ZONING ADMINISTRATOR AGENDA REPORT

Meeting Date: March 4, 2024

From: Jeremiah Robbins, Associate Planner

Subject: **80 Lily Court; 2024-MM-1;** PD Planned Development; A minor modification to the Design Permit for the Northeast Ridge to allow the enclosure of the rear deck to add approximately 215 square feet of living space to an existing home; and finding the project to be exempt from CEQA per CEQA Guidelines Sections 15301(e); Alexander Gorer, applicant and owner.

REQUEST: The applicant requests approval of a Minor Modification to Design Permit DP-2-89 for the above-referenced residence at the Landmark at the Ridge, a planned development to permit the enclosure of the rear deck allowing for a 215 square-foot addition to the rear of the home.

RECOMMENDATION: Approve 2024-MM-1 per the staff memorandum with attachments, including the findings and conditions of approval.

ENVIRONMENTAL DETERMINATION: The project is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) per Section 15301(e) - this project falls within classes of projects which the State has determined not to have a significant effect on the environment. The exceptions to this categorical exemption referenced in Section 15300.2 of the CEQA Guidelines do not apply.

APPLICABLE CODE SECTIONS: Brisbane Municipal Code (BMC) §17.28.120, 17.42.070, and 17.56.090. Additionally, the Vesting Tentative Map Resolution VTM-1-03, for the planned development, Condition "f" provides that minor modifications may be approved by the Planning Director, who acts as the Zoning Administrator

ANALYSIS AND FINDINGS:

Project Description

The subject property is an upslope lot at the intersection of Lily Court and Silverspot Drive and is approximately 8,000 square feet in size. The home is U-shaped with a square, open-air deck occupying the gap between the footprint of the home. The proposed project would enclose the entire deck, expanding the home by 215 square feet. The addition would match the existing orange-tan stucco finish and red-clay concrete roof tiles.

Findings

The findings required for issuance of a design permit are provided in BMC §17.42.040. A detailed analysis for all findings is provided in Attachment A and a summary of how the proposal meets applicable finding follows.

The proposal's scale, form and proportion, are harmonious, and the materials and colors used complement the project.

The scale of the house will not be significantly changed by the addition, the modification would increase the lot coverage and floor area ratio by about seven percent (Attachment C, and neither the height nor the existing setbacks will be changed. The design components, as shown on the plan set (Attachment E), are harmonious to the overall appearance and would not significantly alter the architecture and remain in scale with the surrounding homes in the immediate vicinity.

The homeowners association has approved the proposed plans, as indicated on the attached letter.

The orientation and location of buildings, structures, open spaces and other features integrate well with each other and maintain a compatible relationship to adjacent development.

The location of the addition is infill of the existing footprint of the home. As described above, is compatible with adjacent development in that the design components are harmonious to the overall appearance, the proposal would not significantly alter the architecture and remain in scale with the surrounding homes in the immediate vicinity, and the proposal is comparable in type and scale to past minor modifications to enclose rear decks on U-shaped homes.

Proposed buildings and structures are designed and located to mitigate potential impacts to adjacent land uses.

As discussed above, the project is compatible with adjacent residential land uses.

For hillside development, the proposal respects the topography of the site and is designed to minimize its visual impact. Significant public views of San Francisco Bay, the Brisbane Lagoon and San Bruno Mountain State and County Park are preserved.

The proposal does not change the topography of the site and is designed to minimize its visual impact by matching the height and footprint of the existing structure.

Consideration has been given to avoiding off-site glare from lighting and reflective building materials.

Proposed building materials consist of orange-tan stucco and red-clay concrete roof tile, with no reflective elements. Any exterior lighting must be downlit and fully shielded per condition of approval 2.a.

ATTACHMENTS

A. Draft findings and conditions of approval

B. Aerial vicinity map
C. Project data table
D. HOA approval letter
E. Applicant's plans

Jeremiah Robbins

Jeremiah Robbins, Associate Planner

2024-MM-1
80 Lily Court

Action Taken: Conditionally approve 2024-MM-1 per the staff memorandum for the Zoning Administrator hearing of March 4, 2024 subject to the following findings and conditions of approval.

2024-MM-1 Findings of Approval:

A. As no land use changes are proposed, the project is consistent with the General Plan and governing planned development permit for the Northeast Ridge.

B. The proposed addition maintains a balance of scale, form, and proportion and uses design components that are harmonious.

The scale of the house will not be significantly changed by the addition and neither the height nor the existing setbacks will be changed. The floor area of the home is approximately 2,170 square feet and enclosing the existing deck at the rear of the house would increase that to approximately 2,352 square feet; the modification would increase the lot coverage and floor area ratio by about seven percent. Of note, there are no zoning provisions for this PD district that regulate development standards such as lot coverage, floor area ratio, setbacks, and height.

The design components, as shown on the plan set, are harmonious to the overall appearance. The color palette and finish materials are complementary to the existing stucco and concrete tile roof exterior of the home – orange-tan stucco and red-clay roof tiles – and existing windows will be relocated to the area of the addition. The proposal would not significantly alter the architecture and remain in scale with the surrounding homes in the immediate vicinity. Note that this application is also comparable in type and scale to the minor modifications approved for 10 Lily Court in 2007, 56 Golden Aster Court in 2010, and 77 Golden Aster Court in 2014, to enclose rear decks on U-shaped homes.

The homeowners association has approved the proposed plans, as indicated on the attached letter.

C. The orientation and location of buildings, structures, open spaces and other features integrate well with each other and maintain a compatible relationship to adjacent development.

The location of the addition is infill of the existing footprint of the home. As described above, is compatible with adjacent development in that the design components are harmonious to the overall appearance, the proposal would not significantly alter the architecture and remain in scale with the surrounding homes in the immediate vicinity, and the proposal is comparable in type and scale to past minor modifications to enclose rear decks on U-shaped homes.

D. Proposed buildings and structures are designed and located to mitigate potential impacts to adjacent land uses.

Because the location of the addition is infill within the existing footprint of the home and, as described in detail in Finding B, the design is harmonious to the existing structure, the project would remain compatible with adjacent residential land uses.

E. The project design takes advantage of natural heating and cooling opportunities through building placement, landscaping and building design to the extent practicable, given site constraints, to promote sustainable development and to address long term affordability.

Because this is a minor modification to an existing home, there are limited opportunities to enhance the existing natural heating and cooling; this finding is inapplicable.

F. For hillside development, the proposal respects the topography of the site and is designed to minimize its visual impact. Significant public views of San Francisco Bay, the Brisbane Lagoon and San Bruno Mountain State and County Park are preserved.

The proposal does not change the topography of the site and is designed to minimize its visual impact by matching the height and footprint of the existing structure.

G. The site plan minimizes the effects of traffic on abutting streets through careful layout of the site with respect to location, dimensions of vehicular and pedestrian entrances and exit drives, and through the provision of adequate off-street parking. There is an adequate circulation pattern within the boundaries of the development. Parking facilities are adequately surfaced, landscaped and lit.

Because the project is limited to a small addition to an existing single-family home, the proposal will have no impact to adjacent streets, traffic, or circulation generally to the site or within the Northeast Ridge development.

H. The proposal encourages alternatives to travel by automobile where appropriate, through the provision of facilities for pedestrians and bicycles, public transit stops and access to other means of transportation.

As a minor modification to an existing structure, there is no impact to site access and the proposal will not affect automobile transportation or transportation alternatives.

I. The site provides open areas and landscaping to complement the buildings and structures. Landscaping is also used to separate and screen service and storage areas, break up expanses of paved area and define areas for usability and privacy. Landscaping is generally water conserving and is appropriate to the location. Attention is given to habitat protection and wildland fire hazard as appropriate.

The addition would not result in removal of planted landscaping, complements the architecture of the existing building, and fits with the surrounding landscape. There is no expansion of landscaping proposed, and therefore, no impact to adjacent conserved Habitat Conservation Plan habitat or established wildland fire buffer areas incorporated into the Northeast Ridge's built environment.

J. The proposal takes reasonable measures to protect against external and internal noise.

Because the project is limited to improvement of an existing structure in an established residential district, there are no long-term impacts to existing interior or exterior noise levels anticipated. Project construction shall conform to the noise limits and allowable days and times established under BMC Chapter 8.28.

K. Consideration has been given to avoiding off-site glare from lighting and reflective building materials.

Proposed building materials consist of stucco and concrete roof tile, with no reflective elements. Any exterior lighting must be downlit and fully shielded per condition of approval 2.a.

L. Attention is given to the screening of utility structures, mechanical equipment, trash containers and rooftop equipment.

Not applicable; no new utility structures, mechanical equipment, trash containers, nor rooftop equipment is proposed.

M. Signage is appropriate in location, scale, type and color, and is effective in enhancing the design concept of the site.

There is no signage associated with this project; this finding is inapplicable.

N. Provisions have been made to meet the needs of employees for outdoor space.

There are no employees on this residential property; this finding is inapplicable.

2024-MM-1 Conditions of Approval:

1. Homeowners Association approval is required. Any substantive deviations from the plans approved in this application shall be accompanied by Homeowner's Association authorization submitted with the building permit.
2. A Building Permit shall be obtained from the City of Brisbane and shall address the following:
    a. All exterior lighting shall be downlit and fully shielded to prevent off-site light trespass and glare.
    b. Per the Fire Dept., the building permit application shall indicate the total floor area of the home, existing and proposed. As part of the building permit, fire sprinklers shall be extended to provide protection within the new addition.
    c. All exterior surfaces and materials, including, but not limited to, windows, roofing, and cladding are to match existing.
    d. Illustrations, cut sheets and/or materials samples will be required by the Community Development Director, at his discretion.
3. This Minor Modification shall expire two years from its effective date (at the end of the appeal period) if a Building Permit has not been issued for the approved project or if the Building Permit, once issued, is allowed to expire prior to final inspection.

4. Minor modifications may be approved by the Community Development Director in conformance will all requirements of the Brisbane Municipal Code.

Aerial Vicinity Map: 80 Lily Court

Project Data

Development Standard	Existing	Proposed
Lot Size	7,921 SF	n/a
Lot Coverage	2,940 SF ft/37%	3,135 SF/40% (138 sq ft increase)
Floor Area Ratio	2,940 SF ft/0.37 FAR	3,135 SF/.40 FAR
(Rear) Setback	~23 feet	No change
Height	~18 feet, 7 inches	No change
Parking	n/a	No change

LANDMARK AT THE RIDGE OWNER'S ASSOCIATION

December 12, 2023

Alexander & Alona Gorer
80 Lily Court
Brisbane, CA 94005

Re: Architectural application – 80 Lily Court - Approved

Dear Homeowner:

The Landmark at the Ridge Owner's Association Board of Directors has reviewed a set of plans submitted by you for the following improvement at your home:

Description of Improvements desired - give full details of type and extent of improvements, materials, colors, and location on the Lot.

Converting Deck into living Room

Based on the plans submitted and other information, the above improvement was **approved** by this association. This approval is contingent on the following:

- You must comply with the requirement that the addition be architecturally consistent with the existing house.
- Your contractor must hold a valid California Contractors License and must maintain Liability and Workers Comp Insurance for the duration of the project; and
- Any changes to the approved plans must be submitted to the Board before they are made.

Please submit a copy of this letter with any application you submit to the city. If you have any questions about this action, please contact us at 650-637-1616 or by email at CS@manorinc.com.

Regards,

The Manor Association, Inc.
On behalf of the Landmark at the Ridge Owner's Association Board of Directors

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ON SITE ALL GRADES, EXISTING IMPROVEMENTS, PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES AND SUBSTRUCTURES. WHERE DISCREPANCIES OCCUR, CONTACT THE DESIGNER. WORK IS NOT TO CONTINUE UNTIL PROBLEMS ARE RESOLVED.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE SITE AND PLANS OF THIS WORK. HE SHALL CLARIFY WITH THE DESIGNER AND OWNER, ALL POINTS OF MISUNDERSTANDING PRIOR TO SUBMITTING A BID. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED WORK.
3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AS SHOWN ON THESE PLANS. IF THERE ARE DISCREPANCIES WORK SHALL NOT PROCEED UNTIL THE ENGINEER OF RECORD AND/OR DESIGNER HAVE BEEN NOTIFIED.
4. BUILDING CODES:

   ALL NEW CONSTRUCTION SHALL MEET OR EXCEED THE LATEST ADDITION OF CODES ADOPTED BY LOCAL GOVERNING AGENCIES. THESE INCLUDE (BUT ARE NOT LIMITED TO)
   2022 CALIFORNIA BUILDING CODE,
   2022 CALIFORNIA RESIDENTIAL CODE,
   2022 CALIFORNIA PLUMBING CODE,
   2022 CALIFORNIA MECHANICAL CODE,
   2022 ELECTRICAL CODE,
   2022 HEALTH AND SAFETY CODE
   2022 CALIFORNIA FIRE CODE,
   2022 CALIFORNIA ENERGY CODE,
   2022 CALIFORNIA GREEN CODE,
   2022 CALIFORNIA TITLE 24 - CALIFORNIA STATE ENERGY & ACCESSIBILITY STANDARDS AND ALL OTHER ORDINANCES ADOPTED BY THE LOCAL GOVERNING AGENCIES.
5. THESE PLANS ARE FOR GENERAL CONSTRUCTION PURPOSES ONLY. THEY ARE NOT EXHAUSTIVELY DETAILED NOR FULLY SPECIFIED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SELECT, VERIFY, RESOLVE AND INSTALL ALL MATERIALS AND EQUIPMENT.
6. THE DESIGNER SHALL NOT BE OBSERVING OR OVERSEEING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR THE QUALITY CONTROL AND CONSTRUCTION STANDARDS FOR THIS PROJECT.
7. ALL ROOF DRAINAGE SHALL BE PIPED TO DRAIN AWAY FROM STRUCTURE.
8. FINISH GRADE SHALL PROVIDE POSITIVE DRAINAGE (MIN 5% SLOPE & MINIMUM DISTANCE OF 10' FROM BUILDING.)
9. IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT SATURATION OF SOIL ADJACENT TO BUILDING.
10. WHERE DISCREPANCIES BETWEEN SOILS REPORT AND DESIGNER OCCUR, CONTACT DESIGNER.
11. ALL EXTERIOR HOSE BIBS SHALL HAVE NON-REMOVABLE BACK FLOW PREVENTION DEVICES PER CPC 603.1.
12. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
13. GENERAL CONTRACTOR SHALL VERIFY ALL APPLIANCES & CABINETRY WITH HOMEOWNER PRIOR TO PURCHASING AND INSTALLATION.
14. WHEN THERE IS A CONFLICT BETWEEN STRUCTURAL DETAILS AND ARCHITECTURAL DETAILS, STRUCTURAL DETAILS TAKE PRECEDENCE.

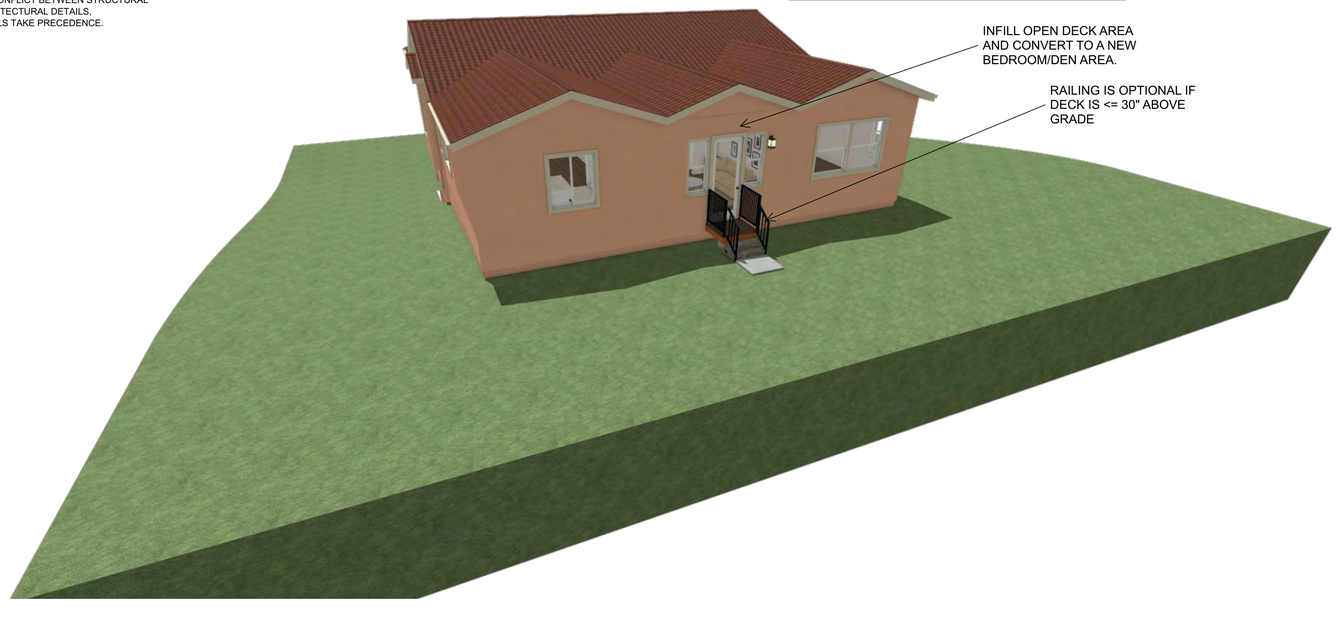
Provided by: PARCELQUEST

5-55

NORTHEAST RIDGE LANDMARK AT THE RIDGE UNIT II
-NEIGHBORHOOD 2 RSM 138 / 7-22

NOTE:
ALL EXTERIOR MATERIALS AT THE NEW ADDITION SHALL MATCH EXISTING MATERIALS IN TYPE AND COLOR.
EXTERIOR ROOF MATERIAL: CONCRETE TILE
EXTERIOR CLADDING: STUCCO
EXTERIOR COLOR: TO MATCH EXISTING

EXISTING EXTERIOR COLOR AND MATERIAL



PROJECT DATA & PROJECT INFORMATION

PROJECT INFORMATION
APN: 005-550-040
ADDRESS: 80 LILY CT, BRISBANE, CA 94005
YEAR BUILT: 2015
USE: SINGLE FAMILY DWELLING
ZONING CODE:
OCCUPANCY GRP: R3 / U
BED/BA:
EXISTING RES. AREA: 2,120 SQ FT
EXISTING GARAGE AREA: APPROX. 645 SQ FT
LOT AREA: 7,921 SQ FT
SEWER: PUBLIC
WATER: PUBLIC
UTILITIES: GAS
FIREPLACES: NO
SPRINKLERS: NO
POOL: NO
BUILDING AUTHORITY: CITY OF BRISBANE

PROJECT CODES		
OCCUPANCY GROUP	R3	SFD
CONSTRUCTION TYPE	V-B	
BUILDING CODES		
2019 CALIFORNIA BUILDING CODE		
2019 CALIFORNIA RESIDENTIAL CODE		
2019 CALIFORNIA ELECTRICAL CODE		
2019 CALIFORNIA MECHANICAL CODE		
2019 CALIFORNIA PLUMBING CODE		
2019 CALIFORNIA FIRE CODE		
2019 CALIFORNIA ENERGY CODE		
2019 CALIFORNIA GREEN BUILDING STANDARDS		

CONSULTANT'S INDEX

CONSULTANT INDEX	
OWNER	ALEXANDER & ALONA GORER
	80 LILY CT
	BRISBANE, CA 94005
	(408) 656-7273
	REROGA@YAHOO.CA
DESIGN	VIVIAN SZCZEPANKOWSKI
	56 HIGHLINE DR
	LAKE OZARK, MO 65049
	(916) 532-8116
	VIVIANZEP@GMAIL.COM
	HOUSEARTE.COM
DRAFTING	KEVIN SZCZEPANKOWSKI
	56 HIGHLINE RD
	LAKE OZARK, MO 65049
	(916) 521-3263
	KEVINZEP01@GMAIL.COM
	HOUSEARTE.COM
GENERAL CONTRACTOR	TO BE DETERMINED
STRUCTURAL ENGINEERING	NOT APPLICABLE
BUILDING AUTHORITY	CITY OF BRISBANE 50 PARK PLACE BRISBANE, CA 94005 (415) 508-2120

AREA CALCULATIONS		ADDED OR		
	EXISTING	NEW	REMODELED	TOTAL
LIVING SPACE				
FIRST FLOOR	2120	232		2352
TOTAL LIVING	2120	232	0	2352
NON-LIVING SPACE				
GARAGE- BASEMENT	675	0		675
COVERED PATIOS				
FRONT	145			145
COVERED DECK	0			0
TOTAL NON-LIVING SPACE	820	0	0	820

NOTES:

AREA TABULATION INCLUDES ENTIRE FOOTPRINT AREA

LOTSIZE (SQ FT):	7921
TOTAL COVERED AREA	
RESIDENCE- FIRST FLR	2352
GARAGE	675
CVRD PATIO- FRONT	145
CVRD DECK	0
ADDITIONAL BLDGS	0
TOTAL COVERED AREA	3172
PERCENT COVERAGE	40%

DESIGN CRITERIA

DESIGN CRITERIA - TYPICAL	
SEISMIC CATEGORY	D
WIND SPEED	110 MPH
WIND EXPOSURE	C
CLIMATE ZONE - 94005	3
SNOW LOAD	0
ROOF LIVE LOAD	20
ROOF DEAD LOAD	15
CEILING LIVE LOAD	10
CEILING DEAD LOAD	10
FLOOR LIVE LOAD	40
FLOOR DEAD LOAD	20
SOIL BEARING	1500 PSF

SCOPE OF WORK

GENERAL: NEW DEN / BEDROOM ADDITION

CONVERT REAR DECK INTO NEW LIVING SPACE
REMOVE DECK SURFACE PLANKS
RETAIN DECK STRUCTURE

ADD ELECTRICAL AS NEEDED PER CODE REQUIREMENTS

ADD HVAC DUCT TO CONDITION THE NEW SPACE

VERIFY SMOKE AND CO DETECTORS ARE INSTALLED AND WORKING - REPLACE AS NEEDED

SHEET INDEX

NUMBER	LABEL	TITLE	DESCRIPTION	COMMENTS
1	A1	COVER SHEET		
2	A1.2	VENTILATION CALCULATIONS		
3	A2	GENERAL CONSTRUCTION NOTES		
4	A3	CAL GREEN MANDATORY MEASURES	SHEET 1 OF 2	
5	A4	SITE PLAN		
6	A5	EXISTING& DEMOLITION PLAN		
7	A6	PROPOSED PLAN		
8	A7	EXISTING & NEW ELEVATIONS		
9	A8	BUILDING SECTIONS		
10	S1	STRUCTURAL NOTES		
11	S2	FASTENING SCHEDULE		
12	S3	FOUNDATION PLAN		
13	S4	ROOF FRAMING PLAN		
14	T1	ENERGY REPORT (1 OF 2)		
15	T2	ENERGY REPORT (2 OF 2)		
16	T3	ENERGY REPORT (3 OF 3)		

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzep01@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

COVER SHEET

- A1 -

1 OF 16

SEE ALSO SHEET S3 - FOUNDATION PLAN FOR CRAWL SPACE VENTILATION

Section R408 Under-Floor Space

R408.1 Ventilation

The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation openings shall be not less than 1 square foot (0.0929 m^2) for each 150 square feet (14 m^2) of under-floor space area, unless the ground surface is covered by a Class 1 vapor retarder material. Where a Class 1 vapor retarder material is used, the minimum net area of ventilation openings shall be not less than 1 square foot (0.0929 m^2) for each 1,500 square feet (140 m^2) of under-floor space area. One such ventilating opening shall be within 3 feet (914 mm) of each corner of the building.

R408.2 Openings for under-floor ventilation

The minimum net area of ventilation openings shall be not less than 1 square foot (0.0929 m^2) for each 150 square feet (14 m^2) of under-floor area. One ventilation opening shall be within 3 feet (915 mm) of each corner of the building. Ventilation openings shall be covered for their height and width with any of the following materials provided that the least dimension of the covering shall not exceed $^1/_4$ inch (6.4 mm):

1. Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick.
2. Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick.
3. Cast-iron grill or grating.
4. Extruded load-bearing brick vents.
5. Hardware cloth of 0.035 inch (0.89 mm) wire or heavier.
6. Corrosion-resistant wire mesh, with the least dimension being $^1/_8$ inch (3.2 mm) thick.

Exception: The total area of ventilation openings shall be permitted to be reduced to $^1/_{1,500}$ of the under-floor area where the ground surface is covered with an approved Class I vapor retarder material and the required openings are placed to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited.

Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where the following items are provided:

1. Exposed earth is covered with a continuous Class I vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend not less than 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall or insulation.

MFR CONTACT INFORMATION
AIRVENT, INC. DALLAS, TX (800) 247-8368
LOMANCO, INC PO BOX 519 2101 W. MAIN ST JACKSONVILLE, AR 72076 (800) 643-5596

ATTIC VENTILATION REQUIREMENTS

Attic ID:	AREA 1					
Total Attic Area (SF):		232				
Vent Ratio:		150				
Total Ventilation Required:		222.72	SI			
Total Ventilation Proposed:		300	SI			
						TOTAL
	VENT AREA	VENT TYPE	NFA		QTY	VENT (SI)
LOWER 50%=						0
UPPER 50%=	222.72	2	150		2	300
OPTIONAL: USE POWER VENT - MIN CFM CALCULATED BELOW						
POWER VENT REQ:		162.4	CFM			
MIN INTAKE VENT REQ:		111.36	SI			
POWER VENT CALCULATION = ATTIC AREA * 0.70						

STATIC ATTIC VENT TYPES

TYPE	STYLE	MFR	NAME	PART NO.	NFA (SI)	COMMENTS
1	CONT SOFFIT VENT	LOMANCO			9	VERIFY USE WITH TILE ROOF
2	DORMER	AIR VENT	AIRHAWK ROOF LOUVERS	SLP150	150	
3	DORMER	AIR VENT	AIRHAWK ROOF LOUVERS	RV51	51	HI COLLAR FOR TILE ROOFS
4	CONT RIDGE VENT	LOMANCO	OMNI RIDGE	LOR 9-4	16	VERIFY USE WITH TILE ROOF
5	CONT HIP VENT	LOMANCO	OMNI RIDGE	LOR 9-4	16	VERIFY USE WITH TILE ROOF
6	WALL VENT	LOMANCO	OMNI WALL VENT	OW-4	9	VERIFY USE WITH STUCCO WALL
7	EDGE VENT	LOMANCO	DECK AIR VENT SYSTEM	DA-4	9	VERIFY USE WITH TILE ROOF
8	UNDER EAVE VENT	LOMANCO	STATIC INTAKE VENT	C416	25	

FOUNDATION VENT TYPES

TYPE	STYLE	MFR	NAME/MODEL	PART NO.	NFA (SI)	COMMENTS	
9	DAMPER VENT 8X16	AIR VENT	DAMPER VENT	PLDPBL	64	STATIC	
10	POWER VENTS	AIR VENT	SERIES 6, QUIET/ TV6LVQPBL	94005	NA		USE: (VOL * 6) / 7200
11	SCREEN VENT	EZRVENT	FV100-8H-W		31.6	STATIC- FITS 5X14 OPENING	

POWER ATTIC VENTS

TYPE	STYLE	MFR	NAME	PART NO.	CFM	ATTIC AREA	MIN INTAKE VENTS (SI)	
PV15	POWER VENT	AIR VENT	POWER COOL 15		1500	2100 SF	720	
PV12	POWER VENT	AIR VENT	POWER COOL 12		1170	1650 SF	561.6	

ATTIC VENTILATION

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

VENTILATION CALCULATIONS

- A1.2 -

GENERAL MECHANICAL NOTES

FROM 2022 CMC

M-1 Domestic clothes dryer moisture exhaust ducts shall terminate on the outside of the building and shall be equipped with a back draft damper. Sheet metal screws or other fasteners that will obstruct the flow shall not be used. Unless otherwise permitted or required by the dryer manufacturer's installation instructions and by the building official, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of 14 feet including two 90 degree elbows. Two feet shall be deducted for each 90 degree elbow in excess of two as per CMC Section **504.4.2.1**

M-2 The installation of a listed cooking appliance or microwave oven over a listed cooking appliance shall conform to the conditions of the upper appliances listing and the manufacturers' installation instructions as **CMC 920.3.2**

M-3 Appliances in attics shall be accessible through an opening and passageway large enough to accommodate the largest component of equipment. The distance from the passageway access to the appliance shall not exceed 20-feet when the headroom clearance is less than 6-feet and shall be measured along the centerline of the passageway. The passageway shall be unobstructed and shall have continuous solid flooring not less than 24-inches wide from the entrance opening to the appliance. A level working platform not less than 30-inches in depth and width shall be provided in front of the service side of the appliance. A permanent electric outlet and lighting fixture controlled by a switch located at the passageway opening shall be provided at or near the appliance as **CMC 304.4**

M-4 Type B or BW gas vents with listed vent caps 12 inches in size or smaller shall be permitted to be terminated in accordance with Figure 8-2, provided they are located at least 8 feet from the vertical wall or similar obstruction. All other Type B gas vents shall terminate not less than 2 feet above the highest point where they pass through the roof and at least 2 feet higher than any portion of a building within 10 feet as **CMC 802.6.1**
Note: Single wall metal vent connectors shall not originate in an unoccupied attic or concealed space and shall not pass through an attic, inside wall, or concealed space.

M-5 Listed and unlisted equipment shall comply with the provisions of CMC Chapter 3.

M-10 Equipment covered by this code that is located in a garage and generate a glow, spark, or flame capable of igniting flammable vapors shall be installed on an enclosed platform with sources of ignition at least 18 inches above the floor level as per **CMC 305.1**

M-1 1 Vented decorative appliances, floor furnaces, vented wall furnaces, unit heaters and room heaters shall comply with the provisions of **CMC CHAPTER 9**

M-1 2 Duct systems used with blower type equipment that are part of HVAC systems shall be sized in accordance with ACCA Manuel D or other approved method.

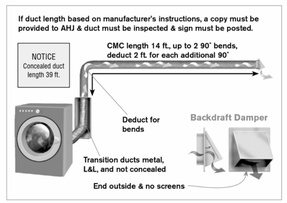
Clothes Dryer & Moisture Exhaust Vents

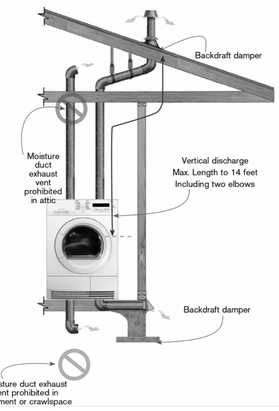
Moisture exhaust ducts must terminate outside of the building and be equipped with a backdraft damper. Screens are not allowed at the duct termination. It should be noted that a moisture exhaust duct should not be terminated in an attic, even if it is well ventilated, because the moisture vapor may condense on the roof sheathing, rafters or insulation, particularly in cold climates. Exhaust ducts for clothes dryers must not be connected with metal screws or fastening devices which may extend inside the duct. This is to prevent the accumulation of lint, which may create a fire hazard.

The best fasteners for use in this application would be blind pop rivets. To avoid the hazards of cross connections, clothes dryer exhaust ducts maynot extend into or through ducts or plenums. Ducts must terminate 3 feetfrom property line and 3 feet from any openings into the buildings.

Domestic clothes dryer exhaust ducts are not to exceed a total combined vertical and horizontal length of 14 feet, including two 90-degree elbows. Two feet is to be deducted from the total allowed length for each 90-degree elbow in excess of two.

An in-line booster fan requires "Alternate Methods" application and approval from Building Official.





GENERAL PLUMBING NOTES

FROM 2022 CPC

P-1 Provide an approved dishwasher air gap fitting as per **CPC 807.3**

P-2 Potable water outlets with hose attachments, other than water heater drains, boiler drains, and clothes washer connectors, shall be provided a non-removable hose bib type backflow prevention devise, a non-removable hose bib type vacuum breaker or by a atmospheric vacuum breaker as per CPC Section **603.5.7**

P-3 Where a fixture comes in contact with the wall or floor, the joint between the fixture and the wall or floor shall be made watertight as per **CPC 402.2**

P-4 **Cleanouts are to be acessible per CPC 708.**
Cleanout clearances per CPC 709.

P-5 Gas utilization equipment in garages shall be installed so that burners or burner ignition devices are located at least 18 inches above the floor unless listed as flammable vapor ignition resistant **OR AS PER CPC 504.3**

P-8 Water heater installations shall be accessible for inspection, repair, or replacement as per CPC Chapter 5.

P-9 Water systems containing storage water heating equipment shall be provided with an approved, listed, and adequately sized combination pressure and temperature relief valve as per **CPC 504.5**

P-10 Relief valves located inside a building shall be provided with a drain of galvanized steel, hard drawn copper piping and fittings, CPVC, or listed valve drain. The drain shall extend from the valve to the outside of the building with the end of the pipe not more than 2-feet nor less than 6-inches above the ground and pointing downward as per **CPC 608.5**

Note 1: No part of such drainpipe shall be trapped, and the terminal end of the drainpipe shall not be threaded.
Note 2: Discharge from a relief valve into a water heater pan shall be prohibited as per

P-11 Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of its vertical dimensions. At the lower point, a minimum distance of 4-inches (101.6 mm) shall be maintained above the controls with the strapping as per **CPC 507.2**

P-12 Gas outlets located in a barbecue or fireplace shall be controlled by an approved operating valve located in the same room and outside the hearth but not more than 6-feet from such outlets as per NFPA 5.5.4.

P-13 Showers and tub-shower combinations in all buildings shall be provided with individual control valves of the pressure balance or the thermostatic mixing valve type with a maximum mixed water setting of 120 degrees as per **CPC408.3**

P-14 The minimum capacity for water heaters shall be in accordance with the first hour rating listed in **CPC TABLE 501.1(2) BELOW.**

TABLE 501.1(2)
FIRST HOUR RATING[1]

Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5			
Number of Bedrooms	1	2	3	2	3	4	5	3	4	5	6
First Hour Rating,[2] Gallons	38	49	49	49	62	62	74	62	74	74	74

For SI units: 1 gallon = 3.785 L

Notes:

[1] The first-hour rating is found on the "Energy Guide" label.

[2] Solar water heaters shall be sized to meet the appropriate first-hour rating as shown in the table.

501.2 ***California Energy Code Water Heating System Requirements [CEC]***

See California Energy Code Section 110.3 for additional mandatory requirements for all service water heating systems, and 150.0(n) for additional mandatory requirements for residential service water heating systems.

P-15 Shut off valves shall be installed in the fuel supply piping outside of each appliance as per ANZI Z21.24 and NFPA 54:9.6.1.

P-16 Control valves and shower heads shall be located on the sidewall of shower compartment or otherwise arranged so that the showerhead does not discharge directly at the enterance to the compartment and the bather can adjust the valves prior to stepping into the spray per **CPC 408.9**

P-17 **MAXIMUM LOADING FOR A 3" HORIZONTAL DRAIN LINE IS 35 DFU. LIMIT OF 5 TOILETS PER CPC TABLE 703.2 - NOTE 4**

GENERAL BULDING NOTES

FROM 2022 CRC

B-23 Dwelling units, guest rooms, and congregate residences shall be provided with heating facilities capable of maintaining a room temperature of 68 degree F at a point 3 feet above the floor and 2 feet from exterior walls in all habitable rooms as per CRC Section **R303.10**

B-24 Factory built fireplaces and factory built chimneys shall be listed and installed in accordance with the terms of their listing and the manufacturers instructions as per CRC Section R1004 and R1005.

B-25 Masonry fireplaces and masonry chimneys, shall be constructed, reinforced and anchored as per CRC Section R1001 and R1003. Required clearances to combustible materials shall be maintained as per Section R1001.11 and R1003.18.

B-26 Provide attic ventilation as per CRC Section R806 and the California Energy Standards Commission.

B-27 Fire blocking and draft stopping shall be installed according to CRC Section R302. 11.

B-28 **REMOVED**

B-29 Fire blocking and draft stopping shall be installed according to CRC Section R302. 11.

B-30 All gypsum board, stucco, plaster, and lath shall be installed as **per** CRC Chapter 7.

B-31 Exterior wall coverings shall be applied as per CRC Section R703.

B-32 Braced wall lines shall consist of braced wall panels that meet the requirements for location, type, and amount of bracing specified in CRC, section R602.10 and are in line or offset from each other by not more than 4 feet from the designated brace wall line. Braced wall panel end distance requirements shall be per Figure R602. 10.1.4 (2). All braced wall panels shall be clearly identified on the plans as to their type, length and location as per CRC Table R602.10.2.

B-33 Any braced wall panel required by the CRC Section R602.10 may be replaced by an alternate braced wall panel constructed in accordance with CRC Section R602.10.3.2, Item 1 for one-story buildings and Item 2 for the first story of two-story buildings. Alternate braced wall lengths shall be per Table R602.10.3.2.

B-34 Conventional Light-Frame Construction complying with the AF&PA WFCM 2008 is an acceptable alternative to the CRC Section R301 .1 prescriptive framing requirements.

B-35 Buildings, or portions thereof, exceeding the limitations of CRC Section R301 shall be designed or comply with the design requirements of the CBC. Irregularly shaped structures, as defined in Section R301 .2.2.2.5 shall be designed in accordance with accepted engineering practice.

B-36 Wood framed studs shall be dimensioned as per CRC Table R602.3 (5) for size, height, and spacing.

B-37 All foundation sills, plates, sleepers, posts, and columns that rest on concrete or masonry must be naturally durable or preservative treated

B-38 Cutting and notching of exterior walls and bearing walls shall not be greater than 25 percent of the stud width. Cutting or notching of studs to a depth not greater than 40 percent of the width of the stud is permitted in nonbearing walls supporting no loads other than their own weight ( ) CRC Section R602.6).

B-39 A hole not greater in diameter than 40 percent of the stud width may be bored in any wood stud. Bored holes not greater than 60 percent of the stud width are permitted in nonbearing partitions or in any wall where each bored stud is doubled, provided not more than two such successive doubled studs are so bored CRC Section R602.6).

B-40 All bearing walls shall be supported on masonry, concrete, foundations, piles, or other approved foundation systems that will be of sufficient size to support all loads. Where a design is not provided, the minimum foundation requirements for stud bearing walls shall be as set forth in CRC Tables R401.4.1 and R403.1.

B-41 Where post and beam or girder construction is used to support floor framing, positive connections shall be provided to ensure against uplift and lateral displacement as per CRC Section R502.9.

B-42 Where rafters are not parallel with the ceiling joists, rafters ties shall be installed. Rafter ties shall be a minimum of 2 inch by 4 inch (nominal) and shall be connected to the rafter per Table **R802.5.2(1)** Collar ties shall be installed per Section **R802.5.2.2**
MAX SPACING 24" O.C. OR AS APPROVED BY EOR.

2024-MM-1
ATTACHMENT E

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinszp0@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

GENERAL CONSTRUCTION NOTES

- A2 -

2022 CALIFORNIA GREEN BUILDING STANDARDS MANDATORY MEASURES

California Green Building Standards Code Residential Mandatory Measures

Planning and Design
Site Development (4.106)

Storm Water Protection Measures shall be implemented at the initial phase of construction activity. Projects shall prevent erosion and retain soil runoff on the site through the use of a barrier system, wattle or other approved method.

Sites shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet.

Electric Vehicle (EV) Charging for New Construction (4.106.4)

New one- and two-family dwellings and townhouses with attached private garages shall install a listed raceway to accommodate a dedicated 220-volt branch circuit for an EV charger. The raceway shall not be less than nominal 1" inside diameter. The raceway shall originate at the main service or subpanel and shall terminate into a listed enclosure in close proximity to the proposed location of an EV charger. The service panel and/or subpanel shall provide capacity to install a 40-amp minimum dedicated branch circuit and spaces(s) reserved to permit installation of a branch circuit overcurrent protective device.

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".

Water Efficiency and Conservation

Indoor Water Use (4.303)

1

Water Closets: The effective flush volume of all water closets shall not exceed 1.28 gallons per flush.

Showerheads: Single showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi.

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

Kitchen Faucets: The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi.

Outdoor Water Use (4.304)

Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall be weather-based.

Material Conservation and Resource Efficiency

Enhanced Durability and Reduced Maintenance (4.406)

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.

Construction Waste Reduction, Disposal and Recycling (4.408)

Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste.

Documentation shall be provided to the enforcing agency to demonstrate compliance with the construction waste management plan at the time of final inspection.

CALGREEN 301.1.1. WATER FIXTURE UPGRADES

ON OR AFTER JANUARY 1, 2014, FOR ALL BUILIDNG ALTERATIONS OR IMPROVEMENTS TO SINGLE FAMILY RESIDENTIAL REAL PROPERTY, AS A CONDITION FOR ISSUANCE OF A CERTIFICATE OF FINAL COMPLETION AND OCCUPANCY OR FINAL PERMIT APPROVAL BY THE LOCAL BUILDING DEPARTMENT, THE PERMIT APPLICANT SHALL REPLACE ALL NONCOMPLIANT PLUMBING FIXTURES WITH WATER CONSERVING PLUMBING FIXTURES.

NONCOMPLIANT FIXTURES SHALL HAVE A FLOWRATES THAT EXCEEDS THE FOLLOWING:

WATER CLOSETS: 1.6 GPF (GALLONS PER FLUSH)
SHOWERHEADS: 2.5 GPM
KITCHEN FAUCETS: 2.2 GPM
LAVATORY FAUCETS: 2.2 GPM

Life Cycle Assessment (4.409)

At the time of final inspection, a maintenance and operation manual, compact disc, web-based reference or other media acceptable to the enforcing agency shall be provided to the building occupant or owner.

Environmental Quality

Fireplaces (4.503)

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 Limits Standards (NSPS) emission limits where applicable

Pollutant Control (4.504)

At the time of rough installation, and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered.

Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits of Tables 4.504.1 and 4.504.2.

Paints, stains and other coatings shall be compliant with VOC limits of Table 4.504.3.

Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC and other toxic compounds.

Verification that compliant VOC limit materials have been used shall be provided at the request of the enforcing agency.

Carpet systems shall comply with the requirements of Section 4.504.3.

Where resilient flooring is installed, at least 80% of the floor area receiving resilient flooring shall comply with the requirements of Section 4.504.4

Composite wood products shall comply with the maximum formaldehyde limits of Table 4.504.5.

Interior Moisture Control (4.505)

Concrete slabs in habitable spaces shall have a vapor retarder in direct contact with the concrete unless an alternative design is provided by a licensed design professional.

Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified by means of moisture readings using a moisture meter.

Indoor Air Quality and Exhaust (4.506)

Each bathroom shall be mechanically ventilated with an Energy Star compliant fan.

Unless functioning as a whole house ventilation system, bathroom fans shall be controlled by a humidistat which shall be readily accessible. Humidistat controls shall be capable of adjustment between a relative humidity range of 50 to 80 percent.

Environmental Comfort (4.507)

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), ASHGAE 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.

Installer Qualifications

Qualifications (702)

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.

2024-MM-1
ATTACHMENT E

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0@Gmail.com

ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

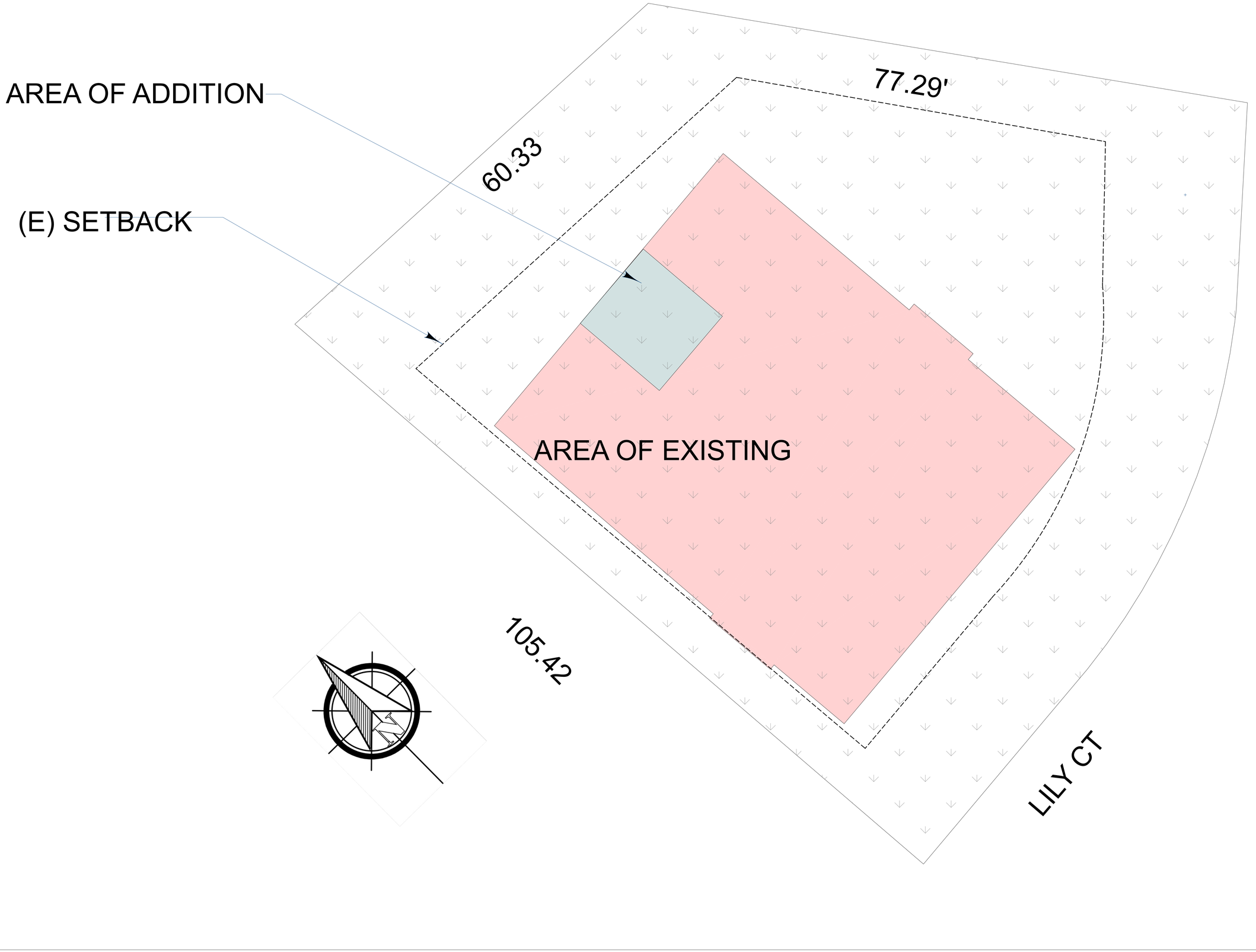
NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

CAL GREEN MANDATORY MEASURES

- A3 -



House Arte
Residential Design + Drafting + Illustration
HouseArte.com
Kevinzsp01@Gmail.com
(916) 521-3263
ENGINEER

NEW ADDITION FOR:

SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005

APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES

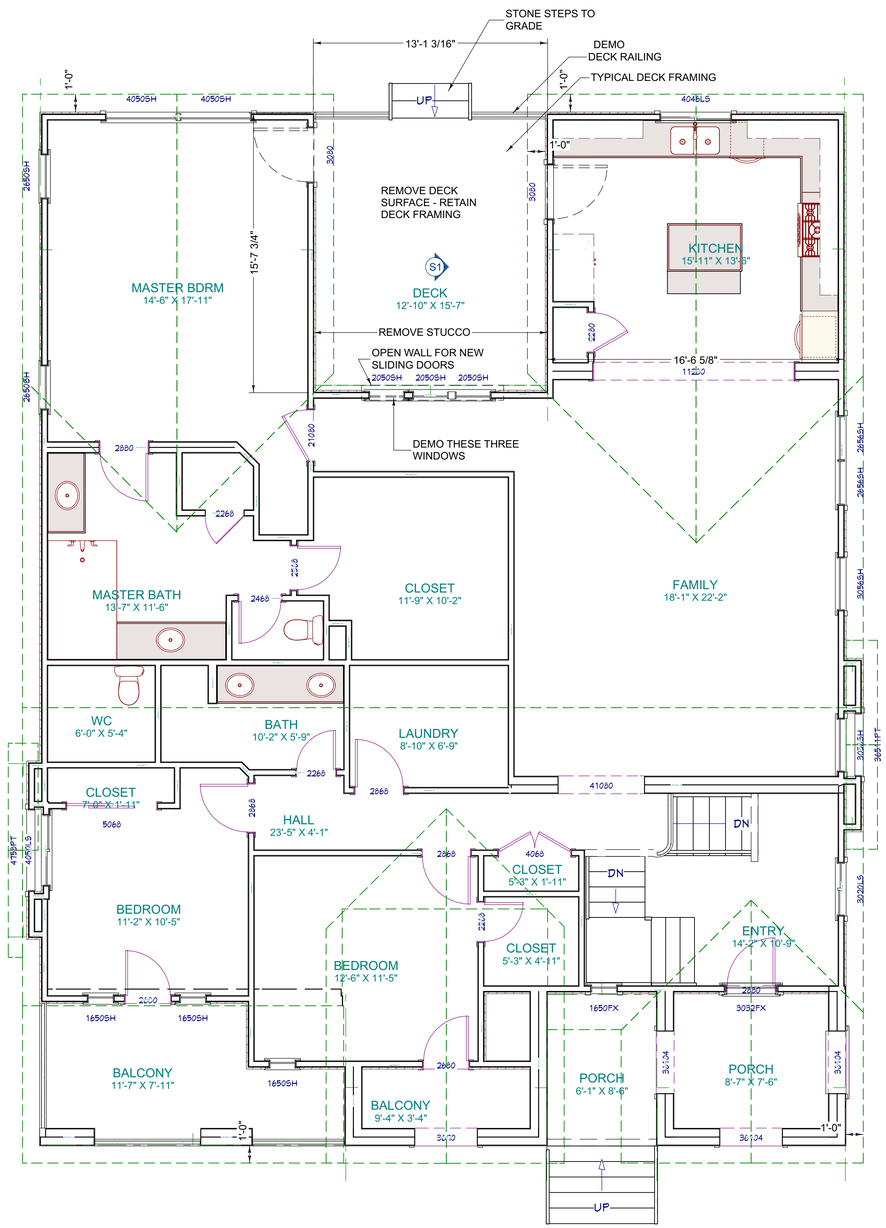
DATE DRAWN: 1/25/2024

SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

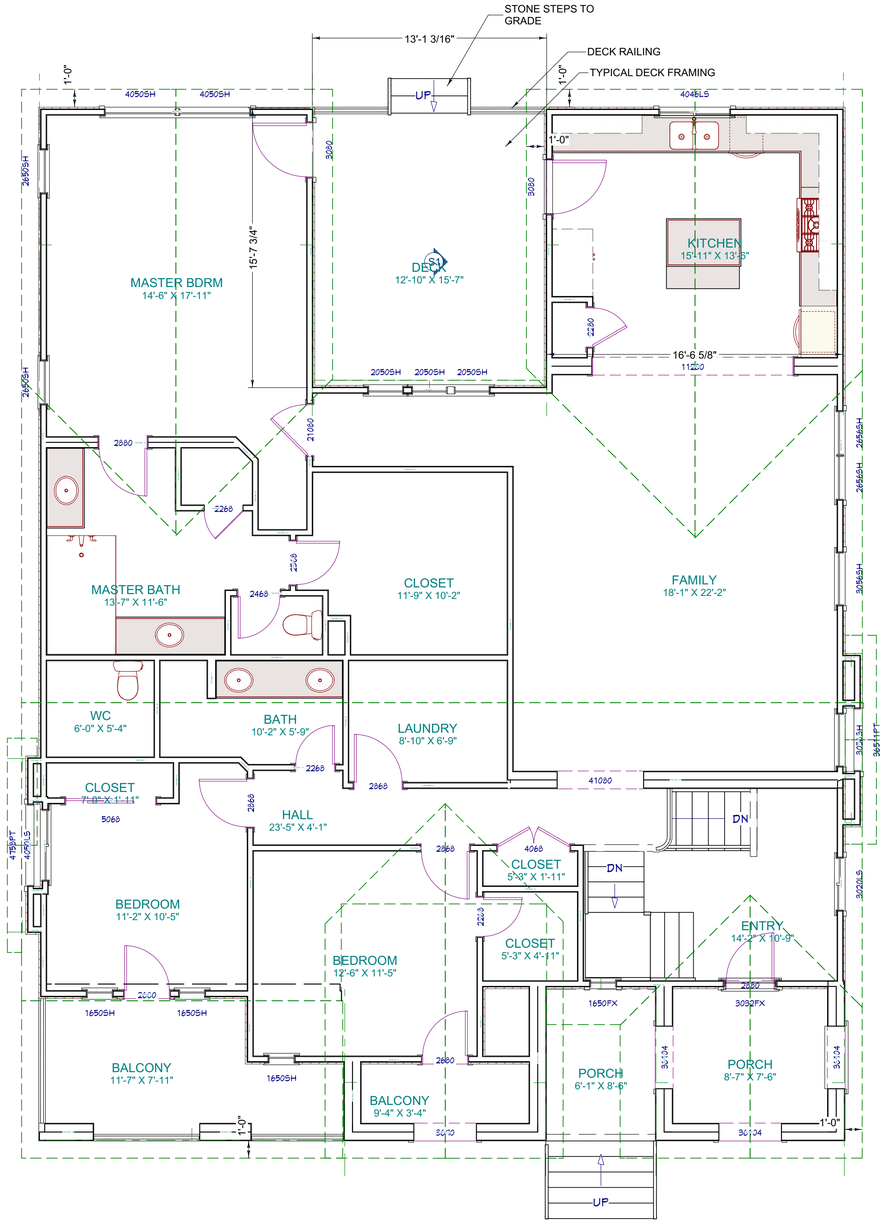
SITE PLAN

- A4 -



2 DEMOLITION FLOOR PLAN

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



1 EXISTING FLOOR PLAN

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

2024-MM-1
ATTACHMENT E

House Arte
Residential Design + Drafting - Illustration
HouseArte.com
(916) 521-3263
Kevinszp01@Gmail.com

ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS		
NO	DESCRIPTION	DATE

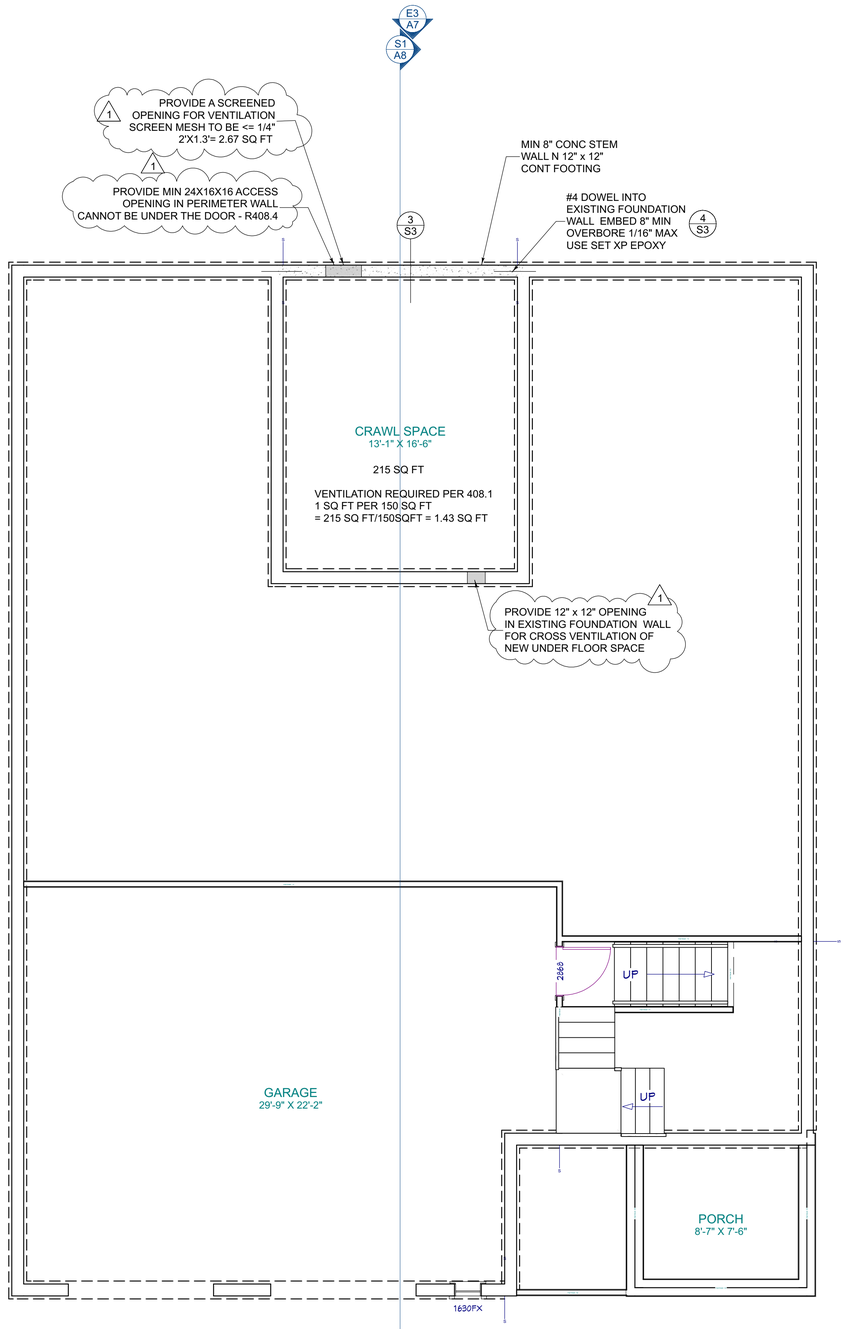
DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

EXISTING & DEMOLITION PLAN

- A5 -

6 OF 16

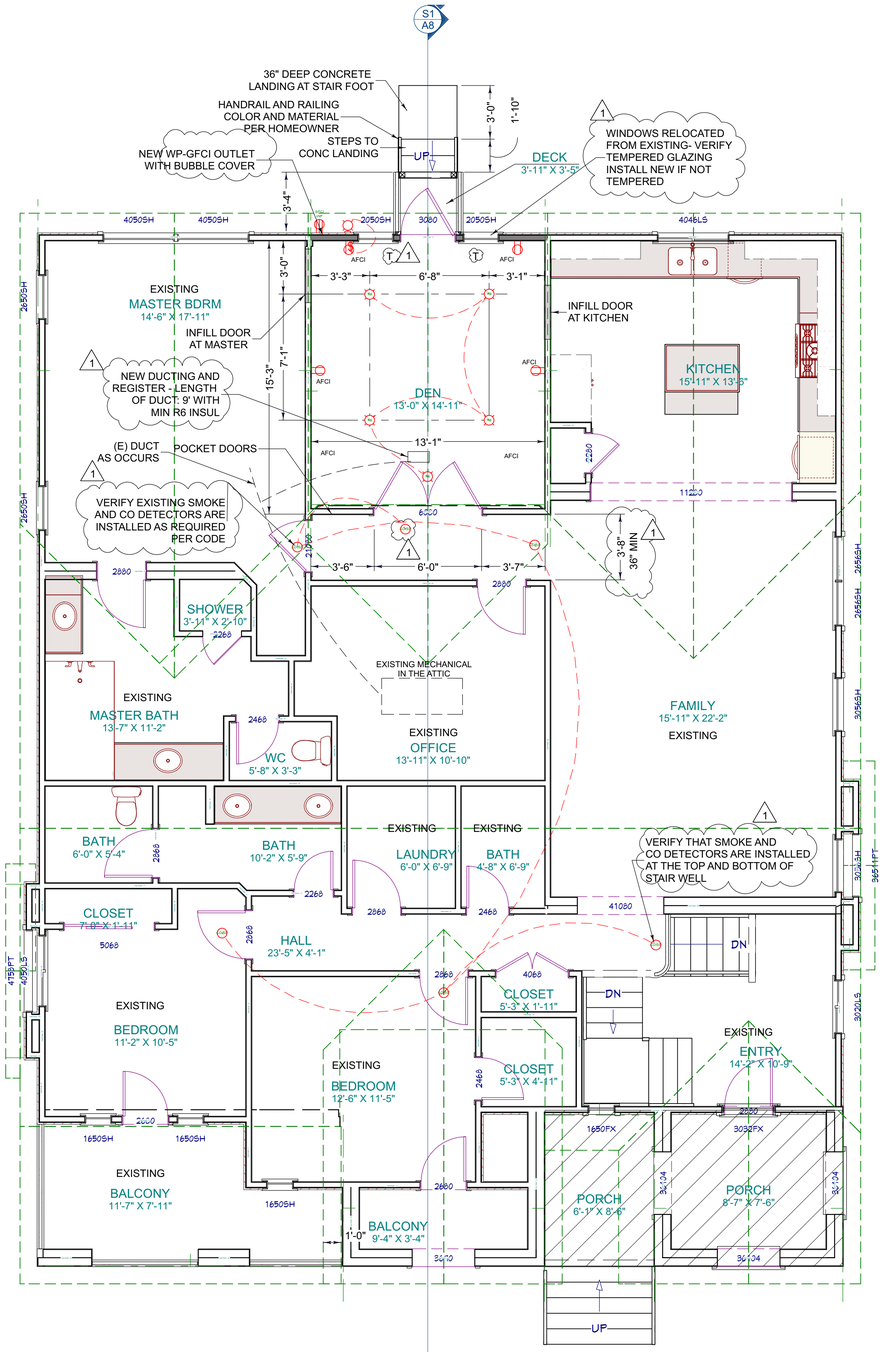


2 FOUNDATION FLOOR PLAN

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

S1 A8

E1



1 PROPOSED FLOOR PLAN

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

2024-MM-1
ATTACHMENT E

House Arte
Residential Design + Drafting - Illustration
HouseArte.com
Kevinzsp0@Gmail.com
(916) 521-3263
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

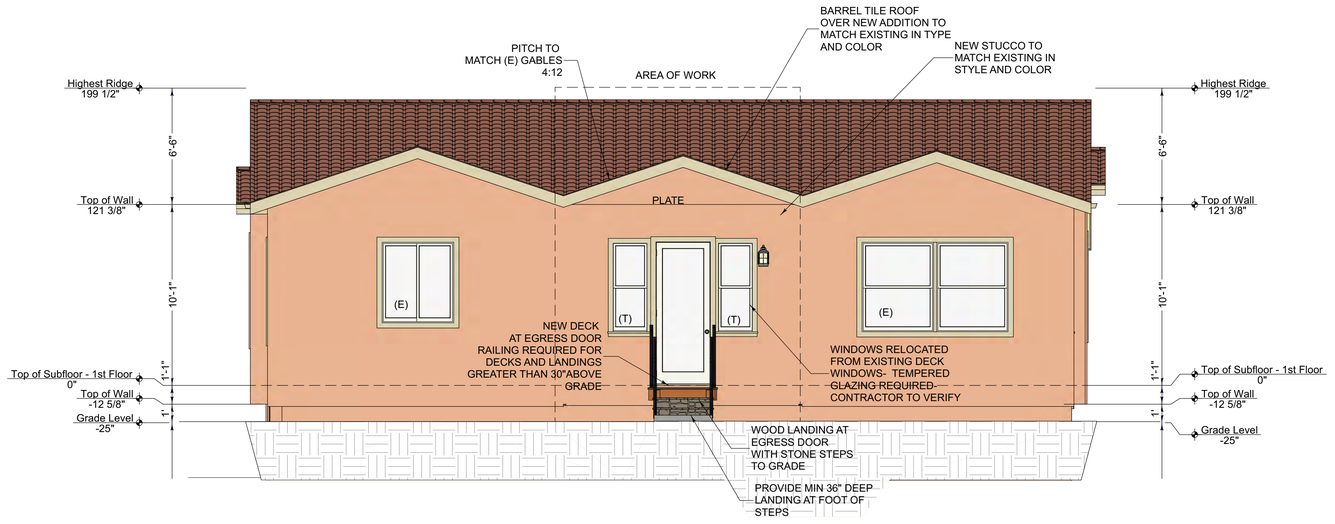
PROPOSED PLAN

- A6 -

7 OF 16

1 EXISTING REAR ELEVATION

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



2 PROPOSED REAR ELEVATION

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

House Arte
Residential Design + Drafting - Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0l@Gmail.com
ENGINEER

NEW ADDITION FOR:

SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES

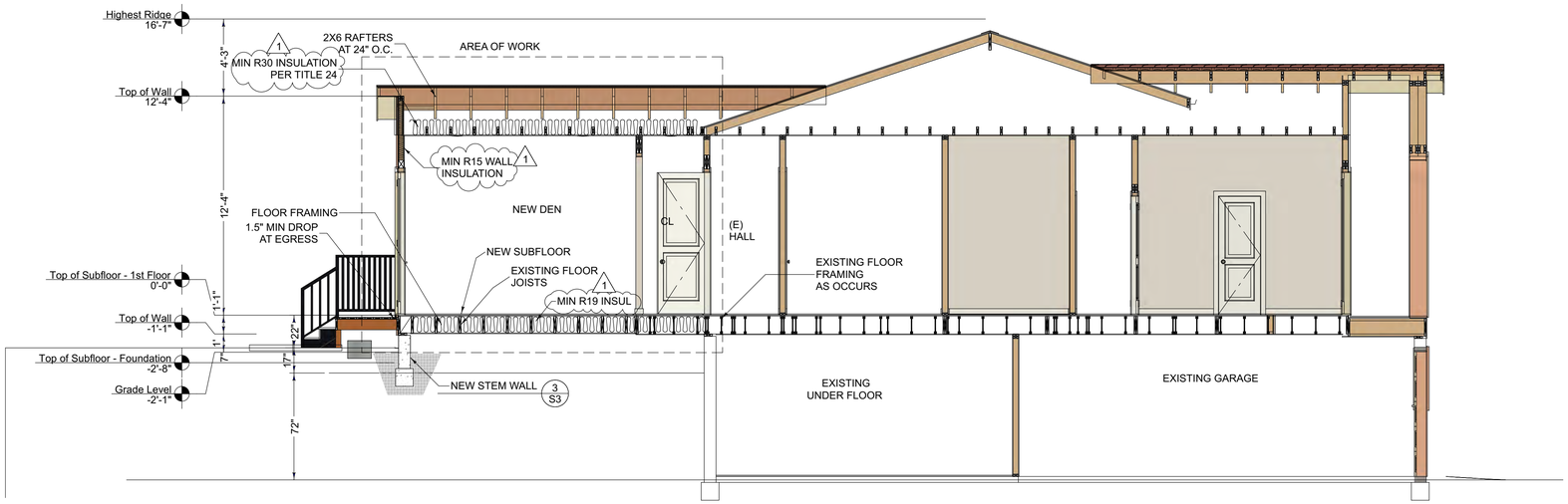
DATE DRAWN: 1/25/2024

SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

EXISTING / NEW ELEVATIONS

- A7 -



S1 EXISTING REAR ELEVATION

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

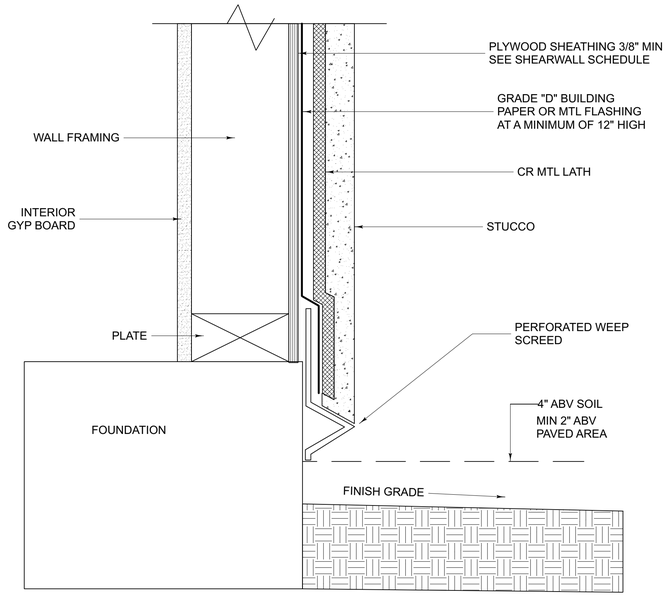
WEEP SCREED AND FLASHING

NOTES:

1- WEEP SCREED SHALL COMPLY WITH ASTM C 926.

2- PROVIDE A MINIMUM OF 26 GA GALVANIZED SHEET CORROSION RESISTANT WEEP SCREED WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2" SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE ON ALL EXTERIOR STUD WALLS THAT HAVE EXTERIOR STUCCO OR PLASTER CLADDING.

3- THE WEATHER RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE, AND THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF OF THE SCREED.



1/2 WEEP SCREED DETAIL

SCALE: NONE

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

BUILDING SECTIONS

- A8 -

9 OF 16

GENERAL REQUIREMENTS

1. Work performed shall comply with the following:
2. These General Requirements unless otherwise noted on plans or specifications.
3. Building Code - CBC 2022
4. All applicable local, State and Federal Codes, Ordinances, Laws, regulations and Protective Covenants governing the site of work.
5. Standard Specifications of ASTM as noted herein and as required by the Building Code.
6. All work needs to be performed by qualified and experienced contractors familiar with this type of project.
7. In case of conflict, the more stringent requirement shall govern.
8. On site verification of all dimensions and conditions shall be the responsibility of the contractor and sub-contractors. Noted dimensions take precedence over scale of drawings.
9. Engineer or architect of record is to be notified immediately by the contractor should any question arise or any discrepancy be found pertaining to the working drawings and/or specifications.
10. No deviations from these requirements and structural details shall be made without the written approval of E.O.R.. Approval by the inspector does not constitute authority to deviate from plans or specifications.
11. The design, adequacy, and safety of erection bracing, shoring, temporary supports, etc., is the sole responsibility of the contractor, and has not been considered by the architect or engineer. The contractor is responsible for the stability of the structure prior to the application of all shear walls, roof and floor diaphragms, and finish materials. The contractor shall provide the necessary bracing to provide stability prior to the application of the aforementioned materials. Observation visits to the site by the architect or structural engineer shall not imply the assumption of any responsibility

DESIGN CRITERIA

A. FLOOR AND ROOF LIVE LOADS.
1. ROOF ..... 20 PSF
2. FLOOR ..... 40 PSF

B. WIND LOAD
1. ULTIMATE DESIGN WIND SPEED, VULT ..... 110 MPH
2. NOMINAL DESIGN WIND SPEED, VASD ..... 85 MPH
3. WIND EXPOSURE ..... CATEGORY B
4. RISK CATEGORY ..... CATEGORY II

C. SEISMIC LOAD.
1. SEISMIC DESIGN CATEGORY ..... CATEGORY D
   S_s = 0.442g S_1 = 0.219g R = 6.5
   S_{ds} = 0.426g S_{mt} = 0.640g C_s = 0.066
2. SITE CLASS ..... CLASS D: DEF
3. IMPORTANCE I

D. FOUNDATION.–
1. NO FOUNDATION REPORT
2. DESIGN LOAD-BEARING VALUES OF SOILS = 1500 PSF.

REINFORCED CONCRETE

1. All reinforced concrete materials and construction shall conform to Building Code, chapter 19.

MATERIALS

2. Cement shall conform to Section 1903 of Building Code and shall correspond to that on which the selection of concrete proportions were based.
3. Concrete aggregates shall conform to Building Code Section 1903.
4. Portland cement shall be Type I or II conforming to ASTM C150. For concrete in contact with soil containing sulfate $So_4 \geq 0.1\%$ by weight use Type II cement, containing sulfate $So_4 \geq 0.2\%$ by weight useType V cement. Weight percentage of So_4 shall be per soils report. Refer to Section 1904 of the Building Code for special exposure conditions as required by soils engineer & see corrosion engineer's recommendations for concrete exposed to corrosive elements.
5. Reinforcing steel shall conform to ASTM A615, Grade 60 for all sizes.
6. Dowels shall be equal in size and spacing.
7. The (28 days) concrete compressive strength, f'c, shall be min 2500 psi U.N.O.
8. Special inspection is required for concrete with f'c > 2500 psi
9. All reinforcing, dowels, holdowns, and other inserts shall be secured in position and approved by the local building official prior to the pouring of any concrete.
10. Min. concrete cover for reinforcing:
    a- Concrete, placed against earth not formed - 3"
    b- Concrete formed or troweled - 2"

FOUNDATION

1. All continuous footings to have 5/8"dia. x min. 12" anchor bolts, min. 7" embedment into concrete footing at 72" o.c. unless noted otherwise on plans. One anchor bolt should be located max. 12" away and min. 9 1/2" from the end of the sill plates. min. (2) A.Bs. per sill plate/shear panel. Sill plate under shear walls of up to 4'-0" in length must be continuous. See note 2 for sill plate fasteners at interior non-shear walls.
   1a. Anchor bolts at shear walls shall be installed with plate washers of min. 3" sq. x 0.229" thick between sill plate and nut. Edge(s) of plate washers shall be 1/2" max. from inside face of shear panel(s) per conditions shown below.
   1b. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16 inch larger than the bolt diameter and a slot length not to exeed 1 3/4 inches, provided a standard cut washer is placed between the plate washer and the nut.
2. For interior non-shear walls use Simpson PHNW series 0.145ϕ pins with a penetration of 1 1/4" into slab at 16" O.C. to be installed in accordance with ICC ESR-2138. Actual slab thickness to be minimum 4". All interior shear walls to have A.Bs. per foundation plan.
3. All holdowns and post anchors to be installed according to most current Simpson Strong Tie specifications and requirements of ICC-ER reports & shall be tied in place prior to foundation inspection. Dimensions are not furnished to Simpson holdowns. It is the responsibility of the contractor's superintendent, the framing contractor and the concrete contractor to locate these anchors in the exact location. Refer to details for proper installation.
4. Min. concrete width to be 8" for receiving PA, HPA & STHD's. Verify locations of holdowns and anchor bolts with rough framing to assure accurate installation.
5. Provide #3 X 24" dowel at 24" o.c. and 12" from the corner at all concrete stoops and porches.
6. Provide min. (1) #4 reinforcing for electrical ground, location to be verified with the electrical contractor.
7. Verify min. foundation depth, width, reinforcing steel and additional expansive soil requirements with valid soils report and if more stringent, they shall supersede the above minimum requirements. See note #7 under reinforced concrete for concrete strength.
8. Admixtures in concrete mix. containing calcium chlorides shall not be used.
9. Footings shall be examined and certified in writing by the project soil/geology engineer prior to inspection and placement of concrete.
10. Concrete shall be to the strength and slump as specified per structural design, and consist of Portland cement ASTM C-150 Type V per soils engineer's recommendations and Building Code section 1904.3 (ACI 318 section 4.3) when exposed to sulfate containing solutions. Aggregates shall be per ASTM C-33. Water to be clean and potable.
11. Placement shall be in one continuous operation unless otherwise specified. Slab surface shall be cured with 'Hunts' compound or equal or cured with other methods in accordance with good construction practice at contractor's option.
12. Contractor shall dampen slab underlayment of sand/membrane just prior to concrete placement to assist uniform concrete curing. Slabs must not be poured during or immediately after rainstorms. The specified sand over visqueen should not be saturated at the time of the concrete pour. Any free water trapped in the sand layer must be removed prior to the concrete pour.
13. The bottoms of footing excavations shall be level, clean and free of loose material or water when concrete is placed. Over excavation shall be filled with concrete or properly compacted fill that has been tested and approved by the soils engineer. Backfill shall not be placed until supporting foundations, walls and slab have attained sufficient strength to support lateral soil pressure.
14. Concrete placement shall be monolithic in one continuous operation uniformly placed and must be vibrated and well consolidated unless shown otherwise on plans. Dual pour is defined by ACI as to when 1st. & 2nd. pour can not be vibrated together.
15. Floor slab shall be poured level to 1/8" in 10'.

STRUCTURAL WOOD

MINIMUM QUALITY

1. All structural wood shall be of Douglas Fir Larch species, (19% maximum moisture content at the time of construction U.N.O.).
2. All machine bolts shall conform to ASTM A307. Holes for bolts should be drilled 1/16" larger than bolt diameter.
3. For non-shear wall applications, round washers shall be used on all bolts and should conform with ANSI/ASME B 18.22.1. Use min. 1 3/8" Ø x 7/64" thick washer for 1/2" Ø bolt, 1 3/4" Ø x 9/64" thick washer for 5/8" Ø bolt and 2 1/2" Ø x 11/64" thick washer for 1" Ø bolt. U.N.O.
4. All nails shall be sinker nails and staggered U.N.O., except as shown in Nailing Schedule.
5. Adhesive used to attach floor sheathing to framing elements shall conform with APA specification AFG-01.
6. Manufactured hardware specified on the drawings are to be Simpson Strong Tie (Unless specifically authorized in writing by E.O.R.. Follow all manufacturer's requirements & recommendations for installation & handling of the product.
7. LUMBER GRADES (U.N.O.)
   6x & 8x posts / beams / headers: DFL #1
   4x posts / beams / headers: DFL #2
   2x joists / rafters: DFL #2
   Studs: D.F.L. Stud Grade (up to 9'-0"), DFL #2 (taller than 9'-0")
   Top plates & Mud sills: DFL construction grade or better
   See structural wood note #11 for additional mud sill requirements
   The following beams/headers/rims can be from any manufacturer with current approved icc es - evaluation report with the following mechanical properties:
   a. GLUED LAMINATED MEMBERS COMBINATION 24F-V4 DF/DF 3500' RADIUS.
   b. LBL BEAMS
      DOUGLAS FIR 1.55E, SG=.50, E=1550000 PSI, Fb=2925 PSI, Fv=310 PSI
   c. LVL BEAMS
      DOUGLAS FIR 2.0E, SG=.50, E=2000000 PSI, Fb=2600 PSI, Fv=285 PSI
   d. PSL BEAMS
      DOUGLAS FIR 2.2E, SG=.50, E=2200000 PSI, Fb=2900 PSI, Fv=290 PSI
8. TYPICAL FLOOR SHEATHING
   23/32" APA rated Sturd-i-Floor T&G Exp I with min. span rating of 24" o.c. Refer to NER 108 for installation and conditions of use
   8.N.:10d common nails at 6" o.c.
   E.N.:10d common nails at 6" o.c.
   F.N.:10d common nails at 12" o.c.
   Use ring or screw shank nails and glue sheathing to framing using adhesives meeting APA specification AFG-01 or ASTM D3498. Apply glue in accordance with manufacturer's recommendations.
   TYPICAL ROOF SHEATHING
   15/32" APA rated sheathing Exp 1 with a min. panel index of 32/16. Refer to NER 108 for installation and conditions of use.
   B.N.:8d common nail at 6" o.c.
   E.N.:8d common nail at 6" o.c.
   F.N.:8d common nail at 12" o.c.
   *Note: All structural rated panels must be stamped by one of the following approved agencies, APA, PFS/TECO or Pittsburg.

FRAMING

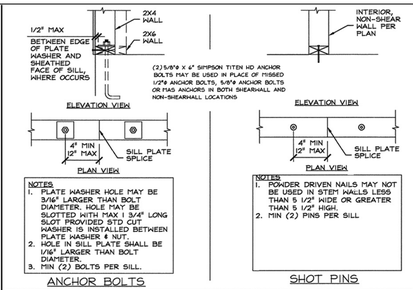
9. All framing, bracing, nailing, notching, drilling or boring shall be in accordance with Building Code unless more stringent requirements are specified or required by the local Jurisdiction.
10. Fabrication and handling of Glue-lam beams shall be per ANSI/AITC A 190.1 . Standard beams to bear legible APA-ENS or AITC grade stamp. An APA- EWS CRAN AITC Certificate of conformance for glued-laminated members should be submitted to the field inspector prior to installation and Glue-lam members shall be 24F-V4, DF/DF with standard camber on roof beams except cantilever end (U.N.O.). All cantilever ends and floor beams shall have zero camber u.n.o. All beams shall be fabricated using waterproof glue.
11. ALL SILL PLATE ANCHOR BOLTS, NUTS AND PLATE WASHERS SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL OR MECHANICALLY DEPOSITED ZINC COATED STEEL, IN ACCORDANCE WITH CBC 2304.10.5
12. Stud walls perpendicular to a concrete or masonry wall shall be bolted to the concrete or masonry wall with 5/8" diameter x 8" A307 bolts at top, mid-height and bottom.
13. All wood exposed to weather conditions must be pressure treated with hot dipped galvanized connectors as specified in note 11.
14. Conventional light framed construction requirements of chapter 23 should be followed as required.
15. Weight of the roof tile is considered to be 10 psf max. (total roof dead load of 19 psf). If roofing material exceeds this load, the framing contractor should notify E.O.R. in writing prior to construction.
16. Top plates of all wood stud walls to consist of (2) 2x's the same width as the studs U.N.O. Top plates shall lap a min. of 48" and be spliced with not less than 6-16d nails spaced not more than 12" o.c.
17. All shear panels shall have continuous sheathing material from one end to the other and from plate to plate as specified on the drawings. Contractor shall coordinate framing such that continuity of shear panels is assured.
18. All ledgers shall be spliced with ST22 strap, unless noted otherwise.
19. All shear transfer nailing shall be per drawings, and contractor shall provide proper notification for inspections to review the same.
20. Provide post/multiple studs at lower floor under post/multiple studs above. Each post/stud shall be fastened by Gypsum Wall Board w/ 5d cooler nails @ 7" o.c. U.N.O. on plan. Provide full width and depth compression block between floors at such locations.
21. All joist hangers shall be Simpson U hanger, all beam hangers shall be Simpson HU hangers U.N.O. on plan or detail. Follow manufacturer's recommendations for installation.
22. If a double sill plate is used at light-weight concrete flooring, then the framing contractor shall apply sill plate nailing to both sill plates, at 16" o.c. max. or as specified per schedule.
23. Use this span table for stud spacing (U.N.O. on plans):

- No multiples of 2x4's are allowed to span more than 14'-0". Bearing walls exceeding 10'-0" must be designed case by case.

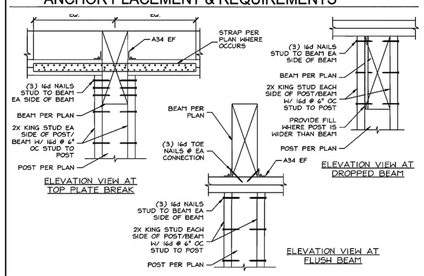
SIZE, HEIGHT AND SPACING OF WOOD STUDS								
BEARING WALLS							NON-BEARING WALLS	
		MAXIMUM SPACING WHEN SUPPORTING						
STUD SIZE	STUD HEIGHT	ROOF & CLG ONLY (inches)	ONE FLOOR, ROOF & CLG (inches)	TWO FLOORS, ROOF & CLG (inches)	ONE FLOOR ONLY (inches)	STUD HEIGHT (feet)	MAXIMUM SPACING (inches)	
2X4	10	24	16	NOT ALLOWED	24	14	24	
3x4	10	24	24	16	24	14	24	
2X6	10	24	24	16	24	20	24	
2-2X4	10	----	----	16	----	----	----	
2-2X6	10	----	----	24	----	----	----	

*SHALL NOT BEUSED IN EXTERIOR WALLS.
*REFER TO PLANS FOR STUD HEIGHTS EXCEEDING THIS TABLE.

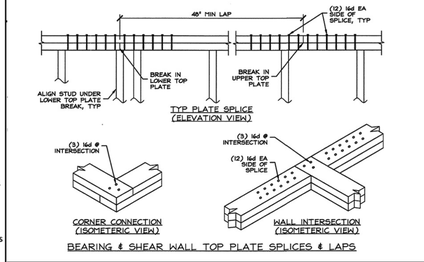
24. Headers: Use 4X4 for openings less than 16" at bearing walls without point loads. For non-bearing walls use 2x4 for openings up to 3'-0" max. Use (2)2x4 for openings up to 6'-0" max. Use 4x6 for openings up to 12'-0" max. U.N.O. (2-2x on edge can be substituted for 4x members).
25. Approved end-jointed lumber may be used interchangeably with solid sawn members of the same species and grade for buildings up to 2-story. When finger jointed lumber is marked "stud use only" or "vert use only" such lumber shall be limited to use for studs only. All finger jointed lumber should bear a certified finger jointed lumber grade stamp.
26. Wood truss manufacturer shall supply to the engineer and the building department calculations and shop drawings for approval of design loads, configuration (2 or 3 point bearing), and shear transfer, prior to fabrication. It shall be the responsibility of the manufacturer to obtain building department approval of calculations and shop drawings prior to fabrication.
27. Trusses shall be designed in accordance with the latest local Building Code for all loads imposed, including lateral loads and mechanical equipment loads.
28. All connections involving trusses shall be ICC approved and of adequate strength to resist stresses due to the loadings involved and shall be designed and specified by the truss manufacturer.
29. Truss members and engineered wood products (i.e. prefabricated wood I-joist, structural glued-laminated timber and structural composite lumber) cannot be cut, notched, drilled, spliced or otherwise altered in any way without the approval of a registered design professional (CRC
30. Cross bridging and/or bracing shall be provided and detailed by the truss manufacturer as required to adequately brace all trusses.
31. Truss manufacturer to provide details which allow for normal deflection without imposing lateral loads on their supports (i.e., scissors trusses).
32. Truss manufacturer is responsible for:
    a. providing additional shear and drag trusses as shown on the framing plans.
    b. reviewing framing plans and details prior to fabrication of trusses and specifying hangers.
    c. meet the profile as indicated in the architectural and structural drawings.
    d. design trusses for deflection compatibility of the system to avoid hump and sag in roof or ceiling.
33. All trusses designed by truss manufacturer shall be designed to sustain all vertical, lateral and other pertinent loads, including bracing of top and bottom chords, in addition to any connections related to trusses. Contractor to coordinate with truss manufacturer.
34. All truss lumber shall be Douglas Fir Larch (U.N.O.). Roof truss lumber shall be either Douglas Fir Larch or Hem-Fir. (U.N.O.)



ANCHOR PLACEMENT & REQUIREMENTS

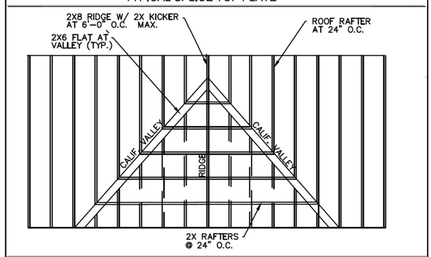


TYPICAL BEAM FRAMING

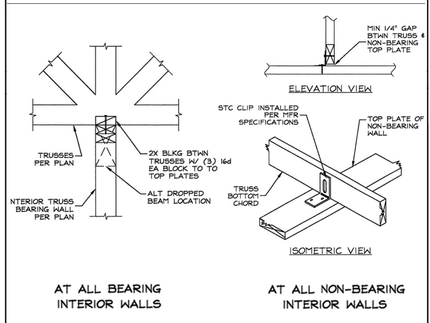


BEARING & SHEAR WALL TOP PLATE SPLICES & LAPS

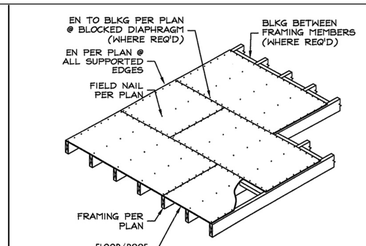
TYPICAL SPLICE TOP PLATE



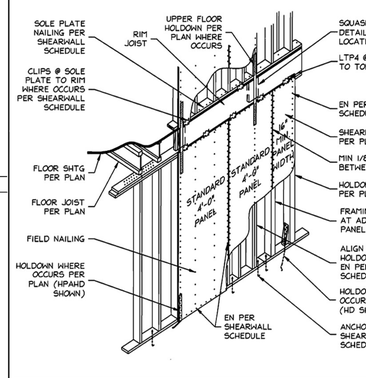
CALIFORNIA FRAMING DETAIL



TRUSSES OR RAFTERS AT INTERIOR WALLS



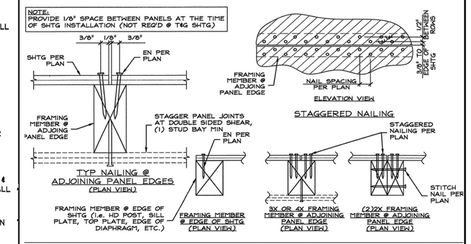
TYPICAL DIAPHRAGM NAILING



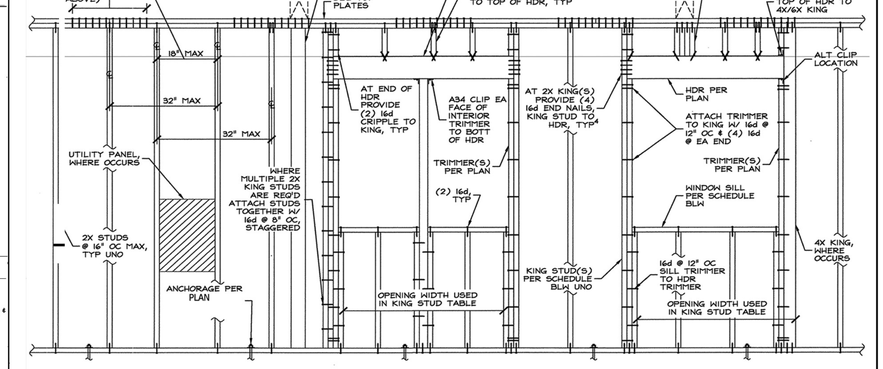
TYPICAL SHEARWALL NAILING

NAILING SCHEDULE

CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d
2. BRIDGING TO JOIST, TOENAIL EACH END	2-8d
3. 1" X 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d
4. WIDER THAN 1" X 6" SUBFLOOR TO EACH JOIST, FACE NAIL	3-8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL SOLE PLATE TO JOIST, AT BRACED WALL PANEL	16d (BOX) AT 16" O.C. (3) 16d (BOX) PER 16"
7. TOP PLATE TO STUD, END NAIL	2-16d
8. STUD TO SOLE PLATE	4-8d, TOENAIL OR 2X SOLE: 2-16d 3X SOLE: 2-20d (BOX)
9. DOUBLE STUDS, FACE NAIL	16d (BOX) AT 24" O.C.
10. DOUBLED TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLIC	16d (BOX) AT 16" O.C. 8-16d
11. BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL	3-8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d AT 6" O.C.
13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
14. CONTINUOUS HEADER, TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOENAIL	3-8d
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
19. RAFTER TO PLATE, TOENAIL	3-8d
20. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
21. 1" X 8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	3-8d
22. WIDER THAN 1" X 8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d
23. BUILT-UP CORNER STUDS	16d AT 24" O.C.
24. BUILT-UP GIRDER AND BEAMS	20d AT 32" O.C. AT TOP AND BOTTOM AND STAGGERED 2-20d AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	2-16d AT EACH BEARING



TYPICAL SHEATHING NAILING



STANDARD KING STUDS AT EXTERIOR WALLS							
PLATE HEIGHT	OPENING WIDTH	3'-0"	5'-0"	6'-0"	8'-0"	10'-0"	12'-0"	16'-0"
4" WALL	8'-1 1/2"	2X	2X	2X	(2) 2X	(3) 2X OR 4X4	(4) 2X OR 4X6	(4) 2X OR 4X6
	9'-1 1/2"	2X	(2) 2X	(3) 2X OR 4X4	(4) 2X OR 4X6	(5) 2X OR 4X6	4X10	6" WALL
	10' 1 1/2"	(2) 2X	(3) 2X OR 4X4	(4) 2X OR 4X6	(5) 2X OR 4X6	(6) 2X OR 4X8	(6) 2X OR 4X10	4X12
6" WALL	UP TO 10'-1 1/2"	2X	2X	2X	2X	2X	(2) 2X	(2) 2X
	12'-1 1/2"	2X	2X	2X	(2) 2X	(2) 2X	(3) 2X OR 4X6	(4) 2X OR 6X6
REDUCED KING STUDS AT WALLS W/ L/240 DEFLECTION CRITERIA								
4" WALL	8'-1 1/2"	2X	2X	2X	(2) 2X	(2) 2X	(3) 2X OR 4X4	(4) 2X OR 4X6
	9'-1 1/2"	2X	(2) 2X	(2) 2X	(3) 2X OR 4X4	(3) 2X OR 4X4	(4) 2X OR 4X6	(5) 2X OR 4X6
	10' 1 1/2"	2X	(2) 2X	(3) 2X OR 4X4	(3) 2X OR 4X4	(4) 2X OR 4X6	(5) 2X OR 4X6	(6) 2X OR 4X6

NON-BEARING WALL HEADER SCHEDULE[4]						WINDOW SILLS		
WALL SIZE	OPENING WIDTH	3'-0"	6'-0"	8'-0"	12'-0"	16'-0"	WALL SIZE	OPENING WIDTH	6'-0"	8'-0"
4" WALL	4" WALL	2X4	4X4 OR (2) 2X4	4X6	4X8	4X10	4" WALL	2X	(2) 2X
6" WALL	6" WALL	2X6	6X6	6X6	6X8	6X8	6" WALL	2X	2X

FRAMING NOTES:
*** OWNER/CONTRACTOR TO VERIFY FINISH MATERIAL DEFLECTION REQUIREMENTS***
1. FOR BACK TO BACK OPENINGS W/ A FULL-HEIGHT CENTER KING, SIZE FOR SUM OF OPENING WIDTHS. (EXAMPLE: (2) 3'-0" OPENINGS = KING FOR A 6'-0" OPENING)
2. PROVIDE (1) 2X TRIMMER @ (2) 2X KING STUDS MIN @ GARAGE DOOR & PORCH HEADERS, UNO
3. AT INTERIOR & GARAGE/HOUSE WALLS PROVIDE (1) 2X KING STUD AT OPENINGS UP TO 12' @ (2) 2X KINGS OPENINGS UP TO 16', UNO, W/ (2) 16d END NAILS KING STUD TO HEADER.
4. AT NON-BEARING WALLS PROVIDE (1) 2X TRIMMER EACH END OF OPENINGS UP TO 12' @ (2) 2X TRIMMERS UP TO 16', UNO.
5. SEE SECTION 6.3 ON SHEET SN.1 FOR ADDITIONAL FRAMING CONNECTION REQUIREMENTS.
6. (1) 11 7/8" TJI 110 OR EQUIVALENT MAY BE USED @ NON-BEARING WALL OPENINGS UP TO 16'-0"

TYPICAL WALL FRAMING

2024-MM-1
ATTACHMENT E

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

STRUCTURAL NOTES

- S1 -

10 OF 16

2022 CBC TABLE 2304.10.2 FASTENING SCHEDULE

NOTE: THIS FASTENING SCHEDULE TO BE USED UNLESS NOTED OTHERWISE ON PLAN AND ENGINEERING SHEET(S).

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF		
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	(3) 8d COMMON (2-1/2" x 0.131") ; OR (3) 10d BOX (3" x 0.128") ; OR (3) 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSSES NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	(2) 8d COMMON (2-1/2" x 0.131") (2) 3" x 0.131" NAILS (2) 3" 14 GAGE STAPLES	EACH END, TOENAIL
	(2) 16d COMMON (3-1/2" x 0.162") (3) 3" x 0.131" NAILS (2) 3" 14 GAGE STAPLES	END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3-1/2" x 0.162") @ 6" O.C. 3" x 0.131" NAILS @ 6" O.C. 3" 14 GAGE STAPLES @ 6" O.C.	FACE NAIL
2. CEILING JOISTS TO TOP PLATES	(3) 8d COMMON (2-1/2" x 0.131") ; OR (3) 10d BOX (3" x 0.128") ; OR (3) 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	(3) 16d COMMON (3-1/2" x 0.162") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	PER TABLE 2308.7.3.1	FACE NAIL
5. COLLAR TIE TO RAFTER	(3) 10d COMMON (3" x 0.148") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE 2308.7.5)	(3) 10d COMMON (3" x 0.148") ; OR (3) 16d BOX (3-1/2" x 0.135") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	(2) 16d COMMON (3-1/2" x 0.162") ; OR (3) 10D BOX (3" x 0.128") ; OR (3) 3" X 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN ; OR	END NAIL
	(3) 10d COMMON (3" x 0.148") ; OR (4) 16d BOX (3-1/2" x 0.135") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
WALL		
8. STUD TO STUD (NOT BRACED WALL PANELS)	16d COMMON (3-1/2" x 0.162") ;	24" O.C. FACE NAIL
	10d COMMON (2-1/2" x 0.128") ; OR 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3-1/2" x 0.162") ; OR	16" O.C. FACE NAIL
	16d BOX (3-1/2" x 0.135") ; OR	12" O.C. FACE NAIL
	3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3-1/2" x 0.162") ; OR	16" O.C. EACH EDGE, FACE NAIL
	16d BOX (3-1/2" x 0.135")	12" O.C. EACH EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	(4) 8d COMMON (2-1/2" x 0.131") ; OR (4) 10d BOX (3" x 0.128")	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3-1/2" x 0.162") ; OR	16" O.C. FACE NAIL
	10d BOX (2-1/2" x 0.128") ; OR 3" x 0.131" NAILS ; OR 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	(8) 16d COMMON (3-1/2" x 0.162") ; OR (12) 10d BOX (3" x 0.128") ; OR (12) 3" x 0.131" NAILS ; OR (12) 3" 14 GAGE STAPLES, 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3-1/2" x 0.162") ; OR	16" O.C. FACE NAIL
	10d BOX (2-1/2" x 0.128") ; OR 3" x 0.131" NAILS ; OR 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	(2) 16d COMMON (3-1/2" x 0.162") ; OR (3) 16d BOX (3" x 0.135") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	(4) 8d COMMON (2-1/2" x 0.131") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
	(2) 16d COMMON (3-1/2" x 0.162") ; OR (3) 10d BOX (3" x 0.128") ; OR (3) 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
17. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	(2) 16d COMMON (3-1/2" x 0.162") ; OR (3) 10d BOX (3" x 0.128") ; OR (3) 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL

2022 CBC TABLE 2304.10.2 FASTENING SCHEDULE

NOTE: THIS FASTENING SCHEDULE TO BE USED UNLESS NOTED OTHERWISE ON PLAN AND ENGINEERING SHEET(S).

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
WALL		
18. 1" BRACE TO EACH STUD AND PLATE	(2) 8d COMMON (2-1/2" x 0.131") ; OR (2) 10d BOX (3" x 0.128") ; OR (2) 3" x 0.131" NAILS ; OR (2) 3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
19. 1" x 6" SHEATHING TO EACH BEARING	(2) 8d COMMON (2-1/2" x 0.131") ; OR (2) 10d BOX (3" x 0.128")	FACE NAIL
20. 1" x 8" AND WIDER SHEATHING TO EACH BEARING	(3) 8d COMMON (2-1/2" x 0.131") ; OR (3) 10d BOX (3" x 0.128")	FACE NAIL
FLOOR		
21. JOIST TO SILL, TOP PLATE, OR GIRDER	(3) 8d COMMON (2-1/2" x 0.131") ; OR FLOOR (3) 10d BOX (3" x 0.128") ; OR (3) 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
22. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON (2-1/2" x 0.131") ; OR 10d BOX (3" x 0.128") ; OR 3" x 0.131" NAILS ; OR 3" 14 GAGE STAPLES, 7/16" CROWN	6" O.C., TOENAIL
23. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	(2) 8d COMMON (2-1/2" x 0.131") ; OR (2) 10d BOX (3" x 0.128")	FACE NAIL
24. 2" SUBFLOOR TO JOIST OR GIRDER	(2) 16d COMMON (3-1/2" x 0.162")	FACE NAIL
25. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	(2) 16d COMMON (3-1/2" x 0.162")	EACH BEARING, FACE NAIL
26. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4" x 0.192")	32" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	10d BOX (2-1/2" x 0.128") ; OR 3" x 0.131" NAILS ; OR 3" 14 GAGE STAPLES, 7/16" CROWN	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	AND: (2) 20d COMMON (4" x 0.192") ; OR FLOOR (3) 10d BOX (3" x 0.128") ; OR (3) 3" x 0.131" NAILS ; OR (3) 3" 14 GAGE STAPLES, 7/16" CROWN	ENDS AND AT EACH SPLICE, FACE NAIL
27. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	(3) 16d COMMON (3-1/2" x 0.162") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST OR RAFTER, FACE NAIL
28. JOIST TO BAND JOIST OR RIM JOIST	(3) 16d COMMON (3-1/2" x 0.162") ; OR (4) 10d BOX (3" x 0.128") ; OR (4) 3" x 0.131" NAILS ; OR (4) 3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
29. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	(2) 8d COMMON (2-1/2" x 0.131") ; OR (2) 10d BOX (3" x 0.128") ; OR (2) 3" x 0.131" NAILS ; OR (2) 3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL

WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING[a]

		EDGES (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
30. 3/8" - 1/2"	6d COMMON OR DEFORMED (2" x 0.113") OR 2-3/8" x 0.113" NAIL (SUBFLOOR AND WALL)	6	12
	8d COMMON OR DEFORMED (2-1/2" x 0.131" x 0.281" HEAD) (ROOF) OR RSRS-01 (2-3/8" x 0.113") NAIL (ROOF) [d]	6 [e]	6 [e]
	2-3/8" x 0.113" x 0.266" HEAD NAIL (ROOF)	3 [f]	3 [f]
	1-3/4" 16 GAGE STAPLE, 7/16" CROWN (SUBFLOOR AND WALL)	4	8
	1-3/4" 16 GAGE STAPLE, 7/16" CROWN (ROOF)	3 [f]	3 [f]
31. 19/32" - 3/4"	8d COMMON (2-1/2" x 0.131") ; OR DEFORMED (2" x 0.113") (SUBFLOOR & WALL)	6	12
	8d COMMON OR DEFORMED (2-1/2" x 0.131" X 0.281" HEAD) (ROOF) OR RSRS-01 (2-3/8" x 0.113") NAIL (ROOF) [d]	6 [e]	6 [e]
	2-3/8" x 0.113" x 0.266" HEAD NAIL ; OR 2" 16 GAGE STAPLE, 7/16" CROWN	4	8
32. 7/8" - 1-1/4"	10d COMMON (3" x 0.148") ; OR 8d DEFORMED (2-1/2" x 0.131")	6	12

OTHER EXTERIOR WALL SHEATHING

33. 1/2" FIBERBOARD SHEATHING [b]	1-1/2" GALVANIZED ROOFING NAIL (7/16" HEAD DIAMETER); OR 1-1/4" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3	6
34. 25/32" FIBERBOARD SHEATHING [b]	1-3/4" GALVANIZED ROOFING NAIL (7/16" HEAD DIAMETER); OR 1-1/2" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3	6

2022 CBC TABLE 2304.10.2 FASTENING SCHEDULE

NOTE: THIS FASTENING SCHEDULE TO BE USED UNLESS NOTED OTHERWISE ON PLAN AND ENGINEERING SHEET(S).

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING		

		EDGES (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
35. 3/4" AND LESS	8d COMMON (2-1/2" x 0.131") ; OR 6d DEFORMED (2" x 0.113")	6	12
36. 7/8" - 1"	8d COMMON (2-1/2" x 0.131") ; OR 8d DEFORMED (2-1/2" x 0.131")	6	12
37. 1-1/8" - 1-1/4"	10d COMMON (3" x 0.148") ; OR 8d DEFORMED (2-1/2" x 0.131")	6	12

PANEL SIDING TO FRAMING

38. 1/2" OR LESS	6d CORROSION-RESISTANT SIDING (1-7/8" x 0.106") ; OR 6d CORROSION-RESISTANT CASING (2" x 0.099")	6	12
39. 5/8"	8d CORROSION-RESISTANT SIDING (2-3/8" x 0.128") ; OR 8d CORROSION-RESISTANT CASING (2-1/2" x 0.113")	6	12

INTERIOR PANELING

40. 1/4"	4d CASING (1-1/2" x 0.080") ; OR 4d FINISH (1-1/2" x 0.072")	6	12
41. 3/8"	6d CASING (1-1/2" x 0.099") ; OR 6d FINISH (PANEL SUPPORTS AT 24 INCHES)	6	12

FOR SI: 1 INCH = 25.4 mm

a. NAILS SPACED AT 6 INCHES AT INTERMEDIATE SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.

b. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NON STRUCTURAL APPLICATIONS. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).

c. WHERE THE RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE, THE NUMBER OF TOENAILS IN THE AFTER SHALL BE PERMITTED TO BE REDUCED BY ONE NAIL.

d. RSRS-01 IS ROOF SHEATHING RING SHANK NAIL MEETING THE SPECIFICATIONS IN ASTM F1667.

e. TABULATED FASTENERS REQUIREMENTS APPLY WHERE THE ULTIMATE DESIGN WIND SPEED IS LESS THAN 140 MPH. FOR WOOD STRUCTURAL PANEL ROOF SHEATHING ATTACHED TO GABLE-END ROOF FRAMING AND TO INTERMEDIATE SUPPORTS WITHIN 48 INCHES OF ROOF EDGES AND RIDGES, NAILS SHALL BE SPACED AT 4 INCHES ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS GREATER THAN 130 MPH IN EXPOSURE B OR GREATER THAN 110 MPH IN EXPOSURE C. SPACING EXCEEDING 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS SHALL BE PERMITTED WHERE THE FASTENING IS DESIGNED PER THE AWC NDS.

f. FASTENING IS ONLY PERMITTED WHERE THE ULTIMATE DESIGN WIND SPEED IS LESS THAN OR EQUAL TO 110 MPH.

g. NAILS AND STAPLER ARE CARBON STEEL MEETING THE SPECIFICATIONS OF ASTM F1667. CONNECTIONS USING NAILS AND STAPLES OF OTHER MATERIALS, SUCH AS STAINLESS STEEL, SHALL BE DESIGNED BY ACCEPTABLE ENGINEERING PRACTICE OR APPROVED UNDER SECTION 104.11.

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

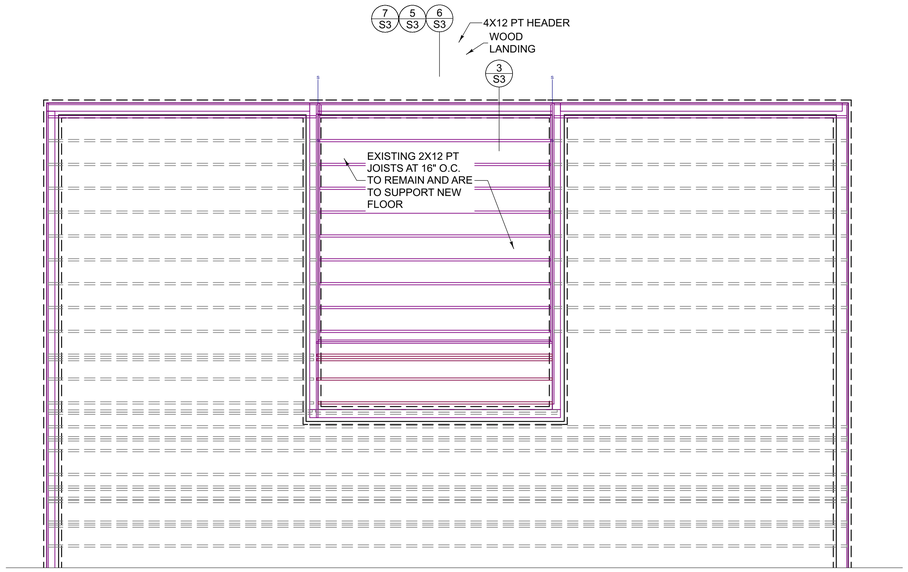
DRAWN BY: KES

DATE DRAWN: 1/25/2024

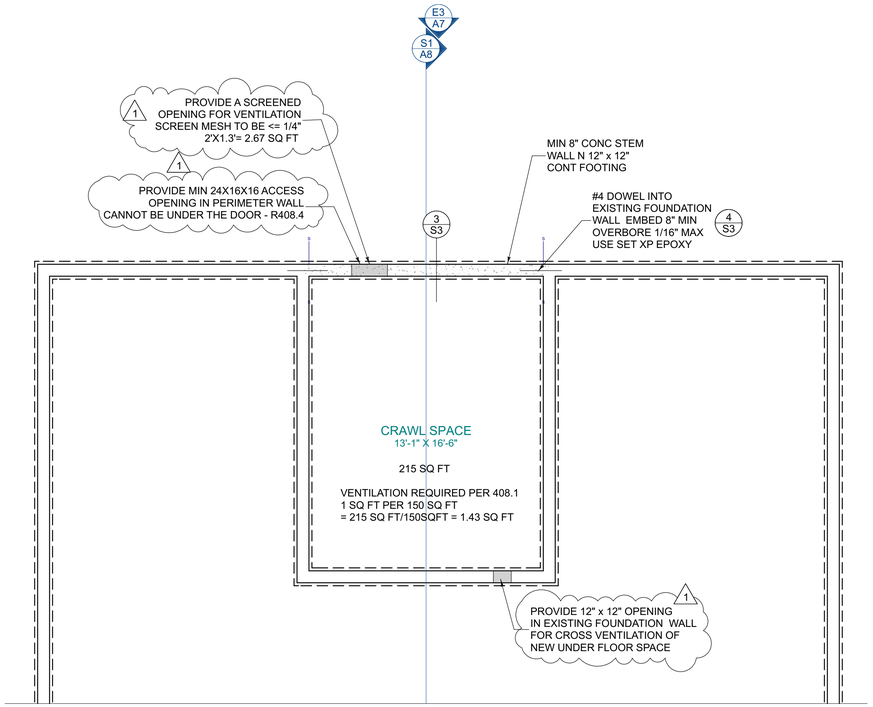
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

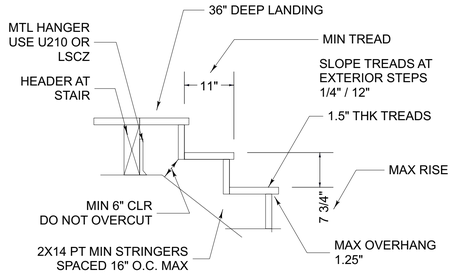
CBC FASTENING SCHEDULE



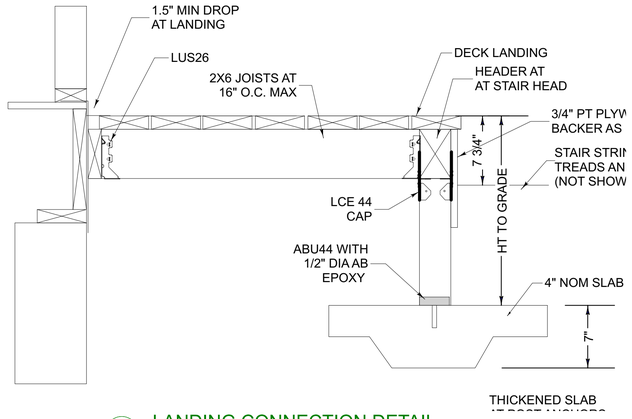
2 FLOOR FRAMING AT ADDITION
SCALE: 1/4"=1'-0"



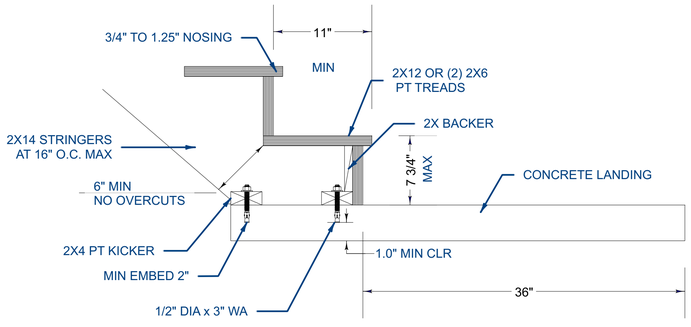
1 FOUNDATION PLAN
SCALE: 1/4"=1'-0"



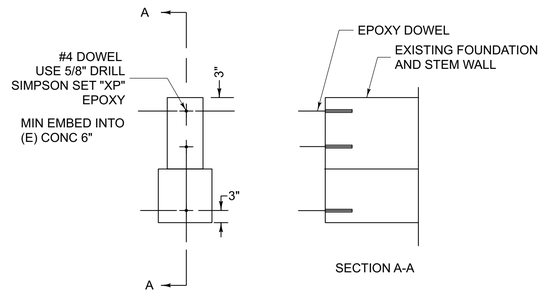
6 STRINGER AT LANDING
SCALE: 3/4"=1'-0"



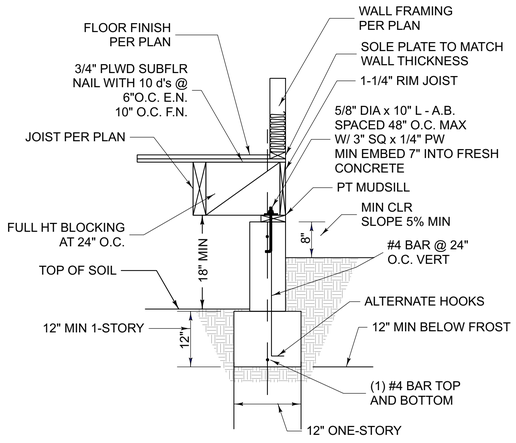
7 LANDING CONNECTION DETAIL
SCALE: 1.5"=1'-0"



5 STRINGERS TO SLAB
SCALE: 1.5"=1'-0"



4 EPOXY DOWELS
SCALE: 3/4"=1'-0"



3 FLOOR FRAMING AT ADDITION
SCALE: 3/4"=1'-0"

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinzsp0@Gmail.com
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

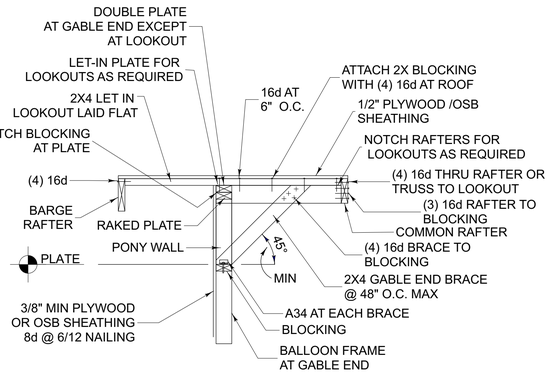
DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

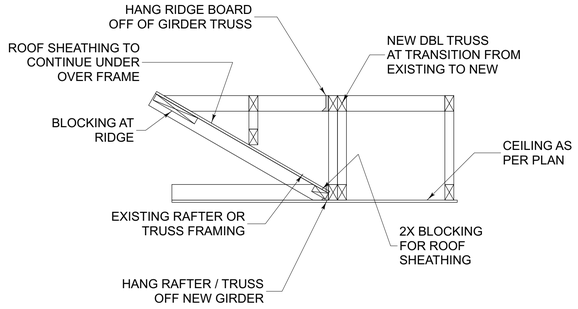
FOUNDATION PLAN

- S3 -

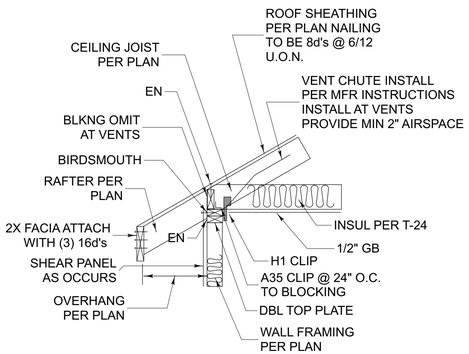
12 OF 16



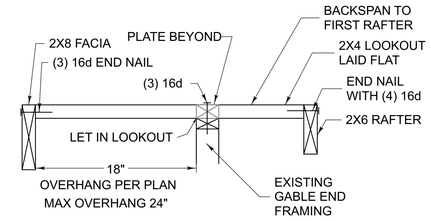
2 GABLE END FRAMING
SCALE: 3/4"=1'-0"



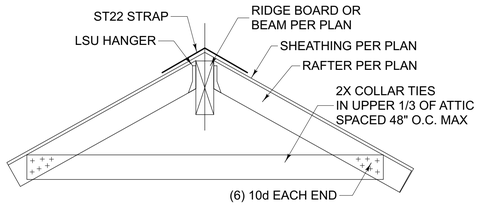
4 OVERF RAME DETAIL
SCALE: 3/4"=1'-0"



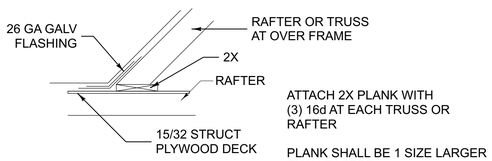
6 EAVE DETAIL
SCALE: 3/4"=1'-0"



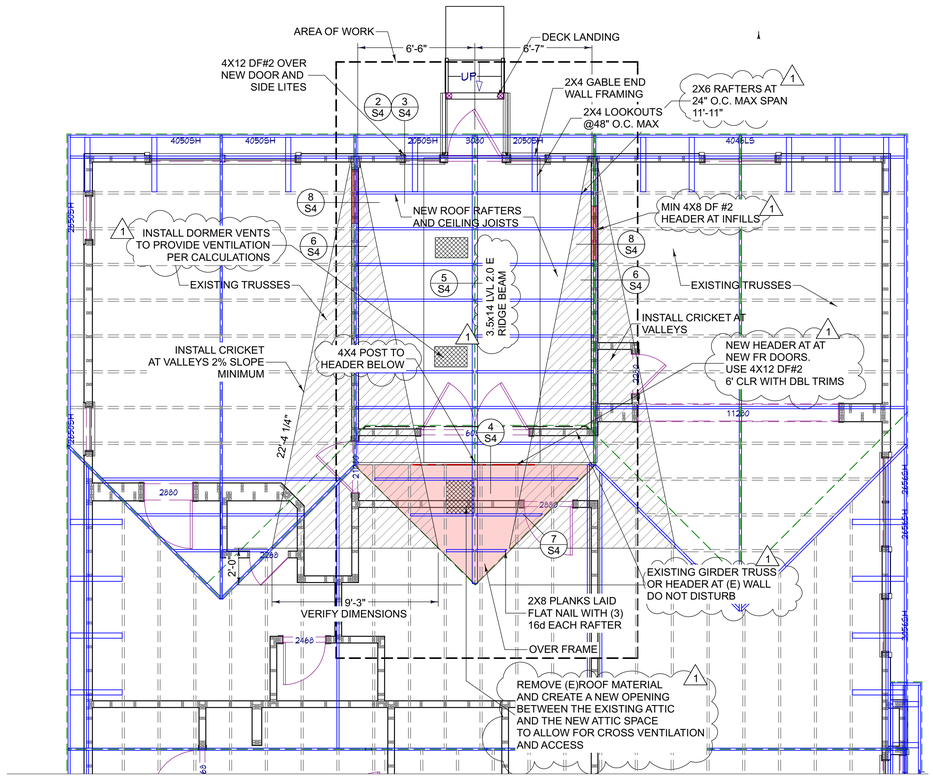
3 LOOKOUT DETAIL
SCALE: 3/4"=1'-0"



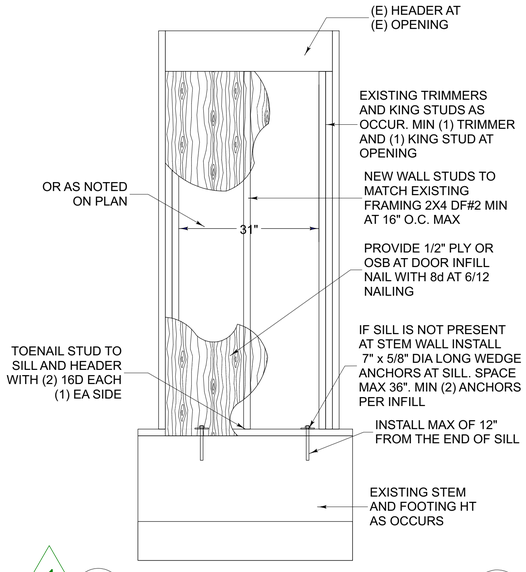
5 RIDGE RAFTER - COLLAR TIE DETAIL
SCALE: 3/4"=1'-0"



7 OVER FRAME @ PLANK DETAIL
SCALE: 3/4"=1'-0"



1 ROOF FRAMING AT ADDITION
SCALE: 1/4"=1'-0"



8 INFILL AT OPENING
SCALE: 3/4"=1'-0"

	RAFTER SPAN TABLE- (2022 CRC PART 2.5)				
	FROM TABLE - R802..4.1(2)				
	SPECIES: DOUG FIR LARCH				
	ROOF LIVE LOAD: 20 PSF		DEAD LOAD: 10 PSF		
	CEILING ATTACHED TO RAFTERS (L/240)				

SPACING	GRADE	2x4	2x6	2x8	2x10	2x12
		ft-in	ft-in	ft-in	ft-in	ft-in
12	SS	10-5	16-4	20-7	>26	>26
	DF #1	10-0	15-9	20-10	>26	>26
	DF #2	9-10	15-6	20-5	26	>26
16	SS	9-6	14-11	19-7	25-0	>26
	DF #1	9-1	14-4	18-11	23-9	>26
	DF #2	8-11	14-1	18-5	22-6	26
19.2	SS	8-11	14-0	18-5	23-7	>26
	DF #1	8-7	13-6	17-9	21-8	25-2
	DF #2	8-5	13-3	16-10	20-7	23-10
24	SS	8-3	13-0	17-2	21-10	>26
	DF #1	8-0	12-6	15-10	19-5	22-6
	DF #2	7-10	11-11	15-1	18-5	21-4

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
Kevinzsp01@Gmail.com
(916) 521-3263
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES
DATE DRAWN: 1/25/2024
SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

ROOF FRAMING PLAN

- S4 -

13 OF 16

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 1 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

GENERAL INFORMATION					
01	Project Name	Lily Court Addition			
02	Run Title	Title 24 Analysis			
03	Project Location	80 Lily Court			
04	City	Brisbane	05	Standards Version	2022
06	Zip code	94005	07	Software Version	EnergyPro 9.2
08	Climate Zone	3	09	Front Orientation (deg/ Cardinal)	180
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Addition and/or Alteration	13	Number of Bedrooms	3
14	Addition Cond. Floor Area (ft^2)	232	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	2120	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft^2)	2352	19	Glazing Percentage (%)	13.10%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	Natural gas	23	No Dwelling Unit:	No

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	Building does not require field testing or HERS verification
03	This building incorporates one or more Special Features shown below

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 2 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0	39.39	0	40.23	0	-0.84
Space Cooling	0	2.92	0	2.63	0	0.29
IAQ Ventilation	0	0	0	0	0	0
Water Heating	0	18.76	0	16.6	0	2.16
Self Utilization/Flexibility Credit						
Efficiency Compliance Total	**0**	**61.07**	**0**	**59.46**	**0**	**1.61**
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	7.03	0	7.03		
Appl. & Cooking	0	15.43	0	15.42		
Plug Loads	0	24.61	0	24.61		
Outdoor Lighting	0	1.77	0	1.77		
TOTAL COMPLIANCE	**0**	**109.91**	**0**	**108.29**		

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 3 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	22.15	21.75	0.4	1.81
Net EUI[2]	22.15	21.75	0.4	1.81

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

REQUIRED SPECIAL FEATURES

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

- New ductwork added is less than 25 ft. in length

HERS FEATURE SUMMARY

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

BUILDING - FEATURES INFORMATION

01 Project Name	02 Conditioned Floor Area (ft^2)	03 Number of Dwelling Units	04 Number of Bedrooms	05 Number of Zones	06 Number of Ventilation Cooling Systems	07 Number of Water Heating Systems
Lily Court Addition	2352	1	3	2	0	1

ZONE INFORMATION

01 Zone Name	02 Zone Type	03 HVAC System Name	04 Zone Floor Area (ft^2)	05 Avg. Ceiling Height	06 Water Heating System 1	07 Status
Existing Living Area	Conditioned	HVAC System1	2120	10	DHW Sys 1	Existing Unchanged
New Living Area	Conditioned	HVAC System1	232	10	DHW Sys 1	New

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 4 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

OPAQUE SURFACES

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Gross Area (ft^2)	07 Window and Door Area (ft2)	08 Tilt (deg)	09 Wall Exceptions	10 Status	11 Verified Existing Condition
Front Wall	Existing Living Area	R-13 Wall	180	Front	450	94.5	90	none	Existing	No
Left Wall	Existing Living Area	R-13 Wall	270	Left	530	72	90	none	Existing	No
Rear Wall	Existing Living Area	R-13 Wall	0	Back	310	58	90	none	Existing	No
Right Wall	Existing Living Area	R-13 Wall	90	Right	530	61.5	90	none	Existing	No
Rear Wall 2	New Living Area	R-15 Wall	0	Back	140	44	90	Extension	New	n/a
Interior Surface	New Living Area=>Existing Living Area	New R-0 Wall	n/a	n/a	50	0	n/a		New	n/a
Interior Surface 2	New Living Area=>Existing Living Area	New R-0 Wall	n/a	n/a	50	0	n/a		New	n/a
Interior Surface 3	New Living Area=>Existing Living Area	New R-0 Wall	n/a	n/a	50	0	n/a		New	n/a
Roof	Existing Living Area	R-30 Roof Attic	n/a	n/a	2120	n/a	n/a		Existing	No
Roof 2	New Living Area	R-30 Roof Attic	n/a	n/a	232	n/a	n/a		New	n/a
Raised Floor	Existing Living Area	R-0 Floor Crawlspace	n/a	n/a	2120	n/a	n/a		Existing	No
Raised Floor 2	New Living Area	R-19 Floor Crawlspace	n/a	n/a	232	n/a	n/a		New	n/a

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 5 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

ATTIC

01 Name	02 Construction	03 Type	04 Roof Rise (x in 12)	05 Roof Reflectance	06 Roof Emittance	07 Radiant Barrier	08 Cool Roof	09 Status	10 Verified Existing Condition
Attic Existing Living Area	Attic RoofExisting Living Area	Ventilated	4	0.1	0.85	No	No	Existing	No
Attic New Living Area	Attic RoofNew Living Area	Ventilated	4	0.1	0.85	No	No	New	n/a

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft^2)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading	15 Status	16 Verified Existing Condition
Window	Window	Front Wall	Front	180			1	10	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 2	Window	Front Wall	Front	180			1	7.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
French Door	Window	Front Wall	Front	180			1	20	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 3	Window	Front Wall	Front	180			1	7.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 4	Window	Front Wall	Front	180			1	7.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
French Door 2	Window	Front Wall	Front	180			1	20	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 5	Window	Left Wall	Left	270			1	47	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 6	Window	Left Wall	Left	270			1	12.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 7	Window	Left Wall	Left	270			1	12.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 8	Window	Rear Wall	Back	0			1	20	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 9	Window	Rear Wall	Back	0			1	20	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 10	Window	Rear Wall	Back	0			1	18	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 6 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft^2)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading	15 Status	16 Verified Existing Condition
Window 11	Window	Right Wall	Right	90			1	14	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 12	Window	Right Wall	Right	90			1	12.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 13	Window	Right Wall	Right	90			1	12.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 14	Window	Right Wall	Right	90			1	16.5	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 15	Window	Right Wall	Right	90			1	6	0.3	NFRC	0.45	NFRC	Bug Screen	Existing	No
Window 16	Window	Rear Wall 2	Back	0			1	10	0.3	NFRC	0.45	NFRC	Bug Screen	New	NA
French Door 3	Window	Rear Wall 2	Back	0			1	24	0.3	NFRC	0.45	NFRC	Bug Screen	New	NA
Window 17	Window	Rear Wall 2	Back	0			1	10	0.3	NFRC	0.45	NFRC	Bug Screen	New	NA

OPAQUE DOORS

01 Name	02 Side of Building	03 Area (ft^2)	04 U-factor	05 Status	06 Verified Existing Condition
Door	Front Wall	22	0.5	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01 Construction Name	02 Surface Type	03 Construction Type	04 Framing	05 Total Cavity R-value	06 Interior / Exterior Continuous R-value	07 U-factor	08 Assembly Layers
R-13 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

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 7 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

OPAQUE SURFACE CONSTRUCTIONS

01 Construction Name	02 Surface Type	03 Construction Type	04 Framing	05 Total Cavity R-value	06 Interior / Exterior Continuous R-value	07 U-factor	08 Assembly Layers
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
New R-0 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board
Attic RoofExisting Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
Attic RoofNew Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-0 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-0	None / None	0.22	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x6
R-19 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x6
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 8 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01 Name	02 System Type	03 Distribution Type	04 Water Heater Name	05 Number of Units	06 Solar Heating System	07 Compact Distribution	08 HERS Verification	09 Water Heater Name (#)	10 Status	11 Verified Existing Condition	12 Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)	New	NA	

WATER HEATERS

01 Name	02 Heating Element Type	03 Tank Type	04 # of Units	05 Tank Vol. (gal)	06 Heating Efficiency Type	07 Efficiency	08 Rated Input Type	09 Input Rating or Pilot	10 Tank Insulation R-value (Int/Ext)	11 Standby Loss or Recovery Eff	12 1st Hr. Rating or Flow Rate	13 Tank Location	14 Status	15 Verified Existing Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	UEF	0.95	Btu/Hr	200000	0	n/a	n/a		New	n/a

WATER HEATING - HERS VERIFICATION

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

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD **CF1R-PRF-01E**

Project Name: Lily Court Addition **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 **(Page 9 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Lily Court Addition (80).ribd22x

SPACE CONDITIONING SYSTEMS

01 Name	02 System Type	03 Heating Unit Name	04 Heating Equipment Count	05 Cooling Unit Name	06 Cooling Equipment Count	07 Fan Name	08 Distribution Name	09 Required Thermostat Type	10 Status	11 Verified Existing Condition	12 Existing HVAC System
HVAC System1	Heating and cooling system other	Heating Component 1	1	Cooling Component 1	1	HVAC Fan 1	Air Distribution System 1	n/a	Existing	No	

HVAC - HEATING UNIT TYPES

01 Name	02 System Type	03 Number of Units	04 Heating Efficiency	05 Heating Unit Brand
Heating Component 1	Central gas furnace	1	AFUE - 80	n/a

HVAC - COOLING UNIT TYPES

01 Name	02 System Type	03 Number of Units	04 Efficiency Metric	05 Efficiency EER/EER2/CEER	06 Efficiency SEER/SEER2	07 Zonally Controlled	08 Multi-speed Compressor	09 HERS Verification
Cooling Component 1	Central split AC	1	EER/SEER	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

Registration Number: | Registration Date/Time: | HERS Provider:

CA Building Energy Efficiency Standards - 2022 Residential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220901 | Report Generated: 2023-11-07 08:27:40

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
Kevinzsp01@Gmail.com (916) 521-3263
ENGINEER

NEW ADDITION FOR:
SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS		
NO	DESCRIPTION	DATE

DRAWN BY: KES

DATE DRAWN: 1/25/2024

SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

TITLE 24
ENERGY REPORT

SHEET 1 OF 3

- T1 -

14 OF 16

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01E**

Project Name: Lily Court Addition — **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 — **(Page 10 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** Lily Court Addition (80).ribd22x

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Design Type	Duct Ins. R-value		Duct Location		Surface Area		Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 25 ft
			Supply	Return	Supply	Return	Supply	Return							
Air Distribution System 1	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distribution System 1-hers-dist	Existing + New	No		No

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-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	Not Required	0

Registration Number:

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time:

Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider:

Report Generated: 2023-11-07 08:27:40

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01E**

Project Name: Lily Court Addition — **Calculation Date/Time:** 2023-11-07T08:26:55-08:00 — **(Page 11 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** Lily Court Addition (80).ribd22x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	Documentation Author Signature:
Timothy Carstairs, CEA, HERS, GPR	
Company: Carstairs Energy Inc.	Signature Date: 11/7/2023
Address: 2238 Bayview Heights Drive Suite E	CEA/ HERS Certification Icenification (If applicable): R19-06-30151
City/State/Zip: Los Osos, CA 93402	Phone: 805-904-9048

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Designer Name:	Responsible Designer Signature:
Kevin Szczepankowski	Kevin Szczepankowski
Company:	Date Signed: 11-16-23
Address: 56 Highline Rd	License:
City/State/Zip: Lake Ozark, MO 65049	Phone: (916) 521-3263

Registration Number:

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time:

Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider:

Report Generated: 2023-11-07 08:27:40

RESIDENTIAL MEASURES SUMMARY — **RMS-1**

Project Name	Building Type			Date
Lily Court Addition	☐ Multi Family	☑ Single Family ☐ Addition Alone ☑ Existing+ Addition/Alteration		11/7/2023
Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
80 Lily Court Brisbane	CA Climate Zone 03	2,352	232	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	Wood Framed	R 15	96		New
Roof	Wood Framed Attic	R 30	232		New
Demising	Wood Framed	- no insulation	150		New

FENESTRATION — Total Area: 308 | Glazing Percentage: 13.1 % | New/Altered Average U-Factor: 0.30

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status

2022 Single-Family Residential Mandatory Requirements Summary

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

Building Envelope:

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

Fireplaces, Decorative Gas Appliances, and Gas Log:

§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device. *
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *

Space Conditioning, Water Heating, and Plumbing System:

§ 110.0-§ 110.3:	**Certification.** Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission. *
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N. *
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating. *
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. *
§ 110.3(c)3:	**Insulation.** Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

5/6/22

RESIDENTIAL MEASURES SUMMARY — **RMS-1**

Project Name	Building Type			Date
Lily Court Addition	☑ Single Family ☐ Multi Family	☐ Addition Alone ☑ Existing+ Addition/Alteration		11/7/2023
Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
80 Lily Court Brisbane	CA Climate Zone 03	2,352	232	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Floor	Wood Framed w/Crawl Space	- no insulation	2,120		Existing
Wall	Wood Framed	R 13	356		Existing
Door	Opaque Door	- no insulation	22		Existing
Wall	Wood Framed	R 13	458		Existing
Wall	Wood Framed	R 13	252		Existing
Wall	Wood Framed	R 13	469		Existing
Roof	Wood Framed Attic	R 30	2,120		Existing
Floor	Wood Framed w/Crawl Space	R 19	232		New

FENESTRATION — Total Area: 308 | Glazing Percentage: 13.1 % | New/Altered Average U-Factor: 0.30

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (S)	72.5	0.300	0.45	none	none	N/A	Existing
Left (W)	72.0	0.300	0.45	none	none	N/A	Existing
Rear (N)	58.0	0.300	0.45	none	none	N/A	Existing
Right (E)	61.5	0.300	0.45	none	none	N/A	Existing
Rear (N)	44.0	0.300	0.45	none	none	N/A	New

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	Gas Central Furnace	80% AFUE	Split Air Conditioner	14.0 SEER	Setback	Existing

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
HVAC System	Ducted	Ducted	Attic	6.0	Altered

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	Small Instantaneous Gas	0	0.95	Standard	New

2022 Single-Family Residential Mandatory Requirements Summary

§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas; fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters. *
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.
§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *
§ 150.0(j)2:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2' higher than the base of the water heater.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.

Ducts and Fans:

§ 110.8(d)3:	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8) do not require insulation. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than ¼". If mastic or tape is used. Building cavities, air handler support platforms, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts; ducts installed in these spaces must not be compressed. *
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage due tosunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.1.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean-filter pressure drop and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter. *

5/6/22

2024-MM-1
ATTACHMENT E

House Arte
Residential Design + Drafting + Illustration
HouseArte.com
(916) 521-3263
Kevinszep01@Gmail.com
ENGINEER

NEW ADDITION FOR:

SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005
APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES

DATE DRAWN: 1/25/2024

SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

TITLE 24
ENERGY REPORT

SHEET 2 OF 3

- T2 -

15 OF 16

2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3. *

Ventilation and Indoor Air Quality:

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

Pool and Spa Systems and Equipment:

§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDbS; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating. *
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*

Lighting:

§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9. *
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(k)1B:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.
§ 150.0(k)1D:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1E:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k). *

2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(k)1G:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems. *
§ 150.0(k)2A:	**Accessible Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *
§ 150.0(k)2B:	**Multiple Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).
§ 150.0(k)2C:	**Mandatory Requirements.** Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(k)2D:	**Energy Management Control Systems.** An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.
§ 150.0(k)2E:	**Automatic Shutoff Controls.** In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.0(k)2F:	**Dimmers.** Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(k)2K:	**Independent controls.** Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.

Solar Readiness:

§ 110.10(a)1:	**Single-family Residences.** Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
§110.10(b)1A:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. *
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment. *
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane. *
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."

Electric and Energy Storage Ready:

2022 Single-Family Residential Mandatory Requirements Summary

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

*Exceptions may apply.

ROOM LOAD SUMMARY

Project Name: Lily Court Addition — Date: 11/7/2023
System Name: HVAC System — Floor Area: 2,352

ROOM LOAD SUMMARY

			ROOM COOLING PEAK			COIL COOLING PEAK			COIL HTG. PEAK	
Zone Name	Room Name	Mult.	CFM	Sensible	Latent	CFM	Sensible	Latent	CFM	Sensible
Existing Living Area	*Existing 1st Floor*	*1*	*1,050*	*21,361*	*745*	*1,050*	*21,361*	*745*	*707*	*26,898*
New Living Area	*1st Floor Addition*	*1*	*94*	*1,921*	*82*	*94*	*1,921*	*82*	*49*	*1,851*
				PAGE TOTAL		*1,145*	*23,282*	*827*	*756*	*28,749*
				TOTAL *		*1,145*	*23,282*	*827*	*756*	*28,749*

* Total includes ventilation load for zonal systems.

House Arte
Residential Design - Drafting - Illustration
Kevinzep01@Gmail.com (916) 521-3263 HouseArte.com

ENGINEER

NEW ADDITION FOR:

SASHA & ALONA GORER
80 LILY CT
BRISBANE, CA 94005

APN: 005-550-040

REVISIONS

NO	DESCRIPTION	DATE

DRAWN BY: KES

DATE DRAWN: 1/25/2024

SCALE: 1/4"=1'-0" U.N.O. TYP.

CONCEPT

TITLE 24
ENERGY REPORT

- T3 -