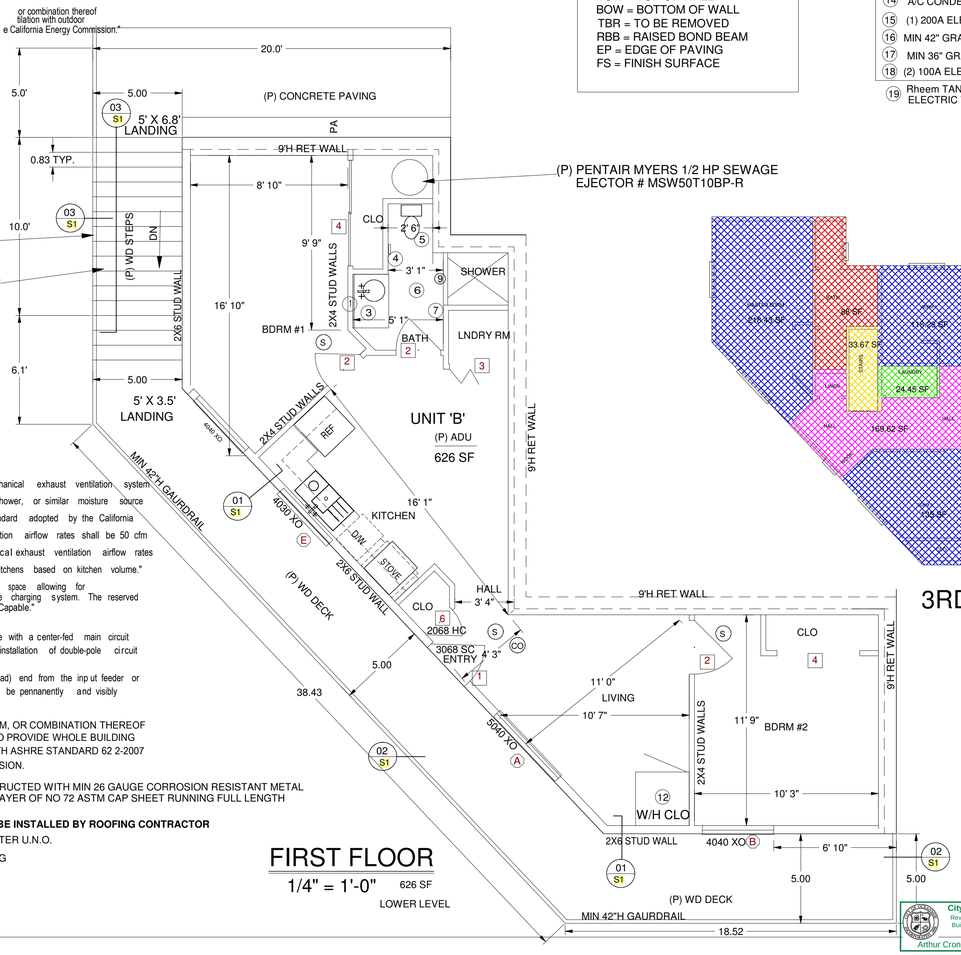
EP = EDGE OF PAVING
FS = FINISH SURFACE

KEY NOTES

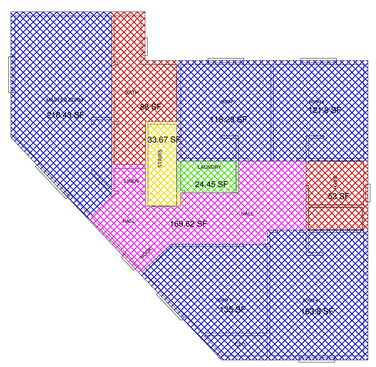
1. MIRROR, TYP
2. 110V 75W LIGHT/FAN FIXTURE TYP.
3. SINK WHITE W/ CABINET LIGHT OAK FINISH
4. TOILET PAPER ROLL HOLDER CHROME FINISH
5. KOHLER BRAND ELONGATED TOILET LOW VOLUME FLUSH WHITE, H.C. HEIGHT
6. SLIP RESISTANT CERAMIC TILE FLOOR - WHITE
7. 6" X 6" C.T. W/ WOOD BASE
8. HEAT PUMP LOCATION 220V SEE SHT A-7 FOR SPECS Mitsubishi Electric AC msy-gl18na, 18k BTU, 20.5 SEER, above door
9. ROD & CURTAIN @ SHOWER
10. O'HAGIN ROOF VENT 70 SQ INCHES EACH
11. STUCCO PER BLDG CODE
12. Rheem XE50T10H45U0 TANK ELECTRIC WATER HEATERS
13. MIN 22" X 36" ATTIC ACCESS
14. A/C CONDENSER LOCATION
15. (1) 200A ELECTRICAL PANEL
16. MIN 42" GRAB BAR
17. MIN 36" GRAB BAR
18. (2) 100A ELECTRICAL PANELS
19. Rheem TANKLESS RETEX 11 ELECTRIC WATER HEATER



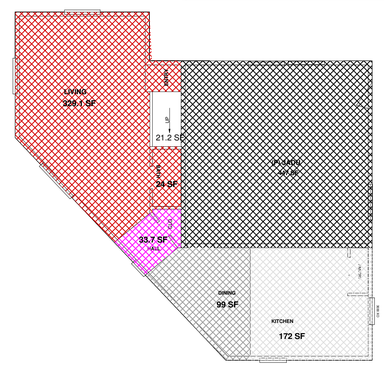
THIRD FLOOR
1126 SF 1/4" = 1'-0"
UPPER LEVEL



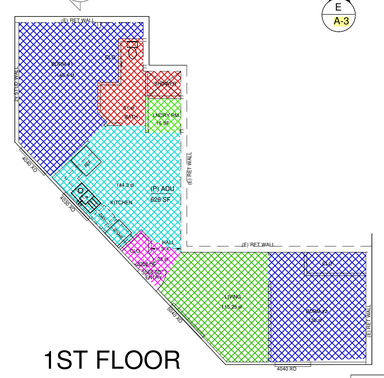
FIRST FLOOR
1/4" = 1'-0" 626 SF
LOWER LEVEL



3RD FLOOR



2ND FLOOR



1ST FLOOR

WINDOW SCHEDULE

MARK	DIMENSION	TYPE	TEMPERED	NOTES	#
A	5'-0" x 4'-0"	SLIDING			2
B	4'-0" x 4'-0"	SLIDING			7
C	3'-0" x 3'-0"	SLIDING			0
D	2'-0" x 2'-0"	SLIDING		OBS	3
E	4'-0" x 3'-0"	GARDEN			1
F	2'-0" x 4'-0"	SLIDING			0

EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)
A. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/I.S.2/A40
B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.
C. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2

NET OPENING FOR EMERGENCY EGRESS WINDOWS IN BDRMS NEEDS TO BE MIN 20"W X 24" H.

2ND FLR & ADU DOOR SCHEDULE

MARK	DIMENSION	TYPE	#	NOTES
1	3'-0" x 7'-0"	SWINGING	1	1-3/8" SOLID CORE
2	2'-6" x 6'-8"	SWINGING	10	HOLLOW CORE
3	3'-0" x 6'-8"	BI-FOLD	1	LAUNDRY ROOM
4	3'-0" x 6'-8"	SLIDING	3	CLOSET
5	7'-0" x1 6'-0"	ROLL UP	0 NOT USED	GARAGE DOOR
6	2'-0" x 6'-8"	SWINGING	1	HOLLOW CORE
7	2'-8" x 6'-8"	SWINGING	1	HOLLOW CORE

EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)
A. EXTERIOR SURFACE OR CLADDING OF NON-COMBUSTIBLE OR IGNITION-RESISTANT MATERIAL
B. SOLID CORE WOOD COMPLYING WITH THE FOLLOWING:
- STILES AND RAILS MINIMUM 1-3/8 INCHES THICK
- RAISED PANELS MINIMUM 1-1/4 INCHES THICK
EXCEPTION: EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK
C. MINIMUM 20-MIN FIRE RATED WHEN TESTED PER NFPA 252
D. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

REGISTERED PROFESSIONAL ENGINEER DANIEL T. BRANDT No.2665 GEOTECHNICAL STATE OF CALIFORNIA
PROFESSIONAL GEOLOGIST MARTIN E. FAY No.2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

IN TOTAL,
4.5 BATHS, 8 BEDROOMS

PAR 5, LOT 8

SHEET TITLE: FIRST & THIRD FLOOR PLAN

DATE: 08/16/2023 03/25/2024

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

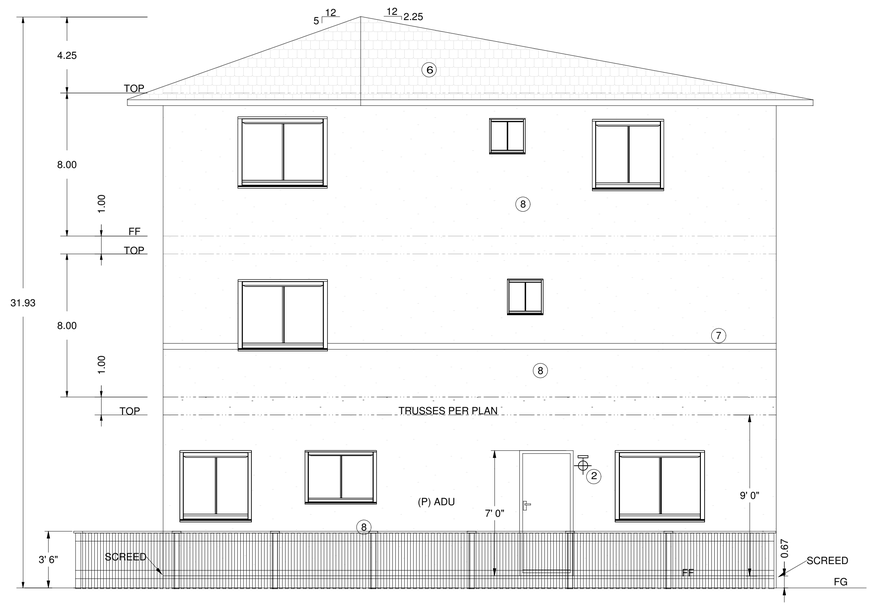
REVISIONS: 07/25/2024 change water htrs
MAY 15, 2025 ADD WD DECK & STAIRS

OWNER INFORMATION:
THE JESSICA AND KRISTINA BRANDT LIVING TRUST
3512 EL PASO ALTO
VISTA, CA. 92084

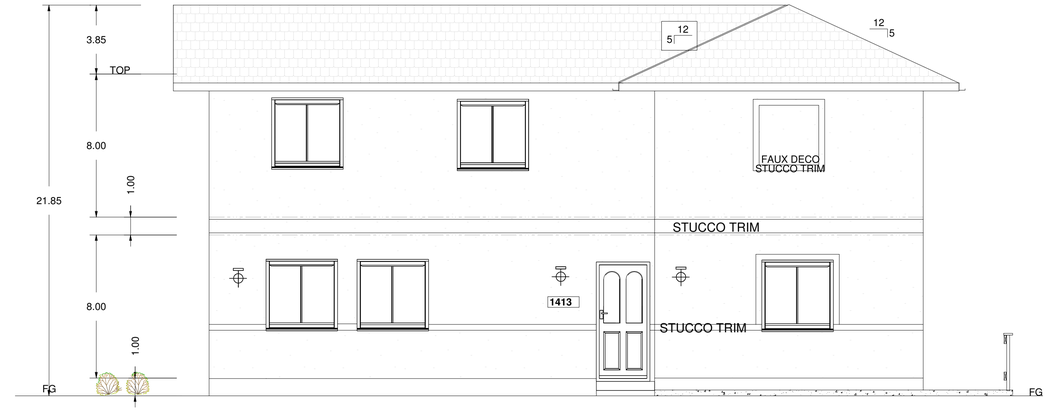
SHEET: A-2-1

MAY 15, 2025 LOT 8 1413 SHOSHONE ST NEW RESIDENCE ADU JADU

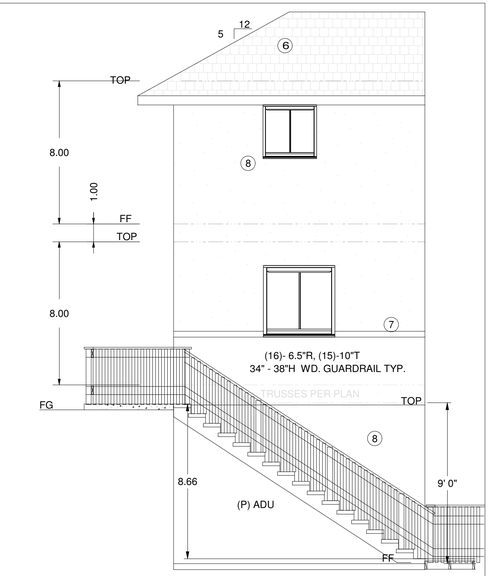
City of Oceanside Building Division
Reviewed for code compliance with the Oceanside Building Standards Codes and applicable Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:26 PM



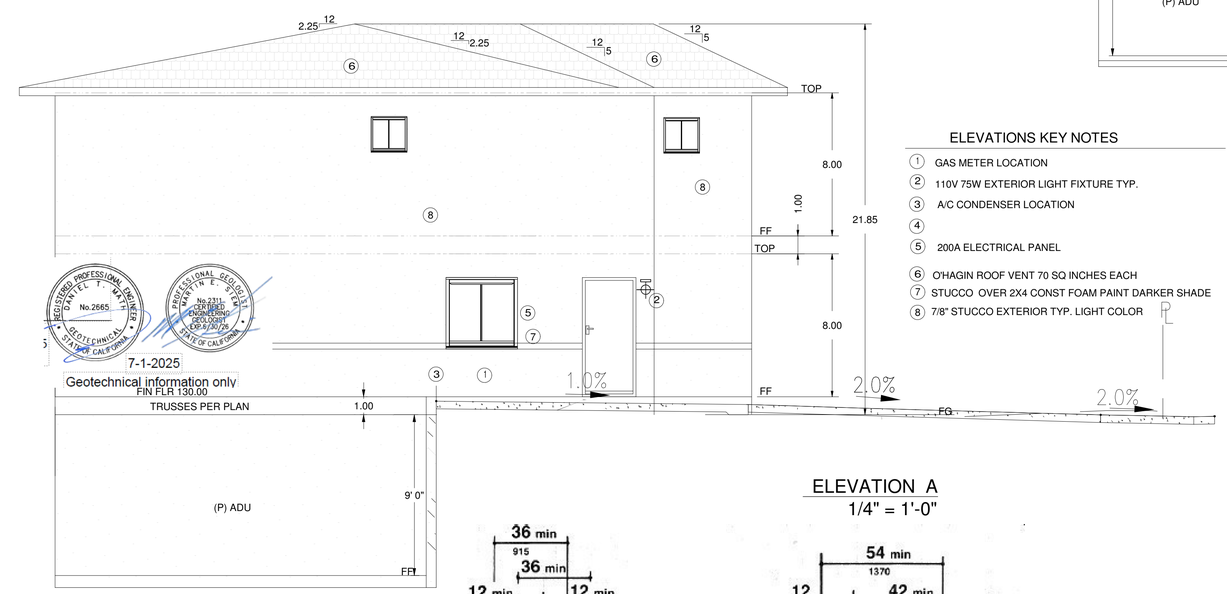
ELEVATION D
1/4" = 1'-0"

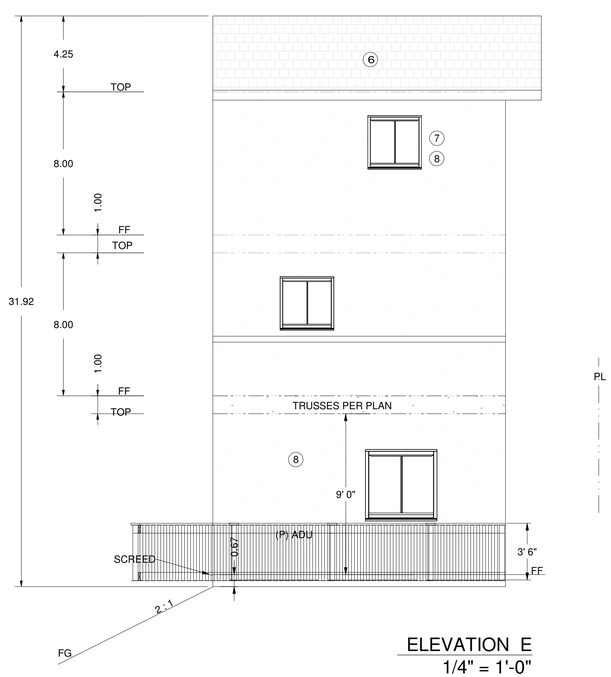


ELEVATION B
1/4" = 1'-0"



ELEVATION C
1/4" = 1'-0"



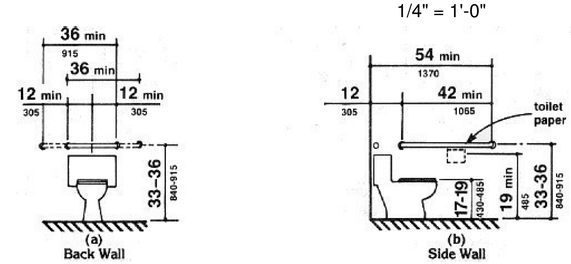


ELEVATION E
1/4" = 1'-0"

ELEVATIONS KEY NOTES

1. GAS METER LOCATION
2. 110V 75W EXTERIOR LIGHT FIXTURE TYP.
3. A/C CONDENSER LOCATION
4.
5. 200A ELECTRICAL PANEL
6. O'HAGIN ROOF VENT 70 SQ INCHES EACH
7. STUCCO OVER 2X4 CONST FOAM PAINT DARKER SHADE
8. 7/8" STUCCO EXTERIOR TYP. LIGHT COLOR

REGISTERED PROFESSIONAL ENGINEER DANIEL T. MARTIN No.2665 GEOTECHNICAL STATE OF CALIFORNIA
PROFESSIONAL GEOLOGIST MARTIN E. STEIN No. 2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only



REGISTERED PROFESSIONAL ENGINEER DANIEL T. MARTIN No.2665 GEOTECHNICAL STATE OF CALIFORNIA
PROFESSIONAL GEOLOGIST MARTIN E. STEIN No. 2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

R327.1 Aging-in-Place Design and Fall Prevention
Newly constructed dwellings subject to the requirements of this code shall be designed and constructed in accordance with Sections R327.1.1 through R327.1.4.
Exceptions:
Covered multifamily dwellings designed and constructed in accordance with Chapter 11A of the California Building Code.
Public housing and places of public accommodation required to comply with Chapter 11B of the California Building Code.

R327.1.1 Reinforcement for Grab Bars
At least one bathroom on the entry level shall be provided with reinforcement installed in accordance with this section. Where there is no bathroom on the entry level, at least one bathroom on the second or third floor of the dwelling shall comply with this section.
Reinforcement shall be solid lumber or other construction materials approved by the enforcing agency.
Reinforcement shall not0 be less than 2 by 8 inch (51 mm by 203 mm) nominal lumber. [11/2 inch by 71/4 inch (38 mm by 184 mm) actual dimension] or other construction material providing equal height and load capacity. Reinforcement shall be located between 32 inches (812.8 mm) and 391/4 inches (997 mm) above the finished floor flush with the wall framing.

Water closet reinforcement shall be installed on both side walls of the fixture, or one side wall and the back wall.
Shower reinforcement shall be continuous where wall framing is provided.
Bathtub and combination bathtub/shower reinforcement shall be continuous on each end of the bathtub and the back wall. Additionally, back wall reinforcement for a lower grab bar shall be provided with the bottom edge located no more than 6 inches (152.4 mm) above the bathtub rim.
Exceptions:
Where the water closet is not placed adjacent to a side wall capable of accommodating a grab bar, the bathroom shall have provisions for installation of floor-mounted, foldaway or similar alternate grab bar reinforcements approved by the enforcing agency.
Reinforcement shall not be required in wall framing for pre-fabricated shower enclosures and bathtub wall panels with integral factory- installed grab bars or when factory-installed reinforcement for grab bars is provided.
Shower enclosures that do not permit installation of reinforcement and/or grab bars shall be permitted, provided reinforcement for installation of floor-mounted grab bars or an alternate method is approved by the enforcing agency.
Bathtubs with no surrounding walls, or where wall panels do not permit the installation of reinforcement shall be permitted, provided reinforcement for installation of floor-mounted grab bars adjacent to the bathtub or an alternate method is approved by the enforcing agency.
Reinforcement of floors shall not be required for bathtubs and water closets installed on concrete slab floors.

R327.1.1.1 Documentation for Grab Bar Reinforcement
Information and/or drawings identifying the location of grab bar reinforcement shall be placed in the operation and maintenance manual in accordance with the California Green Building Standards Code, Chapter 4, Division 4.4.

R327.1.2 Electrical Receptacle Outlet, Switch and Control Heights
Electrical receptacle outlets, switches and controls (including controls for heating, ventilation and air conditioning) intended to be used by occupants shall be located no more than 48 inches (1219.2 mm) measured from the top of the outlet box and not less than 15 inches (381 mm) measured from the bottom of the outlet box above the finish floor.
Exceptions:
Dedicated receptacle outlets; floor receptacle outlets; controls mounted on ceiling fans and ceiling lights; and controls located on appliances.
Receptacle outlets required by the California Electrical Code on a wall space where the distance between the finished floor and a built-in feature above the finish floor, such as a window, is less than 15 inches (381 mm).

R327.1.3 Interior Doors
Effective July 1, 2024, at least one bathroom and one bedroom on the entry level shall provide a doorway with a net clear opening of not less than 32 inches (812.8 mm), measured with the door positioned at an angle of 90 degrees from the closed position; or, in the case of a two- or three-story single family dwelling, on the second or third floor of the dwelling if a bathroom or bedroom is not located on the entry level.

R327.1.4 Doorbell Buttons
Doorbell buttons or controls, when installed, shall not exceed 48 inches (1219.2 mm) above exterior floor or landing, measured from the top of the doorbell button assembly. Where doorbell buttons integrated with other features are required to be installed above 48 inches (1219.2 mm) measured from the exterior floor or landing, a standard doorbell buttoh or control shall also be provided at a height not exceeding 48 inches (1219.2 mm) above exterior floor or landing, measured from the top of the doorbell button or control.

SEE SHT A-5 FOR DOWNSPOUT DETAILS

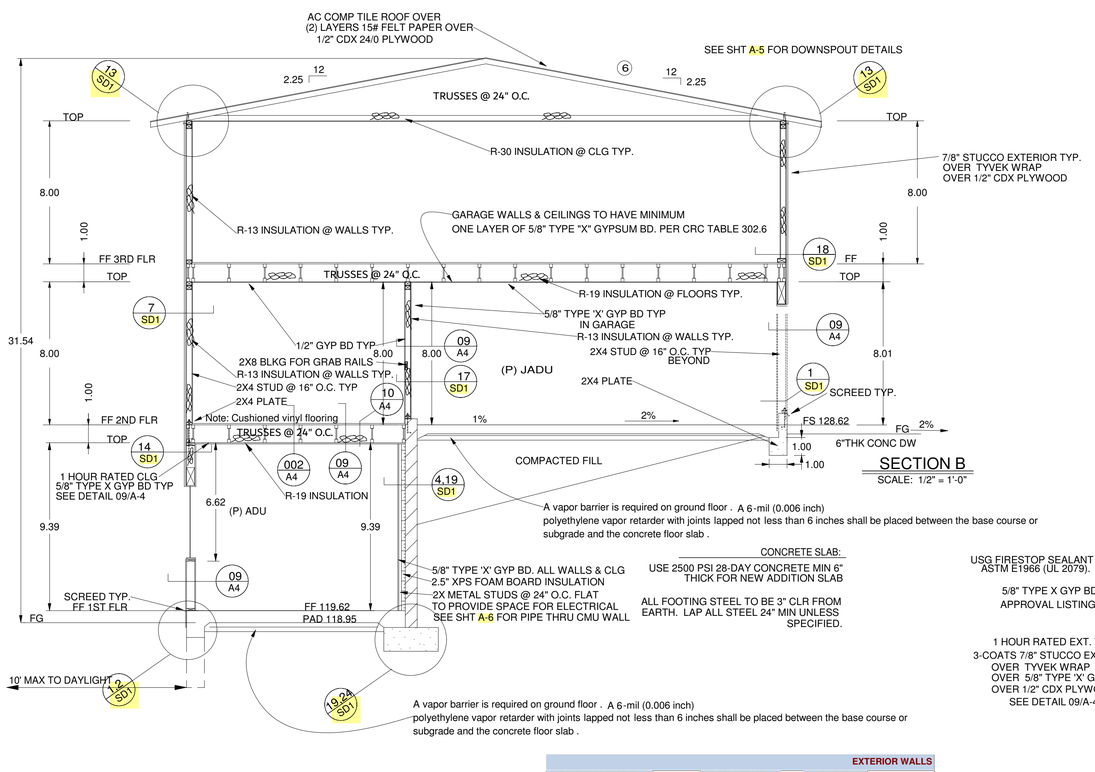
City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:26 PM

LOT 8 1413 SHOSHONE ST ADU JADU

MAY 15, 2025

MONTI DRAFTING & DESIGN

SHEET TITLE: ELEVATIONS	442-333-8173 DRAW4U2@GMAIL.COM
DATE: 10/03/2023	
REVISIONS: ADD WD DECK & STAIRS MAY 15, 2025	
ESCALA : SCALE: 1/4" = 1'-0"	
OWNER INFORMATION: THE JESSICA AND KRISTINA BRANDT LIVING TRUST 3512 EL PASO ALTO VISTA, CA. 92084	SHEET: A-3



SECTION B
SCALE: 1/2" = 1'-0"

CONCRETE SLAB:
USE 2500 PSI 28-DAY CONCRETE MIN 6" THICK FOR NEW ADDITION SLAB

ALL FOOTING STEEL TO BE 3" CLR FROM EARTH. LAP ALL STEEL 24" MIN UNLESS SPECIFIED.

ABBREVIATIONS

PL = PROPERTY LINE
CL = CENTER LINE
FG = FINISH GRADE
WL = WATERLINE
DA = DOOR ALARM REQ'D
PA = PLANTED AREA
TOS = TOP OF SLOPE
BOS = BOTTOM OF SLOPE
(E) = EXISTING
(P) = PROPOSED
(N) = NEW
FYSB = FRONT YARD SET BACK
SYSB = SIDE YARD SET BACK
RYSB = REAR YARD SET BACK
W.I. = WROUGHT IRON
C.L. = CHAIN LINK FENCE
FF = FINISH FLOOR ELEVATION
TOP = TOP OF PLATE
TOF = TOP OF FOOTING
BOF = BOTTOM OF FOOTING
TOW = TOP OF WALL
BOW = BOTTOM OF WALL
TBR = TO BE REMOVED
RBB = RAISED BOND BEAM
EP = EDGE OF PAVING
FS = FINISH SURFACE
TOC = TOP OF CURB FTG

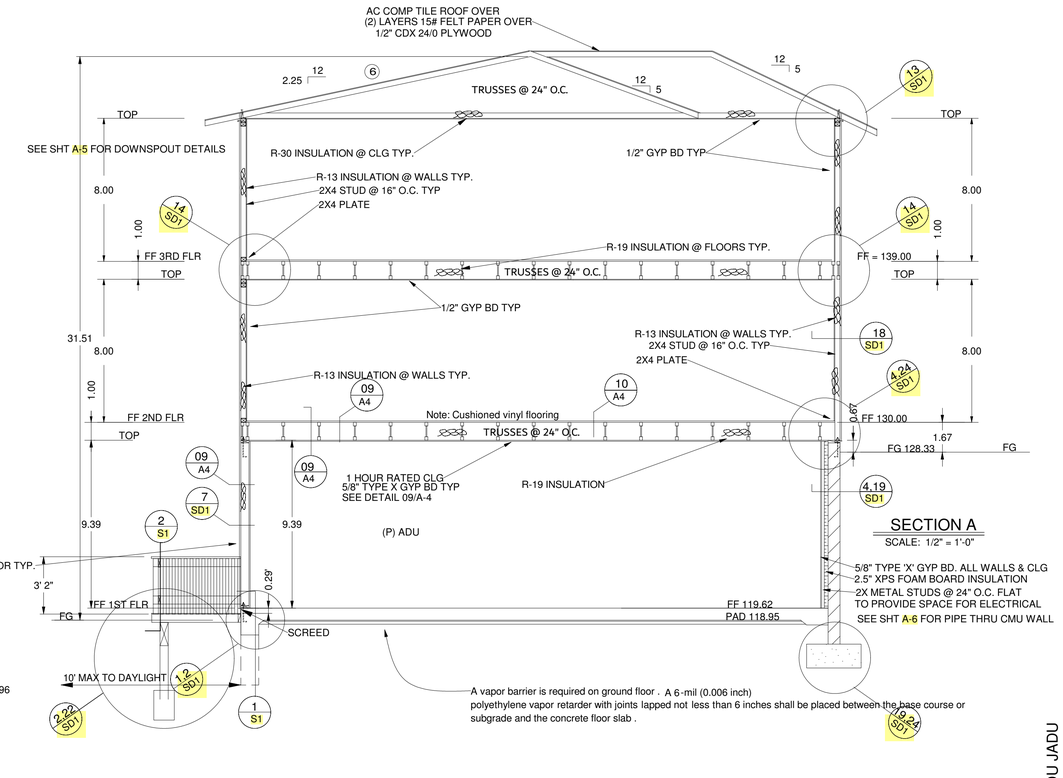
see sht a-6 for 1 hr rated fixture cover.
see sht a-6 for 1 hr firecode compound.
see sht a-6 for 1 hr pipe thru wall detail.
see aht a-6 for tankless ags water heater.
see sht a-6 for 1 hr outlet thru wall detail.

USG FIRESTOP SEALANT @ FRAMING ASSEMBLIES TYP
ASTM E1966 (UL 2079).

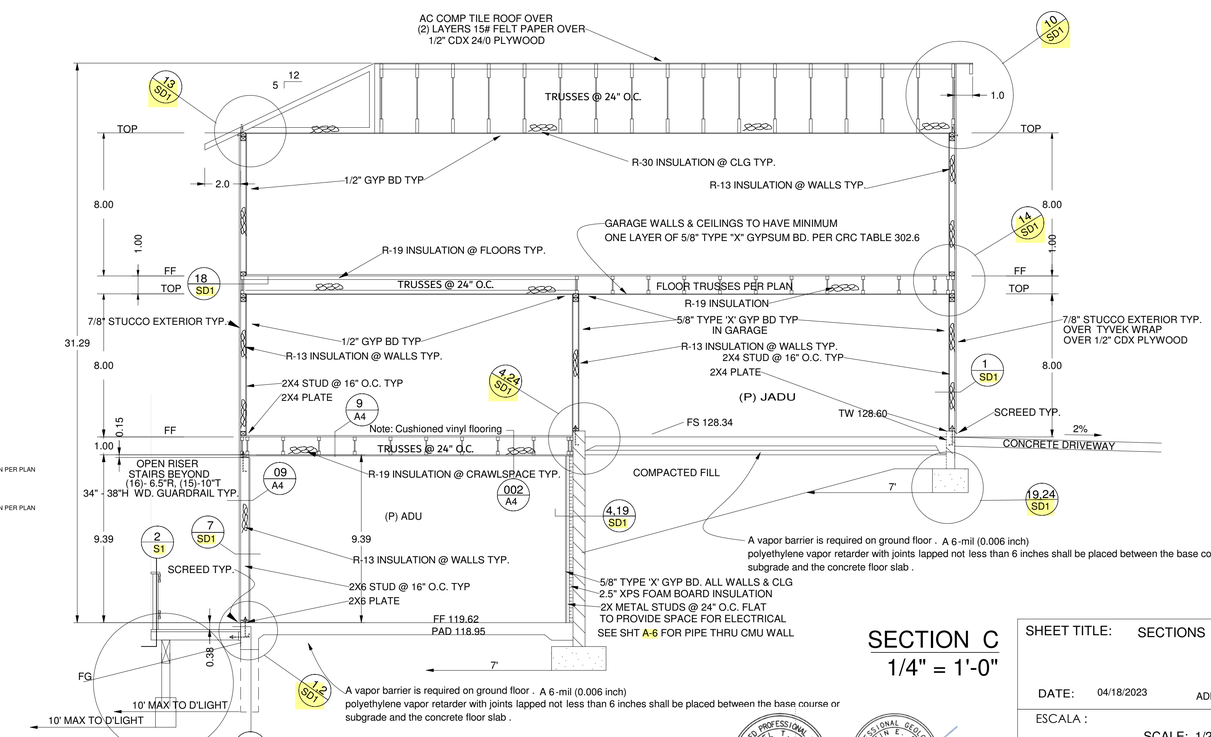
5/8" TYPE X GYP BD TYP
APPROVAL LISTING NUMBER C 1396

1 HOUR RATED EXT. WALLS
3-COATS 7/8" STUCCO EXTERIOR TYP.
OVER TYVEK WRAP
OVER 5/8" TYPE 'X' GYP BD
OVER 1/2" CDX PLYWOOD
SEE DETAIL 09/A-4 & 001/A4

SEE DETAIL 09/A-4
1 HOUR RATED WALL/FLR
5/8" TYPE X GYP BD TYP
APPROVAL LISTING NUMBER C 1396



SECTION A
SCALE: 1/2" = 1'-0"



SECTION C
1/4" = 1'-0"

EXTERIOR WALLS		
GA FILE NO. WP 8130	PROPRIETARY †	1 HOUR FIRE

GYPSUM WALLBOARD, GLASS MAT GYPSUM SUBSTRATE, WOOD STUDS

EXTERIOR SIDE: One layer ⅝" proprietary type X glass mat gypsum substrate (sheathing) applied parallel or at right angles to 2 x 4 wood studs 16" o.c. with galvanized roofing nails, 1¾" long, 0.128" shank, ⅞6" head, 7" o.c. Exterior surface covered with weather exposed cladding or finish system.

INTERIOR SIDE: One layer ⅝" proprietary type X glass mat gypsum substrate, glass mat water-resistant gypsum backing board, gypsum wallboard, water-resistant gypsum backing board, or gypsum veneer base applied parallel or at right angles to studs with 6d coated nails, 1⅞" long, 0.0915" shank, ¼" heads, 7" o.c.

Joints staggered on opposite sides. **(LOAD-BEARING)**

PROPRIETARY GYPSUM BOARD

G-P Gypsum — ⅝" Dens-Glass Gold Fireguard®
Lafarge North America Inc. — ⅝" Firecheck®

Thickness: 4⅝"
Approx. Weight: 7½ psf
Fire Test: WHI-495-0702, 8-7-85; WHI-495-0703, 8-8-85; UL R2717, 89NK3419, 8-29-89; UL Designs U337 & U305

GA FILE NO. WP 8131	PROPRIETARY †	1 HOUR FIRE

GYPSUM WALLBOARD, WOOD STUDS, MINERAL FIBER INSULATION, WOOD STRUCTURAL PANELS, CEMENTITIOUS BACKER UNITS

EXTERIOR SIDE: **Base** layer ⅝⅝" wood structural panels applied parallel to 2 x 4 wood studs 16" o.c. with 10d galvanized nails 6" o.c. at edges and at top and bottom plates and 12" o.c. at intermediate studs. Weather resistive barrier applied over panels. **Face** layer ½" proprietary cementitious backer units applied parallel or at right angles to studs with 1¼" long corrosion resistant screws 8" o.c.

INTERIOR SIDE: One layer ⅝" proprietary type X gypsum wallboard applied parallel or at right angles to studs with either 6d cement coated nails, 1⅞" long 7" o.c. or 1⅞" long Type S or Type W drywall screws 8" o.c. 3" mineral fiber insulation, 3.0 pcf, friction fit in stud space. **(LOAD-BEARING)**

PROPRIETARY GYPSUM BOARD

United States Gypsum Company — ⅝" SHEETROCK® Brand Gypsum Panels, FIRECODE® Core

Thickness: 5⅝"
Limiting Height: Refer to Section IV
Approx. Weight: 14 psf
Fire Test: UL R1319, 97NK14997, 4-25-97, UL Design U303

GA-600-2003 † Contact the manufacturer for more detailed information on proprietary products. 89

FLOOR-CEILING SYSTEMS, WOOD-FRAMED			
GA FILE NO. FC 5406	GENERIC	1 HOUR FIRE	35 to 39 STC SOUND

WOOD JOISTS, GYPSUM WALLBOARD

Base layer ⅝" type X gypsum wallboard applied at right angles to 2 x 10 wood joists 24" o.c. with 1¼" Type W or S drywall screws 24" o.c. **Face** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles to joists with 1⅞" Type W or S drywall screws 12" o.c. at joints and intermediate joists and 1⅛" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood joists supporting ½" plywood with exterior glue applied at right angles to joists with 8d nails. **Ceiling provides one hour fire resistance protection for framing, including trusses.**

Approx. Ceiling Weight: 5 psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98
Sound Test: Estimated

GA FILE NO. FC 5407	GENERIC	1 HOUR FIRE	35 to 39 STC SOUND

WOOD I-JOISTS, GYPSUM WALLBOARD

Base layer ⅝" type X gypsum wallboard applied at right angles to wood I-joists 24" o.c. with 1¼" Type W or S drywall screws 24" o.c. **Face** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles to I-joists with 1⅞" Type W or S drywall screws 12" o.c. at joints and intermediate I-joists and 1⅛" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood I-joists supporting ½" wood structural panels applied at right angles to joists with 8d nails.

Approx. Ceiling Weight: 5 psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98
Sound Test: Estimated

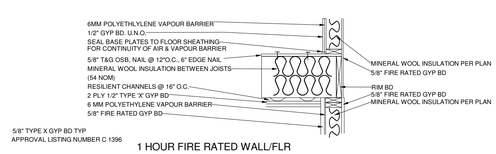
GA FILE NO. FC 5408	GENERIC	1 HOUR FIRE	35 to 39 STC SOUND

WOOD TRUSSES, GYPSUM WALLBOARD

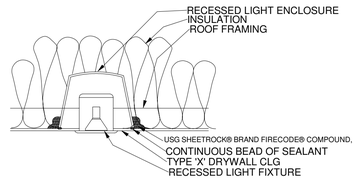
Base layer ⅝" type X gypsum wallboard applied at right angles to parallel chord wood trusses 24" o.c. with 1¼" Type W or S drywall screws 24" o.c. **Face** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles to trusses with 1⅞" Type W or S drywall screws 12" o.c. at joints and intermediate trusses and 1⅛" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Trusses supporting ½" wood structural panels applied at right angles to trusses with 8d nails.

Approx. Ceiling Weight: 5 psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98
Sound Test: Estimated

GA-600-2003 113



1 HOUR FIRE RATED WALL/FLR



09

LIGHT FIXTURE & CLG FAN DETAIL 10

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:27 PM

REGISTERED PROFESSIONAL ENGINEER STEVEN T. MATH No.2665 GEOTECHNICAL STATE OF CALIFORNIA
PROFESSIONAL GEOLOGIST MATTHEW E. No. 2371 CERTIFIED ENGINEERING GEOLOGIST EXP. 6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

LOT 8 1413 SHOSHONE ST NEW RESIDENCE ADU JADU

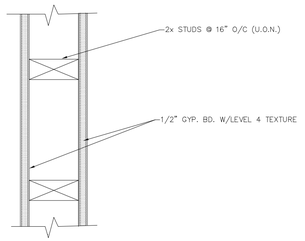
05/15/2025

MONTI DRAFTING & DESIGN
442-333-8173
DRAW4U2@GMAIL.COM

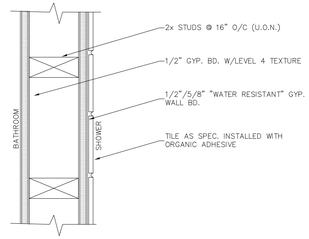
SHEET TITLE: SECTIONS
REV 07/19/2024
DATE: 04/18/2023
ADD WD DECK & STAIRS REV 05/15/2025
ESCALA :
SCALE: 1/2" = 1'-0"

OWNER INFORMATION:
THE JESSICA AND KRISTINA BRANDT LIVING TRUST
3512 EL PASO ALTO
VISTA, CA. 92084

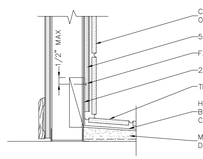
SHEET: A-4



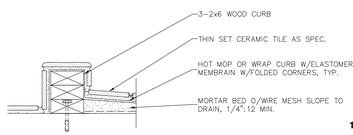
2 TYPICAL INTERIOR WALL



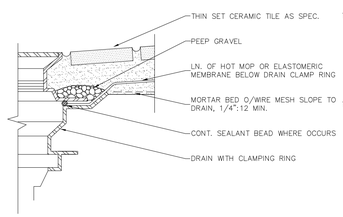
2 TYPICAL SHOWER WALL



3 TYPICAL SHOWER PAN DETAIL



4 TYPICAL SHOWER CURB DETAIL



5 TYPICAL SHOWER DRAIN DETAIL

GENERAL NOTES

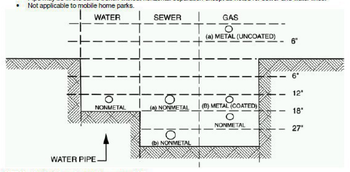
1. PROVIDE AN EMERGENCY ESCAPE AND RESCUE OPENING THAT COMPLIES WITH ALL OF THE FOLLOWING; MIN. NET CLEAR OPENING OF 5.7 SQ. FT. (5 SQ. FT. MIN. AT GRADE FLR. OPENINGS, MIN. 20 INCH NET CLEAR OPENING WIDTH, MIN. 24 INCH NET CLEAR OPENING HEIGHT, BOTTOM OF THE CLEAR OPENING NOT GREATER THEN 44 INCHES MEASURED FROM THE FLOOR.
2. PROVIDE R-13 BATT INSULATION IN ALL NEW EXTERIOR WALLS. PROVIDE R-30 BATT INSULATION IN THE NEW ATTIC. PAPER BACKED INSULATION IS NOT PERMITTED IN ATTIC SPACES.
3. PROVIDE MINIMUM CLEARANCE OF 15 INCHES FROM THE CENTER LINE ON BOTH SIDES AND 24 INCHES IN FRONT OF THE WATER CLOSET.
4. PENETRATIONS OF FIRE-RESISTIVE WALLS, FLOOR-CEILING AND ROOF-CEILINGS SHALL BE PROTECTED AS REQUIRED IN CRC SECTION R302.4.
5. SHOWER COMPARTMENTS AND BATHTUBS WITH INSTALLED SHOWER HEADS SHALL BE FINISHED WITH A NONABSORBENT SURFACE THAT EXTENDS TO THE HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.

FINISH NOTES

1. ALL CERAMIC TILE UNLESS SPECIFIED ON THE ROOM FINISH SCHEDULE SHALL BE SPECIFIED BY OWNER.
2. CERAMIC TILE INSTALLATON SHALL CONFORM TO THE LATEST EDITION OF THE "HANDBOOK FOR CERAMIC TILE INSTALLATION" BY THE "TILE COUNCIL OF AMERICA."
3. BATHROOM WALL TILE SHALL BE INSTALLED OVER AN APPROVED "WATER RESISTANT" GYPSUM WALLBOARD WITH ORGANIC ADHESIVES IN ACCORDANCE WITH METHOD B413-87 OR ON CEMENT MORTAR IN ACCORANCE WITH NETHOD B111-87.
4. SHOWER RECEPTORS/WALLS SHALL BE INSTALLED WITH ORGANIC ADHESIVES OVER "WATER-RESISTANT" GYPSUM WALL BOARD IN ACCORDANCE WITH METHOD B416-87.
5. TILE TUBS SHALL BE INSTALLED IN ACCORDANCE WITH METHOD B14-87.
6. TILE COUNTERTOPS SHALL BE INSTALLED IN ACCORDANCE WITH METHOD C611-87.
7. GYPSUM WALL BOARD SHALL CONFORM TO THE LATEST EDITION OF THE BUIILDING CODE CHAPTER 25 AND "AMERICAN STANDARD SPECIFICATIONS FOR THE APPLICATION AND FINISHING OF GYPSUM WALLBOARD."
8. REGULAR 1/2" OR 5/8" THICK GYPSUM WALLBOARD EQUAL TO U.S.G. TAPED EDGE SHEETROCK WHERE TYPE "X" OR 11/R WALLBOARD IS NOT REQUIRED.
9. TYPE "X" 1/2" OR 5/8" GYPSUM WALLBOARD EQUAL TO U.S.G. TAPED EDGE FIRECODE "C" PANELS WHERE TYPE "X" WALLBOARD IS REQUIRED. REGULAR AND TYPE "X" SINGLE LAYER WALLBOARD SHALL BE INSTALLED HORIZONTALLY STAGGERING END JOINTS. NAIL WITH 5d COOLER NAILS (1/2" WALLBOARD USE 6d COOLER NAILS AND AT 5/8" WALLBOARD AT 6" ON CENTER FOR CEILINGS AND 7" ON CENTER FOR WALLS. MULTI-LAYERED APPLICATIONS AS SPECIFIED AND APPLICABLE IN THE UNIFORM BUILDING CODE.
10. WATER RESISTANT 1/2" OR 5/8" TH ICK GYPSUM WALLBOARD EQUAL TO U.S.G. TAPED EDGE SHEETROCK REGULAR PANELS OR FIRECODE "C" (TYPE "X") PANELS AS REQUIRED.
    a) FOR BATHROOMS AND TOILET ROOMS, NON- ABSORBANT FINISH AND BACKING FOR WALLS AND FLOOR TO CONFORM WITH THE BUILDING CODE SECTION 2512.
    b) APPLY SINGLE LAYER OF WALLBOARD HORIZONTALLY WITH FACTORY EDGE PAPER, ABUTTING TOP EDGE OF SPACER, STAGGERING END JOINTS. NAILING PER REGULAR AND TYPE "X" WALLBOARD.
    c) ALL EDGES, HOLES AND JOINTS SHALL BE TREATED WITH SHEETROCK BRAND OF WATER RESISTANT SEALANT PRIOR TO INSTALLATION.
    d) FLOAT ALL CEILING END JOINTS, EXCEPT AT PERIMETER.
11. GYPSUM WALLBOARD ACCESSORIES;
    a) METAL TRIM EQUAL TO U.S.G. NO. 402 WHERE ABUTS WITH OTHER MATERIAL OR TERMINATES.
    b) CORNER BEADS EQUAL TO U.S.G. N0. 103 BURABEAD AT ALL EXTERNAL CORNERS.
    c) JOINT TAPE, BEDDING, FINISHING CEMENT, ADHESIVES AND LAMINATION COMPOUND TO BE AS RECOMMENDED BY SHEETROCK MANUFACTURER AND COMPLIANCE WITH U.L. INC. FOR FIRE RESISTIVE RATINGS.
    d) ACCESS PANELS WHERE INDICATED OR REQUIRED TO BE EQUAL TO MILCOR "STYLE DW 22" x 30" UNLESS OTHERWISE NOTED.
12. GYPLAP SHEATHING SHALL BE EQUAL TO 1/2" THICK U.S.G. GYPSUM SHEATING (TRADEMARK GYPLAP) ENCASED WITH WATER-REPELLENT PAPER ON BOTH FACES AND LONG SIDES, IN COMPLIANCE WITH BUILDING CODE.
13. FINISH COAT: APPLY TEXTURE FINISH COAT USING SPRAY EQUIPMENT CAPABLE OF PRODUCING A FINE ORANGE PEEL TEXTURE FINISH AS APPROVED FROM SAMPLES FURNISHED TO THE OWNER.
14. LATH AND PLASTER;
    a) LATH AND PLATER SHALL CONFORM TO LATEST EDITION OF THE "CALIFORNIA LATHING AND PLASTERING CONTRACTORS ASSOCIATION REFERENCE SPECIFICATIONS."
    b) EXTERIOR CEMENT PLASTER (STUCCO) SHALL COMPLY WITH THE CALIFORNIA BUILDING CODE.
15. PORTLAND CEMENT PLASTER:
    a) PORTLAND CEMENT SHALL BE MIXED IN PROPORTION AS REQUIRED IN APPLICABLE CODE FOR MACHINE APPLICATION WITH INTEGRALLY COLORED STUCCO FINISH AS SELECTED BY OWNER.
    b) VERTICAL SURFACES SELF- FURRING GALVANIZED METAL LATH LAMINATED KRAFT-BACKED DIAMOND MESH "B."
    c) HORIZONTAL SURFACES-PAPER- BACKED 3/8" FURRED GALVANIZED METAL WEB LATH.
    d) MASONRY OR CONCRETE SURFACES SHALL BE CLEANED WITH 10% MURIATE ACID TO WATER SOLUTION, WITH CLEAR WATER AND RECEIVE PLASTER BONDING AGENT TO "WEL- CRETE." APPLY BASE COAT OF PLASTER OVER BONDING AGENT, TWO MACHINE APPLIED COATS WITH FINISH STUCCO COAT AS SELECTED BY OWNER. 1/2" TOTAL THICKNESS.
16. PORTLAND CEMENT PLASTER ACCESSORIES:
    a) CASTING BEADS, EQUAL TO MILCOR OR U.S.G. NO. 66, TO BE INSTALLED AT ALL LOCATIONS WHERE PLASTER STOPS AGAINST MASONRY, CONCRETE, WOOD OR METAL SURFACES AND AS OTHERWISE SPECIFIED.
    b) EXP ANSION JOINTS EQUAL TO MAILCOR OR U.S.G. NO. 40. ONE CONTINUOUS PIECE AS SPECIFIED.
    c) REMOVABLE GROUNDS OR SCREEDS AS REQUIRED TO MAINTAIN EXACT PLASTER THICKNESSES AND PLANE SURFACES.

BURIAL DEPTHS FOR YARD PIPING*

These burial depths apply outside of buildings within private property subject to the following provisions:
- Not applicable to San Diego Gas and Electric Company's gas and utility lines.
- Pipe may be in the same trench without horizontal separation except as noted for sewer and water lines.
- Not applicable to mobile home parks.



METAL – No burial requirement (recommend 12" to protect from mechanical damage and freezing). For copper pipe joints use only nonleaded bearing solders (solders approved for potable water).
NONMETAL – 12" minimum (plastic). Also see sewer Pipe depths, nonmetal (b).

SEWER PIPE

METAL – No burial requirement (recommend 12" to protect from mechanical damage and freezing).
NONMETAL – (a) Pipe approved inside building, 12" minimum.
(b) For pipe not approved inside building, sewer to be 12' below water pipe with water pipe to one side on a solid shelf—total depth to the top of sewer + or – 27".

GAS PIPE

METAL – (a) 6" above ground (black or galvanized iron), securely supported.
(b) 12" below ground (factory coated or machine wrapped).
NONMETAL – (PE plastic) 18" minimum.

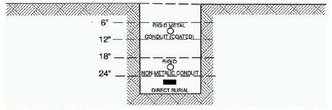
ALL MEDIUM PRESSURE GAS LINES REQUIRE A MINIMUM OF 18" COVER.

NOTE: Approved plastic to metal transition fittings required (all plastic pipe to be a minimum of 18" below ground). Also 18 GA. yellow insulated copper tracer wire required.

*See reverse side of sheet for electrical lines.

BURIAL DEPTHS FOR ELECTRICAL LINES ON PRIVATE PROPERTY*

ELECTRIC LINE BURIAL DEPTHS
Rigid metal conduit (coated) – 6" minimum
Rigid non-metallic conduit – 18" minimum
Direct burial cable – 24" minimum

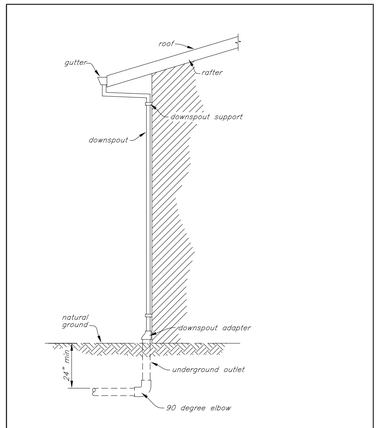


National Electric Code Table 300-5 applies. Important exceptions to the above electric line burial depths include:

- A 6" reduction of the above depths is allowed when a minimum of 2" of concrete cover is placed above rigid non-metallic conduit and direct burial cable. No reduction is permitted for rigid metal conduit.
- A reduction to 12" deep for any wiring method for a 120 volt 20 ampere or less rated residential circuit that is GFCI protected.

The above burial depths are *not* applicable for the following uses:

- Mobile home parks.
- San Diego Gas & Electric service lines.
- Exterior slabs or directly underneath building slabs that are at least 3½ thick (conduit may be installed directly underneath slab).
- Locations where solid rock is encountered. Check with Inspection Department for possible solutions.
- Vehicular areas.

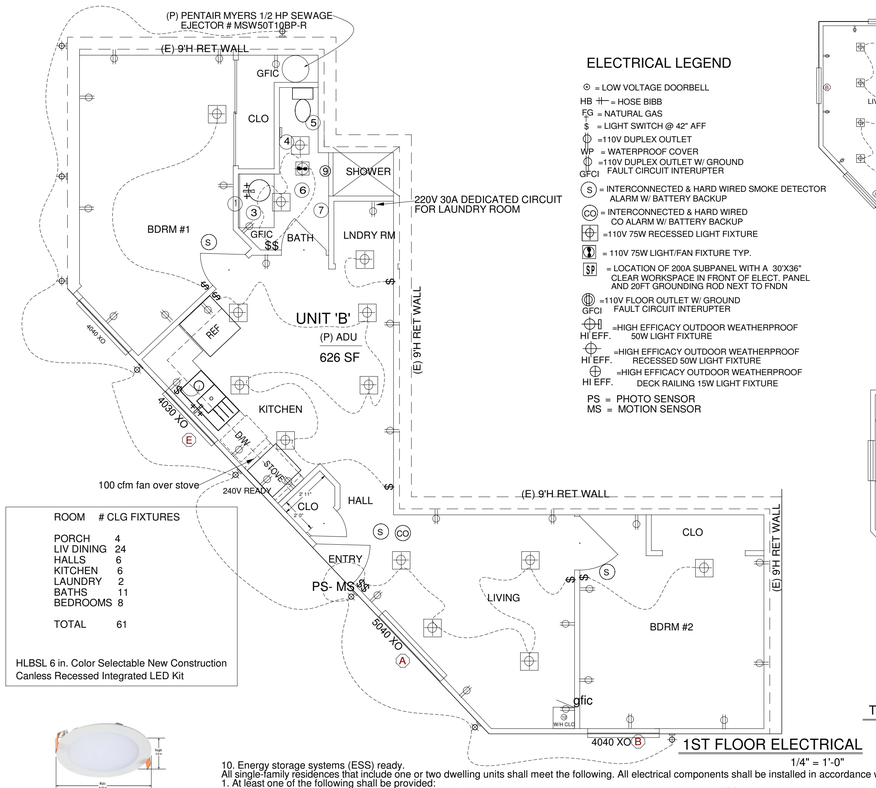


DOWNSPOUT DETAIL

NOT TO SCALE

Designed	Date	CAD FILE NAME or_downspout.dwg	DOWNSPOUT
Drawn DR-NRCS	11/2006	DRAWING NO.	
Checked		SHEET 1 OF 10	LIVESTOCK FACILITIES
Approved		NRCS U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE	

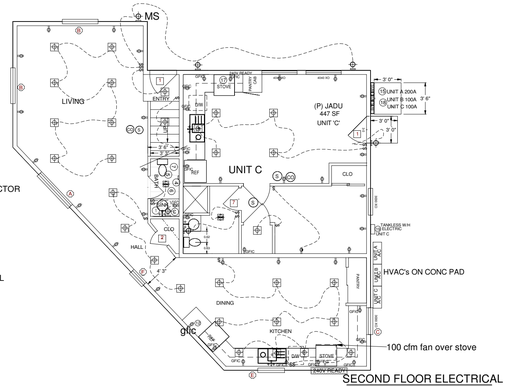
All smoke and carbon monoxide alarms must be interconnected and must receive there main power from the building with battery backup.
Type 1 or Type 2 surge protective device (SPD) for dwelling unit services.



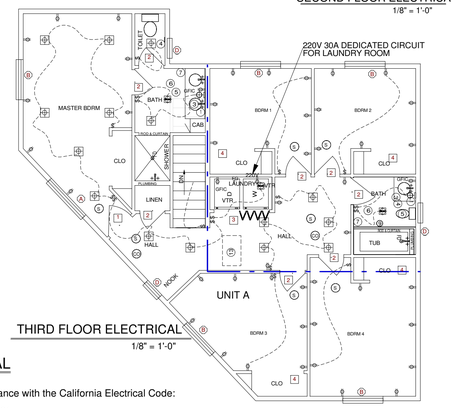
1ST FLOOR ELECTRICAL
1/4" = 1'-0"

ELECTRICAL LEGEND

- = LOW VOLTAGE DOORBELL
- HB = HOSE BIBB
- FG = NATURAL GAS
- $ = LIGHT SWITCH @ 42" AFF
- =110V DUPLEX OUTLET
- WP = WATERPROOF COVER
- GFCI =110V DUPLEX OUTLET W/ GROUND FAULT CIRCUIT INTERUPTER
- S = INTERCONNECTED & HARD WIRED SMOKE DETECTOR ALARM W/ BATTERY BACKUP
- CO = INTERCONNECTED & HARD WIRED CO ALARM W/ BATTERY BACKUP
- =110V 75W RECESSED LIGHT FIXTURE
- = 110V 75W LIGHT/FAN FIXTURE TYP.
- $P = LOCATION OF 200A SUBPANEL WITH A 30"X36" CLEAR WORKSPACE IN FRONT OF ELECT. PANEL AND 20FT GROUNDING ROD NEXT TO FNDN
- GFCI =110V FLOOR OUTLET W/ GROUND FAULT CIRCUIT INTERUPTER
- HI EFF. =HIGH EFFICACY OUTDOOR WEATHERPROOF 50W LIGHT FIXTURE
- HI EFF. =HIGH EFFICACY OUTDOOR WEATHERPROOF RECESSED 50W LIGHT FIXTURE
- HI EFF. =HIGH EFFICACY OUTDOOR WEATHERPROOF DECK RAILING 15W LIGHT FIXTURE
- PS = PHOTO SENSOR
- MS = MOTION SENSOR



SECOND FLOOR ELECTRICAL
1/8" = 1'-0"



THIRD FLOOR ELECTRICAL
1/8" = 1'-0"

ROOM	# CLG FIXTURES
PORCH	4
LIV DINING	24
HALLS	6
KITCHEN	6
LAUNDRY	2
BATHS	11
BEDROOMS	8
TOTAL	61

HLBSL 6 in. Color Selectable New Construction Canless Recessed Integrated LED Kit

12W OUTDOOR LIGHT FIXTURE

ABBREVIATIONS

PL = PROPERTY LINE
CL = CENTER LINE
FG = FINISH GRADE
WL = WATERLINE
DA = DOOR ALARM REQ'D
PA = PLANTED AREA
TOS = TOP OF SLOPE
BOS = BOTTOM OF SLOPE
(E) = EXISTING
(P) = PROPOSED
(N) = NEW
FYSB = FRONT YARD SET BACK
SYSB = SIDE YARD SET BACK
RYSB = REAR YARD SET BACK
W.I. = WROUGHT IRON
C.L. = CHAIN LINK FENCE
FF = FINISH FLOOR ELEVATION
TOP = TOP OF PLATE
TOF = TOP OF FOOTING
BOF = BOTTOM OF FOOTING
TOW = TOP OF WALL
BOW = BOTTOM OF WALL
TBR = TO BE REMOVED
RBB = RAISED BOND BEAM
EP = EDGE OF PAVING
FS = FINISH SURFACE

KEY NOTES

1. MIRROR, TYP
2. 110V 75W LIGHT/FAN FIXTURE TYP.
3. SINK WHITE W/ CABINET LIGHT OAK FINISH
4. TOILET PAPER ROLL HOLDER CHROME FINISH
5. KOHLER BRAND ELONGATED TOILET LOW VOLUME FLUSH WHITE, H.C. HEIGHT
6. SLIP RESISTANT CERAMIC TILE FLOOR - WHITE
7. 6" X 6" C.T. W/ WOOD BASE
8. HEAT PUMP LOCATION 220V SEE SHT A-7 FOR SPECS Mitsubishi Electric AC msy-gl18na, 18k BTU, 20.5 SEER, above door
9. ROD & CURTAIN @ SHOWER
10. O'HAGIN ROOF VENT 70 SQ INCHES EACH
11. STUCCO PER BLDG CODE
12. Rheem XE50T10H45U0 TANK ELECTRIC WATER HEATERS
13. MIN 22" X 36" ATTIC ACCESS
14. A/C CONDENSER LOCATION
15. (1) 200A ELECTRICAL PANEL
16. MIN 42" GRAB BAR
17. MIN 36" GRAB BAR
18. (2) 100A ELECTRICAL PANELS

Rheem TANKLESS TEEX 7 ELECTRIC WATER HEATER

Color of Approved Plans Subject to Review by Planning Division
Approved for Compliance with Oceanside Municipal Code, California Building Code, and Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:27 PM

10. Energy storage systems (ESS) ready.
All single-family residences that include one or two dwelling units shall meet the following. All electrical components shall be installed in accordance with the California Electrical Code:
1. At least one of the following shall be provided:
A. ESS ready interconnection equipment with a minimum backed-up capacity of 60 amps and a minimum of four ESS-supplied branch circuits, or
B. A dedicated raceway from the main service to a panelboard (subpanel) that supplies the branch circuits in Section 150.0(s)(2). All branch circuits are permitted to be supplied by the main service panel prior to the installation of an E SS
The trade size of the raceway shall be not less than 1 inch. The panelboard that supplies the branch circuits (subpanel) must be labeled "Subpanel shall include all backed-up load circuits."
2. A minimum of four branch circuits shall be identified and have their source of supply collocated at a single panelboard suitable to be supplied by the ESS. At least one circuit shall supply the refrigerator, one lighting circuit shall be located near the primary egress and at least one circuit shall supply a sleeping room receptacle outlet.
3. The main panelboard shall have a minimum busbar rating of 225 amps.
4. Sufficient space shall be reserved to allow future installation of a system isolation equipment/transfer switch within 3 feet of the main panelboard. Raceways shall be installed between the panelboard and the system isolation equipment /transfer switch location to allow the connection of backup power source.

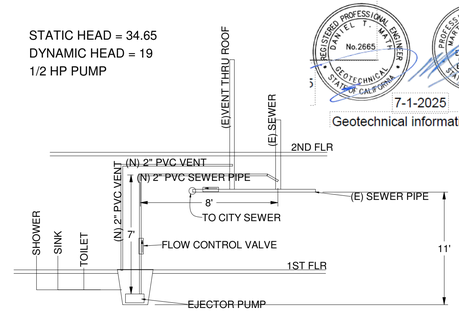
2022 California Energy Code § 150.0(s)

11. Heat pump space heater ready.
Systems using gas or propane furnace to serve individual dwelling units shall include the following:
1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the furnace and accessible to the furnace with no obstructions. The branch circuit conductors shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future heat pump space heater installation. The reserved space shall be permanently marked as "For Future 240V use."
2022 California Energy Code § 150.0(t)

14. Electric clothes dryer ready.
Clothes dryer locations with gas or propane plumbing to serve individual dwelling units shall include the following:
1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the clothes dryer location and accessible to the clothes dryer location with no obstructions. The branch circuit conductors shall be rated at 30 amps mini mum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric clothes dryer installation. The reserved space shall be permanently marked as "For Future 240V use."
2022 California Energy Code § 150.0(v)

15. Electric Cooktop ready.
Systems using gas or propane cooktop to serve individual dwelling units shall include the following:
1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the cooktop and accessible to the cooktop with no obstructions. The branch circuit conductors shall be rated at 50 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric cooktop installation. The reserved space shall be permanently marked as "For Future 240V use."
2022 California Energy Code § 150.0(u)

STATIC HEAD = 34.65
DYNAMIC HEAD = 19
1/2 HP PUMP



1ST FLR EJECTOR PUMP DIAGRAM

REGISTERED PROFESSIONAL ENGINEER DANIEL T. MUIR No.2665 GEOTECHNICAL STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST MARTIN E. ROSS No.2311 REGISTERED GEOTECHNICAL ENGINEER No.2665 EXP.6/30/26 STATE OF CALIFORNIA

7-1-2025
Geotechnical information only

- Indoor Air Quality [whole house] ventilation [IAQ] is mandatory for New bldgs.
-- balanced IAQ fan / no Energy Recovery : 113cfm (~ +7.8)

MONTI DRAFTING & DESIGN
442-333-8173
DRAW4U2@GMAIL.COM

SHEET TITLE: ELECTRICAL PLAN

DATE: 03/25/2024

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

REVISIONS: 04/24/2024 07/29/2024
05/15/2025 ADD WD DECK & STAIRS

OWNER INFORMATION:
THE JESSICA AND KRISTINA BRANDT LIVING TRUST
3512 EL PASO ALTO
VISTA, CA. 92084

SHEET: A-5

LOT 8 1413 SHOSHONE ST NEW RESIDENCE ADU JADU
05/15/2025 ADD WD DECK & STAIRS

TENMAT FIRE PROTECTION SOLUTIONS

FF109-300 1 Hour Fire Rated Light Cover

UL Classified for recessed can lights up to 6"

*Cable passing through pre-cut ventilation hole

The FF109-300 UL Fire Rated cover is a dome-shaped cover which has been designed to help maintain the integrity of fire rated ceilings for one hour when using recessed light fixtures. The unique design gives the architect, specifier and installer **more freedom in fixture selection** as the covers are suited to a wide range of recessed lights.

Key Benefits

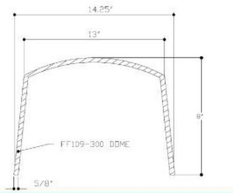
- ⇒ 60 minute protection
- ⇒ **Fits most popular IC rated fixtures**
- ⇒ For use with recessed incandescent, fluorescent or LED light fixtures
- ⇒ Can be used in L500 floor/ceiling assemblies
- ⇒ Lightweight (approx. 1.5 lbs)
- ⇒ **Easy installation** - can be fitted in seconds - no screws, drilling or additional sealant required
- ⇒ Flexible material enables the cover to be fitted around obstacles or retro-fitted
- ⇒ Enhances the acoustic protection of the ceiling
- ⇒ Maintenance free
- ⇒ **UL Classified**

Approvals

UL Classified to maintain the fire rating (1 hour) for the following fire-rated floor/ceiling assemblies:

L500 series

Dimensions



CLASSIFIED c UL us

USG SHEETROCK® BRAND FIRECODE® COMPOUND

High-performance, economical firestop material e\U+FB00ectively stops spread of fire and smoke at through-penetrations

- Effective in numerous UL systems for through-penetrations and head-of-wall applications
- Enhances smoke and fire protection in curtain wall safing applications of Thermafiber® Life-Safety Fire Containment System
- Fast and easy to mix and apply
- Distinctive red color makes inspection and installation confirmation easy
- GREENGUARD Gold certified and qualifies as a low VOC emitting material (CDPH Standard Method V1.1, also known as CA Section 01350)

DESCRIPTION

Cost E\U+FB00ective: USG Sheetrock® Brand Firecode® Compound is more economical than competitive products, especially for large-scale jobs with lots of different penetrations. Intumescent materials can cost as much as 600% higher.

Less Waste. Caulking tube products are frequently discarded with some compound left, leaving costly waste. With USG Sheetrock® Brand Firecode Compound, you mix only what's needed for the application at hand (mix powder-type with water).

Surface Burning Characteristics. Flame spread 0, smoke developed 0, when tested in accordance with UL ASTM E84.

Nontoxic. There are no silicones, solvents, halogens, PCBs, asbestos or inorganic fibers of any kind. Rated nontoxic in accordance with the sixth draft of the University of Pittsburgh test method and the LC50 calculated using the Weil method.

Tough, Durable Firestop. USG Sheetrock® Brand Firecode Compound forms a very tough, very durable firestop once it has hardened. It has withstood the thermal and mechanical shock of high-pressure hose stream testing.

Easily Repaired. USG Sheetrock® Brand Firecode Compound is autobonding, meaning that fresh compound will bond to cured compound. This is a big plus when making repairs due to construction damage or changes to penetrating items. Repair procedure has been evaluated by UL and tested to assure that the through-penetration firestop requirements of ASTM E814/ UL 1479 are maintained.

Fast Setting. Once mixed, USG Sheetrock® Brand Firecode Compound hardens in 2 to 3 hours. And it bonds to concrete, metals, wood and cable jacketing, without the use of primers.

Paintable. Applied USG Sheetrock® Brand Firecode Compound may be sanded smooth and painted with either latex or oil-based paints.

UL SYSTEMS

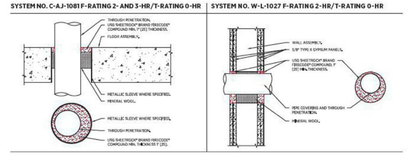
JOINT SYSTEMS: HW-D-0001, HW-D-002, HW-D-009, HW-D-0060, HW-D-0061, HW-D-0119, HW-D-0120, HW-D 1011, HW-S-0001, HW-S-0089

PENETRATION FIRESTOPPING SYSTEMS: **Through Wall:** W-L-1027, W-L-1039, W-L-1063, W-L-1065, W-L-1087, W-L-3023, W-L-3034, W-L-5044, W-L-7001, W-L-7002

Through Slab: C-AJ-0032, C-AJ-1081, CA-J-3045

CURTAIN WALL SYSTEM: CW-S-1001, CW-S-2001, CW-S-2002

SYSTEM NO. C-AJ-1081 F-RATING 2- AND 3-HR/T-RATING 0-HR | **SYSTEM NO. W-L-1027 F-RATING 2-HR/T-RATING 0-HR**



1. Should not be applied to moist areas or areas continuously immersed in water.
2. Setting action cannot be delayed or prevented by dilution with water.
3. The USG Fire Stop System in floor/ceiling applications is not designed to support loads from pedestrian or vehicular traffic.
4. Should not be used for sustained extreme high temperature applications. Temperatures of penetrants should not exceed those typically found with domestic hot water systems (approximately 140°F).
5. Maintain 55°F (13°C) minimum temperature within the building during and after installation.
6. Excessive water dilution causes cracking, poor bond and other problems.

APPLICATION

Substrate should be free from dirt, dust, grease, oil, efflorescence, loose material and other matter.

COVERAGE

Water Proportions and Approximate Coverage Rates*

Dry powder (lb.)	≈Approx. water additions (pt.)	≈Wet mixed compound (lb.)	≈Approx. applied firestop (cu. in.)
1	0.5	1.5	33.6
5	2.5	7.7	172.5
7.5	3.8	11.5	257.6
10	5.0	15.4	344.9
15	7.5	23.1	517.4

* Based on approximately 7.5 pt. water per 15 lb. bag for wall penetrations. For floor penetrations, approximately 8.3 pt. Water per 15 lb. bag is recommended and yields approximately 537 cu. in. of applied fire stop.

MIXING: Use clean water and mixing equipment. For power mixing, use 1/2" heavy-duty drill operating at 200 to 300 rpm (400 rpm max). Mix powder thoroughly into water until completely wet. The initial mix should be slightly thicker or heavier than the desired working consistency. Mix until smooth. Let the initial mix soak for approx. one minute. Remix approximately one minute, adding water to achieve the desired working consistency.

TROWEL APPLICATION: Using a trowel, putty knife or spatula, scoop the compound from its container and work it into the penetration opening. Apply compound to minimum 1/2" or 1" thickness (per system specifications) on top of safing insulation. Ensure that compound is in contact with all surfaces and that entire opening is filled with safing (if required for system applications) and compound.

SPRAY APPLICATION—MIXING: Mix 8.5 to 9.0 pints water per 15 lb. of USG Sheetrock® Brand Firecode Compound. Mix powder thoroughly into water until powder is completely wet. Mix until smooth. Let initial mix soak approximately one minute. Remix approximately one minute, adding water necessary to achieve desired working consistency.

Do not retemper the powder. Hardening cannot be prevented or delayed by dilution with water. Do not intermix previously mixed or sprayed material into freshly mixed material. Intermixing will accelerate the chemical setting of USG Sheetrock® Brand Firecode Compound, causing short working time, resulting in substandard bond and unsatisfactory surface matrix harness. Do not intermix with other types of compound. Store bags in a dry place. If moisture damage occurs, do not use any set lumps in material.

APPLICATION CONT.

SPRAY APPLICATION—SPRAY EQUIPMENT: Rotor/stator or peristaltic pump may be used. Use minimum length material hose with minimal line splices to reduce clogging. Product will be tank stable for one hour of spraying time. Prime pump and hose with water prior to spray application. Clean equipment thoroughly between and after applications. Use plaster system scouring sponges to prevent buildup inside hoses.

Rotor/stator: Use Robbins-Myers 2L4 pump or similar equipment as minimum pump size, with pole gun with 1/4" to 3/8" round orifice. Use 3/4" to 1" i.d. material hose, 3/8" atomizing hose and 1/2" air line from the compressor to the pump.

Peristaltic pump: Use pump with minimum 1" i.d. internal pumping and material hose. Use pole gun with 1/4" to 3/8" round orifice. Use minimum 1" i.d. material hose, 3/8" atomizing hose and 1/2" air line from the compressor to the pump.

SPRAYING: Spray application rate of USG Sheetrock® Brand Firecode is approximately 2 gal. (462 cu. in.) per min. Typical spray patterns are between 1'-2' using 20-30 psi air pressure. The spray gun should be held as close as possible to the penetration being filled to reduce overspray and waste, typically 1'-2'. Avoid excessive air pressure. Material may be applied up to a 1" finished thickness in a single coat; however, best results are achieved by building up to the finished thickness in 1/2" coats. USG Sheetrock® Brand Firecode Compound will stiffen approximately 15 min. after spray application, allowing for quick recoating or hand tooling. Set time of the sprayed material will be approximately 30% less than for the unpumped material.

Do not recycle material that has been pumped (such as wipedown or initial flushes of material). The pumping process accelerates set. If recycled material is mixed with fresh product, the material will set faster than normal and will set up in the equipment. The practice of recycling sprayed material will result in bond failure and unsatisfactory surface matrix hardness. Do not let material sit in the hose for longer than 20 min. If longer breaks are needed, flush out the hose with water and then restart.

PRODUCT INFORMATION
See usg.com for the most up-to-date product information.

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

TRADEMARKS
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NOTE
Products described here may not be available in all geographic markets. Consult your USG Company sales office or representative for information. The information in this document is subject to change without notice. USG Corporation assumes no responsibility for any errors that may inadvertently appear in this document.

NOTICE
USG warrants that its joint treatment products are free from defects in material and workmanship at the time of manufacture. USG shall not be liable if any loss or damage was caused by improper storage of the products, or if the products were not used and applied according to USG's current printed directions and specifications including, with respect to using joint compound for a skim coat, USG literature *Finishing and Decorating Gypsum Panels* (J201G). USG's liability for defective goods is expressly limited to replacement or, at USG's election, to repayment of the purchase price. USG shall not be liable for incidental, consequential or special damages. For further details see USG's standard limited warranty at usg.com. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

SAFETY FIRST!
Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read Safety Data Sheets and related literature on products before specification and/or installation.

PRODUCT DATA

Material: Vinyl-type, nonasbestos formulation
Color: Red
Density: 74.8 lb./cu. ft. (1198.2 kg/m³)
Shrinkage: Less than 5%
Surface Burning Characteristics: Flame spread 0, smoke developed 0
Storage: Up to 9 months under good storage conditions. Close bags tightly and store in a dry place. Protect from freezing.
Application Method: Trowel or spray application
Working Time: Approximately 75 min.
Setting Time: 2-3 hours
Freezing Sensitivity: None after set
Packaging: 15 lb. (6.7 kg) bag

SUBMITTAL APPROVALS

Job Name	
Contractor	Date

800 USG.4YOU
800 (874-4968)
usg.com

Manufactured by
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

J1521-USA-ENG/rev. 11-16
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IT'S Y UR W RLD. BUILD IT.

MONTI DRAFTING & DESIGN
442-333-8173
DRAW4U2@GMAIL.COM

LOT 8 1413 SHOSHONE ST ADU JADU

05/15/2025 ADD WD DECK & STAIRS

'The new degree of comfort'

Rheem® PERFORMANCE® RETEX Tankless Electric Water Heaters

Provide Endless Hot Water in a Durable, Space-Saving Design

RETEX - 8, RETEX - 11, RETEX - 13 are designed for one or two applications and are installed at the point-of-use. The durable, compact design allows installation in tight spaces. Perfect for a low flow faucet or bathroom faucet. In warmer climates, these models can accommodate a shower. To select a unit that meets electrical and hot water gallons per minute (GPM) requirements, please use the sizing guide.

PERFORMANCE FEATURES

- **Saves Space** – up to 93% smaller than a standard electric water heater
- **Saves Energy** – zero standby heat loss when installed near the point-of-use
- **More Hot Water** – up to 4 times the hot water delivery of a standard electric tank (per hour)
- **High Efficiency** – UEF up to .96 and advanced self-modulating technology only consumes the power needed to satisfy hot water demand
- Copper immersion heating elements improve the thermal performance providing better temperature control and faster recovery of hot water
- Stainless steel heat exchanger transfers heat fast and resists corrosion
- Durable powder-coated shell with an engineered polymer backplate
- Brass ½ compression fittings (CF) located on the side for the inlet and outlet water connections provide strength and durability
- Designed to be mounted in an upright position with the inlet and outlet water connections on the side of the unit
- Venting is not required to operate, simplifying the installation process compared to a gas tankless water heater
- Digital thermostatic temperature controls in 1-degree increments ranging from 80°F - 140°F (26°C - 60°C)

WARRANTY

- Limited Warranty – 5 Years - Leaks, 1 Year - Parts
  See Use and Care Manual for complete information.

These products meet a Greenguard Gold company's internally defined sustainability standards.

Tested and certified by the Water Quality Association against NSF/ANSI 372 for lead free compliance.

POINT-OF-USE

Rheem The new degree of comfort™

PERFORMANCE PLATINUM™ Hybrid Electric Heat Pump Specifications

Fuel Type	Desc.	Nominal Gallon Cap.	Rated Gallon Cap.	Model Number	Electric Breaker Size	Uniform Energy Factor (UEF)	Element Wattage	Compressor Btu/H	First Hr. Rating (Gallons)	Recovery In G.P.H., 90° F Rise	Tank Height A	Diam. B	Ht. to Cold Inlet & Drain Valve	Ht. to Hot Outlet & TAP	Unit Wt. (LBS.)	Approx. Ship Wt. (LBS.)
30 AMPS																
Electric	Tall	40	36	XE40T10H45U0	30	3.83	4,500	4200	60	27	63"	20-1/4"	3-5/8"	39-5/8"	157	174
Electric	Tall	50	45	XE50T10H45U0	30	3.88	4,500	4200	67	27	62"	22-1/4"	3-5/8"	39-5/8"	178	218
Electric	Tall	65	59	XE65T10H45U0	30	4.05	4,500	4200	75	27	65"	24-1/4"	3-7/8"	42-3/8"	225	262
Electric	Tall	80	72	XE80T10H45U0	30	4.07	4,500	4200	87	27	75"	24-1/4"	3-7/8"	42-3/8"	244	281

M-SERIES SUBMITTAL DATA: MSY-GL18NA-U1 & MUY-GL18NA-U1

18,000 BTU/H WALL-MOUNTED AIR-CONDITIONING SYSTEM

MITSUBISHI ELECTRIC

Indoor Unit			
Blower Motor (ECM)	F.L.A.	0.67	
Blower Motor Output	W	30	
SHF / Moisture Removal		0.87 / 2.1 pt./h	
Field Drainpipe Size O.D.	In.(mm)	5/8 (15)	
Outdoor Unit			
Compressor		DC INVERTER-driven Twin Rotary	
Fan Motor (ECM)	F.L.A.	0.93	
Airflow Rate (Quiet - Lo - Med - Hi - Super Hi)			
Indoor (Cooling)	DRY	CFM	259-333-416-523-646
	WET		233-300-375-470-581
Outdoor			1.691 / 1.691
Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)			
Indoor	Cooling	dB(A)	28-33-38-44-49
Outdoor	Cooling		54
External Dimensions			
Indoor (H x W x D)	In.(mm)		12 x 36-5/16 x 9-13/16 (305 x 923 x 250)
Outdoor (H x W x D)			34-5/8 x 33-1/16 x 13 (880 x 840 x 330)
Net Weight			
Indoor	Lbs.(kg)		28 (13)
Outdoor			121 (55)
External Finish			
Indoor			Munsell 1.0Y 9.2 / 0.2
Outdoor			Munsell No. 3Y 7.8 / 1.1
Refrigerant			R410A; 3 lb. 7 oz.
Refrigerant Piping (Flared)			
Liquid (High Pressure)	In.(mm)		1/4 (6.35)
Gas (Low Pressure)			1/2 (12.7)
Max. Total Refrigerant Pipe Length (Height Diff.)	Ft. (m)		50 (15)
Max. Total Refrigerant Pipe Length (Length.)			100 (30)

MITSUBISHI ELECTRIC
COOLING & HEATING

AHRI CERTIFIED | AHRI CERTIFIED | Intertek

SPECIFICATIONS:

Rated Conditions (Capacity / Input)		
Cooling[1]	Btuh / W	18,000 / 1,340

Capacity Range	Minimum	Maximum
Cooling[1]	Btuh	5,800	22,000

[1] Cooling | Indoor: 80° F/27° C(DB) / 67° F/19° C(WB); Outdoor: 95° F/35° C(DB) / 75° F/24° C(WB) Rating Conditions per AHRI Standard.

Operating Conditions (Indoor Intake Air Temp.) (Max./ Min.)	
Cooling	90° F (32° C) DB / 67° F (19° C) DB

Operating Conditions (Outdoor Intake Air Temp.) (Max./ Min.)	
Cooling[1]	115° F (46° C) DB / 14° F (-10° C) DB

[1] System cuts out at -4° F (-27° C) to avoid thermistor error and automatically restarts at -4° F (-20° C). Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

AHRI Efficiency Ratings		
SEER	20.5	
Energy Star®	Yes	

ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

Electrical Power Requirements	208 / 230V, 1-Phase, 60 Hz

Minimum Circuit Ampacity (MCA)		
Indoor / Outdoor	A	1 / 14

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:27 PM

(P) PENTAIR MYERS 1/2 HP SEWAGE EJECTOR # MSW50T10BP-R

Capacity	9000 gallon per hour	Connection Type	FIP
For Use With	Sewage pump applications	Inlet Connection Size	4-3/4 inch
Manufacturer Warranty	2 year	Material	Cast Iron
Overall Height	31 inch	Overall Length	22 inch
Overall Width	22 inch	Product Type	Sewage and Sump Basins
Special Features	Pre-plumbed for easy installation	Weight	60 pounds
Shipping Dimensions	31.00 H x 22.00 W x 22.00 D	Shipping Weight	60.0 lbs
Return Policy	Regular Return (view Return Policy)		

*Flush box not included.

Flush Box Intumescent Pads are designed to be installed into metal flush boxes installed in hollow fire rated walls.

SUITABLE FOR FITTING TO:

> Plasterboard walls

FEATURES:

> Totally unaffected by water
> Low profile pad with minimal impact on space
> Easy to install

INSTALLATION INSTRUCTIONS:

1. Fix flush box to framing and to relevant detail (opposite).
2. Firmly insert FBINT with adhesive against back of flush box.
3. Finish installation of wiring and fix face plate.

ICC-ES Evaluation Report — ESR-1475

Reissued October 2019
Revised February 2020
This report is subject to renewal October 2021.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 31 13—Asphalt Shingles

REPORT HOLDER:

GAF

EVALUATION SUBJECT:

GAF SHINGLE ROOF COVERING SYSTEMS

1.0 EVALUATION SCOPE

Compliance with the following codes:

2018, 2015, 2012, 2009 and 2006 *International Building Code®* (IBC)

2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)

Properties evaluated:

Weather resistance
Fire classification
Wind resistance

2.0 USES

The GAF asphalt shingles described in this report comply with IBC Section 1507.2 and IRC Section R905.2 and are Class A roof coverings when installed as described in this report.

3.0 DESCRIPTION

3.1 Shingles:

3.1.1 General: The GAF asphalt shingles comply with ASTM D3462, and have been qualified for wind resistance as noted in Section 4.1.2 and Table 1. The shingles are available as three–tab, five–tab and laminated asphalt shingle roof coverings. See Table 1 and Figure 1 for recognized product names and classifications, shingle types, manufacturing locations, overall dimensions, maximum exposure to the weather and fastening details. The shingles are self-sealing by means of adhesive strips located on either the weather side or the underside. See Figure 1 for dimensions, nailing locations and adhesive strip location for field shingles.

3.1.2 Three-tab Shingles and Five-tab Shingles: Three-tab and five-tab shingles are composed of a single layer of fiberglass mat, impregnated and coated with asphalt on both sides, and surfaced with mineral roofing granules on the weather side and a mineral release agent on the underside.

3.1.3 Laminated Shingles: Laminated shingles are composed of multiple thicknesses of coated and surfaced fiberglass mat, cut and bonded together in different patterns. The weather side is surfaced with mineral roofing granules, and the underside is surfaced with a mineral release agent.

3.1.4 Hip and Ridge Cap Shingles: Hip and ridge cap shingles consist of fiberglass mat, impregnated and coated with asphalt on both sides and surfaced with mineral roofing granules on the weather side and a mineral release agent on the back side for use in covering hips and ridges. See Table 2 for product sizes, exposure to the weather and manufacturing locations. See also Figure 2.

3.1.4.1 Royal Sovereign® Ridge Cap Shingles: These ridge cap shingles are field-cut from Royal Sovereign® three-tab strip shingles. The field-cut ridge cap shingles are compatible with any of the GAF shingles recognized in this report.

3.1.4.2 Z®Ridge Ridge Cap Shingles: These shingles are strips that are scored for separation into four ridge cap shingles. See Figure 2.

3.1.4.3 Seal-A-Ridge® Ridge Cap Shingles, Seal-A-Ridge® Protective Ridge Cap Shingles, Seal-A-Ridge® AS SBS-Modified IR Ridge Cap Shingles, and Seal-A-Ridge® ArmorShield® SBS-Modified IR Ridge Cap Shingles: These shingles are strips that are scored for separation into three ridge cap shingles. Seal-A-Ridge® Ridge Cap Shingles are also labeled as Seal-A-Ridge® Protective Ridge Cap Shingles. Seal-A-Ridge® ArmorShield® Ridge Cap Shingles are also labeled as Seal-A-Ridge® AS SBS-Modified IR Ridge Cap Shingles.

3.1.4.4 Ridglass® Premium Ridge Cap Shingles: These shingles are individual, thick, ultra-high profile ridge cap shingles available in two widths. See Figure 2.

3.1.4.5 Timbertex® Premium Ridge Cap Shingles: These shingles are double layer strips that are scored for separation into three ridge cap shingles.

3.1.4.6 TimberCrest™ Premium SBS-Modified Ridge Cap Shingles: These shingles are individual, thick, ultra-high profile ridge cap shingles with a bullnose leading edge available in two widths. See Figure 2.

3.1.5 Starter Shingles:

3.1.5.1 General: Starter Strip shingles are factory-made shingles used under the first course of shingles being

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PERFORMANCE Tankless Electric Specifications and Minimum Requirements

DESCRIPTION	FEATURES							DIMENSIONS (SHOWN IN INCHES)						
MODEL NUMBER	POWER (kW)	VOLTAGE	TOTAL UNIT AMPERAGE (AMPS)	RECOMM'D BREAKER SIZE	HOUSEHOLD ELECTRICAL SERVICE PANEL RECOMM'D	PHASE	UNIFORM ENERGY FACTOR (UEF)	REQUIRED MINIMUM (TV°C REGULATIONS)	HEIGHT	WIDTH	DEPTH	WATER CONN.	ELEMENT	SHIP WEIGHT (LBS.)
RETEX - 8	8	240	33	1 x 40 A Double Pole	100 AMPS	1	0.96	6.4MW	11.4	7.8	3.7	1/2" CF	1	6.5
RETEX - 11	11	240	46	1 x 50 A Double Pole	100 AMPS	1	0.96	6.4MW	11.4	7.8	3.7	1/2" CF	1	6.5
RETEX - 13	13	240	54	1 x 60 A Double Pole	100 AMPS	1	0.96	6.4MW	11.4	7.8	3.7	1/2" CF	1	6.5

Stainless Steel	Min: 25 PSI Max: 150 PSI	0.3 GPM
Stainless Steel	Min: 25 PSI Max: 150 PSI	0.3 GPM
Stainless Steel	Min: 25 PSI Max: 150 PSI	0.3 GPM

NOTE: When converting from an electric tank to an electric tankless water heater, household electric service panel upgrades are often required. Please see the electric service panel recommendations above.

*AWG - American Wire Gauge

0455 FORM NO. THD-PTE.R-15

O'HAGIN MFG, LLC — Superior Attic Ventilation Products

CALCULATING VENTS REQUIRED FOR STANDARD AND FIRE & ICE® ATTIC VENTS

Step 1
Validate Local Building Code Requirements
Determine building code requirements (compliance with either the 1/300 method or 1/300 method requires 1/150 in local code). These methods dictate that one (1) square foot of ventilation is provided for every 150 or 300 square feet of attic floor space. Compliance with attic ventilation requirements should always be verified at the local governing level.

Step 2
Determine Total Square Feet of Attic Floor Space
Length of Attic _____ ft. (ft)
Width of Attic _____ ft. (ft)
(repeat process for all attic areas)
Total _____ square feet of attic space (sf)

Step 3
Calculating Ventilation Requirements
Total _____ ÷ 300 (inexpensive method) = (sf / 300)
_____ square feet of attic required ventilation (ft)

Step 4
Convert Square Feet to Square Inches
(ft) _____ x 144 = (ft x 144)
(sf) _____ square inches of code-required ventilation (sf x 144)

Step 5
Determine Adequate Number of O'Hagin's Vents
(sf) _____ / NFVA* for selected vent (see chart below) = (sf / NFVA) (number of vents required)
*Net Free Ventilation Area
(Figures based on independent evaluation reports)

(sf) 57/59/78.75
(number of vents required) x 6 vents (2 intake and 3 exhaust)

Manufacturer's Recommendations:
O'Hagin patented Balanced Ventilation System utilizes O'Hagin vents placed strategically within the field of roofing (minimum) both high (near the ridge for exhaust) and low (near the eave for intake). This strategic high and low placement of O'Hagin vents allows for the creation of natural thermal-siphon fresh wind and thermal effection to provide together passive ventilation throughout the attic. Additionally, placement of O'Hagin vents both high and low should provide an equal, balanced rate of ventilation performance in each area. The calculations shown do not include any additional vents which may be required to meet other ventilation methods that may be prescribed by any specific manufacturer.

NET FREE VENTILATION AREA
(Figures based on independent evaluation reports)

Tile Roofs	MODEL: SLAT NFVA: 98.75 sq. in. (637.1 sq. cm.)	MODEL: HT NFVA: 97.50 sq. in. (629.0 sq. cm.)	MODEL: HI NFVA: 86.25 sq. in. (556.5 sq. cm.)
Vents for Slate, Shake or Composition Roofs	MODEL: TAPERED LOW-PROFILE NFVA: 75.0 sq. in. (484.5 sq. cm.)		

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FREE TECHNICAL SUPPORT SERVICES

For your planning, design, installation, post-installation and customer education needs, O'Hagin offers a range of free services:

Free Architectural/Design Support Services
- Prompt analysis of provided roof plans, or other architectural drawings (in electronic or other format. This analysis calculates the number of vents needed based on known local building codes and offers specific recommendations for placement – AutoCAD, PDF or other format.
- Consultation services on an individual or group basis.

Free Custom Product Design
- Custom ventilation system designs to match unique roofing or architectural challenges.
- One-on-one assistance to discuss your needs and create the right solution for your job.

Free Installation Instruction
- Training for your field crews on how to install our products.
- Instruction in English or Spanish to ensure a high degree of knowledge for all your employees.

Free Pre- and Post-Installation Support
- Meetings with builders, consultants, building code officials, or other members of your design and construction team.
- Support regarding any aspect of our products before or after installation.

ADDITIONAL INFORMATION

Approvals
- O'Hagin Mfg. is a recognized leader in attic ventilation testing and design. The Company holds local and national approvals including:
  - ICC-ES Legacy Report, NFPA 5,
  - Class A fire rated
  - Accepted for use by State of California, Office of the State Fire Marshal, CBC Ch7A, Compliance Policy #93-06
  - Miami-Dade County Product Control Approved

For complete testing information, call our Customer Service Team toll free at **(877) 324-0444**.

Instructions
- Complete step-by-step installation instructions in English and Spanish are available on our website at **www.ohagin.com**, or by calling our Customer Service Team toll free at **(877) 324-0444**.

O'Hagin vents are manufactured and protected under one or more of the following patents (other U.S. and foreign patents are pending): D426,511; D457,236; D458,301; D458,392; D463,605; D470,585; D504,172; D512,178; 7,094,146; 6,854,019; 6,123,626; 6,336,855; 6,390,915; 6,447,398; 6,491,575

O'HAGIN MFG, LLC — Superior Attic Ventilation Products
Phone (877) 324-0444 • Fax (787) 872-3630
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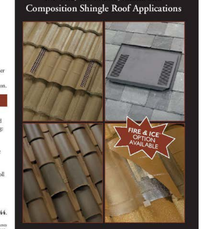
Profile Specific Attic Vents for Tile, Real Slate, Shake and Composition Shingle Roof Applications



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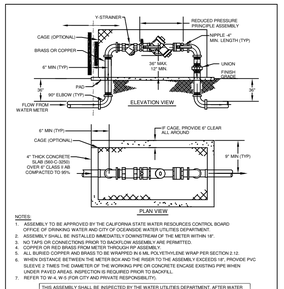
www.ohagin.com

PLASTERBOARD WALL TEST RESULTS:

FLUSH BOX	PRODUCT CODE	INSTALL	PLASTERBOARD WALL FRL*	REPORT NUMBER
13MM PLASTERBOARD WALL				
Double Flush Box - 100x75x48mm	FBINT	Detail 2	-/60/60	13509-001
Single Flush Box - 95x50x48mm	FBINT	Detail 2	-/60/45	180434
13MM STANDARD NON-FIRE RATED PLASTERBOARD WALL				
Double Flush Box - 100x75x48mm	FBINT	Detail 2	-/30/30	13088-001
19MM PLASTERBOARD WALL				
Single Flush Box - 75x50x52mm	FBINT	Detail 1	-/120/90	4101



NOTES:
1. ASSEMBLY TO BE APPROVED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD OFFICE OF DRINKING WATER AND CITY OF OCEANSIDE WATER UTILITIES DEPARTMENT.
2. ASSEMBLY SHALL BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE METER WITHIN 18".
3. NO TAPS OR CONNECTIONS PRIOR TO BACKFLOW ASSEMBLY ARE PERMITTED.
4. COPPER OR RED BRASS FROM METER THROUGH RP ASSEMBLY.
5. ALL BURIED COPPER AND BRASS TO BE WRAPPED IN 8 MIL POLYETHYLENE WRAP PER SECTION 2.12.
6. WHEN DISTANCE BETWEEN THE METER BOX AND THE RISER TO THE ASSEMBLY EXCEEDS 18', PROVIDE PVC SLEEVE 2 TIMES THE DIAMETER OF NEW BURIED PIPE OR CONCRETE ENCASE EXISTING PIPE WHEN UNDER PAVED AREAS. INSPECTION IS REQUIRED PRIOR TO BACKFILL.
7. REFER TO W & WR (FOR CITY AND PRIVATE RESPONSIBILITY).

THIS ASSEMBLY SHALL BE INSPECTED BY THE WATER UTILITIES D

GENERAL INFORMATION					
01	Project Name	1413 Shoshone Residence			
02	Run Title	Title 24 Analysis			
03	Project Location	1413 Shoshone St			
04	City	Oceanside, CA	05	Standards Version	2022
05	Zip code	92058	07	Software Version	CBECC-Res 2022 3.0
08	Climate Zone	7	09	Front Orientation (deg/ Cardinal)	330
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	6
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.45
18	Total Cond. Floor Area (ft^2)	2252	19	Glazing Percentage (%)	10.04%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	All electric	23	No Dwelling Unit:	No

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	This building incorporates one or more Special Features shown below

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ENERGY DESIGN RATINGS	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	32.5	42.4	33			
Proposed Design	31.9	41.3	32.5	0.6	1.1	0.5
RESULT[3]: PASS						

[1]Efficiency EDR includes improvements like a better building envelope and more efficient equipment
[2]Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries
[3]Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

- Standard Design PV Capacity: 3.56 kWdc
- PV System resized to 3.56 kWdc (a factor of 0.999) to achieve 'Standard Design PV' PV scaling

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ENERGY USE SUMMARY						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0.49	3.36	0.48	3.41	0.01	-0.05
Space Cooling	0.48	10.22	0.48	10.94	0	-0.72
IAQ Ventilation	0.41	4.37	0.41	4.37	0	0
Water Heating	2.07	24.2	1.93	22.3	0.14	1.9
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	**3.45**	**42.15**	**3.3**	**41.02**	**0.15**	**1.13**
Photovoltaics	-1.77	-45.78	-1.77	-45.78		
Battery			0	0		
Flexibility						
Indoor Lighting	0.68	7.07	0.68	7.07		
Appl. & Cooking	2.13	26.48	2.13	26.43		
Plug Loads	3.66	38.62	3.66	38.62		
Outdoor Lighting	0.19	1.76	0.19	1.76		
TOTAL COMPLIANCE	**8.34**	**70.3**	**8.19**	**69.12**		

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ENERGY USE INTENSITY	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	13.84	13.67	0.17	1.23
Net EUI[2]	5.34	5.17	0.17	3.18

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED PV SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt: Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
3.56	NA	Standard (14-17%)	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• PV System: 3.56 kWdc
• Exposed slab floor in conditioned zone
• Electric water heater exception - Exception 2 to Section 150.1(c)8
• Point of use
• Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

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
• Indoor air quality ventilation
• Kitchen range hood
• Verified heat pump rated heating capacity

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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
1413 Shoshone Residence	2252	1	6	3	0	2

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	Status
House 2nd floor	Conditioned	HVAC new 1	679	9	DHW new 1	New
JADU	Conditioned	HVAC new 2	447	9	DHW new 2	New
House 3d floor	Conditioned	HVAC new 3	1126	8	DHW new 1	New

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)
Wall n-F 1	House 2nd floor	Wall new	330	Front	168	37	90
Wall n-L 1	House 2nd floor	Wall new	60	Left	163	9	90
Wall n-B 1	House 2nd floor	Wall new	150	Back	148	9	90
Wall n-225 deg 1	House 2nd floor	Wall new	195	n/a	309	24	90
Wall n-R 1	House 2nd floor	Wall new	240	Right	127	16	90
Wall n-F 2	JADU	Wall new	330	Front	193	32	90
Wall n-L 2	JADU	Wall new	60	Left	193	29	90
Wall n-F 3	House 3d floor	Wall new	330	Front	325	32	90
Wall n-L 3	House 3d floor	Wall new	60	Left	312	8	90
Wall n-B 2	House 3d floor	Wall new	150	Back	131	16	90
Wall n-225 deg 2	House 3d floor	Wall new	195	n/a	275	40	90

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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)
Wall n-R 2	House 3d floor	Wall new	240	Right	113	16	90
Interior Wall to JADU 1	House 2nd floor>>JADU	Wall Int R0	n/a	n/a	188	0	n/a
Interior Wall to JADU 2	House 2nd floor>>JADU	Wall Int R0	n/a	n/a	188	0	n/a
Ceiling-n 1	House 3d floor	Ceiling attic new	n/a	n/a	922	n/a	n/a
Ceiling-n 2	House 3d floor	Ceiling attic new	n/a	n/a	204	n/a	n/a
Interior Floor over ADU	House 2nd floor	Floor Int R0	n/a	n/a	679	n/a	n/a
Interior Floor over JADU	House 3d floor	Floor Int R0	n/a	n/a	447	n/a	n/a
Interior Floor over House 2nd floor	House 3d floor	Floor Int R0	n/a	n/a	679	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-new pitch 2.25	Roof new	Ventilated	2.25	0.1	0.85	Yes	No
Attic-new pitch 5	Roof new	Ventilated	5	0.1	0.85	Yes	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
Wind-n-B 1	Window	Wall-n-F 1	Front	330	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-C	Window	Wall-n-L 1	Left	60	3	3	1	9	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-E	Window	Wall-n-B 1	Back	150	3	3	1	9	0.45	NFRC	0.4	NFRC	Bug Screen

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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
Wind-n-D 1	Window	Wall-n-225 deg 1		195	2	2	1	4	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-A 1	Window	Wall-n-225 deg 1		195	5	4	1	20	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-B 2	Window	Wall-n-R 1	Right	240	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-1	Window	Wall-n-F 2	Front	330	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-2	Window	Wall-n-F 2	Front	330	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-F	Window	Wall-n-L 2	Left	60	2	4	1	8	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-B 3	Window	Wall-n-F 3	Front	330	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-B 4	Window	Wall-n-F 3	Front	330	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-D 2	Window	Wall-n-L 3	Left	60	2	2	1	4	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-D 3	Window	Wall-n-L 3	Left	60	2	2	1	4	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-B 5	Window	Wall-n-B 2	Back	150	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-B 6	Window	Wall-n-225 deg 2		195	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-D 4	Window	Wall-n-225 deg 2		195	2	2	1	4	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-A 2	Window	Wall-n-225 deg 2		195	5	4	1	20	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-B 7	Window	Wall-n-R 2	Right	240	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen

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OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Door-n-1 1	Wall-n-F 1	21	0.5
Door-n-1 2	Wall-n-L 2	21	0.5

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab On Grade-n	JADU	447	43	none	0	0%	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
Wall new	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.093	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Sheathing / Insulation: Wood Siding/sheathing/decking Exterior Finish: 3 Coat Stucco
Wall Int R0	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board
Roof new	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

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City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:27 PM

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
Ceiling attic new	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
Floor Int R0	Interior Floors	Wood Framed Floor	2x10 @ 16 in. O. C.	R-0	None / None	0.197	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x10 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION				
01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW new 1	Domestic Hot Water (DHW)	Standard	WH HP	1	n/a	None	n/a	WH HP (1)
DHW new 2	Domestic Hot Water (DHW)	Point of Use	El WH	1	n/a	None	n/a	El WH (1)

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1413 Shoshone Residence
1413 Shoshone St, Oceanside, CA 92058

REGISTERED PROFESSIONAL ENGINEER DAVID T. MATTHEW No.2665 GEOTECHNICAL STATE OF CALIFORNIA
PROFESSIONAL GEOLOGIST PARTER E. No. 2311 CERTIFIED ENGINEERING GEOLOGIST EXP. 6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

SHEET
T24-1

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	Tank Location
El WH	Electric Resistance	Consumer Instantaneous	1	0	UEF	0.92	kW	12	0	99	2	

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
WH HP	1	50	Rheem	XE50T10H45U0 (50 gal, JA13)	Outside	Outside	Outside

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW new 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required
DHW new 2 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
HVAC new 1	Heat pump heating cooling	MiniSplit HP 1	1	MiniSplit HP 1	1	n/a	n/a	Setback

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
HVAC new 2	Heat pump heating cooling	MiniSplit HP 2	1	MiniSplit HP 2	1	n/a	n/a	Setback
HVAC new 3	Heat pump heating cooling	MiniSplit HP 3	1	MiniSplit HP 3	1	n/a	n/a	Setback

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
			Heating			Cooling						
Name	System Type	Number of Units	Heating Efficiency Type	HSPF/WSPF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER2/CEER	Zonally Controlled	Compressor Type	HERS Verification
MiniSplit HP 1	Ductless MiniSplit HP	1	HSPF2	7.5	16000	12800	EER2SEER2	14.3	11.7	Not Zonal	Single Speed	MiniSplit HP 1-hers-htpump
MiniSplit HP 2	Ductless MiniSplit HP	1	HSPF2	7.5	12000	9600	EER2SEER2	14.3	11.7	Not Zonal	Single Speed	MiniSplit HP 2-hers-htpump
MiniSplit HP 3	Ductless MiniSplit HP	1	HSPF2	7.5	28000	22400	EER2SEER2	14.3	11.7	Not Zonal	Single Speed	MiniSplit HP 3-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
MiniSplit HP 1-hers-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes
MiniSplit HP 2-hers-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
MiniSplit HP 3-hers-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	119	0.35	Exhaust	No	n/a / n/a	No	Yes	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Igor Pichko	Documentation Author Signature: Igor Pichko
Company: Energy Consult LLC	Signature Date: 07/27/2024
Address: 1252 W 22nd St Unit #2	CEA/ HERS Certification Identification (if applicable): R19-14-30005
City/State/Zip: San Pedro, CA 90731	Phone: 4242477658

CABEC CERTIFIED ENERGY ANALYST

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: Antonio E. Monti	Responsible Designer Signature: Antonio E. Monti
Company: Antonio E. Monti	Date Signed: 07/27/2024
Address: 565 W. Bobier Dr #102	License:
City/State/Zip: Vista, CA 92019	Phone: 951-448-3302

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). 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.

GENERAL INFORMATION

01	Project Name	1413 Shoshone ADU		
02	Run Title	Title 24 Analysis		
03	Project Location	1413 Shoshone St		
04	City	Oceanside, CA	05	Standards Version 2022
06	Zip code	92058	07	Software Version CBECC-Res 2022 3.0
08	Climate Zone	7	09	Front Orientation (deg/ Cardinal) 195
10	Building Type	Single family	11	Number of Dwelling Units 1
12	Project Scope	Newly Constructed	13	Number of Bedrooms 2
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories 1
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor 0.45
18	Total Cond. Floor Area (ft^2)	626	19	Glazing Percentage (%) 7.67%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area n/a
22	Fuel Type	All electric	23	No Dwelling Unit: No

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	This building incorporates one or more Special Features shown below

ENERGY DESIGN RATINGS

	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	58	27.7	55			
Proposed Design	37.2	21.9	52.2	0.8	5.8	2.8

RESULT[3]: PASS

[1]Efficiency EDR includes improvements like a better building envelope and more efficient equipment
[2]Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries
[3]Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

- Standard Design PV Capacity: 0.00 kWdc

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0.14	1	0.75	5.25	-0.61	-4.25
Space Cooling	0.38	8.36	0.04	1.53	0.34	6.83
IAQ Ventilation	0.51	5.43	0.51	5.43	0	0
Water Heating	2.86	32.01	2.25	24.77	0.61	7.24
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	3.89	46.8	3.55	36.98	0.34	9.82
Photovoltaics	0	0	0	0		
Battery			0	0		
Flexibility						
Indoor Lighting	1.04	10.75	1.04	10.75		
Appl. & Cooking	5.99	73.67	5.92	72.95		
Plug Loads	7.24	76.39	7.24	76.39		
Outdoor Lighting	0.22	2.05	0.22	2.05		
TOTAL COMPLIANCE	18.38	209.66	17.97	199.12		

ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	25.46	24.69	0.77	3.02
Net EUI[2]	25.46	24.69	0.77	3.02

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt: Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
0		Standard (14-17%)	Fixed	none	true	n/a	n/a	n/a	n/a	n/a	

REQUIRED SPECIAL FEATURES

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

- PV exception 2: No PV required when minimum PV size (Section 150.1(c)14) < 1.8 kWdc (0 kW)
- Exposed slab floor in conditioned zone
- Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

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

- Indoor air quality ventilation
- Kitchen range hood
- Verified heat pump rated heating capacity

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Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
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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
1413 Shoshone ADU	626	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	Status
ADU	Conditioned	HVAC new	626	9	DHW new	New

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)
Wall-n-F	ADU	Wall new	195	Front	392	53	90
Wall-n-45 deg	ADU	Wall new	240	n/a	121	0	90
Wall-n-315 deg	ADU	Wall new	150	n/a	140	16	90
Underground Wall-n	ADU	Underground Wall	n/a	n/a	697	n/a	n/a
Interior Ceiling under House	ADU	Ceiling Int R0	n/a	n/a	626	n/a	n/a

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
Wind-n-A	Window	Wall-n-F	Front	195	5	4	1	20	0.45	NFRC	0.4	NFRC	Bug Screen
Wind-n-E	Window	Wall-n-F	Front	195	4	3	1	12	0.45	NFRC	0.4	NFRC	Bug Screen

1413 Shoshone Residence
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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 (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Wind-n-8	Window	Wall-n-315 deg		150	4	4	1	16	0.45	NFRC	0.4	NFRC	Bug Screen

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft²)	U-factor
Door-n-1	Wall-n-8	21	0.5

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab On Grade-n	ADU	626	140	none	0	0%	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
Wall new	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.093	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Sheathing / Insulation: Wood Siding/sheathing/decking Exterior Finish: 3 Coat Stucco
Underground Wall	Underground Walls	Concrete / ICF / Brick	None	n/a	None / None	0.892	Inside Finish: Gypsum Board Mass Layer: 8 in. Concrete

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
Ceiling Int RO	Interior Ceiling	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-0	None / None	0.197	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x10 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW new	Domestic Hot Water (DHW)	Standard	WH HP	1	n/a	None	n/a	WH HP (1)

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
WH HP	1	50	Rheem	XE50T10H45U0 (50 gal, JA13)	Outside	Outside	Outside

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
HVAC new	Heat pump heating cooling	MiniSplit HP	1	MiniSplit HP	1	n/a	n/a	Setback

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
Name	System Type	Number of Units	Heating				Cooling			Zonally Controlled	Compressor Type	HERS Verification
			Heating Efficiency Type	HSPF/HSPF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER2/CEER			
MiniSplit HP	Ductless MiniSplit HP	1	HSPF2	7.5	16000	12800	EER2SEER2	14.3	11.7	Not Zonal	Single Speed	MiniSplit HP-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
MiniSplit HP-hers-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	41	0.35	Exhaust	No	n/a / n/a	No	Yes	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Igor Pichko	Documentation Author Signature: Igor Pichko
Company: Energy Consult LLC	Signature Date: 07/27/2024
Address: 1252 W 22nd St Unit #2	CEA/ HERS Certification Identification (if applicable): R19-14-30005
City/State/Zip: San Pedro, CA 90731	Phone: 4242477658

CABEC CERTIFIED ENERGY ANALYST

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: Antonio E. Monti	Responsible Designer Signature: Antonio E. Monti
Company: Antonio E. Monti	Date Signed: 07/27/2024
Address: 565 W. Bobier Dr #102	License:
City/State/Zip: Vista, CA 92019	Phone: 951-448-3302

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and it in no way implies Registration Provider responsibility for the accuracy of the information.

1413 Shoshone Residence
1413 Shoshone St, Oceanside, CA 92058

REGISTERED PROFESSIONAL ENGINEER DANIEL T. KAYLER No.2665 GEOTECHNICAL STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST MARTIN E. [illegible] No.2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/25 STATE OF CALIFORNIA

7-1-2025

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2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.
(04/2022)

Building Envelope:

§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283, or AAMA/WDMA/CSA 101/I.S.2/A440-2011. *
§ 110.6(a)5:	**Labeling**. Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped. *
§ 110.7:	**Air Leakage**. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers**. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS)
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors**. Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance**. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier**. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Roof Deck, Ceiling and Rafter Roof Insulation**. Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding U-0.184. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling, or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. 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 roof or ceiling which is sealed to limit infiltration and exfiltration, as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling.
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B. *
§ 150.0(d):	**Raised-floor Insulation**. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor. *
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to §150.0(d).
§ 150.0(g)2	**Vapor Retarder**. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45; or area-weighted average U-factor of all fenestration must not exceed 0.45. *

Fireplaces, Decorative Gas Appliances, and Gas Log:

§ 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:

§ 110.0-§ 110.3:	**Certification**. Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N. *
§ 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)3:	**Insulation**. Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating
§ 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.

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

§ 110.5:	**Pilot Lights**. Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces, household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour), and pool and spa heaters. *
§ 150.0(h)1:	**Building Cooling and Heating Loads**. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.
§ 150.0(h)3A:	**Clearances**. Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)3B:	**Liquid Line Drier**. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as stripped by manufacturer's instructions.
§ 150.0(j)1:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *
§ 150.0(j)2:	**Insulation Protection**. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by §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 designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2" higher than the base of the water heater.
§ 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:

§ 110.8(d)3.	**Ducts**. Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 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 R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing [RA3.1.4.3.8] do not require insulation. 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 UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than ¼". If mastic or tape is used. Building cavities, air handler support platforms, 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 these spaces must not be compressed. *
§ 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 due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner cores of flex ducts must have a non-porous layer or air barrier 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 Reference Residential Appendix RA3.1.
§ 150.0(m)12	**Air Filtration**. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean-filter pressure drop and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter. *

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

§ 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. *

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)1B:	**Central Fan Integrated (CFI) Ventilation Systems.** Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per §150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that prevents all airflow through the space conditioning duct system when the damper(s) is closed andcontrolled per §150.0(o)1Biiâiv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with §150.0(o)1C.
§ 150.0(o)1C:	**Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and townhouses** . 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 specified in § 150.0(o)1Ci-iii.
§ 150.0(o)1G:	**Local Mechanical Exhaust.** Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of §150.0(o)1Giiienclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting §150.0(o)1Giii-iv. Airflow must be measured by the installer per §150.0(o)1Gv, and rated for sound per §150.0(o)1Gvi. *
§ 150.0(o)1H&I:	**Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems.** The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by §150.0(o)1C.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Whole-Dwelling Unit ventilation airflow, sound rating and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7. Vented range hoods must be verified per Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per §150.0(o)1G

Pool and Spa Systems and Equipment:

§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDbS; 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:

§ 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, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(k)1B:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.
§ 150.0(k)1D:	**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)1E:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 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). *

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

§ 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)2A:	**Accessible Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *
§ 150.0(k)2B:	**Multiple Controls**. Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).
§ 150.0(k)2C:	**Mandatory Requirements**. Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(k)2D:	**Energy Management Control Systems.** An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.
§ 150.0(k)2E:	**Automatic Shutoff Controls**. In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.0(k)2F:	**Dimmers.** Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(k)2K:	**Independent controls**. Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 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 have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 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 §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.

Solar Readiness:

§ 110.10(a)1:	**Single-family Residences**. Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
§110.10(b)1A:	**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. *
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° 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 horizontal distance 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)-(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."

Electric and Energy Storage Ready:

5/6/22

2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(s)	**Energy Storage System (ESS) Ready.** All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and four or more ESS supplied branch circuits, or a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(s), at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps, sufficient space must be reserved to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard, with raceways installed between the panelboard and the switch location to allow the connection of backup power source.
§ 150.0(t)	**Heat Pump Space Heater Ready.** Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(u)	**Electric Cooktop Ready.** Systems using gas or propane cooktop to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the cooktop with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(v)	**Electric Clothes Dryer Ready.** Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the dryer location with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."

*Exceptions may apply.

5/6/22

2022 Low-Rise Residential Mandatory Measures Summary

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7-1-2025

Geotechnical information only

SHEET

T24-M

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
Arthur Cronin 07/17/2025 12:30:28 PM

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.
Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CALGreen*, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS
4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT
4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
   1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code.*

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exceptions:

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL
4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

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 sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

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 WaterSense 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 the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow 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 0.2 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.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code.*

4.303.3 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*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE
4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations,* Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE
4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING
4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous 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.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. 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.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected 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.

4.408.3 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.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 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 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

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 minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION
4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the solid waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL
4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS
5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Code and applicable City ordinances.
Date 1-1-2023
Conditioned on information provided

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES
4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below.
2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT

(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[1,2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[4]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)
4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhttps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL
4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

4.505.3 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:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture 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.

4.506 INDOOR AIR QUALITY AND EXHAUST
4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and 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 humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT
4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to 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 system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS
702 QUALIFICATIONS
702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS
703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

REGISTERED PROFESSIONAL ENGINEER DANIEL T. MAIN No.2665 GEOTECHNICAL STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST MARTIN E. MAIN No.2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/25 STATE OF CALIFORNIA

7-1-2025

Geotechnical information only

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Municipal Codes

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

A. General

Applicable codes. All projects will comply with the following building codes and associated County of San Diego amendment.
2022 California Building Code (CBC) and/or California Residential Code (CRC)
2022 California Green Building Standards Code (CalGreen)
2022 California Electrical Code (CEC)
2022 California Mechanical Code (CMC)
2022 California Plumbing Code (CPC)
2022 California Fire Code (CFC)
2022 California Building Energy Efficiency Standards (CBEES)

B. 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 to wood 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 platforms 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 homeowner 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 10-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
   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)

E. Wood Framing (Continued)

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 or equivalent anchorage, 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 with 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)
29. **Wood 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)
30. **Roof diaphragm under fill framing.** Roof plywood shall be continuous under California fill framing.
31. **Roof diaphragm at ridges.** Minimum 2-inch nominal blocking required for roof diaphragm nailing at ridges.
32. **Blocking of roof trusses.** Minimum 2-inch nominal blocking required between trusses at ridge lines and at points of bearing at exterior walls.
33. **Truss clearance.** Minimum 1/2-inch clearance required between top plates of interior non-bearing partitions and bottom chords of trusses.
34. **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)
35. **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)
36. **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
37. **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.
38. **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)
39. **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. (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)

G. Roofing and Weatherproofing (Continued)

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. **Damp proofing.** Damp proofing 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
   a. 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 1.8 gallons per minute at 80 psi
      d. Multiple showerheads serving one shower: Maximum combined flow rate of 1.8 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 1.5 gallons per minute at 60 psi (County Green Building Code 97.1.4.303.1.4.4)

      Exception: Temporary increase allowed to maximum 2.2 gallons per minute at 60 psi if faucet defaults back to maximum 1.5 gallons per minute at 60 psi
      g. Appliances: At least one qualified ENERGY STAR dishwasher or clothes washer shall be installed in each dwelling unit. (County Green Building Code 97.1.4.303.3)
   b. **Outdoor potable water uses in landscape areas.** Residential developments shall comply with local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. (CalGreen 4.304.1)
   c. **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.
   d. **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.
   e. **Construction waste management plan.** A construction waste management plan in conformance with Items 1-5 shall be completed and available for 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)
      a. 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.
      b. Specify if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
      c. Identify diversion facilities where the construction and demolition waste materials will be taken.
      d. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
      e. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.
   f. **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.
   g. **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.
   h. **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.

I. (CalGreen) Requirements (Continued)

   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.
   k. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
   l. Information and/or drawings identifying the location of grab bar reinforcements.
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 cushions 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 currently adopted version of California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," (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

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 cavity. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.
17. **Bathrooms 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 are established according to the currently adopted version of ANSI/ACCA 2 Manual J, ASHRAE handbooks, or other equivalent design software or methods.
   b. Duct systems are sized according to the currently adopted version of ANSI/ACCA 1 Manual D, ASHRAE handbooks, or other equivalent design software or methods.
   c. Select heating and cooling equipment according to the currently adopted version of 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, rafters or trusses to top plate or other framing below	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
	Blocking between rafters or truss not at the wall top plates, to rafter or truss	2-8d common (2½" × 0.131"); or 2-3" × 0.131" nails 2-16d common (3½" × 0.162"); or 3-3" × 0.131" nails	Each end toe nail End nail
	Flat blocking to truss and web filler	16d common (3½" × 0.162"); or 3" × 0.131" nails	6" o.c. face 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 Section R802.5.2 and Table R802.5.2(1)]	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 Section R802.5.2

RETAINING WALL NOTES

GENERAL WALL HEIGHT IS MEASURED FROM TOP OF THE FOOTING TO THE TOP OF THE WALL. THERE SHALL BE NO BUILDING FOUNDATION, DRIVEWAY, OR OTHER LOADING ON THE UPPER LEVEL WITHIN A DISTANCE EQUAL TO THE HEIGHT OF THE WALL UNLESS OTHERWISE NOTED. DESIGN SHALL NOT BE USED FOR CURVED RETAINING WALLS UNLESS NOTED. PROVIDE CONSTRUCTION JOINT FOR EVERY 50' OF WALL. CONTINUOUS INSPECTION REQUIRED; U.N.O.

CONCRETE MIX: MIN. COMPRESSIVE STRENGTH = 2500 P.S.I. AT 28 DAYS
BLOCK TYPE: ASTM C90 TYPE I U. N. O.
MORTAR MIX: ASTM C270 TYPE S, 2500 P.S.I. AT 28 DAYS.
GROUT MIX: ASTM C150 ,MINIMUM COMPRESSIVE STRENGTH = 2500 P.S.I. AT 28 DAYS. ALL CELLS SHALL BE FILLED SOLID WITH GROUT. VIBRATE GROUT WITHIN 10 MINUTES OF POURING TO ENSURE SOLID CONSOLIDATION. BRING GROUT TO A POINT 2" FROM TOP OF MASONRY UNITS WHEN GROUTING OF SECOND LIFT IS TO CONTINUED AT ANOTHER TIME.
MORTAR KEY: PROVIDE MORTAR KEY BETWEEN THE FOOTING AND THE FIRST COARSE OF BLOCK. MORTAR KEY SHALL BE FORMED BY EMBEDDING A FLAT 2X4 FLUSH WITH AND AT THE TOP OF THE FRESHLY POURED FOOTING. IT SHOULD BE REMOVED AFTER THE CONCRETE HAS HARDENED (APPROX. 1 HOUR.) A MORTAR KEY MAY BE OMITTED IF THE FIRST COURSE OF BLOCK IS SET INTO THE FRESH CONCRETE WHEN THE FOOTING IS POURED AND A GOOD BOND IS OBTAINED.
FOOTING: ALL FOOTINGS SHALL EXTEND AT LEAST 12" INTO UNDISTURBED NATURAL SOIL. SOIL SHOULD BE DAMPENED PRIOR TO PLACING CONCRETE IN FOOTINGS. PROVIDE THREE INCHES OF COVER FOR ALL FOOTING STEEL.
STEEL: ASTM "615" GRADE 40 DEFORMED REINFORCING BAR FOR #5 BAR AND UNDER. GRADE 60 DEFORMED REINFORCING BAR FOR #6 AND LARGER UNLESS NOTED OTHERWISE. WHEN ONE CONTINUOUS BAR CANNOT BE USED. A LAP SPLICE OF 40 BAR DIAMETERS FOR GRADE 40 BARS AND 48 BAR DIAMETERS FOR GRADE 60 BARS SHALL BE USED UNLESS OTHERWISE NOTED.
BACK FILL: BACK FILL WITH GRANULAR (SANDY) SOIL FOR A MINIMUM DISTANCE OF ONE FOOT BEHIND WALL. EXPANSIVE OR CLAYEY SOILS SHALL NOT BE USED AS BACK FILL. ALL BACK FILL SOILS ASSOCIATED WITH WALL CONSTRUCTION SHOULD BE COMPACTED TO AT LEAST 90% RELATIVE COMPACTION BASED UPON ASTM: D1557-00. THE WALL SHOULD NOT BE BACK FILLED UNTIL THE GROUT HAS REACHED AN ADEQUATE STRENGTH.
WATER: USE APPROVED WATERPROOFING UNLESS OTHERWISE NOTED. THE DESIGNER
PROOFING: AND ENGINEER DO NO REPRESENT THEMSELVES TO BE EXPERTS IN THE FIELD OF WATERPROOFING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE WORKMANSHIP AND MATERIALS NECESSARY TO PROVIDE THE STANDARD OF CARE TO COMPLETE THE WALL IN A WATERTIGHT CONDITION.
SUB DRAIN: PROVIDE 4" MIN. PERFORATED PIPE, SDR35 OR EQUIVALENT, HOLES DOWN, 1 % FALL TO OUTLET. PROVIDE SOLID OUTLET PIPE AT SUITABLE LOCATION. TOP OF PIPE SHOULD BE BELOW TOP OF SLAB TO BE ENCASED IN 3/4" CRUSHED ROCK EQUAL TO 2/3 OF WALL HEIGHT AND PROVIDE MIRADRAIN 6000 OR EQUIVALENT. CRUSHED ROCK TO BE SURROUNDED BY FILTER FABRIC (MIRAFI 140N OR EQUIVALENT). WITH 6" MIN. OVERLAP.

FOLLOW ALL RECOMMENDATIONS OF APPLICABLE SOILS REPORT. NOTIFY ENGINEER OF ANY CHANGES IN PLANS OR FIELD CONDITIONS.

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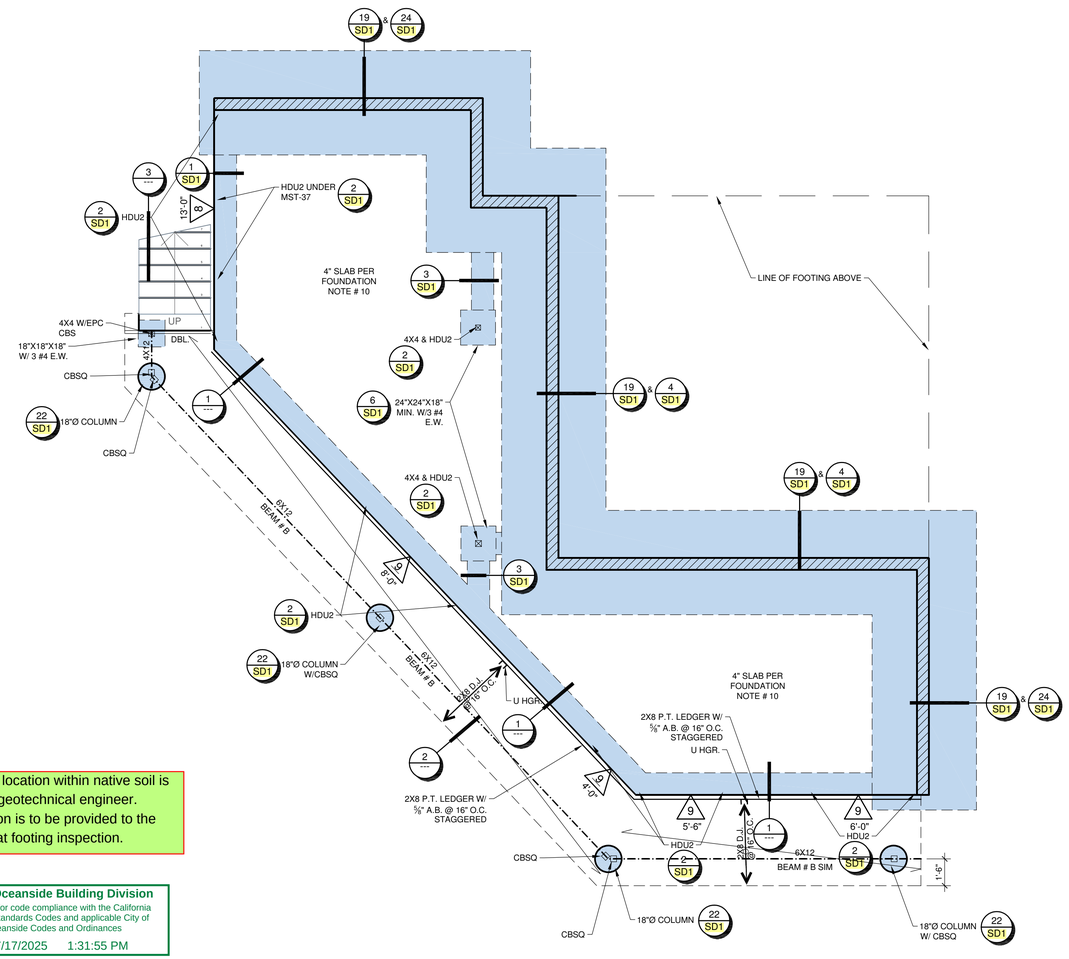
2. IF THE BUILDING INSPECTOR SUSPECTS FILL, EXPANSIVE SOILS OR ANY GEOLOGIC INSTABILITY BASED UPON OBSERVATION OF THE FOUNDATION EXCAVATION, A SOILS OR GEOLOGICAL REPORT, AND SUBMITTAL OF PLANS TO PLAN CHECK TO VERIFY THAT THE REPORT RECOMMENDATIONS HAVE BEEN INCORPORATED ,MAY BE REQUIRED.
3. TYPICAL FOOTING TO BE 12" X 12" @ 1 STORY; 15" X 18" @ 2 STORY CONDITIONS INTO FIRM NATIVE SOIL UNLESS OTHERWISE SPECIFIED BY SOILS REPORT OR ON FOUNDATION DETAILS.
4. HORIZONTAL DISTANCE FROM EDGE OF FOOTING TO DAYLIGHT SHALL BE 11'-0" MINIMUM TO EXISTING GRADE OR AS RECOMMENDED BY SOILS REPORT.
5. NO PLUMBING PIPES OVER 1 ½" DIAMETER IN 2X4 SHEAR WALLS AND 3" DIAMETER IN 2X6 SHEAR WALLS.
6. ALL HOLDOWNS ON 2-2X STUDS WITH 2-16D @ 6" O.C. OR 4X POST U.N.O.
7. ALL HOLDOWN ANCHORS MUST BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION.
8. HOLDOWN ANCHOR BOLTS SHALL BE RETIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
9. CONCRETE TO REACH 2500 P. S. I. AT 28 DAYS.
10. ALL CONCRETE BUILDING SLABS SHALL BE A MIN. 4" THICK WITH #3 REBARS AT 18" O.C. MAX. E.W. @ MIDDLE THIRD OF SLAB, TURNDOWN INTO FOOTING WITH 4" MIN. SAND FILL AND 10 MIL. VISQUEEN IN BETWEEN U.N.O..
11. PROVIDE 1"DEEP SAW CUT X 1/8" THK. @ 10'-0" MAX O.C. EACH WAY FOR THE ALL INTERIOR SLABS. CUT AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND OPERATE WITHOUT DISTURBING THE FINAL FINISH FOR ALL NEW SLABS OVER 1000 SQ. FT. PER ACI OR AS DESCRIBED BY SOILS REPORT.
12. THE CONCRETE SLAB IS TO BE POURED MONOLITHICALLY UNO.
13. WOOD TO BE MIN. 8" ABOVE ADJACENT NATURAL OR FINISHED GRADE & 2" ABOVE CONCRETE SLAB.
14. FOUNDATION PLATES OR SILLS SHALL BE BOLTED OR ANCHORED TO THE FOUNDATION WITH 5/8" X 10" LONG ON 2X SILL AND 12" LONG ON 3X SILL EMBEDDED @ LEAST 7" INTO CONCRETE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE AT 6'-0" O.C. MAX. OR LESS, PER SHEAR TRANSFER SCHEDULE. THERE SHALL BE A MINIMUM OF TWO BOLTS OR ANCHOR STRAPS PER PIECE WITH ONE BOLT OR ANCHOR STRAP LOCATED NOT MORE THAN 12" OR LESS THAN 4" FROM EACH END OF EACH PIECE. A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH BOLT TO PLATE.
15. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL SILICON BRONZE OR COPPER. FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695, CLASS 55 MINIMUM. CONNECTORS THAT ARE USED IN EXTERIOR APPLICATIONS AND IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL HAVE COATING TYPES AND WEIGHTS IN ACCORDANCE WITH TREATED WOOD OR CONNECTOR MANUFACTURER'S RECOMMENDATIONS. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, A MINIMUM OF ASTM A 653, TYPE G185 ZINCE-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED. EXCEPTION: PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED. CBC 2304.10.5.1 , CRC R317.3.1
FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. CRC, R317.1.1
16. PROVIDE A MINIMUM OF 2 ANCHOR BOLTS PER SHEAR PANEL.
17. FOR INTERIOR SLAB, NON-BEARING WALLS, USE RAMSET POWDER DRIVEN PIN @ 24" O.C. PER ESR 2690
18. PLATE WASHERS, A MINIMUM OF 3" X 3" X .229" IN SIZE, SHALL BE PROVIDED BETWEEN THE FOUNDATION SILL PLATE AND THE NUT EXCEPT WHERE APPROVED ANCHOR STRAPS ARE USED. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND SLOT LENGTH NOT TO EXCEED 1 ¾", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.
19. IF A SHEAR WALL OCCURS ON BOTH SIDES OF A FOOTING THEN THE ANCHOR BOLT SPACING IS TO BE REDUCED BY 1/2.
20. INTERIOR BEARING WALL SOLE PLATES SHALL HAVE ANCHOR BOLTS SPACED AT NOT MORE THAN 6 FT. ON CENTER AND LOCATED WITHIN 12" OF THE ENDS OF EACH PLATE SECTION WHEN SUPPORTED ON A CONTINUOUS FOUNDATION. R403.1.6.1
21. THE MAXIMUM ANCHOR BOLT SPACING SHALL BE 4FT. FOR BUILDINGS OVER TWO STORIES IN HEIGHT. CRC R403.1.6.1.4
22. PROVIDE SOLID 4X POST OR DBL 2X POST WITH SOLID BLOCK UNDER ALL POST ABOVE.
23. VERIFY TYP. EXISTING POST-TENSION SLAB PRIOR TO CONSTRUCTION.

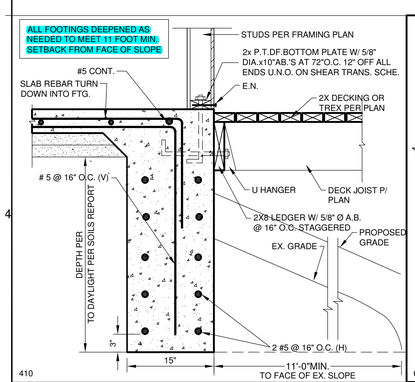


Footing Depth and location within native soil is to be verified by a geotechnical engineer. Report of verification is to be provided to the building inspector at footing inspection.

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
LBolton 07/17/2025 1:31:55 PM

FOUNDATION PLAN

SCALE 1/4" = 1'



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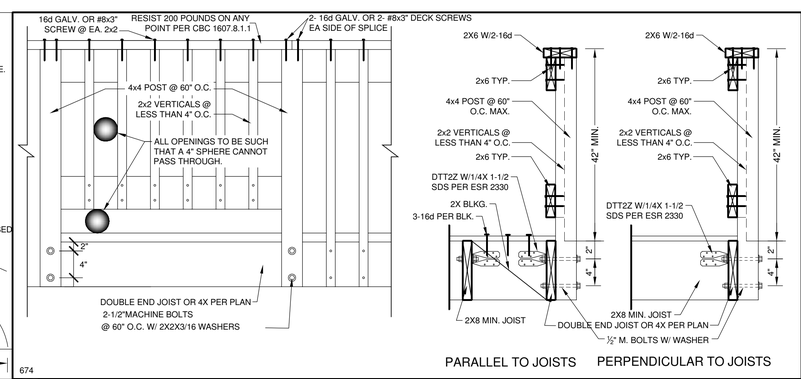
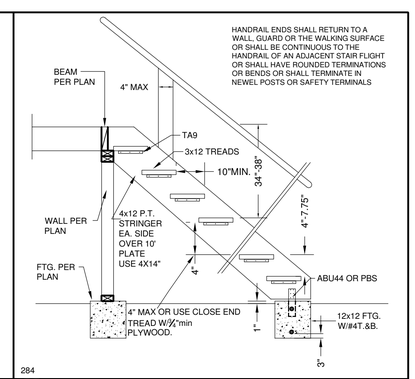


2 GUARDRAIL



3 DECK STAIRS

FOUNDATION LEGEND

- RAISE CONCRETE FOUNDATION
- SLAB ON GRADE FOUNDATION
- SHEAR PANEL DESIGNATION — 8
- SHEAR PANEL LENGTH — 4'-0"
- STRONG WALL FOOTING
- NEW MASONRY FOOTING & WALL

REGISTERED PROFESSIONAL ENGINEER DANIEL T. MAYER No.2665 GEOTECHNICAL STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST MARK E. STILE No.2311 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/26 STATE OF CALIFORNIA

7-1-2025
Geotechnical information only

REGISTERED PROFESSIONAL ENGINEER NADER HEDJRAN No. C68179 EXP.09/30/25 CIVIL STATE OF CALIFORNIA

June 27, 2025

REVISIONS	DATE

NDC
NADER'S DESIGN CONSULTING, INC.
5908 MISSION GORGE RD. SUITE 203, SAN DIEGO, CA. 92120
PH: (619) 970-1144, FAX: (619) 970-1177, E-MAIL: nader@ndc-sd.com

CONTRACTOR:

PROJECT TYPE: 2 STORY DWELLING W/ATTACHED GARAGE
OWNER: JESSICA BRANDT
ADDRESS: SHOSHONE ST., OCEANSIDE, CA. 92058

SHEET TITLE: FOUNDATION PLAN

CONTRACT DATE: 4/5/2023
DATE: 6/27/2025
DRAWN: MARIA G.
SHEET: S1

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Friday, June 27, 2025 6:33:00 PM

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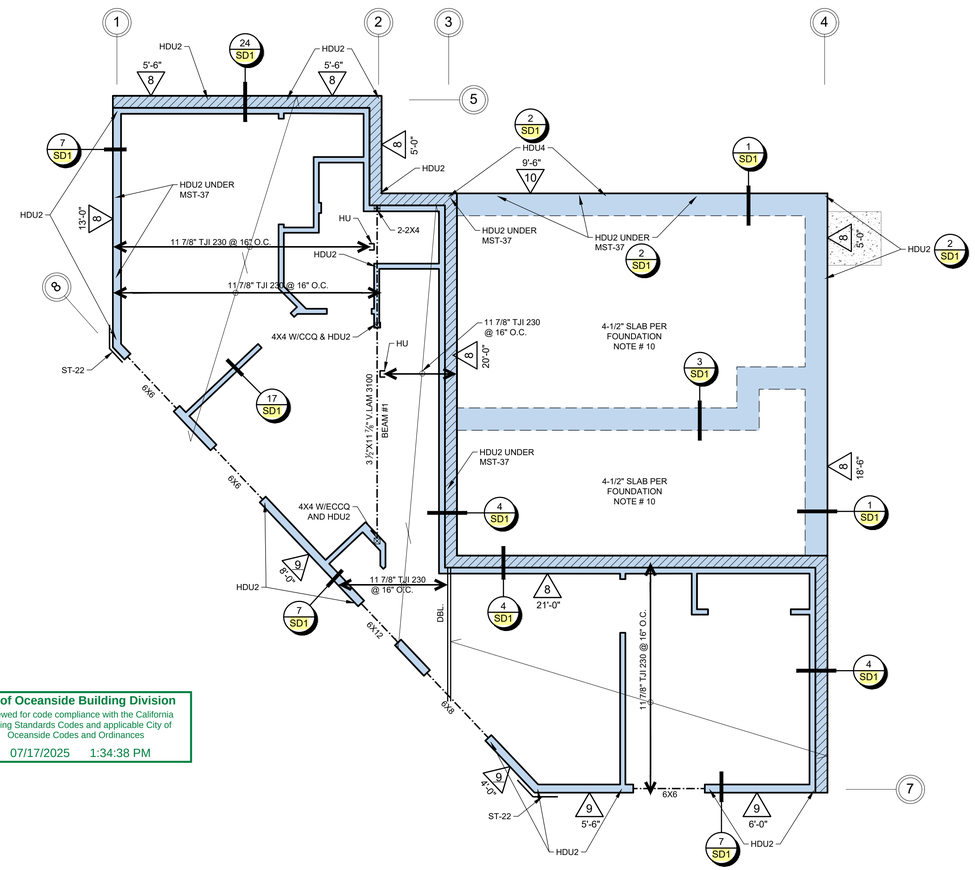
13. WOOD TO BE MIN. 8" ABOVE ADJACENT NATURAL OR FINISHED GRADE & 2" ABOVE CONCRETE SLAB.
14. FOUNDATION PLATES OR SILLS SHALL BE BOLTED OR ANCHORED TO THE FOUNDATION WITH 5/8" X 10" LONG ON 2X SILL AND 12" LONG ON 3X SILL EMBEDDED @ LEAST 7" INTO CONCRETE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE AT 6'-0" O.C. MAX. OR LESS, PER SHEAR TRANSFER SCHEDULE. THERE SHALL BE A MINIMUM OF TWO BOLTS OR ANCHOR STRAPS PER PIECE WITH ONE BOLT OR ANCHOR STRAP LOCATED NOT MORE THAN 12" OR LESS THAN 4" FROM EACH END OF EACH PIECE. A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH BOLT TO PLATE.
15. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL SILICON BRONZE OR COPPER. FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695, CLASS 55 MINIMUM. CONNECTORS THAT ARE USED IN EXTERIOR APPLICATIONS AND IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL HAVE COATING TYPES AND WEIGHTS IN ACCORDANCE WITH TREATED WOOD OR CONNECTOR MANUFACTURER'S RECOMMENDATIONS. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, A MINIMUM OF ASTM A 653, TYPE G185 ZINCE-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED. EXCEPTION: PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED. CBC 2304.10.5.1 , CRC R317.3.1
    FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. CRC. R317.1.1
16. PROVIDE A MINIMUM OF 2 ANCHOR BOLTS PER SHEAR PANEL.
17. FOR INTERIOR SLAB, NON-BEARING WALLS, USE RAMSET POWDER DRIVEN PIN @ 24" O.C. PER ESR 2690
18. PLATE WASHERS, A MINIMUM OF 3" X 3" X .229" IN SIZE, SHALL BE PROVIDED BETWEEN THE FOUNDATION SILL PLATE AND THE NUT EXCEPT WHERE APPROVED ANCHOR STRAPS ARE USED. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND SLOT LENGTH NOT TO EXCEED 1 ¾", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT.
19. IF A SHEAR WALL OCCURS ON BOTH SIDES OF A FOOTING THEN THE ANCHOR BOLT SPACING IS TO BE REDUCED BY 1/2.
20. INTERIOR BEARING WALL SOLE PLATES SHALL HAVE ANCHOR BOLTS SPACED AT NOT MORE THAN 6 FT. ON CENTER AND LOCATED WITHIN 12" OF THE ENDS OF EACH PLATE SECTION WHEN SUPPORTED ON A CONTINUOUS FOUNDATION. R403.1.6.1
21. THE MAXIMUM ANCHOR BOLT SPACING SHALL BE 4FT. FOR BUILDINGS OVER TWO STORIES IN HEIGHT. CRC R403.1.6.1.4
22. PROVIDE SOLID 4X POST OR DBL 2X POST WITH SOLID BLOCK UNDER ALL POST ABOVE.
23. VERIFY TYP. EXISTING POST-TENSION SLAB PRIOR TO CONSTRUCTION.



BASEMENT FRAMING PLAN

SCALE 1/4" = 1'

FLOOR FRAMING NOTES

1. FLOOR DIAPHRAGM TO BE 5/8" A.P.A. RATED SHEATHING STURD-I-FLOOR 32/16 T & G NAIL 10D COMMON AT 6" O.C. EDGE NAILING AND BOUNDARY NAILING, 10" O.C. FIELD NAILING (USE COMMON WIRE NAILS)
2. FLOOR HEADERS:
   - L ≤ 5' 4 X 6 OR: 6 X 6 U.N.O.
   - L ≤ 6' 4 X 8 OR: 6 X 8 U.N.O.
   - L ≤ 8' 4 X 10 OR: 6 X 10 U.N.O.
3. ALL HOLDOWNS ON 2-2X STUDS WITH 2-16D @ 6" O.C. OR 4X POST U.N.O.
4. ALL STRAPS, COLUMN CAPS, HANGERS, CLIPS, ETC. TO BE PRODUCED BY "SIMPSON STRONG TIE," OR EQUAL.
   a) ALL SPECIFIED FASTENERS MUST BE INSTALLED ACCORDING TO THE INSTRUCTIONS IN THEIR CATALOG. INCORRECT FASTENER QUANTITY, SIZE, TYPE, MATERIAL, OR FINISH MAY CAUSE THE CONNECTION TO FAIL. 16D FASTENERS ARE COMMON NAILS (8 GA X 3 1/2") AND CANNOT BE REPLACED WITH 16D SINKERS (9 GA X 3 1/4") UNLESS OTHERWISE SPECIFIED.
   b) BOLT HOLES SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER.
   c) UNLESS OTHERWISE NOTED, BOLTS AND NAILS CANNOT BE COMBINED. 8D, 10D, AND 16D SPECIFY COMMON NAILS.
   d) FILL ALL FASTENER HOLES WITH FASTENER TYPES SPECIFIED, WITH TABLES FOR HIGHEST CAPACITY.
5. MAXIMUM ALLOWABLE STUD HEIGHTS: (U.N.O.) BEARING WALL: 2X4 AND 2X6 MAXIMUM 10 FT NONBEARING WALL: 2X4 MAXIMUM 14 FT.; 2X6 MAXIMUM 20 FT.
6. PLASTER APPLIED OVER WOOD BASED SHEATHING SHALL INCLUDE TWO LAYERS OF GRADE D PAPER.
7. ALL TJI'S TO BE MANUFACTURED BY "WEYERHAEUSER COMPANY," PER ESR 1153, ESR 1387. FOR MORE DETAIL SEE SPEC SHEET. OR "BOISEENGINEERD WOOD PRODUCTS" PER ESR-1336, 1040. FOR MORE DETAIL SEE SPEC. SHEET.
8. PROVIDE FIRESTOPS, VERTICAL AND HORIZONTAL, IN ENCLOSED SPACES AT 10'-0" INTERVALS MAXIMUM.
9. DO NOT CUT, NOTCH, BORE, SHAVE, TAPER OR FOR ANY REASON MODIFY PRE-ENGINEERED / MANUFACTURED STRUCTURAL ELEMENTS SUCH AS GLUED LAMINATED MEMBERS, PARALLAMS, MICROLLAMS, I-JOISTS, LIGHT GAUGE METAL MEMBERS AND OTHER SIMILAR TIMBER OR STEEL PRODUCTS UNLESS SUCH MODIFICATIONS ARE WITHIN THE WRITTEN PARAMETERS SET FORTH BY THE MANUFACTURER OF THAT PRODUCT OR A LETTER OF CERTIFICATION FROM THE MANUFACTURER'S ENGINEER WITH DETAIL SIGNED AND STAMPED IS ISSUED AND AUTHORIZED BY THE PROJECT ENGINEER OF RECORD AND APPROVED BY THE BUILDING OFFICIAL.
10. DO NOT USE TJI AS BLOCKING AND RIM JOIST, USE 1 3/4" TIMBER STRAND LSL OR EQUAL.

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
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FOUNDATION LEGEND

- RAISE CONCRETE FOUNDATION
- SLAB ON GRADE FOUNDATION
- SHEAR PANEL DESIGNATION / SHEAR PANEL LENGTH: 8 / 4'-0"
- STRONG WALL FOOTING
- NEW MASONRY FOOTING & WALL

REGISTERED PROFESSIONAL ENGINEER NATEL T. MAYER No.2665 GEOTECHNICAL STATE OF CALIFORNIA
REGISTERED PROFESSIONAL GEOLOGIST MARTIN E. SMITH No.231 CERTIFIED ENGINEERING GEOLOGIST EXP.5/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

REGISTERED PROFESSIONAL ENGINEER NADER HEDAYAT No. C68178 EXP.09/30/25 CIVIL STATE OF CALIFORNIA
March 4, 2024

REVISIONS	DATE

NDC
NADER'S DESIGN CONSULTING, INC.
5909 MISSION GORGE RD. SUITE 203, SAN DIEGO, CA. 92120
Phone: (619) 284-9846, Fax: (619) 284-9847, nader@ndc-s.com

CONTRACTOR:

PROJECT TYPE: 2 STORY DWELLING W/ATTACHED GARAGE
OWNER: JESSICA BRANDT
ADDRESS: SHOSHONE ST., OCEANSIDE, CA. 92058

SHEET TITLE: BASEMENT FRAMING PLAN

CONTRACT DATE	4/5/2023
DATE	4/5/2023
DRAWN	MARIA G.
SHEET	S2

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Monday, March 4, 2024 9:13:07 PM

FLOOR FRAMING NOTES

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2. FLOOR HEADERS:
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   - L ≤ 6' 4 X 8 OR: 6 X 8 U.N.O.
   - L ≤ 8' 4 X 10 OR: 6 X 10 U.N.O.
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   b) BOLT HOLES SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER.
   c) UNLESS OTHERWISE NOTED, BOLTS AND NAILS CANNOT BE COMBINED. 8D, 10D, AND 16D SPECIFY COMMON NAILS.
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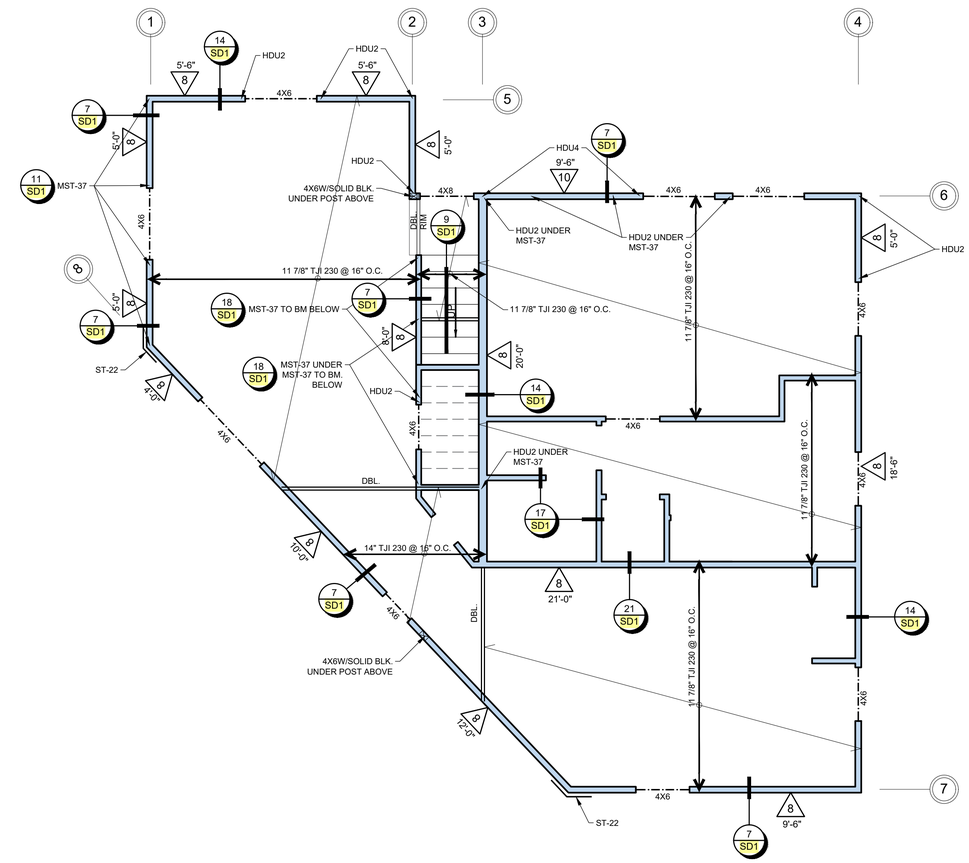

FLOOR FRAMING PLAN

SCALE 1/4" = 1'

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
LBolton 07/17/2025 1:34:44 PM

WALL LEGEND

- 2x4 STUDS WALLS
- 2x4 LOW WALLS
- 2x6 STUDS WALLS
- 2x6 BALLOON FRAME WALLS
- NEW MASONRY WALLS
- CALIF. FILL @ FRAMING PLAN
- STRONG WALL

REGISTERED PROFESSIONAL ENGINEER DANIEL T. MATTH No.2665 GEOTECHNICAL STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST MARTIN E. STUM No 231 CERTIFIED ENGINEERING GEOLOGIST EXP.6/30/26 STATE OF CALIFORNIA

7-1-2025

Geotechnical information only

REGISTERED PROFESSIONAL ENGINEER NADER HEDJRESSI No. C68179 EXP.09/30/25 CIVIL STATE OF CALIFORNIA

March 4, 2024

REVISIONS	DATE

NDC
NADER'S DESIGN CONSULTING, INC.
5909 MISSION GORGE RD. SUITE 203, SAN DIEGO, CA. 92120
PHONE: (619) 284-8146, FAX: (619) 284-8147, e-mail: nader@ndc-sd.com

CONTRACTOR:

PROJECT TYPE: 2 STORY DWELLING W/ATTACHED GARAGE

OWNER: JESSICA BRANDT

ADDRESS: SHOSHONE ST., OCEANSIDE, CA. 92058

SHEET TITLE: FLOOR FRMG. PLAN

CONTRACT DATE	4/5/2023
DATE	4/5/2023
DRAWN	MARIA G.
SHEET	S3

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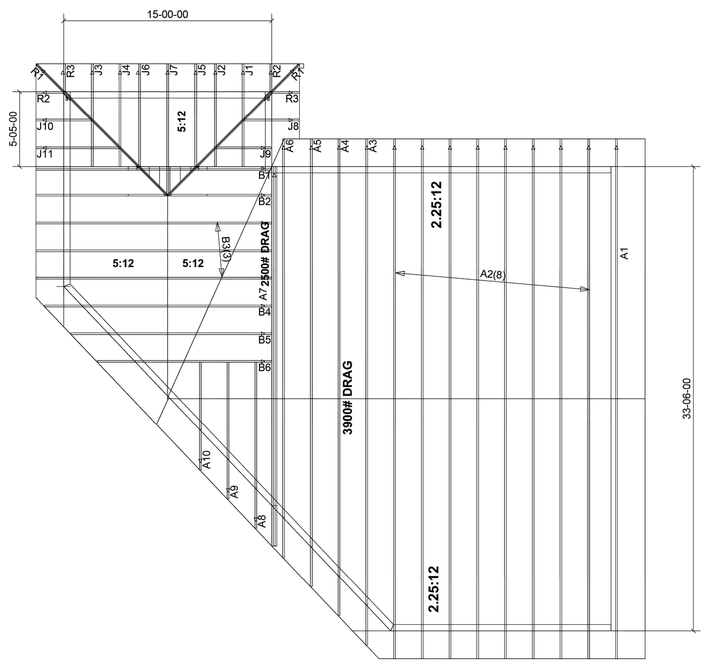


RAMONA LUMBER
ROOF AND FLOOR TRUSSES

Plan provided for truss placement only. Refer to truss calculation and engineering structural drawings for all futher information. Building designer/engineer of record are responsible for all non truss to truss connections. Building designer/engineer of record to review and approve all designs prior to construction.

Job #:230147

Plan:

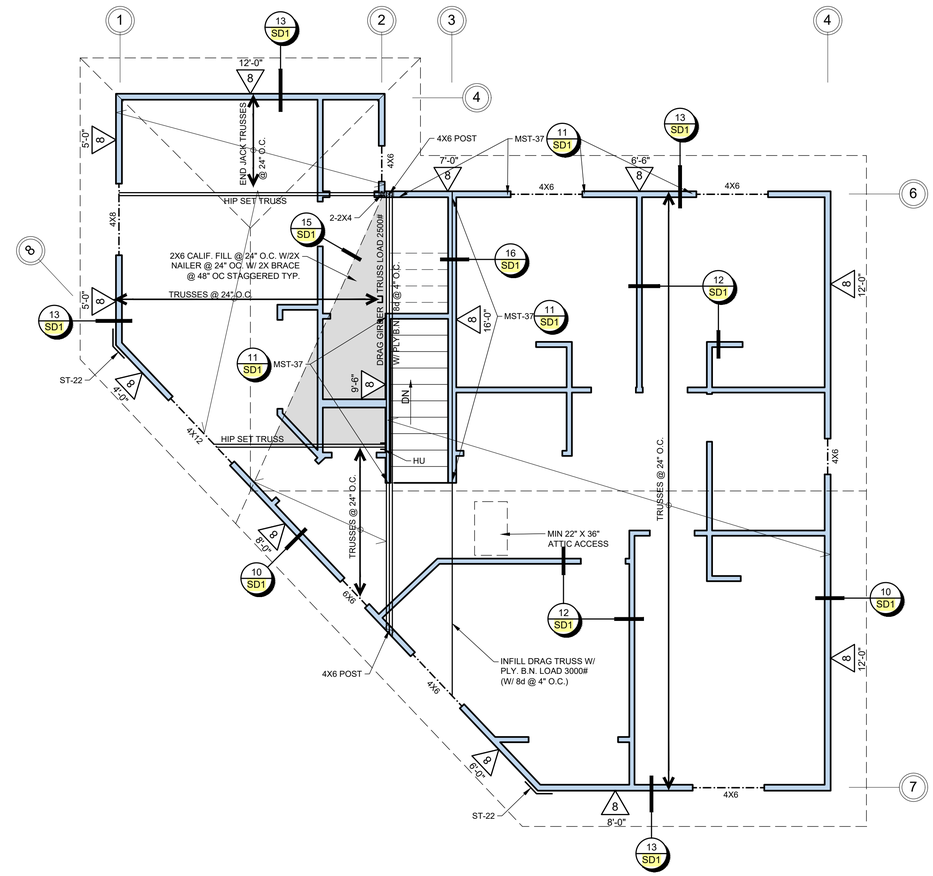
Elev:

Name:
SHOSHONE LOT 8

Address:1413 SHOSHONE ST

Drawn By:
Leonard Hirn
Date: 12/1/2023

TRUSSES LAYOUT



ROOF FRAMING PLAN

SCALE 1/4" = 1'

ROOF FRAMING NOTES

1. ROOF FRAMING DIAPHRAGM TO BE 1/2" A.P.A. RATED SHEATHING 32/16 OR 24/0, NAIL 8D COMMON AT 6" O.C. EDGE NAILING AND BOUNDARY, 12" O.C. FIELD NAILING.
2. ROOF HEADERS: L < 5' 4 X 6 OR: 6 X 6 U.N.O.
   L < 6' 4 X 8 OR: 6 X 8 U.N.O.
3. ALL HIP FILL AND HIP OVER TRUSS FRAMING MUST BE BRACED AND SUPPORTED PER CALIFORNIA FILL DETAILS.
4. BALLOON FRAME WALLS OF ROOMS WITH SLOPING CEILINGS.
5. MAXIMUM ALLOWABLE STUD HEIGHTS: U.N.O.
   BEARING WALL: 2X4 AND 2X6 MAXIMUM 10 FT. U.N.O.
   NONBEARING WALL: 2X4 MAXIMUM 14 FT., 2X6 MAXIMUM 20 FT.
6. ALL HOLDOWNS ON 2-2X STUDS WITH 2-16D @ 6" O.C. OR 4X POST U.N.O.
7. ALL STRAPS, COLUMN CAPS, HANGERS, CLIPS, ETC. TO BE PRODUCED BY "SIMPSON STRONG TIE," OR EQUAL.
   a) ALL SPECIFIED FASTENERS MUST BE INSTALLED ACCORDING TO THE INSTRUCTIONS IN THEIR CATALOG. INCORRECT FASTENER QUANTITY, SIZE, TYPE, MATERIAL, OR FINISH MAY CAUSE THE CONNECTION TO FAIL. 16D FASTENERS ARE COMMON NAILS (8 GA X 3 1/2") AND CANNOT BE REPLACED WITH 16D SINKERS (9 GA. X 3 1/4") UNLESS OTHERWISE SPECIFIED.
   b) BOLT HOLES SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER.
   c) UNLESS OTHERWISE NOTED, ALLOWABLE, BOLTS AND NAILS CANNOT BE COMBINED. 8D, 10D AND 16D SPECIFY COMMON NAILS.
   d) FILL ALL FASTENER HOLES WITH FASTENER TYPES SPECIFIED, WITH TABLES FOR HIGHEST CAPACITY.
8. 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 ROOFING/DECKING CONTRACTOR TO PROVIDE THE WORKMANSHIP AND MATERIALS NECESSARY TO PROVIDE THE STANDARD OF CARE TO COMPLETE THE ROOF AND DECKS IN A WATERTIGHT CONDITION. ROOF OR DECK DRAINAGE SHALL NOT BE ALLOWED TO RUN BEHIND ANY FASCIA BOARDS OR ON THE STUCCO EXTERIOR FINISH.
9. ALL PLUMBING WALLS TO BE 2" X 6" STUDS. NO PLUMBING PIPES OVER 1 ½" DIAMETER IN 2X4 SHEAR WALLS AND 3" DIAMETER IN 2X6 SHEAR WALLS.
10. PLASTER APPLIED OVER WOOD BASED SHEATHING SHALL INCLUDE TWO LAYERS OF GRADE D PAPER.
11. MEASUREMENTS AND WALL THICKNESS MAY VARY FROM DRAWINGS; EXPOSE EXISTING FRAMING AND FIELD VERIFY EXACT STRUCTURAL FRAMING SIZE, LAYOUT, AND DIMENSIONS PRIOR TO CONSTRUCTION.
12. EACH TRUSS SHALL BE LEGIBLE BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED THERE TO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM CHORD:
    a) IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS.
    b) THE DESIGN LOAD.
    c) THE SPACING OF THE TRUSS.
13. PROVIDE BRACING FOR TRUSSES TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY IN ACCORDANCE ON THE INDIVIDUAL TRUSS DESIGN DRAWING. (CRC502.11.2)

City of Oceanside Building Division
Reviewed for code compliance with the California Building Standards Codes and applicable City of Oceanside Codes and Ordinances
LBolton 07/17/2025 1:34:46 PM

WALL LEGEND

- 2x4 STUDS WALLS
- 2x4 LOW WALLS
- 2x6 STUDS WALLS
- 2x6 BALLOON FRAME WALLS
- NEW MASONRY WALLS
- CALIF. FILL @ FRAMING PLAN
- STRONG WALL

REGISTERED PROFESSIONAL ENGINEER DANIEL T. KASTNER No. 2665 GEOTECHNICAL STATE OF CALIFORNIA
REGISTERED PROFESSIONAL GEOLOGIST MARTIN E. SIMS No. 2311 CERTIFIED ENGINEERING GEOLOGIST EXP. 6/30/26 STATE OF CALIFORNIA
7-1-2025
Geotechnical information only

REGISTERED PROFESSIONAL ENGINEER NADER E. HEDJAZI No. C68179 EXP. 09/30/25 CIVIL STATE OF CALIFORNIA
March 4, 2024

REVISIONS | DATE

NDC
NADER'S DESIGN CONSULTING, INC.
5909 MISSION GORGE RD. SUITE 203, SAN DIEGO, CA. 92120
Phone (619) 284-8147 Fax (619) 284-8147 E-mail: ndesign@cox.net

CONTRACTOR:

PROJECT TYPE: 2 STORY DWELLING W/ATTACHED GARAGE
OWNER: JESSICA BRANDT
ADDRESS: SHOSHONE ST., OCEANSIDE, CA. 92058

SHEET TITLE: ROOF FRAMING PLAN

CONTRACT DATE	4/5/2023
DATE	4/5/2023
DRAWN	MARIA G.
SHEET	S4

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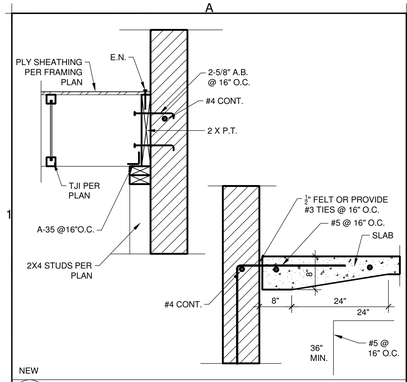
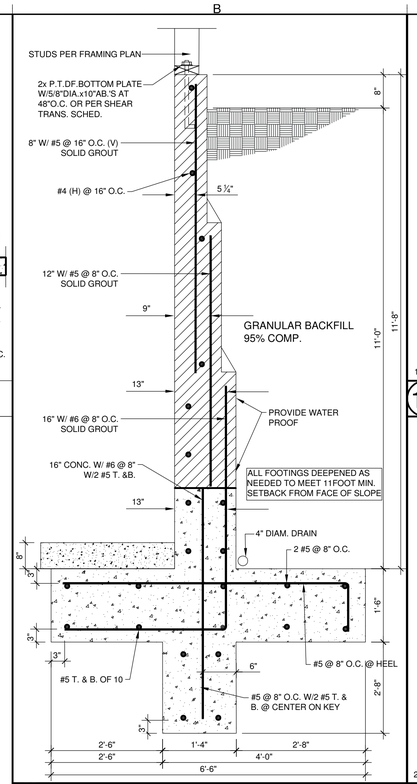


24 RETAINING WALL CONN.



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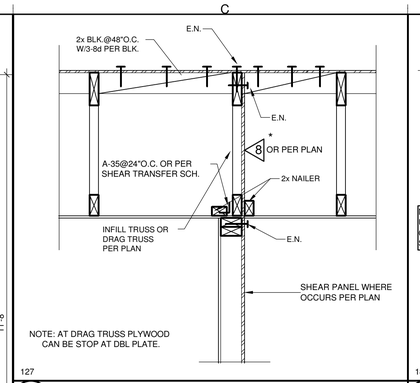

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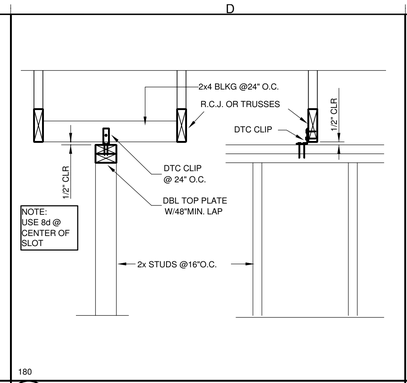

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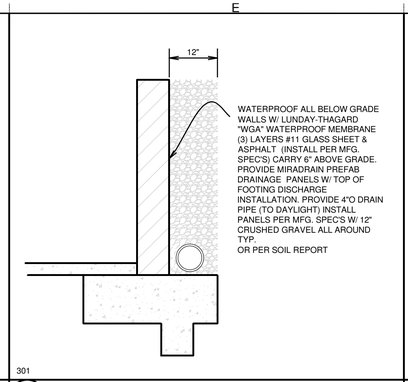

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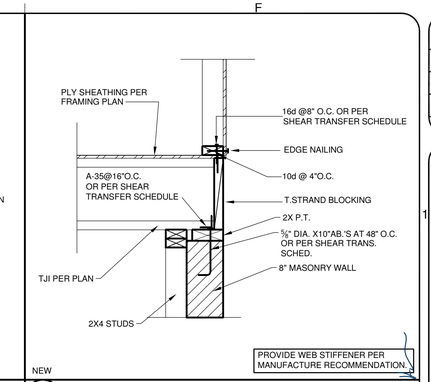

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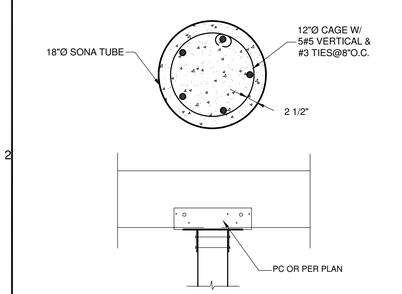
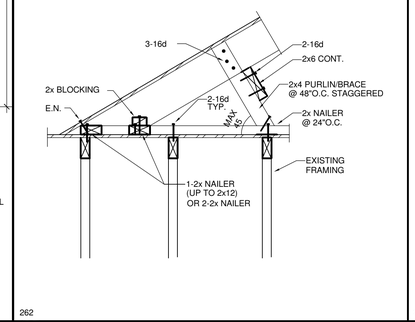
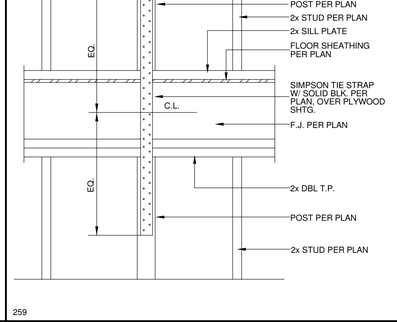
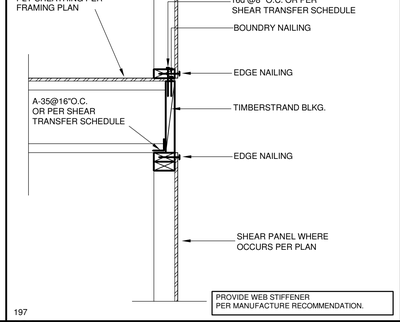




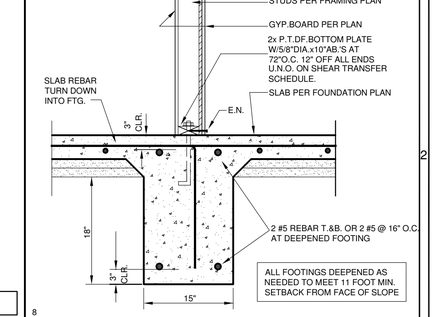
15 CALIFORNIA FILL



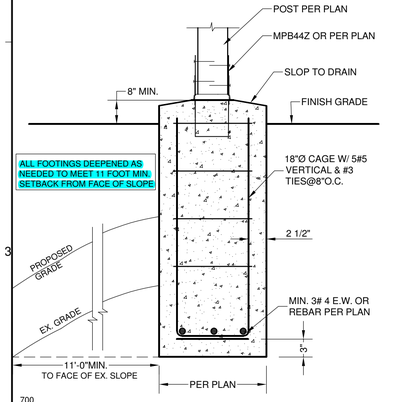
11 STRAP DETAIL



7 SHEAR TRANSFER



3 INTERIOR FOOTING



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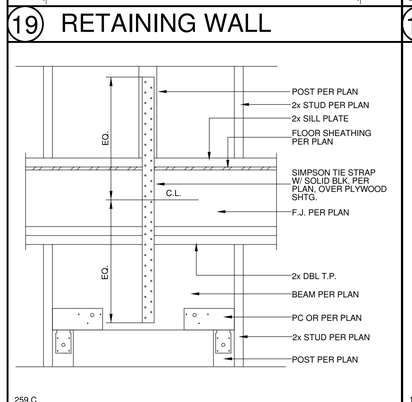

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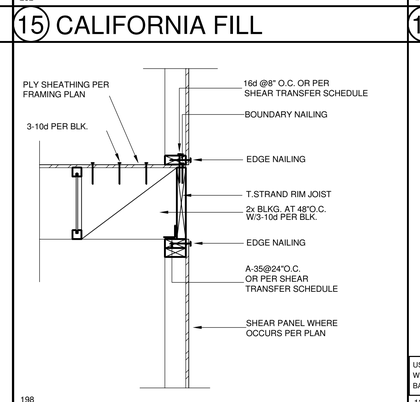

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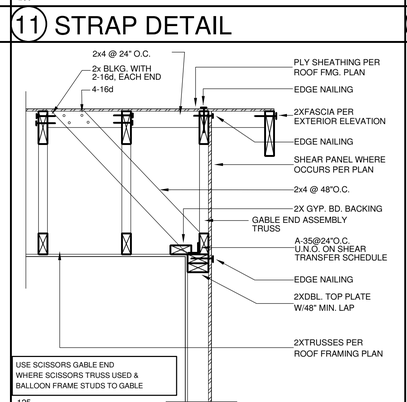

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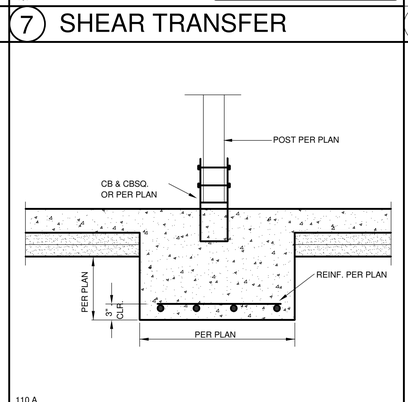

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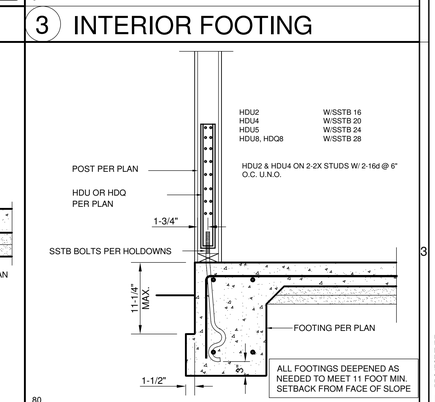
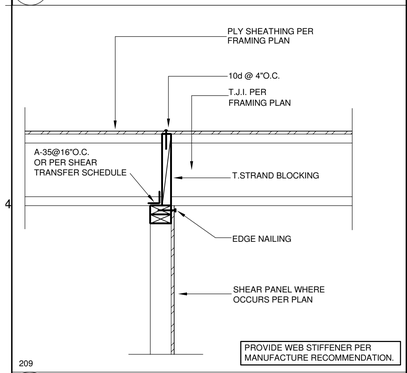


2 HOLDOWN DETAIL



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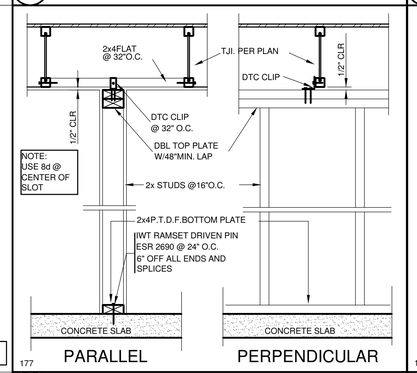

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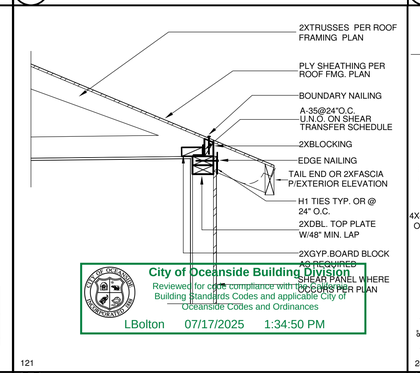

City of Oceanside Building Division
Reviewed for code compliance with the Building Standards Codes and applicable City of Oceanside Codes and Ordinances
LBolton 07/17/2025 1:34:50 PM

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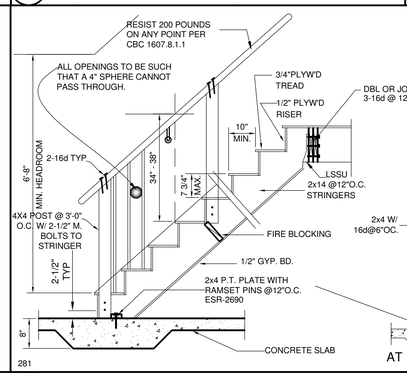

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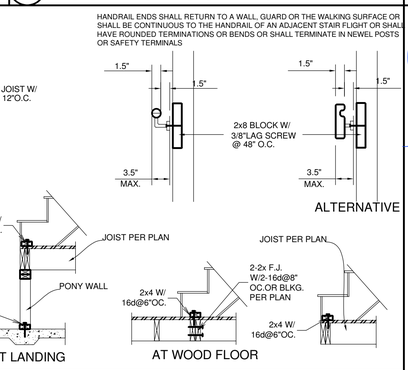

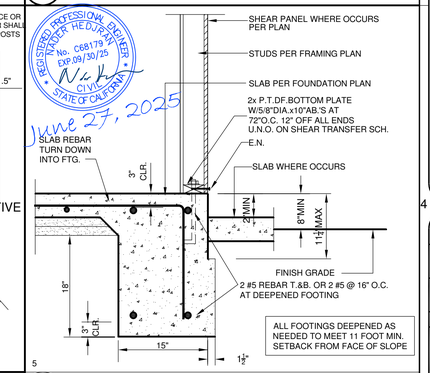

REGISTERED PROFESSIONAL ENGINEER NADER HEDURAN No. C68179 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA
June 27, 2025

1 EXTERIOR FOOTING

REVISIONS	DATE

NDC
NADER'S DESIGN CONSULTING, INC.
5809 MISSION GORGE RD. SUITE 203, SAN DIEGO, CA. 92120
Phone: (619) 286-9000 Fax: (619) 286-9001 e-mail: ndc@ndc-sd.com

CONTRACTOR:

PROJECT TYPE: 2 STORY DWELLING W/ATTACHED GARAGE
OWNER: JESSICA BRANDT
ADDRESS: SHOSHONE ST., OCEANSIDE, CA. 92058

SHEET TITLE: STRUCTURAL DETAILS

CONTRACT DATE	4/5/2023
DATE	6/27/2025
DRAWN	MARIA G.
SHEET	SD1

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GENERAL:

1. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION. INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, SHORING, BRACING, TEMPORARY EXCAVATIONS, AND SHALL BE IN ACCORDANCE WITH ALL STATE AND FEDERAL SAFETY REQUIREMENTS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK AND NOTIFY THE ARCHITECT AND NGINEER IMMEDIATELY OF ANY DISCREPANCIES.
4. ALL OMISSIONS AND CONFLICTS BETWEEN VARIOUS ELEMENTS OF WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH ANY INVOLVED WORK.
5. RESOLVE ANY CONFLICTS ON THE DRAWINGS WITH THE ARCHITECT AND NGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
6. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED PRIOR TO BEGINNING EXCAVATIONS.
7. NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, BEAMS OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS OR OTHER ITEMS UNLESS OTHERWISE NOTED. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS OR OTHER ITEMS. REFER TO ARCHITECTURAL OR MECHANICAL DRAWINGS FOR LOCATIONS.
8. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO REQUIREMENTS OF LATEST EDITION OF THE CALIFORNIA BUILDING CODE (CBC AND CRC).
9. SPECIAL INSPECTION PER SEC. 1701 OF THE CBC IS REQUIRED AS SHOWN ON PLANS.
10. DESIGN BASED ON 2022 EDITION OF CBC AND 2022 CRC
11. SEISMIC BASE SHEAR COEFFICIENT PER CALCULATIONS.
12. BASIC WIND SPEED = 96 MPH, 3 SEC. GUST FACTOR EXPOSURE "B" (U.N.O.)

FOUNDATION:

1. CHARACTER OF FOUNDATION SOIL: 1500 PSF OR SEE SOILS REPORT
2. SPREAD AND CONTINUOUS FOUNDATIONS ARE DESIGNED TO BE FOUNDED ON THE FORMATIONAL SOILS OR FILL SOILS, RECOMPACTED OR COMPACTED TO A MINIMUM RELATIVE DENSITY OF 90 PERCENT. ALLOWABLE BEARING CAPACITY PER RECOMMENDATIONS IN THE SOILS REPORT.
3. UNLESS OTHERWISE NOTED, NO BACKFILL SHALL BE PLACED AGAINST WALLS UNTIL:
   A. CANTILEVER RETAINING WALLS HAVE CURED FOR A MINIMUM OF 28 DAYS;
   B. WALLS RESTRAINED AT TOP, 14 DAYS MINIMUM AFTER FLOOR/ROOF SLABS ARE CAST;
4. BACKFILL SHALL BE IMPORTED SELECT SAND OR APPROVED GRANULAR FILL.
5. BACKFILL OF RETAINING WALLS TO BE COMPACTED BY LIGHT-HAND COMPACTORS ONLY.

CONCRETE MASONRY

1. BLOCK MASONRY UNITS SHALL BE TYPE I HOLLOW CORE CONCRETE BLOCK CONFORMING TO ASTM C-90 LATEST REVISION. AND IN ADDITION, SHALL HAVE A MAXIMUM SHRINKAGE OF 0.06% FROM THE SATURATED TO OVER DRY CONDITION. MINIMUM ULTIMATE STRENGTH OF BLOCK SHALL BE 1500 PSI.
2. MORTAR. MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL COMPLY WITH ASTM C 270. THE TYPE OF MORTAR SHALL BE IN ACCORDANCE WITH SECTIONS R607.1.1, R607.1.2 AND R607.1.3 AND SHALL MEET THE PROPORTION SPECIFICATIONS OF TABLE R607.1 OR THE PROPERTY SPECIFICATIONS OF ASTM C 270. (CRC R607.1)
3. GROUT. GROUT SHALL CONSIST OF CEMENTITIOUS MATE-RIAL, AND AGGREGATE IN ACCORDANCE WITH ASTM C 476 AND THE PROPORTION SPECIFICATIONS OF TABLE R609.1.1. TYPE M OR TYPE S MORTAR TO WHICH SUFFICIENT WATER HAS BEEN ADDED TO PRODUCE POURING CONSISTENCY CAN BE USED AS GROUT. (CRC R609.1.1)
4. MINIMUM LAP OF REINFORCING STEEL SHALL BE 40 BAR DIAMETERS FOR GRADE 40 BARS AND 48 BAR DIAMETER FOR GRADE 60 BARS. PROVIDE 1" MINIMUM CLEARANCE FROM BLOCK MASONRY CELLS.
5. MAXIMUM HEIGHT OF GROUT POUR SHALL BE 4'-0" UNLESS CLEAN OUT OPENINGS ARE PROVIDED AT THE BOTTOM OF CELLS TO BE FILLED.
6. NO COLD JOINTS ARE PERMITTED UNLESS SPECIFICALLY DETAILED.
7. ALL BOND BEAM BLOCK SHALL BE "DEEP CUT" UNITS.
8. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGNMENT; ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM THE INSIDES OF SUCH CELL WALLS.
9. ALL CONCRETE BLOCK MASONRY WHERE SHOWN ON WALL DETAIL SHALL HAVE CONTINUOUS INSPECTION BY A REGISTERED INSPECTOR U.N.O.
10. RESTRAINED (BASEMENT. WALLS SHALL BE PROPERLY SHORED ON THE FLOOR FRAMING SECURED PRIOR TO PLACING FILL.

REINFORCED CONCRETE

1. CEMENT SHALL CONFORM TO ASTM C-150, TYPE II.
2. AGGREGATE SHALL CONFORM TO ASTM C-33 FOR STRUCTURALNORMAL- WEIGHT CONCRETE (1" MAX. SIZE) AND ASTM C-330 FOR STRUCTURAL LIGHT-WEIGHT CONCRETE.
3. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94.
4. CONCRETE DESIGN MIXES SHALL BE IN ACCORDANCE WITH CHAP 19 OF CBC AND SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF JURISDICTION.
5. ALL CONCRETE SHALL SATISFY BOTH A MINIMUM STRENGTH REQUIREMENT. AND MINIMUM CEMENT CONTENT. THE MINIMUM ULTIMATE COMPRESSIVE STRENGTH (F'C) AT 28 DAYS SHALL BE:
   2500 PSI FOR SLAB FOOTING ON GRADE U.O.N.
   4000 PSI FOR COLUMN BEAMS AND POST-TENSIONED SLAB U.O.N. THE MINIMUM CEMENT CONTENT PER CUBIC YARD OF CONCRETE SHALL BE:
   5 1/4 SACKS FOR 2500 PSI STRENGTH
   5 1/2 SACKS FOR 3000 PSI CONCRETE OR GREATER
6. THE MAXIMUM CONCRETE SLUMP SHALL BE 3" + 1" FOR A SLAB ON GRADE AND 4" + 1" FOR ALL OTHER WORK. OR AND NOT MORE THAN 7-1/2 GALLONS OF WATER PER SACK OF CEMENT.
7. ADMIXTURES MAY BE USED WITH APPROVAL OF ENGINEERS. ADMIXTURES USED TO INCREASE THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT.
8. REFER TO AND VERIFY WITH ARCHITECTURAL DRAWINGS ANY MOLDS, GROOVES, REVEALS AND SCUPPERS, ORNAMENTS, CLIP OR TEXTURE REQUIRED TO BE CAST INTO CONCRETE AND FOR LOCATION AND EXTENT OF DEPRESSIONS, CURBS AND RAMPS.
9. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS OTHERWISE NOTED.
10. CONCRETE FORM TOLERANCES SHALL BE WITHIN STANDARDS SET BY AMERICAN CONCRETE INSTITUTE.
11. ALL REINFORCEMENT STEEL, ANCHOR BOLTS, DOWELS, AND OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE LOCAL BUILDING DEPARTMENT INSPECTOR PRIOR TO THE PLACEMENT OF ANY CONCRETE.
12. LOCATION OF ALL CONSTRUCTION JOINTS NOT SPECIFICALLY INDICATED ON THE DRAWINGS SHALL BE APPROVED BY ENGINEER PRIOR TO PLACING REINFORCING STEEL.

REINFORCEMENT STEEL

1. BAR REINFORCING STEEL SHALL BE DEFORMED AND CONFIRM TO ASTM A 615 GRADE 40, FOR UP TO #4 BARS AND GRADE 60 #5 BARS AND LARGER.
2. ALL WELDED REBAR TO BE A706.
3. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4.
4. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
5. REINFORCEMENT DETAILING, BENDINGS AND PLACING SHALL BE IN ACCORDANCE WITH CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE" LATEST EDITION.
6. LAPS AND BAR SPLICES SHALL BE: 36 BAR DIAMETER OR 18" MINIMUM FOR CONCRETE; AND 40 BAR DIAMETER OR 24" MINIMUM FOR MASONRY UNLESS OTHERWISE NOTED.
7. VERTICAL BARS IN WALL SHALL BE ACCURATELY POSITIONED AT THE CENTER WALL. UNLESS OTHERWISE NOTED ON DETAILS AND SHALL BE TIED IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 DIAMETERS.
8. REINFORCING STEEL SHALL BE PROVIDED WITH THE FOLLOWING AMOUNT FOOTINGS (CONCRETE DEPOSITED AGAINST EARTH)----------3" CONCRETE SURFACE (FORMED) EXPOSED TO EARTH OR WEATHER-----2" COLUMN REINFORCEMENT (INCLUDING COLUMN TIES)----------1 1/2" BEAMS AND GIRDERS----------1 1/2" SLAB (NO. 11 OR SMALLER)----------1 1/2"
9. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE OR GROUT 10. UNLESS OTHERWISE NOTED IN DETAILS, FURNISH NO. 3 SPACER TIES AT APPROX. 2'-6" ON CENTER ON ALL BEAMS AND FOOTINGS TO SECURE REINFORCING IN PLACE.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL COMPLY WITH A.S.T.M. A36 (FY=36KSI). EXCEPT W SHAPES, MOMENT FRAME, A.S.T.M. A992, (FY=50 KSI)
2. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH A.I.S.C. SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
3. PIPE COLUMNS SHALL COMPLY WITH A.S.T.M., A53 (FY=36KSI).
4. TUBE COLUMNS SHALL COMPLY WITH A.S.T.M. A500, GRADE "B" (FY=46KSI).
5. MACHINE BOLTS SHALL COMPLY WITH A.S.T.M. A307, GRADE "A" UNLESS OTHERWISE NOTED.
6. ANCHOR BOLTS SHALL COMPLY WITH A.S.T.M. A307 GRADE "A", UNLESS OTHERWISE NOTED.
7. SHEAR STUDS SHALL BE FIELD WELDED.
8. ALL WELDING SHALL BE BY THE SHIELDED ARC PROCESS. USE E-70XX ELECTRODES.
9. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL CONFORM TO A.W.S. D1.1 STRUCTURAL WELDING CODE.
10. STRUCTURAL FIELD WELDING SHALL HAVE SPECIAL INSPECTIONS AS REQUIRED BY THE LOCAL JURISDICTION HAVING PRECEDENCE
11. ALL STRUCTURAL STEEL EXPOSED TO EARTH SHALL HAVE 3" CONCRETE COVER. U.O.N.

STRUCTURAL WOOD:

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. ALL FRAMING SHALL BE GRADED D.F. OR LARCH MARKED AS FOLLOWS, UNLESS OTHERWISE NOTED. LIGHT FRAMING- "STANDARD" AND "STUD":

STUDS: (8' & SHORTER)	STUD GRADE OR BETTER
STUDS: (OVER 8')	DOUGLAS FIR # 2 U.O.N.
JOIST:	DOUGLAS FIR # 2 U.O.N.
POSTS:	DOUGLAS FIR # 1 U.O.N.
4X BEAM:	DOUGLAS FIR # 2 U.O.N.
6X & UP BEAM:	DOUGLAS FIR # 1 U.O.N.
LEDGERS AND TOP PLATE:	DOUGLAS FIR # 2 U.O.N.

3. 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)
4. SILL PLATES ON CONCRETE SHALL BE DOUGLAS FIR, PRESSURE TREATED WITH MIN. 5/8" DIA. X 10" ANCHOR BOLTS @ 4'-0" MAX AND 9" FROM END OF BOARD (OR AS SPECIFIED ON PLANS).
5. SILL PLATE. STUDS SHALL HAVE FULL BEARING ON NOMINAL 2-INCH THICK OR LARGER SILL PLATE WITH WIDTH AT LEAST EQUAL TO STUD WIDTH.
6. TOP PLATES OF ALL STUD WALLS SHALL BE DOUBLED, SAME SIZE AS STUDS, LAP PLATES 4'-0" MIN. WITH AT LEAST 16-16D NAILS AT 4" MAX. O.C. EACH SIDE UNO.
7. SOLID BLOCK STUDS AT 10'-0" VERTICAL INTERVALS.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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
23. 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. ROOF DIAPHRAGM UNDER FILL FRAMING. ROOF PLYWOOD SHALL BE CONTINUOUS UNDER CALIFORNIA FILL FRAMING.
30. ROOF DIAPHRAGM AT RIDGES. MINIMUM 2-INCH NOMINAL BLOCKING REQUIRED FOR ROOF DIAPHRAGM NAILING AT RIDGES.
31. BLOCKING OF ROOF TRUSSES. MINIMUM 2-INCH NOMINAL BLOCKING REQUIRED BETWEEN TRUSSES AT RIDGE LINES AND AT POINTS OF BEARING AT EXTERIOR WALLS.
32. TRUSS CLEARANCE. MINIMUM 1/2-INCH CLEARANCE REQUIRED BETWEEN TOP PLATES OF INTERIOR NON-BEARING PARTITIONS AND BOTTOM CHORDS OF TRUSSES.
33. 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.
34. DO NOT CUT, NOTCH, BORE, SHAVE, TAPER OR FOR ANY REASON MODIFY PRE-ENGINEERED / MANUFACTURED STRUCTURAL ELEMENTS SUCH AS GLUED LAMINATED MEMBERS, PARALLAMS, MICROLLAMS, I-JOISTS, LIGHT GAUGE METAL MEMBERS AND OTHER SIMILAR TIMBER OR STEEL PRODUCTS UNLESS SUCH MODIFICATIONS ARE WITHIN THE WRITTEN PARAMETERS SET FORTH BY THE MANUFACTURER OF THAT PRODUCT OR A LETTER OF CERTIFICATION FROM THE MANUFACTURER'S ENGINEER WITH DETAIL SIGNED AND STAMPED IS ISSUED AND AUTHORIZED BY THE PROJECT ENGINEER OF RECORD AND APPROVED BY THE CITY BUILDING OFFICIAL.
35. BOLTS SHALL HAVE 7 DIA. MIN. END DISTANCE AND 4 DIA. MIN. EDGE DIST. U.O.N.
36. ALL BOLTS SHALL BE FITTED WITH WASHERS. HOLES IN WOOD SHALL BE BORED WITH A BIT 1/32" TO 1/16" LARGER THAN THE BOLT DIAMETER.
37. CONNECTORS SHALL BE MANUFACTURED BY THE SIMPSON COMPANY. UNLESS ALTERNATE CONNECTORS HAVE BEEN APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
38. CUTTING, NOTCHING OR DRILLING OF BEAMS OR JOISTS TO BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER.
39. PROVIDE STRAP TIE (FLUSH HEADERS TO TOP PLATES) ST-22 MIN.
40. SHOT PINS SECURING WOOD SILL PLATE TO CONCRETE AT NON-SHEAR WALL OR INTERIOR NONBEARING WALLS SHALL BE AS SPECIFIED MIN. .146 DIA., BY 2 7/8" LONG PINS. W/6 FROM END OF SILL PLATES & 1 3/4" EDGE DISTANCE AND SPACING OF 32" O.C. MAX., WITH AT LEAST TWO PINS AT END OF PLATES AT 6" & 10" RESPECTIVELY (RAMSET REDHEAD 1524 SDB, 1524 SDP) PER ESR-2690 FASTENERS SHALL NOT BE INSTALLED UNTIL THE CONCRETE HAS REACHED MIN. COMPRESSIVE STRENGTH OF 2000 P.S.I.

STRUCTURAL I-JOISTS & MANUFACTURED LUMBER

1. MANUFACTURED I-JOISTS & LUMBER (MICROLAM [LVL], PARALLEL [PSL], AND TIMBERSTRAND [LSL]) BY "WEYERHAEUSER COMPANY" OR "BOISE ENGINEERED WOOD PRODUCTS"
2. DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST EDITION ESR-1387 & ESR-1153 FOR "WEYERHAEUSER COMPANY". OR EDITION ESR-1336, 1040. FOR "BOISE ENGINEERED WOOD PRODUCTS"

PLYWOOD:

1. ALL PLYWOOD SHALL BE MIN C-D, INTERIOR SHEATHING, OR BETTER WITH EXTERIOR GLUE AND SHALL BEAR THE STAMP OF AN INSPECTING AGENCY. COMPLY WITH DOC PS1 OR PS2
2. LAY PLYWOOD UP WITH FACE GRAIN PERPENDICULAR TO SUPPORT. (ON ROOFS WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD); STAGGER JOINTS; ALL NAILING TO BE COMMON NAILS.

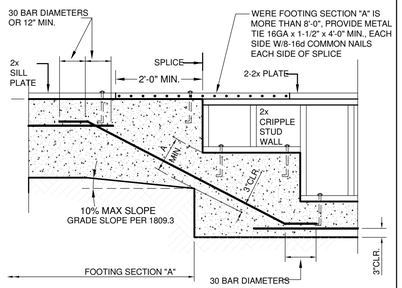
WOOD SCREWS.

3. WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENTS, USE
4. SCREWS AT FLOOR SHEATHING SHALL BE #8 X 2 1/2" LONG OR (WSNLTL212S PER ER-5053) FOR SHEATHING LESS THAN 1" THICK. ALL FLOOR SHEATHING SHALL BE GLUED TO JOISTS WITH AN APA AFG-01 QUALIFIED GLUE.
5. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED AS FOLLOWS UNLESS NOTED OTHERWISE:

USE	THICKNESS	SPAN/INDEX RATIO	EDGE ATTACHMENT	INTERMEDIATE ATTACHMENT
ROOF	1/2"	24/0 32/16	8d @ 6" O.C.	8d @ 12" O.C.
FLOOR	5/8"	42/20	10d @ 6" O.C.	10d @ 10" O.C.

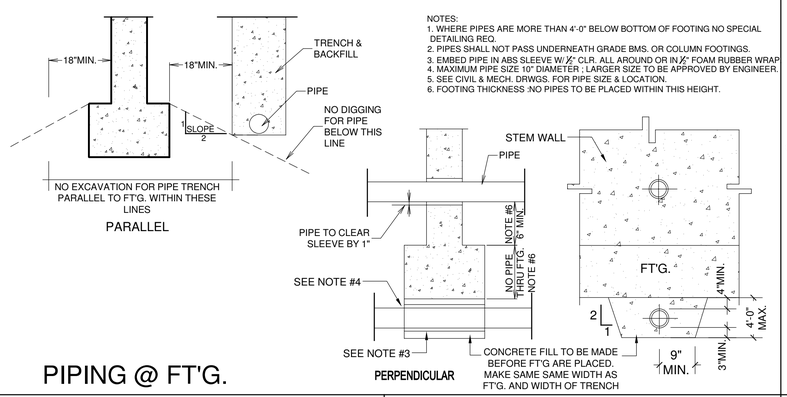
PREFABRICATED WOOD TRUSSES

1. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS STATED IN STRUCTURAL CALCULATIONS OR AS NOTED ON PLANS. BRIDGING SIZE AND SPACING BY TRUSS MANUFACTURER UNLESS NOTED OTHERWISE.
2. EACH TRUSS SHALL BE LEGIBLE BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED THERE TO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOT



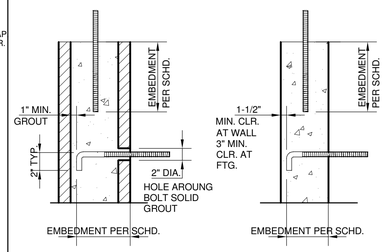
NOTE: WERE FOOTING SECTION "A" IS LESS THAN 8'-0" IN A 25'-0" TOTAL LENGTH WALL, PROVIDE BRACING AT CRIPPLE STUD WALL

STEP FOOTING

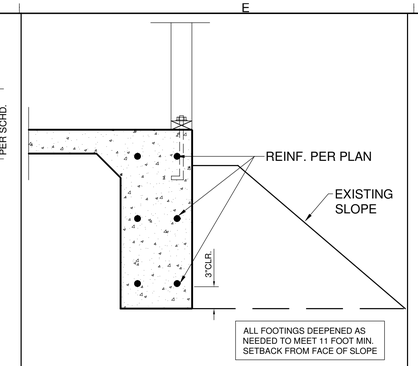


NOTES:
1. WHERE PIPES ARE MORE THAN 4'-0" BELOW BOTTOM OF FOOTING NO SPECIAL DETAILING REQ.
2. PIPES SHALL NOT PASS UNDERNEATH GRADE BMS. OR COLUMN FOOTINGS.
3. EMBED PIPE IN ABS SLEEVE W/ 1/2" CLR. ALL AROUND OR IN 1/2" FOAM RUBBER WRAP
4. MAXIMUM PIPE SIZE 10" DIAMETER ; LARGER SIZE TO BE APPROVED BY ENGINEER.
5. SEE CIVIL & MECH. DRWGS. FOR PIPE SIZE & LOCATION.
6. FOOTING THICKNESS :NO PIPES TO BE PLACED WITHIN THIS HEIGHT.

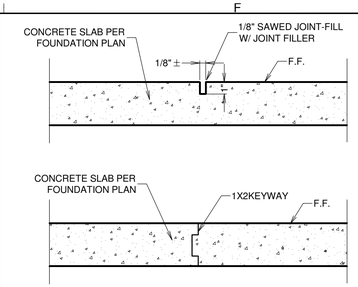
PIPING @ FT'G.



BOLT EMBEDMENT

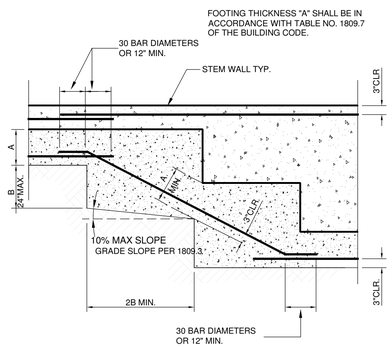


FTG. @ TOP OF SLOPE

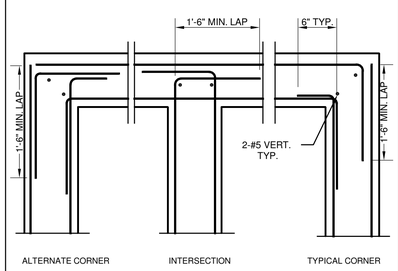


NOTES:
1. SLAB REINF. TO BE CONTINUOUS.
2. SAW CUT WITHIN 24 HOURS OF POURING SLAB.
3. PROVIDE SAW CUT AT MAXIMUM 20' O.C. FOR ALL INTERIOR AND EXTERIOR SLABS AND FLATWORK.

TYP. JOINT

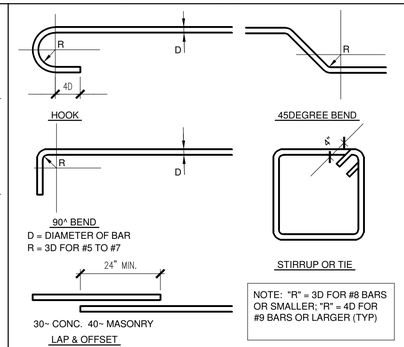


STEP FOOTING



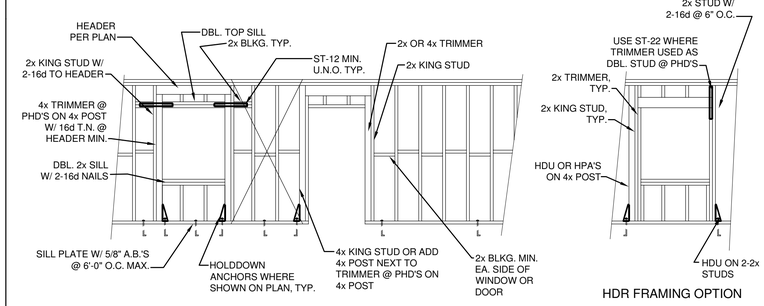
NOTE: WHERE SINGLE LAYER OF REINFORCING OCCURS, BEND REINFORCEMENT AS SHOWN OUTSIDE BARS. 30 DIA. FOR CONCRETE, 40 DIA. FOR MASONRY

REINF. FTG.& WALL INTER.

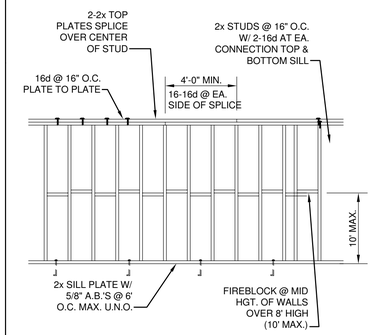


NOTE: "R" = 3D FOR #8 BARS OR SMALLER; "R" = 4D FOR #9 BARS OR LARGER (TYP)

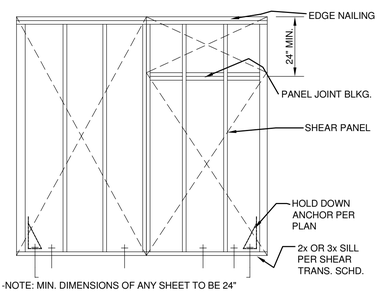
TYPICAL REINFORCING BENDS



WINDOW/DOOR FRAMING @ SHEAR WALL

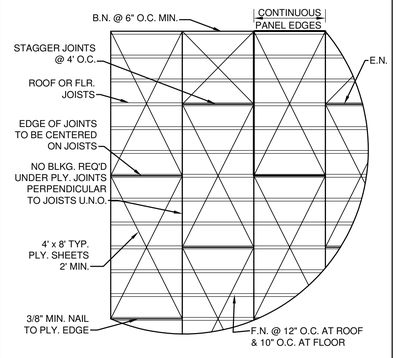


TYPICAL FRAMING

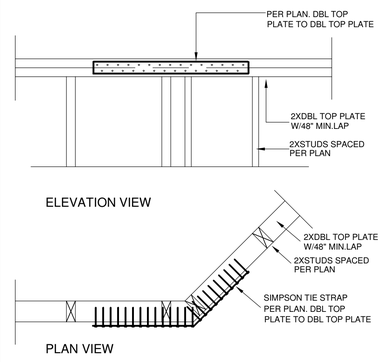


-NOTE: MIN. DIMENSIONS OF ANY SHEET TO BE 24"
-NOTE: EDGES SHALL BUTT ALONG CENTER LINE OF STUDS OR BLOCKING
-NOTE: ALL EDGES SHALL BE NAILED TO FRAMING MEMBERS OR TO BLOCKING NORMAL TO FRAMING MEMBERS.
-NOTE: USE 3x MIN. STUD @ ALL ADJOINING PANEL EDGES PER SHEAR TRANSFER SCHD.

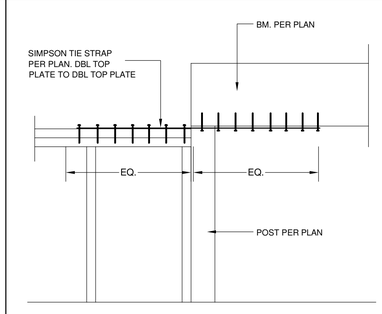
TYPICAL PLY. SHEAR PANEL



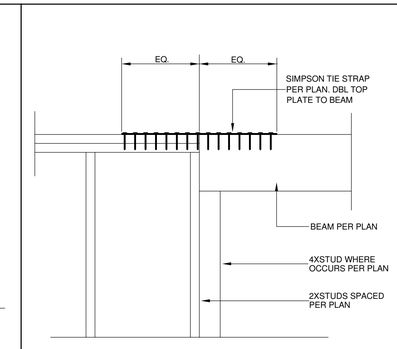
FLOOR/ROOF DIAPHRAGM



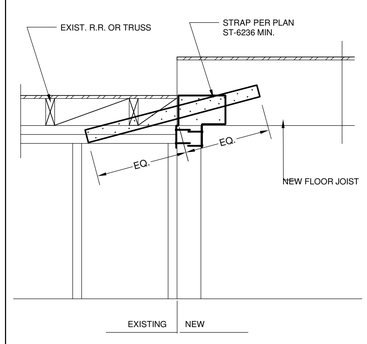
STRAP DETAIL



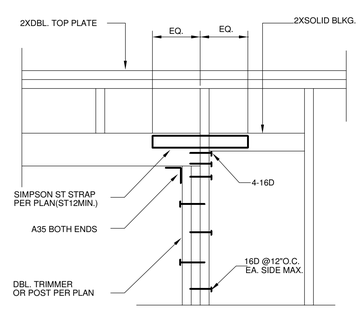
STRAP DETAIL



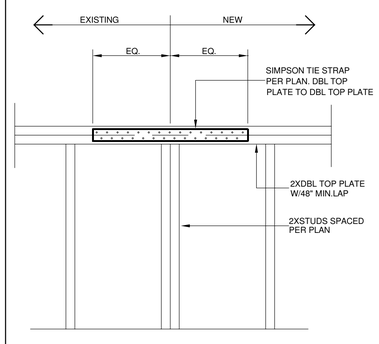
STRAP DETAIL



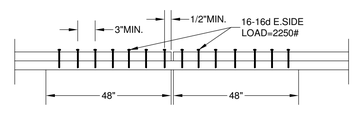
CONNECTION



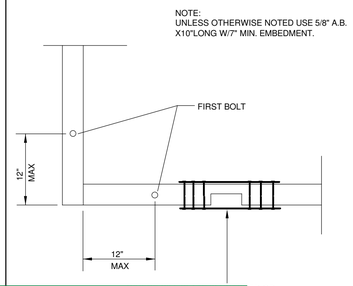
HEADER STRAP



STRAP DETAIL



TOP PLATE AT SPLICE



City of Oceanside
Reviewed for code compliance with the Building Standards Codes and applicable City of Oceanside Codes and Ordinances
J.Bolton 07/17/2025 1:34:57 PM

PLATE NOTCHING

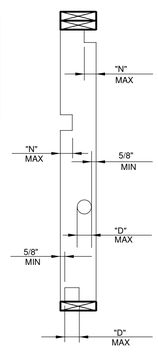
STUD	BEARING&EXT. "N"	BEARING&EXT. "D"	NONBEARING "N"	NONBEARING "D"
2X4	7/8"	1-3/8"	1-3/8"	2"
2X6	1-3/8"	2-1/8"	2-1/8"	3-1/4"
2X8	1-7/8"	3"	3"	4-1/2"
2X10	2-3/8"	3-3/4"	3-3/4"	5-5/8"

NOTES:

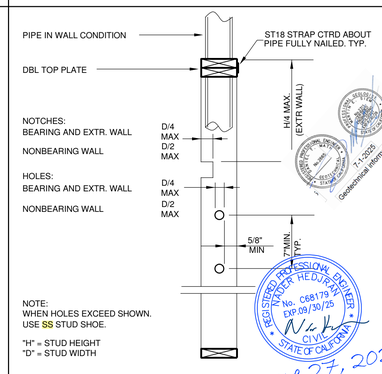
1. ONLY ONE MAX. SIZE NOTCH OR BORED HOLE IS ALLOWED PER STUD.

2. NONBEARING WALL IS DEFINED AS A PARTITION 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 NOTCHING



STUD NOTCHING

June 27, 2025

REVISIONS	DATE

NDC
NADER'S DESIGN CONSULTING, INC.
5959 MISSION GORGE RD. SUITE 203, SAN DIEGO, CA. 92120
PHONE: (619) 287-1184, FAX: (619) 287-1185, E-MAIL: ndesign@cox.net

CONTRACTOR:

PROJECT TYPE: 2 STORY DWELLING W/ATTACHED GARAGE
OWNER: JESSICA BRANDT
ADDRESS: SHOSHONE ST., OCEANSIDE, CA. 92058

SHEET TITLE: STANDARD STRUCTURAL DETAILS

CONTRACT DATE	4/5/2023
DATE	6/27/2025
DRAWN	MARIA G.
SHEET	SSD

REGISTERED PROFESSIONAL ENGINEER NADER HEDAYAT No. C68179 EXP. 09/30/25 CIVIL STATE OF CALIFORNIA

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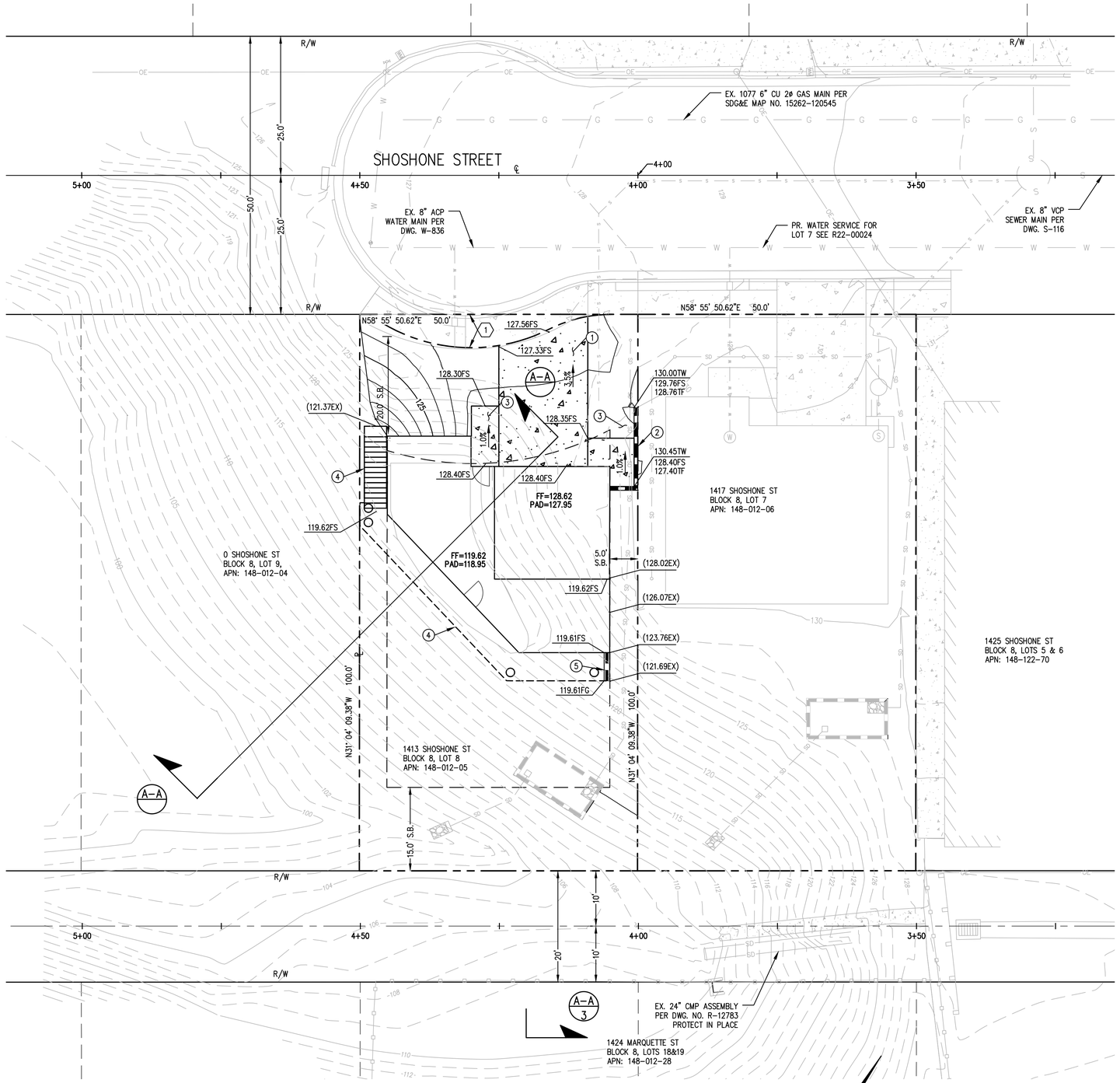

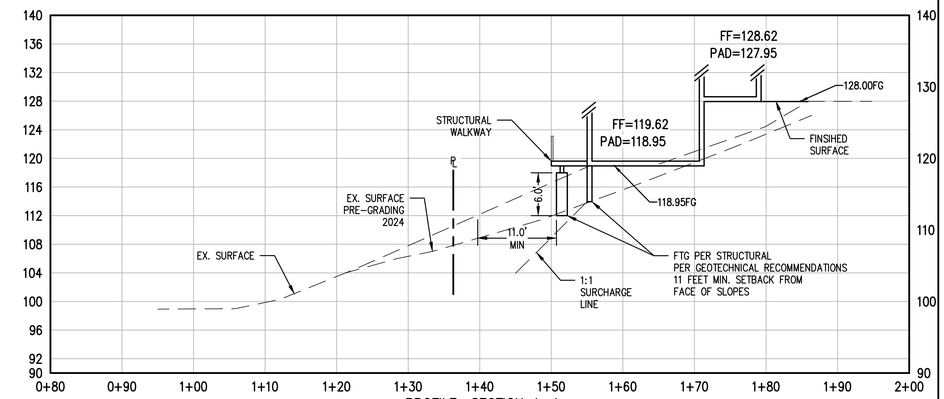

PROFILE: SECTION A-A
HOR.: 1"=10'
VERT.: 1"=10'

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE DRIVEWAY (FOR CONFINED RIGHT-OF-WAY) PER SDRSD G-14D
2. CONSTRUCT MASONRY RETAINING WALL PER SDRSD C-06
3. CONSTRUCT 4" THICK CONCRETE SIDEWALK PER GEOTECHNICAL RECOMMENDATIONS
4. STRUCTURAL WALKWAY PER OTHERS
5. STRUCTURAL RETAINING WALL PER OTHERS

EASEMENT NOTES:

1. PROPOSED 6' R.O.W. DEDICATION

Civil Landworks
110 COPPERWOOD WAY, SUITE P, OCEANSIDE, CA 92058
PH: 760-908-8745 • info@civillandworks.com

REGISTERED PROFESSIONAL ENGINEER — PAUL A. ROSS — No.C070066 — EXP.09/30/26 — CIVIL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — DANIEL T. SMITH — No.2665 — GEOTECHNICAL — STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST — MARTIN E. PILGER — No.2311 — CERTIFIED ENGINEERING GEOLOGIST — EXP.6/30/26 — STATE OF CALIFORNIA

7-1-2025
Geotechnical information only

GRAPHIC SCALE
SCALE: 1"= 10'

CAUTION!!

EXISTING UNDERGROUND UTILITIES AND FACILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS WHICH IN MOST CASES ARE SCHEMATIC PLANS. THESE PLANS MAY NOT REFLECT ALL EXISTING UTILITIES. EXACT LOCATION AND DEPTH OF EXISTING UTILITIES ARE UNKNOWN. SUBCONTRACTOR TO CONFIRM THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF WORK, AND NOTIFY ENGINEER OF WORK OF ANY DISCREPANCIES.

15130 – grd-01 – lot 8 6/27/25