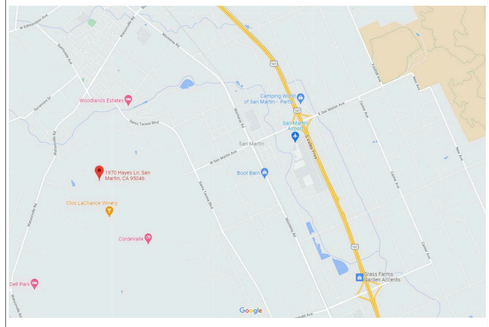
PROJECT DATA

DESCRIPTION	REMODEL OF EXISTING ONE STORY RESIDENCE. ADDITION OF 1550 SQFT TO BE TO BE LOCATED AT ENTRY AND AT LIVING ROOM. REMODEL EXISTING KITCHEN AND UPDATE OF FINISHES THROUGHOUT. REPLACE ALL WINDOWS.
ADDRESS	1970 HAYES LANE SAN MARTIN , CA 95046
APN	779-44-12
ZONING	R-1-0
BUILDING USE	SINGLE FAMILY RESIDENTIAL
SEPTIC/SEWER	SEPTIC

PLANNING DATA AND CALCULATIONS

LOT SIZE	20 ACRES/ 871,200 SQFT
EXISTING BUILDING SQFT	6098 SQFT
PROPOSED ADDITION	1550 SQFT
TOTAL FAR SQFT	7648 SQFT
MAX HEIGHT OF HOUSE	28'-0

VICINITY MAP



1 1970 HAYES LANE
3/16" = 1'-0"

SHEET INDEX

APPLICABLE CODES

2019 CA BUILDING CODE

2019 CA RESIDENTIAL CODE

2019 CA MECHANICAL CODE

2019 CA ELECTRICAL CODE

2019 CA PLUMBING CODE

2019 GREEN BUILDING CODE

2019 CA ENERGY CODE

2019 CA FIRE CODE

GENERAL NOTES

The Contractor shall furnish all material, labor, scaffolding, utensils, and apparatus required for the work shown on these plans and pay for the full frieghtage cartage, taxes, and handling of material associated with the work.

All work shaall comply and conform to all codes and regulations, including the 2019 CBC, 2019 CMC, 2019 CPC, 2019 CEC, 2019 CRC, California Energy requirements, and all local, state and federal requirements, codes and regulations, unless otehrwise noted.

Contractor shall be solely responsible for job and worksite saftey.

All work is to be perfrmed in accordance with these plans and specifications and to the satisfaction of the owner.

Bidders shall visit the site and familiarize themselves with all existing conditions, and be prepared to carry out the work within the existing limitations.

Verify all dimensions in the field, written dimensions have precedence over scaled dimensions. Any discrepencies between drawings and/or specifications and actual conditions shall be brought to the attention of the architect/ designer for immediate clarification prior to proceeding wih the work.

Change orders shall be in writing.

Substitutions will be considered, but do not substitute materials, equipment, or methods without specific advanced approval by the architect.

Contractor shall notify the architect/designer of all modifications to drawing by the building department and of all changes requested by the inspector.

Follow manufacturer's instructions carefully. Manufacturer's operating instructions amd guarentess shall be given to the owner at the end of the job.

All features of construction not fullu shown shall be of the same type and character as that shown for similar conditions. For special conditions or discrepenscies, notify the architect/desinger before bidding or proceeding with work.

All material shall be of the best of their respective kinds, new, and subject to the approval of the owner. All work is to be performed in the best manner by skilled workmen.

It is the responsibility of the contractor and subcontractors to notify the architect/designer and/or engineer of any discrepencies, inconsistenciesm errors or omissions in the plans and specifications which might affect the work, prior to proceeding with the work.

T.Vess Interiors

www.tvessinteriors.com

Designer
Address
Phone
e-mail

Consultant
Address
Address
Phone
Fax
e-mail

Consultant THANH T VESS
Address P.O. BOX 1377
Address CAMPBELL, CA 95008
Phone 408.813.5576
Fax TV@TVESSINTERIORS.COM
e-mail

STEVE AND GWEN DORCICH

1970 HAYES LANE

COVER SHEET

Date 05.06.22

T.VESS

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Scale 3/16" = 1'-0"

GENERAL NOTES

THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR, SCAFFOLDING, UTENSILS, AND APPARATUS REQUIRED FOR THE WORK SHOWN ON THESE PLANS AND PAY FOR THE FULL FRIEGHTAGE CARTAGE, TAXES, AND HANDLING OF MATERIAL ASSOCIATED WITH THE WORK.

ALL WORK SHALL COMPLY AND CONFORM TO ALL CODES AND REGULATIONS, INCLUDING THE 2019 CBC, 2019 CMC, 2019 CPC, 2019 CEC, 2019 CRC, CALIFORNIA ENERGY REQUIREMENTS, AND ALL LOCAL, STATE AND FEDERAL REQUIREMENTS, CODES AND REGULATIONS, UNLESS OTEHRWISE NOTED.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB AND WORKSITE SAFTEY.

ALL WORK IS TO BE PERFRMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE OWNER.

BIDDERS SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS, AND BE PREPARED TO CARRY OUT THE WORK WITHIN THE EXISTING LIMITATIONS.

VERIFY ALL DIMENSIONS IN THE FIELD, WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. ANY DISCREPENCIES BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ DESIGNER FOR IMMEDIATE CLARIFICATION PRIOR TO PROCEEDING WIH THE WORK.

CHANGE ORDERS SHALL BE IN WRITING.

SUBSTITUTIONS WILL BE CONSIDERED, BUT DO NOT SUBSTITUTE MATERIALS, EQUIPMENT, OR METHODS WITHOUT SPECIFIC ADVANCED APPROVAL BY THE ARCHITECT.

CONTRACTOR SHALL NOTIFY THE ARCHITECT/DESIGNER OF ALL MODIFICATIONS TO DRAWING BY THE BUILDING DEPARTMENT AND OF ALL CHANGES REQUESTED BY THE INSPECTOR.

FOLLOW MANUFACTURER'S INSTRUCTIONS CAREFULLY. MANUFACTURER'S OPERATING INSTRUCTIONS AMD GUARENTESS SHALL BE GIVEN TO THE OWNER AT THE END OF THE JOB.

ALL FEATURES OF CONSTRUCTION NOT FULLU SHOWN SHALL BE OF THE SAME TYPE AND CHARACTER AS THAT SHOWN FOR SIMILAR CONDITIONS. FOR SPECIAL CONDITIONS OR DISCREPENSCIES, NOTIFY THE ARCHITECT/DESINGER BEFORE BIDDING OR PROCEEDING WITH WORK.

ALL MATERIAL SHALL BE OF THE BEST OF THEIR RESPECTIVE KINDS, NEW, AND SUBJECT TO THE APPROVAL OF THE OWNER. ALL WORK IS TO BE PERFORMED IN THE BEST MANNER BY SKILLED WORKMEN.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO NOTIFY THE ARCHITECT/DESIGNER AND/OR ENGINEER OF ANY DISCREPENCIES, INCONSISTENCIESM ERRORS OR OMISSIONS IN THE PLANS AND SPECIFICATIONS WHICH MIGHT AFFECT THE WORK, PRIOR TO PROCEEDING WITH THE WORK.

MECHANICAL NOTES:

1. DUCTS SIZE REQUIREMENTS SHALL COMPLY WITH MANUFACTURER'S DESIGN CRITERIA FOR AIR FLOW RATING.
2. FOR INTERMITTENT LOCAL EXHAUST, THE MINIMUM BATHROOM INTERMITTENT VENTILATION AIRFLOW SHALL BE 50 CFM AND FOR KITCHEN HOOD EXHAUST SHALL BE 100 CFM PER ASHRAE 62.2-2007 SECTION 4.6.4.
3. CONTINUOUSLY OPERATING LOCAL EXHAUST BATHROOM FANS SHALL PROVIDE 5 AIR CHANGES PER HOUR MINIMUM, PER ASHRAE 62.2-2007 SECTION 4.6.4.
4. VENTILATION FAN SOUND RATINGS SHALL BE LESS THAN 1 SONE FOR CONTINUOUS FANS, OR 3 SONE FOR INTERMITTENT FANS UNLESS THEIR MAX. RATED AIRFLOW EXCEEDS 400 CFM.
5. BATHROOM EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING. CGBC SECTION 4.506.
6. ALL EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEMS.
7. UNLESS PART OF THE WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF 50%-80% AND READILY ACCESSIBLE.
8. DESIGN AND INSTALL HVAC SYSTEM TO ACCA MANUAL J, D, AND S RECOMMENDATIONS, INCLUDING TESTING TOTAL SUPPLY AIR FLOW RATES AND THIRD PARTY TESTING OF MECHANICAL VENTILATION RATES.
9. SUPPLY AND RETURN AIR REGISTERS MUST BE LOCATED ACCORDING TO CBGSC AND CMC 2019.
10. PROVIDE 30IN MINIMUM IN DEPTH, WIDTH, AND HEIGHT OF WORKING SPACE IN FRONT OF EQUIPMENT AND APPLIANCES.

GENERAL PLUMBING NOTES:

SCOPE

1. DOMESTIC HOT AND COLD WATER SYSTEMS.
2. FUEL GAS PIPING.
3. INSTALLATION OF ALL NEW PLUMBING FIXTURES.
4. COMPLETE WASTE AND VENT PIPING SYSTEM.

CONDITIONS

1. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VISIT THE PROJECT SITE AND ACQUAINT HIMSELF WITH ALL EXISTING CONDITIONS, AS WELL AS ASCERTAIN THE EXTENT OF THE WORK INVOLVED. BY SUBMITTING A BID, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH AN EXAMINATION, TO HAVE ACCEPTED SUCH CONDITIONS AND TO HAVE MADE ALL NECESSARY ALLOWANCES IN PREPARING HIS PROPOSAL.

2. ALL WORK AND MATERIALS SHALL COMPLY WITH GOVERNING CODES, SAFETY ORDERS AND REGULATIONS.
3. PLUMBING CONTRACTOR SHALL DELIVER TO THE OWNER AND GENERAL CONTRACTOR A WRITTEN ONE YEAR GUARANTEE ON ALL WORKMANSHIP, EQUIPMENT AND MATERIALS; REPAIR OR REPLACE ANY SUCH DEFECTIVE ITEMS DURING THIS PERIOD.

UTILITIES AND SITE WORK:

1. PRIOR TO COMMENCING WORK, PLUMBING CONTRACTOR SHALL CONSULT REPRESENTATIVES OF LOCAL UTILITIES CONCERNING LOCATIONS AND AVAILABILITY OF UTILITIES. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITY LINES. 2. PLUMBING CONTRACTOR SHALL REROUTE ANY EXISTING UTILITY LINES IN CONFLICT WITH NEW CONSTRUCTION. 3. PLUMBING CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF ALL EXISTING NEW AND REROUTED MAINS AND METERS ON JOB RECORD DRAWINGS.

BATHROOM NOTES

1. TUB/SHOWER GLASS ENCLOSURES - ALL DOORS AND PANELS OF SHOWER AND BATHTUB ENCLOSURES SHALL BE FULLY TEMPERED, LAMINATED SAFETY GLASS OR APPROVED PLASTIC PER CBC SECTION 2406.3.

2. TUB/SHOWER WALLS - TUB/SHOWER WALLS MUST BE A SMOOTH, HARD, NONABSORBENT SURFACE (E.G., CERAMIC TILE OR FIBERGLASS) OVER A MOISTURE-RESISTANT UNDERLAYMENT (E.G DENS SHIELD) TO A HEIGHT OF 72" ABOVE DRAIN INLET PER CRC R307.2).

3. VENTILATION - ALL BATHROOMS CONTAINING BATHTUBS AND SHOWERS MUST BE MECHANICALLY VENTILATED PER CBC 1203.4.2/1.

4. SHOWER SIZE - ALL SHOWERS MUST HAVE MIN. INTERIOR FLOOR AREA OF 1,204 SQ. IN. AND CAPABLE OF ENCOMPASSING 30" CIRCLE AND IT SHALL BE MAINTAINED UP TO 70" ABOVE SHOWER DRAIN INLET.

5. SHOWER DOORS MUST OPEN AT LEAST A MIN. OF 22" FOR AN UNOBSTRUCTED EGRESS OPENING PER CPC 411.6.

6. SHOWER AND TUB-SHOWER COMIBNATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE PER CPC SECITON 418.0.

7. ALL LIGHTING IN BATHROOM SHALL BE HIGH EFFICACY OR CONTROLLED BY OCCUPANCY/MOTION SENSORS

8. GLAZING IN SHOWERS OR BATHTUB ADACENT WALL OPENINGS WHERE THE BOTTOM OF GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE SHALL BE FULLY TEMPERED, LAMINATED SAFETY GLASS OR APPROVED PLASTIC. PER CRC SECTION 4308.4.5.

DRAIN/ WASTE / VENT NOTES

1. ALL WASTE PIPING BELOW 1ST FLOOR SHALL BE SCHEDULE 40 ABS.

2. ALL WASTE PIPING SERVING 2ND FLOOR FIXTURES SHALL BE NO-HUB CAST-IRON. (NOTE: P-TRAP AND TRAP-ARM SHALL BE CAST-IRON. NOTE: TRANSITIONS FROM ABS TO NO-HUB PIPING FOR UPSTAIRS BATHS SHALL BE BENEATH FLOOR AT 1ST FLOOR AND TRANSITIONS BACK TO ABS SHALL BE ABOVE 2ND FLOOR PLATE LINE.)

3. ALL VENT PIPING SHALL BE SCHEDULE 40 ABS.

4. VENTS SHALL BE COMBINED TO MINIMIZE ROOF PENETRATION WHERE POSSIBLE. CONFIRM ROOF PENETRATION LOCATIONS WITH GENERAL CONTRACTOR/OWNER PRIOR TO INSTALLING.

5. CLEANOUTS SHALL BE INSTALLED AT UPPER TERMINALS OF ALL HORIZONTAL WASTE RUNS AS PER UPC.

6. PLUMBER SHALL PROVIDE WASTE FOR SOFTENER LOCATION.

7. PROVIDE APPROVED AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE(S) WHN DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD DISPOSER.

T.Vess Interiors

www.tvessinteriors.com

Designer
Address
Phone
e-mail

Consultant
Address
Address
Phone
Fax
e-mail

Consultant THANH T. VESS
Address P.O. BOX 1377
Address CAMPBELL, CA 95008
Phone 408.813.5376
Fax TV@TVESSINTERIORS.COM
e-mail

STEVE AND GWEN DORCICH

1970 HAYES LANE

GENERAL NOTES & GREEN NOTES

Date 05.06.22

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Scale

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

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

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

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

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

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

ABBREVIATION DEFINITIONS:

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

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES
DIVISION 4.1 PLANNING AND DESIGN

SECTION 4.102 DEFINITIONS

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

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

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

4.106 SITE DEVELOPMENT

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

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

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

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

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

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

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

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no commercial power supply.
   1.2 Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than $400.00 per dwelling unit.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

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

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

4.106.4.2 New multifamily dwellings. 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 (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Notes:
1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. Where common use parking is provided at least one EV space shall be located in the common use parking area and shall be available for use by all residents.

4.106.4.2.1.1 Electric Vehicle Charging Stations (EVCS) When EV chargers are installed, EV spaces required by Section 4.106.2.2, Item 3, shall comply with at least one of the following options:

1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.
2. The EV space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

Note: Electric Vehicle charging stations serving public housing are required to comply with the *California Building Code*, Chapter 11B.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. The EV space shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486 mm).
2. The minimum width of each EV space shall be 9 feet (2743 mm).
3. One in every 25 EV spaces, but not less than one EV space, shall have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).
   a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

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

4.106.4.2.4 Multiple EV spaces required. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

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

4.106.4.3 New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces.

Notes:

1. Construction documents are intended to demonstrate the project's capability and capacity or facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.3.1 Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TABLE 4.106.4.3.1

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

4.106.4.3.2 Electric vehicle charging space (EV space) dimensions. The EV spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486mm).
2. The minimum width of each EV space shall be 9 feet (2743mm)

4.106.4.3.3 Single EV space required. When a single EV space is required, the EV space shall be designed in accordance with Section 4.106.4.2.3.

4.106.4.3.4 Multiple EV spaces required. When multiple EV spaces are required, the EV spaces shall be designed in accordance with Section 4.106.4.2.4.

4.106.4.3.5 Identification. The service panels or sub-panels shall be identified in accordance with Section 4.106.4.2.5.

4.106.4.3.6 Accessible EV spaces. In addition to the requirements in Section 4.106.4.3, EV spaces for hotels/motels and all EVSE, when installed, shall comply with the accessibility provisions for the EV charging stations in the *California Building Code*, Chapter 11B.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

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

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

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

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.2 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

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

TABLE - MAXIMUM FIXTURE WATER USE

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

4.304 OUTDOOR WATER USE

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

NOTES:

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

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

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

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

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

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

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

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

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

Notes:

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

4.410 BUILDING MAINTENANCE AND OPERATION

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

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

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

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

SECTION 4.502 DEFINITIONS

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

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

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

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

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Consultant
Address
Address
Phone
e-mail

STEVE AND GWEN DORCICH

1970 HAYES LANE

GREEN BUILDING NOTES

Date 05.06.22

T.VESS

A0.2

Scale

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

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

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

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

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

4.503 FIREPLACES

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

4.504 POLLUTANT CONTROL

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

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

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

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

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

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

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

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

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]
(Less Water and Less Exempt Compounds in Grams per Liter)

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

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

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

TABLE 4.504.2 - SEALANT VOC LIMIT
(Less Water and Less Exempt Compounds in Grams per Liter)

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

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]
GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

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

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

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

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

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

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the following:

1. Carpet and Rug Institute's Green Label Plus Program.
2. 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).
3. NSF/ANSI 140 at the Gold level.
4. Scientific Certifications Systems Indoor Advantage™ Gold.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.

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

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall 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 2010 (also known as Specification 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 buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

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

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

4.505 INTERIOR MOISTURE CONTROL

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

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

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

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

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

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

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

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

4.507 ENVIRONMENTAL COMFORT

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

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

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

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

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

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

Notes:

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

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

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

703 VERIFICATIONS

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

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Phone 408.813.9378
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STEVE AND GWEN DORCICH

1970 HAYES LANE

GREEN BUILDING NOTES 2

Date 05.06.22

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A0.3

Scale

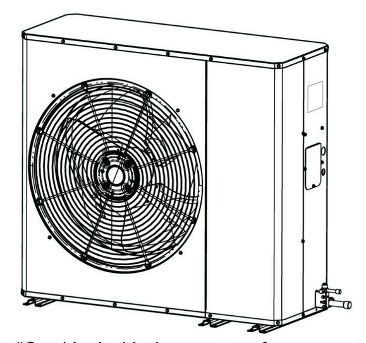
American Standard®
HEATING & AIR CONDITIONING

Submittal

Side Discharge Variable Speed HP

For coastal applications where units are installed within one (1) mile of salt water, epoxy coated models are recommended. These models have an 8 week lead time after order.

	Epoxy Coated Model
4A6L9048A1000A	4A6L9048A1COTA



Note: *"Graphics in this document are for representation only. Actual model may differ in appearance."*

TAG:______________________

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

July 2018 **4A6L9048A-SUB-1B-EN** Ingersoll Rand.

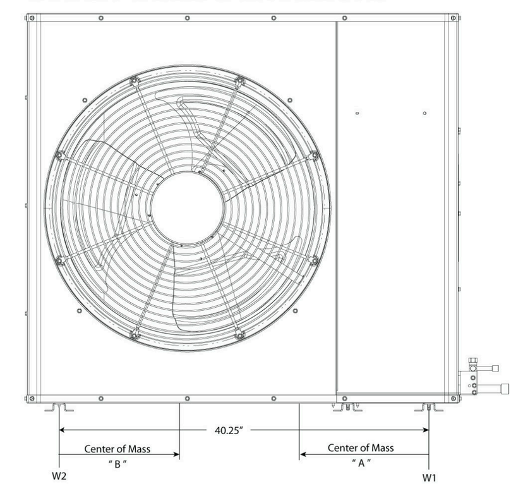
American Standard®
HEATING & AIR CONDITIONING

Product Specifications

OUTDOOR UNIT (a) (b)	4A6L9036A1XXXA
POWER CONNS. — V/PH/HZ (c)	208–230/1/60
MIN. BRCH. CIR. AMPACITY	26.9
BR. CIR. PROT. RTG. — MAX. (AMPS)	30
COMPRESSOR	DURATION®- SCROLL
NO. USED — NO. STAGES	1 — Variable
VOLTS/PH/HZ	208–230/1/60
R.L. AMPS (d) — L.R. AMPS	12.4 / 48.9
FACTORY INSTALLED	
START COMPONENTS (e)	NO
INSULATION/SOUND BLANKET	YES
SUMP HEAT	YES
OUTDOOR FAN	PROPELLER
DIA. (IN.) — NO. USED	27.5 — 1
TYPE DRIVE — NO. SPEEDS	DIRECT — VARIABLE
CFM @ 0.0 IN. W.G. (f)	2400
NO. MOTORS — HP	1 — 1/2
MOTOR SPEED R.P.M.	200–1050
VOLTS/PH/HZ	325–385 VDC/3/60
F.L. AMPS	2.3
OUTDOOR COIL — TYPE	PLATE FIN
ROWS — F.P.I.	2 — 16
FACE AREA (SQ. FT.)	12.88
TUBE SIZE (IN.)	5/16
REFRIGERANT	
LBS. — R-410A (O.D. UNIT) (g)	8 LBS, 0 OZ
FACTORY SUPPLIED	YES
LINE SIZE — IN. O.D. GAS (h)	3/4
LINE SIZE — IN. O.D. LIQ.	3/8
CHARGING SPECIFICATIONS	
SUBCOOLING COOLING MODE	10° F
DIMENSIONS	H X W X D
CRATED (IN.)	42 x 56 x 24
UNCRATED (IN.)	36–3/4 X 47 X 17–1/2
WEIGHT	
SHIPPING (LBS.)	250
NET (LBS.)	226

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.
(b) Rated in accordance with AHRI standard 275.
(c) Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.
(d) This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.
(e) No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter. Optional kit shown.
(f) Standard Air — Dry Coil — Outdoor
(g) This value approximate. For more precise value see unit nameplate.
(h) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub # 32-3312-xx or refrigerant piping application guide SS-APG006-xx for long line sets or specialty applications (xx denotes latest revision).

Center Mass Dimensions



Model	2 Ton	3 Ton	4/5 Ton
Total Weight	206	228	247
W1 (LB)	135.63	143.03	150.35
Dim "A"	13.75	15.00	15.75
W2 (LB)	70.37	84.97	96.65
Dim "B"	26.50	25.25	24.50

American Standard®
HEATING & AIR CONDITIONING

Outline Drawing

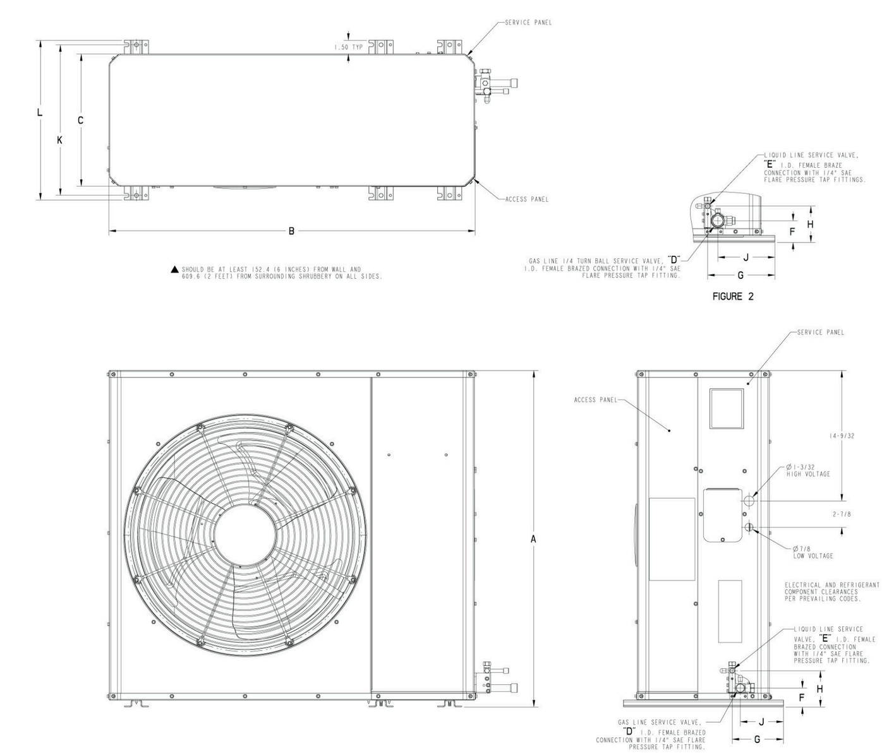
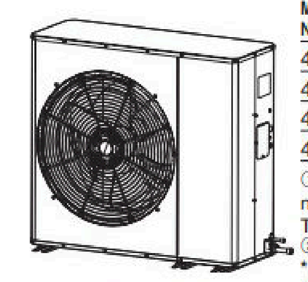


FIGURE 1

Model	Base	A	B	C	D	E	F	G	H	J	K
4A6L9036A	4.3	934 (36–3/4)	1194 (47)	445 (17–1/2)	16 (3/4)	10 (3/8)	54 (2–1/16)	159 (6–1/4)	101 (3–31/32)	187 (7–11/32)	495 (19–1/2)



Platinum 19 (Variable Speed)

Table SH-3-C - Platinum 19 R-410A Side Discharge Variable Speed Heat Pump (50-100% capacity)—with AccuLink™ ②

Model Number	Power Supply	Nom. Cap Cooling (BTUH)	Uncrated Dimensions(in.) H	W	D	Shipping Weight (lbs.)	Sound** Rating (Cool)	(Heat)	MCA*	Max. Fuse*	Line Size (in) OD Gas	OD Liq.
4A6L9024A1000A①	208/230/1/60	23,800	37	47	18	229	50	49	19.1	25	5/8	3/8
4A6L9036A1000A①	208/230/1/60	36,000	37	47	18	250	48	49	26.9	30	3/4	3/8
4A6L9048A1000A①	208/230/1/60	48,000	43	47	18	269	54	52	31.8	35	7/8	3/8
4A6L9060A1000A①	208/230/1/60	58,600	43	47	18	269	56	57	36.1	40	7/8	3/8

① For coastal applications where units are installed within one (1) mile of salt water, epoxy coated models are available for order. Model numbers with "COT" in the eleventh (11) through thirteenth (13) digits represent an epoxy coated coil. Example: 4A6L9036A1COTA These models have an 8 week lead time after order.
② Must use ACONT850, AZONE950 or AZON1050 control.
* Information subject to change. Please confirm with current Product Data/Service Facts for current factory production.
** Rated in accordance with AHRI Standard 275

Table 1. 3.0 Ton Heating

Sound Pressure Level dB(A) per ARI 275 (Max Heating)			
# Reflective Surfaces	3' from Property Line	5' from Property Line	7' from Property Line
0	46	41	
1	49(a)	44	
2	52	47	44

(a) Lab tested as per the illustration shown above

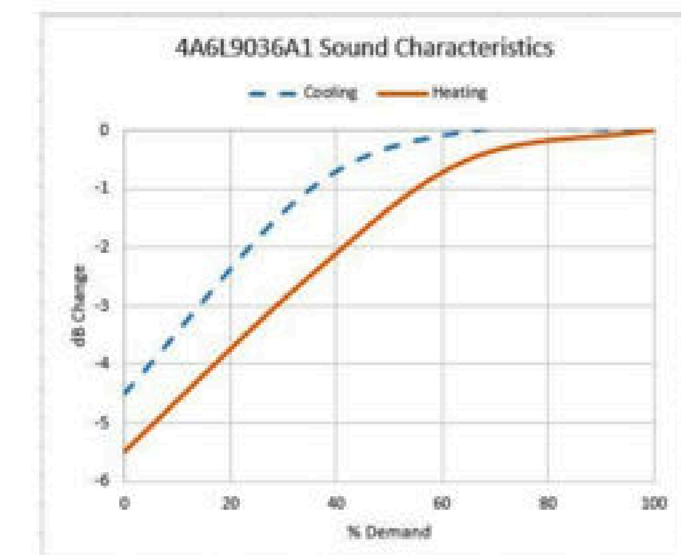
Table 2. 3.0 Ton Cooling

Sound Pressure Level dB(A) per ARI 275 (Max Cooling)			
# Reflective Surfaces	3' from Property Line	5' from Property Line	7' from Property Line
0	45		
1	48(a)	43	
2	51	46	43

(a) Lab tested as per the illustration shown above

Notes:

- *Measuring place: Hemi-Anechoic chamber*
- *Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.*
- *Operation sound level may differ depending on operation and ambient conditions.*



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MECHANICAL SPECIFICATIONS AND NOTES

Date 05.06.22
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A0.4

Scale

DEMOLISH POOL.

PAVED WALKWAY

EQUIPMENT SHED

18' - 1 1/8"

EXISTING PALM TO REMAIN

1484 SQFT ADDITION

NEW DECK

NEW GRASS AREA/ DOG RUN. LEVEL TO 486.0 GRADE.

37' - 0 1/4"

17' - 3 7/8"

483.9

48"PALM TO REMAIN

HOUSE

EXISTING RESIDENCE
6098 SQFT

EXISTING PORCH

EXISTING PAVED WALKWAY

66 SQFT ADDITION

EXISTING PORCH

SEPTIC

SEPTIC

GAS

8"PALM

10"PALM

EXISTING DRIVEWAY

N36°00'00"E
190.00

1 PROPOSED SITE PLAN
1/8" = 1'-0"

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PROPOSED SITE PLAN

Date 05.06.22

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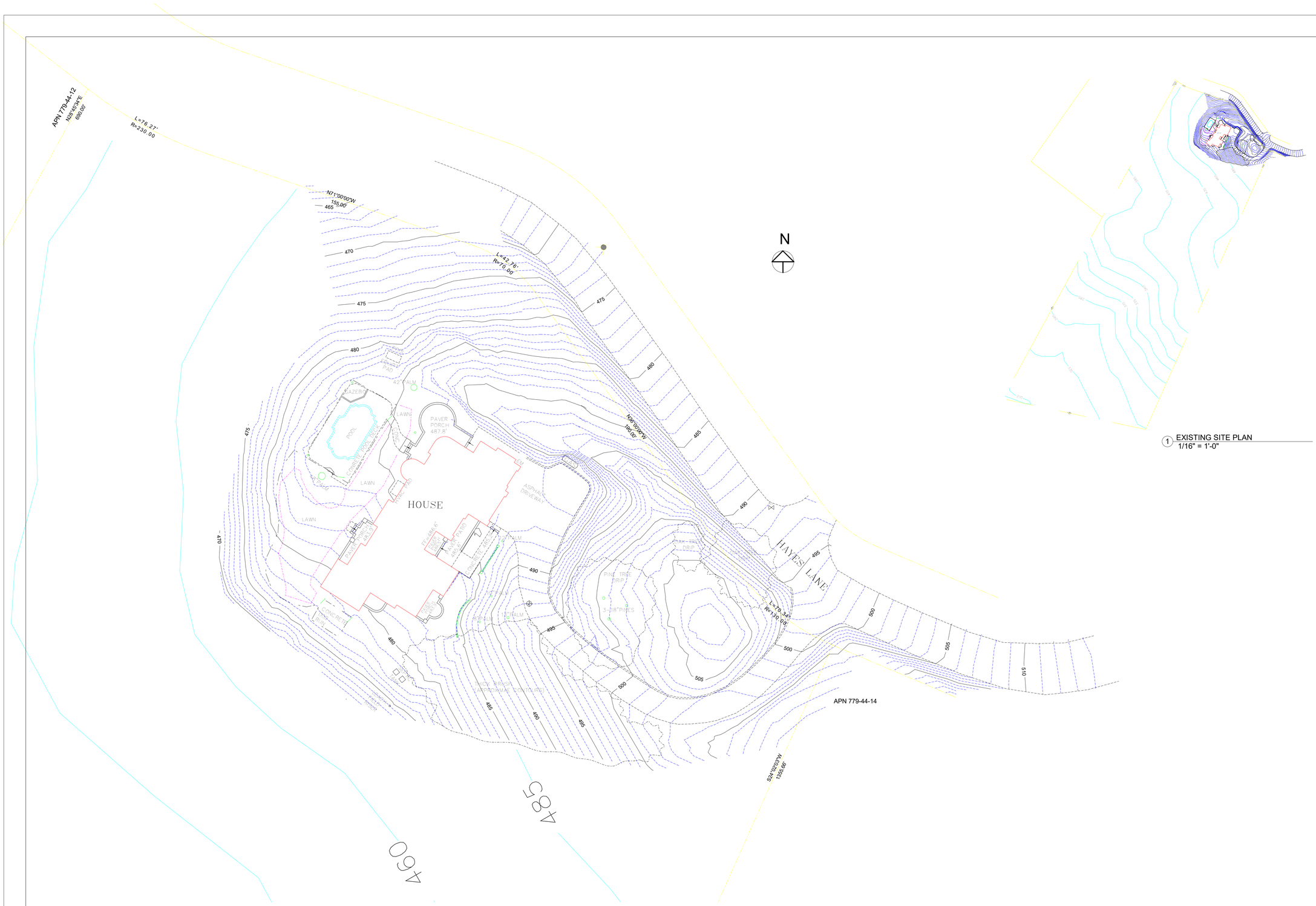
A1.0

Scale 1/8" = 1'-0"



2 SITE PLAN EXISTING
1/2" = 1'-0"

1 EXISTING SITE PLAN
1/16" = 1'-0"

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EXISTING
SITE/ SURVEY

Date 05.06.22

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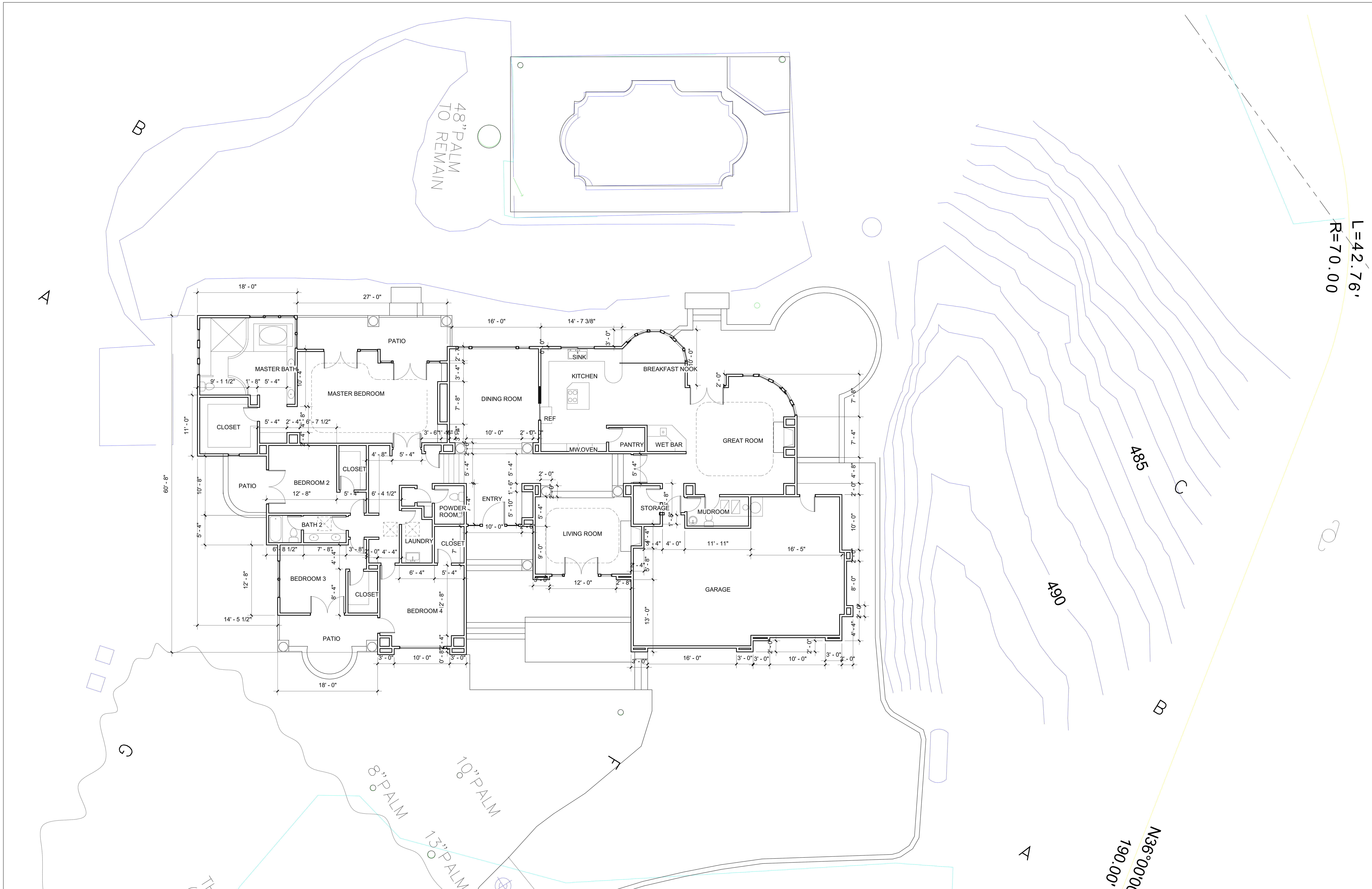
A2.1

Scale As indicated



1 EXISTING FLOOR PLAN
1/8" = 1'-0"

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steve and Gwen Dorcich
1970 Hayes Lane. San Martin, CA

Existing Floor Plan

Date 10.03.21

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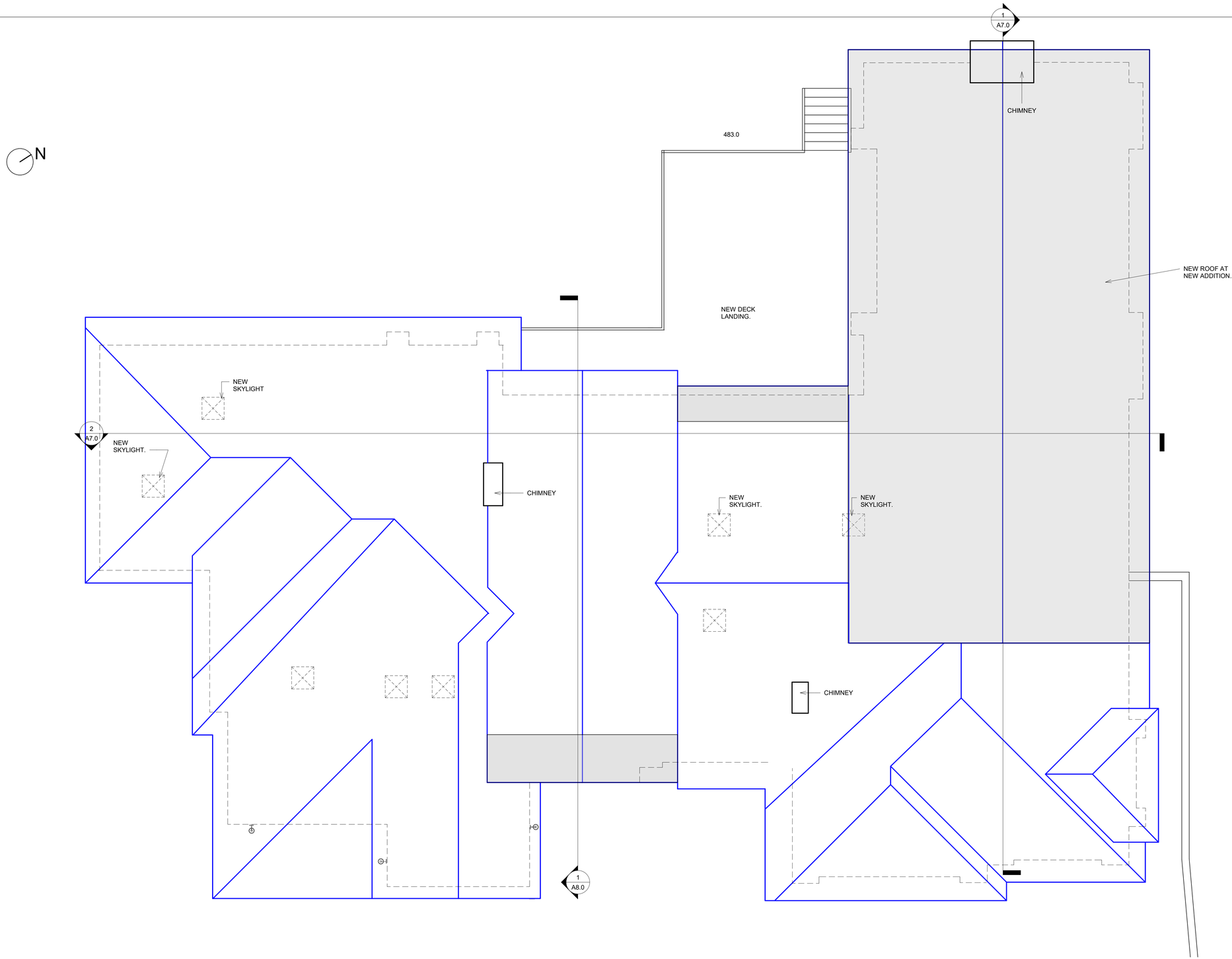
A2.2

Scale 1/8" = 1'-0"



1 ROOF PLAN
3/16" = 1'-0"

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1970 HAYES LANE

ROOF PLAN

Date 05.06.22

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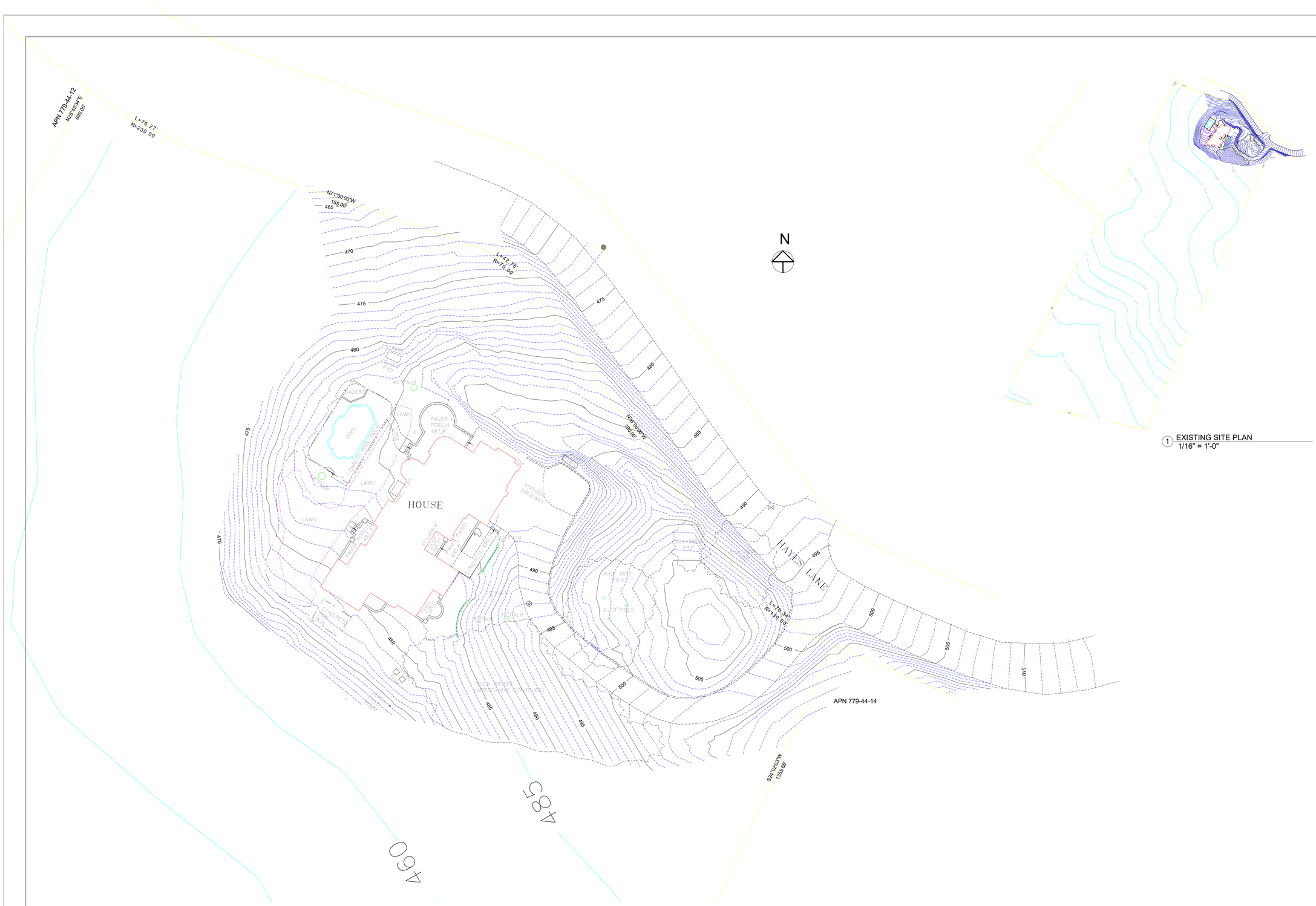
A2.0

Scale 3/16" = 1'-0"



1 EXISTING SITE PLAN
1/16" = 1'-0"

2 SITE PLAN EXISTING
1/2" = 1'-0"

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EXISTING
SITE/ SURVEY

Date 05.06.22

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A3.0

Scale As indicated

WALL LEGEND

EXISTING WALLS

NEW WALLS

DEMOLISHED WALLS

N

1 PROPOSED FLOOR PLAN
3/16" = 1'-0"

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PROPOSED FLOOR PLAN AND ADDITION

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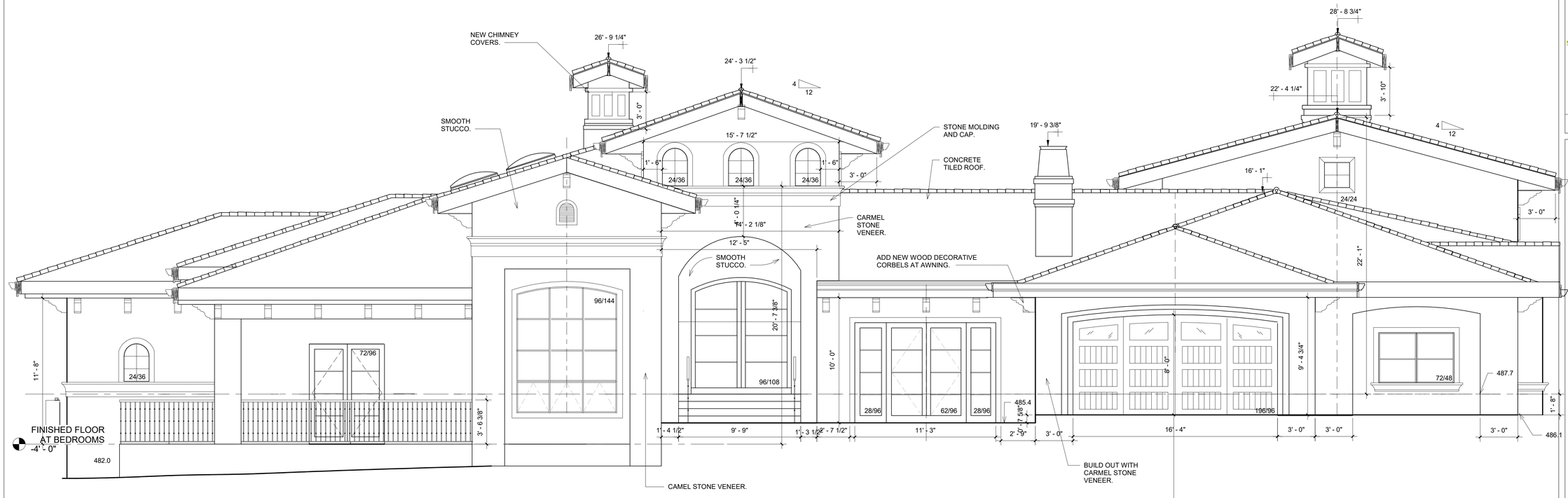
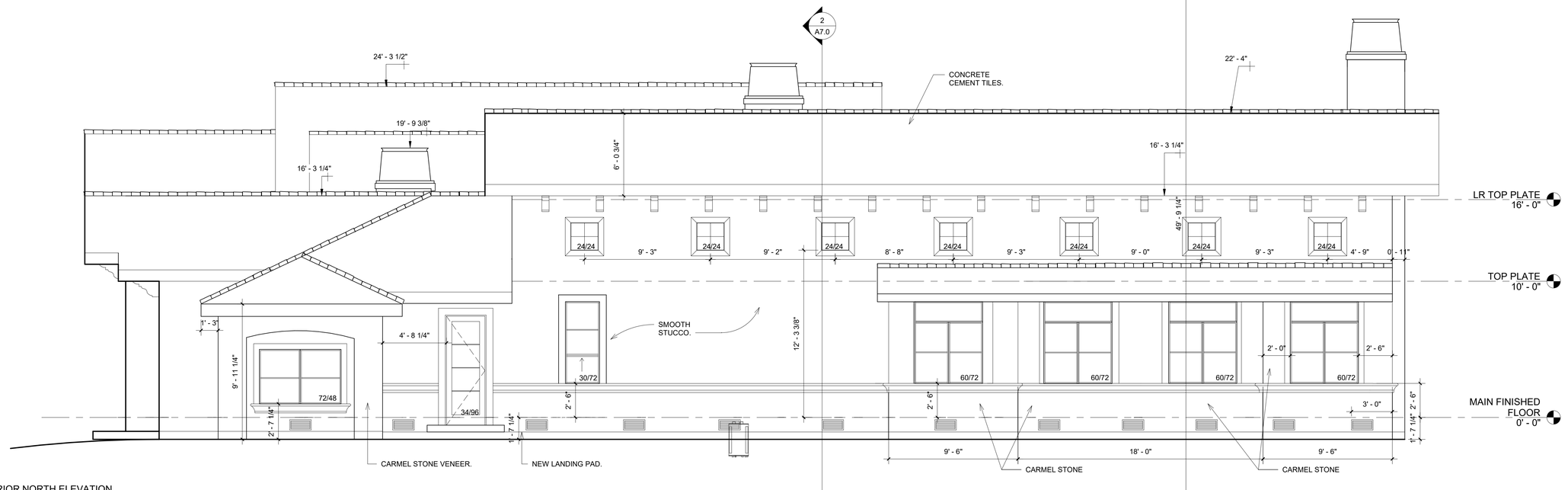
Scale 3/16" = 1'-0"



1 EXTERIOR EAST ELEVATION
1/4" = 1'-0"



2 EXTERIOR NORTH ELEVATION
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EXTERIOR ELEVATIONS

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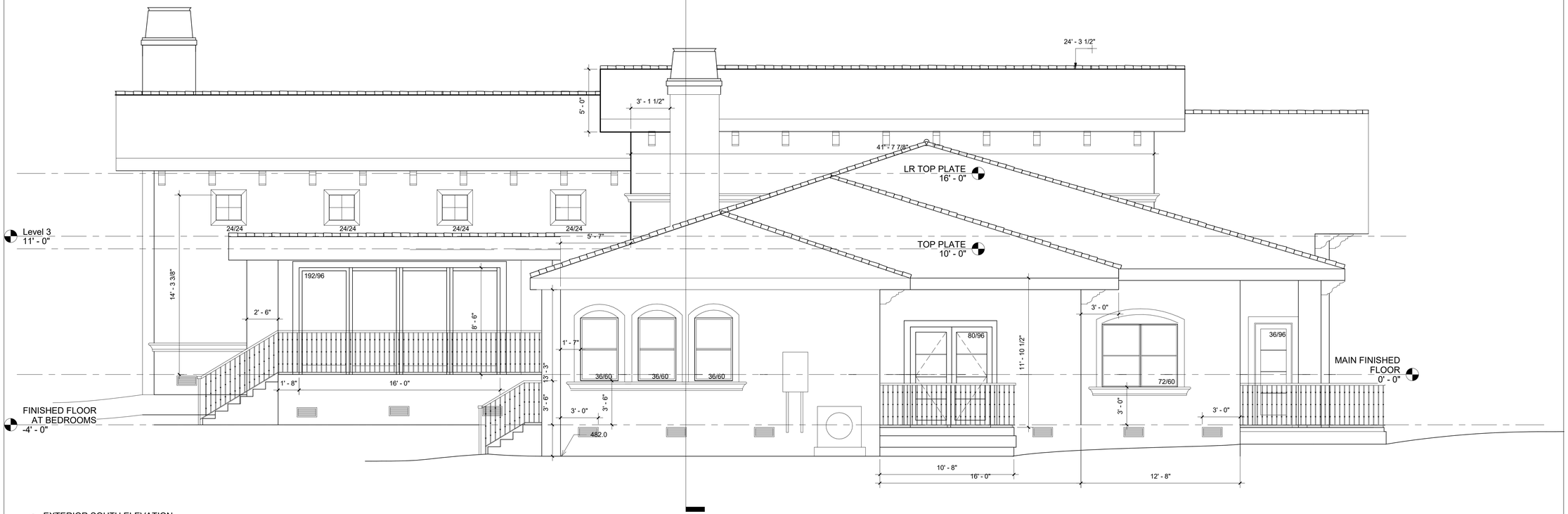
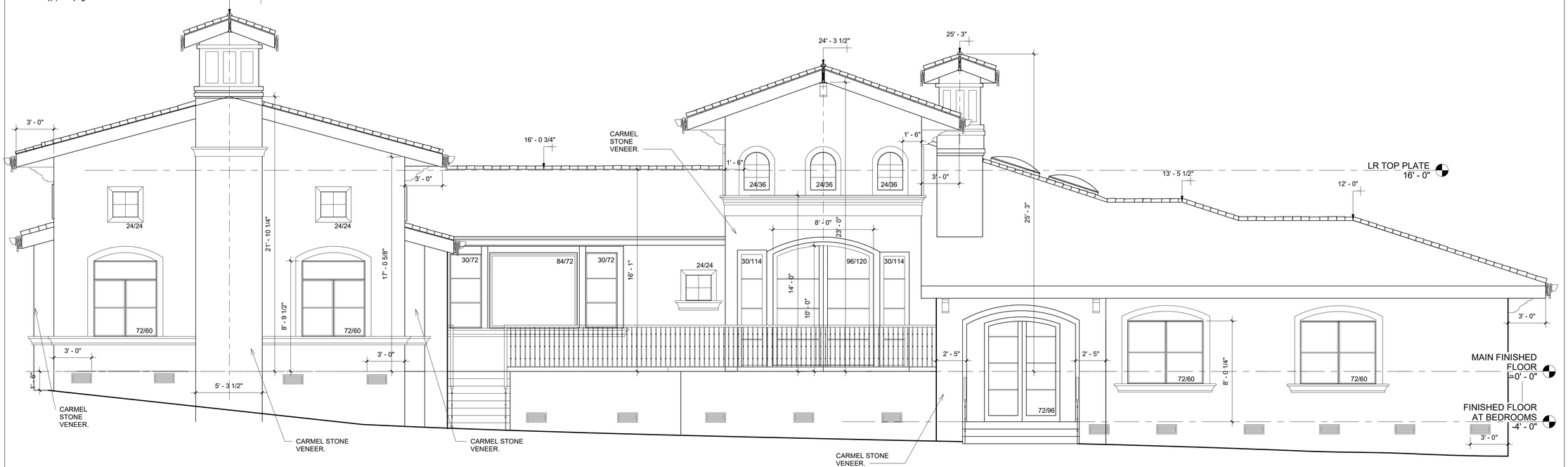
A5.0

Scale 1/4" = 1'-0"

A7.0



1 EXTERIOR SOUTH ELEVATION
1/4" = 1'-0"



2 EXTERIOR WEST ELEVATION
1/4" = 1'-0"

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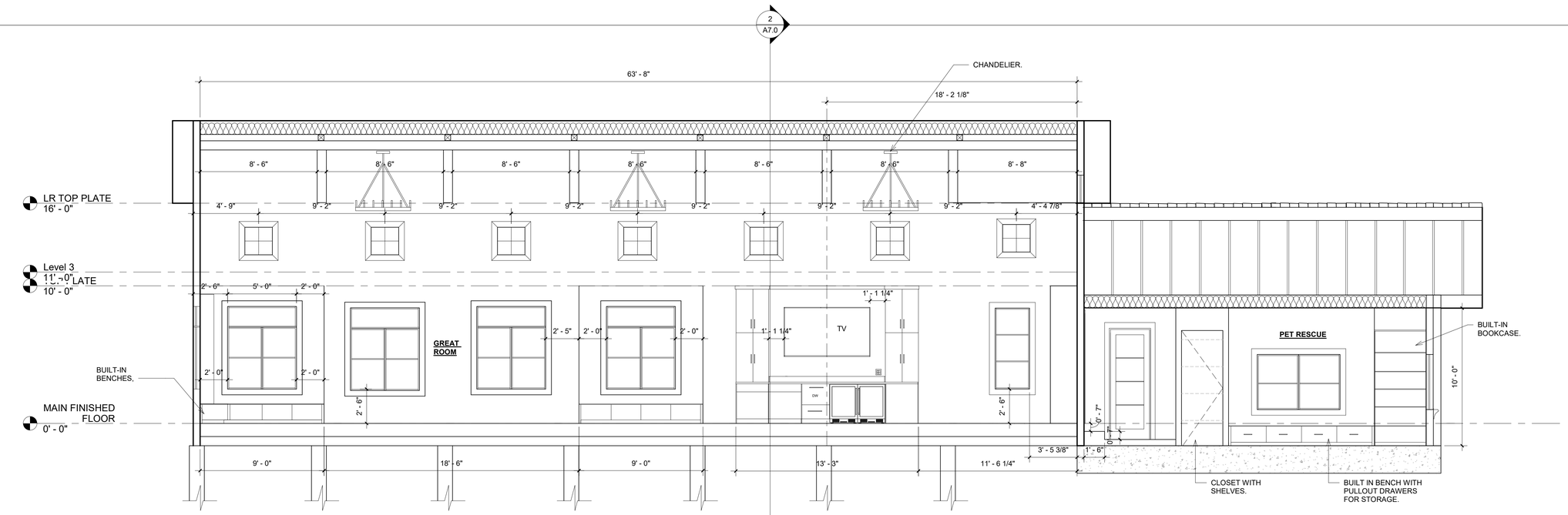
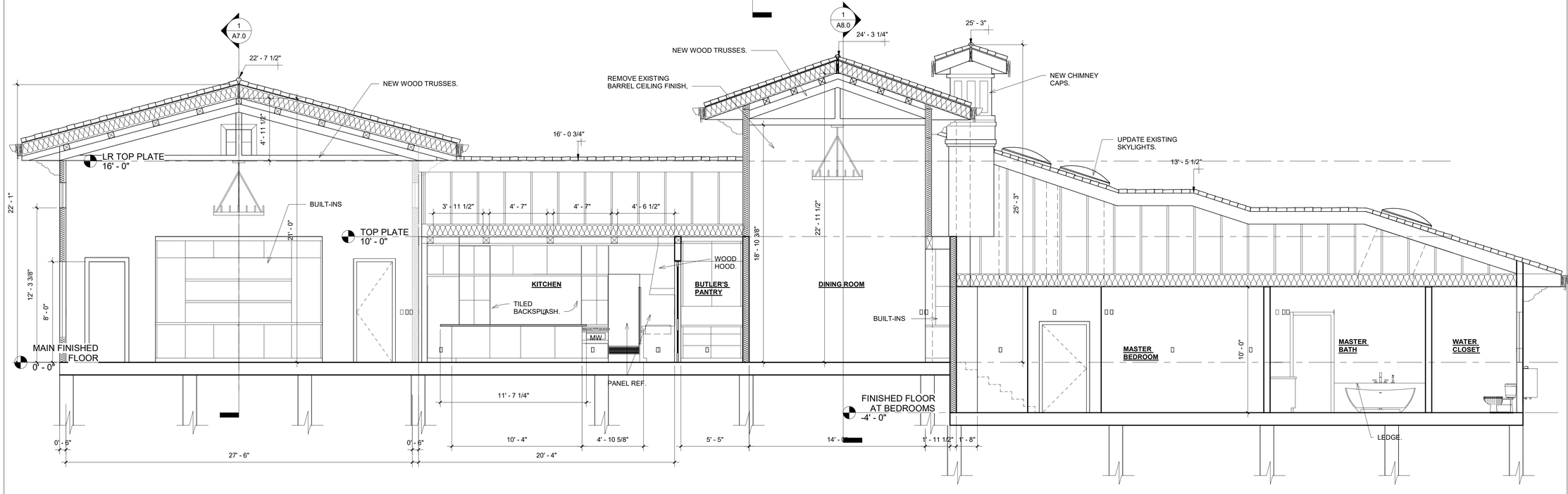
Scale 1/4" = 1'-0"



1 Section 1 AT LIVING ROOM
1/4" = 1'-0"



2 Section 2
1/4" = 1'-0"

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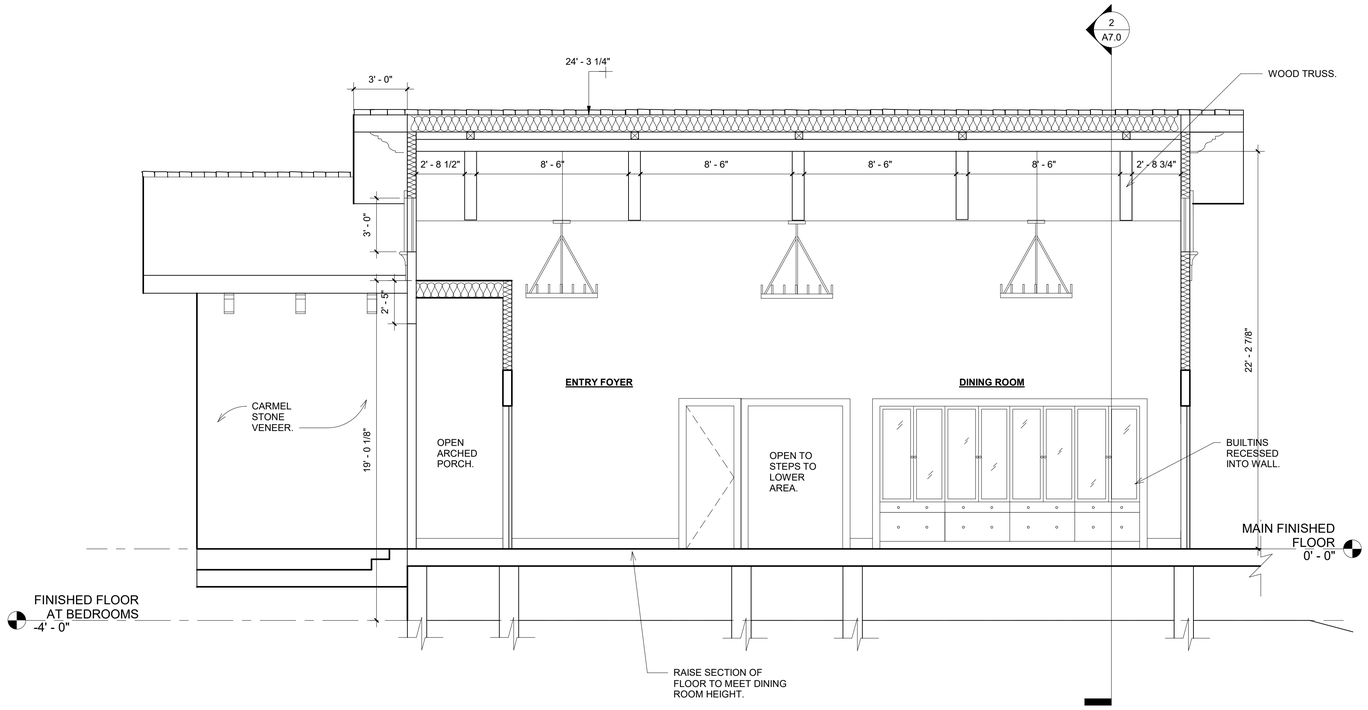

1 Section 3
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A8.0

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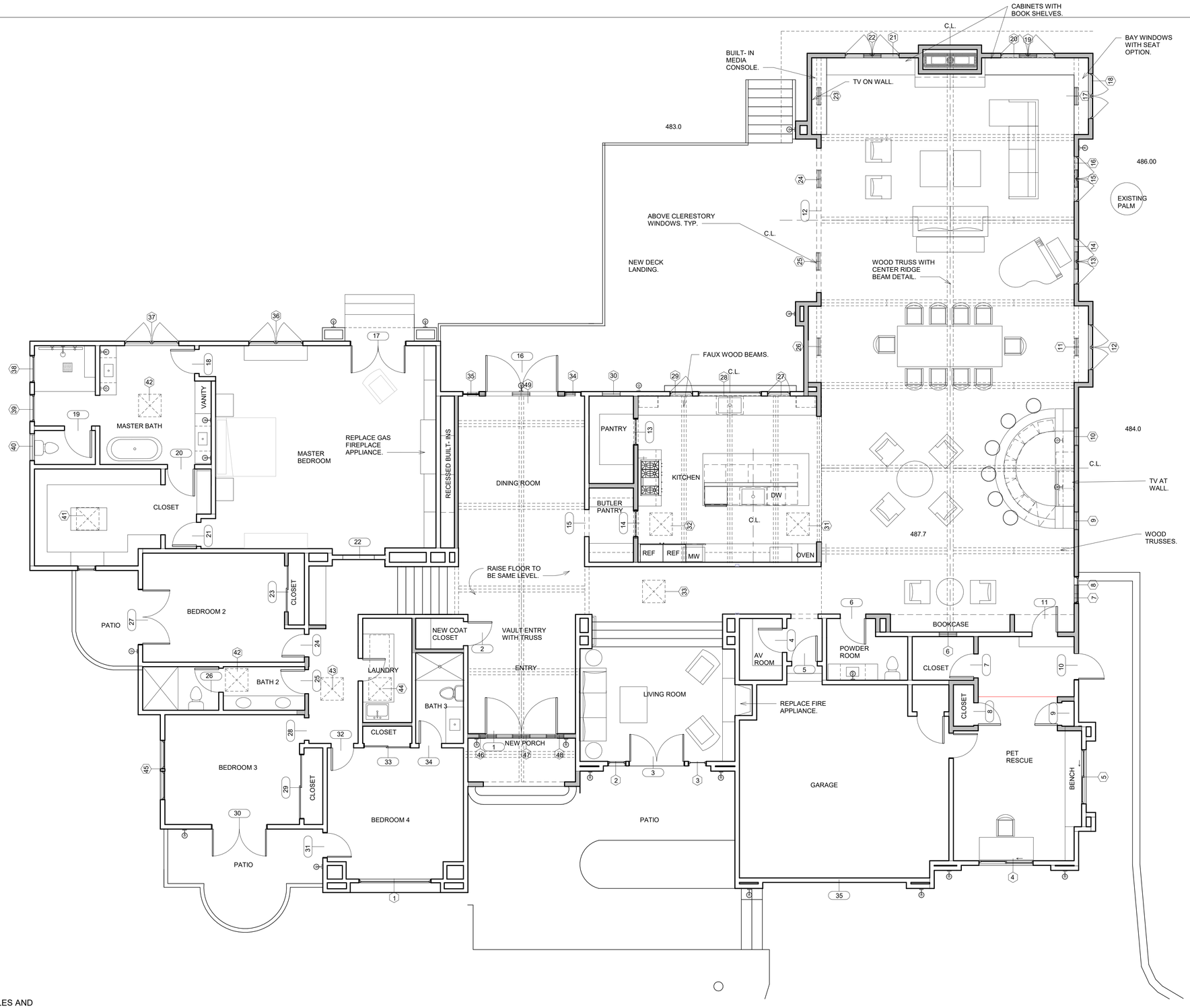

1 WINDOW AND DOOR SCHEDULES AND PLAN
3/16" = 1'-0"

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WINDOW AND DOOR SCHEDULE

Date 05.06.22

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A10.0

Scale 3/16" = 1'-0"

WINDOW SCHEDULE

WINDOW TAG	ROOM NAME	MANUFACTURER	MODEL NUMBER	SIZE IN INCHES	TYPE	SAFTEY GLASS	DIVIDERS	HARDWARE	INTERIOR FINISH	EXTERIOR FINISH
1	BEDROOM 4	LOEWEN	LOW E	96 X 144	ABOVE FIXED/ BOTTOM THREE AWNING.		GRID/ SEE ELEV.	CRANK CONTEMPORARY/ FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
2	LIVING ROOM	LOEWEN	LOW E	28 X 96	FIXED PICTURE		YES SEE ELEV.	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
3	LIVING ROOM	LOEWEN	LOW E	28 X 96	FIXED PICTURE		YES SEE ELEV.	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
4	PET RESCUE	LOEWEN	LOW E	72 X 48	2 DOUBLE HUNG		NO	SASH/ FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
5	PET RESCUE	LOEWEN	LOW E	72 X 48	2 DOUBLE HUNG		NO	SASH/FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
6	GREAT ROOM CLERESTORY AT GARAGE SIDE	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
7	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
8	GREAT ROOM	LOEWEN	LOW E	30 X 72	BOTTOM SINGLE HUNG		YES SEE ELEV.	SASH/ FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
9	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
10	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
11	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
12	GREAT ROOM	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
13	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
14	GREAT ROOM	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
15	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
16	GREAT ROOM	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
17	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
18	GREAT ROOM	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
19	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
20	GREAT ROOM	LOEWEN	LOW E	60 X 72	TOP FIXED, 2 DOUBLE HUNG.		NO	SASH, FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
21	GREAT ROOM	LOEWEN	LOW E	60 X 72	TOP FIXED, 2 DOUBLE HUNG.		NO	SASH, FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
22	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
23	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
24	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
25	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
26	GREAT ROOM CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
27	KITCHEN	LOEWEN	LOW E	30 X 72	CASEMENT		GRID	CRANK CONTEMPORARY/ FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
28	KITCHEN	LOEWEN	LOW E	84 X 72	FIXED PICTURE		NO GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
29	KITCHEN	LOEWEN	LOW E	30 X 72	CASEMENT		GRID	CRANK CONTEMPORARY/ FAUX BRONZE	RICH MAHOGANY	MIDNIGHT BRONZE
30	PANTRY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
31	KITCHEN SKYLIGHT	VELUX	CURB MOUNT	30 X 30	SOLAR OPERATIONAL		N/A	N/A	WHITE	MIDNIGHT BRONZE
32	KITCHEN SKYLIGHT	VELUX	CURB MOUNT	30 X 30	SOLAR OPERATIONAL		N/A	N/A	WHITE	MIDNIGHT BRONZE
33	HALLWAY AT LIVING ROOM	VELUX	CURB MOUNT	30 X 30	SOLAR OPERATIONAL		N/A	N/A	WHITE	MIDNIGHT BRONZE
34	DINING ROOM	LOEWEN	LOW E	30 X 114	FIXED PICTURE		YES SEE GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
35	DINING ROOM	LOEWEN	LOW E	30 X 114	FIXED PICTURE		YES SEE GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
36	MASTER BEDROOM	LOEWEN	LOW E	72 x 60	FIXED PICTURE		YES SEE GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
37	MASTER BATH	LOEWEN	LOW E	72 x 60	FIXED PICTURE		YES SEE GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
38	MATH BATH SHOWER	LOEWEN	LOW E	36 X 60	DOUBLE HUNG	TEMPERED	NO	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
39	MASTER BATH	LOEWEN	LOW E	36 X 60	DOUBLE HUNG		NO	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
40	MASTER BATH W.C.	LOEWEN	LOW E	36 X 60	DOUBLE HUNG		NO	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
41	MASTER BATH CLOSET	LOEWEN	LOW E	36 X 60	DOUBLE HUNG		NO	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
42	BATH 2 SKYLIGHT	VELUX	CURB MOUNT	30 X 30	SOLAR OPERATIONAL		N/A	N/A	WHITE	MIDNIGHT BRONZE
43	HALL AT BEDROOMS	VELUX	CURB MOUNT	30 X 30	STATIONARY		N/A	N/A	WHITE	MIDNIGHT BRONZE
44	LAUNDRY SKYLIGHT	VELUX	CURB MOUNT	30 X 30	SOLAR OPERATIONAL		N/A	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
45	BEDROOM 3	LOEWEN	LOW E	72 x 60	2 DOUBLE HUNG		YES SEE GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
46	ENTRY CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
47	ENTRY CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
48	ENTRY CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE
49	DINING CLERESTORY	LOEWEN	LOW E	24 X 24	FIXED PICTURE		GRID	N/A	RICH MAHOGANY	MIDNIGHT BRONZE

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Designer
Address
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Consultant
Address
Address
Phone
Fax
e-mail

Consultant THANH T. VESS
Address P.O. BOX 1377
Address CAMPBELL, CA 95008
Phone 408.813.5376
Fax
e-mail TV@TVESSINTERIORS.COM

STEVE AND GWEN DORCICH

1970 HAYES LANE

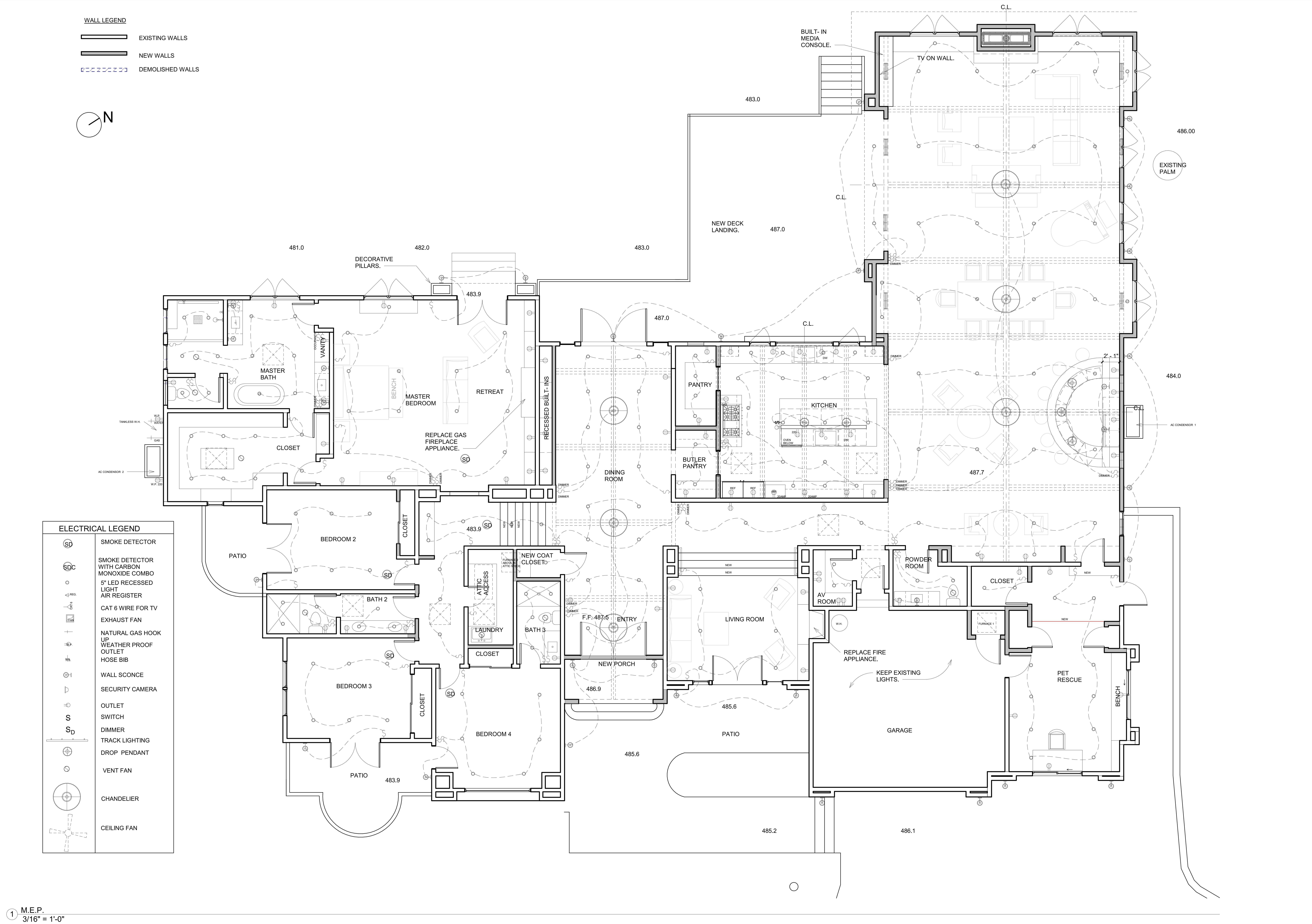
WINDOW AND DOOR SCHEDULE

Date 05.06.22

Author

A10.B

Scale


WALL LEGEND
EXISTING WALLS
NEW WALLS
DEMOLISHED WALLS
N
BUILT- IN MEDIA CONSOLE.
TV ON WALL.
C.L.
483.0
486.00
EXISTING PALM
C.L.
NEW DECK LANDING.
487.0
481.0
482.0
483.0
DECORATIVE PILLARS.
483.9
487.0
C.L.
MASTER BATH
VANITY
MASTER BEDROOM
RETREAT
RECESSED BUILT- INS
PANTRY
KITCHEN
484.0
CLOSET
REPLACE GAS FIREPLACE APPLIANCE.
BUTLER PANTRY
DINING ROOM
487.7
AC CONDENSOR 1
AC CONDENSOR 2
TANKLESS W.H.
ELECTRICAL LEGEND
SMOKE DETECTOR
SMOKE DETECTOR WITH CARBON MONOXIDE COMBO
5" LED RECESSED LIGHT
AIR REGISTER
CAT 6 WIRE FOR TV
EXHAUST FAN
NATURAL GAS HOOK UP
WEATHER PROOF OUTLET
HOSE BIB
WALL SCONCE
SECURITY CAMERA
OUTLET
SWITCH
DIMMER
TRACK LIGHTING
DROP PENDANT
VENT FAN
CHANDELIER
CEILING FAN
BEDROOM 2
CLOSET
483.9
PATIO
NEW COAT CLOSET
ATTIC ACCESS
POWDER ROOM
CLOSET
AV ROOM
BATH 2
LAUNDRY
BATH 3
F.F. 487.5
ENTRY
LIVING ROOM
CLOSET
NEW PORCH
REPLACE FIRE APPLIANCE.
KEEP EXISTING LIGHTS.
PET RESCUE
BEDROOM 3
CLOSET
486.9
485.6
BENCH
BEDROOM 4
PATIO
GARAGE
485.6
PATIO
483.9
485.2
486.1
1 M.E.P.
3/16" = 1'-0"

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e-mail

Consultant THANH T. VESS
Address P.O. BOX 1377
Address CAMPBELL, CA 95008
Phone 408.813.9376
Fax TV@TVESSINTERIORS.COM
e-mail

STEVE AND GWEN DORCICH

1970 HAYES LANE

MECHANICAL, ELECTRICAL, PLUMBING

Date 05.06.22

t.vess

M.E.P 1.0

Scale 3/16" = 1'-0"

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES SHALL BE EFFECTIVE FOR CONSTRUCTION DURING THE RAINY SEASON; OCTOBER 15 THROUGH APRIL 15.

2. NO STORM WATER RUNOFF SHALL BE ALLOWED TO DRAIN INTO THE EXISTING AND/OR PROPOSED UNDERGROUND STORM SYSTEM UNTIL SUITABLE EROSION CONTROL MEASURES ARE FULLY IMPLEMENTED. NO STORM WATER RUNOFF SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM THAT IS NOT CLEAR, AND FREE OF SILTS.

3. A FIBER ROLL BARRIER PER "DETAIL SE-5" SHALL BE INSTALL ALONG THE PERIMETER OF THE PROJECT SITE. THE LOCATION OF THE FIBER ROLL ALONG THE PERIMETER SHALL BE ADJUSTED TO ELIMINATE SEDIMENT LADEN RUNOFF FROM LEAVING THE SITE. A FIBER ROLL SHALL ALSO BE REQUIRED AROUND THE PERIMETER OF ANY STOCKPILE OR OTHER SITE OF BARE, LOOSE EARTH.

4. ALL STORM DRAIN MANHOLES, CATCH BASINS, AND/OR DROP INLETS THAT ARE TO ACCEPT STORM WATER SHALL HAVE INLET PROTECTION MEASURES PER DETAIL SE-10. STORM WATER RUNOFF SHALL BE DIRECTED TO THESE INLETS ONLY. STORM DRAIN CATCH BASINS THAT ARE NOT COMPLETE, SHALL BE BLOCKED OFF COMPLETELY.

5. THE NAME, ADDRESS, AND 24 HOUR TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR THE IMPLEMENTATION OF THE EROSION CONTROL PLAN SHALL BE PROVIDED TO THE COUNTY.

6. PRIOR TO GRADING, AN ENTRANCE SHALL BE CONSTRUCTED, CONSISTING OF A MINIMUM OF 50 LF OF DRAIN ROCK, 3" IN DIAMETER, PLACED OVER MIRAFI 500X (OR EQUAL) PER DETAIL TC-1. THE ENTRANCE SHALL CONFORM TO "CONSTRUCTION ENTRANCE DETAIL TC-1". THERE SHALL BE ONLY ONE ENTRANCE/EXIT POINT TO THE SITE DURING THE RAINY SEASON. THE LOCATION SHALL BE AS SHOWN ON THESE PLANS, OR AT A LOCATION APPROVED BY THE COUNTY.

7. ALL AREAS OF BARE, TURNED OR DISTURBED EARTH SHALL BE STABILIZED BY USE OF HYDROSEED PER THE TABLE BELOW. ALL STOCKPILES, AND/OR BORROW AREAS SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES SUCH AS A PERIMETER SILT FENCE, AND OTHER METHODS TO PREVENT ANY EROSION OR SILTS MIGRATION. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THE EROSION CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS, BUT ONLY WITH THE APPROVAL OF, OR AT THE DIRECTION OF THE COUNTY INSPECTOR. THE STORM DRAIN SYSTEM SHALL MAINTAIN A FORM OF DRAIN INLET PROTECTION UNTIL COUNTY ACCEPTS THE FINAL STREET IMPROVEMENTS. THE DRAIN INLET PROTECTION SHALL BE MAINTAINED, EFFECTIVE AND SUBJECT TO COUNTY INSPECTOR'S APPROVAL.

8. ALL PAVED STREET, AND AREAS ADJACENT TO THE SITE SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO ELIMINATE SEDIMENT LADEN RUNOFF FROM ENTERING THE STORM DRAIN SYSTEM.

9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT AND REPAIR ALL EROSION CONTROL FACILITIES AT THE END OF EACH DAY DURING THE RAINY SEASON. ANY DAMAGED STRUCTURAL MEASURES ARE TO BE REPAIRED BY END OF THE DAY. TRAPPED SEDIMENT IN "SD INLETS" (AND OTHER EROSION CONTROL MEASURES) SHALL BE REMOVED TO MAINTAIN TRAP EFFIENCY. REMOVED SEDIMENT SHALL BE DISPOSED BY SPREADING ON SITE, WHERE IT WILL NOT MIGRATE.

10. IT IS THE RESPOSIBILITY OF THE CONTRACTOR TO PREVENT THE FORMATION OF AIRBORNE DUST NUISANCE AND SHALL BE RESPOSIBILE FOR ANY DAMAGE RESULTING FROM A FAILURE TO DO SO.

11. ALL DRAIN SWALES SHALL BE PER DETAIL EC-9.

12. INCOMPLETE GRADING SHALL NOT BE ALLOWED. CONTRATOR SHALL MAINATIN A DRAIN PATH AS SHOWN ON THIS PLAN. SAID DRAIN PATH SHALL BE MAINTAINED LINED DRAIN SWALES, AND INLET PROTECTION AT A MINIMUM.
IF PONDING DOES OCCUR ON THE SITE AFTER GRADING, THE WATER MUST BE FREE AND CLEAR OF SEDIMENT PRIOR TO DISCHARGE TO THE STORM DRAIN SYSTEM. THIS REQUIREMENT MAY NECESSITATE THE USE OF NATURAL AND/OR MECHANICAL DESILTING METHODS, SUBJECT TO APPROVAL BY THE COUNTY INSPECTOR.

13. F THESE EROSION CONTROL MEASURE PROVE INADEQUATE, STRAW MULCH, TACKIFIER, AND ADDITIONAL HYDROSEEDING MAY BE REQUIRED.

HYDROSEED TABLE

ITEM	LBS/ACRE
COMMON BARLEY	45
ANNUAL RYEGRASS	45
CRIMSON CLOVER	10
FERTILIZER 7-2-3	400
FIBER MULCH	2000
TACKIFIER	100

14. ALL GRADING WORK BETWEEN OCTOBER 15th AND APRIL 15th IS AT THE DISCRETION OF THE SANTA CLARA COUNTY BUILDING OFFICIAL.

15. PROVIDE SHRUBS AND/OR TREES REQUIRED ON SLOPES GREATER THAN 15 FEET IN VERTICAL HEIGHT.

16. THE OWNER/OWNER'S CONTRACTOR, AGENT, AND/OR ENGINEER SHALL INSTALL AND MAINTAIN THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE ESTABLISHMENT OF PERMANENT STABILIZATION AND SEDIMENT CONTROL WITHIN THE SANTA CLARA COUNTY MAINTAINED ROAD RIGHT OF WAY AND ANY PORTION OF THE SITE WHERE STORM WATER RUN-OFF IS DIRECTLY FLOWING INTO THE SANTA CLARA COUNTY MAINTAINED ROAD RIGHT OF WAY BEST MANAGEMENT PRACTICES (BMP'S) TO PREVENT CONSTRUCTION MATERIALS, EXCAVATED MATERIALS, WASTE MATERIALS, AND SEDIMENT CAUSED BY EROSION FROM CONSTRUCTION ACTIVITIES ENTERING THE STORM DRAIN SYSTEM, WATERWAYS, AND ROADWAY INFRASTRUCTURE. BMP'S SHALL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING PRACTICES APPLICABLE TO THE PUBLIC ROAD AND EXPRESSWAY FACILITIES:

A) REDUCTION OF POLLUTANTS IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE AND THE CONTRACTOR'S MATERIAL AND EQUIPMENT LAYDOWN/STAGING AREAS.

B) PREVENTION OF TRACKING OF MUD, DIRT AND CONSTRUCTION MATERIALS ONTO PUBLIC ROAD RIGHT OF WAY.

C) PREVENTION OF DISCHARGE OF WATER RUNOFF DURING DRY AND WET WEATHER CONDITIONS ONTO PUBLIC ROAD RIGHT OF WAY

17. THE OWNER/OWNER'S CONTRACTOR, AGENT, AND/OR ENGINEER SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON-HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE SANTA CLARA COUNTY MAINTAINED ROAD RIGHT OF WAY AND ANY PORTION OF THE SITE WHERE STORM WATER RUN-OFF IS DIRECTLY FLOWING INTO THE SANTA CLARA COUNTY MAINTAINED ROAD RIGHT OF WAY SHALL HAVE SEASONALLY APPROPRIATE BMP'S INSTALLED AND MAINTAINED AT ALL TIMES.

LEGEND

- - -	PROVIDE FIBER ROLL SLOPE PROTECTION PER DETAIL SE-5
P	PORT-O-LET WITH SECONDARY CONTAINMENT
MS	MATERIAL STORAGE AND LAYDOWN AREA
VP	CONSTRUCTION TRAILER AND VEHICLE PARKING AREA

APPROVED FOR ISSUANCE
REFER TO ENCROACHMENT AND/OR CONSTRUCTION PERMIT AND PLAN COVER SHEET FOR SPECIAL CONDITIONS AND PERMIT NUMBERS

PLAN # ____ OF ____
SHEET ____

REVISIONS:

DATE	DESCRIPTION	BY:

HANNA-BRUNETTI
EST. 1910
CIVIL ENGINEERS • LAND SURVEYORS
CONSTRUCTION MANAGERS
7651 EIGLEBERRY STREET • GILROY • 95020 • CALIFORNIA
OFFICE (408) 842-2173 • FAX (408) 842-3662
EMAIL: ENGINEERING @ HANNABRUNETTI.COM

DATE: FEBRUARY 2022
HORIZ. SCALE: 1"=20'
VERT. SCALE: NONE
DESIGNED BY: AM
CHECKED BY: ____
DRAWN BY: T.M.

date: ____ 20
Hanna – Brunetti

Amanda Joy Musy-Verdel
R.C.E. # 69278
expires: 6/30/20

REGISTERED PROFESSIONAL ENGINEER
AMANDA JOY MUSY-VERDEL
NO. 69278
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

REFERENCES

Erosion Control Plan

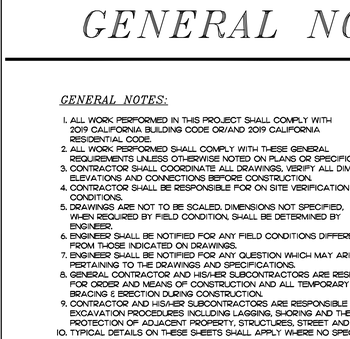
Lands of Vess - 1970 Hayes Lane - apn 779-44-012

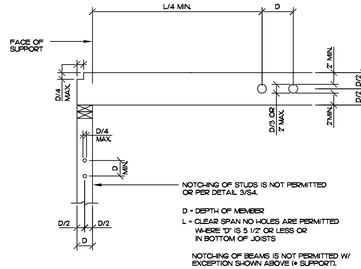
UNINCORPORATED
FEBRUARY 2022

SANTA CLARA COUNTY
CALIFORNIA

SHEET 1 OF 1
JOB NO. 22014

APPLICANT: VESS | ROAD: HAYES LANE | COUNTY FILE NO.: | JOB NO. 22014





GENERAL NOTES

GENERAL NOTES:

1. ALL WORK PERFORMED IN THIS PROJECT SHALL COMPLY WITH 2019 CALIFORNIA BUILDING CODE OR/AND 2019 CALIFORNIA RESIDENTIAL CODE.
2. ALL WORK PERFORMED SHALL COMPLY WITH THESE GENERAL REQUIREMENTS UNLESS OTHERWISE NOTED ON PLANS OR SPECIFICATIONS.
3. CONTRACTOR SHALL COORDINATE ALL DRAWINGS, VERIFY ALL DIMENSIONS, ELEVATIONS AND CONNECTIONS BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ON SITE VERIFICATION OF CONDITIONS.
5. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONS NOT SPECIFIED, WHEN REQUIRED BY FIELD CONDITION, SHALL BE DETERMINED BY ENGINEER.
6. ENGINEER SHALL BE NOTIFIED FOR ANY FIELD CONDITIONS DIFFERENT FROM THOSE INDICATED ON DRAWINGS.
7. ENGINEER SHALL BE NOTIFIED FOR ANY QUESTION WHICH MAY ARISE PERTAINING TO THE DRAWINGS AND SPECIFICATIONS.
8. GENERAL CONTRACTOR AND HIS/HER SUBCONTRACTORS ARE RESPONSIBLE FOR ORDER AND MEANS OF CONSTRUCTION AND ALL TEMPORARY BRACING & ERECTION DURING CONSTRUCTION.
9. CONTRACTOR AND HIS/HER SUBCONTRACTORS ARE RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND THE PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREET AND UTILITIES.
10. TYPICAL DETAILS ON THESE SHEETS SHALL APPLY WHERE NO SPECIFIC DETAILS OR SECTIONS ARE GIVEN.
11. MATERIAL NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THE STRUCTURAL NOTES CONTAINED HEREIN.
12. ALL DRAWINGS AND SUBSEQUENT REVISIONS IF ANY SHALL BE APPROVED BY BUILDING OFFICIAL PRIOR TO STARTING CONSTRUCTION.
13. ALL DRAWINGS AND SUBSEQUENT REVISIONS IF ANY SHALL BE MADE WITH THE WRITTEN APPROVAL OF ENGINEER.
14. CONTRACTOR SHALL VERIFY ALL HEATING, VENTILATING, PLUMBING AND ELECTRICAL OPENINGS AND NOTIFY THE ENGINEER FOR ANY DEVIATIONS FROM THE DRAWINGS.
15. THE STRUCTURAL DRAWINGS SHOW STRUCTURAL FEATURES ONLY. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND OTHER DRAWINGS FOR NON-STRUCTURAL ITEMS.
16. EXCEPT AS NOTED HEREIN, NO STRUCTURAL MEMBERS SHALL BE OMITTED, NOTCHED, CUT, BLOCKED OUT, OR RELOCATED WITHOUT PRIOR APPROVAL BY THIS ENGINEER.
17. THE STRUCTURAL DRAWINGS FOR THIS PROJECT DESCRIBE THE BUILDING STRUCTURE ONLY, AND ARE NOT INTENDED TO SHOW NON-STRUCTURAL ITEMS. COORDINATION FOR AND INSTALLATION OF MECHANICAL, ELECTRICAL, ARCHITECTURAL AND MISCELLANEOUS NON- STRUCTURAL ITEMS SHOWN ELSEWHERE IN THE PROJECT PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
18. SUBCONTRACTORS FOR STRUCTURAL PORTIONS OF THE BUILDING, INCLUDING BUT NOT LIMITED TO FOUNDATIONS AND STRUCTURAL FRAME, ARE ADVISED TO REVIEW ALL DIVISIONS OF THE PLANS AND SPECIFICATIONS FOR NON-STRUCTURAL ITEMS WHICH MAY BE EMBEDDED IN, ATTACHED TO OR OTHERWISE CONNECTED TO THE STRUCTURAL ELEMENTS OF THE BUILDING BEFORE SUBMITTING THEIR BIDS.
19. IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
20. MATERIAL NOTES AND SPECIFICATIONS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THE PROJECT SPECIFICATIONS.

1. STRAP AT PLUMBING NOTCH

NOTCHING OF STUDS IS NOT PERMITTED OR PER DETAIL 3/S4.

D = DEPTH OF MEMBER

L = CLEAR SPAN NO HOLES ARE PERMITTED WHERE "D" IS 5 1/2" OR LESS OR IN BOTTOM OF JOISTS

NOTCHING OF BEAMS IS NOT PERMITTED W/ EXCEPTION SHOWN ABOVE (@ SUPPORT).

2. BORE HOLE AT BEAM

FRAMING NOTES:

1. CONTRACTOR SHALL REVIEW ALL TYPICAL FRAMING DETAILS (E.G. TOP PLATE SPLICE, WALL CORNER CONNECTIONS, SHEAR PANEL NAILING, DRF ETC....), SILL NAILING AND BLOCK NAILING REQUIREMENTS PER FOOTNOTES IN SHEAR WALL SCHEDULE PRIOR TO STARTING ANY FRAMING WORK.
2. BEAM-TO-POST (ISOLATED) CONNECTIONS SHALL BE PROPERLY ALIGNED AND CONNECTED WITH BC BRACKETS U.O.N.
3. WHERE PARTITION WALLS PARALLEL TO THE FRAMING BELOW, DOUBLE JOISTS SHALL BE PROVIDED BELOW THE WALL. WHERE PERPENDICULAR, 2X BLOCKINGS SHALL BE PROVIDED BETWEEN EACH JOIST.
4. 2X BLOCKINGS SHALL BE PROVIDED BETWEEN THE FLOOR JOISTS AT THE ENDS AND AT EACH SUPPORT OF THE FLOOR JOISTS, SUCH AS BEARING WALL, STRUCTURAL BEAM, ETC. BLOCKINGS MAY BE OMITTED ONLY AS SPECIFIED ON PLAN, OR AT THE ENDS OF THE FLOOR JOISTS WHERE THEY ARE NAILED TO A HEADER, BEAM, OR RIM JOIST.
5. BOTTOM OF POSTS SHALL HAVE FULL BEARING IN A TIGHT-FIT CONDITION WITH THE SUPPORTING STRUCTURAL MEMBER BELOW.
6. WHERE POSTS TERMINATED ON FLOOR WITH STUD WALLS OR BEAMS BELOW, THE SPACE BETWEEN THE BOTTOM OF THE POST AND THE TOP OF THE PLATE OR THE BEAM SHALL BE SOLIDLY FILLED WITH 2X BLOCKINGS AND THE STUD WALL BELOW SHALL HAVE MATCHING POST AT SAME LOCATION.
7. U.O.N. BOTTOM OF ISOLATED POSTS WHEN TERMINATED ON FLOOR SHALL BE FIXED TO THE FLOOR DIAPHRAGM BY 2-A35 FRAMING ANCHORS.
8. U.O.N. ALL DOOR AND WINDOW HEADERSSHALL BE 4X8DF #2 GRADE AT 2X4 WALLS OR 6X8 DF #1 GRADE AT 2X6 WALLS.
9. CUTTING BEAMS, JOISTS, AND RAFTERS: NOTCHES FROM TOP EDGE AND BORED HOLES SHALL BE: (1)LIMITED TO 1/6 MEMBER DEPTH; (2)LOCATED AWAY FROM BEARING NOT MORE THAN 3 TIMES MEMBER DEPTH. ALL OTHER CUTS, NOTCHES, AND BORED HOLES EXCEEDING 2" DIAMETER ARE PERMITTED ONLY WHEN APPROVED IN ADVANCE.
10. ALL FRAMING, BRACING, NAILING, NOTCHING, DRILLING, OR BORING SHALL BE IN ACCORDANCE WITH CBC UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.
11. U.O.N. ALL WINDOW AND DOOR OPENINGS 6 FT AND WIDER SHALL HAVE DOUBLE KING STUDS & TRIMMERS.
12. U.O.N. ALL FLUSH MOUNTED SAWN LUMBER BEAMS OR MULTIPLE JOISTS SHALL HAVE "HHUS" HANGERS WHERE FLUSH MOUNTED. FLUSH MOUNTED GLULAM BEAMS SHALL BE AS INDICATED ON PLAN.
13. U.O.N. ALL FLUSH MOUNTED SINGLE FLOOR JOISTS SHALL HAVE "LUS210" HANGERS AND ALL FLUSH MOUNTED SINGLE ROOF RAFTERS SHALL HAVE "LSU" HANGERS.
14. ALL EXTERIOR WALL CORNERS SHALL BE TIED WITH ST2215'S. AT SLOPING PLATES CONDITION.
15. POSTS OR MULTI-STUDS SHALL BE PROVIDED AT LOWER FLOOR UNDER POSTS OR MULTI-STUDS ABOVE.
16. U.O.N. ALL BEARING AND/OR SHEAR WALLS WHICH ARE PLUMBING WALLS SHALL BE 2X6.
17. ALL CALIFORNIA FRAMING SHALL BE 2X6 RAFTERS AT 24" O.C. WITH CRIPPLE WALLS SUPPORT AT 8'-0" O.C. AT HIGH ROOF.
18. PROVIDE A35 CLIP ON EACH SIDE OF GIRDER TRUSS AT BEARING WALLS.
19. PROVIDE 3/8" CDX(OSB) AT FIREPLACE FRAMING.

MISCELLANEOUS NOTES:

1. MAXIMUM FLOOR LIVE LOAD IS 40 PSF.
2. MAXIMUM ROOF LIVE LOAD IS 20 PSF.
3. ALL FRAMING ANCHORS, STRAPS, HANGERS, POST CAPS, COLUMN BASES, HOLDOWNS, HINGE CONNECTORS, ANGLES AND CLIPS SHALL BE MANUFACTURED BY SIMPSON OR EQUAL. NAILING SCHEDULE SHALL BE IN ACCORDANCE WITH PRODUCT REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE APPROPRIATE SIZE AND CONFIGURATION OF CONNECTORS FROM THE SERIES DESIGNATED ON DRAWINGS, UNLESS NOTED OTHERWISE.
5. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE COMMON NAIL.
6. ALL TOE NAILING SHALL BE 8D NAILS.
7. ALL NAILS EXPOSED TO THE WEATHER SHALL BE HOT-DIPPED GALVANIZED NAILS.
8. CONVENTIONAL LET-IN BRACINGS ARE NOT REQUIRED IN THIS PROJECT.
9. NELSON STUDS SHALL BE MANUFACTURED AND FABRICATED PER TRW NELSON REQUIREMENTS.
10. ALL ITEMS (SPRINKLER PIPES, MECHANICAL EQUIPMENTS... ETC.) INTENDED TO BE SUPPORTED ON, OR FROM THE STRUCTURE, UNLESS WITHIN THE STRUCTURAL DRAWINGS, SHALL BE SUBMITTED TO THIS ENGINEER PRIOR TO INSTALLING.
11. UNLESS NOTES OTHERWISE, SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, WALKS, RAMPS, PATIOS, ELEVATIONS, ROOF PITCHES, ETC.
12. U.O.N. PROVIDE ST6236 AT PLATES AT PLUMBING PENETRATIONS.
13. ALL SIMPSON CS STRAPS SHALL BE ATTACHED TO FRAMING 8D NAILS IN EVERY OTHER NAIL HOLE IN EACH ROW.

SHEATHING NOTES:

1. ANY PLYWOOD SHEATHING PANELS USED ON ROOF, FLOOR AND SHEAR WALLS SHALL NOT BE LESS THAN 4 FT BY 8 FT, EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE MINIMUM SHEET DIMENSION SHALL BE 24 INCHES UNLESS ALL EDGES OF THE UNDERSIZED SHEETS ARE SUPPORTED BY FRAMING MEMBER OR BLOCKING.
2. ROOF PLYWOOD SHALL BE 1/2" CDX(OSB) APA 24/0, FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS BELOW, STAGGER ADJACENT PANELS BY 4 FEET, NAILED WITH 8D COMMON NAILS AT 6" O.C. ALL PLYWOOD PANEL EDGES AND AT 12" O.C. ALL INTERMEDIATE SUPPORTS.
3. FLOOR PLYWOOD SHALL BE 3/4" CDX APA 48/24 TONGUE AND GROOVE, FACE GRAIN PERPENDICULAR TO FRAMING MENBER BELOW MEMBER BELOW STAGGER ADJACENT PANELS BY 4 FEET, NAILED WITH 10D COMMON NAILS AT 6" O.C. ALL PLYWOOD PANEL EDGES AND AT 10" O.C. ALL INTERMEDIATE SUPPORTS. (FLOOR TRUSS SPACED @ 19.2" O.C.) (USE RING SHANK NAIL AND GLUE.)
   FLOOR PLYWOOD SHALL BE 3/4" TONGUE AND GROOVE AT FLOOR WHEN JOISTS ARE 16" O.C. OR LESS AND 1 1/8" TONGUE AND GROOVE AT FLOOR WHEN TRUSSES ARE GREATER THAN 16" O.C.
4. ALL FLOOR PLYWOOD SHALL BE GLUED TO THE JOISTS. THE FIELD-GLUED FLOOR SYSTEM SHALL BE INSTALLED ACCORDING TO THE RECOMMENDATION OF THE APA. GLUE SHALL BE APPLIED TO JOISTS AND TO THE GROOVE IN THE EDGE OF THE T&G PANEL. GLUE SHALL MEET THE REQUIREMENTS OF THE APA ADHESIVE SPEC. AFG-01. AND SHALL BE APPLIED AS DIRECTED BY THE GLUE MANUFACTURER. GLUE MAY BE APPLIED MANULLY OR WITH PNEUMATIC OR ELECTRIC EQUIPMENT.
5. SHEAR WALL PLYWOOD SHALL BE 3/8"(1/2") CDX(OSB) APA 24/0, ALL PLYWOOD PANEL EDGES BLOCKED AND NAILED PER SHEARWALL SCHEDULE. ALL PLYWOOD PANEL INTERMEDIATE SUPPORTS SHALL BE NAILED WITH 8D (10D) COMMON OR GALVANIZED BOX NAILS AT 12" O.C.
6. SHEAR WALL CDX(OSB) SHALL BE PLACED ON THE DESIGNATED SIDE OF STUDS AS SHOWN ON PLANS. THE CDX MAY BE PLACED ON THE OPPOSITE SIDE PROVIDED: 1) THERE ARE NO PERPENDICULAR WALLS INTERSECTING FULL LENGTH OF SHEAR WALL, 2) SHEARWALL CDX (OSB) IS CONTINUOUSLY PLACED ACROSS PERPENDICULAR WALL FRAMING, OR 3) SHEAR WALL CORNER DETAIL 2/S4 IS PROPERLY FOLLOWED.
7. ALL ROOF AND FLOOR BEAMS AND COLLECTORS(COLL) SHALL RECEIVE CDX(OSB) EDGE NAILING ALONG ITS FULL LENGTH.
8. ALL CALIFORNIA ROOF FRAMING SHALL HAVE ROOF CDX(OSB) AT BOTH UPPER AND LOWER ROOFS.

NAILING SCHEDULE (MINIMUM):

THIS NAILING SCHEDULE TO BE USED ONLY IF NOT SPECIFIED ELSEWHERE IN THESES STRUCTURAL DRAWINGS.

1. ALL NAILING SPECIFIED ON DRAWINGS AND THIS SCHEDULE SHALL BE IN ACCORDANCE WITH 2019 CBC TABLE 2304.10.1.

A. JOISTS TO SILL OR GIRDER, TOENAIL	3-8D
B. BRIDGING TO JOIST, TOENAIL EACH END	2-8D
C. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL (ALSO SEE SHEAR WALL SCHEDULE)	16D AT 16" O.C.
SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS (ALSO SEE SHEAR WALL SCHEDULE)	3-16D PER 16"
D. TOP PLATE TO STUD, END NAIL	2-16D
E. STUD TO SOLE PLATE	4-8D, TOENAIL OR 2-16D, END NAIL 2-20D, END NAIL @ 3X SOLE PLATE
F. MULTIPLE STUDS, FACE NAIL	16D AT 12" O.C.
G. DOUBLE TOP PLATES, TYPICAL FACE NAIL	16D AT 16" O.C.
DOUBLE TOP PLATES, LAP SPLICE	8-16D
H. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3-8D
I. RIM JOIST TO TOP PLATE, TOENAIL	8D AT 6" O.C.
J. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16D
K. CONTINUOUS HEADER, TWO PIECES	16D AT 16" O.C. ALONG EACH EDGE
L. CEILING JOISTS TO PLATE, TOENAIL	3-8D
M. CONTINUOUS HEADER TO STUD, TOENAIL	4-8D
N. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16D
O. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16D
P. RAFTER TO PLATE, TOENAIL	3-8D
Q. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8D
R. BUILT-UP CORNER STUDS	16D AT 24" O.C.
S. BUILT-UP GIRDER AND BEAMS. FOR USING MULTIPLE MEMBERS AND INTERCONNECT ADJACENT PIECES AS FOLLOWS:	
2X MEMBERS TO 11 1/4" DEPTH	2 ROWS 16D @ 16" O.C.
2X MEMBERS OVER 11 1/4" DEPTH	1/2"Ø M.B. @ 24" O.C. STAGGERED, 2" MIN. FROM EDGES
T. STUDS, POSTS OR OR MULLIONS TO BEARING	2-8D TOE NAILS EACH SIDE, EACH END INTO PLATES.
U. TOP PLATES SPLICE, NON-SHEAR WALLS ONLY	6-16D EACH SIDE OF SPLICE.
V. (PLATES OVERLAPPED NOT LESS THAN 48")	16D AT 16" O.C. STAGGERED ALONG FULL LENGTH
W. FACIA TO END OF RAFTER	2-16D, GALVANIZED
X. COLLAR TIE TO RAFTER	3-10D FACE NAIL
Y. JACK RAFTER TO HIP	3-10D TOE NAIL
Z. ROOF RAFTER TO 2-BY RIDGE BEAM	2-16D TOE NAIL
Z1. JOIST TO BAND JOIST	3-16D FACE NAIL
Z2. LEDGER STRIP	3-16D FACE NAIL

2. ANY CONTINUOUS WALL LINES CONTAINING SHEAR WALL SEGMENTS SHALL HAVE THEIR TOP PLATES SPLICED ACCORDING TO THE DETAIL 1/S2 "TYPICAL CONTINOUS TOP PLATES " LOCATED ON SHEET S-2.
3. ALL MACHINE BOLTS SHALL CONFORM TO ASTM A307.
4. BOLT HOLES SHALL BE 1/32" TO 1/16" LARGER THAN THE BOLT DIAMETER.
5. A METAL PLATE, METAL STRAP, OR WASHER NOT LESS THAN STANDARD CUT WASHER SHALL BE BETWEEN THE WOOD AND THE BOLT HEAD AND BETWEEN THE WOOD AND THE NUT.
6. HOLES FOR NAILS SHALL BE PRE-DRILLED WHERE SPLITTING OF WOOD MAY OCCUR.
7. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GAVANIZED, OR STAINLESS STEEL.

ADDITION AND REMODELING:

1. EXISTING CONSTRUCTION SHOWN ON DRAWINGS WAS OBTAINED FROM EXISTING DRAWINGS AND/OR BY FIELD MEASUREMENTS.
2. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS AND DIMENSIONS PRIOR TO STARTING CONSTRUCTION.
3. CUTTING, DRILLING, REMOVAL... ETC. OF THE EXISTING CONSTRUCTION SHALL BE PERFORMED IN A GREAT CARE NOT TO DAMAGE THE INTEGRITY OF THE BUILDING.
4. NO EXISTING MEMBERS MAY BE REMOVED UNLESS THE STRUCTURAL PLANS INDICATED OTHERWISE.
5. IF STRUCTURAL MEMBERS NOT INDICATED FOR REMOVAL ARE INTERFERING WITH THE NEW WORK, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED.
6. CONTRACTOR SHALL SAFELY SHORE THE EXISTING CONSTRUCTION WHEREVER THE EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF THE NEW WORK.
7. ALL LOCATIONS WHERE NEW STRUCTURE IS ATTACHED TO EXISTING STRUCTURE SHALL BE WATERPROOF AND DAMPPROOF.
8. OWNER OR HIS CONTRACTOR TO ENSURE THAT THE NEW ALTERATION WORKS SHALL NOT CAUSE ANY EXISTING MECHANICAL, ELECTRICAL, PLUMBING ETC. SYSTEMS UNOPERATIONAL.

LUMBER NOTES:

1. ALL LUMBER SHALL BE AT A MOISTURE CONTENT OF 19% MAXIMUM AT TIME OF INSTALLATION AND FABRICATION.
2. SILL PLATES, WOOD AGAINST CONCRETE AND OTHER MEMBERS LOCATED WITHIN 8" OF FINISH GRADE SHALL BE PRESSURE TREATED DOUGLAS FIR LARCH.
3. 2X4 STUDS SHALL BE DOUGLAS FIR LARCH STANDARD GRADE OR BETTER.
4. 2X6 STUDS SHALL BE DOUGLAS FIR LARCH #2 OR BETTER.
5. TOP & SOLE PLATES SHALL BE DOUGLAS FIR LARCH #2 OR BETTER.
6. 3X & 4X POSTS SHALL BE DOUGLAS FIR LARCH #2 OR BETTER
7. 2X & 4X JOISTS AND BEAMS SHALL BE DOUGLAS FIR LARCH #2 OR BETTER.
8. 6X & 8X FRAMING MEMBERS SHALL BE DOUGLAS FIR LARCH #1 OR BETTER.
9. SIMPLY SUPPORTED GLUED-LAM BEAMS SHALL BE 24F-V4 DFL/DFL PER CBC.
10. GLUED-LAM BEAMS CANTILEVERED AT ENDS OR CONTINUOUSLY ACROSS SUPPORTS SHALL BE 24F-V8 DFL/DFL PER CBC.
11. GLUED-LAM BEAMS SHALL BEAR AITC CERTIFICATES AND SUBMITTED TO THE BUILDING OFFICIAL.
12. SHOP DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW BEFORE FABRICATION.
13. ALL STRUCTURAL COMPOSITE LUMBER, INCLUDE PSL, LVL & GLU LAM BEAM SHALL BE 16% OR LESS FOR THE MOISTURE CONTENT.

FOUNDATION NOTES:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH :
   SOIL REPORT PROVIDED BY
   POLLAK ENGINEERING, INC.
   PROJECT NO. 1270, 4 DECEMBER 2021
   SHALL BE REFERENCED FOR THIS PROJECT.
2. FOUNDATION PLANS AND PERTINENT DETAILS SHALL BE REVIEWED AND APPROVED BY THE ABOVE SOILS ENGINEER PRIOR TO ANY FOUNDATION WORK.
3. SOILS REPORT SHALL TAKE PRECEDENCE OVER STRUCTURAL NOTES AND DETAILS.
4. SITE GRADING, SUBGRADE PREPARATION, CUTTING SLOPES, EXCAVATION AND PLACEMENT OF ENGINEERED FILL MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS REPORT AND/OR GRADING PLAN.
5. FOR SLAB-ON-GRADE CONSTRUCTION THE SOILS REPORT SHALL BE REFERENCED REGARDING COMPACTION, SOAKING, MOISTURE BARRIER, SUB-BASE, GRAVEL, SAND, ... ETC.
6. FINISH GRADE SHALL BE SLOPED AWAY FROM THE FOUNDATION AND MINIMUM 8" BELOW THE SILL PLATE.
7. SITE DRAINAGE REQUIREMENTS INCLUDING FINAL PAD GRADES, ROOF DRAINAGE DOWNSPOUTS SHALL BE REFERRED TO GRADING & PLOT PLANS.
8. THE LOCATION AND DIMENSION OF UNDER-FLOOR VENTILATION, CONCRETE DRIVEWAY, WALKWAY, DOOR PADS AND OTHER SIMILAR ITEMS PER ARCHITECTURAL PLANS.
9. OWNER OF ADJACENT PROPERTY SHALL BE NOTIFIED IN WRITING IN NO LESS THAN 10 DAYS BEFORE THE FOUNDATION EXCAVATION ALONG THE PROPERTY LINE.
10. ALLOWABLE BEARING PRESSURE UNDER DEAD LOAD PLUS LIVE LOAD IS 2000 PSF PER SOIL REPORT. VALUE INCREASED 33% FOR WIND OR SEISMIC LOADING.

CONCRETE NOTES:

1. FOUNDATION CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.
2. RE-BARS, DOWELS AND OTHER EMBEDDED ELEMENTS SHALL BE SECURED IN PLACE (AND APPROVED BY THE BUILDING OFFICAL) BEFORE POURING CONCRETE.
3. COLD JOINTS MAY BE USED WHERE SHOWN. JOINTING SURFACE SHALL BE CLEAN, FREE OF FOREIGN MATERIAL AND INTENTIONALLY ROUGHENED.
4. SPECIAL INSPECTIONS REQUIRED WHERE CONCRETE STRENGTH GREATER THAN 2500 PSI IS SPECIFIED.

REINFORCEMENT NOTES:

1. REINFORCING STEEL SHALL BE DEFORMED BARS OF BILLET OR AXLE STEEL BAR ASTM A615 GRADE 40.
2. REINFORCEMENT SHALL BE CLEAN AND FREE OF EXTRANEOUS MATERIAL.
3. ALL REINFORCEMENT SHALL BE PLACED AND SUPPORTED IN A TRUE LINE AS SHOWN.
4. 3" CLEARANCE SHALL BE PROVIDED WHERE CONCRETE IS CASTED AGAINST EARTH, 2" CLEARANCE FOR CONCRETE EXPOSED TO EARTH OR WEATHER BUT DEPOSITED AGAINST FORMS, AND 3/4" CLEARANCE FOR SLABS AND WALLS WHERE CONCRETE IS NOT EXPOSED TO EARTH OR WEATHER.
5. LAP ALL REINFORCING SPLICES A MINIMUM 48 BAR DIAMETERS BUT IN NO CASE LESS THAN 48".
6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
7. CONTRACTOR SHALL INFORM ENGINEER 48 HOURS PRIOR TO POURING STRUCTURAL CONCRETE FOR REVIEWING THE WORK.

ANCHORAGE NOTES:

1. U.O.N. ON FOUNDATION PLAN, SILL PLATES FOR ALL EXTERIOR, INTERIOR BEARING AND SHEAR WALLS SHALL BE ANCHORED TO CONCRETE FOUNDATION WITH 5/8" DIAMETER ANCHOR BOLTS WITH 7" EMBEDMENT MIN.AT MAXIMUM 4 FEET ON CENTER. ANCHOR BOLTS SHALL BE INSTALLED WITH SIMPSON BP 5/8-3 (3"X3"X1/4") BEARING PLATES.
2. BEARING/SHEAR WALL AND/OR EXTERIOR WALL SILLS RECEIVING FASTENERS SHALL HAVE THE FIRST FASTENER AT 6" FROM EACH CUT END OF THE SILL. (TWO FASTENERS MINMUM PER EACH PIECE)
3. INTERIOR NON-BEARING WALL SILLS TO RECEIVE THE FIRST FASTENER AT 6" FROM EACH CUT END OF THE SILL.
4. ANCHOR BOLTS MATERIAL SHALL BE ASTM A307.
5. POWDER DRIVEN ANCHOR PINS (HILTI X-DN172, ICC ESR-2379) MAY BE USED ON INTERIOR NON-SHEAR AND NON-BEARING WALL ONLY.
6. POWDER DRIVEN ANCHOR PINS SHALL BE SPACED AT MAXIMUM 16" O.C.
7. UNLESS HELD IN PLACE WHEN POURING CONCRETE, FASTENERS TO BE INSTALLED AFTER THE CONCRETE HAS SET FOR 7 DAYS MINIMUM.
8. ANCHOR BOLTS SHALL BE IMBEDDED 7" MINIMUM INTO CONCRETE OR REINFORCED MASONRY AND 15" MINIMUM INTO UNREINFORCED GROUTED MASONRY.
9. U.O.N., HPAHD, HTT, PHD, HDA AND HD HOLDOWNS SHALL BE ATTACHED TO 4X4 POST MIN WITH SHEAR EDGE NAILING ALONG FULL HEIGHT.
10. CONTRACTOR IS TO VERIFY LOCATION OF HOLDOWNS AND ANCHOR BOLTS WITH ROUGH FRAMING TO ASSURE PROPER AND ACCURATE INSTALLATION.
11. U.O.N., INDIVIDUAL ISOLATED POSTS SHALL BE ANCHORED BY PB CONNECTORS.
12. HOLDOWNS SHALL BE TIED IN PLACE PRIOR TO INSPECTION.
13. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GAVANIZED, OR STAINLESS STEEL.

DESIGN CRITERIA FOR SEISMIC & WIND PER ASCE7-16 AND 2019 CBC

WIND DESIGN DATA:

ULTIMATE WIND SPEED = 95 MPH
NOMINAL WIND SPEED = 74 MPH (EXPOSURE B)

SEISMIC DESIGN DATA:

USGS METHOD GOVERNS
SEISMIC DESIGN CATAGORY = D
BUILDING STORY : 1 SOIL SITE CLASS = B-ROCK
SS = 1.50 G
S1 = 0.60 G
SDS = 0.90 G
SD1 = 0.32 G
0.7V = 0.097 W

GRAVITY LOAD PARAMETERS

	DEAD LOAD		LIVE LOAD		TOTAL LOAD
ROOF =	15+7 PSF (7 PSF FOR CEILING JOIST)	+	20 PSF (10 PSF NON-CONCURRENTLY WITH TOP CHORD 20 PSF LIVE LOAD)	=	42 PSF
FLOOR =	15 PSF	+	40 PSF	=	55 PSF

WALL (EXT) = 17 PSF
WALL (INT) = 10 PSF

SHEAR WALL SCHEDULE

I.D.	PLF S-SEIS W-WIND	SHEAR MATERIAL	EDGE NAILLING	FIELD NAILING (INTERMEDIATE)	SILL NAILING @ EA 16" O.C. (FOOTNOTE 2)	BLOCK NAILING @ EA 16" O.C. (FOOTNOTE 3)	ANCHOR BOLTS SCHEDULE (FOOTNOTE 7)
P1	340	1/2" CDX (OSB) (15/32" NOMINAL STRUCTURAL I)	10D COMMON OR GALV BOX @ 6" O.C. BLOCK ALL EDGES 2X (MUD & SOLE)	10D COMMON OR GALV BOX @ 12"	4-16D	2-8D T.N. + (2)A35 PER RF BLK (1)A35 PER FLR BLK	5/8"Ø BOLTS @ 3'-0" O.C OR PER PLAN, (2)-BOLTS MIN.
P2 *	510	1/2" CDX (OSB) (15/32" NOMINAL STRUCTURAL I)	10D COMMON OR GALV BOX @ 4" O.C. STAGGERED, 3X AT ALL ADJOIN'G PANEL EDGES & 2X SOLE, 3X MUD	10D COMMON OR GALV BOX @ 12"	6-16D IN 2 ROWS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (2)A35 PER RF BLK (2)A35 PER FLR BLK	5/8"Ø BOLTS @ 2'-0" O.C OR PER PLAN, (2)-BOLTS MIN.
P4 *	665	1/2" CDX (OSB) (15/32" NOMINAL STRUCTURAL I)	10D COMMON OR GALV BOX @ 3" STAGGERED, 3X AT ALL ADJOIN'G PANEL EDGES & 2X SOLE, 3X MUD	10D COMMON OR GALV BOX @ 12"	7-16D IN 2 ROWS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (3)A35 PER RF BLK (2)A35 PER FLR BLK	5/8"Ø BOLTS @ 1'-6" O.C OR PER PLAN, (2)-BOLTS MIN.
P8 *	870	5/8" CDX (OSB) OR 1/2" STRUCTURAL I	10D COMMON OR GALV BOX @ 2" STAGGERED, 3X AT ALL ADJOIN'G PANEL EDGES & 3X (MUD & SOLE)	10D COMMON OR GALV BOX @ 12"	(4) 3/8" X 6" LAG BOLTS W/ 4X MEMBER BELOW DIAPHRAGM	2-8D T.N. + (3)A35 PER RF BLK (3)A35 PER FLR BLK	5/8"Ø BOLTS @ 1'-3" O.C OR PER PLAN, (2)-BOLTS MIN.

* FRAMING @ ADJOINING PANEL EDGES SHALL BE 3X OR WIDER, NAILS SHALL BE STAGGERED.

1. A) CONTRACTOR SHALL REVIEW ALL TYPICAL SHEAR WALL CONNECTION DETAILS & NOTES BEFORE CONSTRUCTION.
   B) U.N.O. CONTRACTOR SHALL ENSURE THAT ALL SHEAR MATERIAL SHALL EXTEND FROM HORIZONTAL DIAPHRAGM (PLYWOOD CDX OR EQUAL) TO HORIZONTAL DIAPHRAGM.
2. A) SILL NAILING IS THE FASTENING OF THE SILL (SOLE) PLATE LOCATED AT THE BOTTOM OF SHEAR WALLS TO THE BLOCKINGS, RIM JOISTS, OR BEAMS BENEATH THE HORIZONTAL DIAPHRAGM (FLOOR SHEATHING CDX). CARE MUST BE TAKEN TO ENSURE THE PENETRATION TO THESE FASTENERS INTO THE BLOCKING, RIM JOISTS OR BEAM BELOW.
   B) SILL NAILING DOES NOT APPLY WHEN THE ABOVE MENTIONED SILL PLATE IS RESTING DIRECTLY ON CONCRETE SURFACE. IN THIS CASE, THE SILL ANCHOR REQUIREMENTS AS INDICATED ON THE FOUNDATION PLAN AND DISCUSSED IN THE ANCHORAGE NOTES ON THIS SHEET SHALL BE FOLLOWED.
   C) SILL NAILING INDICATED ON SHEAR WALL SCHEDULE MAY BE OMITTED AND REPLACED WITH A MINIMUM OF 2-16D AT 16" O.C. FOR THE FOLLOWING CONDITIONS:
   A) AT ALL NON-SHEAR WALLS
   B) AT PERIMETER SHEAR WALLS WITH THE SHEAR MATERIAL (OF UPPER SHEAR WALL) OCCURRING AT THE EXTERIOR FACE OF BUILDING AND EXTENDING PAST THE MUD SILL(FOUNDATION CONDITION) OR TOP PLATES (UPPER FLOOR CONDITION). EDGE NAILING MUST BE PROVIDED AT BLOCKING OR RIM JOIST OCCURRING AT FLOOR THICKNESS IN ADDITION TO THE EDGE NAILING AT THE MUD SILL/TOP PLATES.
3. A) BLOCK NAILING IS THE FASTENING OF BLOCKINGS, RIM JOISTS OR BEAM DIRECTLY BELOW THE SHEAR WALL TO THE TOP PLATE OR BEAMS IMMEDIATELY BELOW.
   B) ALL THE BLOCKING OTHER THAN THOSE LOCATED UNDERNEATH THE SHEAR WALL SHALL BE HELD IN PLACE BY A35 PER BLOCK OR A35 AT 16" ON CENTER.
   C) BLOCK NAILING INDICATED ON SHEAR SCHEDULE MAY BE OMITTED AND REPLACED WITH 8D TOE NAILS AT 6 INCHES ON CENTER WHERE SHEAR MATERIAL OF LOWER SHEAR WALL IS EXTENDED ABOVE THE TOP PLATES (OR BEAM) AND NAILED INTO BLOCKING OR RIM JOIST. IN ADDITION TO THIS NAILING, EDGE NAILING SHOULD ALSO BE PROVIDED AT THE TOP PLATES (OF LOWER SHEAR WALL). IT SHOULD BE NOTED THAT BLOCK NAILING CAN BE OMITTED FOR STACKED SHEAR WALLS ONLY (LOWER SHEAR WALL IMMEDIATELY BELOW UPPER SHEAR WALL).
   D) LTP4 CLIPS MAY BE SUBSTITUTED DIRECTLY FOR A35 CLIPS AS INDICATED IN THE TABLE.
4. A) WHERE PLYWOOD IS APPLIED ON BOTH FACED OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES ON CENTER ON EITHER SIDE, PANEL JOISTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3-INCH NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
   B) WHERE PLYWOOD IS APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES ON CENTER ON EITHER SIDE, 3X SILL IS REQUIRED.
5. A) PLYWOOD EDGE AND FIELD NAILING SHALL BE WITH COMMON NAILS OR GALVANIZED BOX NAILS AS INDICATED IN SHEAR WALL SCHEDULE.
6. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GAVANIZED OR STAINLESS STEEL.

ABBREVIATIONS

A & B	ABOVE AND BELOW	F.P.	FIREPLACE	SIM	SIMILAR
A.B.	ANCHOR BOLTS	FRAM'G	FRAMING	SHT	SHEET
ABV.	ABOVE	FT	FEET	SHT'G	SHEATHING
ADJ.	ADJACENT	FTG	FOOTING	SIMP	SIMPSON COMPANY
A.F.F.	ABOVE FINISH FLOOR	GALV	GALVANIZED	SPC'G	SPACING
APA	AMERICAN PLYWOOD ASSO.	GAR	GARAGE	SPECS	SPECIFICATIONS
ARCH	ARCHITECTURAL	GEN.	GENERAL	SQ	SQUARE
BLDG	BUILDING	GLB	GLU-LAM BEAM	S.S.D.	SEE STR. DRW'GS
BLK'G	BLOCKING	GR	GRADE	STL	STEEL
BM	BEAM	HDR	HEADER	STR	STRUCTURAL
BOTT	BOTTOM	HT	HEIGHT	S.W.S.	SHEAR WALL SCHEDULE
BRG	BEARING	INFO	INFORMATION	S.W.T.	SHEAR WALL TYPE
C	CAMBER	INT	INTERIOR	T & B	TOP AND BOTTOM
CANT'L	CANTILEVER	J.H.	JOIST HANGER	T & G	TONGUE AND GROOVE
C.J.	CEILING JOIST	JNT	JOINT	T.B.F.V.	TO BE FIELD VERIFIED
CLG	CEILING	JST	JOIST	T.D.	TIEDOWN OR HOLDOWN
CTR	CENTER	KP	KING POST	T.N.	TOE NAIL
CLR	CLEARANCE	KS	KING STUD	T.O.	TOP OF
CONC	CONCRETE	LAT	LATERAL(LOAD)	T.O.C.	TOP OF CONCRETE
C.M.U.	CONC. MASONARY UNIT	LOC.	LOCATION	T.O.S.F.	TOP OF SUB-FLOOR
CONN	CONNECT, CONNECTION	MANUF.	MANUFACTURER	T.O.W.	TOP OF WALL
CONST	CONSTRUCTION	MAT'L	MATERIAL	TOT	TOTAL
CONT	CONTINUOUS	MAX	MAXIMUM	TR	TRIMMER
CS'K	COUNTERSINK	M.B.	MACHINE BOLT	TYP	TYPICAL
C.T.	COLLAR TIE	MFG.	MANUFACTURING	U.N.O.	UNLESS NOTED OTHERWISE
DBL	DOUBLE	MIN	MINIMUM	U.O.N.	UNLESS OTHERWISE NOTED
DET	DETAIL	MTD.	MOUNTED	WDW.	WINDOW
DF	DOUGLAS FIR	(N)	NEW	WF	STEEL WIDE FLANGE
DIAG	DIAGONAL	N/A	NOT APPLICABLE	WWF	WELDED WIRE FABRIC
DIAPH	DIAPHRAGM	NAIL'G	NAILING	W/	WITH
DIM	DIMENSION	N.T.S.	NOT TO SCALE	W/O	WITHOUT
DIR	DIRECTION	O/	OVER	@	AT
DR	DOOR	O.C.	ON CENTER	'	FEET
DRF	DOOR FRAME	O.H.	OPPOSITE HAND	"	INCHES
DRW'G	DRAWING	OPN'G	OPENING	//	PARALLEL
EA.	EACH	OPT.	OPTIONAL	⊥	PERPENDICULAR
E.F.	EACH FACE	OSB	ORIENTED STRAND BOARD	&	AND
EL	ELEVATION	PC.'S	PIECES	Ø	DIAMETER
EMB.	EMBEDMENT	P.E.N.	PLYWOOD EDGE NAILING	CL	CENTER LINE
E.N.	EDGE NAILING	PERIM	PERIMETER	U	HANGER
EQ	EQUAL	PL	PLATE	≈	APPROXIMATELY
E.W.	EACH WAY	PLC'S	PLACES		
E.W.E.F.	EACH WAY EACH FACE	PLYWD	PLYWOOD		
EXP	EXPANSION	P.T.	PRESSURE TREATED		
(E)	EXISTING	RAF.	RAFTERS		
F.F.	FINISH FLOOR	RDWD	REDWOOD		
F.H.	FULL HEIGHT	REQ'D	REQUIRED		
FIN	FINISH	REQ'T	REQUIREMENT		
FLR	FLOOR	RET	RETAINING		
F.J.	FLOOR JOIST	RF	ROOF		
F.L.	FULL LENGTH OF MEMBER	S.A.D.	SEE ARCH DRW'GS		
F.N.	FACE NAILED	S.G.E.	STRUCTURAL GABLE END		
F.O.S.	FACE OF STUDS	S.B.	STRONG BACK		
F.O.C.	FACE OF CONCRETE	SCH	SCHEDULE		
FNDN	FOUNDATION	SECT	SECTION		

AQX ENGINEERING INC.
6525 CROWN BLVD #41068
SAN JOSE, CA. 95160
TEL. (408)229-3517
www.aqxeng.com

QIANG XIAO
NO. S. 5289
EXP. 6/30/22
12-28-2021

SHEET TITLE

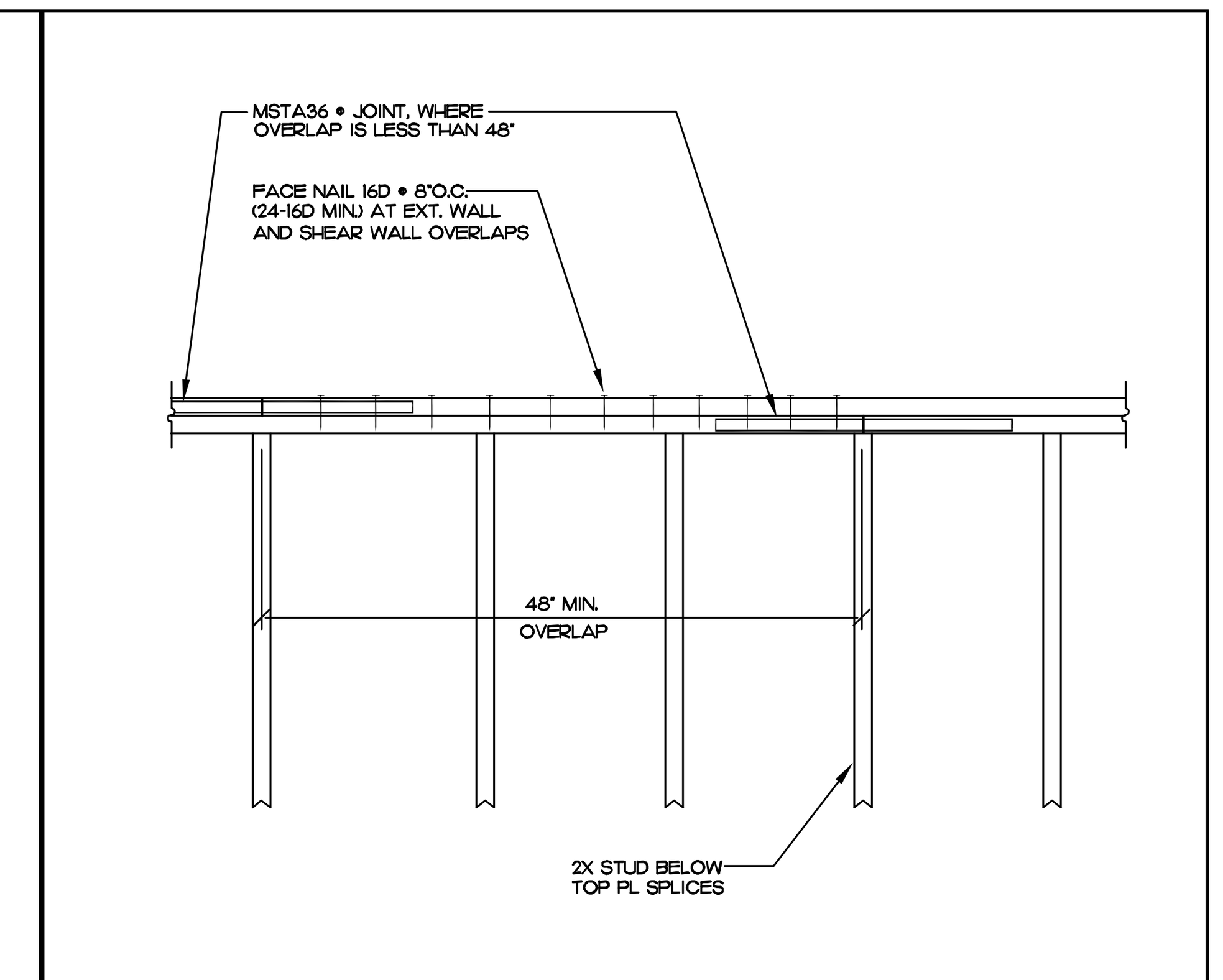
PREPARED FOR:
RESIDENTIAL HOUSE
1970 HAYES LANE
SAN MARTIN, CA 95046

SHEET TITLE
STRUCTURAL NOTES

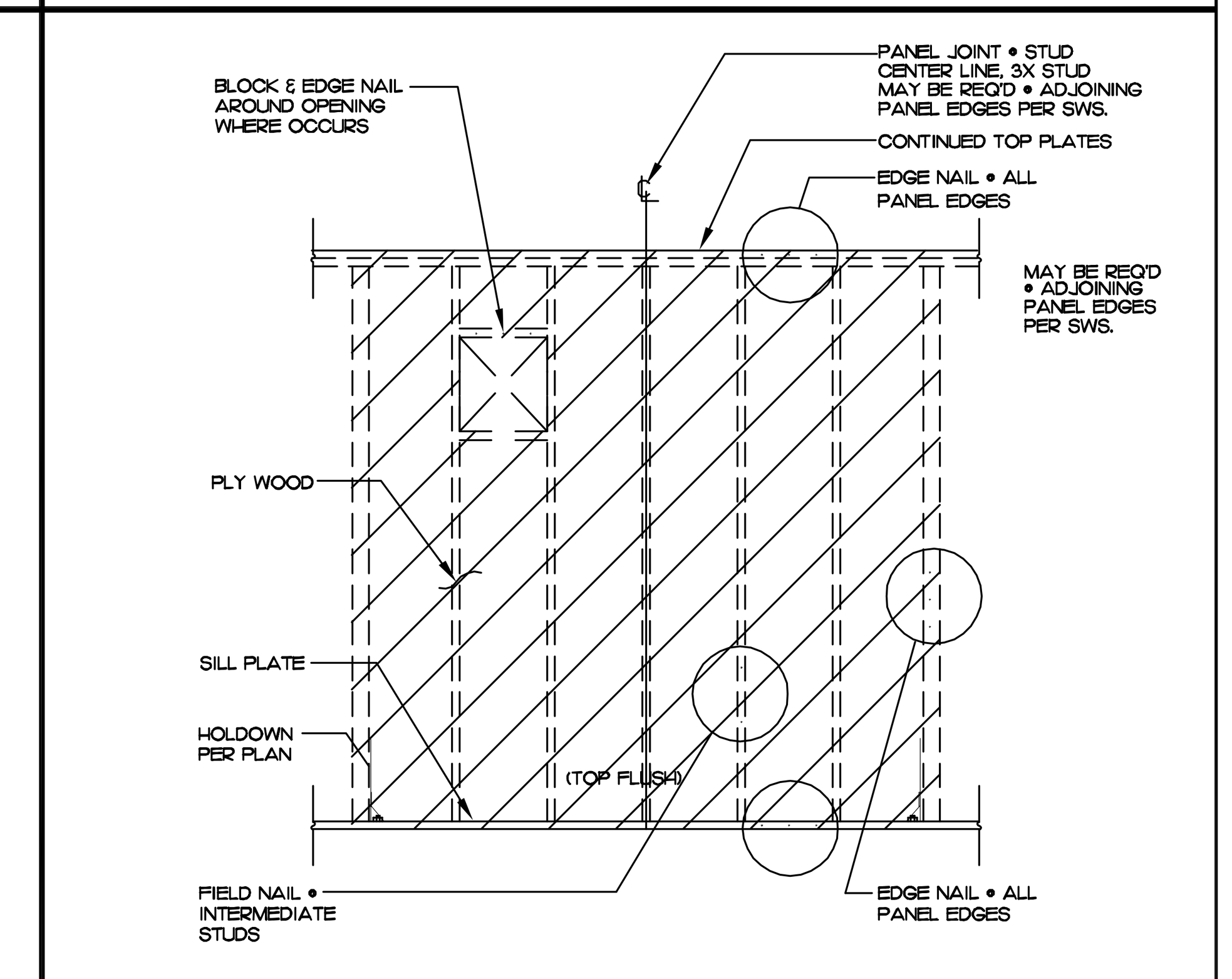
REVISIONS

JOB NO. 2021-450
DATE 12-28-21
DRAWN: Joe

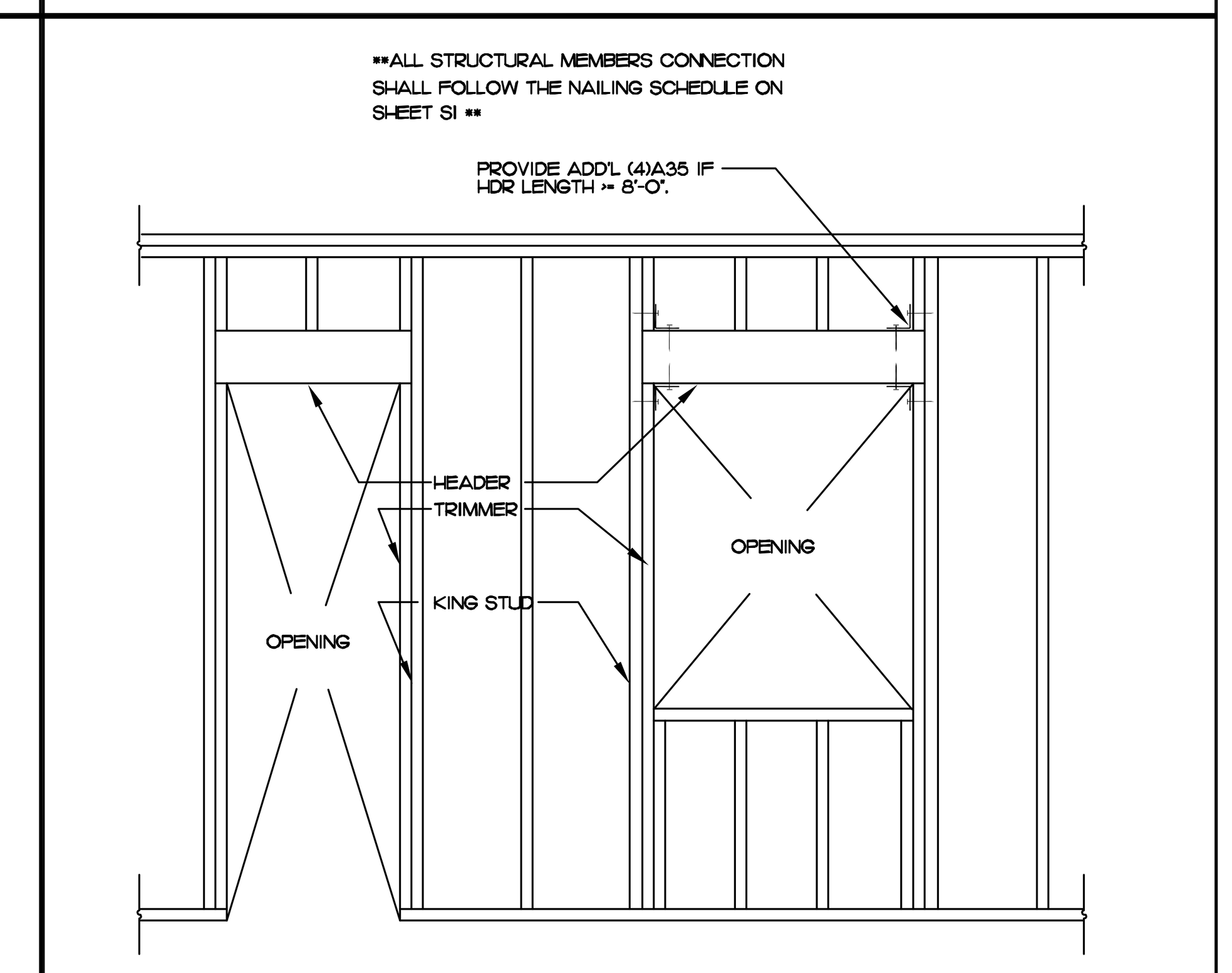
SHEET NUMBER
S1



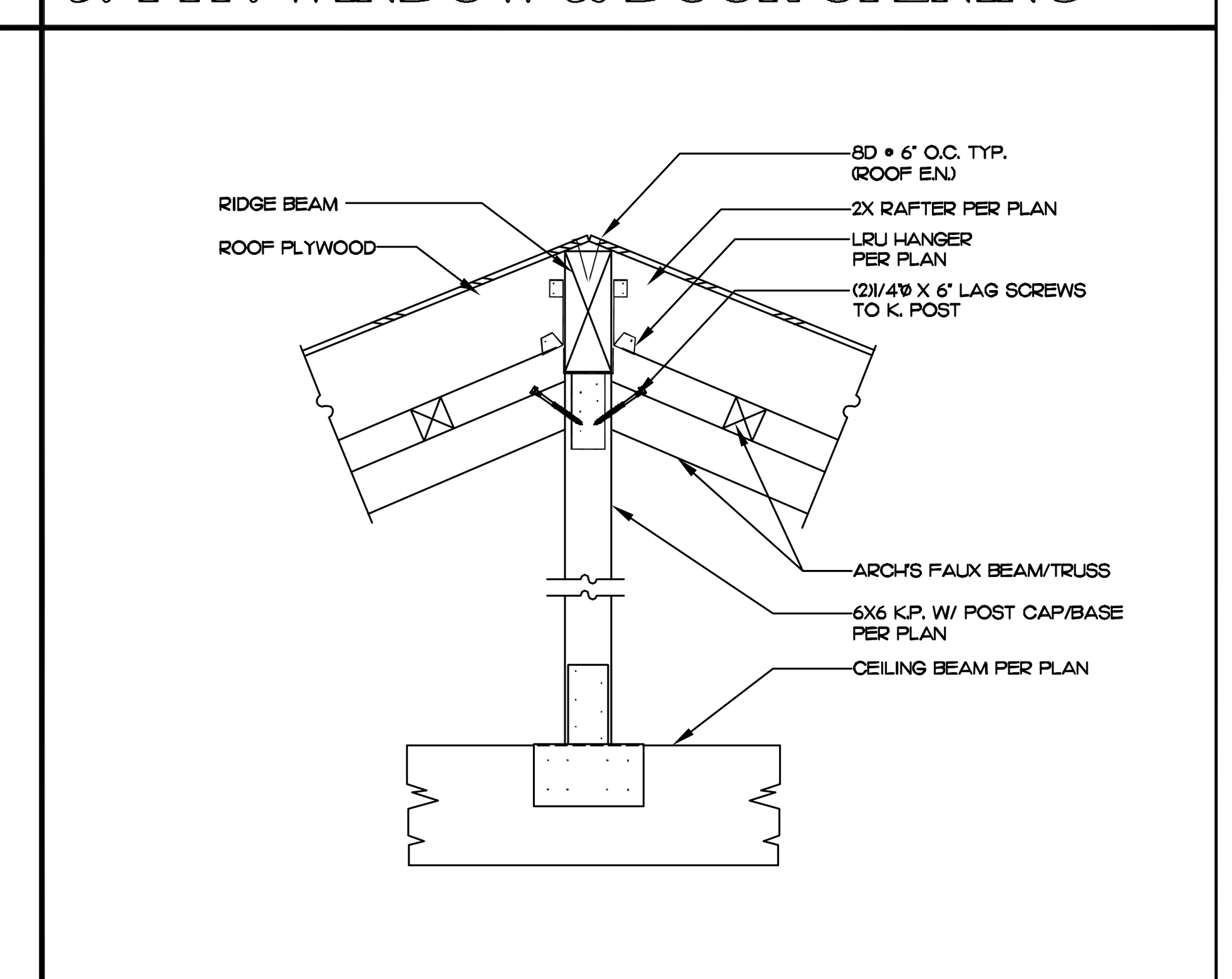
1. TYP. CONTINUOUS TOP PL



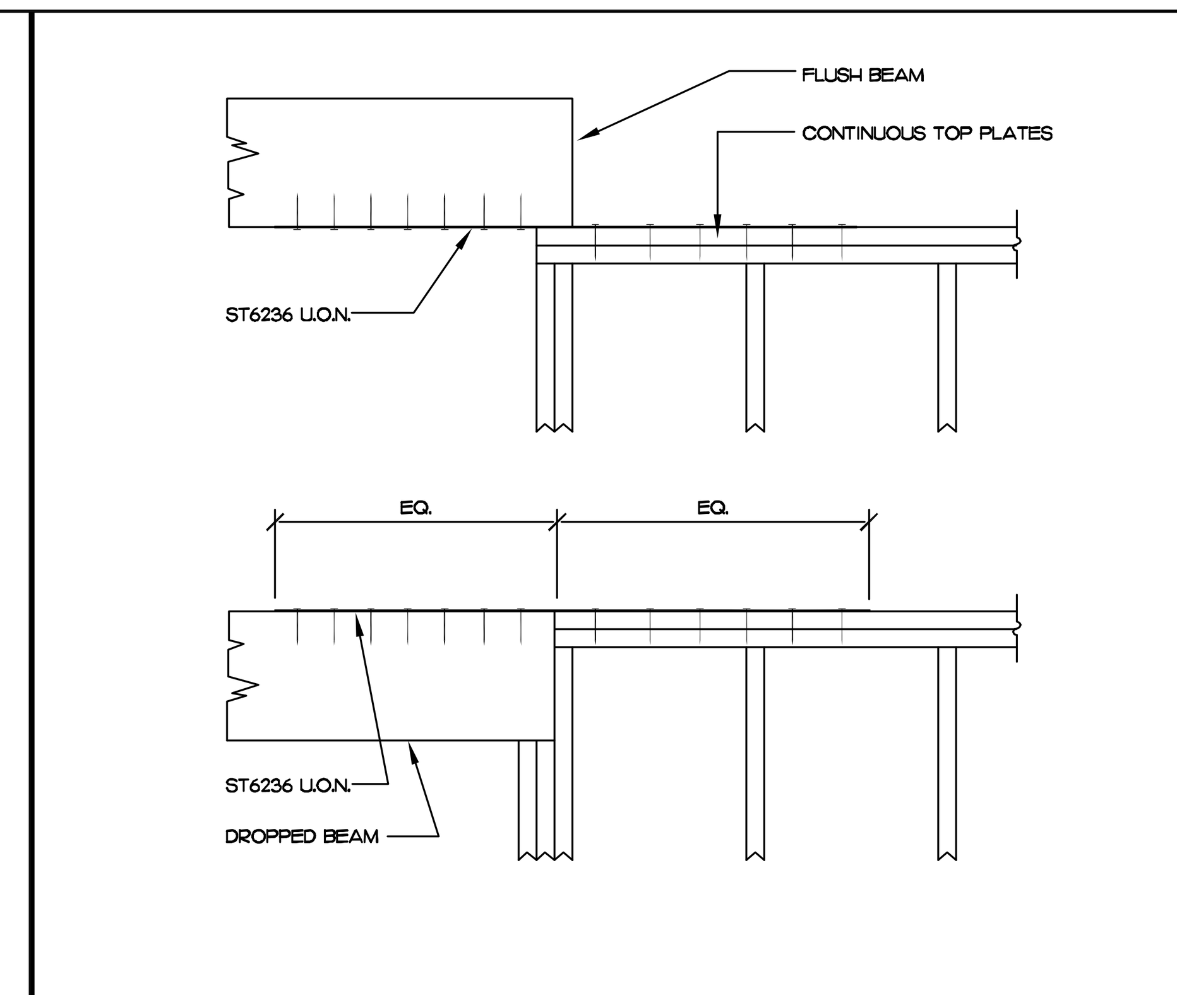
2. TYP. SHEAR WALL



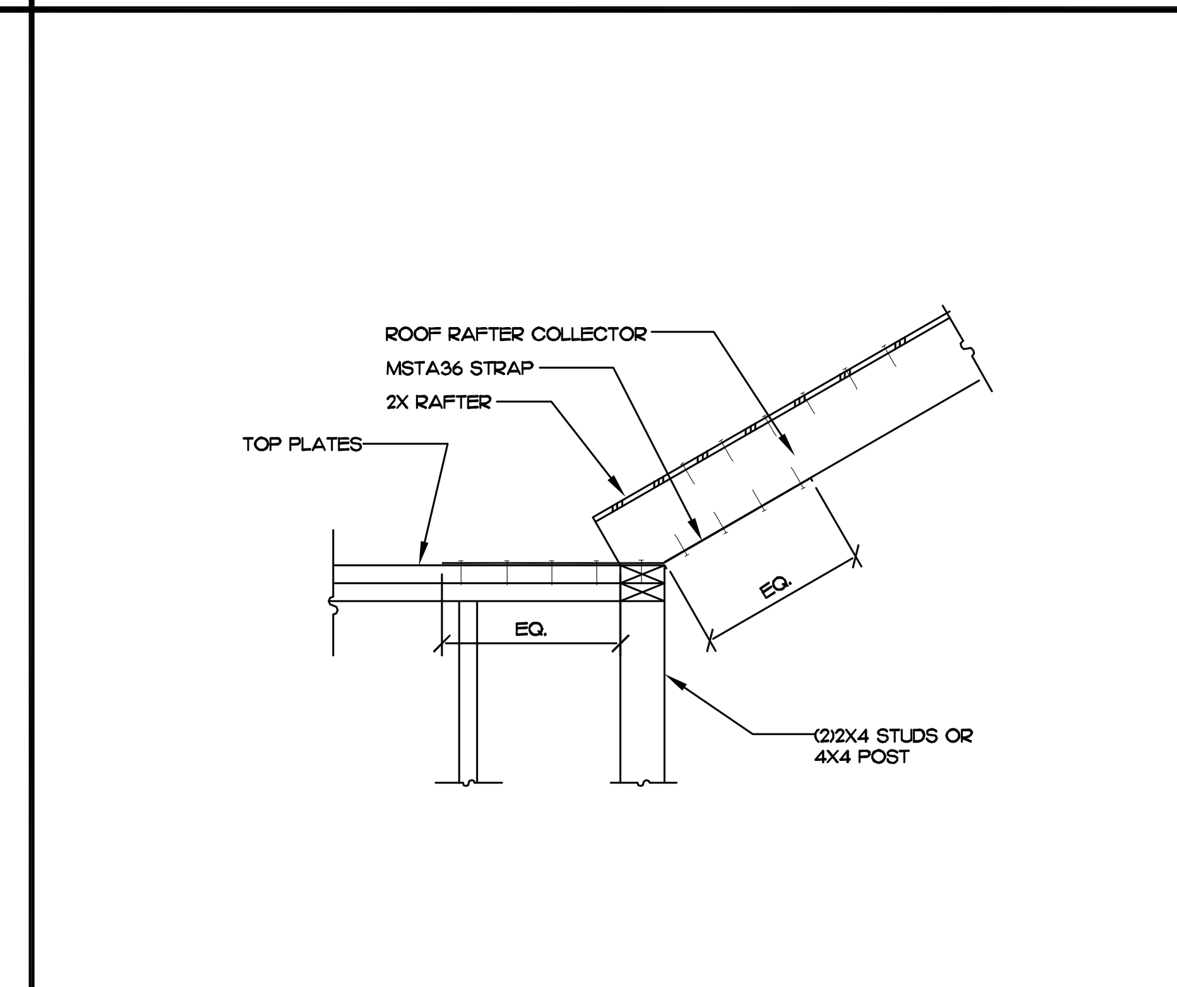
3. TYP. WINDOW & DOOR OPENING



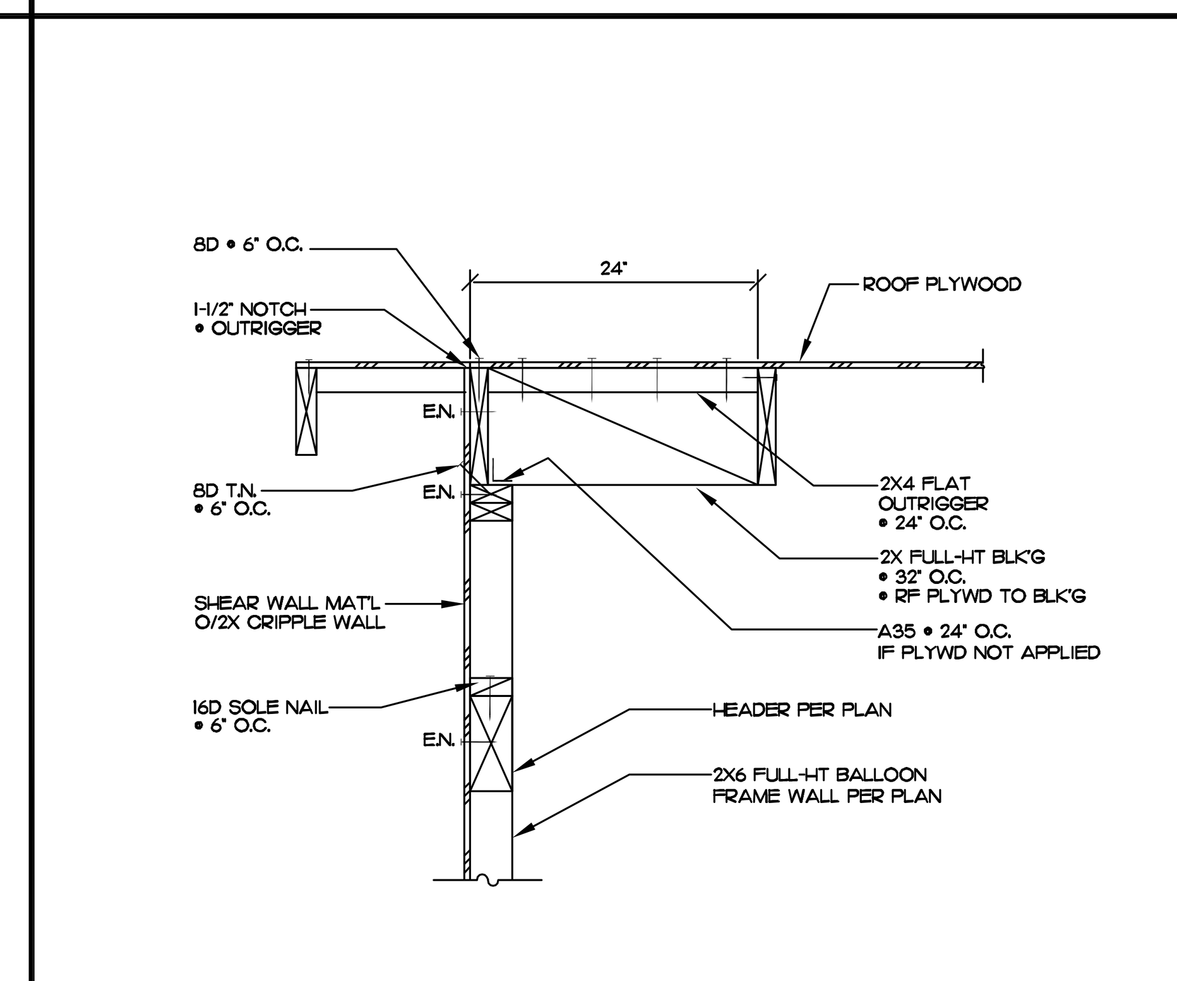
4 TYP. RIDGE



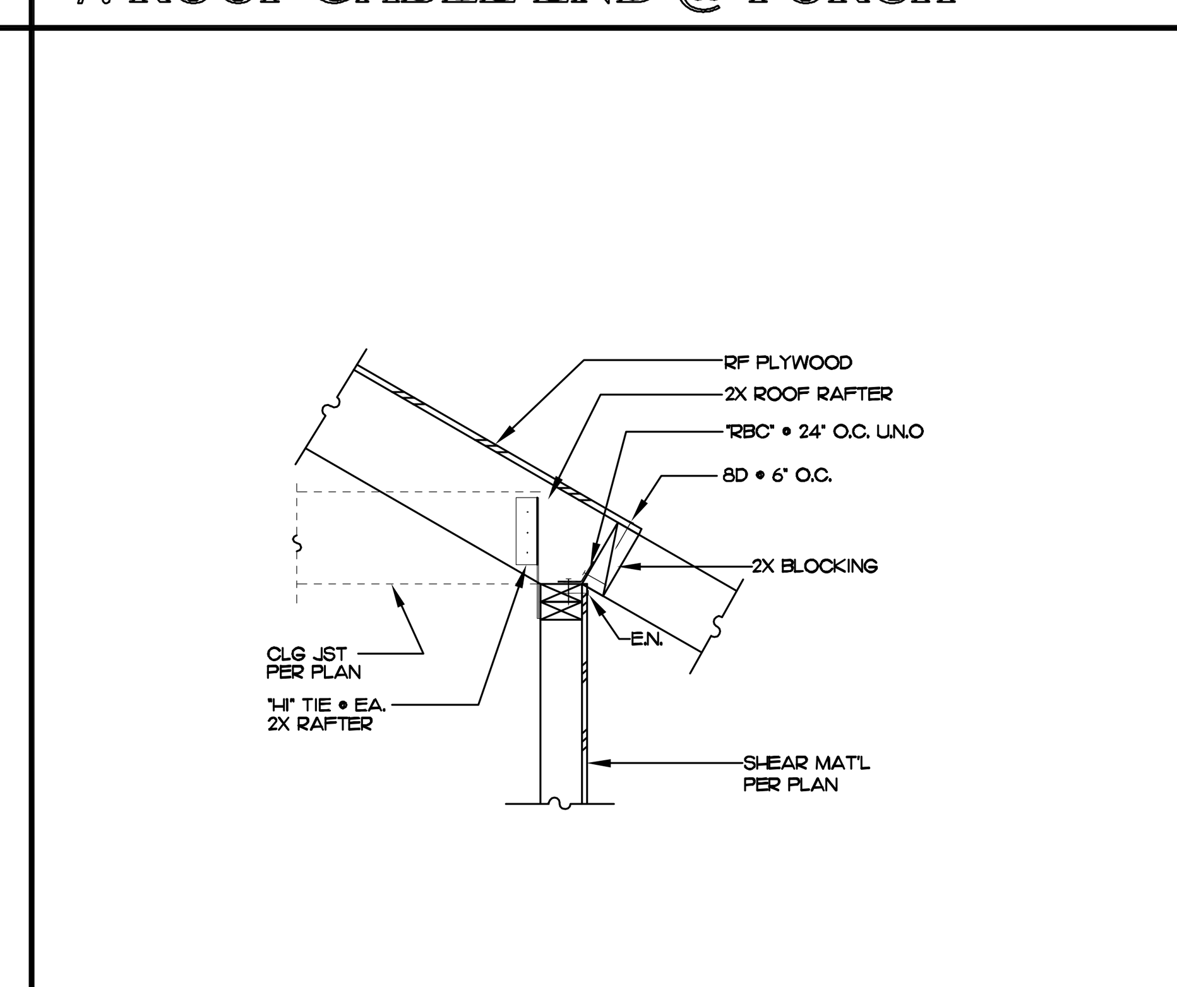
5. BEAM-TOP PL STRAP



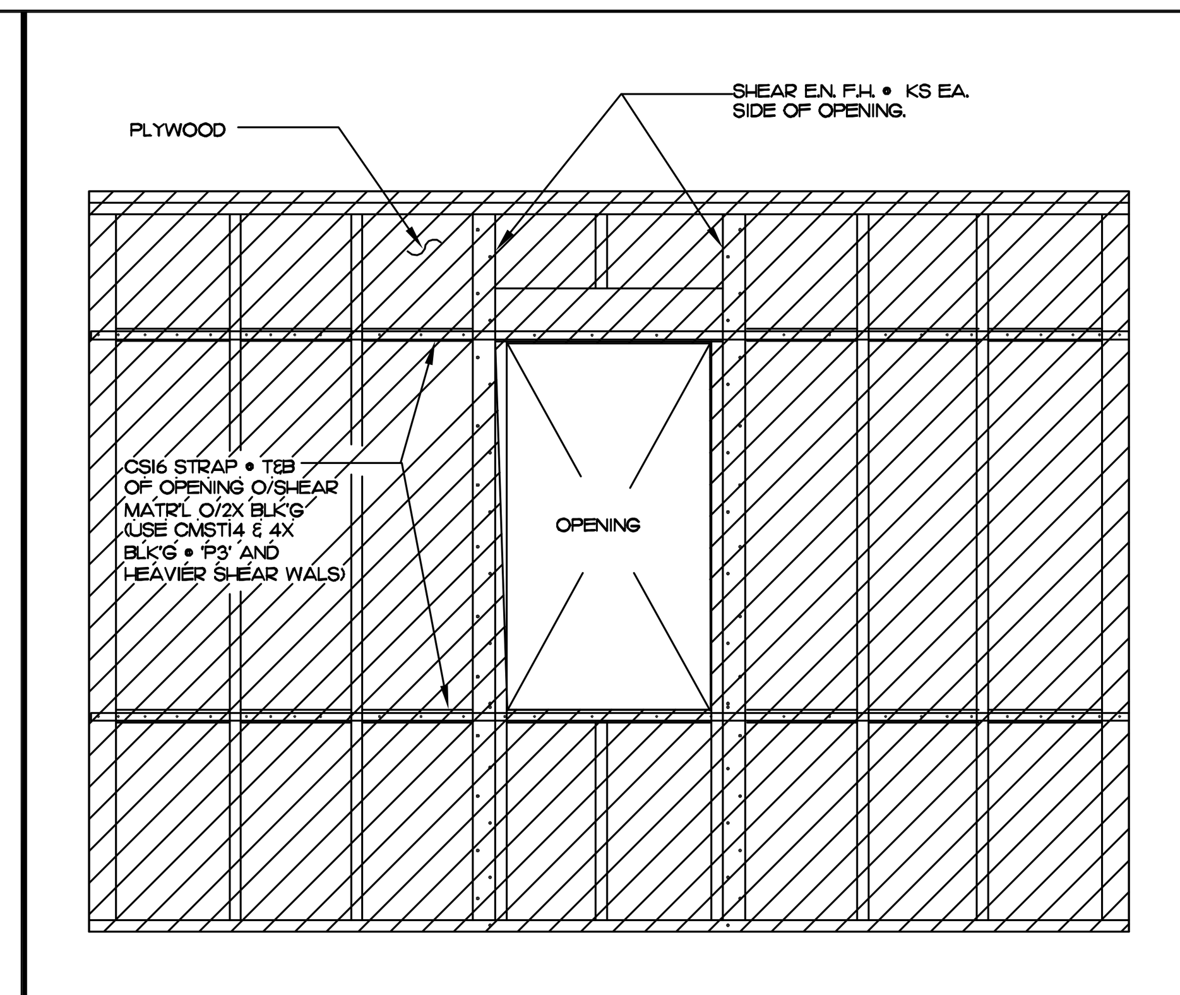
6. RAFTER TO TOP PL



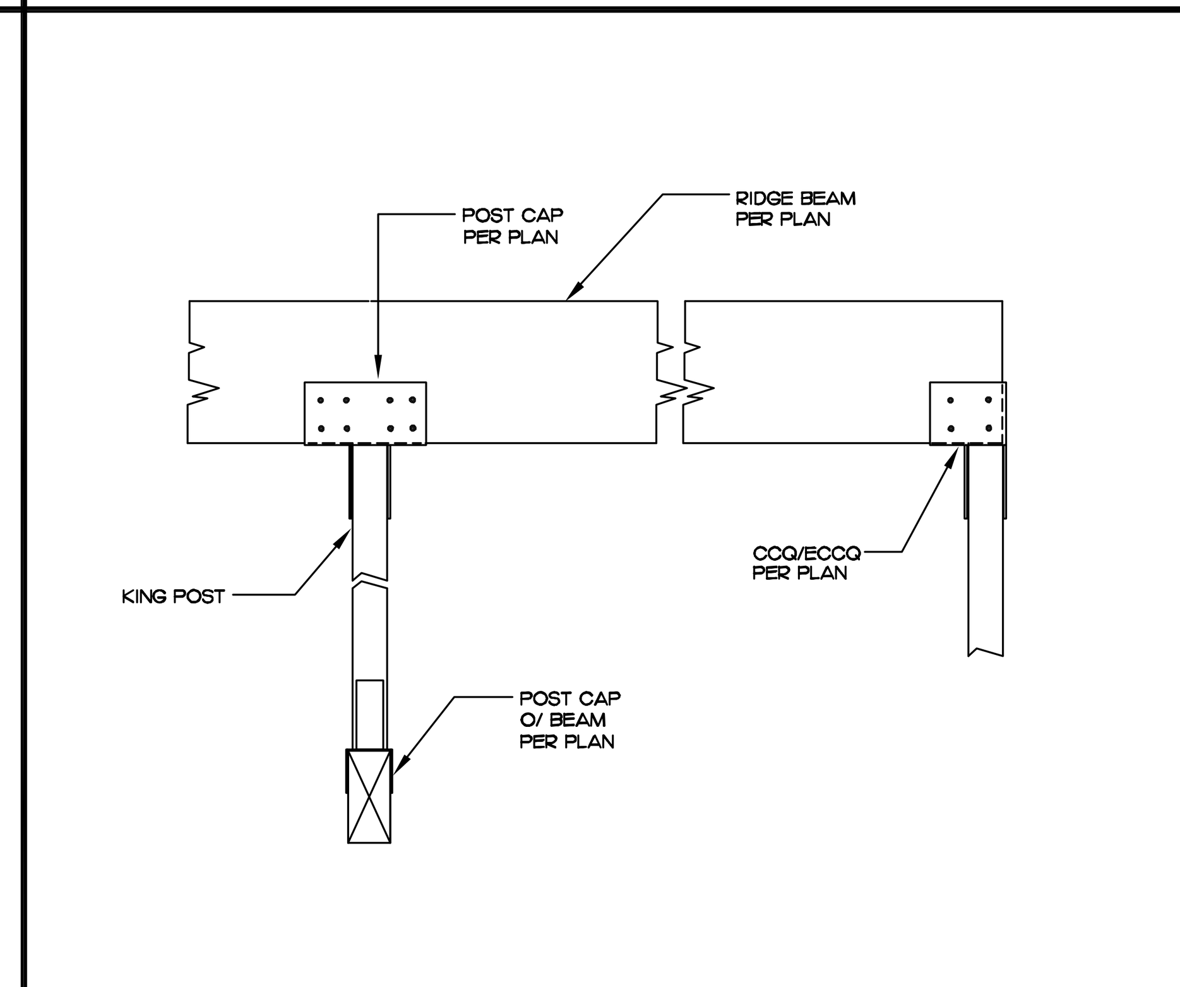
7. ROOF GABLE END @ PORCH



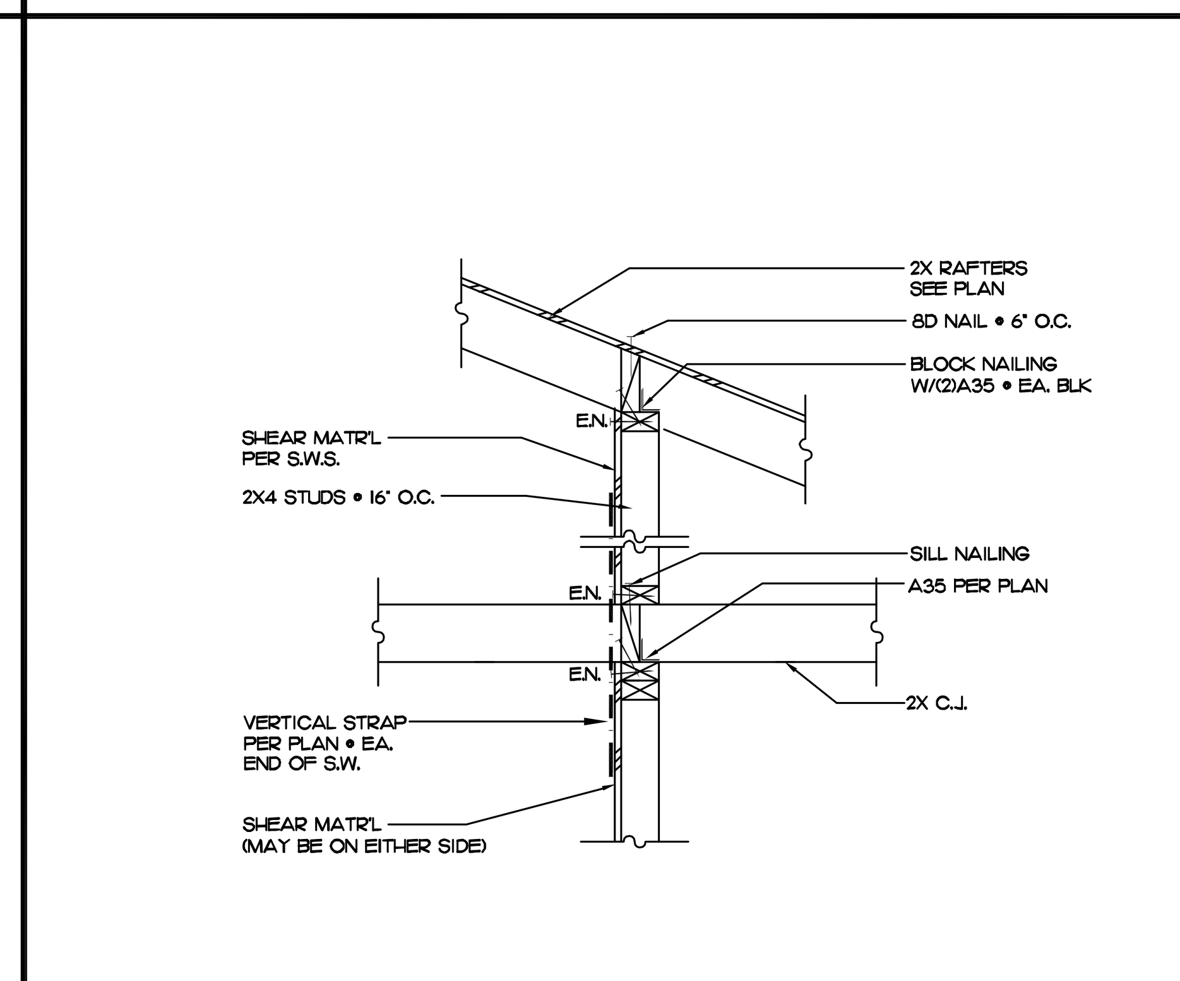
8. ROOF TRUSS/RAFTER EAVE



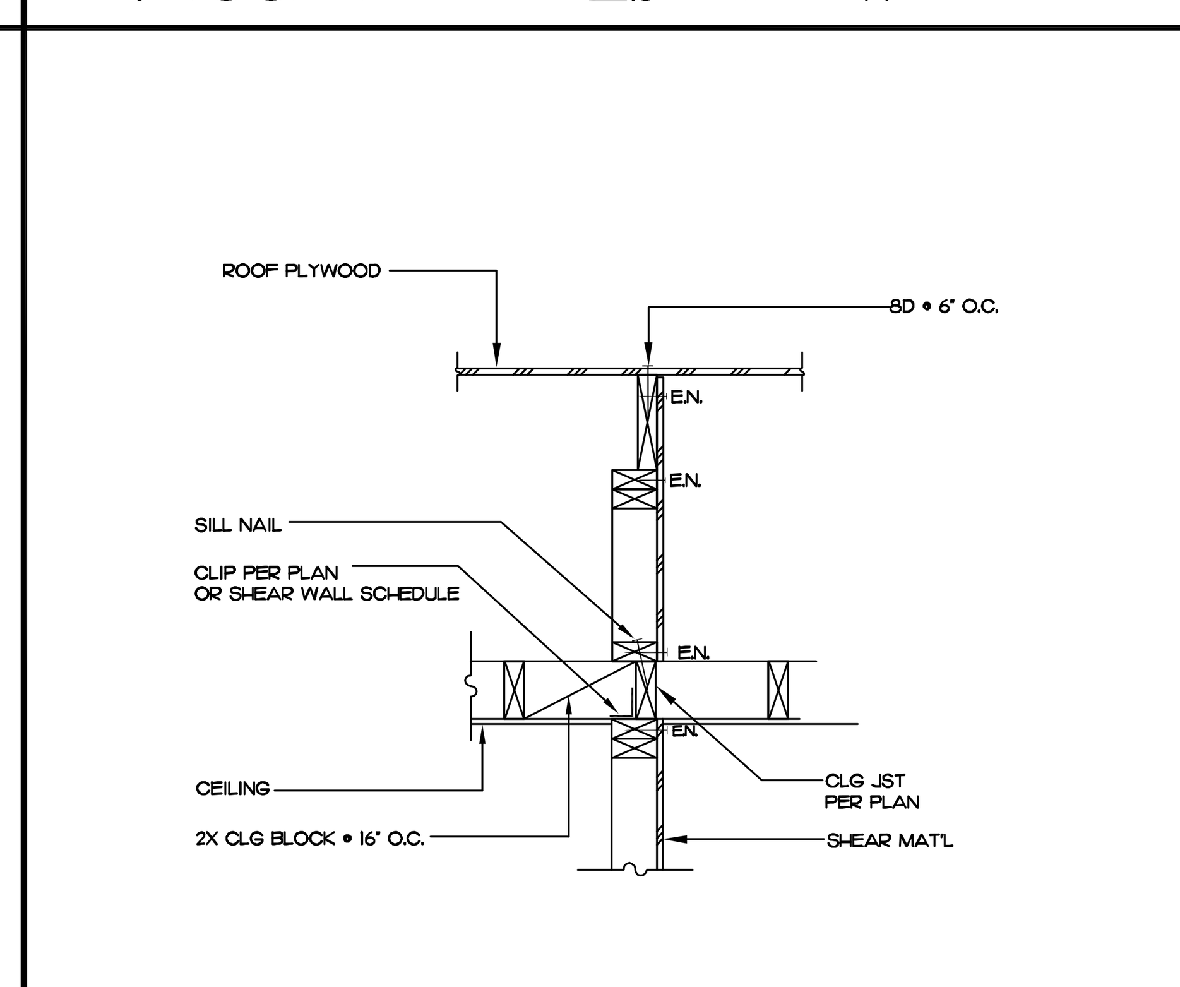
9. TYP. SHEAR WALL OPENING



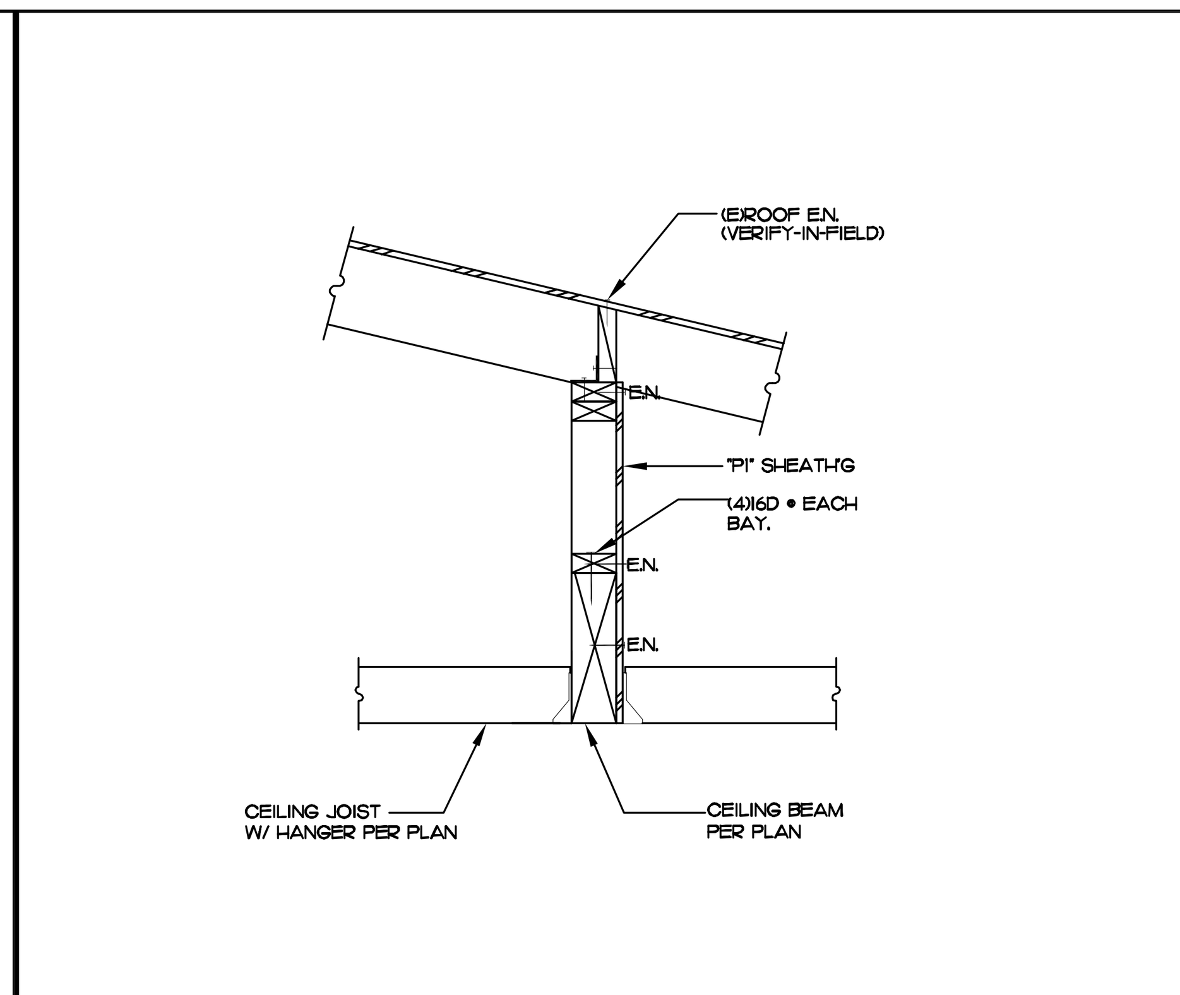
10. CONNECTION @ RIDGE BEAM



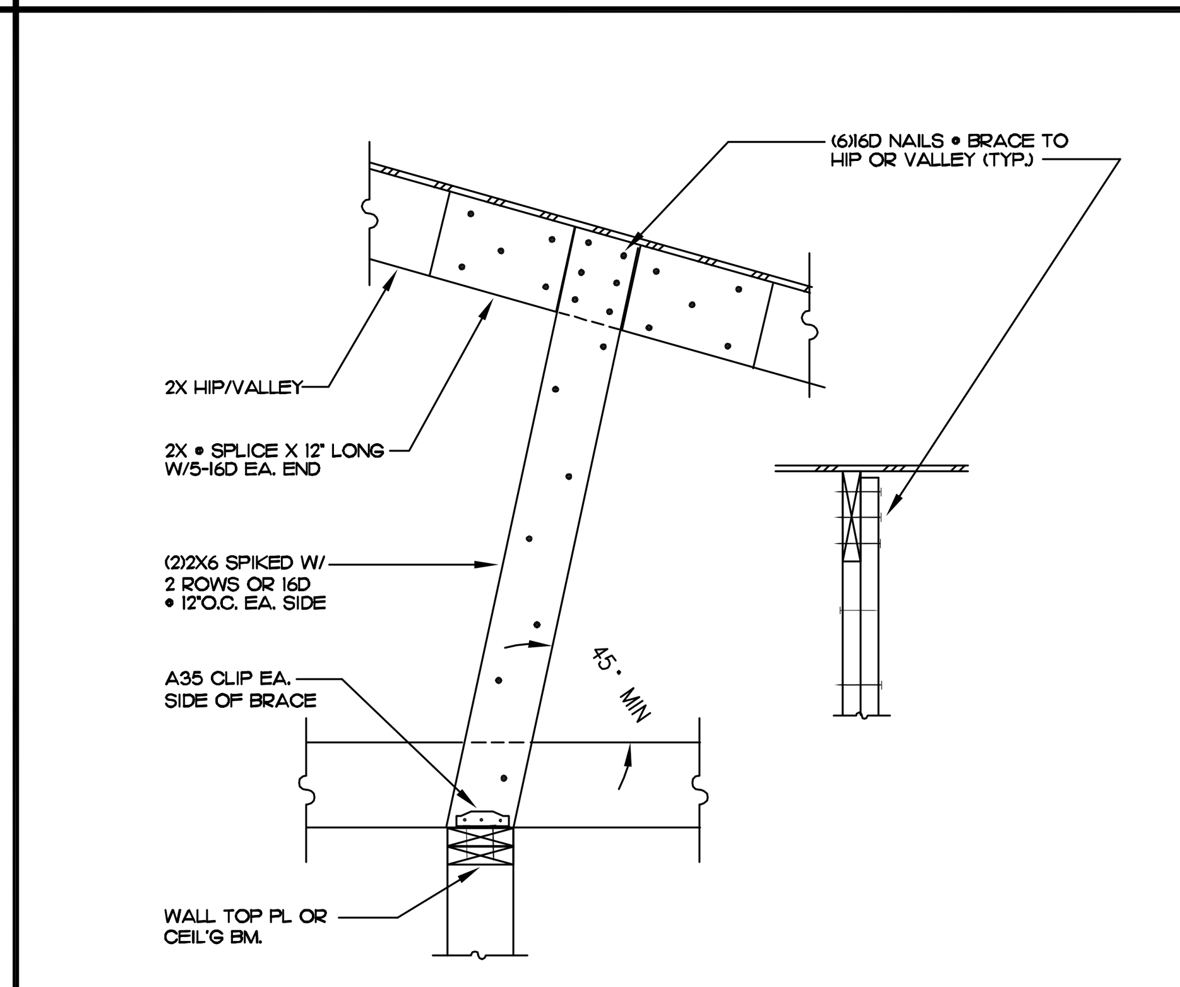
11. ROOF RAFTER ⊥ SHEAR WALL



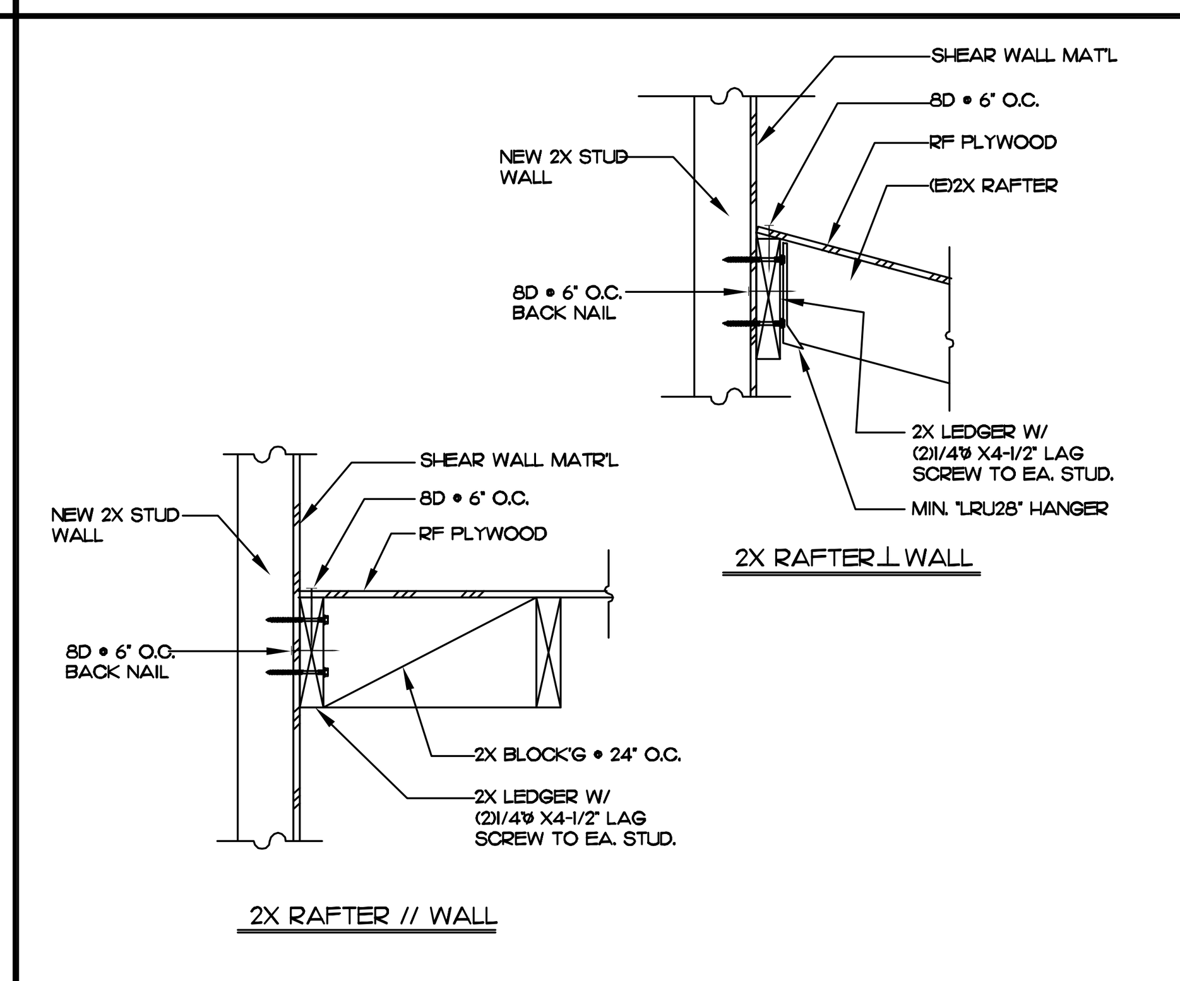
12. RF RAFTER // INT. SHEAR WALL



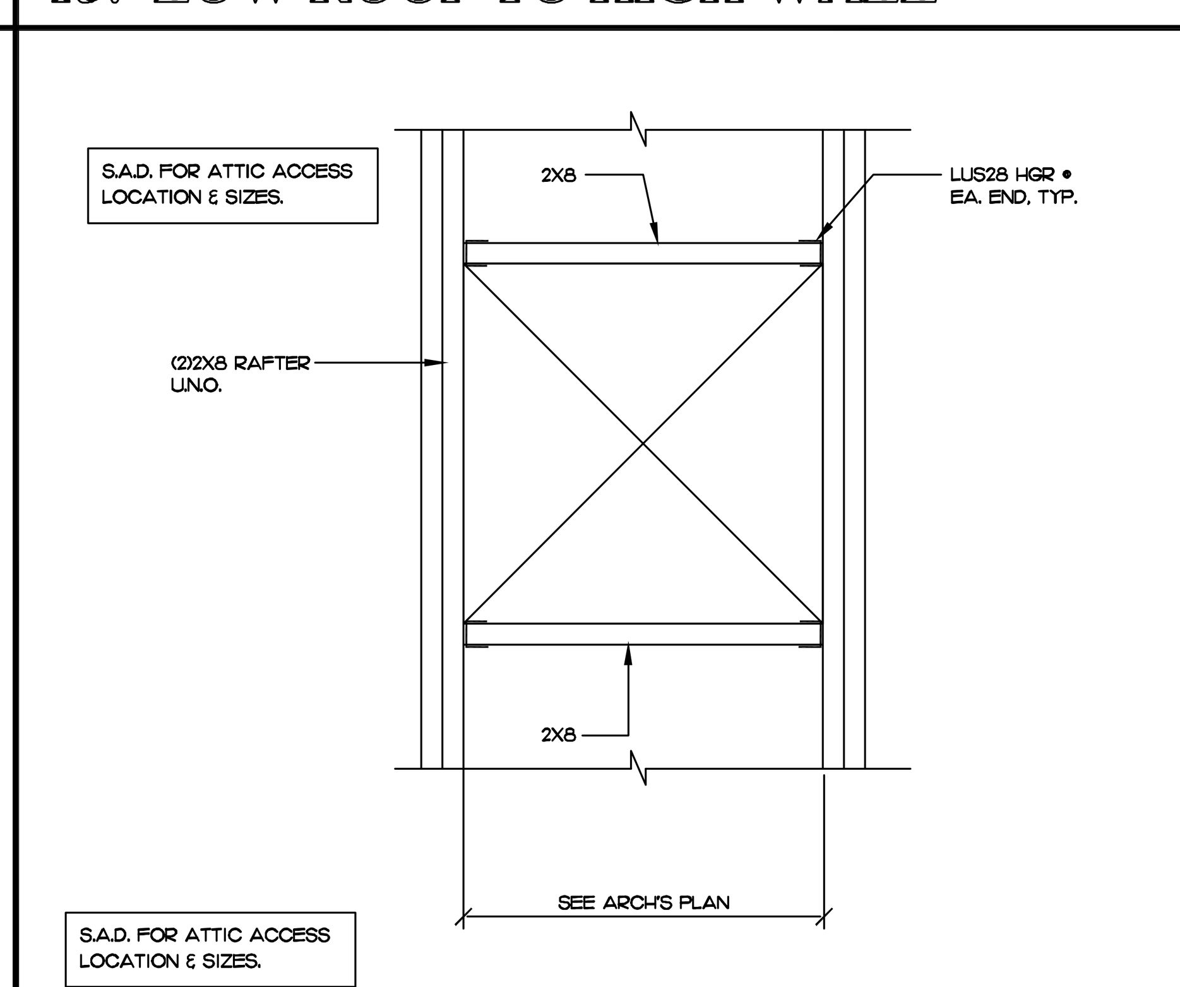
13. LOW ROOF TO BEAM



14. HIP/ VALLEY/RIDGE KICKER



15. LOW ROOF TO HIGH WALL



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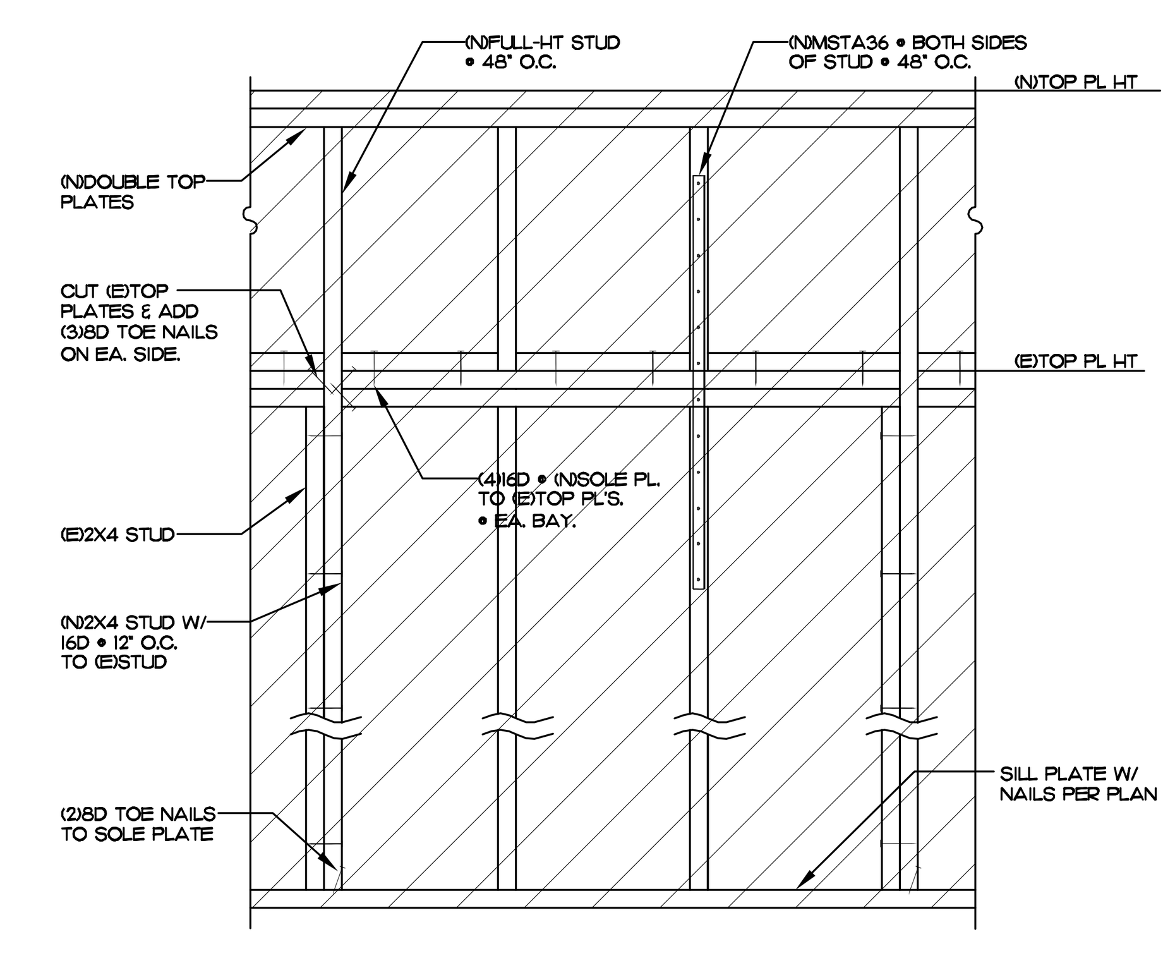
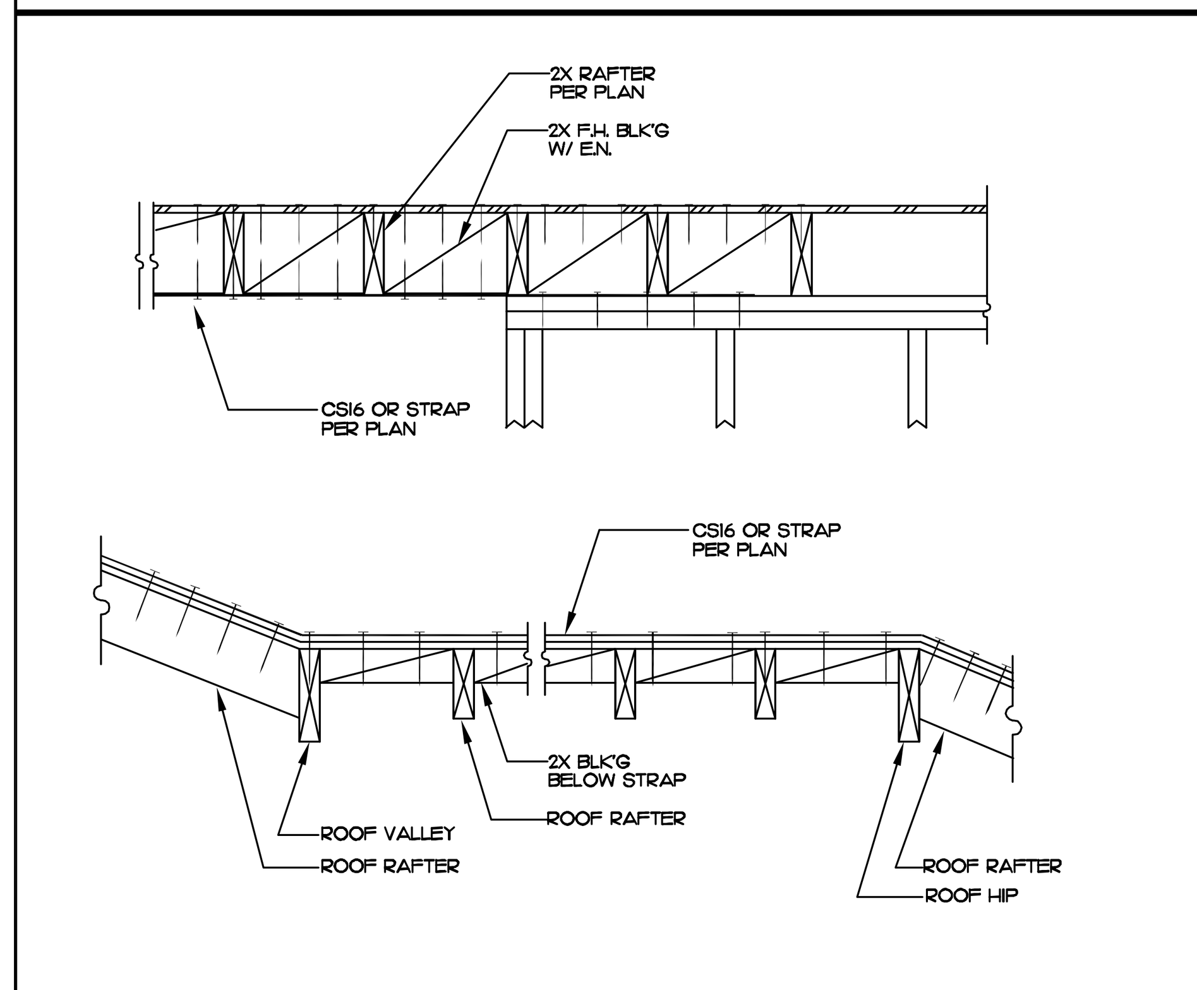


17. UPGRADE (E)WALL HT



18. STRAP O/ ROOF OSB

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TEL. (408)229-3517
www.aqxeng.com

REGISTERED PROFESSIONAL ENGINEER
QIANG XIAO
No. S 5289
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STRUCTURAL
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12-28-2021

SHEET TITLE

PREPARED FOR:
RESIDENTIAL HOUSE
1970 HAYES LANE
SAN MARTIN, CA 95046

SHEET TITLE

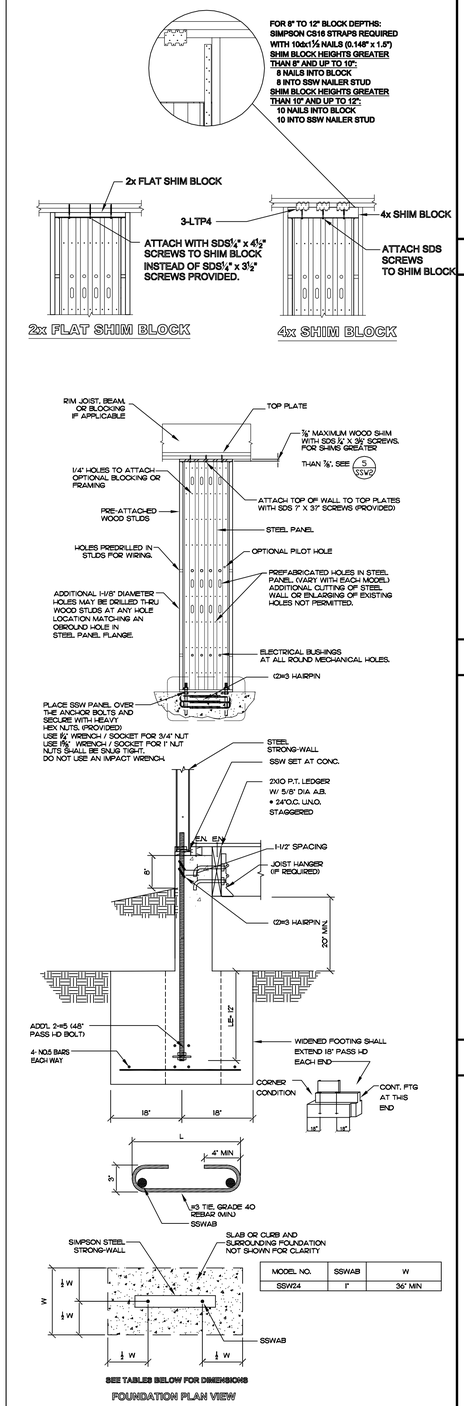
STRUCTURAL DETAILS

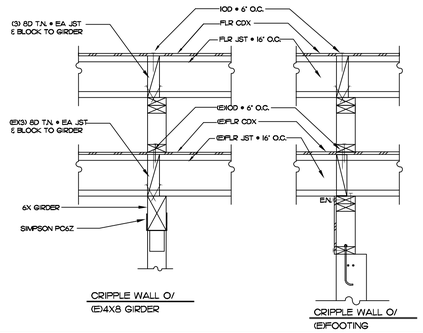
REVISIONS

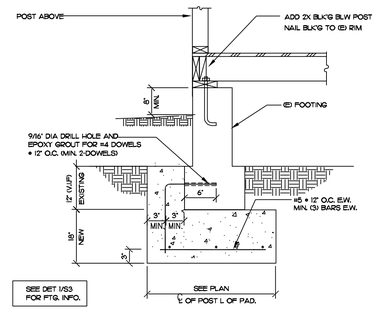
JOB NO. 2021-450
DATE 8-24-21
DRAWN: Joe

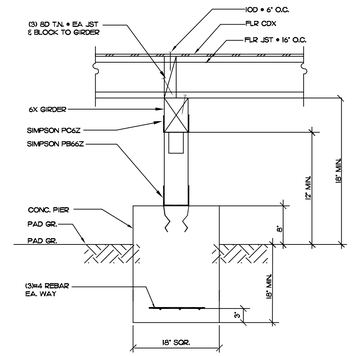
SHEET NUMBER

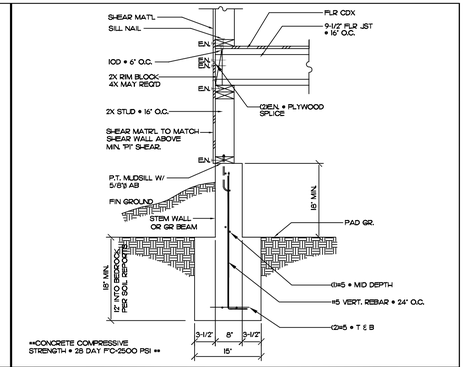
S2

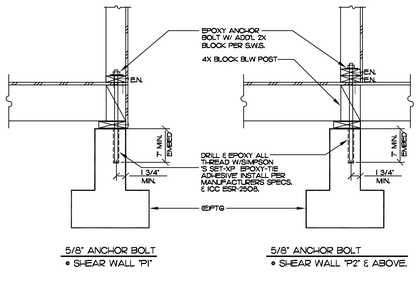


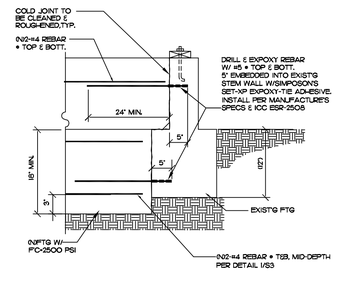


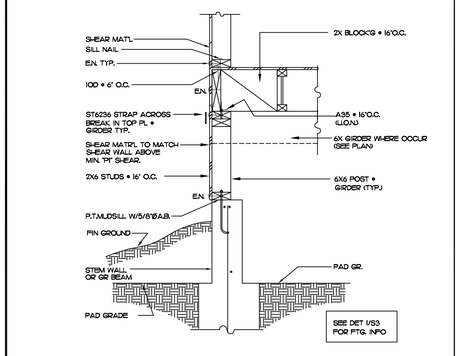


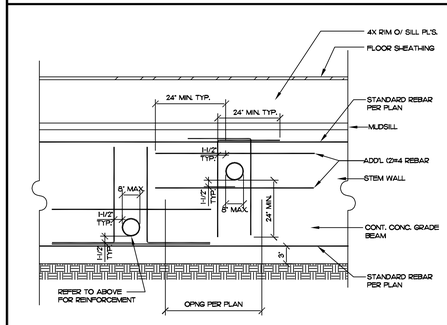


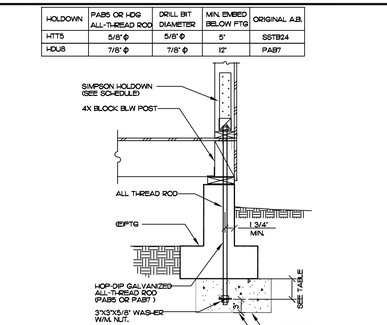


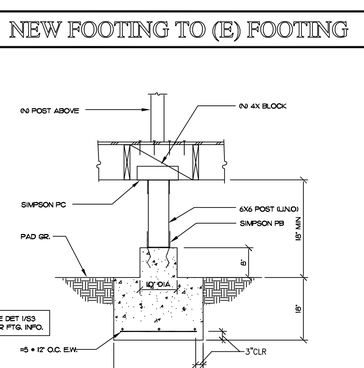


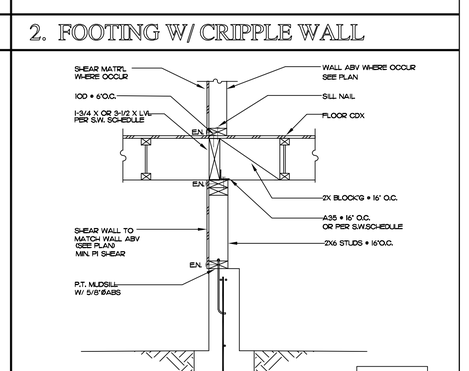


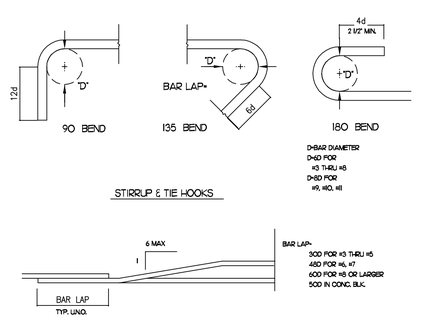


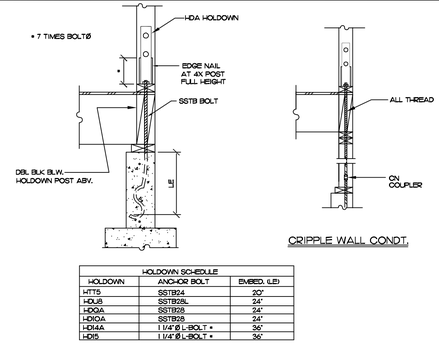


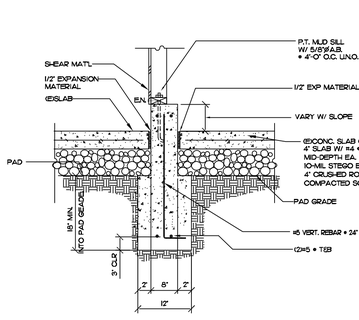


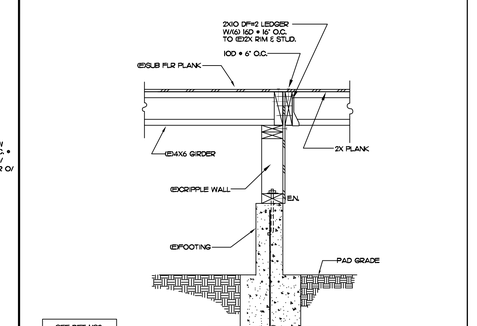












2x FLAT SHIM BLOCK

4x SHIM BLOCK

MODEL NO.	SSWAB	W
SSW24	1"	36" MIN

SEE TABLES BELOW FOR DIMENSIONS

FOUNDATION PLAN VIEW

20. STEEL STRONG WALL

CRIPPLE WALL O/ (E)4X8 GIRDER

CRIPPLE WALL O/ (E)FOOTING

13. CRIPPLE WALL O/ (E)SUBFLOOR

9. NEW PAD UNDER (E)FOOTING

5. INT. PAD & GIRDER

**CONCRETE COMPRESSIVE STRENGTH @ 28 DAY F'C=2500 PSI **

1. FOOTING W/ CRIPPLE WALL

HOT-DIPPED ALL THREAD ROD	DRILL BIT DIAMETER	MIN. EMBED INTO FTG	ORIGINAL A.B.
5/8"ϕ	3/4"ϕ	8"	"J" BOLT

SPECIAL INSPECTION OF EPOXY HOLDOWN ANCHORS TO BE INSPECTED BY E.O.R. (ENGINEER OF RECORD)

5/8" ANCHOR BOLT @ SHEAR WALL "P1"

5/8" ANCHOR BOLT @ SHEAR WALL "P2" & ABOVE.

10. EPOXY HOLDOWN & BOLT

6. NEW FOOTING TO (E) FOOTING

2. FOOTING W/ CRIPPLE WALL

15. PIPE THROUGH GRADE BEAM

HOLDOWN	PAB5 OR HDG ALL-THREAD ROD	DRILL BIT DIAMETER	MIN. EMBED BELOW FTG	ORIGINAL A.B.
HTT5	5/8"ϕ	5/8"ϕ	5"	SSTB24
HDU8	7/8"ϕ	7/8"ϕ	12"	PAB7

PAB5/7 HOLOWN W/ PAB7 ANCHOR BOLT OR HDG ALL-THREAD ROD

11. RETROFIT HOLDOWN BOLT

7. FOOTING BELOW POINT LOAD

3. FOOTING W/ CRIPPLE WALL

D=BAR DIAMETER
D=6D FOR #3 THRU #8
D=8D FOR #9, #10, #11

STIRRUP & TIE HOOKS

BAR LAP=
30D FOR #3 THRU #5
48D FOR #6, #7
60D FOR #8 OR LARGER
50D IN CONC. BLK.

LAP SPLICE

16. STEEL BAR HOOKS & LAP.

CRIPPLE WALL CONDT.

HOLDOWN SCHEDULE		
HOLDOWN	ANCHOR BOLT	EMBED. (LE)
HTT5	SSTB24	20"
HDU8	SSTB28L	24"
HDQA	SSTB28	24"
HD10A	SSTB28	24"
HD14A	1 1/4"Ø L-BOLT *	36"
HD15	1 1/4"Ø L-BOLT *	36"

* ASTM A307 ANCHOR BOLT.

12. TYPICAL HOLDOWN

CONCRETE COPMRESSIVE STRENGTH F'C=2500 PSI

8. SIDE FOOTING @ GARAGE

4. CONNECTION @ (E)SUBFLOOR

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S. 5289
EXP. 6/30/22
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SHEET TITLE
STRUCTURAL DETAILS

REVISIONS

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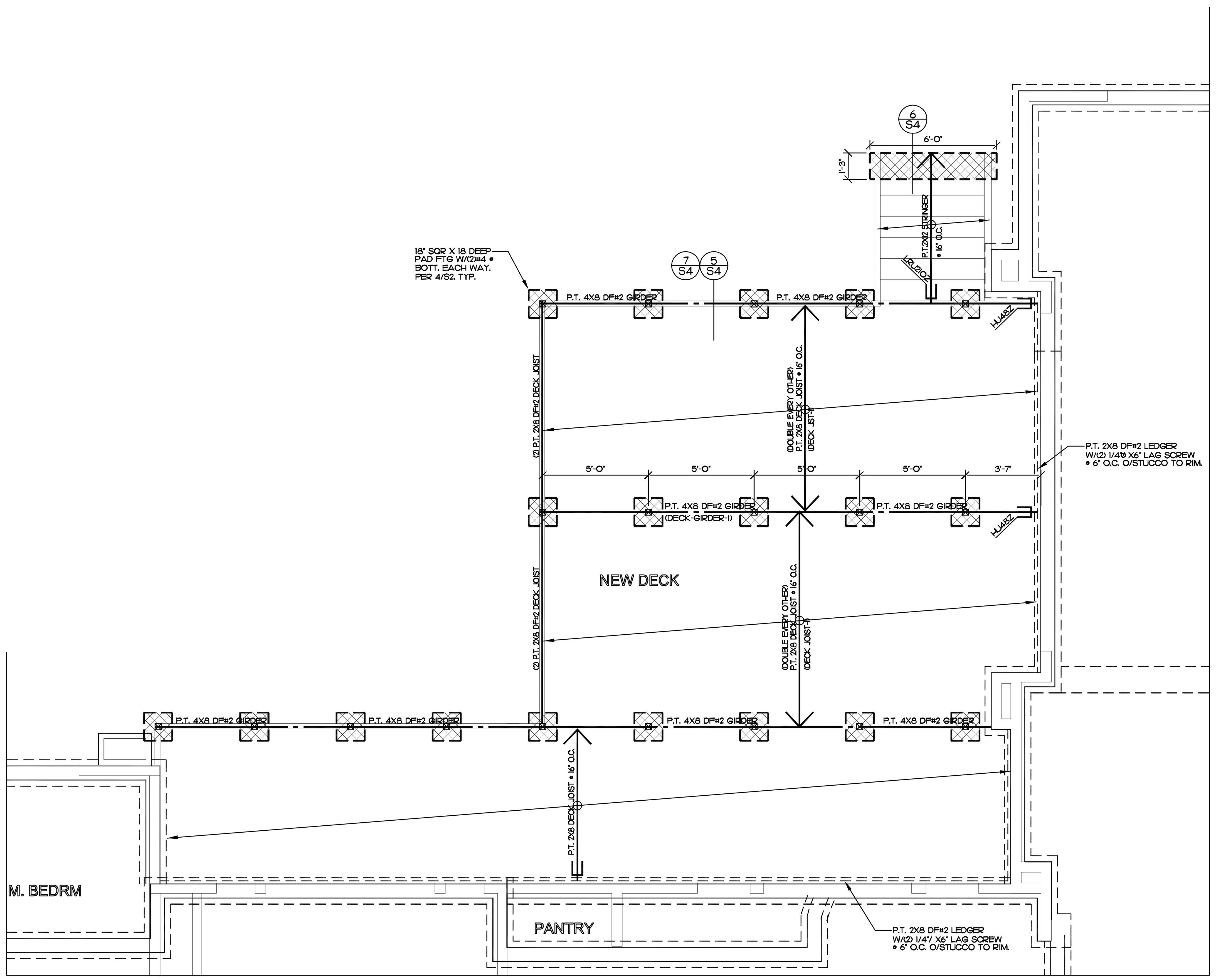
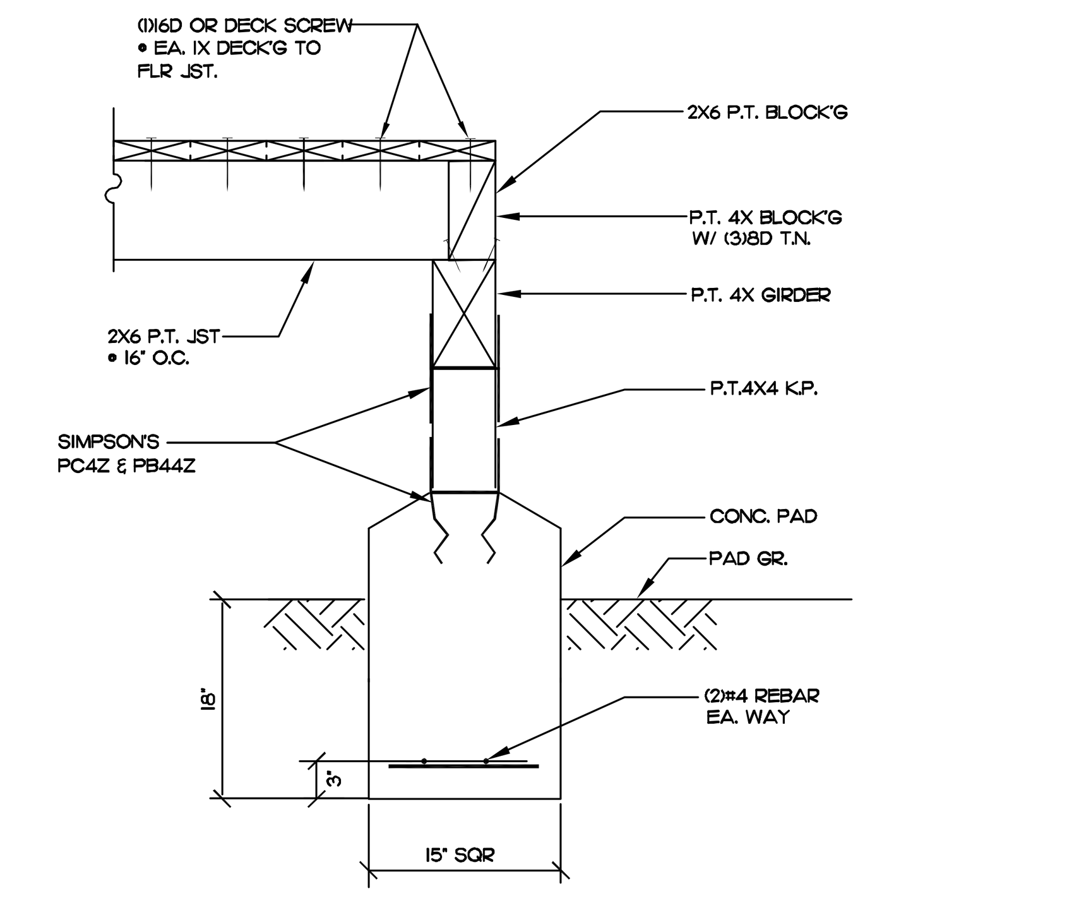
SHEET NUMBER
S3

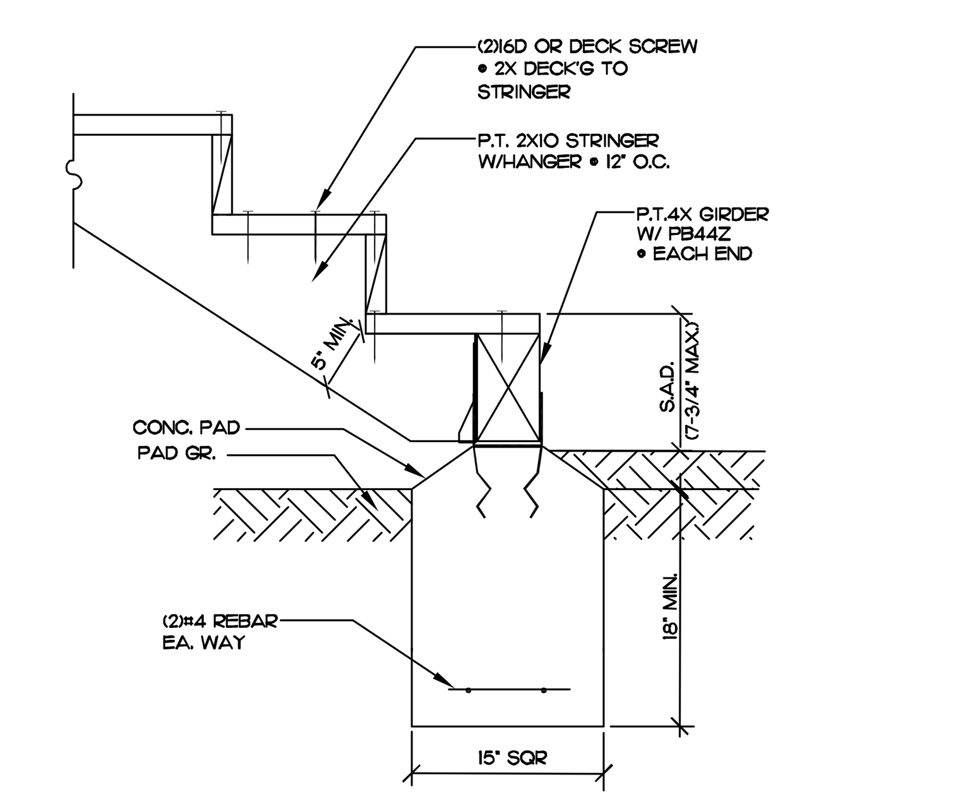


DECK FRAMING & PARTIAL FOUNDATION PLAN (REFER TO S5)

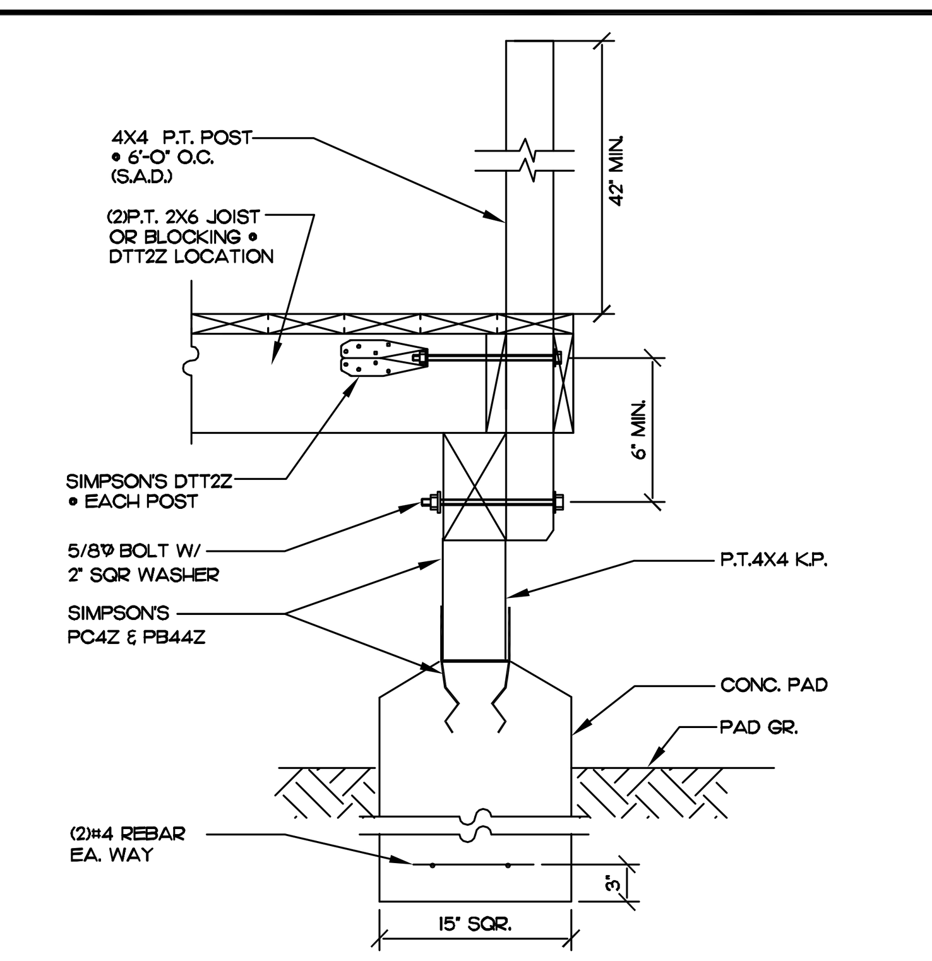
SCALE 1/4" = 1'-0"



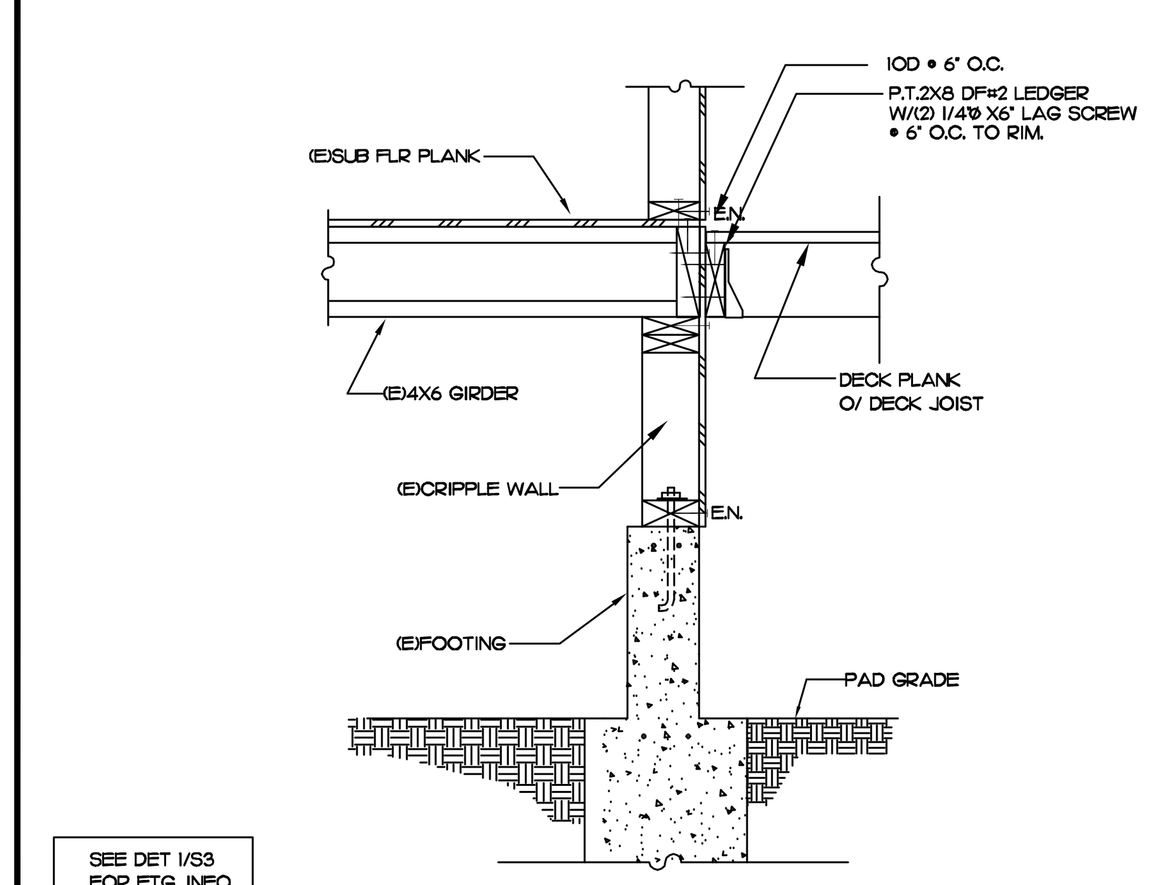
5. RAISED DECKING



6. DECK GUARD RAIL



7. DECK GUARD RAIL



8. LEDGER @ DECK TO WALL

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SAN MARTIN, CA 95046

SHEET TITLE

DECK-FRAMING PLAN-& DETAILS

REVISIONS

JOB NO. 2021-450
DATE 12-28-21
DRAWN: Joe

SHEET NUMBER

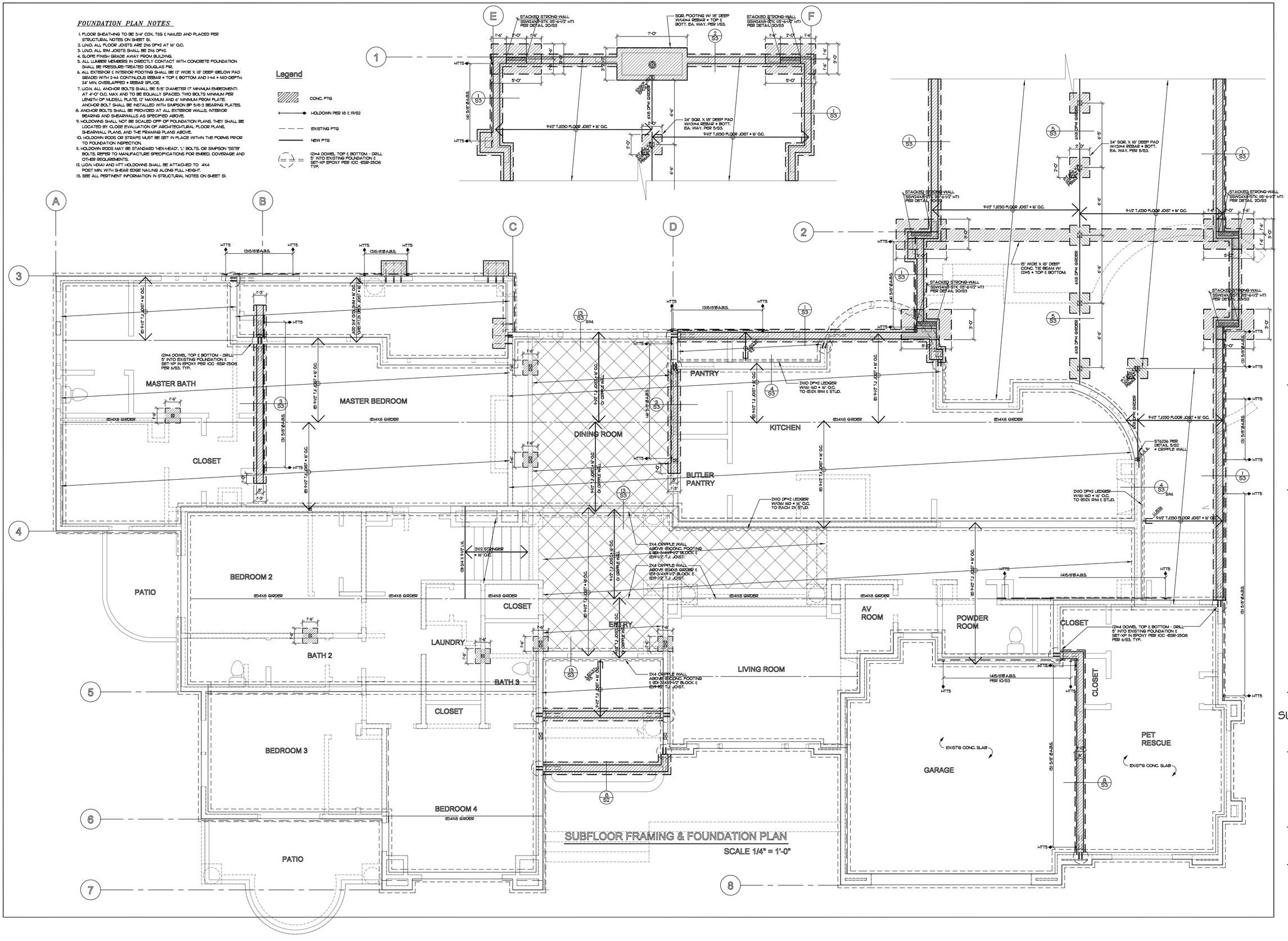
S4

FOUNDATION PLAN NOTES

1. FLOOR SHEATHING TO BE 3/4" CDX, T&G & NAILED AND PLACED PER STRUCTURAL NOTES ON SHEET S1.
2. U.N.O. ALL FLOOR JOISTS ARE 2X6 DF#2 AT 16" O.C.
3. U.N.O. ALL RIM JOISTS SHALL BE 2X6 DF#2.
4. SLOPE FINISH GRADE AWAY FROM BUILDING.
5. ALL LUMBER MEMBERS IN DIRECTLY CONTACT WITH CONCRETE FOUNDATION SHALL BE PRESSURE-TREATED DOUGLAS FIR.
6. ALL EXTERIOR & INTERIOR FOOTINGS SHALL BE 12" WIDE X 18" DEEP GRELOW PAD GRADED WITH 2-#4 CONTINUOUS REBAR + TOP & BOTTOM AND 1-#4 + MID-DEPTH. 24" MIN. OVERLAPPED + REBAR SPLICE.
7. U.O.N. ALL ANCHOR BOLTS SHALL BE 5/8" DIAMETER (7 MINIMUM EMBEDMENT) AT 4'-0" O.C. MAX AND TO BE EQUALLY SPACED. TWO BOLTS MINIMUM PER LENGTH OF MUDSILL PLATE, 12" MAXIMUM AND 6" MINIMUM FROM PLATE. ANCHOR BOLT SHALL BE INSTALLED WITH SIMPSON BP 5/8-3 BEARING PLATES.
8. ANCHOR BOLTS SHALL BE PROVIDED AT ALL EXTERIOR WALLS, INTERIOR BEARING AND SHEARWALLS AS SPECIFIED ABOVE.
9. HOLDOWNS SHALL NOT BE SCALED OFF OF FOUNDATION PLANS. THEY SHALL BE LOCATED BY CLOSE EVALUATION OF ARCHITECTURAL FLOOR PLANS, SHEARWALL PLANS, AND THE FRAMING PLANS ABOVE.
10. HOLDOWN RODS OR STRAPS MUST BE SET IN PLACE WITHIN THE FORMS PRIOR TO FOUNDATION INSPECTION.
11. HOLDOWN RODS MAY BE STANDARD "HEX-HEAD", "L" BOLTS, OR SIMPSON "SSTB" BOLTS. REFER TO MANUFACTURE SPECIFICATIONS FOR EMBED, COVERAGE AND OTHER REQUIREMENTS.
12. U.O.N. HDU4 AND HTT HOLDOWNS SHALL BE ATTACHED TO 4X4 POST MIN. WITH SHEAR EDGE NAILING ALONG FULL HEIGHT.
13. SEE ALL PERTINENT INFORMATION IN STRUCTURAL NOTES ON SHEET S1.

Legend

- CONC. FTG
- HOLDOWN PER 16 & 19/S2
- EXISTING FTG
- NEW FTG
- (2)#4 DOWEL TOP & BOTTOM - DRILL 5" INTO EXISTING FOUNDATION & SET-XP EPOXY PER ICC -ESR-2508 TYP.



SUBFLOOR FRAMING & FOUNDATION PLAN

SCALE 1/4" = 1'-0"

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SAN MARTIN, CA 95046

SHEET TITLE

SUBFLOOR-FRAMING & FOUNDATION PLANS

REVISIONS

JOB NO. 2021-450
DATE 12-28-21
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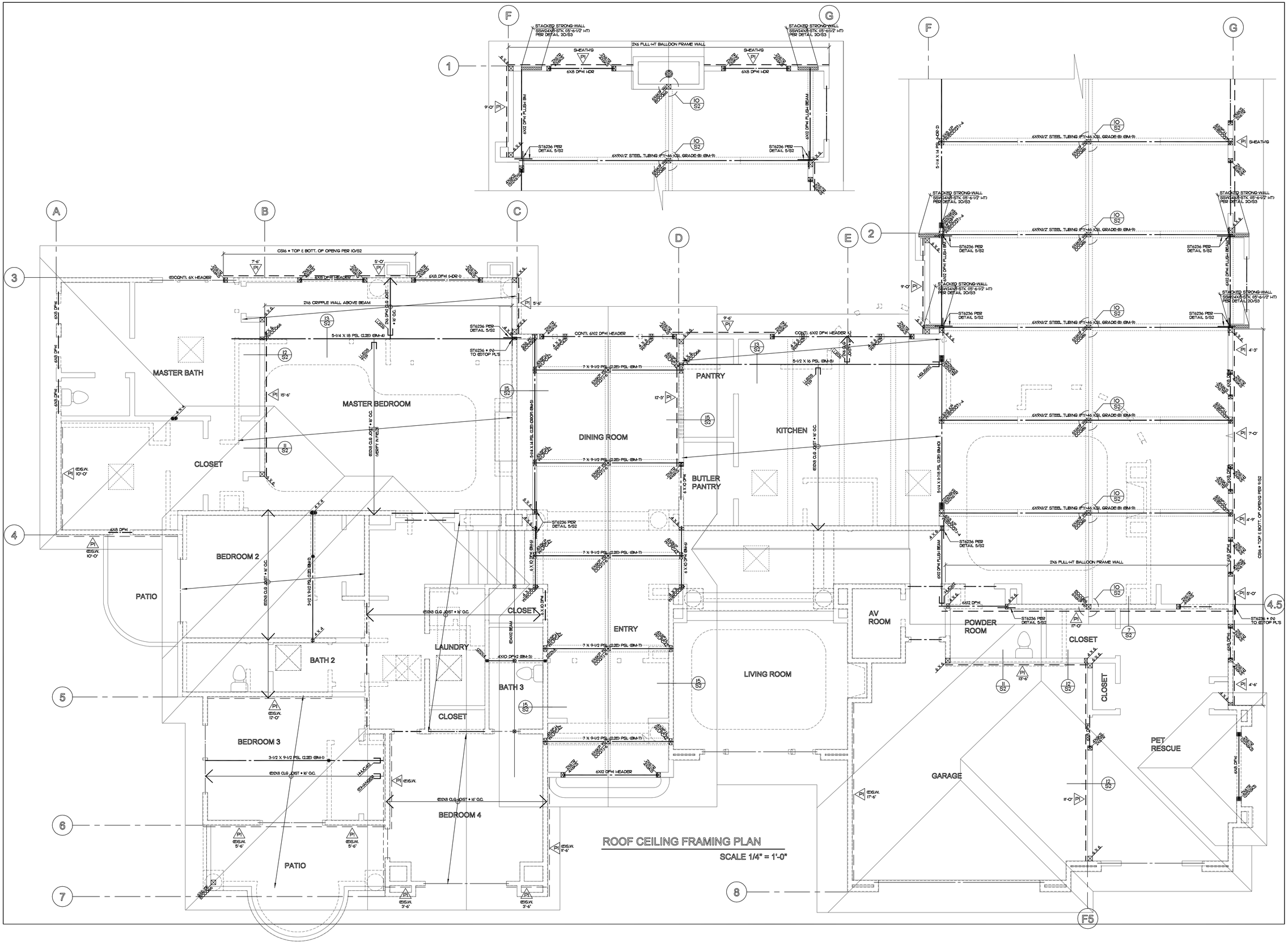
SHEET NUMBER

S5



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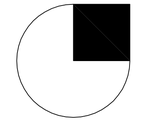

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SHEET TITLE

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SHEET TITLE

ROOF-CEILING FRAMING-PLAN

REVISIONS

JOB NO. 2021-450
DATE 12-28-21
DRAWN: Joe

SHEET NUMBER

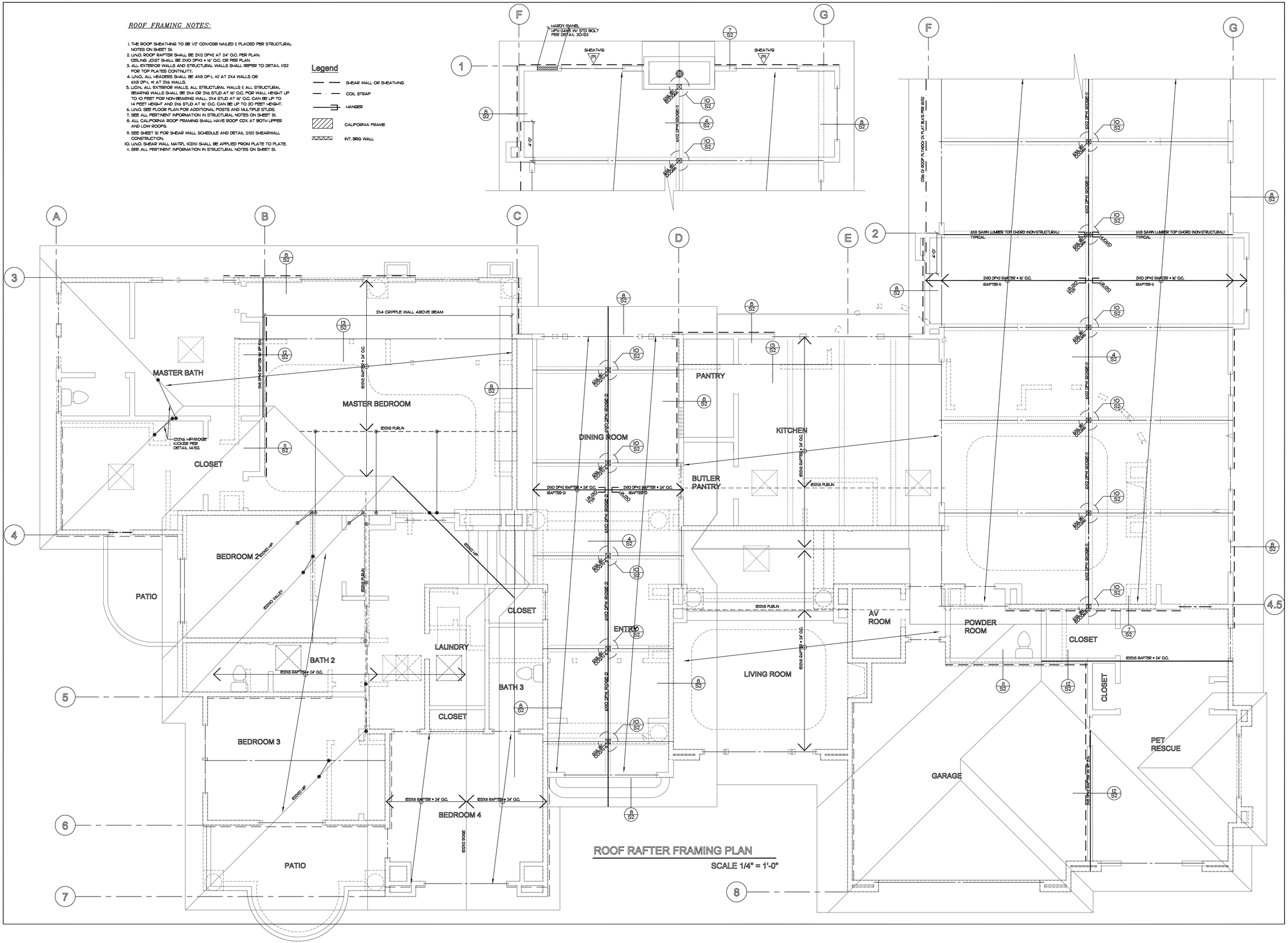
S6

ROOF FRAMING NOTES:

1. THE ROOF SHEATHING TO BE 1/2" CDX/OSB NAILED & PLACED PER STRUCTURAL NOTES ON SHEET S1.
2. U.N.O. ROOF RAFTER SHALL BE 2X12 DF#2 AT 24" O.C. PER PLAN. CEILING JOIST SHALL BE 2X10 DF#2 @ 16" O.C. OR PER PLAN
3. ALL EXTERIOR WALLS AND STRUCTURAL WALLS SHALL REFER TO DETAIL 1/S2 FOR TOP PLATES CONTINUITY.
4. U.N.O., ALL HEADERS SHALL BE 4X8 DF-L #2 AT 2X4 WALLS OR 6X8 DF-L #1 AT 2X6 WALLS.
5. U.O.N., ALL EXTERIOR WALLS, ALL STRUCTURAL WALLS & ALL STRUCTURAL BEARING WALLS SHALL BE 2X4 OR 2X6 STUD AT 16" O.C. FOR WALL HEIGHT UP TO 10 FEET FOR NON-BEARING WALL, 2X4 STUD AT 16" O.C. CAN BE UP TO 14 FEET HEIGHT AND 2X6 STUD AT 16" O.C. CAN BE UP TO 20 FEET HEIGHT.
6. U.N.O. SEE FLOOR PLAN FOR ADDITIONAL POSTS AND MULTIPLE STUDS.
7. SEE ALL PERTINENT INFORMATION IN STRUCTURAL NOTES ON SHEET S1.
8. ALL CALIFORNIA ROOF FRAMING SHALL HAVE ROOF CDX AT BOTH UPPER AND LOW ROOFS.
9. SEE SHEET S1 FOR SHEAR WALL SCHEDULE AND DETAIL 2/S2 SHEARWALL CONSTRUCTION.
10. U.N.O. SHEAR WALL MATRL (CDX) SHALL BE APPLIED FROM PLATE TO PLATE.
11. SEE ALL PERTINENT INFORMATION IN STRUCTURAL NOTES ON SHEET S1.

Legend

- SHEAR WALL OR SHEATHING
- COIL STRAP
- HANGER
- CALIFORNIA FRAME
- INT. BRG WALL



ROOF RAFTER FRAMING PLAN

SCALE 1/4" = 1'-0"

AQX ENGINEERING INC.
6525 CROWN BLVD #41068
SAN JOSE, CA. 95160
TEL. (408)229-3517
www.aqxeng.com

REGISTERED PROFESSIONAL ENGINEER
JIANG XIAO
No. 5289
EXP. 6/30/22
STRUCTURAL
STATE OF CALIFORNIA

12-28-2021

SHEET TITLE

RESIDENTIAL HOUSE
1970 HAYES LANE
SAN MARTIN, CA 95046

SHEET TITLE

ROOF-RAFTER FRAMING-PLAN

REVISIONS

JOB NO. 2021-450
DATE 12-28-21
DRAWN: Joe

SHEET NUMBER

S7

CERTIFICATE OF COMPLIANCE CF1R-PRF-01E
Project Name: DORCICH RESIDENCE **Calculation Date/Time:** 2022-04-03T20:55:50-07:00 **(Page 1 of 17)**
Calculation Description: Title 24 Analysis **Input File Name:** 137293 -MMT-VESS.ribd19x

GENERAL INFORMATION

01	Project Name	DORCICH RESIDENCE			
02	Run Title	Title 24 Analysis			
03	Project Location	1970 HAYES LANE			
04	City	SAN MARTIN	05	Standards Version	2019
06	Zip code	95046	07	Software Version	EnergyPro 8.3
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)	135
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	AdditionAlteration	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	1550	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	6098	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft^2)	7648	19	Glazing Percentage (%)	16.82%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Is Natural Gas Available?	Yes			

COMPLIANCE RESULTS

01	**Building Complies with Computer Performance**
02	**This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.**
03	**This building incorporates one or more Special Features shown below**

ENERGY USE SUMMARY

Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	39.06	36.14	2.92	7.5
Space Cooling	16.49	12.4	4.09	24.8
IAQ Ventilation	2.65	2.65	0	0
Water Heating	4.55	4.11	0.44	9.7
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	**62.75**	**55.3**	**7.45**	**11.9**

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REQUIRED SPECIAL FEATURES

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

- Ducts in crawl space

HERS FEATURE SUMMARY

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

Building-level Verifications:
- Indoor air quality ventilation

Cooling System Verifications:
- Minimum Airflow
- Verified EER
- Fan Efficacy Watts/CFM

Heating System Verifications:
- -- None --

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

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

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	**Conditioned Floor Area (ft^2)**	**Number of Dwelling Units**	**Number of Bedrooms**	**Number of Zones**	**Number of Ventilation Cooling Systems**	**Number of Water Heating Systems**
DORCICH RESIDENCE	7648	1	4	3	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	**Zone Type**	**HVAC System Name**	**Zone Floor Area (ft^2)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Water Heating System 2**
Left Existing	Conditioned	Res HVAC1	3843.21	10	DHW Sys 1	N/A
Rigth Existing	Conditioned	Res HVAC2	2254.79	10	DHW Sys 1	N/A
Addition	Conditioned	Res HVAC2	1550	16	DHW Sys 1	N/A

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OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft^2)**	**Window and Door Area (ft2)**	**Tilt (deg)**	**Wall Exceptions**	**Status**	**Verified Existing Condition**
Left Northeast Wall	Left Existing	Existing Wall	45	Right	170	0	90	none	Existing	No
Left Southwest Wall	Left Existing	Existing Wall	225	Left	610	156	90	none	Existing	No
Left Southeast Wall	Left Existing	Existing Wall	135	Front	485	269.32	90	none	Existing	No
Left Northwest Wall	Left Existing	Existing Wall	315	Back	798	231.5	90	none	Existing	No
Rigth Northeast Wall	Rigth Existing	Existing Wall	45	Right	260	48	90	none	Existing	No
Rigth Southeast Wall	Rigth Existing	Existing Wall	135	Front	170	150.64	90	none	Existing	No
Rigth Northwest Wall	Rigth Existing	Existing Wall	315	Back	265	76	90	none	Existing	No
Add Northeast Wall	Addition	R-21 Wall	45	Right	1040	163	90	none	New	n/a
Add Southwest Wall	Addition	R-21 Wall	225	Left	608	152	90	none	New	n/a
Add Southeast Wall	Addition	R-21 Wall	135	Front	48	0	90	none	New	n/a
Add Northwest Wall	Addition	R-21 Wall	315	Back	710	68	90	none	New	n/a
Interior Surface	Left Existing>>Rigth Existing	R-0 Wall	n/a	n/a	656	0	n/a		Existing	No
Interior Surface 2	Rigth Existing>>__Garage__	R-0 Wall	n/a	n/a	248	0	n/a		Existing	No

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OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft^2)**	**Window and Door Area (ft2)**	**Tilt (deg)**	**Wall Exceptions**	**Status**	**Verified Existing Condition**
Interior Surface 3	Rigth Existing>>Addition	R-0 Wall	n/a	n/a	590	0	n/a		New	n/a
Left Roof 3	Left Existing	Existing Roof	n/a	n/a	3285.21	n/a	n/a		Existing	No
Gar Roof	__Garage__	Existing Garage Roof	n/a	n/a	528	n/a	n/a		Existing	No
Left Raised Floor	Left Existing	Existing Floor Crawlspace	n/a	n/a	3843.21	n/a	n/a		Existing	No
Rigth Raised Floor	Rigth Existing	Existing Floor Crawlspace	n/a	n/a	2254.79	n/a	n/a		Existing	No
Add Raised Floor	Addition	R-19 Floor Crawlspace	n/a	n/a	1550	n/a	n/a		New	n/a
Gar Northeast Wall	__Garage__	Garage Wall	45	Right	18	0	90	none	Existing	No
Gar Southwest Wall	__Garage__	Garage Wall	225	Left	117	0	90	none	Existing	No
Gar Southeast Wall	__Garage__	Garage Wall	135	Front	216	130.64	90	none	Existing	No

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Area (ft^2)**	**Skylight Area (ft^2)**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Cool Roof**	**Status**	**Verified Existing Condition**	**Existing Construction**
Left Roof	Left Existing	Existing Roof1	0	n/a	25.1	25	3	0.1	0.85	No	Existing	No	
Left Roof 2	Left Existing	Existing Roof Rafter	0	n/a	533	0	3	0.1	0.85	No	Existing	No	
Rigth Roof	Rigth Existing	Existing Roof Rafter	0	n/a	2254.79	18.75	3	0.1	0.85	No	Existing	No	
Add Roof	Addition	R-30 Roof Rafter	0	n/a	1550	0	3	0.1	0.85	No	New	n/a	

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01	02	03	04	05	06	07	08	09	10
Name	**Construction**	**Type**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Radiant Barrier**	**Cool Roof**	**Status**	**Verified Existing Condition**
Attic __Garage__	Attic Garage Roof Cons	Ventilated	3	0.1	0.85	No	No	Existing	No
Attic Left Existing	Attic RoofLeft Existing	Ventilated	3	0.1	0.85	No	No	Existing	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**	**Status**	**Verified Existing Condition**
SW Window 38	Window	Left Southwest Wall	Left	225			1	18	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SW Window 39	Window	Left Southwest Wall	Left	225			1	18	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SW Window 40	Window	Left Southwest Wall	Left	225			1	18	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SW Window 45	Window	Left Southwest Wall	Left	225			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SW Glass Doors 27	Window	Left Southwest Wall	Left	225			1	48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SW Glass Doors 31	Window	Left Southwest Wall	Left	225			1	24	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Glass Doors 30	Window	Left Southeast Wall	Front	135			1	85.32	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**	**Status**	**Verified Existing Condition**
SE Windows 1	Window	Left Southeast Wall	Front	135			1	96	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Windows 46-48	Window	Left Southeast Wall	Front	135			1	12	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Windows	Window	Left Southeast Wall	Front	135			1	4	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Glass Doors 64	Window	Left Northwest Wall	Back	315			1	64	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Glass Doors 17	Window	Left Northwest Wall	Back	315			1	48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 34	Window	Left Northwest Wall	Back	315			1	23.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 35	Window	Left Northwest Wall	Back	315			1	23.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows	Window	Left Northwest Wall	Back	315			1	12	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 36	Window	Left Northwest Wall	Back	315			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 37	Window	Left Northwest Wall	Back	315			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**	**Status**	**Verified Existing Condition**
NE Glass Doors 10	Window	Rigth Northeast Wall	Right	45			1	24	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NE Windows 5	Window	Rigth Northeast Wall	Right	45			1	24	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Glass Doors 3	Window	Rigth Southeast Wall	Front	135			1	85.32	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Windows 2	Window	Rigth Southeast Wall	Front	135			1	18.66	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Windows 3	Window	Rigth Southeast Wall	Front	135			1	18.66	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Windows 4	Window	Rigth Southeast Wall	Front	135			1	24	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
SE Windows 6	Window	Rigth Southeast Wall	Front	135			1	4	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 27	Window	Rigth Northwest Wall	Back	315			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 29	Window	Rigth Northwest Wall	Back	315			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
NW Windows 28	Window	Rigth Northwest Wall	Back	315			1	42	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**	**Status**	**Verified Existing Condition**
NW Windows 30	Window	Rigth Northwest Wall	Back	315			1	4	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
Add NE Windows 8	Window	Add Northeast Wall	Right	45			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NE Windows 12	Window	Add Northeast Wall	Right	45			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NE Windows 14	Window	Add Northeast Wall	Right	45			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NE Windows 16	Window	Add Northeast Wall	Right	45			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NE Windows 18	Window	Add Northeast Wall	Right	45			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NE Windows	Window	Add Northeast Wall	Right	45			1	28	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add SW Glass Doors 12	Window	Add Southwest Wall	Left	225			1	136	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add SW Windows 23-26	Window	Add Southwest Wall	Left	225			1	16	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NW Windows	Window	Add Northwest Wall	Back	315			1	8	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft^2)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**	**Status**	**Verified Existing Condition**
Add NW Windows 20	Window	Add Northwest Wall	Back	315			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Add NW Windows 20 2	Window	Add Northwest Wall	Back	315			1	30	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Skylight	Skylight	Left Roof		0			1	25	0.37	NFRC	0.25	NFRC	None	Altered	No
Rigth Skylight	Skylight	Rigth Roof		0			1	18.75	0.37	NFRC	0.25	NFRC	None	Altered	No

OPAQUE DOORS

01	02	03	04	05	06
Name	**Side of Building**	**Area (ft^2)**	**U-factor**	**Status**	**Verified Existing Condition**
SE Door 1	Left Southeast Wall	72	0.2	Altered	No
GarageDoor	Gar Southeast Wall	130.64	1	Existing	No

SLAB FLOORS

01	02	03	04	05	06	07	08	09	10
Name	**Zone**	**Area (ft^2)**	**Perimeter (ft)**	**Edge Insul. R-value and Depth**	**Edge Insul. R-value and Depth**	**Carpeted Fraction**	**Heated**	**Status**	**Verified Existing Condition**
Rigth Slab Floor	Rigth Existing	350	35	none	0	80%	No	Existing	No
Gar Slab Floor	__Garage__	528	58.66	none	0	0%	No	Existing	No

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OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	**Surface Type**	**Construction Type**	**Framing**	**Total Cavity R-value**	**Interior / Exterior Continuous R-value**	**U-factor**	**Assembly Layers**
Garage Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco
Existing Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.101	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Exterior Finish: 3 Coat Stucco
R-21 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco
Existing Roof1	Cathedral Ceilings	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-11	None / None	0.088	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-11 / 2x4 Inside Finish: Gypsum Board
Existing Roof Rafter	Cathedral Ceilings	Wood Framed Ceiling	2x6 @ 16 in. O. C.	R-19	None / None	0.055	Roofing: 10 PSF (RoofTileAirGap) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Inside Finish: Gypsum Board
R-30 Roof Rafter	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.036	Roofing: 10 PSF (RoofTileAirGap) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board

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CERTIFICATE OF COMPLIANCE CF1R-PRF-01E
Project Name: DORCICH RESIDENCE **Calculation Date/Time:** 2022-04-03T20:55:50-07:00 **(Page 12 of 17)**
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BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10
Name	**System Type**	**Distribution Type**	**Water Heater Name (#)**	**Solar Heating System**	**Compact Distribution**	**HERS Verification**	**Status**	**Verified Existing Condition**	**Existing Water Heating System**
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (2)	n/a	None	n/a	Altered	No	

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Heating Element Type**	**Tank Type**	**# of Units**	**Tank Vol. (gal)**	**Energy Factor or Efficiency**	**Input Rating or Pilot**	**Tank Insulation R-value (Int/Ext)**	**Standby Loss or Recovery Eff**	**1st Hr. Rating or Flow Rate**	**NEEA Heat Pump Brand or Model**	**Tank Location or Ambient Condition**	**Status**	**Verified Existing Condition**
DHW Heater 1	Gas	Consumer Instantaneous	2	0	0.95-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	Altered	No

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	**Pipe Insulation**	**Parallel Piping**	**Compact Distribution**	**Compact Distribution Type**	**Recirculation Control**	**Central DHW Distribution**	**Shower Drain Water Heat Recovery**
DHW Sys 1 - 1/2	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

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CERTIFICATE OF COMPLIANCE CF1R-PRF-01E
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SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	**System Type**	**Heating Unit Name**	**Cooling Unit Name**	**Fan Name**	**Distribution Name**	**Required Thermostat Type**	**Status**	**Verified Existing Condition**	**Heating Equipment Count**	**Cooling Equipment Count**
Res HVAC1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	Setback	Altered	No	1	1
Res HVAC2	Heating and cooling system other	Heating Component 2	Cooling Component 2	HVAC Fan 2	Air Distribution System 2	Setback	New	No	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	**System Type**	**Number of Units**	**Heating Efficiency**
Heating Component 1	Central gas furnace	1	AFUE-90
Heating Component 2	Central gas furnace	1	AFUE-90

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	**System Type**	**Number of Units**	**Efficiency EER/CEER**	**Efficiency SEER**	**Zonally Controlled**	**Mulit-speed Compressor**	**HERS Verification**
Cooling Component 1	Central split AC	1	12	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool
Cooling Component 2	Central split AC	1	12	14	Not Zonal	Single Speed	Cooling Component 2-hers-cool

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CERTIFICATE OF COMPLIANCE CF1R-PRF-01E
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HVAC COOLING - HERS VERIFICATION

01	02	03	04	05	06
Name	**Verified Airflow**	**Airflow Target**	**Verified EER**	**Verified SEER**	**Verified Refrigerant Charge**
Cooling Component 1-hers-cool	Not Required	0	Required	Not Required	Not Required
Cooling Component 2-hers-cool	Required	350	Required	Not Required	Not Required

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		**Duct Location**		**Surface Area**								
Name	**Type**	**Design Type**	**Supply**	**Return**	**Supply**	**Return**	**Supply**	**Return**	**Bypass Duct**	**Duct Leakage**	**HERS Verification**	**Status**	**Verified Existing Condition**	**Existing Distribution system**	**New Ducts 40 ft**
Air Distribution System 1	Unconditioned crawl space	Non-Verified	R-6	R-6	Crawl Space	Crawl Space	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distribution System 1-hers-dist	Existing	No	n/a	n/a
Air Distribution System 2	Unconditioned crawl space	Non-Verified	R-6	R-6	Crawl Space	Crawl Space	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 2-hers-dist	New	n/a	n/a	n/a

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HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	**Duct Leakage Verification**	**Duct Leakage Target (%)**	**Verified Duct Location**	**Verified Duct Design**	**Buried Ducts**	**Deeply Buried Ducts**	**Low-leakage Air Handler**	**Low Leakage Ducts Entirely in Conditioned Space**
Air Distribution System 2-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No

HVAC - FAN SYSTEMS

01	02	03	04
Name	**Type**	**Fan Power (Watts/CFM)**	**Name**
HVAC Fan 1	HVAC Fan	0.45	HVAC Fan 1-hers-fan
HVAC Fan 2	HVAC Fan	0.45	HVAC Fan 2-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	**Verified Fan Watt Draw**	**Required Fan Efficacy (Watts/CFM)**
HVAC Fan 1-hers-fan	Required	0.45
HVAC Fan 2-hers-fan	Required	0.45

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06	07
Dwelling Unit	**IAQ CFM**	**IAQ Watts/CFM**	**IAQ Fan Type**	**IAQ Recovery Effectiveness - SRE**	**IAQ Recovery Effectiveness - ASRE**	**HERS Verification**
SFam IAQVentRpt	238	0.35	Exhaust	n/a	n/a	Yes

HERS RATER VERIFICATION OF EXISTING CONDITIONS

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PROJECT NOTES

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Calculation Description: Title 24 Analysis **Input File Name:** 137293 -MMT-VESS.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Minerva Topete	Documentation Author Signature: Minerva Topete
Company: Title 24 Data Corp	Signature Date: 04/03/2022
Address: 633 Monterey Trail	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Frazier Park, CA 93255	Phone: 661-245-6372

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Designer Name: Thanh Vess	Responsible Designer Signature: Thanh Vess
Company: T.Vess Interiors	Date Signed: 04/03/2022
Address: PO Box 1377	License:
City/State/Zip: Campbell, CA 95009	Phone: 4088139376

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

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T.Vess Interiors
www.tvessinteriors.com

Designer
Address
Phone
e-mail

Consultant
Address
Address
Phone
Fax
e-mail

Consultant
Address
Address
Phone
Fax
e-mail

Consultant THANH T. VESS
Address P.O. BOX 1377
Address CAMPBELL, CA 95008
Phone 408.813.9376
Fax TV@TVESSINTERIORS.COM
e-mail

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CF1R

Date 05.06.22
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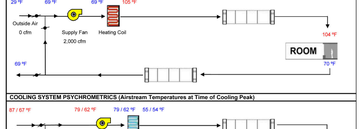
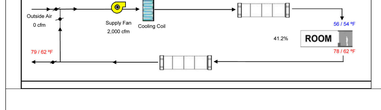
T24.1

Scale





2019 Low-Rise Residential Mandatory Measures Summary

*NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.*
(01/2020)

Building Envelope Measures:

§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped.*
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.

§ 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 (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.*
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Pressure drops and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)2C:	**Interior Switches and Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	**Interior Switches and Controls.** Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	**Interior Switches and Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	**Interior Switches and Controls.** Lighting controls must comply with the applicable requirements of § 110.9.

2019 Low-Rise Residential Mandatory Measures Summary

§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name DORCICH RESIDENCE	Date 3/29/2022
System Name Res HVAC	Floor Area 3,843

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	72,000
Total Output (Btuh)	72,000
Output (Btuh/sqft)	18.7
Cooling System	
Output per System	60,000
Total Output (Btuh)	60,000
Total Output (Tons)	5.0
Total Output (Btuh/sqft)	15.6
Total Output (sqft/Ton)	768.6
Air System	
CFM per System	2,000
Airflow (cfm)	2,000
Airflow (cfm/sqft)	0.52
Airflow (cfm/Ton)	400.0
Outside Air (%)	0.0%
Outside Air (cfm/sqft)	0.00

Note: values above given at ARI conditions

SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	1,721	41,482	1,417	1,720	61,889
Return Vented Lighting		0			
Return Air Ducts		1,300			3,371
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		1,300			3,371
TOTAL SYSTEM LOAD		44,083	1,417		68,631

HVAC EQUIPMENT SELECTION

New FAU/AC (5 Ton) @Left	49,267	8,720		72,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	49,267	8,720		72,000
TIME OF SYSTEM PEAK		Aug 3 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)

COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name DORCICH RESIDENCE	Date 3/29/2022
System Name Res HVAC	Floor Area 3,805

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	65,000
Total Output (Btuh)	65,000
Output (Btuh/sqft)	17.1
Cooling System	
Output per System	64,000
Total Output (Btuh)	64,000
Total Output (Tons)	5.3
Total Output (Btuh/sqft)	16.8
Total Output (sqft/Ton)	713.4
Air System	
CFM per System	2,000
Airflow (cfm)	2,000
Airflow (cfm/sqft)	0.53
Airflow (cfm/Ton)	375.0
Outside Air (%)	0.0%
Outside Air (cfm/sqft)	0.00

Note: values above given at ARI conditions

SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	1,670	40,291	1,403	1,487	53,831
Return Vented Lighting		0			
Return Air Ducts		1,263			2,932
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		1,263			2,932
TOTAL SYSTEM LOAD		42,817	1,403		59,695

HVAC EQUIPMENT SELECTION

New FAU/AC (5 Ton) @Right	52,714	9,133		65,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	52,714	9,133		65,000
TIME OF SYSTEM PEAK		Aug 3 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)

COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)

ROOM HEATING PEAK LOADS

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Left Existing*	Time of Peak	*Jan 1 AM*
Floor Area	*3,843.21 ft²*	Outdoor Dry Bulb Temperature	*29 °F*
Indoor Dry Bulb Temperature	*70 °F*		

Conduction	Area		U-Value		ΔT °F		Btu/hr
Existing Floor Crawlspace	*3,843.2*	X	*0.1964*	X	*41*	=	*30,951*
Existing Wall	*1,406.2*	X	*0.1081*	X	*41*	=	*6,233*
New Windows/Doors	*584.8*	X	*0.3000*	X	*41*	=	*7,193*
Wood Door	*72.0*	X	*0.2000*	X	*41*	=	*590*
**R-0 Wall*	*656.0*	X	*0.6459*	X	*0*	=	*0*
Existing Roof Rafter	*3,818.2*	X	*0.0541*	X	*41*	=	*8,462*
Velux Skylight	*25.0*	X	*0.3700*	X	*41*	=	*379*

Items shown with an asterisk (*) denote conduction through an interior surface to another room — **Page Total** *53,808*

Infiltration: [*1.00* (Schedule Fraction) X *1.077* (Air Sensible) X *3,843* (Area) X *10.00* (Ceiling Height) X *0.286* (ACH) / 60] X *41* (ΔT) = *8,081*

TOTAL HOURLY HEAT LOSS FOR ROOM *61,889*

ROOM HEATING PEAK LOADS

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Rigth Existing*	Time of Peak	*Jan 1 AM*
Floor Area	*2,254.79 ft²*	Outdoor Dry Bulb Temperature	*29 °F*
Indoor Dry Bulb Temperature	*70 °F*		

Conduction	Area		U-Value		ΔT °F		Btu/hr
Slab-On-Grade	*perim = 35.0*	X	*0.7300*	X	*41*	=	*1,048*
Existing Floor Crawlspace	*2,254.8*	X	*0.1964*	X	*41*	=	*18,159*
Existing Wall	*420.4*	X	*0.1081*	X	*41*	=	*1,863*
New Windows/Doors	*274.6*	X	*0.3000*	X	*41*	=	*3,378*
**R-0 Wall*	*838.0*	X	*0.6459*	X	*0*	=	*0*
Existing Roof Rafter	*2,236.0*	X	*0.0541*	X	*41*	=	*4,955*
Velux Skylight	*18.8*	X	*0.3700*	X	*41*	=	*284*

Items shown with an asterisk (*) denote conduction through an interior surface to another room — **Page Total** *29,687*

Infiltration: [*1.00* (Schedule Fraction) X *1.077* (Air Sensible) X *2,255* (Area) X *10.00* (Ceiling Height) X *0.286* (ACH) / 60] X *41* (ΔT) = *4,741*

TOTAL HOURLY HEAT LOSS FOR ROOM *34,428*

ROOM HEATING PEAK LOADS

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Addition*	Time of Peak	*Jan 1 AM*
Floor Area	*1,550.00 ft²*	Outdoor Dry Bulb Temperature	*29 °F*
Indoor Dry Bulb Temperature	*70 °F*		

Conduction	Area		U-Value		ΔT °F		Btu/hr
R-19 Floor Crawlspace	*1,550.0*	X	*0.0493*	X	*41*	=	*3,130*
R-21 Wall	*2,023.0*	X	*0.0725*	X	*41*	=	*6,011*
New Windows/Doors	*383.0*	X	*0.3000*	X	*41*	=	*4,711*
R-30 Roof Rafter	*1,550.0*	X	*0.0361*	X	*41*	=	*2,292*

Items shown with an asterisk (*) denote conduction through an interior surface to another room — **Page Total** *16,144*

Infiltration: [*1.00* (Schedule Fraction) X *1.077* (Air Sensible) X *1,550* (Area) X *16.00* (Ceiling Height) X *0.179* (ACH) / 60] X *41* (ΔT) = *3,259*

TOTAL HOURLY HEAT LOSS FOR ROOM *19,403*

RESIDENTIAL ROOM COOLING LOAD SUMMARY

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Left Existing*	Outdoor Dry Bulb Temperature	*87 °F*
Floor Area	*3,843.21 ft²*	Outdoor Wet Bulb Temperature	*67 °F*
Indoor Dry Bulb Temperature	*78 °F*	Outdoor Daily Range:	*30 °F*

Opaque Surfaces	Orientation	Area		U-Factor		CLTD[1]		Btu/hr

Page Total *0*

Items shown with an asterisk (*) denote conduction through an interior surface to another room.
1. Cooling Load Temperature Difference (CLTD)

Fenestration	Orientation	Shaded Area		Shaded GLF		Unshaded Area		Unshaded GLF		Btu/hr
SE Windows	*(SE)*	*0.0*	X	*9.5*	+	*4.0*	X	*19.4*	=	*77*
NW Glass Doors 64	*(NW)*	*0.0*	X	*9.5*	+	*64.0*	X	*17.3*	=	*1,110*
NW Glass Doors 17	*(NW)*	*0.0*	X	*9.5*	+	*48.0*	X	*17.3*	=	*832*
NW Windows 34	*(NW)*	*0.0*	X	*9.5*	+	*23.8*	X	*17.3*	=	*412*
NW Windows 35	*(NW)*	*0.0*	X	*9.5*	+	*23.8*	X	*17.3*	=	*412*
NW Windows	*(NW)*	*0.0*	X	*9.5*	+	*12.0*	X	*17.3*	=	*208*
NW Windows 36	*(NW)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
NW Windows 37	*(NW)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
Skylight	*(N)*	*0.0*	X	*10.2*	+	*25.0*	X	*45.3*	=	*1,132*

Page Total *5,224*

Internal Gain (Btu/hr)
Occupants *11.5* Occupants X *245* Btuh/occ. = *2,825*
Equipment *3,843* Floor Area X *1.00* w/sqft = *13,117*
Infiltration: *1.077* (Air Sensible) X *0.60* (CFM) X *197.54* (ELA) X *9* (ΔT) = *1,148*

TOTAL HOURLY SENSIBLE HEAT GAIN FOR ROOM *41,482*

Latent Gain (Btu/hr)
Occupants *11.5* Occupants X *155* Btuh/occ. = *1,787*
Infiltration: *4,826* (Air Latent) X *0.60* (CFM) X *197.54* (ELA) X *-0.00065* (ΔW) = *-370*

TOTAL HOURLY LATENT HEAT GAIN FOR ROOM *1,417*

RESIDENTIAL ROOM COOLING LOAD SUMMARY

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Rigth Existing*	Outdoor Dry Bulb Temperature	*87 °F*
Floor Area	*2,254.79 ft²*	Outdoor Wet Bulb Temperature	*67 °F*
Indoor Dry Bulb Temperature	*78 °F*	Outdoor Daily Range:	*30 °F*

Opaque Surfaces	Orientation	Area		U-Factor		CLTD[1]		Btu/hr
Existing Floor Crawlspace		*2,254.8*	X	*0.1964*	X	*4.0*	=	*1,772*
Existing Wall	*(NE)*	*212.0*	X	*0.1081*	X	*9.0*	=	*206*
Existing Wall	*(SE)*	*19.4*	X	*0.1081*	X	*11.0*	=	*23*
Existing Wall	*(NW)*	*189.0*	X	*0.1081*	X	*10.2*	=	*209*
**R-0 Wall*		*838.0*	X	*0.6459*	X	*0.0*	=	*0*
Existing Roof Rafter	*(N)*	*2,236.0*	X	*0.0541*	X	*37.0*	=	*4,472*

Page Total *6,682*

Items shown with an asterisk (*) denote conduction through an interior surface to another room.
1. Cooling Load Temperature Difference (CLTD)

Fenestration	Orientation	Shaded Area		Shaded GLF		Unshaded Area		Unshaded GLF		Btu/hr
NE Glass Doors 10	*(NE)*	*0.0*	X	*9.5*	+	*24.0*	X	*17.3*	=	*416*
NE Windows 5	*(NE)*	*0.0*	X	*9.5*	+	*24.0*	X	*17.3*	=	*416*
SE Glass Doors 3	*(SE)*	*0.0*	X	*9.5*	+	*85.3*	X	*19.4*	=	*1,653*
SE Windows 2	*(SE)*	*0.0*	X	*9.5*	+	*18.7*	X	*19.4*	=	*361*
SE Windows 3	*(SE)*	*0.0*	X	*9.5*	+	*18.7*	X	*19.4*	=	*361*
SE Windows 4	*(SE)*	*0.0*	X	*9.5*	+	*24.0*	X	*19.4*	=	*465*
SE Windows 6	*(SE)*	*0.0*	X	*9.5*	+	*4.0*	X	*19.4*	=	*77*
NW Windows 27	*(NW)*	*0.0*	X	*9.5*	+	*15.0*	X	*17.3*	=	*260*
NW Windows 29	*(NW)*	*0.0*	X	*9.5*	+	*15.0*	X	*17.3*	=	*260*

Page Total *4,270*

Internal Gain (Btu/hr)
Occupants *6.8* Occupants X *245* Btuh/occ. = *1,657*
Equipment *2,255* Floor Area X *1.00* w/sqft = *7,696*
Infiltration: *1.077* (Air Sensible) X *0.60* (CFM) X *115.90* (ELA) X *9* (ΔT) = *674*

TOTAL HOURLY SENSIBLE HEAT GAIN FOR ROOM *22,625*

Latent Gain (Btu/hr)
Occupants *6.8* Occupants X *155* Btuh/occ. = *1,048*
Infiltration: *4,826* (Air Latent) X *0.60* (CFM) X *115.90* (ELA) X *-0.00065* (ΔW) = *-217*

TOTAL HOURLY LATENT HEAT GAIN FOR ROOM *831*

RESIDENTIAL ROOM COOLING LOAD SUMMARY

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Rigth Existing*	Outdoor Dry Bulb Temperature	*87 °F*
Floor Area	*2,254.79 ft²*	Outdoor Wet Bulb Temperature	*67 °F*
Indoor Dry Bulb Temperature	*78 °F*	Outdoor Daily Range:	*30 °F*

Opaque Surfaces	Orientation	Area		U-Factor		CLTD[1]		Btu/hr

Page Total *0*

Items shown with an asterisk (*) denote conduction through an interior surface to another room.
1. Cooling Load Temperature Difference (CLTD)

Fenestration	Orientation	Shaded Area		Shaded GLF		Unshaded Area		Unshaded GLF		Btu/hr
NW Windows 28	*(NW)*	*0.0*	X	*9.5*	+	*42.0*	X	*17.3*	=	*728*
NW Windows 30	*(NW)*	*0.0*	X	*9.5*	+	*4.0*	X	*17.3*	=	*69*
Rigth Skylight	*(N)*	*0.0*	X	*10.2*	+	*18.8*	X	*45.3*	=	*849*

Page Total *1,647*

Internal Gain (Btu/hr)
Occupants *6.8* Occupants X *245* Btuh/occ. = *1,657*
Equipment *2,255* Floor Area X *1.00* w/sqft = *7,696*
Infiltration: *1.077* (Air Sensible) X *0.60* (CFM) X *115.90* (ELA) X *9* (ΔT) = *674*

TOTAL HOURLY SENSIBLE HEAT GAIN FOR ROOM *22,625*

Latent Gain (Btu/hr)
Occupants *6.8* Occupants X *155* Btuh/occ. = *1,048*
Infiltration: *4,826* (Air Latent) X *0.60* (CFM) X *115.90* (ELA) X *-0.00065* (ΔW) = *-217*

TOTAL HOURLY LATENT HEAT GAIN FOR ROOM *831*

RESIDENTIAL ROOM COOLING LOAD SUMMARY

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Addition*	Outdoor Dry Bulb Temperature	*87 °F*
Floor Area	*1,550.00 ft²*	Outdoor Wet Bulb Temperature	*67 °F*
Indoor Dry Bulb Temperature	*78 °F*	Outdoor Daily Range:	*30 °F*

Opaque Surfaces	Orientation	Area		U-Factor		CLTD[1]		Btu/hr
R-19 Floor Crawlspace		*1,550.0*	X	*0.0493*	X	*4.0*	=	*305*
R-21 Wall	*(NE)*	*877.0*	X	*0.0725*	X	*9.0*	=	*572*
R-21 Wall	*(SW)*	*456.0*	X	*0.0725*	X	*11.0*	=	*364*
R-21 Wall	*(SE)*	*48.0*	X	*0.0725*	X	*11.0*	=	*38*
R-21 Wall	*(NW)*	*642.0*	X	*0.0725*	X	*10.2*	=	*476*
R-30 Roof Rafter	*(N)*	*1,550.0*	X	*0.0361*	X	*37.0*	=	*2,068*

Page Total *3,824*

Items shown with an asterisk (*) denote conduction through an interior surface to another room.
1. Cooling Load Temperature Difference (CLTD)

Fenestration	Orientation	Shaded Area		Shaded GLF		Unshaded Area		Unshaded GLF		Btu/hr
Add NE Windows 8	*(NE)*	*0.0*	X	*9.5*	+	*15.0*	X	*17.3*	=	*260*
Add NE Windows 12	*(NE)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
Add NE Windows 14	*(NE)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
Add NE Windows 16	*(NE)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
Add NE Windows 18	*(NE)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
Add NE Windows	*(NE)*	*0.0*	X	*9.5*	+	*28.0*	X	*17.3*	=	*486*
Add SW Glass Doors 12	*(SW)*	*0.0*	X	*9.5*	+	*136.0*	X	*19.4*	=	*2,634*
Add SW Windows 23-26	*(SW)*	*0.0*	X	*9.5*	+	*16.0*	X	*19.4*	=	*310*
Add NW Windows	*(NW)*	*0.0*	X	*9.5*	+	*8.0*	X	*17.3*	=	*139*

Page Total *5,909*

Internal Gain (Btu/hr)
Occupants *4.6* Occupants X *245* Btuh/occ. = *1,139*
Equipment *1,550* Floor Area X *1.00* w/sqft = *5,290*
Infiltration: *1.077* (Air Sensible) X *0.60* (CFM) X *79.67* (ELA) X *9* (ΔT) = *463*

TOTAL HOURLY SENSIBLE HEAT GAIN FOR ROOM *17,666*

Latent Gain (Btu/hr)
Occupants *4.6* Occupants X *155* Btuh/occ. = *721*
Infiltration: *4,826* (Air Latent) X *0.60* (CFM) X *79.67* (ELA) X *-0.00065* (ΔW) = *-149*

TOTAL HOURLY LATENT HEAT GAIN FOR ROOM *572*

RESIDENTIAL ROOM COOLING LOAD SUMMARY

Project Name *DORCICH RESIDENCE*	Date *3/29/2022*

ROOM INFORMATION		DESIGN CONDITIONS	
Room Name	*Addition*	Outdoor Dry Bulb Temperature	*87 °F*
Floor Area	*1,550.00 ft²*	Outdoor Wet Bulb Temperature	*67 °F*
Indoor Dry Bulb Temperature	*78 °F*	Outdoor Daily Range:	*30 °F*

Opaque Surfaces	Orientation	Area		U-Factor		CLTD[1]		Btu/hr

Page Total *0*

Items shown with an asterisk (*) denote conduction through an interior surface to another room.
1. Cooling Load Temperature Difference (CLTD)

Fenestration	Orientation	Shaded Area		Shaded GLF		Unshaded Area		Unshaded GLF		Btu/hr
Add NW Windows 20	*(NW)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*
Add NW Windows 20	*(NW)*	*0.0*	X	*9.5*	+	*30.0*	X	*17.3*	=	*520*

Page Total *1,040*

Internal Gain (Btu/hr)
Occupants *4.6* Occupants X *245* Btuh/occ. = *1,139*
Equipment *1,550* Floor Area X *1.00* w/sqft = *5,290*
Infiltration: *1.077* (Air Sensible) X *0.60* (CFM) X *79.67* (ELA) X *9* (ΔT) = *463*

TOTAL HOURLY SENSIBLE HEAT GAIN FOR ROOM *17,666*

Latent Gain (Btu/hr)
Occupants *4.6* Occupants X *155* Btuh/occ. = *721*
Infiltration: *4,826* (Air Latent) X *0.60* (CFM) X *79.67* (ELA) X *-0.00065* (ΔW) = *-149*

TOTAL HOURLY LATENT HEAT GAIN FOR ROOM *572*

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