Residential &

Light Commercial

Design

Naik

Residence

Addition

FOR

Ram

Naik

156 Connemara Way

Sunnyvale, CA

Remodel with Addition

464

VERSION DATE 4/4/2023

REMARKS

DATE

Om Design LLC

Santa Cruz, CA

230 Chilverton Ste. A

(831) 251-0198

om-design.io

GENERAL NOTES

GOVERNING CODES: All work shall comply with the 2019 California Building Code, 2019 California Residential Code, 2019 California Electrical Code, 2019 California Mechanical Code, 2019 California Plumbing Code, CCR Title 24, the 2019 California Existing Building Code, 2019 California Green Standards Code, 2019 California Referenced Standards Code, 2019 California Fire Code, 2019 California Energy Code, 2019 California building standards commission, chapter 12, local amendments and all applicable local ordinances.

FIRE NOTES

Fire blocking and draft stopping shall be installed to cut off all concealed draft openings (both vertical and horizontal) and shall form an effective barrier between floors, between top story and a roof or attic space.

Fire Block all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.

Fire Block at openings around vents, pipes, ducts, and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.

Smoke Detectors shall be installed in each sleeping rooms and at a point centrally located in the hallway or area giving access to each sleeping room and are to be audible in all sleeping areas. Smoke Detectors are to be supplied by a 110v circuit, and to have battery backup.

All Smoke Detectors to be interconnected in such a manner that the actuation of one alarm will actuate all of the alarms in the dwelling.

Provide minimum of one smoke detector per floor.

Fire Sprinklers and Fire Flow: Fire flow rate required is 1000 gallons per minute for 120 minutes. Sprinklers not Provided. Nearest fire hydrant located on Connemara approximately 230 ft from house.

Roof to be no less than Class "B" rated

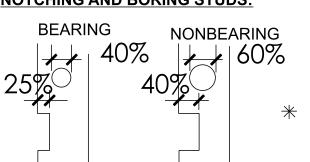
EMERGENCY ESCAPE WINDOWS

Every sleeping room to be provided with at least one operable window or exterior door approved for emergency escape or rescue, which opens directly to street, public alley, yard, or exit corridor.

The units shall be operable from the inside to provide a full clear opening without the use of separate tools. All escape/rescue windows from sleeping rooms shall have a minimum net clear openable area of 5.7 sq. ft. the minimum clear openable height dimension shall be24 inches. The minimum net clear openable width dimension hall be 20 inches Escape/rescue windows shall have a finished sill height not more than 44 inches above the floor.

SOUND INSULATION

NOTCHING AND BORING STUDS:



60% hole ok on bearing wall if through only 2-double successive studs. All holes must be minimum 5/8 inch from edge.

Where sole plates are cut for pipes, a metal tie minimum 0.058 inch thick and 1-1/2 inches wide shall minimum each side, per c.b.c. section 2320.11.7.

MECHANICAL

Service Disconnects to be located in a location readily accessible by the occupants. CEC 230.70

SPECIAL NOTES:

passage of rodents.

occupant or owner

with voelimits.

checked before enclosure.

be covered during construction.

4.504.2 Finish material pollutant control.

limit finish materials have been used.

requirements of one of the following:

(also known as Specification 01350.)

comply with one or more of the following:

Greenquard Children & Schools program).

201 0 (also known as Specification 01350)."

CCR 93J20 et seq.), by or before the dates specified

in those section s, as shown in Table 4.504.5."

installed at slab-on-grade foundations.

the proper installation of HVAC systems.

agency which show substantial conformance."

Manual J-2011 or equivalent.

Manual 5-2014 or equivalent."

discipline they areinspecting.

FloorScore program.

3. NSFI ANSI 140 at the Gold level

4.504.3 Carpet systems.

compliant with VOC and other toxic compound limits.

1. Carpet and Rug Institute's Green Label Plus Program.

4. Scientific Certifications Systems Indoor Advantage™ Gold.

4.504.4 Resilient flooring systems. Where resilient flooring is

4.406.1 Rodent Proofing. Annular spaces around pipes,

plates at exterior walls shall be protected against the

4.503.3 Moisture content of building materials.

electric cables, conduits or other openings in sole/bottom

4.410.1 Operation and maintenance manual. An operation

and maintenance manual shall be provided to the building

Moisture content of building materials used in wall and floor framing is

4.504.1 Covering of duct openings and protection of mechanical equipment

Duct openings and other related air distribution component openings shall

Adhesives, sealants and caulks. Adhesives, sealants and caulks shall be

Paints and coatings. Paints, stains and other coatings shall be compliant

with product weighted MIR limits for ROC and other toxic compounds.

2. California Department of Public Health, ""Standard Method for the

Sources Using Environmental Chambers,"" Version 1.1, February 2010

Carpet cushion. All carpet cushion installed in the building interior shall

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

in stalled, at least 80 percent of floor area receiving resilient flooring shall

1. Products compliant with the California Department of Public Health,

""Standard Method for the Testing and Evaluation of Volatile Organic

Chambers,"" Version 1.1, February 2010 (alsoknown as Specification

01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.

4. Meet the California Department of Public Health, ""Standard Method for

the Testing and Evaluation of Volatile Organic Chemical Emissions from

Indoor Sources Using Environmental Chambers,"" Version 1.1, February

4.504.5 Composite wood products. Hardwood plywood, particleboard and

exterior of the building shall meet the requirements for formaldehyde as

specified in ARB's Air Toxics Control Measure for Composite Wood (17

4.505.2 Concrete slab foundations. Vapor retarder and capillary break is

4.507.2 Heating and air-conditioning system design. Duct systems are

2. Size duct systems according to ANSI/ACCA 1 Manual D-2014 or

3. Select heating and cooling equipment according to ANSI/ACCA 3

702.1 Installer Training. HVAC system installers are trained and certified in

702.2 Special Inspection. Special inspectors employed by the enforcing

agency must be qualified and able to demonstrate competence in the

construction documents, plans, specifications builder or installer

certification, inspection reports, or other methods acceptable to the

sized, designed, and equipment is selected using the following methods:

1. Establish heat loss andheat gain values according to ANSI/ACCA 2

medium density fiberboard composite wood products used on the interior or

Chemical Emissions from Indoor Sources Using Environmental

2.Products certified under UL GREENGUARD Gold (formerly the

3. Certification under the Resilient Floor Covering Institute (RFCI)

meet the requirements of the Carpet and Rug Institute's Green Label

Verification. Documentation shall be provided to verify that compliant voe

All carpet installed in the building interior shall meet the testing and product

Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor

Aerosol paints and coatings. Aerosol paints and coatings shall be compliant

Duct Insulation: R-6 minimum insulation for ducts. See the energy compliance documents.

Wall mount gas furnaces to be ≥ 92 AFUE

Combustion air vents (with screen and back damper) to be provided for any appliance with open flame provide individual shut-off valve for at maximum 3 feet from every gas appliance

Appliances generating a glow, spark, or flame must be at least 18 in. above the floor in a garage.

Combustion air openings to be provided within 12 in. of floor and ceiling for gas burning equipment.

Dryer exhaust vent to be min. 4"" dia. smooth sheet metal, vented thru wall or pipe extending up the wall and transitioning to a 5"" dia. smooth sheet metal pipe in attic, and extending to the outside. All dryer vents to must have a backdraft damper.

ENERGY

HERS Certification Required per CA Administrative Code 10-103(b)3 and as specified on Title 24 report. Items that require QII are specified per provided reporting and energy calculations on EN

Solar Panels - Deferred permit

Insulation: Specify the insulation Rvalues per the energy calculations [SPECIFY] R21 at the 2x6 exterior walls / R-38 at the attic.

Radiant Barrier at the roof to be in accordance with energy calculations.

SOILS NOTE

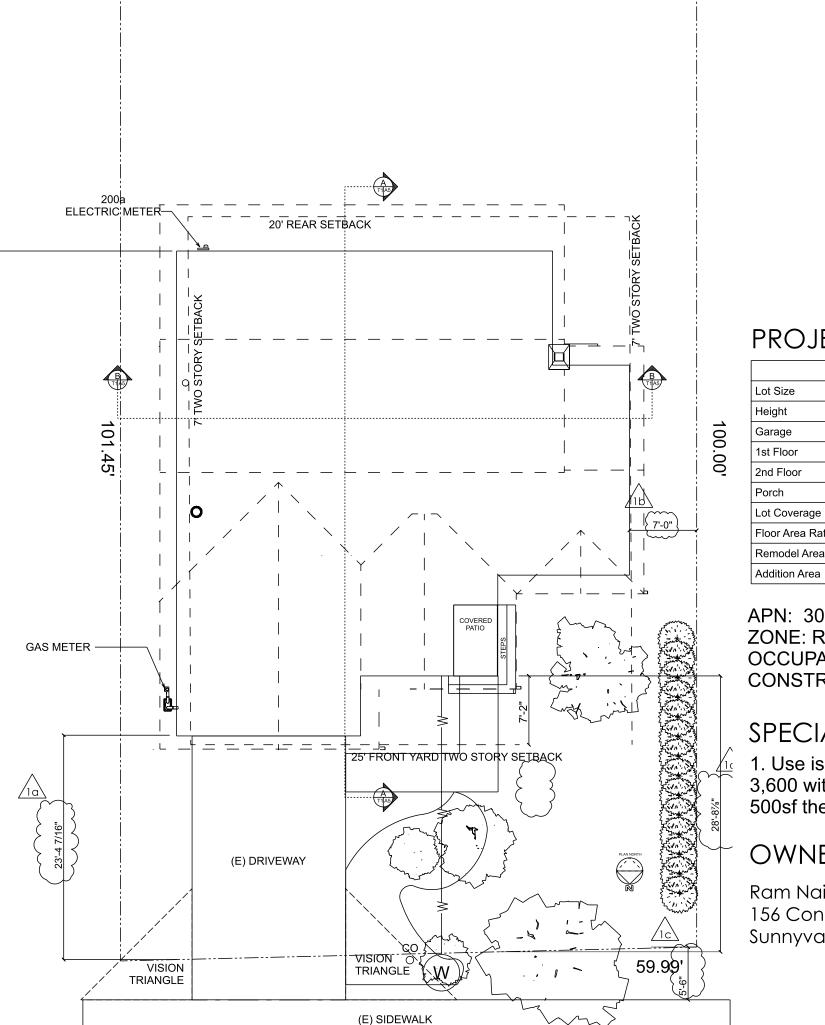
Om Design build has not studied or expressed any opinion concerning stability of soils, or the risk of slides, flooding or earth movement, under or earth movement, under or in the vicinity of the building site. such studies and opinions can be given only by a qualified, licensed soils engineer.

DI LIMBING EIYTLIDE SCHEDIII E

| P | PLUMBING FIXTURE SCHEDULE | | | | |
|--------|---------------------------|--------------|--|--|--|
| SYMBOL | COUNT | FIXTURE | NOTES | | |
| ~l~ | 1 | FAUCET | CA 403.6: Residential KitchenFaucets, 1.8 gpm @60psi, temporary max 2.2gpm @60psi w/auto return. | | |
| | 4 | LAVATORY | CA 403.7: Residential Lavatory Faucets, 1.2 gpm @60 psi, min .08 gpm@20 psi | | |
| 1 | 3 | SHOWER HEAD | CA 408.2: Shower Heads, Max 1.8 gpm @80psi | | |
| | 3 | WATER CLOSET | CA 403.2: Water Closets, Maximum flush 1.28 gallons | | |

Naik Residence

156 Connemara Way, Sunnyvale, CA



156 CONNEMARA WAY

60.02'

PROJECT DATA: 5,900 5.900 21'-7" 405 sf 448 sf 1,183 sf 1,526 sf 921 sf 921 sf 155 sf 35 sf 40% 1,786 / 30% 1,966 / 33% Floor Area Ratio 45% 2,552 / 43% 2,852 / 48% 164 sf

APN: 30924003 ZONE: R0 OCCUPANCY GROUP: R3 **CONSTRUCTION TYPE: V**

SPECIAL NOTES:

1. Use is R-3 and total SF is less than 3.600 with an addition of less than 500sf therefore no sprinklers provided. Landscape - BMP

300 sf

OWNER:

Ram Naik 156 Connemara Way Sunnyvale, CA

| DRAWING SCHEE | DUL |
|----------------------|-----|
| Project Data | |
| Cover Sheet | ٦ |
| | |
| <u>Architectural</u> | |
| (N) Floor Plan | A |
| (E) Floor Plan | F |
| Dimensions | F |
| (N) Elevations | F |
| Details | F |
| Streetscape | P |
| | |
| <u>MEP</u> | |

<u>Structural</u> 1st Floor Roof Plan

Energy T24 Calculations EN1 Mandatory Measures_ EN3 Calgreen_

Landscape-BMPs

Survey Data_

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REMARKS



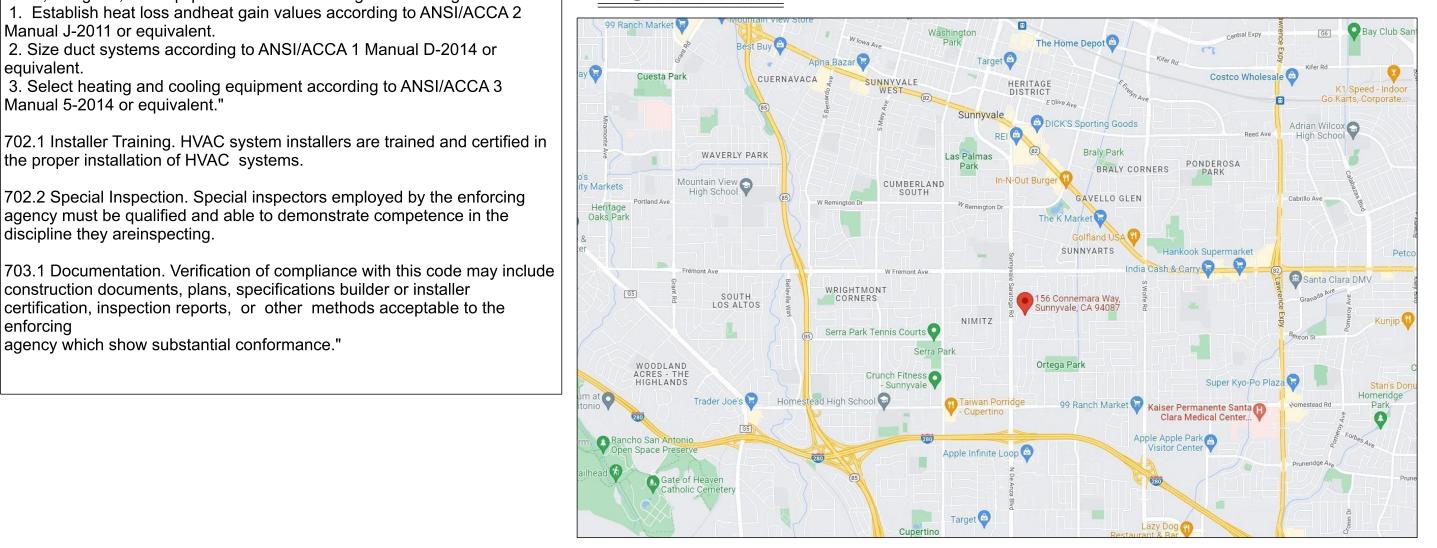
CADD FOLDER CADD FILE

Cover Sheet

VICINITY MAP

SCALE: 1" = 10'-0"

PROPOSED SITE PLAN



SCOPE OF WORK

The scope includes the renovation of the first story of an existing single family home and a 300 sf office and entry addition on the first story as well as enlargment of a bedroom by reducing the size of the garage.

ARCHITECTURAL

The scope is the renovation and addition to a single family residence, including the installation of a raised foundation, exterior walls, interior partitions, framing, drywall, flooring, cabinets, openings, roofing, plumbing and paint.

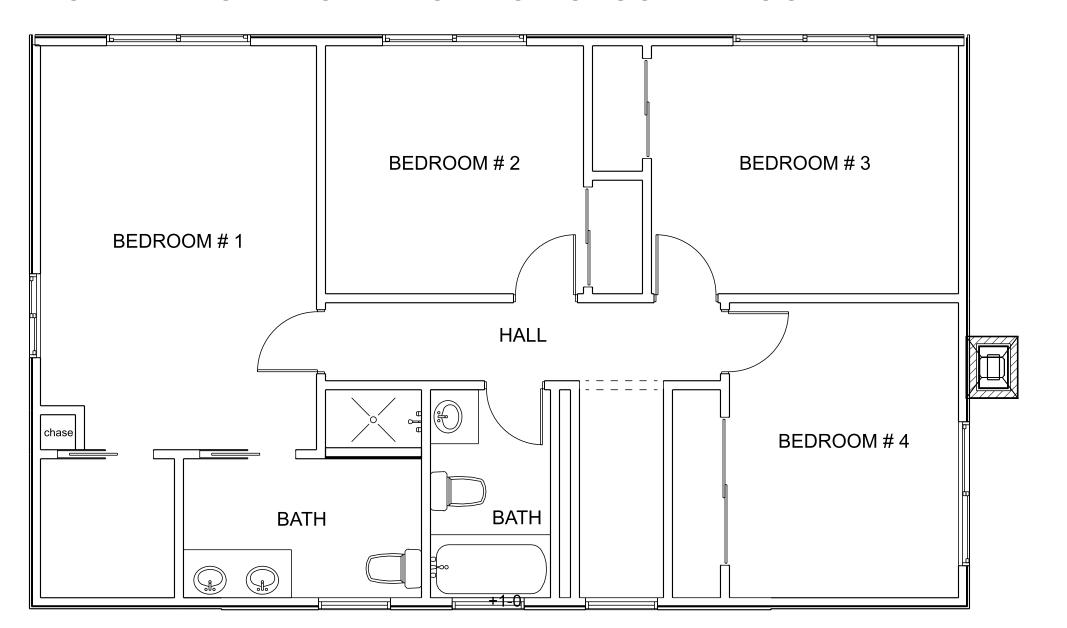
ELECTRICAL

The scope is the installation of new electrical fixtures and wiring.

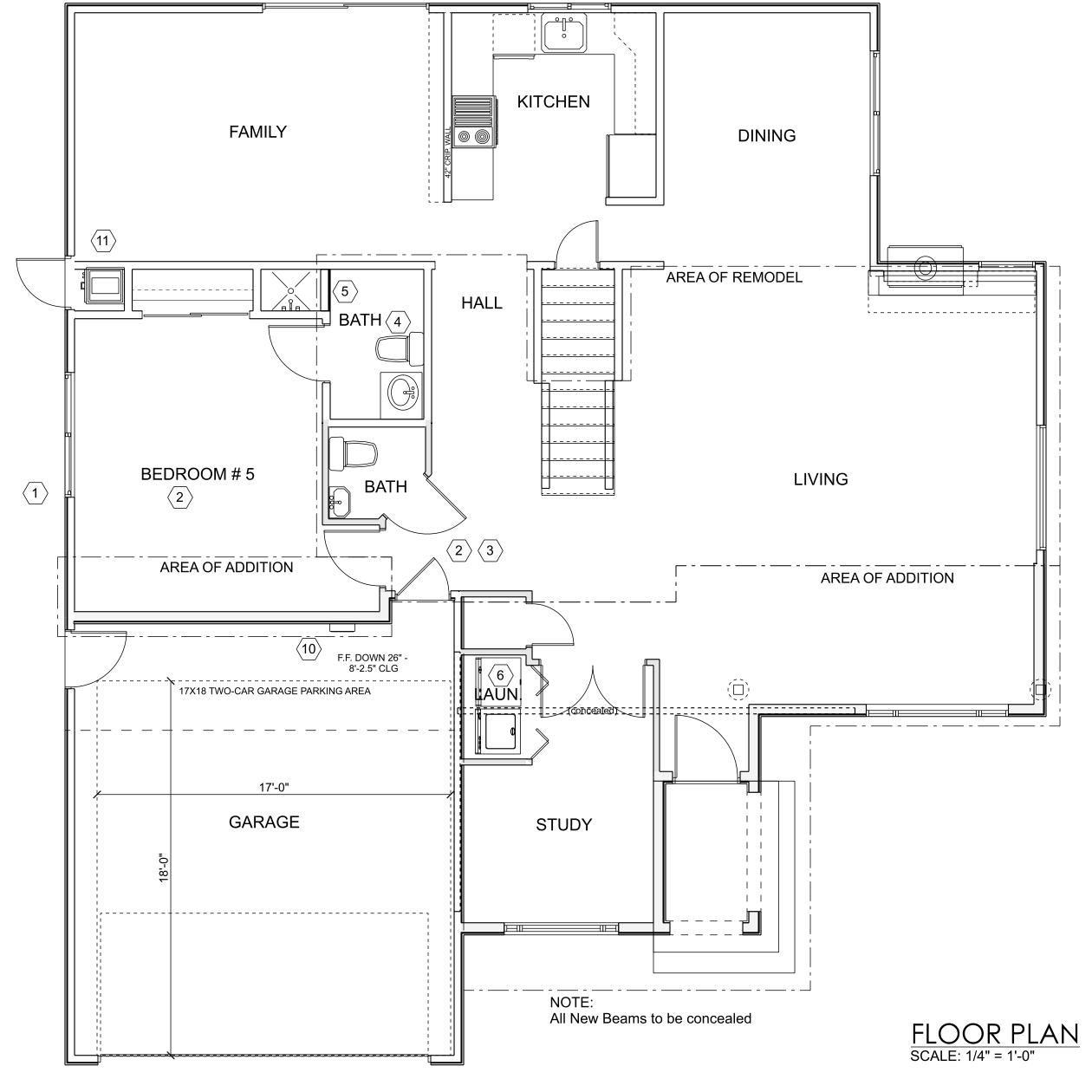
PLUMBING & MECHANICAL

The scope is the installation of new plumbing fixtures, water lines and waste lines as need to accompdate new fixtures.

NO NEW WORK TO BE DONE ON SECOND FLOOR



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



FLOOR PLAN NOTES:

Top plate splicing: use a minimum of 4 ft. lap splice with (10) 16d's into each side of lap or use st6224 strap across plate breaks.

- Egress Window
 Minimum net opening: 5.7 SQ. FT.
 Maximum Sill Height: 44"
 Minimum Openable Dimension: 24" H x 20" W
- Smoke Detectors: required in all bedrooms, at all hallways leading to bedroooms, and at each floor level including basements. smoke detectors shall be hard wired together in a series including a battery backup. IRC R313
- Alterations, Repairs and Additions: when interior repairs or alterations requiring a permit occur, the dwelling shall be provided with smoke alarms located as required for new dwellings. In existing construction, battery type alarms may be provided when hard wiring and interconnection is not feasible.
- Carbon Monoxide Detectors/ alarms: required on every habitable level of a residence that contains a fuel burning appliance.
- Water Closet Stool shall be located in a clear space not less than 30" in width and have a clear space in front of the water closet stool not less than 24" section 2904 of the CBC. Maintain 15" clearance from centerline to each side wall. Water closets must be ultra low flush fixtures, which use no more than 1.28 gallons per flush.
- All shower compartments, regardless of shape, shall have a minimum finished interior of one thousand twenty-four (1024) square inches and shall also be capable of encompassing a 30" circle. This measurement shall be maintained to a point 72" above the shower drain. section 412.7 of the CPC. Showers and tub-shower combinations shall be provided with individual control valves of the pressure balance or the thermostatic mixing valve type. Handle position stops shall be provided on such valves and shall be adjusted per mfr's instructions to deliver a maximum mixed water setting of 120°f (49°c). The water heater thermostat shall not be considered a suitable control for meeting this provision.
- Provide new hook-up for (E) Washer/Dryer. Vent route to exterior with rigid metallic material and backdraft termination location. Provide min. 100 sq. inches ventilation via vent in door.
- $\overline{7}$ Not Used
- Attic Access: min. 30" x 22" with light on switch and service outlet. Provide larger access door to accomodate attic mounted mechanical equipment if any.
- $\overline{\left\langle 9\right\rangle }$ (E) Furnace OR min-split

Water Heater

 $\langle 10 \rangle$ (N) On Demand

Landscaping and location of sleeping rooms relative to property lines shall be located so as to provide approved ladder access to each sleeping room.

Approved ladder access consists of a maximum 70 degree climbing angle, at least 3 feet of clear space behind the base of the ladder to allow access and approved concrete or gravel ladder pads having a minimum dimension of 3' x 6' and positioned so that the 6' length is perpendicular to the structure.

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CADD FOLDER
CADD FILE

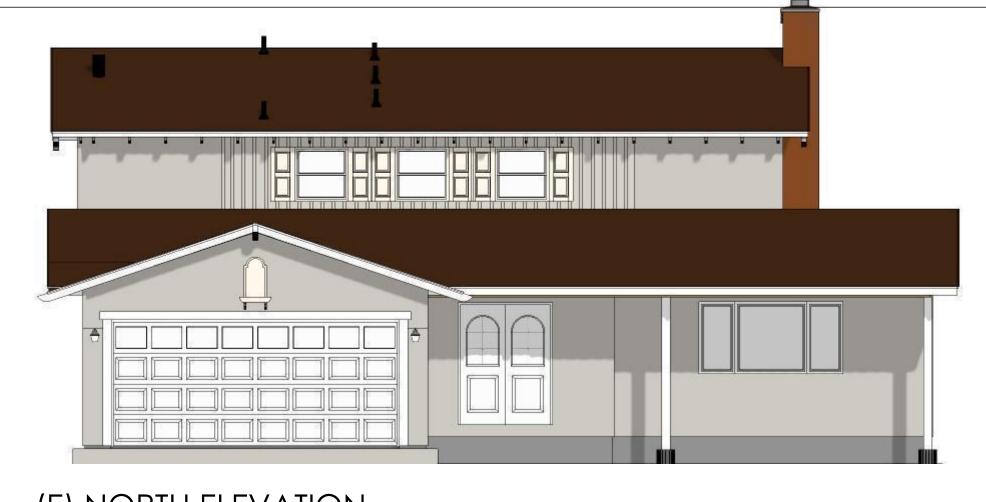
(N) Floor Plan

A1

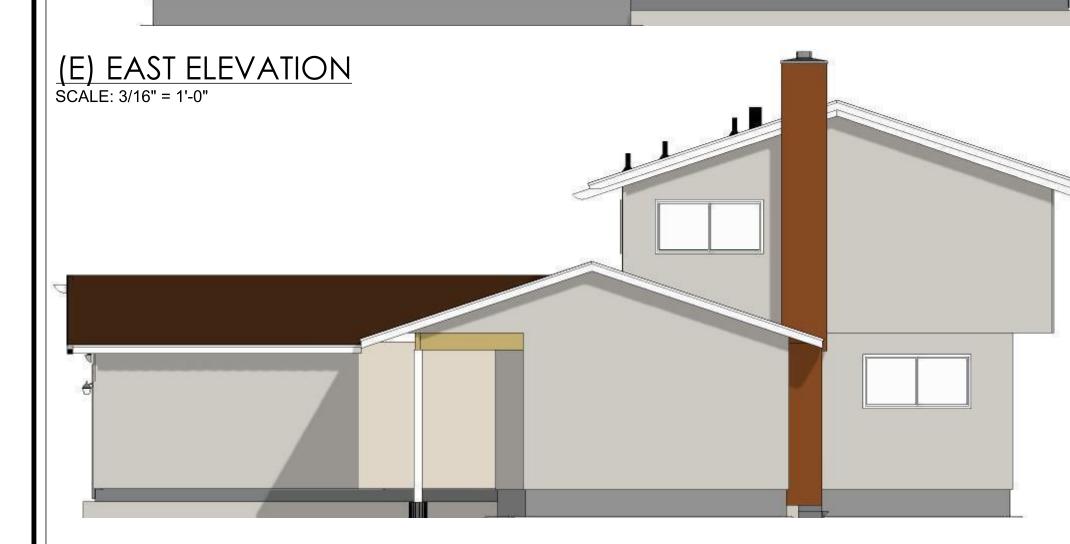


TOP PLATE SPLICING: USE A MINIMUM OF 4 FT. LAP SPLICE WITH (10) 16d'S INTO EACH SIDE OF LAP OR USE ST6224 STRAP ACROSS PLATE BREAKS.

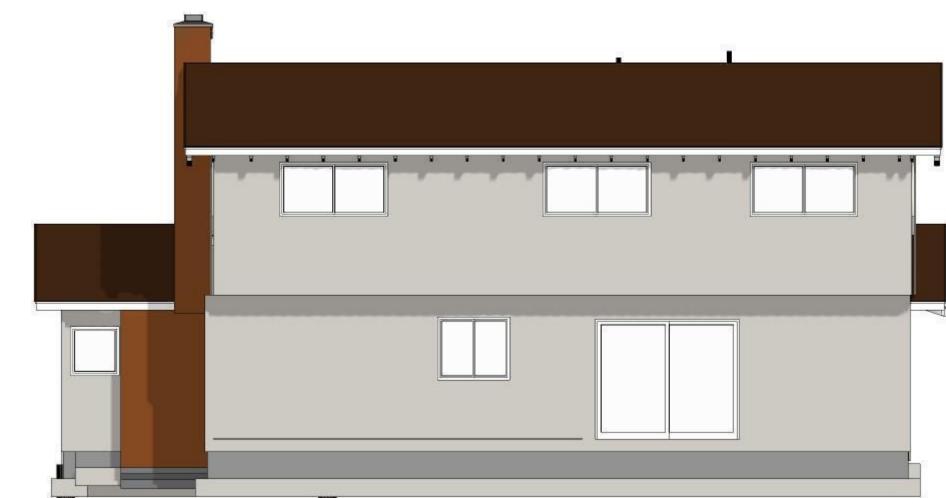
Existing Walls to Remain



(E) NORTH ELEVATION SCALE: 3/16" = 1'-0"



(E) WEST ELEVATION SCALE: 3/16" = 1'-0"



(E) SOUTH ELEVATION
SCALE: 3/16" = 1'-0"

GENERAL DEMOLITION NOTES:

EQUIPMENT SHOWN IN DASHED LINE WEIGHT ON DEMOLITION PLANS SHALL BE REMOVED OR RELOCATED.

2. WHERE REMOVAL OF ELECTRICAL WORK SHOWN, OR OF ASSOCIATED WIRING INTERRUPTS SERVICE TO EXISTING ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL EXTEND SERVICE TO REMAINING EQUIPMENT. ROUTING OF THIS EXTENDED SERVICE SHALL BE SUCH THAT IT DOES NOT INTERFERE WITH NEW WORK.

3. CONTRACTOR SHALL PROVIDE BLANK COVER PLATES ON ALL JUNCTION AND DEVICE BOXES WHICH ARE UNCOVERED AS A RESULT OF REMOVAL OF EQUIPMENT.

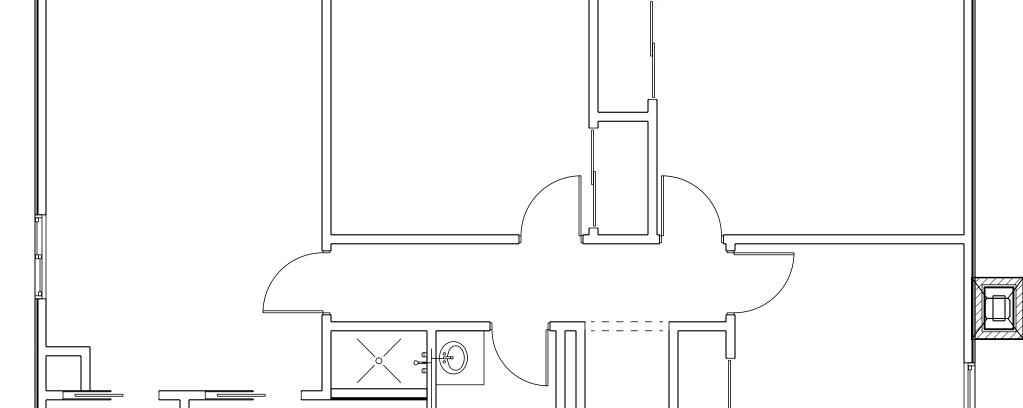
4. ALL ITEMS TO REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM SITE, UNLESS OWNER WISHES TO RETAIN OWNERSHIP, OR IF ITEM IS SPECIFICALLY NOTED TO BE RELOCATED OR SALVAGED. CONTRACTOR SHALL COORDINATE DEMOLITION WITH OWNER TO ASSURE THEIR FIRST REFUSAL FOR ALL ITEMS BEING REMOVED FROM THE PROJECT.

5. ALL EXISTING SURFACES DAMAGED OR EXPOSED BY DEMOLITION OR REMOVAL OF EQUIPMENT SHALL BE PATCHED AND REPAIRED WITH MATERIAL AND FINISHES TO MATCH EXISTING ADJACENT SURFACES.

6. CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK WITH OWNER TO MINIMIZE DISRUPTIONS TO ONGOING OPERATIONS AND DOWN-TIME TO EXISTING SYSTEMS.

7. REMOVAL OF DEVICE SHALL INCLUDE REMOVAL OF ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.

8. THE CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH ALL TRADES.



(E) SECOND FLOOR - No work proposed for this level

DEMOLITION KEYNOTES:

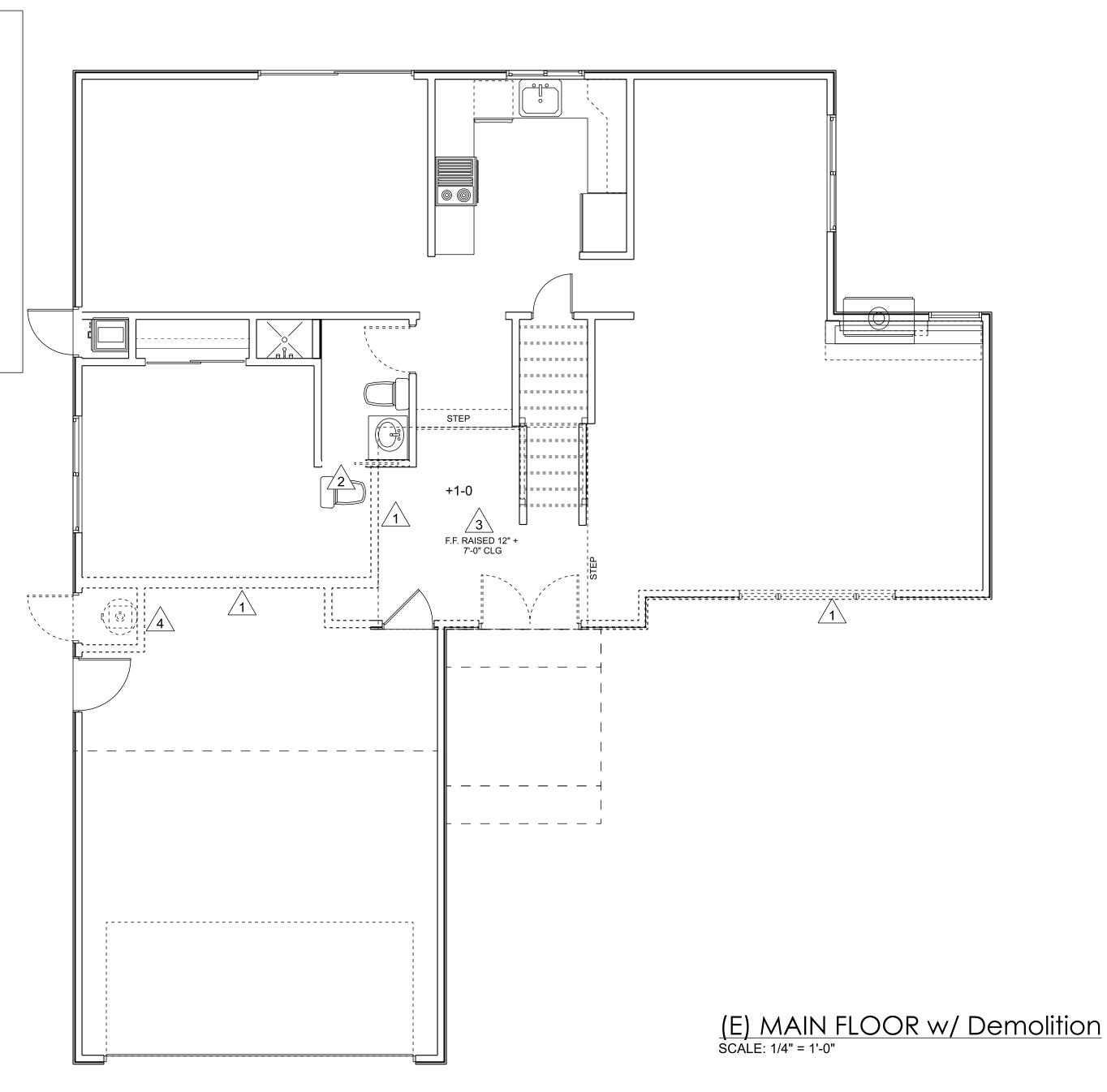
REMOVE EXISTING WALL
- SHORE AND BRACE EXISTING STRUCTURES AS REQUIRED
- PATCH AND REPAIR SURROUNDING SURFACES AS REQUIRED

NEW DOOR WITHIN EXISTING WALL
- REFRAME WALL AS REQUIRED FOR NEW HEADER / DOOR
OPENING
- PATCH AND REPAIR SURROUNDING SURFACES AS REQ'D

REMOVE EXISTING RAISED FLOOR
- NEW FLOOR LEVEL TO MATCH EXISTING LR/KT FLOOR

- NEW FLOOR LEVEL TO MATCH EXISTING LR/KT FLOOR
- PATCH AND REPAIR SURROUNDING SURFACES AS REQUIRED

REMOVE EXISTING WATER HEATER AND CLOSET
- SHORE AND BRACE EXISTING STRUCTURES AS REQUIRED
- PATCH AND REPAIR SURROUNDING SURFACES AS REQUIRED





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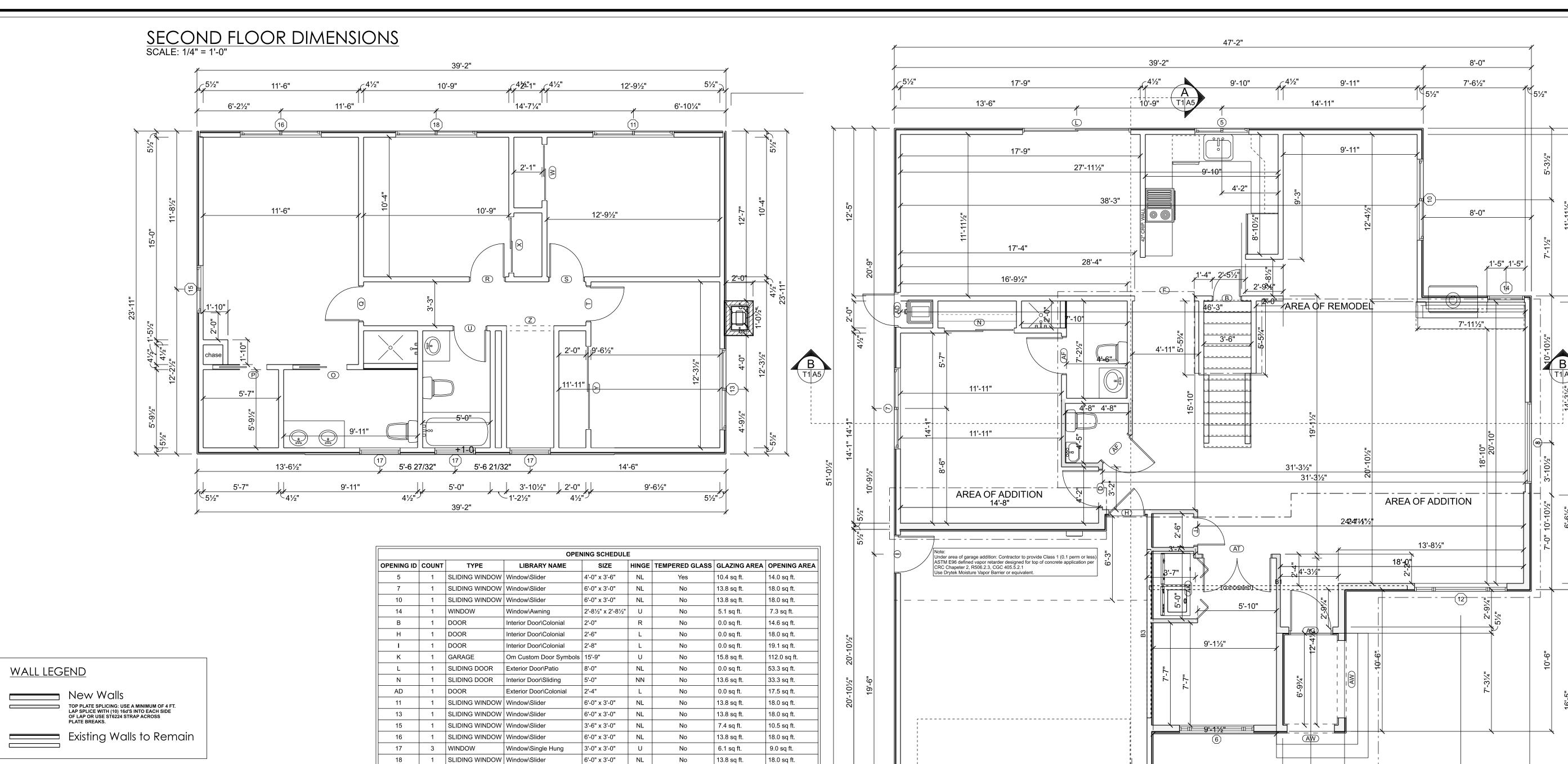
CADD FOLDER

CADD FILE

DRAWN BY

(E) Floor Plan

A2



| NATURAL I | LIGHT & | VENTILAT | ION CALC | ULATIONS | |
|-----------|---------|----------------|--------------|--------------------|------------------|
| Room | Area | TTL Glazing | % Glazing | TTL Ventilation | % Ventilation |
| Bedroom 5 | 176 | 15 | 8.5 | 8 | 4.3 |
| Living | 400 | 32 | 8.0 | 22.1 | 5.5 |
| Study | 108 | 14.6 | 13.5 | 7.3 | 6.7 |

OPENING NOTES

WALL LEGEND

- 1) Contractor and owner to verify all openings prior to purchase.
- 2) All opening U-factor to be min. 0.30
- 3) New windows and doors on this project will fully comply with the following minimum code requirements:
- Residential Windows and Door Code Requirements:
- a. Tested and labeled to comply with the AAMA standards per CRC, Sec. 609.3.
- b. Safety Glazing testing and labeling per CRC, Sections. 308.1 & 308.4 c. Energy testing and certification per CEnC, Sec. 110.6
- 4) Riser height at doors to be no greater than 7-3/4 in at threshold.
- 5) Demonstrate existing skylight(s) have been tested by an approved independent laboratory, and shall bear a label identifying manufacturer, performance grade rating, and approved inspection agency to indicate compliance with the requirements of AAMA/WDMA/CSA 101/I.S.2/A440. Otherwise replace with compliant unit. [CRC R308.6.9]

| | | | OPEN | IING SCHEDULI | E | | | |
|------------|-------|----------------|------------------------|-----------------|-------|----------------|--------------|--------------|
| OPENING ID | COUNT | TYPE | LIBRARY NAME | SIZE | HINGE | TEMPERED GLASS | GLAZING AREA | OPENING AREA |
| 5 | 1 | SLIDING WINDOW | Window\Slider | 4'-0" x 3'-6" | NL | Yes | 10.4 sq ft. | 14.0 sq ft. |
| 7 | 1 | SLIDING WINDOW | Window\Slider | 6'-0" x 3'-0" | NL | No | 13.8 sq ft. | 18.0 sq ft. |
| 10 | 1 | SLIDING WINDOW | Window\Slider | 6'-0" x 3'-0" | NL | No | 13.8 sq ft. | 18.0 sq ft. |
| 14 | 1 | WINDOW | Window\Awning | 2'-8½" x 2'-8½" | U | No | 5.1 sq ft. | 7.3 sq ft. |
| В | 1 | DOOR | Interior Door\Colonial | 2'-0" | R | No | 0.0 sq ft. | 14.6 sq ft. |
| Н | 1 | DOOR | Interior Door\Colonial | 2'-6" | L | No | 0.0 sq ft. | 18.0 sq ft. |
| I | 1 | DOOR | Interior Door\Colonial | 2'-8" | L | No | 0.0 sq ft. | 19.1 sq ft. |
| K | 1 | GARAGE | Om Custom Door Symbols | 15'-9" | U | No | 15.8 sq ft. | 112.0 sq ft. |
| L | 1 | SLIDING DOOR | Exterior Door\Patio | 8'-0" | NL | No | 0.0 sq ft. | 53.3 sq ft. |
| N | 1 | SLIDING DOOR | Interior Door\Sliding | 5'-0" | NN | No | 13.6 sq ft. | 33.3 sq ft. |
| AD | 1 | DOOR | Exterior Door\Colonial | 2'-4" | L | No | 0.0 sq ft. | 17.5 sq ft. |
| 11 | 1 | SLIDING WINDOW | Window\Slider | 6'-0" x 3'-0" | NL | No | 13.8 sq ft. | 18.0 sq ft. |
| 13 | 1 | SLIDING WINDOW | Window\Slider | 6'-0" x 3'-0" | NL | No | 13.8 sq ft. | 18.0 sq ft. |
| 15 | 1 | SLIDING WINDOW | Window\Slider | 3'-6" x 3'-0" | NL | No | 7.4 sq ft. | 10.5 sq ft. |
| 16 | 1 | SLIDING WINDOW | Window\Slider | 6'-0" x 3'-0" | NL | No | 13.8 sq ft. | 18.0 sq ft. |
| 17 | 3 | WINDOW | Window\Single Hung | 3'-0" x 3'-0" | U | No | 6.1 sq ft. | 9.0 sq ft. |
| 18 | 1 | SLIDING WINDOW | Window\Slider | 6'-0" x 3'-0" | NL | No | 13.8 sq ft. | 18.0 sq ft. |
| 0 | 1 | POCKET | Interior Door\Pocket | 2'-0" | N | No | 0.0 sq ft. | 13.3 sq ft. |
| Р | 1 | POCKET | Interior Door\Pocket | 2'-0" | N | No | 0.0 sq ft. | 13.3 sq ft. |
| Q | 1 | DOOR | Interior Door\Colonial | 2'-6" | L | No | 0.0 sq ft. | 18.0 sq ft. |
| R | 1 | DOOR | Interior Door\Colonial | 2'-6" | R | No | 0.0 sq ft. | 18.0 sq ft. |
| S | 1 | DOOR | Interior Door\Colonial | 2'-6" | L | No | 0.0 sq ft. | 18.0 sq ft. |
| Т | 1 | DOOR | Interior Door\Colonial | 2'-6" | L | No | 0.0 sq ft. | 18.0 sq ft. |
| U | 1 | DOOR | Interior Door\Colonial | 2'-4" | L | No | 0.0 sq ft. | 16.9 sq ft. |
| W | 1 | SLIDING DOOR | Interior Door\Sliding | 4'-0" | NN | No | 10.8 sq ft. | 26.7 sq ft. |
| Х | 1 | SLIDING DOOR | Interior Door\Sliding | 4'-0" | NN | No | 10.8 sq ft. | 26.7 sq ft. |
| Υ | 1 | SLIDING DOOR | Interior Door\Sliding | 6'-0" | NN | No | 16.4 sq ft. | 40.0 sq ft. |
| 6 | 1 | COMBINED UNIT | Window\Picture | 5'-6" x 4'-0" | LNR | No | 14.6 sq ft. | 22.0 sq ft. |
| 8 | 1 | WINDOW | Window\Awning | 6'-0" x 1'-4" | U | No | 4.8 sq ft. | 8.0 sq ft. |
| 12 | 1 | COMBINED UNIT | Window\Picture | 6'-10" x 4'-6" | LNR | No | 22.1 sq ft. | 30.8 sq ft. |
| D | 1 | DOOR | Interior Door\Colonial | 2'-8" | R | No | 0.0 sq ft. | 19.1 sq ft. |
| J | 1 | DOOR | Interior Door\Colonial | 2'-0" | R | No | 0.0 sq ft. | 14.6 sq ft. |
| AF | 1 | DOOR | Interior Door\Colonial | 2'-8" | L | No | 0.0 sq ft. | 19.1 sq ft. |
| AF | 1 | DOOR | Interior Door\Colonial | 2'-8" | R | No | 0.0 sq ft. | 19.1 sq ft. |
| AG | 1 | DOOR | Exterior Door\Colonial | 3'-0" | L | No | 1.7 sq ft. | 22.1 sq ft. |
| AK | 1 | BIFOLD | Interior Door\Bifold | 4'-6 1/16" | LR | No | 0.0 sq ft. | 30.0 sq ft. |
| AT | 1 | DOOR | Interior Door\French | 5'-0" | LR | No | 14.3 sq ft. | 34.9 sq ft. |

(K)9'-1½" 9'-11/2" 9'-7" 17'-11½" 9'-7" 9'-7" 2'-6" 5'-11/4" 9'-7" 9'-7**1**1'-8" 8'-71/4" 27'-61/2" 9'-1½" 9'-1½" 27'-10½" 19'-2" 19'-2" 19'-2"

> FIRST FLOOR DIMENSIONS SCALE: 1/4" = 1'-0"

design

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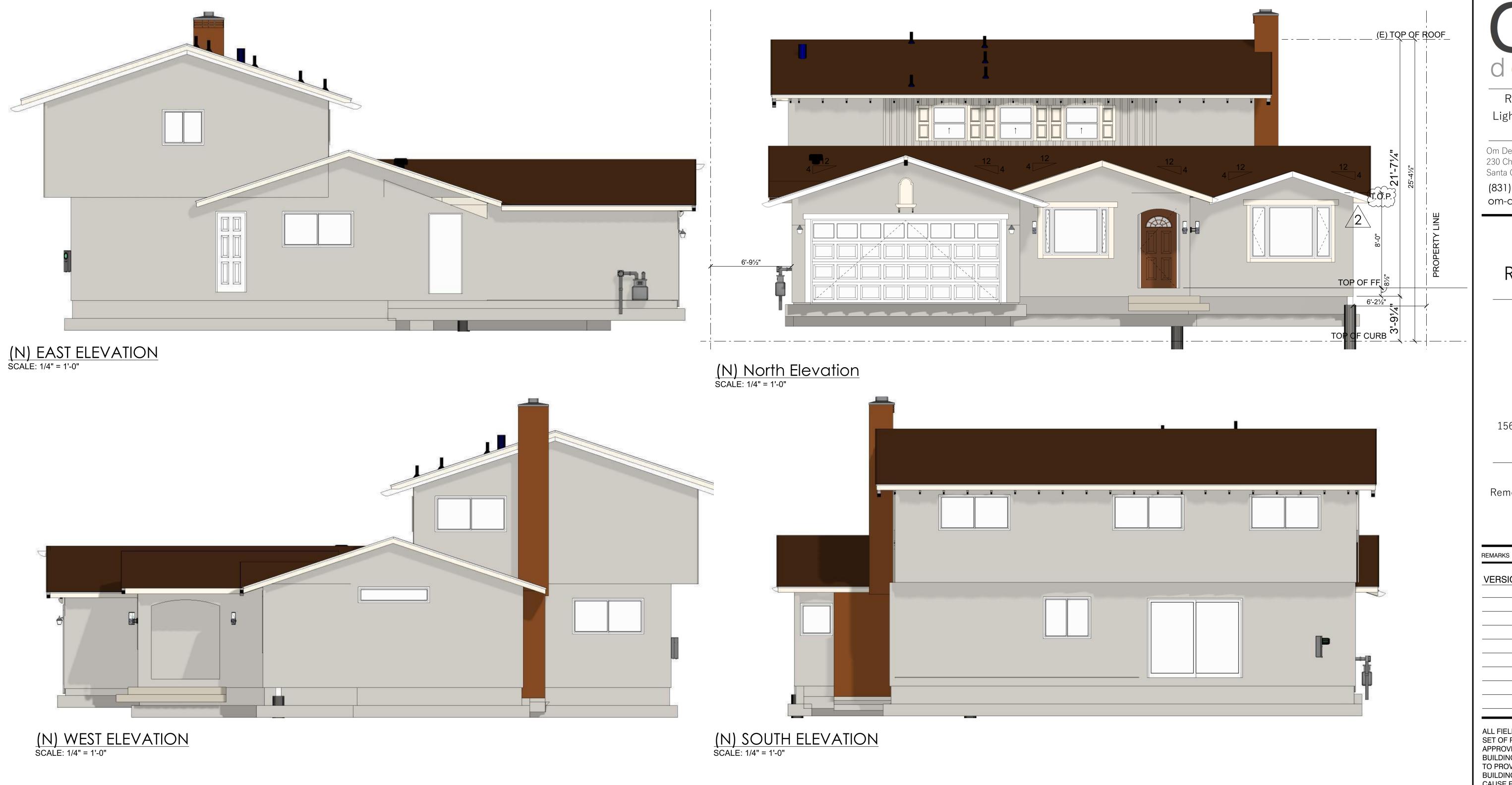
ISSUE A STOP WORK NOTICE.

REMARKS



CADD FOLDER CADD FILE

Dimensions



ELEVATION NOTES

GENERAL ELEVATION NOTES:

1) FOUNDATION DRAINAGE: 6" fall for 10' away from foundation or 2% grade 3' away, if impervious surface crc r401.3" 7/a4

2) Protect annular spaces around opening in plates at exterior

ROOF

Comp. shingles Class "B" or better

Standard prefinished metal gutters and downspouts.

ROOF SHEATHING SEE ENGINEERING SHEETS FOR STRUCTURAL DETAILS

WINDOWS AND DOORS

WINDOWS: Jeld Wen with color and style to match existing

DOOR HARDWARE: To be selected by owner to match existing

EXTERIOR FINISHES

FASCIA: To match existing

SHINGLE MOLD: To match existing

SIDING: Stucco

TRIMS: Fiber Cement Composite

EXTERIOR WINDOW AND DOOR TRIMS: Choicetrim (or equal)

EAVES: To match existing

PRIME / PAINT All exterior materials w/ Kelly Moore 550 AC Acrylic (or equal)

MATERIALS

Aerosol Paints & Coatings Compliant with Product Weighted MIR Limits: 4.504.2.3
 Finish Materials VOC Limit (Adhesives, Sealants, Caulks, Paints, Coatings): 4.504.2

3) Use Low VOC, Water-Based Wood Finishes: 4.504.2.24) Use Solvent-Free Adhesives: 4.504.2.1

5) Use Low-VOC, Formaldehyde-Free Composite Wood Materials, Particle Board &

6) Check Moisture Content Materials for Walls & Floors Before Enclosure: 4.505.3 7) Where Resilient Flooring Installed 80% Low VOC: Demonstrate flooring product compliance with 4.504.4

ADDRESS POSTING

1) Address shall be displayed on front wall of house and

2) Address numbers shall be a minimum of four (4) inches in height and a color contrasting to their background.

VENTILATION CALCULATIONS

NEW ROOF: 288/150 = 2 SQ. FT./288 SQ. IN.

PROVIDE 288 SI ATTIC VENTILATION 6 - Eave Vents w min. 48.9 sq. in. net free area w/ Cobra Ridge Vent at Ridge

CRAWLSPACE: 298/150 = 2 SQ. FT./288 SQ. IN.

PROVIDE 288 SI CRAWLSPACE VENTILATION 5 - 8x16 Foundation Vents w min. 64 sq. in. net free area

Residential & Light Commercial

Design

Om Design LLC 230 Chilverton Ste. A Santa Cruz, CA (831) 251-0198 om-design.io

Naik Residence

Addition

FOR

Ram Naik

156 Connemara Way Sunnyvale, CA

Remodel with Addition 464

VERSION DATE 4/4/2023

DATE

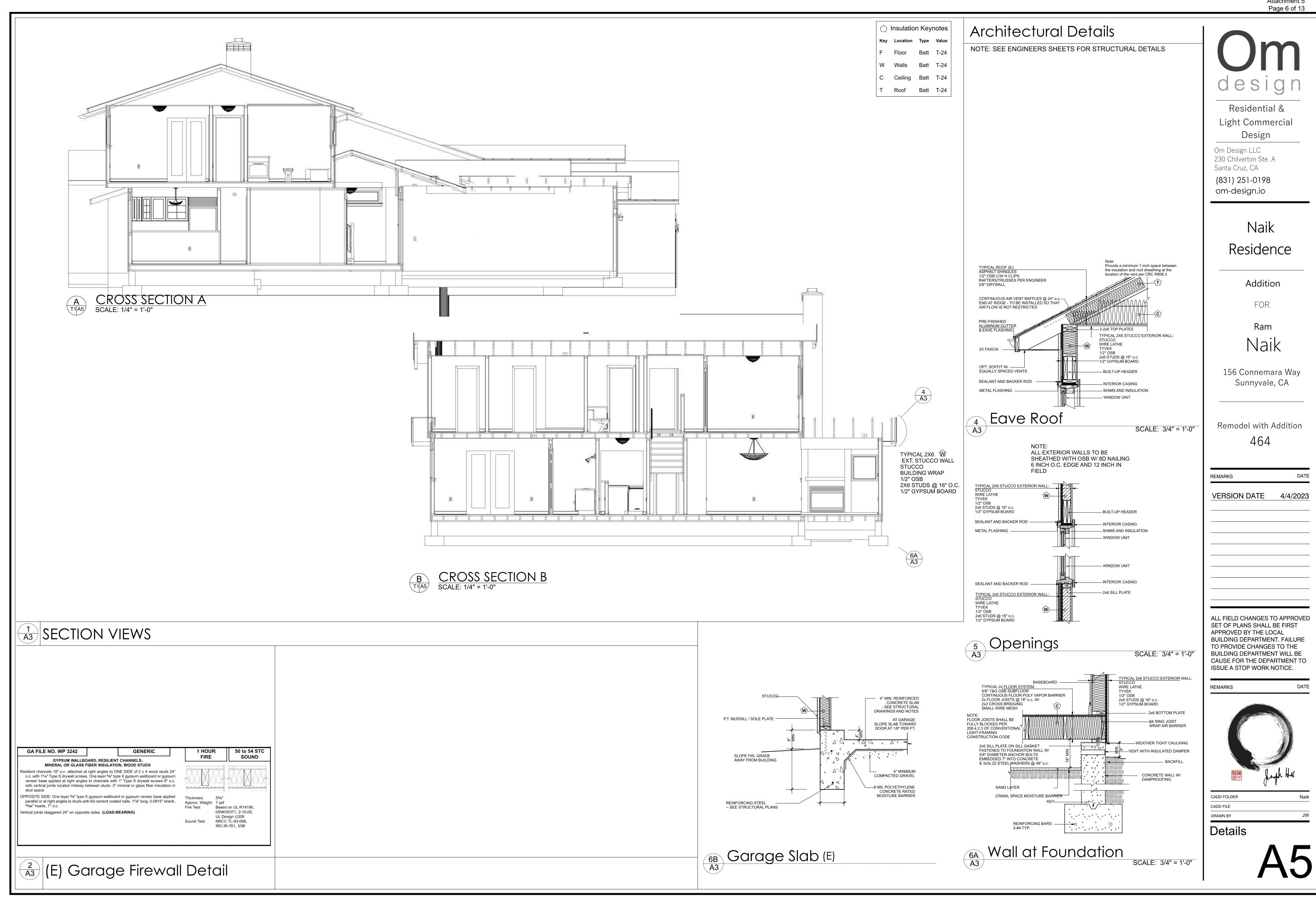
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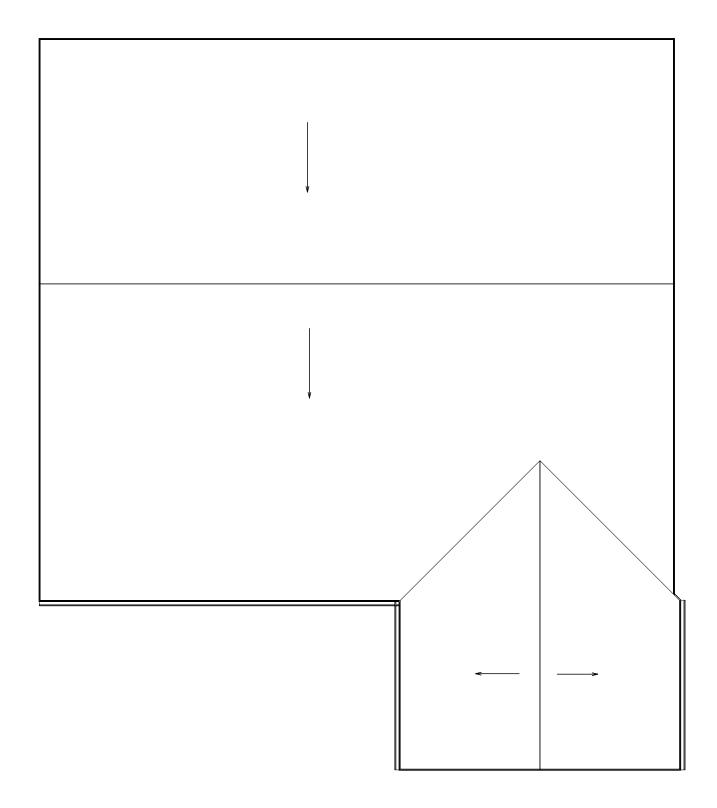
REMARKS

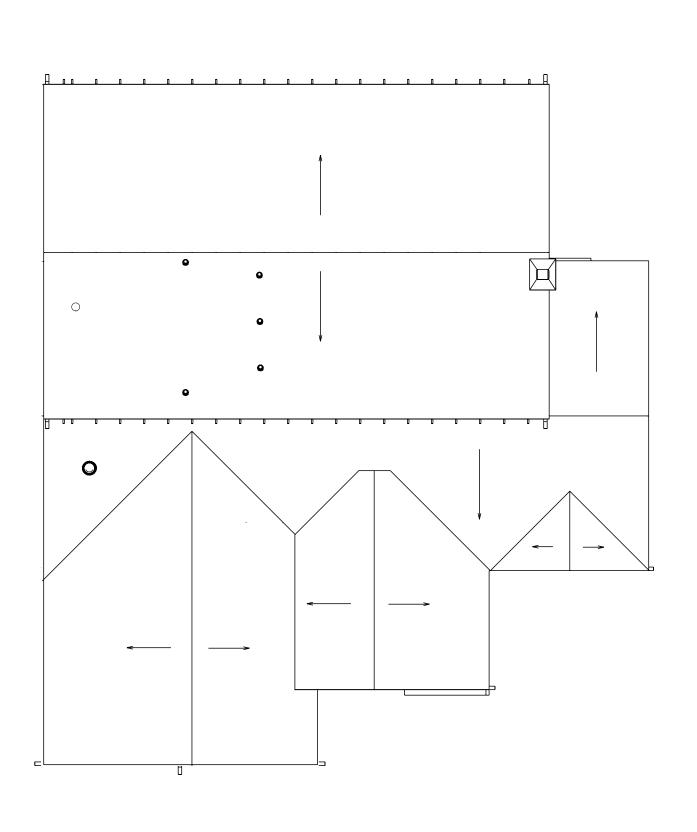


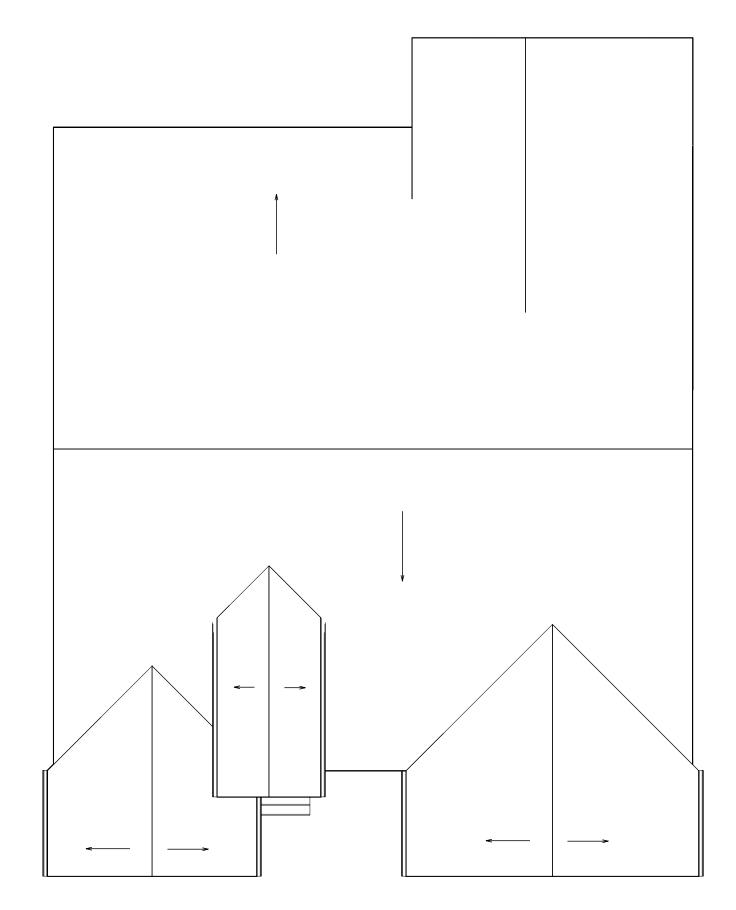
CADD FOLDER CADD FILE

(N) Elevations









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







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

Om design

Residential &

Light Commercial Design

Om Design LLC 230 Chilverton Ste. A Santa Cruz, CA (831) 251-0198 om-design.io

Naik Residence

Addition

FOR

Ram Naik

156 Connemara Way Sunnyvale, CA

Remodel with Addition 464

REMARKS

VERSION DATE 4/4/2023

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REMARKS



CADD FOLDER
CADD FILE

Streetscape

A6

NJM

CONSULTING

NATHAN MIAO, PE CELL: 415-676-9896

PROJECT:

ADDRESS:

REVISION:

2

3

DATE:

NAIK RESIDENCE

156 CONNEMARA WAY

8/25/2022

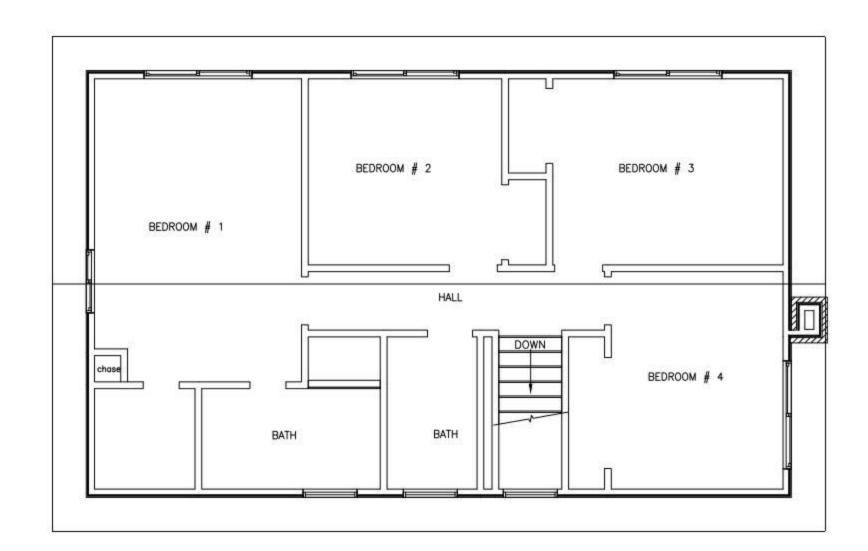
SCALE: AS SHOWN

CITY STAMPING AREA

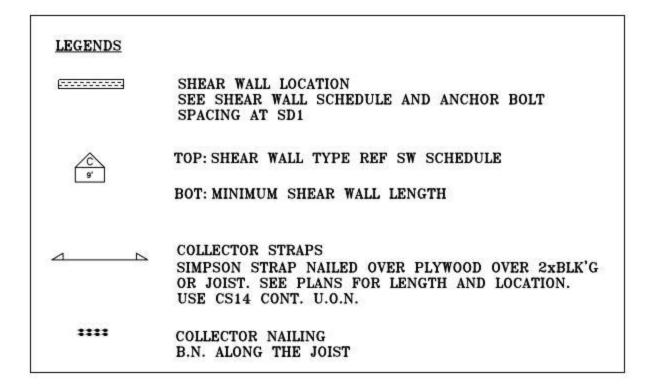
SUNNYVALE, CA

ENGINEERING, INC

NATHAN@NJMENGINEERING.COM 18488 PROSPECT RD, SUITE 12. SARATOGA, CA 95070



UPPER ROOF PLAN (NO CHANGE)
SCALE: $\frac{3}{16}$ "=1'



FLOOR SHEATH
23/32" T&G APA RATED SHEATHING,
STRUCTURAL I, 48/24, GLUE TO JOISTS
10d @ 4" O.C. E.N. & B.N.
10d @ 12" O.C. FIELD NAILING
PROVIDE BLOCKING FOR ALL EDGES

ROOF SHEATHING

15/32" OSB/PLYWOOD STRUCT. I

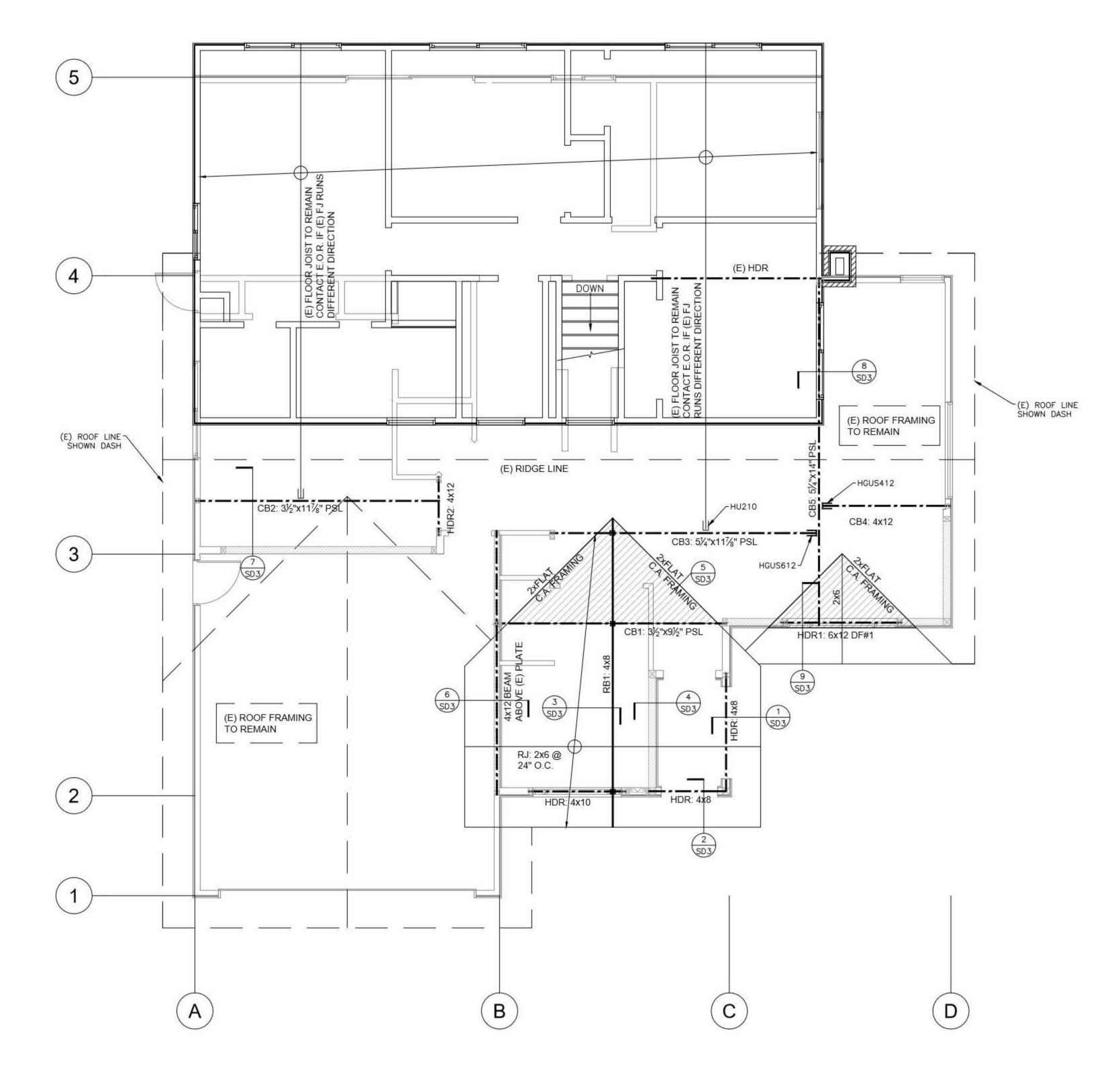
32/16 RATING EXTERIOR

10d @ 6" O.C. E.N. & B.N.

10d @ 12" O.C. FIELD NAILING

- ☑ POST 1ST LEV TO ROOF
- E CEILING POST

ALL POSTS 4x BEAM WIDTH U.O.N.



LOWER ROOF & 2ND FLOOR PLAN SCALE: 1/4"=1"

SHEET:

S-3

ENERGY CONSULTANT

SANTA CRUZ, CA 95060

LINDA BUTLER, CEPE

PHONE: 831-345-1028

E-Mail: Ibutler0853@gmail.com

124 OTIS STREET

CALIFORNIA ENERGY COMMISSION

CF1R-ADD-02-E

8/7/22

North

Natural Gas

301

23

NA

.23

0.23

Yes ○ No

N/A

0.30

Page 1 of 10

January 2020

STATE OF CALIFORNIA STATE OF CALIFORNIA Prescriptive Residential Additions That Do Not Require HERS Field Verification Prescriptive Residential Additions That Do Not Require HERS Field Verification CERTIFICATE OF COMPLIANCE CF1R-ADD-02-E CERTIFICATE OF COMPLIANCE Prescriptive Residential Additions That Do Not Require HERS Field Verification Prescriptive Residential Additions That Do Not Require HERS Field Verification Page 2 of 10 Date Prepared: 8/7/22 Date Prepared: 8/7/22 Project Name: Naik Residence Project Name: Naik Residence B. Opaque Surface Details - Framed (Section 150.2(a) and 150.1(c)1) This compliance document is only applicable to additions less than or equal to 1,000 ft² and do not require HERS field verification for compliance. When HERS verification is required, a CF1R-ADD-01 shall first be registered with a HERS Provider Data Registry. 02 03 04 05 07 08 09 Alterations to Space Conditioning Systems that are exempt from HERS verification requirements may use the CF1R-ADD-02 and CF2R- ADD-02 Compliance Documents. Possible exemptions from duct Proposed Required leakage testing include: less than 40 ft of ducts were added or replaced; or the existing duct system was insulated with asbestos; or the existing duct system was previously tested and passed by a Appendix JA4 HERS Rater. If space conditioning systems are altered and are not exempt from HERS verification, then a CF1R-ADD-01 and a CF1R-ALT-02 must be completed and registered with a HERS Provider U-Factor Reference Data Registry. Frame rom Table R-value R-value 150.10A or B pacing (in) Additions or alterations that utilize close Cell Spray Polyurethane Foam (ccSPF) with a density of 1.5 to less than 2.5 pounds per cubic foot having an R-value greater than 5.8 per inch, or Open Cell Spray Polyurethane Foam (ocSPF) with a density of 0.4 to less than 1.5 pounds per cubic foot having an R-value of 3.6 per inch, shall complete and register a CF1R ADD-01 with a HERS Provider Data Wood 24 inch OC JA4.2.1 Wall Wood 16 inch OC JA4.3.1 R15 If more than one person has responsibility for installation of the items on this certificate, each person shall prepare and sign a certificate applicable to the portion of construction for which they are esponsible. Alternatively, the person with chief responsibility for construction shall prepare and sign this certificate for the entire construction. All applicable Mandatory Measures shall be met. 16 inch OC R19 Wood emporary labels shall not be removed before verification by the building inspector. Add Row Delete Row A. General Information (please complete entire table) Project Name: Naik Residence 02 Date Prepared: E. Slab Insulation (Table 150.1-A or Table 150.1-B) Project Location: 156 Connemara Way 04 Building Front Orientation (deg): 03 04 05 06 01 02 Required 5 CA City: Sunnyvale 06 Number of Dwelling Units with Additions: Insulation Insulation Insulation 7 Zip Code: 94087 08 Fuel Type: Floor Type R-value U-factor R-value U-factor Comments Slab N/A 9 Climate Zone: 10 Total Conditioned Floor Area (ft2) (Addition): Add Row Delete Row Building Type: Single family 12 Slab Area (ft²): 14 Exceptions to Fenestration U-factor and SHGC Note: Heated slab floors require mandatory slab insulation (see Table 110.8-A). Project Scope: > 300 ft2 to ≤ 400 ft2 150.1(c)3A:

Yes ○ No

N/A

0.23

Yes ○ No

a. 🗸 b. 🗸 c. 🗌

Date Prepared: 8/7/22

SC System Location or Area Served

 The emittance of the radiant barrier shall be less than or equal to 0.05 as tested in accordance with ASTM C1371 or ASTM E408. For Prescriptive Compliance the attic shall be ventilated to provide a minimum free ventilation area of not less than one square foot of vent area for each 300 ft2 of attic floor area with a minimum of 40 percent upper vents, Ridge vents or gable end vents are recommended to achieve the best performance. The material should be cut to allow for full airflow to the venting. H. Fenestration/Glazing Allowed Areas and Efficiencies (Section 150.2(a)1) 02 03 04 05 Maximum Allowed Maximum Allowed West-Fenestration Area for All Facing Fenestration Area Only Orientations (ft²) (ft^2) The Greater The Greater Maximum Maximum Maximum Calculated Maximum Calculated Maximum Allowed Allowed Allowed Allowed Addition Type based on Calculated based on Calculated U-factor U-factor SHGC SHGC Allowed % Allowed ft² Allowed % (Windows) (Skylights) Comments ≤400 ft2 90.3 15.05 60 0.30 0.30 0.23 0.23

. Radiant barriers shall meet specific eligibility and installation criteria to receive credit for compliance with the Building Energy Efficiency Standards for low-rise residential buildings. Refer

STATE OF CALIFORNIA

Add Row

CERTIFICATE OF COMPLIANCE

F. Radiant Barrier (Section 1501.1(c)2)

Yes O

Delete Row

CA Building Energy Efficiency Standards - 2019 Residential Compliance

CERTIFICATE OF COMPLIANCE

230 Chilverton

CERTIFICATE OF COMPLIANCE

Santa Cruz, CA 95062

CA Building Energy Efficiency Standards - 2019 Residential Compliance

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Prescriptive Residential Additions That Do Not Require HERS Field Verification

Prescriptive Residential Additions That Do Not Require HERS Field Verification

Project Name: Naik Residence

Prescriptive Residential Additions That Do Not Require HERS Field Verification

No (

Prescriptive Residential Additions That Do Not Require HERS Field Verification

Radiant Barrier installed below the roof deck and on all gable end walls

Prescriptive Residential Additions That Do Not Require HERS Field Verification CEC-CF1R-ADD-02-E (Revised 01/2)

Prescriptive Residential Additions That Do Not Require HERS Field Verification Page 6 of 10 Date Prepared: 8/7/22 Project Name: Naik Residence DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Name: Linda Butler Signature Date: 8/7/22 EA/ HERS Certification Identification (if applicable): 124 Otis Street Santa Cruz, CA 95060 831-345-1028 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible That the energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 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. tted to the enforcement agency for approval with this building permit applicatio I will ensure that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. Joe Hall Om Design LLC

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.

831-251-0198

CF1R-ADD-02-E

CF1R-ADD-02-E

Date Prepared: 8/7/22

Comments

Page 3 of 10

CF1R-ADD-02-E Page 9 of 10

Date Prepared: 8/7/22 oject Name: Naik Residence Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a 2 inch depth or can be 1 inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. 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 (HSPP), or a permanently installed static pressure probe (PSPP) in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan § 150.0(m)13: efficacy ≤ 0.45 W/CFM for gas furnace air handlers and ≤ 0.58 W/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 W/CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.

Lighting Measures: § 110.9: Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9. § 150.0(k)1A: Luminaire Efficacy. All installed luminaires must be high efficacy in accordance with TABLE 150.0-A. Blank Electrical Boxes. The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device must be no greater than § 150.0(k)1B: the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control. Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; § 150.0(k)1C: maintenance; and socket and light source as described in § 150.0(k)1C. Electronic Ballasts. Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz. ight Lights, Step Lights, and Path Lights. Night lights, step lights and path lights are not required to comply with TABLE 150.0-A or be controlled by vacancy sensors provided they § 150.0(k)1E: are rated to consume no more than 5 watts of power and emit no more than 150 lumens Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements § 150.0(k)1F: § 150.0(k)1G: Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including § 150.0(k)1H: marking requirements, must not be installed in enclosed or recessed luminaires. Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled § 150.0(k)11: 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 tur the lighting off when the drawer, cabinet or linen closet is closed. Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A. Interior Switches and Controls. Exhaust fans must be switched separately from lighting systems. § 150.0(k)2C: Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF. Interior Switches and Controls. Controls and equipment must be installed in accordance with manufacturer's instructions § 150.0(k)2E: Interior Switches and Controls. Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k). Interior Switches and Controls. Lighting controls must comply with the applicable requirements of § 110.9. terior Switches and Controls. An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified cont § 150.0(k)2G: according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2. Interior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer § 150.0(k)2H: according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.

Add Row Delete Row

c: (exempt from duct leakage testing) if: the existing duct system was insulated with asbestos;

d: (exempt from duct leakage testing) if: the existing duct system was previously tested and passed by a HERS Rater.

SC System Identification or Name

(E) FAU

Prescriptive Residential Additions That Do Not Require HERS Field Verification

Proposed Fenestration U-factor ≤ Required Fenestration U-factor

Proposed Fenestration SHGC ≤ Required Fenestration SHGC

ovider Data Registry. In each row below for each dwelling unit in the building, check the box that indicates the exemption from HERS verification compliance:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

CA Building Energy Efficiency Standards - 2019 Residential Compliance

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Prescriptive Residential Additions That Do Not Require HERS Field Verification

K. Space Conditioning (SC) Systems - Heating/Cooling (Section 150.2(b))

a: space conditioning system was not altered:

b: less than 40 ft of ducts were added or replaced;

CEC-CF1R-ADD-02-E (Revised 01/20

Project Name: Naik Residence

29 Compliance Statement

32 Compliance Statement

30 Proposed Fenestration SHGC (Skylights)

Dwelling Unit Name

Required Fenestration SHGC (Skylights)

CERTIFICATE OF COMPLIANCE

STATE OF CALIFORNIA Prescriptive Residential Additions That Do Not Require HERS Field Verification CERTIFICATE OF COMPLIANCE CF1R-ADD-02-E Prescriptive Residential Additions That Do Not Require HERS Field Verification Page 8 of 10 Date Prepared: 8/7/22 Naik Residence

| Space Conditioning | g, Ducts, and Fans Measures: |
|--------------------|--|
| § 110.0-§ 110.3: | Certification. Heating, ventilation and air conditioning (HVAC) equipment must be certified by the manufacturer to the Energy Commission. |
| § 110.2(a): | HVAC Efficiency. Equipment must meet the applicable efficiency requirements in TABLE 110.2-A through TABLE 110.2-K. |
| § 110.2(b): | Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-off 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 unitary heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. |
| § 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(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 |
| § 150.0(h)3A: | Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual Jusing design conditions specified in § 150.0(h)2. Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least 5 feet from the outlet of any dryer vent. |
| § 150.0(h)3B: | Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions. |
| § 150.0(m)1: | CMC Compliance. All air-distribution system ducts and plenums must meet the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area. |
| § 150.0(m)2: | Factory-Fabricated Duct Systems. Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands. |
| § 150.0(m)3: | Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction. |
| § 150.0(m)7: | Backdraft Dampers. All fan systems that exchange air between the conditioned space and the outside of the building 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, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation. |
| § 150.0(m)10: | Porous Inner Core Flex Duct. Porous inner core flex duct must have a non-porous layer between the inner core and outer vapor barrier. |
| § 150.0(m)11: | Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed an duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3. |

CEC-CF1R-ADD-02-E (Revised 01/20 CF1R-ADD-02-E CERTIFICATE OF COMPLIANCE Page 5 of 10 "": Naik Residence erations to Space Conditioning Systems shall be exempt from HERS verification requirements as prerequisite for use of the CF1R-ADD-02 and CF2R-ADD-02 Compliance Documents. If new space inditioning systems are installed or existing systems are altered and are not exempt from HERS verification, then a CF1R-ADD-01 and a CF1R-ALT-02 shall be completed and registered with a HERS Fenestration Tag/ID Type Window Door Window Exemption from HERS Verification Add Row 17 Compliance Statement 20 Compliance Statement 23 Compliance Statement 24 Proposed Fenestration SHGC (Windows) 25 Required Fenestration SHGC (Windows) 26 Compliance Statement 27 Proposed Fenestration U-factor (Skylights) 28 Required Fenestration U-factor (Skylights) CA Building Energy Efficiency Standards - 2019 Residential Compliance Brossriptive Pecidential Additions That Do Not Peguiro HEDS Field Verification § 150.0(e)2: accessible, operable, and tight-fitting damper or combustion-air control device.

Addition Wall Type:

Roof Type:

✓ Framed

Steep slope

Non-framed

✓ Low slope

Mass Walls

None

■ None

Roof/Ceiling insulation: Option B - Below deck insulation Option C - Ducts & Air handler in conditioned space Windows being installed?

✓ Yes

No 18 Door(s) being installed? ☐ Yes ✓ No New water heater being installed? ☐ Yes ✓ No 0 Are lighting requirements applicable?

✓ Yes No CA Building Energy Efficiency Standards - 2019 Residential Compliance January 2020 Prescriptive Residential Additions That Do Not Require HERS Field Verification CF1R-ADD-02-E Prescriptive Residential Additions That Do Not Require HERS Field Verification Page 4 of 10 Date Prepared: 8/7/22 Fenestration Proposed Areas and Efficiencies Note: If meeting Exception 1 to 150.1(c)3A, Installing ≤ 3ft² glass in door or, ≤ 3ft² tubular skylight, it is not required to meet the minimum U-factor (0.30) & SHGC requirements (0.23) If meeting Exception 2 to 150.1(c)3A, Installing ≤ 16 ft² of new skylights, it is assumed to meet the minimum required U-factor (0.55) & SHGC (0.30). Doors with greater than or equal to 25 percent glazing area are considered glazed doors and are treated as fenestration products. 03 04 05 06 10 11 12 13 Proposed Facing Fenestration Fenestration SHGC posed U-factor Proposed Shading SHGC from Area (ft²) U-factor Source SHGC Source Type (N,S,W,E) of Panes Area (ft²) Device CF1R-ENV-03 North NFRC NFRC Non-metal N/A .23 N/A .30 Non-metal North N/A .30 NFRC NFRC N/A Non-metal West NFRC NFRC Delete Row 15 Total Proposed Fenestration Area 16 Maximum Allowed Fenestration Area 90.3 Total Proposed Fenestration Area ≤ Maximum Allowed Fenestration Area Yes ○ No 18 Total Proposed West-Facing Fenestration Area 8 19 Maximum Allowed West-Facing Fenestration Area Total Proposed West-Facing Fenestration Area < Maximum Allowed West-Facing Fenestration Area Yes ○ No 21 Proposed Fenestration U-factor (Windows) .30 22 Required Fenestration U-factor (Windows) 0.30 Proposed Fenestration U-factor ≤ Required Fenestration U-factor Yes ○ No

roposed Fenestration SHGC

Required Fenestration SHGC

| CERTIFICATE | OF COMPLIANCE | CF1R-ADD-02-E |
|-------------------|---|--|
| Prescriptive | Residential Additions That Do Not Require HERS Field Verification | Page 7 of 10 |
| Project Name: Nai | ik Residence | Date Prepared: 8/7/22 |
| Building Envelo | ope Measures: | |
| § 110.6(a)1: | Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfn CSA 101/I.S.2/A440-2011. | n/ft² or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/ |
| § 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 (SI They must be caulked and/or weather stripped. | HGC) values from TABLES 110.6-A, 110.6-B, or JA4.5 for exterior doors. |
| § 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 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R. | values of the roofing material must meet the requirements of § |
| § 110.8(j): | Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the | Department of Consumer Affairs |
| § 150.0(a): | Ceiling and Rafter Roof Insulation. Minimum R-22 insulation in wood-frame ceiling; or the weighted average U factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling to 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall | using adhesive or mechanical fasteners. The attic access must be which is sealed to limit infiltration and exfiltration as specified in § |
| § 150.0(b): | Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value | e. |
| § 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 in 2x6 or U-factor of 0.074 or less). Opaque non-framed assemblies must have an overall assembly U-factor not framed assembly. Masonry walls must meet TABLE 150.1-A or B. | |
| § 150.0(d): | Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor. | |
| § 150.0(f): | Slab Edge Insulation. Slab edge insulation must meet all of the following: have a water absorption rate, for the water vapor permeance no greater than 2.0 perm/inch; be protected from physical damage and UV light deteri requirements of § 110.8(g). | |
| § 150.0(g)1: | Vapor Retarder. In Climate Zones 1-16, the earth floor of unvented crawl space must be covered with a Class I of 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 condition unvented attics with air-permeable insulation. | set nament maketing inn apparaturation to the model with a state of the state of the date of a state of the s |
| § 150.0(q): | Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned spa- weighted average U-factor of all fenestration must not exceed 0.58. | ce or outdoors must have a maximum U-factor of 0.58; or the |
| Fireplaces, Dec | corative Gas Appliances, and Gas Log Measures: | |
| § 110.5(e): | Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces. | |
| § 150.0(e)1: | Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the enti | ire opening of the firebox. |
| § 150.0(e)2: | Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is a | |

Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

ENERGY CONSULTANT

January 2020

STATE OF CALIFORNIA Prescriptive Residential Additions That Do Not Require HERS Field Verification CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE CF1R-ADD-02-E Prescriptive Residential Additions That Do Not Require HERS Field Verification Page 10 of 10 Date Prepared: 8/7/22 Interior Switches and Controls. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or § 150.0(k)2I: a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required Interior Switches and Controls. Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by § 150.0(k)2J: occupancy or vacancy sensors, must have dimming controls. § 150.0(k)2K: Interior Switches and Controls. Under cabinet lighting must be controlled separately from ceiling-installed lighting systems. 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 § 150.0(k)3A: meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aiii (astronomical time clock), or an EMCS. Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and § 150.0(k)3B: residential parking lots and carports with less than eight vehicles per site must comply with either § 150.0(k)3A or with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or § 150.0(k)3C: more vehicles per site and any outdoor lighting not regulated by § 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7 Internally illuminated address signs. Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c). § 150.0(k)4: 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 § 150.0(k)5: garages in § 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0. Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals § 150.0(k)6A: 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in §§ 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

2019 Low-Rise Residential Mandatory Measures Summary

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

2019 Low-Rise Residential Mandatory Measures Summary

| | 2010 Low-Rise Residential Mandatory Measures Summary |
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| Requirements f | or Ventilation and Indoor Air Quality: |
| § 150.0(o)1: | Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1. |
| § 150.0(o)1C: | Single Family Detached Dwelling Units. Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C. |
| § 150.0(o)1E: | Multifamily Attached Dwelling Units. Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8. |
| § 150.0(o)1F: | Multifamily Building Central Ventilation Systems. Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20% of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance. |
| § 150.0(o)1G: | Kitchen Range Hoods. Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2. |
| § 150.0(o)2: | Field Verification and Diagnostic Testing. Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. Kitchen range hoods must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2. |
| Pool and Spa S | stems and Equipment Measures: |
| § 110.4(a): | Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating." |
| § 110.4(b)1: | Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-in 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 Measu | res: |
| § 110.9: | Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.* |
| § 150.0(k)1A: | Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A. |
| § 150.0(k)1B: | Blank Electrical Boxes. The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control. |
| § 150.0(k)1C: | Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C. |
| § 150.0(k)1D: | Electronic Ballasts for Fluorescent Lamps. Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz. |
| § 150.0(k)1E: | Night Lights, Step Lights, and Path Lights. Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens. |
| § 150.0(k)1F: | Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).* |
| § 150.0(k)1G: | Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.* |
| § 150.0(k)1H: | Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires. |
| § 150.0(k)11: | Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed. |
| § 150.0(k)2A: | Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A. |
| § 150.0(k)2B: | Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.* |
| § 150.0(k)2C: | Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.* |
| § 150.0(k)2D: | Interior Switches and Controls. Controls and equipment must be installed in accordance with manufacturer's instructions. |
| § 150.0(k)2E: | Interior Switches and Controls. Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k). |
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§ 150.0(k)2F: Interior Switches and Controls. Lighting controls must comply with the applicable requirements of § 110.9.

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

§ 150.0(m)13:

2019 Low-Rise Residential Mandatory Measures Summary

Interior Switches and Controls. An energy management control system (EMCS) may be used to comply with control requirements if it

| § 150.0(k)2G: | provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2. |
|-----------------|--|
| § 150.0(k)2H: | Interior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2. |
| § 150.0(k)21: | Interior Switches and Controls. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C. |
| § 150.0(k)2J: | Interior Switches and Controls. Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.* |
| § 150.0(k)2K: | Interior Switches and Controls. Under cabinet lighting must be controlled separately from ceiling-installed lighting systems. |
| § 150.0(k)3A: | Residential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aii (astronomical time clock), or an EMCS. |
| § 150.0(k)3B: | Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either Section 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0. |
| § 150.0(k)3C: | Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by Section 150.0(k)3B or Section 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0. |
| § 150.0(k)4: | Internally illuminated address signs. Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c). |
| § 150.0(k)5: | Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0. |
| § 150.0(k)6A: | Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor. |
| § 150.0(k)6B: | Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress. |
| Solar Ready Bui | ldings: |
| § 110.10(a)1: | Single Family Residences. Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e). |
| § 110.10(a)2: | Low-rise Multifamily Buildings. Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d). |
| § 110.10(b)1: | Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.* |
| § 110.10(b)2: | Azimuth. All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north. |
| § 110.10(b)3A: | Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment." |
| § 110.10(b)3B: | Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* |
| § 110.10(b)4: | Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents. |
| § 110.10(c): | Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system. |
| § 110.10(d): | Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant. |
| § 110.10(e)1: | Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps. |
| £ 110 10(a)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".



CALGREEN RESIDENTIAL MANDATORY CHECKLIST

THESE REQUIREMENTS APPLY TO BUILDING PERMITS SUBMITTED ON OR AFTER JANUARY 1, 2020

Sunnyvale

Following is a standardized checklist of the 2019 California Green Building Standards Code (CalGreen) requirements that may be used to demonstrate compliance with the CalGreen Mandatory Measures (Chapter 4). This checklist is required for all new buildings and additions/alterations that increase the building's conditioned area. The requirements shall apply only to and/or within the specific area of the addition or alteration.

| CALGreen | ation. Description | Designer's Comments with | City Field Inspection |
|-----------------------------|--|--|--------------------------|
| Reference | · | Plan Sheet Reference | Verification |
| 4.1 Planning and Design | 4.106.2 Storm Water Drainage and Retention during construction. A plan is developed and implemented to manage storm water drainage during construction. | Sheet: L1 - Landscape BMP Plan | Initials and Date: |
| 4.1 Planning and Design | 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 | Sheet: L1-Landscape Landscape Plan | Initials and Date: |
| 4.1 Planning and Design | 4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages shall install a listed raceway to accommodate a dedicated 208.240-volt branch circuit | Sheet: M1-Electrical Special Notes | Initials and Date: |
| 4.1 Planning and Design | 4.106.4.2 New multifamily dwellings. If residential parking is available, 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 capable of supporting future EVSE. | Sheet: N/A | Initials and Date: |
| 4.1 Planning and Design | 4.106.4.3 New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. | Sheet: N/A | Initials and Date: |
| 4.2 Energy Efficiency | 4.201.1 Scope Compliance with the California Energy Commission mandatory standards. | Sheet: EN1 & 2 Title 24 | Initials and Date: |
| | | | |

One-Stop Permit Center at City Hall, 456 W. Olive Ave., 408-730-7444

Building and Planning Division representatives are available 8 a.m. - 12:30 p.m. and 1 p.m. - 5 p.m.

Sunnyvale.ca.gov - Search "Planning and Building"

Rev. 1/2020 Page 1 of 6

| 4.3 Water Efficiency and Conservation | 4.303.1.1 Water Closets. Effective flush volume of all water closets shall not exceed 1.28 gallons per flush. | Sheet: T1 Plumb. Fix.Sched | Initials and Date: |
|---|---|----------------------------------|-----------------------|
| 4.3 Water Efficiency and Conservation | 4.303.1.2 Urinals . The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. | Sheet: T1 Plumb. Fix.Sched | Initials and Date: |
| 4.3 Water Efficiency and Conservation | 4.303.1.3 Showerheads. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. When a shower is served by more than one showerhead, the combined flow rate of all shower heads shall not exceed 1.8 gallons per minute at 80 psi. | Sheet: T1 Plumb. Fix.Sched | Initials and Date: |
| 4.3 Water Efficiency and Conservation | 4.303.1.4 Faucets. Residential lavatory faucets shall not exceed 1.2 gpm at 60 psi. Lavatory faucets in common and public use areas in residential buildings shall not exceed 0.5 gpm at 60 psi. Metering faucets installed in residential buildings shall not deliver more than 0.2 gallons per cycle. Kitchen faucets shall not exceed 1.8 gpm at 60 psi. | Sheet: T1 Plumb. Fix.Sched | Initials and Date: |
| 4.3 Water Efficiency and Conservation | 4.303.2 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed per the California Plumbing Code. | Sheet: T1 Plumb. Fix.Sched | Initials and Date: |
| 4.3 Water Efficiency and Conservation | 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). | Sheet: N/A | Initials and Date: |
| 4.3 Water Efficiency and Conservation | 4.305.1 Recycled water supply systems. Newly constructed residential developments, where recycled water is available from a municipal source may be required to have recycled water supply systems installed. | Sheet: N/A | Initials and Date: |

| 4.4 Material Conservation and Resource Efficiency | 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. | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |
|---|---|---|----------------------------------|
| 4.4 Material Conservation and Resource Efficiency | 4.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste. | Sheet: L1 BMP Planype te | Initials and Date: xt here |
| 4.4 Material Conservation and Resource Efficiency | 4.408.2 Construction waste management plan. Submit a construction waste management plan. | Sheet: L1 BMP Plan | Initials and Date: |
| 4.4 Material Conservation and Resource Efficiency | 4.410.1 Operation and maintenance manual. An operation and maintenance manual shall be provided to the building occupant or owner. | Sheet: T1 Cover Sheets Special Notes | Initials and Date: |
| 4.4 Material Conservation and Resource Efficiency | 4.410.2 Recycling by occupants. Where 5 or more multifamily dwelling units are constructed on a building site, readily accessible areas shall be identified for the collection of recycling. | Sheet: N/A | Initials and Date: |
| 4.5 Environmental Quality | 4.503.1 Fireplaces. Any installed gas fireplace shall be a direct-vent sealed-combustion type. | Sheet: N/A | Initials and Date: |

Page 3 of 6

Initials and Date:

| 4.5 Environmental Quality | 4.503.3 Moisture content of building materials. Moisture content of building materials used in wall and floor framing is checked before enclosure. | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |
|---------------------------------|--|--|-----------------------|
| 4.5 Environmental Quality | 4.504.1 Covering of duct openings and protection of mechanical equipment during construction. Duct openings and other related air distribution component openings shall be covered during construction. | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |
| 4.5 Environmental Quality | 4.504.2 Finish material pollutant control. Adhesives, sealants and caulks. Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits. Paints and coatings. Paints, stains and other coatings shall be compliant with voelimits. Aerosol paints and coatings. Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds. Verification. Documentation shall be provided to verify that compliant voe limit finish materials have been used. | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |
| 4.5 Environmental Quality | 4.504.3 Carpet systems. All carpet installed in the building interior shall meet the testing and product requirements of one of the following: Carpet and Rug Institute's Green Label Plus Program. California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350.) NSFI ANSI 140 at the Gold level. Scientific Certifications Systems Indoor Advantage™ Gold. Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program. Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1. | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |

| Environmental Quality | 4.504.4 Resilient flooring systems. Where resilient flooring is in stalled, at least 80 percent of floor area receiving resilient flooring shall comply with one or more of the following: 1.Products compliant with the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database. 2.Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools program). 3.Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program. 4.Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 201 0 (also known as Specification | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |
|----------------------------------|---|--|-----------------------|
| 4.5 Environmental 4.5 Er Quality | 01350). 4.504.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93J20 et seq.), by or before the dates specified in those section s, as shown in Table 4.504.5. 4.505.2 Concrete slab foundations. Vapor retarder | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |
| 4.5 Environmental Quality | and capillary break is installed at slab-on-grade foundations. | T1 Cover Sheet Special Notes | Date: |
| 4.5 Environmental Quality | 4.507.2 Heating and air-conditioning system design. Duct systems are sized, designed, and equipment is selected using the following methods: 1. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2011 or equivalent. 2. Size duct systems according to ANSI/ACCA 1 | Sheet: T1 Cover Sheet Special Notes | Initials and Date: |

| | to ANSI/ACCA 3 Manual 5-2014 or equivalent. | |
|--|--|--------|
| | | |
| | 702.1 Installer Training. HVAC system installers are trained and certified in the proper installation of HVAC systems. | Sheet: |
| Chapter 7: Installer and Special Inspector Qualifications | 702.2 Special Inspection. Special inspectors employed by the enforcing agency must be qualified and able to demonstrate competence in the discipline they are inspecting. 703.1 Documentation. Verification of compliance with this code may include construction documents, plans, | |
| Chapte | specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance. | |
| Ch _ē Inst | <u> </u> | |
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| | | |

Manual D-2014 or equivalent.

3. Select heating and cooling equipment according

Om design

Residential & Light Commercial Design

Om Design LLC 230 Chilverton Ste. A Santa Cruz, CA (831) 251-0198

om-design.io

Naik Residence

Addition

FOR

Ram Naik

156 Connemara Way Sunnyvale, CA

Remodel with Addition 464

| REMARKS | D |
|---------|---|
| | |

VERSION DATE 4/4/2023

ALL FIELD CHANGES TO APPROVED SET OF PLANS SHALL BE FIRST APPROVED BY THE LOCAL BUILDING DEPARTMENT. FAILURE TO PROVIDE CHANGES TO THE BUILDING DEPARTMENT WILL BE CAUSE FOR THE DEPARTMENT TO ISSUE A STOP WORK NOTICE.

REMARKS



CADD FOLDER Naik

CADD FILE

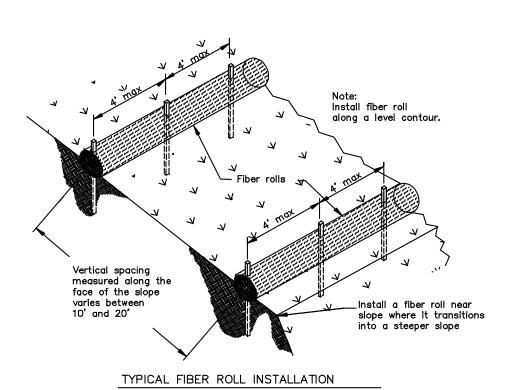
Calgreen

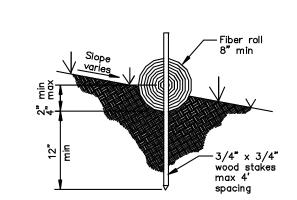
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Page 5 of 6

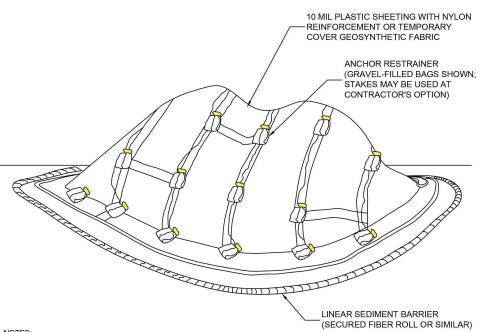
Page 2 of 6

BMP Details





ENTRENCHMENT DETAIL N.T.S.



NOTES:

1. ALL STOCKPILES SHALL BE CONTAINED AND COVERED WHEN NOT ACTIVE, AND SECURED AT THE END OF EACH DAY.

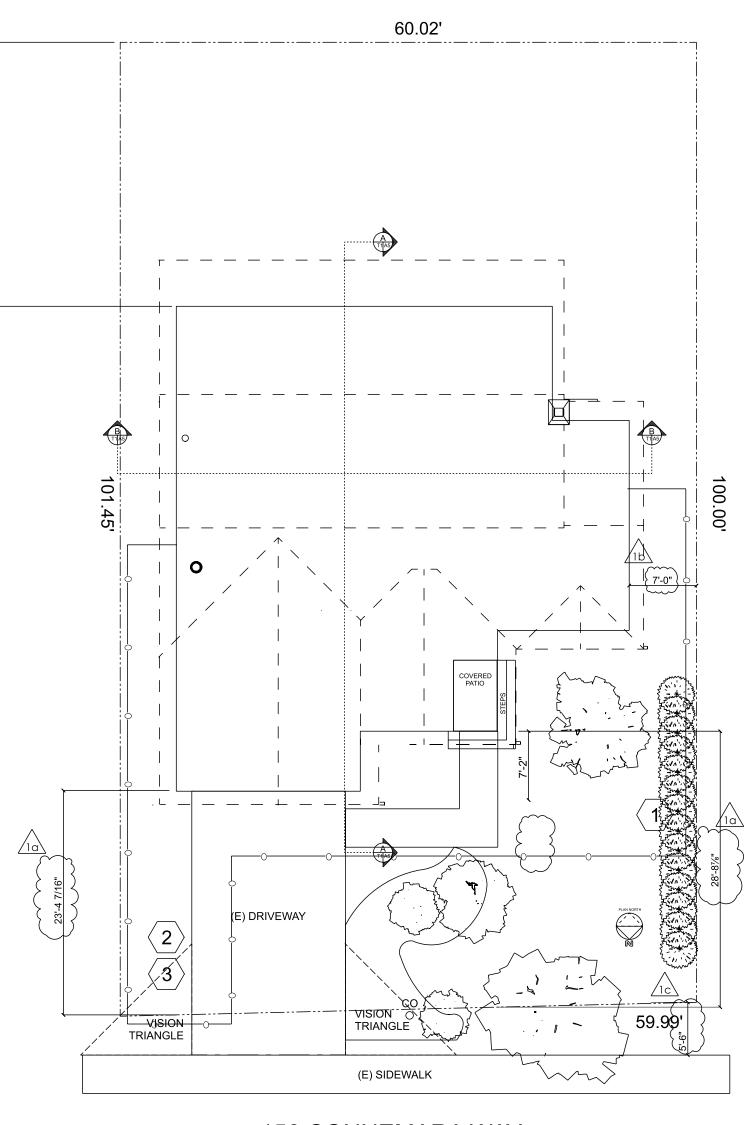
STOCKPILES SHALL BE SECURELY COVERED OVERNIGHT, AND PRIOR TO, DURING, AND AFTER RAIN EVENTS.
 NO MATERIAL SHALL LEAVE THE SITE OR MOVE INTO STREET.

4. PLASTIC SHEETING HAS LIMITATIONS DUE TO SUNLIGHT BREAKDOWN, HARD TO MANAGE IN WINDY CONDITIONS, AND CAN INCREASE RUNOFF ISSUE FOR PERIMETER CONTROLS. INSPECT FREQUENTLY OR USE GEOSYNTHETIC FABRIC AS APPLICABLE.

5. DO NOT LOCATE WITHIN 50 FEET OF A STORM DRAIN.

TEMPORARY COVER ON STOCKPILE

 $\frac{3}{\text{C-1}}$



156 CONNEMARA WAY

BMPs SCALE: 1" = 10'-0" Omdesign

Residential & Light Commercial Design

Om Design LLC 230 Chilverton Ste. A Santa Cruz, CA (831) 251-0198 om-design.io

Naik Residence

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REMARKS



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CADD FILE

Landscape-BMPs

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BMP Notes

Construction Best Management Practices (BMPs): Project construction and demolition activities shall comply with the City's Storm Water Best Management Practices for Construction. See the City website at: http://www.cityofsantacruz.com/home/showdocument?id=6031

2) Erosion & sediment control BMPs, such as fiber rolls or wattles, shall be inspected regularly during construction and after each significant rain event. Make needed repairs immediately.

3) Check the sidewalk and street daily during demolition and construction for soil drag-out, and sweep if needed. Routinely maintain the construction entrance/exit to ensure it remains effective at preventing drag-out.

4) Store open bags of particulate, granular or powder materials (such as plaster or concrete) indoors if possible. If stored outside, they must be kept covered or closed, and during the rainy season kept within secondary containment.

5) Dumpster lids must be kept closed and secured when not in use.
6) Soil & Material Stockpiles: Soil and materials stockpiles must be protected from runoff/run-on, when not in use, by BMPs such as surrounded by berms, fiber rolls or wattles and covered with sheeting or tarps. All soil stockpiles should be stored on a flat area. If stored on an area with a 10% slope or more, please add note that soil shall be hauled offsite at end of each the day.

7) During the rainy season, ensure that sediment control measures are in place and effective at preventing sediment from leaving the site.
8) Pervious Pavers or Pavement: Protect pervious pavers or pavement, once installed, so that any remaining construction activities will not damage or clog the pavers/pavement.
9) Porta-potties (if applicable): Do not locate Porta-potties adjacent to watercourses or storm drain inlets.
10) Protect City Trees during construction.



Naik Residence

om-design.io

Addition

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Ram Naik

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Remodel with Addition 464

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Survey Data

