MEMORANDUM

Planning Department

Date: November 14, 2024
To: Zoning Administrator
From: Jessica Thiragirayuta, Acting Assistant Planner

Subject: **NEW DETACHED ACCESSORY DWELLING UNIT – 2143 INCLINE CT - P-MS24-0207** – A Minor Site Development Permit to develop a 1,000 square-foot, two-story, detached Accessory Dwelling Unit, up to 19 feet, 9 inches in height, behind an existing two-story, single-family dwelling on a 0.21-acre site in the R1-6 Single-Family Residential Zoning District. The project is categorically exempt from environmental review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15303 (Construction or Conversion of Small Structures), and, as a separate and independent basis, Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning).

Location: 2143 Incline Ct (APN: 088-48-032)

Zoning/GP: Single-Family Residential (R1-6) / Low Density Residential (LDR)

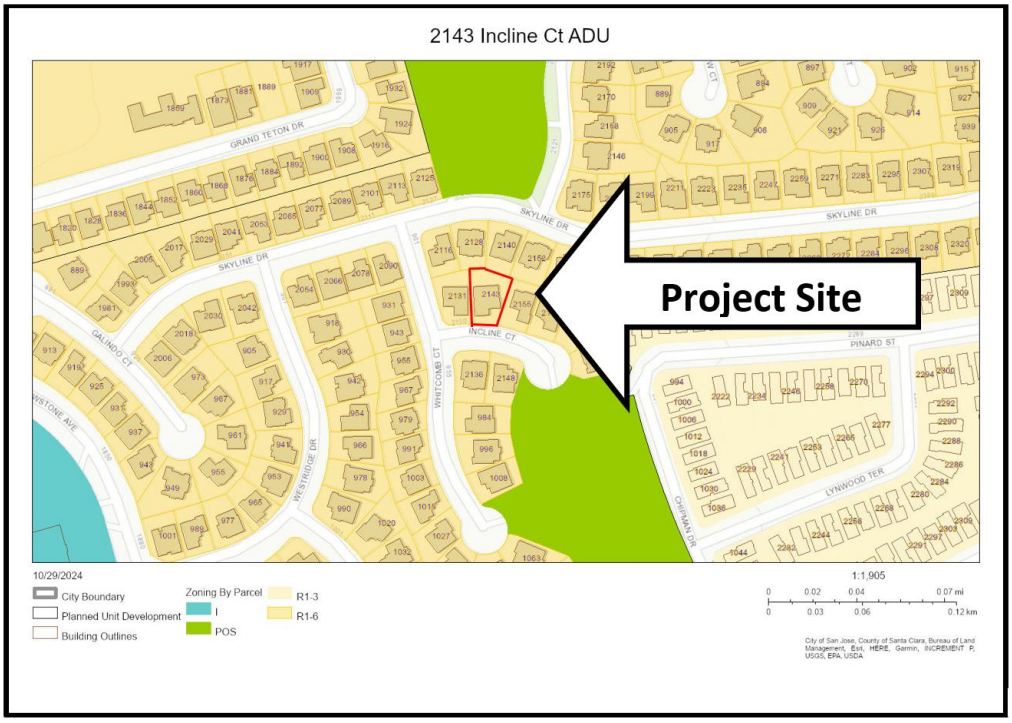
Project Overview:

On August 15, 2024, Patrick Nguyen (on behalf of the property owner) submitted a Minor Site Development (MSD) Permit application to develop a two-story, 1,000 square-foot , two-bedroom, detached Accessory Dwelling Unit (ADU) within the rear yard of a 0.21-acre site located at 2143 Incline Court. No other improvements are proposed for the existing 2,705 square-foot, two-story, single-family home at this time or within this application.

The proposed ADU will feature 470 square feet of living space on the first and 350 square feet of living space on the second floor, and a height of approximately 19 feet, 9 inches. Per Milpitas Municipal Code (MMC) Table XI-10-57.03(C)(2)(c), ADUs over 18 feet in height that are not located within one-half mile walking distance of a major transit stop or a high quality transit corridor are subject to Zoning Administrator approval through the MSD permit process.

The Project site is surrounded by residential uses to the north, south, east, and west, as demonstrated in Map 1: Project Zoning and Map 2: Aerial View.

Map 1: Project Zoning



Map 2: Aerial View

Table 1: Surrounding Zoning and Land Uses

	General Plan	Zone	Uses
Subject Site	Low Density Residential (LDR)	Single Family Residential (R1-6)	Single-Family Residential
North	Low Density Residential (LDR)	Single Family Residential (R1-6)	Single-Family Residential
South	Low Density Residential (LDR)	Single Family Residential (R1-6)	Single-Family Residential
East	Low Density Residential (LDR)	Single Family Residential (R1-6)	Single-Family Residential
West	Low Density Residential (LDR)	Single Family Residential (R1-6)	Single-Family Residential

Zoning Conformance

The Project site is located within the Single Family Residential (R1-6) Zoning District and complies with most of the development standards of MMC Sec. XI-10-13.08 (Accessory Dwelling Units) as shown in Table 2. Since the proposed ADU 19 feet, 9 inches in height, the Project requires Zoning Administrator review per MMC Sec. XI-10-13.08(I).

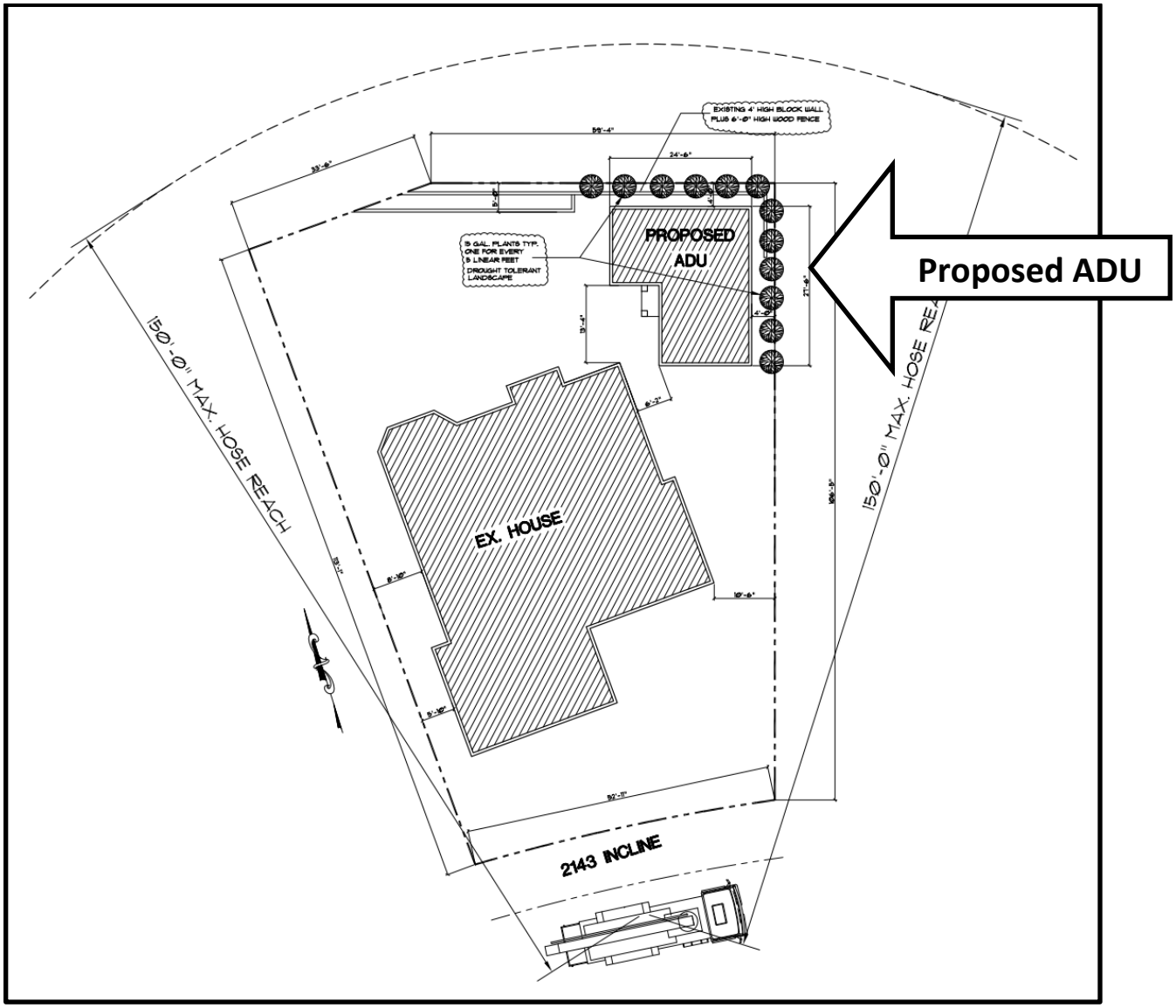
Table 2: Detached ADU Development Standards

Standards	Required/Maximum	Proposed	Complies
Front Setback	20 feet	Approximately 75 feet	Yes
Side Yard Setback	4 feet	4 feet	Yes
Rear Yard Setback	4 feet	4 feet	Yes
Setback to Other Structures	6 feet	6’2” feet	Yes
Building Size	1,000	1,000	Yes
Building Height	16 feet, up to 20 feet*	19 feet, 9 inches	No**
*	Building height allowed up to 18 feet if located within one-half mile walking distance of a major transit stop or a high-quality transit corridor; and allowed up to 20 feet if needed to accommodate a roof pitch on the ADU to match existing dwelling		
**	Requires Zoning Administrator approval		

Project Details

The proposed ADU will be located in the northeast corner of the subject site. The ADU will feature a first floor of 555 square feet and 445 square feet on the second floor. The applicant wishes to accommodate a roof pitch on the ADU that is aligned with the roof pitch of the primary dwelling unit. While no parking spaces would be required for the ADU, since the ADU is located within one-half mile walking distance of public transit pursuant to MMC Section XI-10-13.08(F)(7)(a)(i), the applicant has proposed a dedicated spot for the ADU on the driveway. No changes are proposed for the main dwelling. *Figure 1*: *Site Plan* shows the location of the proposed ADU.

Figure 1: Site Plan



Colors and Materials

The proposed ADU will feature three coats of stucco finish over foam providing two layers of grade “D” paper over plywood sheathing on the exterior and concrete mission tile roof to match the existing single-family dwelling. The existing single-family dwelling, along with others within the vicinity, are currently two-story structures, which is consistent with the proposed detached two-story ADU. In order to preserve the privacy of the property and neighboring properties, no windows are proposed along the rear elevation and frosted glass windows will be installed on the front and side elevations. *Figures 2 and 3* show the proposed floor plan, and *Figures 4, 5, 6, and 7* show the proposed elevations.

Figure 2: Floor Plan (First Floor)

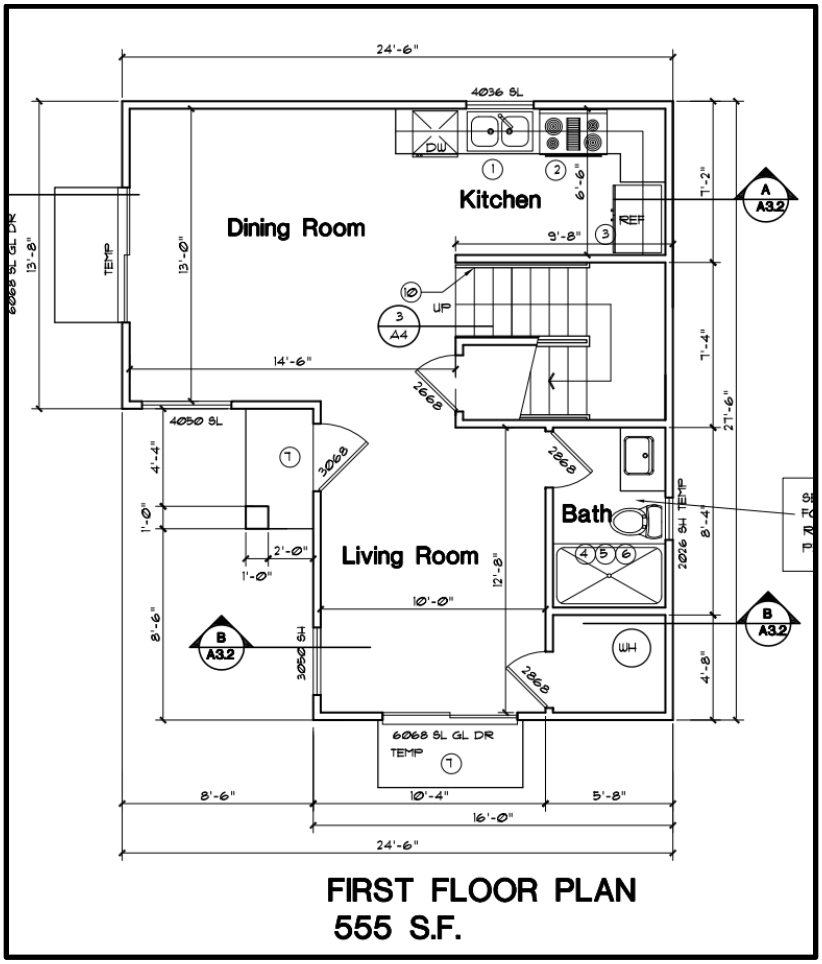


Figure 3: Floor Plan (Second Floor)

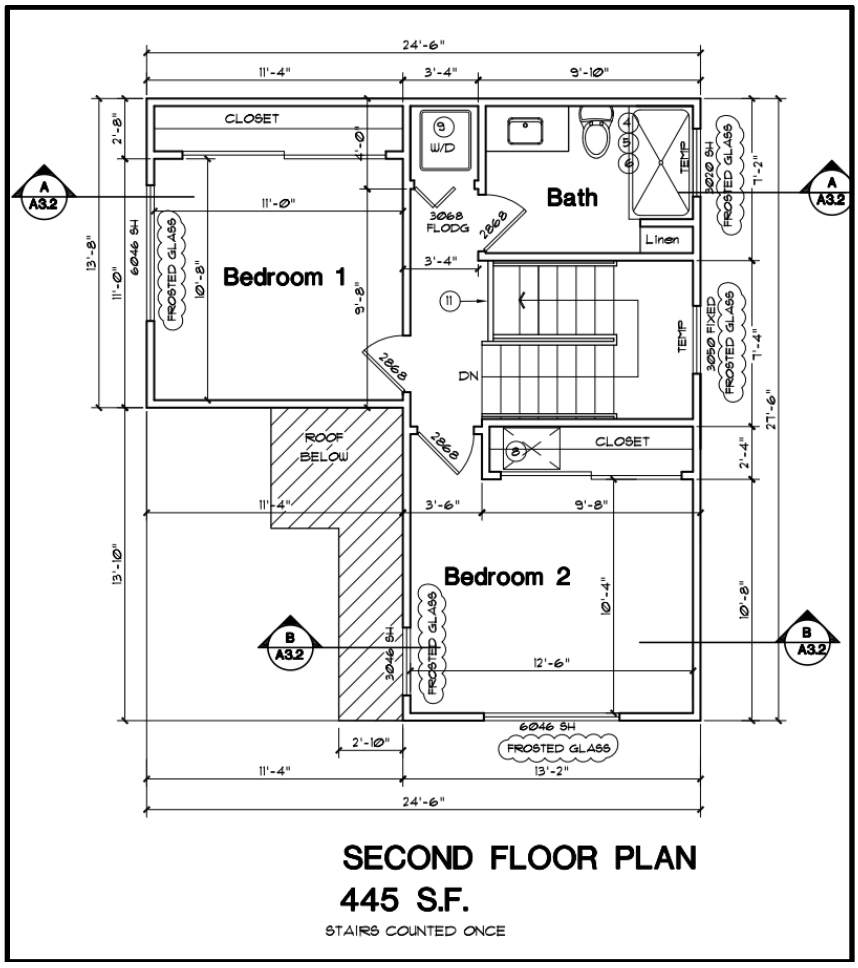


Figure 4: Front Elevation

Figure 5: Rear Elevation

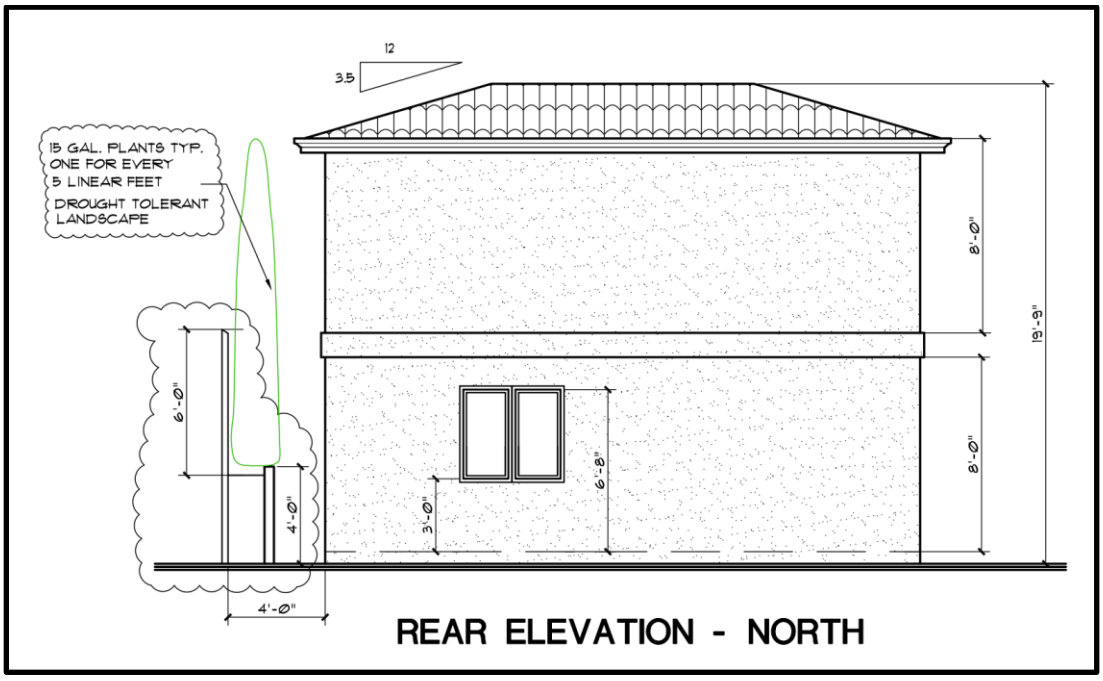


Figure 6: Left Elevation

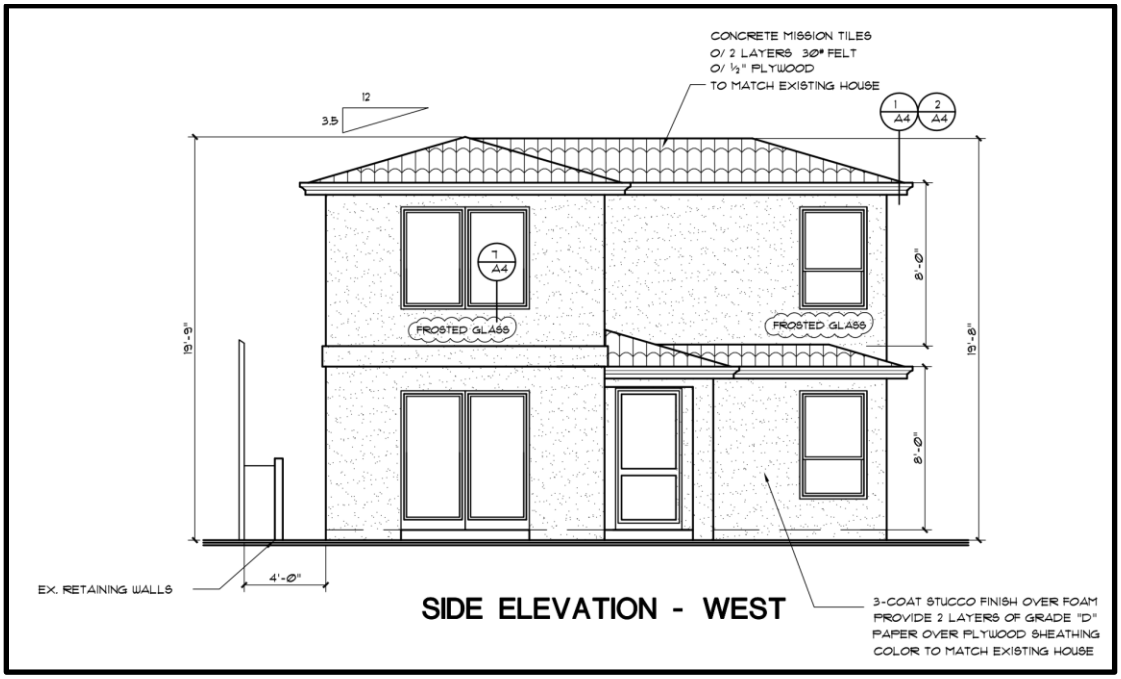
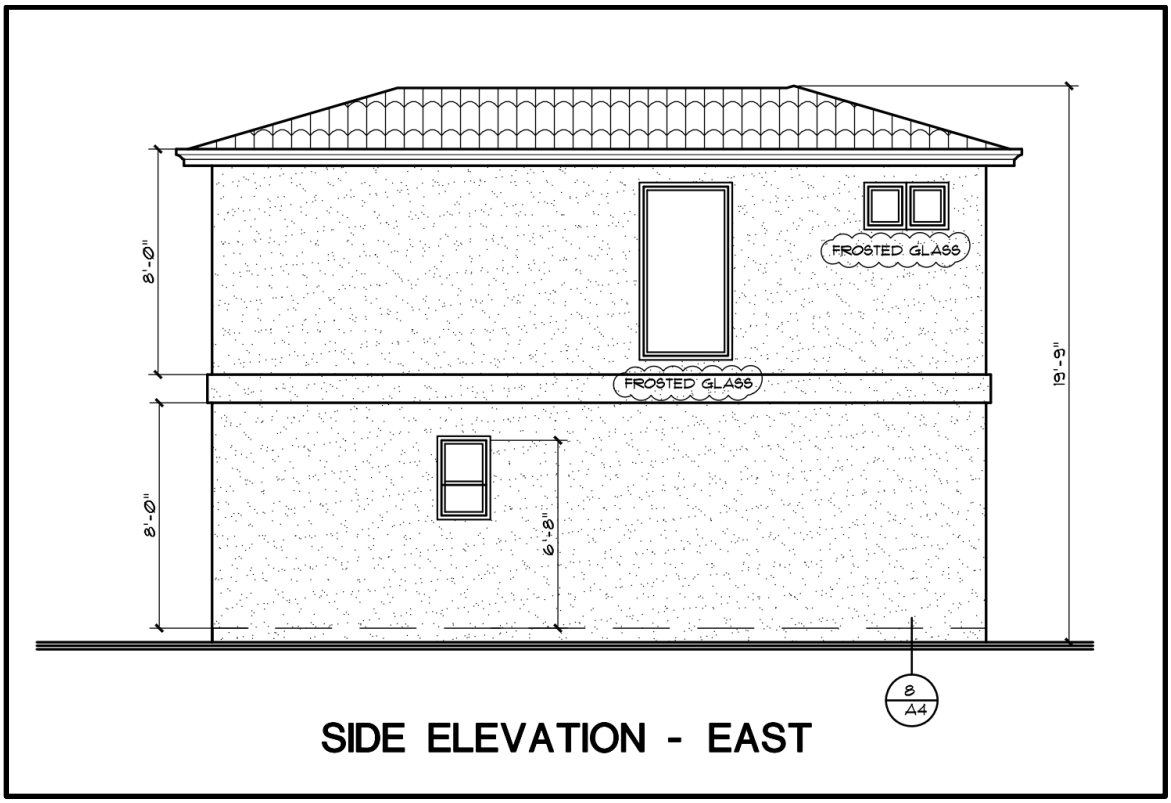


Figure 7: Right Elevation



Parking
No additional parking is required for the ADU because the Project site is within one-half mile walking distance of public transit, as permitted per MMC Section XI-10-13.08(F)(7)(a)(i). However, the applicant has proposed a dedicated spot for the ADU on the driveway.

Landscaping
The applicant proposes to install vertical screening landscaping between the ADU and the two nearest residences to the north and east. The final plant specimens will be selected during the building permit process and pursuant to Condition of Approval no. 16, the installation will be confirmed during the final Building Permit inspection. The new landscaping will help provide additional privacy by creating a landscaped buffer between the residences. No trees need to be removed to develop this Project.

Zoning Conformance
As proposed, the Project and associated use are consistent with the purpose and intent of the Single Family Residential (R1-6) zoning district, which is intended to *"stabilize and protect the residential characteristics of the District and to promote and encourage a suitable environment for family life. The R1 District is intended for the suburban family home and the services appurtenant thereto,"* per MMC Sec. XI-10-4.01.

Findings for Approval:

In accordance with Section XI-10-57.03(G) of the Milpitas Municipal Code, the Zoning Administrator may consider and approve a Minor Site Development if the required findings can be made. Findings shall identify the rationale behind the decision to take a certain action and are analyzed below:

1. *The development recognizes and respects the nature of the neighborhood and site, development patterns, materials used, and the expectations of those who will see and use the building;*

   The Project is minimally visible to vehicles and pedestrians from the public right-of-way. The ADU has a proposed building height of 19 feet, 9 inches, which is below the maximum height of 20 feet allowed within the R1-6 Zoning District. The nearby residential dwelling structures (2131, 2136, 2155 Incline Ct, and 2128 and 2140 Skyline Dr) are also two-stories. As such, the two-story ADU is designed to be consistent with the main dwelling and other nearby residential structures. The ADU will be painted white to match the existing main dwelling.

2. *The development assures that modifications satisfy functional requirements, and are screened with appropriate compatible materials; and*

   The proposed two-story ADU was sited behind the existing two-story home, shielded with landscaping, and designed to maximize space and functionality. The ADU will complement the neighborhood character as its building materials will match the existing dwelling. Furthermore, the Project would not require additional parking spaces, so the subject site would still meet and exceed minimum parking requirements.

3. *The development assures that the modifications will not interfere with the privacy, quiet enjoyment or view of the surrounding properties.*

   The proposed two-story (ADU) is located within the rear yard of the site, but will be surrounded by vertical screening landscaping in order to provide a buffer between nearby residences to the north and the east. Because the ADU is located along the property's northeast property line, it will not be visible to the property to the west. Moreover, the Project will provide frosted windows on the second floor of the structure to not interfere with the privacy of the surrounding properties. Therefore, the Project will not interfere with the privacy, quiet enjoyment or view of the surrounding properties.

California Environmental Quality Act (CEQA):

The Project is categorically exempt from further environmental review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15303 (Construction or Conversion of Small Structures). As proposed, the Project is a second dwelling unit within an urban residential zoning district. As a separate and independent basis, the Project is also exempt from further environmental review pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning). The Project is generally consistent with the City's existing zoning and general plan.

Recommendation:

STAFF RECOMMENDS THAT the Zoning Administrator approve P-MS24-0207 to allow the development of a 1,000 square-foot Accessory Dwelling Unit (ADU), up to 19 feet, 9 inches in height, behind an existing two-story single-family dwelling on a 0.21-acre site in the R1-6 Single Family Residential Zoning District located at 2143 Incline Ct., subject to the findings outlined in this report and the attached Conditions of Approval.

Attachments:

A. *Conditions of Approval*
B. *Project Plans*

Attachment A

CONDITIONS OF APPROVAL:

1. General Compliance. The applicant, including all successors in interest (collectively "Permittee") shall comply with each and every condition set forth in this Permit. This **Minor Site Development Permit No. MS24-0207** ("Permit") shall have no force or effect and no building permit shall be issued unless and until all things required by the below-enumerated precedent conditions have been performed or caused to be performed. **(P)**

2. Effective Date. Unless there is a timely appeal filed in accordance with the Milpitas Zoning Code, the date of approval of this Permit is the date on which the decision-making body approved this Permit. **(P)**

3. Acceptance of Permit. Should Permittee fail to file a timely appeal within twelve (12) calendar days of the date of approval of this Permit, inaction by Permittee shall be deemed to constitute each of the following: **(P)**
   i. Acceptance of this Permit by Permittee; and
   ii. Agreement by the Permittee to be bound by, comply with, and to do all things required of or by Permittee pursuant to all of the terms, obligations, and conditions of this Permit.

4. Permit Expiration. Pursuant to Section XI-10-64-06 of the Milpitas Zoning Code, this Permit shall become null and void if the activity permitted by this Permit is not commenced within two (2) years from the date of approval, or for a project submitted with a tentative map, within the time limits of the approved tentative map. Pursuant to Section XI-10-64.06(B) of the Milpitas Zoning Code, an activity permitted by this Permit shall be deemed to have commenced when the project: **(P)**
   i. Completes a foundation associated with the project; or
   ii. Dedicates any land or easement as required from the zoning action; or
   iii. Complies with all legal requirements necessary to commence the use, or obtains an occupancy permit, whichever is sooner.

5. Time Extension. Pursuant to Section XI-10-64.07 of the Milpitas Zoning Code, unless otherwise provided by State law, Permittee shall have the right to request a one-time extension of the Permit if the request is made in writing to the Planning Department prior to the expiration date of the approval. **(P)**

6. Notice. Pursuant to California Government Code Section 66020, any protest filed in court relating to the imposition of fees, dedication, reservations, or other exactions to be imposed on the development project shall be filed within ninety (90) days after the date of the approval of this Permit. This provision serves as notice from the local agency to the Permittee that the ninety (90) day period in which the applicant may file a protest has begun under California Government Code Section 66020(d)(1). **(CA)**

7. Cost and Approval. Permittee shall fully complete and satisfy each and every condition set forth in this Permit and any other condition applicable to the project to the sole satisfaction of the City. Additionally, Permittee shall be solely responsible and liable for the cost to satisfy each and every condition. Permittee shall pay all required fees and charges to the City at the rate in effect at time of building permit issuance, or, the rate in effect when the fees and charges are due and paid in full to the City. There is no vesting of any fees or charges with the approval of this Permit. **(P)**

8. Conditions. Each and every condition set forth in this Exhibit shall apply to the project and continue to apply to the project so long as the Permittee is operating the project under the permits and approvals in this Permit. **(P)**

9. Compliance with Laws. The construction, use, and all related activity authorized under this Permit shall comply with all applicable local, state, and federal laws, rules, regulations, guidelines, requirements, and policies. **(CA/P)**

10. Previous Approvals. Permittee shall abide and continue to comply with all previous City approvals, permits, or requirements relating to the subject property, unless explicitly superseded or revised by this Permit. **(P)**

11. Indemnification. To the fullest extent permitted by law, Permittee shall indemnify, defend with counsel of the City's choosing, and hold harmless City, its City Council, its boards and commissions, officials, officers, employees, and agents from and against any and all claims, demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including without limitation, attorney's fees, disbursements and court costs) of every kind and nature whatsoever which may arise from or in any manner relate (directly or indirectly) to (i) City's approval of the project, including but not limited to, the approval of the discretionary permits, maps under the Subdivision Map Act, and/or the City's related determinations or actions under the California Environmental Quality Act, and (ii) Permittee's construction, operation, use, or related activity under this Permit. This indemnification shall include, but not be limited to, damages awarded against the City, if any, costs of suit, attorneys' fees, and other expenses incurred in connection with such claim, action, causes of action, suit or proceeding whether incurred by applicant, City, and/or the parties initiating or bringing such proceeding. Permittee shall indemnify the City for all of City's costs, attorneys' fees, and damages which City incurs in enforcing the indemnification provisions set forth in this condition. Permittee shall pay to the City upon demand or, as applicable, to counsel of City's choosing, any amount owed pursuant to the indemnification requirements prescribed in this condition. **(CA)**

12. Written Response to Conditions. The Permittee shall provide a written response to the Conditions of Approval indicating how each condition has been addressed with the building permit application submittal. **(ALL)**

13. Revocation, Suspension, Modification. This Permit may be suspended, revoked, or modified in accordance with Section XI-10-63.06 of the Milpitas Zoning Code. **(P)**

14. Severability. If any term, provision, or condition of this Permit is held to be illegal or unenforceable by the Court, such term, provision, or condition shall be severed and shall be inoperative, and the remainder of this Permit shall remain operative, binding, and fully enforceable. **(CA)**

15. Permittee shall develop the approved project in conformance with the approved plans (date stamped June 29, 2023), approved by the Zoning Administrator in accordance with these Conditions of Approval. **(P)**

    Any deviation from the approved site plan, elevations, materials, colors, landscape plan, or other approved submittal shall require that, prior to the issuance of building permits, the Permittee shall submit modified plans and any other applicable materials as required by the City for review and obtain the approval of the Planning Director or Designee. If the Planning Director or designee determines that the deviation is significant, the owner or designee shall be required to apply for review and obtain approval of the Zoning Administrator or City Council, as applicable, in accordance with the Milpitas Zoning Code. **(P)**

16. Landscaping. The permittee shall comply with MMC Section XI-10-13.08(F)(9)(a). Final landscape plans shall be submitted to Planning prior to Building Permit submittal and landscaping shall be installed prior to the final Building Permit inspection. **(P)**

17. Fire Department. The permittee shall comply with the requirements of the Fire Department and the California Fire Code, as may be amended by the City of Milpitas. Changes to the site plan and/or internal circulation shall be reviewed and approved by the Fire Department. **(F)**

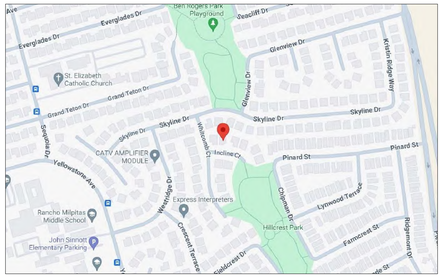
18. Building Department. The permittee shall comply with the requirements of the Building, Safety and Housing Department. Building construction plans must be submitted for review and approval before construction is to commence. All applicable California Code of Regulations Title 24 and Milpitas Municipal Code requirements at the time of building permit application must be met in advance of any building permit approvals or related construction. **(B)**

19. Land Development Department The project/development shall comply with the requirements of the Engineering Division. Changes to the site plan shall be reviewed and approved by the Engineering Division. **(LD)**

(P) = Planning
(PO) = Police
(F) = Fire Prevention
(B) = Building
(LD) = Land Development
(CA) = City Attorney

_____ Date: _____

Kristina Phung, AICP
Senior Planner

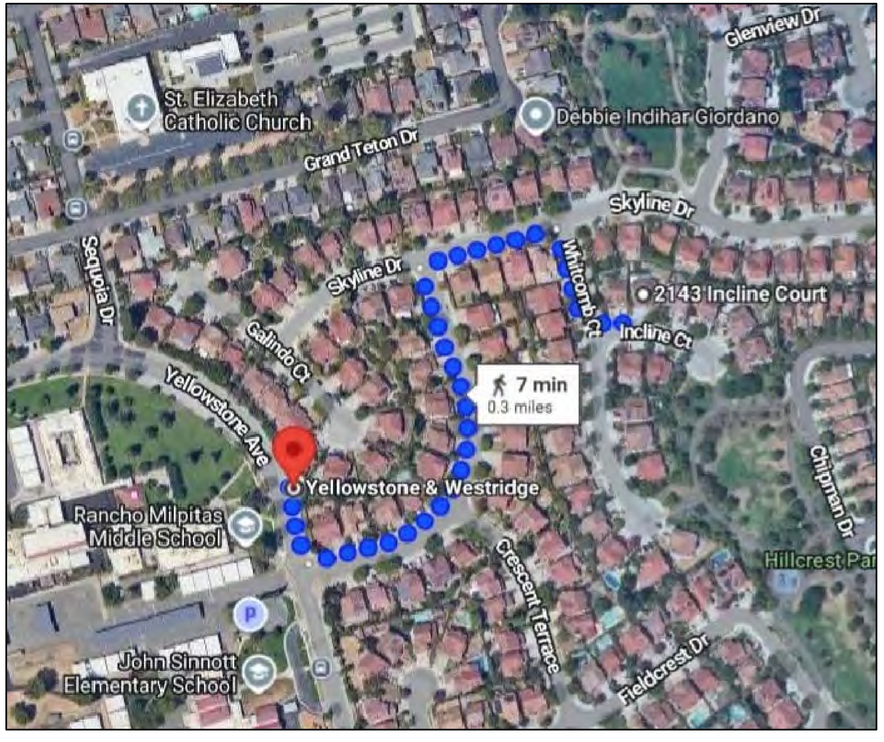


VICINITY MAP

CONDITIONS OF APPROVAL:

Compliance with California Code of Regulations. The Project shall comply with the requirements of the Office of Building Safety and the California Code of Regulations Title 24 and the Milpitas Municipal Code as adopted by the City. Building permits shall be submitted to and approved by the Office of Building Safety prior to start of construction. All California Code of Regulations Title 24 and Milpitas Municipal Code requirements applicable at the time of building permit application must be met in advance of any building permit approvals or related construction. Changes to the site plan and/or building plan require review and approval by the Office of Building Safety

CONDITIONS OF APPROVAL



DISTANCE TO PUBLIC HIGH QUALITY TRANSIT CORRIDOR

"VARIABLE CAPACITY HEAT PUMP COMPLIANCE OPTION AND NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) RATED HEAT PUMP WATER HEATER: SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED ARE REQUIRED FOR THIS PROJECT AS "REQUIRED SPECIAL FEATURES" OF THE ENERGY CALCULATIONS.

PER ENERGY REPORT:

- "HERS VERIFICATION REQUIRED FOR BUILDING ENVELOPE (QII) HVAC HEAT-PUMPS, VARIABLE CAPACITY HEAT, PUMP COMPLIANCE OPTION HVAC DISTRIBUTION, HVAC FAN SYSTEMS, AND IAQ (INDOOR AIR QUALITY)

- PROVIDE EVIDENCE OF THIRD PARTY VERIFICATION (HERS) TO PROJECT BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION".

DEFERRED SUBMITTAL:

- A PERMIT FOR A PV SYSTEM 2.06 kWdc PER THE ENERGY CALCULATIONS. A SEPARATE BUILDING PERMIT IS PHOTOVOLTAIC SOLAR SYSTEM WILL BE APPLIED FOR AS A DEFERRED SUBMITTAL. IF THE DEFERRED SUBMITTAL IS NOT APPLIED FOR AND APPROVED BEFORE THE ROUGH TRADE INSPECTIONS, THE PROJECT WILL BE PUT ON-HOLD UNTIL THE SUBMITTAL IS APPROVED.

- A PERMIT FOR A NFPA 13D RESIDENTIAL FIRE SUPPRESSION SPRINKLER SYSTEM SHALL BE APPLIED FOR AS A DEFERRED SUBMITTAL. SUBMIT CALCULATIONS AND DESIGN DIRECT TO SANTA CLARA COUNTY FIRE DEPARTMENT (SCCFD), 14700 WINCHESTER BLVD, LOS GATOS (408) 378-4010. IF THE DEFERRED SUBMITTAL IS NOT APPLIED FOR AND APPROVED BEFORE THE ROUGH TRADE INSPECTIONS, THE PROJECT WILL BE PUT ON-HOLD UNTIL THE SUBMITTAL IS APPROVED. TO APPLY FOR THE PERMIT, FOLLOW THE DIRECTIONS ON WWW.SCCFD.ORG FIRE PREVENTION APPLICATIONS OR CALL SCCFD AT (408) 378-4010.

1.3. DEFERRED SUBMITTAL. SUBMIT PERMITS TO THE CITY OF MILPITAS FOR THIS PROJECT:
1.3.1. AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM (NFPA 13D MINIMUM) SHALL BE PROVIDED FOR THE HOME (LIVING SPACE, GARAGE, OUTDOOR SPACES ATTACHED TO THE HOME, ETC.). CALIFORNIA FIRE CODE SECTION 903.2, AMENDED BY MILPITAS MUNICIPAL CODE V-300-2.62
1.3.2. FIRE DEPARTMENT PERMIT - REQUIRED THE MILPITAS FIRE DEPARTMENT SHALL APPROVE NEW INSTALLATION AND/OR MODIFICATIONS TO EXISTING FIRE PROTECTION, ALARM OR MONITORING SYSTEM(S). A SEPARATE SUBMITTAL IS REQUIRED TO THE MILPITAS FIRE DEPARTMENT, FOR REVIEW AND APPROVAL, PRIOR TO THE COMMENCEMENT OF ANY WORK. CFC SECTION 901.2
1.3.3. WATER SUPPLY SERVICE TO THE HOME THE EXISTING WATER SUPPLY SERVICE TO THE HOME MAY NEED UPGRADING TO SERVICE THE AUTOMATIC FIRE SPRINKLER SYSTEM. ALL NEW WATER SERVICES SHALL BE DONE AS REQUIRED BY THE CITY OF MILPITAS ENGINEERING DIVISION

PROJECT NOTES

A1.1	PROJECT DATA / VICINITY MAP
A1.2	SITE PLAN
EN-0	TITLE 24 ENERGY CALCULATIONS
EN-1	TITLE 24 ENERGY CALCULATIONS
A2.1	FLOOR PLAN / ROOF PLAN
A3.1	EXTERIOR LEVATIONS
A3.2	SECTIONS
A4	DETAILS / AGING IN PLACE COMPLIANCE
E1	ELECTRICAL PLANS (ELECT, MECH. & PLUMB. NOTES)
S0	FRAMING DETAILS / NOTES
S1	FOUNDATION PLAN
S2	ROOF & FLOOR FRAMING
S4	FRAMING DETAILS
S5	FRAMING DETAILS

SHEET INDEX

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

PROJECT CONTACT:
TRANG DO
trangttdo@gmail.com

PROJECT ADDRESS
2143 INCLINE CT.
MILPITAS, CA 95035

PROJECT SCOPE:

- NEW 2 STORY ACCESSORY DWELLING UNIT AT THE EXSITING LOT
- PROPOSED 1,000 SQ. FT.
- MAXIMUM HEIGHT 20'-0" (18' + 2') THE HOUSE IS CLOSER THAN 1/2 MILE OF A PUBLIC TRANSPORTATION
  PROPOSED HEIGHT: 19'-9"

ZONING R1

APN: 088-48-032

TYPE OF CONSTRUCTION: VB

OCCUPANCY GROUP: R-3

LOT AREA: 9000 SQ. FT.

LOT COVERAGE INCLUDING MAIN DWELLING AND ADU: 32 %

SPRINKLERED: YES

NO ADDITIONAL PARKING REQUIRED

ADU SQUARE FOOTAGE:

FIRST FLOOR :	555 S.F.
SECOND PLAN :	445 S.F.
TOTAL LIVING :	1,000 S.F.

PROJECT DATA

2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA RESIDENTIAL CODE
2022 CALIFORNIA FIRE CODE
2022 CALIFORNIA ELECTRICAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA ENERGY STANDARDS CODE
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (MANDATORY MEASURES)

APPLICABLE CODES

REVISIONS	BY

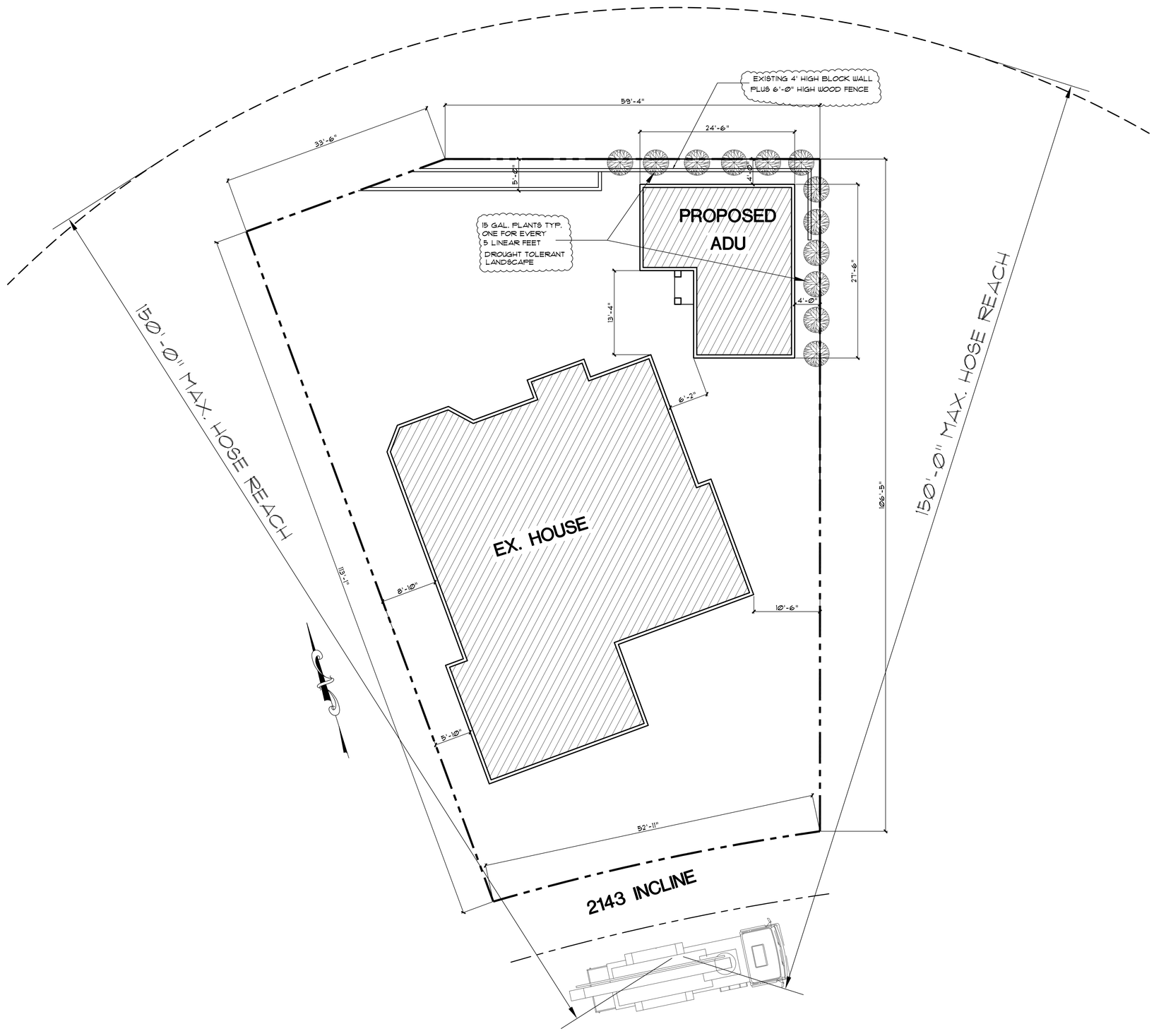
CB
BASSAL Architecture
916.435.0605
408.674.9077

LICENSED ARCHITECT
CHERRYE N. BASSAL
C-31548
REN 12/31/25
STATE OF CALIFORNIA

PROJECT SUMMARY
SITE PLAN

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

DATE:	8-1-2024
SCALE:	NOTED
DRAWN	CB
JOB NO	-
SHEET NO.	A1.1
	OF SHEETS



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

REVISIONS	BY

CB
BASSAL
Architecture
916.435.0605
408.674.9077

LICENSED ARCHITECT
CHERRINE N. BASSAL
C-31548
REN 12/31/25
STATE OF CALIFORNIA

SITE PLAN

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

DATE: 8-1-2024
SCALE: NOTED
DRAWN CB
JOB NO -
SHEET NO. A1.2
OF SHEETS

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

Project Name: 2143 Incline Ct — **Calculation Date/Time:** 2024-08-01T10:12:10-05:00 — (Page 1 of 12)

Calculation Description: Title 24 Analysis — **Input File Name:** 24188 Bassal 2143 Incline Ct- NEW.ribd22x

GENERAL INFORMATION					
01	Project Name	2143 Incline Ct			
02	Run Title	Title 24 Analysis			
03	Project Location	2143 Incline Ct			
04	City	Miltapas	05	Standards Version	2022
06	Zip code	95035	07	Software Version	EnergyPro 9.3
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)	287
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	2
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.31
18	Total Cond. Floor Area (ft^2)	1100	19	Glazing Percentage (%)	22.23%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	Propane	23	No Dwelling Unit:	No

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

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

Project Name: 2143 Incline Ct — **Calculation Date/Time:** 2024-08-01T10:12:10-05:00 — (Page 2 of 12)

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ENERGY DESIGN RATINGS

	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	35.1	31.2	29.5			
Proposed Design	32.7	31	29.4	2.4	0.2	0.1

RESULT[3]: PASS

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

- Standard Design PV Capacity: 2.06 kWdc
- PV System resized to 2.06 kWdc (a factor of 2.060) to achieve 'Standard Design PV' PV scaling

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ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) ($kBtu/ft^2$-yr)	Standard Design TDV Energy (EDR2) ($kTDV/ft^2$-yr)	Proposed Design Source Energy (EDR1) ($kBtu/ft^2$-yr)	Proposed Design TDV Energy (EDR2) ($kTDV/ft^2$-yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	2.7	18.34	2.47	19.16	0.23	-0.82
Space Cooling	0.51	22.86	0.51	28.2	0	-5.34
IAQ Ventilation	0.38	4.06	0.38	4.06	0	0
Water Heating	2.16	22.43	1.41	15.84	0.75	6.59
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**5.75**	**67.69**	**4.77**	**67.26**	**0.98**	**0.43**
Photovoltaics	-1.64	-55.57	-1.64	-55.44		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.83	8.15	0.83	8.15		
Appl. & Cooking	5.17	40.69	5.16	40.55		
Plug Loads	4.11	42.77	4.11	42.77		
Outdoor Lighting	0.2	1.79	0.2	1.79		
TOTAL COMPLIANCE	**14.42**	**105.52**	**13.43**	**105.08**		

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ENERGY USE INTENSITY

	Standard Design ($kBtu/ft^2$ - yr)	Proposed Design ($kBtu/ft^2$ - yr)	Compliance Margin ($kBtu/ft^2$ - yr)	Margin Percentage
Gross EUI[1]	19.15	17.77	1.38	7.21
Net EUI[2]	9.03	7.65	1.38	15.28

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

REQUIRED PV SYSTEMS

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

REQUIRED SPECIAL FEATURES

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

- Insulation below roof deck
- Window overhangs and/or fins
- Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

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HERS FEATURE SUMMARY

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

- Indoor air quality ventilation
- Kitchen range hood
- Minimum Airflow
- Verified EER/EER2
- Verified SEER/SEER2
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM
- Verified HSPF2
- Verified heat pump rated heating capacity
- Duct leakage testing
- Low-leakage Air Handling Unit

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
2143 Incline Ct	1100	1	2	1	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Status
New	Conditioned	HVAC1	1100	8	DHW Sys 1	New

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
N	New	R-21 Wall (stucco)	17	Left	196	16	90
E	New	R-21 Wall (stucco)	107	Back	220	5	90
S	New	R-21 Wall (stucco)	197	Right	196	60	90

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OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
W	New	R-21 Wall (stucco)	287	Front	220	74.9995	90
N 2	New	R-21 Wall (stucco)	17	Left	196	0	90
E 2	New	R-21 Wall (stucco)	107	Back	220	21	90
S 2	New	R-21 Wall (stucco)	197	Right	196	27	90
W 2	New	R-21 Wall (stucco)	287	Front	220	40.5	90
Roof	New	R-38 w/R-5	n/a	n/a	11	n/a	n/a
Roof 2	New	R-38 w/R-5	n/a	n/a	574	n/a	n/a
Interior Surface	New	Interior Floor	n/a	n/a	545	n/a	n/a

ATTIC

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

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
4040	Window	N	Left	17			1	16	0.3	NFRC	0.22	NFRC	Bug Screen
2026	Window	E	Back	107			1	5	0.3	NFRC	0.22	NFRC	Bug Screen
4050	Window	S	Right	197			1	20	0.3	NFRC	0.22	NFRC	Bug Screen
6068 SGD	Window	S	Right	197			1	40	0.32	NFRC	0.22	NFRC	Bug Screen
3050	Window	W	Front	287			1	15	0.3	NFRC	0.22	NFRC	Bug Screen
3068 Door	Window	W	Front	287	3	6.7	0	20	0.32	NFRC	0.22	NFRC	Bug Screen

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
6068 SGD 2	Window	W	Front	287			1	40	0.32	NFRC	0.22	NFRC	Bug Screen
3020	Window	E 2	Back	107			1	6	0.3	NFRC	0.22	NFRC	Bug Screen
3050 2	Window	E 2	Back	107			1	15	0.3	NFRC	0.22	NFRC	Bug Screen
6046	Window	S 2	Right	197			1	27	0.3	NFRC	0.22	NFRC	Bug Screen
3046	Window	W 2	Front	287			1	13.5	0.3	NFRC	0.22	NFRC	Bug Screen
6046 2	Window	W 2	Front	287			1	27	0.3	NFRC	0.22	NFRC	Bug Screen

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
3068 Door	3	1	10	10	0	0	0	0	0	0	0	0	0

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	New	555	104	none	0	80%	No

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OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-21 Wall (stucco)	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco
Attic RoofNew	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-5	None / 0	0.157	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-5 / 2x4
R-38 w/R-5	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-28.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
Interior Floor	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-0	None / None	0.196	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

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

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WATER HEATING SYSTEMS

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

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	1	50	Rheem	PROPH50 T2 RH350 D15 (50 gal)	Outside	New	New

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
HVAC1	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	HVAC Fan 1	Air Distribution System 1	Setback

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HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
			Heating				Cooling					
Name	System Type	Number of Units	Heating Efficiency Type	HSPF/HSPF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER2/CEER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Central split HP	1	HSPF2	8.1	36000	18000	EER2SEER2	15.2	12.5	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Required	350	Required	Required	Yes	Yes	Yes	Yes

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Unconditioned attic	Non-Verified	R-8	R-8	Attic	Attic	n/a	n/a	No Bypass Duct		Air Distribution System 1-hers-dist

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HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Required	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	Required	0.58

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	54	0.35	Exhaust	No	n/a / n/a	No	Yes	

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Jenna Green	Documentation Author Signature: *Jenna Green*
Company: Optimized Energy and Facilities Consulting, Inc.	Signature Date: 08/01/2024
Address: 5734 Lonetree Blvd	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Rocklin, CA 95765	Phone: 916-626-5518

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: Cherine Bassal	Responsible Designer Signature: *Cherine Bassal*
Company: Bassal Architecture	Date Signed: 08/01/2024
Address: 4912 Bradford Place	License: C31548
City/State/Zip: Rocklin, CA 95765	Phone: 4086742077

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

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DATE	DESCRIPTION	REVISION

JOB NO. 24188 — DRAWN — CHECKED — ORIGINAL DATE 08-01-2024

ISSUED FOR	DATE
PERMIT	08-01-2024

OPTIMIZED ENERGY™
& FACILITIES CONSULTING, INC.
5734 Lonetree Boulevard, Rocklin, CA 95765
Office: (916) 626 5518 www.oefcinc.com

2143 INCLINE CT

2143 INCLINE CT.
MILTAPAS, CA 95035

SHEET TITLE
TITLE 24 ENERGY

SHEET NO.
EN0

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 ANSI/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).
§ 110.9():	**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 and that the installation of a cool roof is specified on the CF1R.
§ 110.8(i):	**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 U-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 the 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 Installation.** 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 at 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(a):	**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(b):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N. *
§ 110.2(h):	**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.** Unlined 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.

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(j)3:	**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(j)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 §§ 601.0-609.0 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 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 cores 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 not be 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 shall not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and bear a UL181 label.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water-retardant and solar radiation-resistant coating.
§ 150.0(n)12:	**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. *

2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(n)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)1ii:	**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)1Bii&Aii. 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)1C2-4i.
§ 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)1Gii; 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)1Hiii:	**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. Verified 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 shall 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 shall 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 luminaries 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, recognition 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 temperatures 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)1C:	**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 temperatures 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, shall 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 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 with a solar water-heating system, 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(o):	**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(o); at least four branch circuits must be identified and have their source colocated 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(n):	**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 labeled "For Future 240V use."
§ 150.0(o):	**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(o):	**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.

DATE	
DESCRIPTION	
REVISION	
JOB NO.	24188
DRAWN	
CHECKED	
ORIGINAL DATE	08-01-2024

ISSUED FOR: PERMIT
DATE: 08-01-2024

OPTIMIZED ENERGY & FACILITIES CONSULTING, INC.
5734 Lonetree Boulevard, Rocklin, CA 95765
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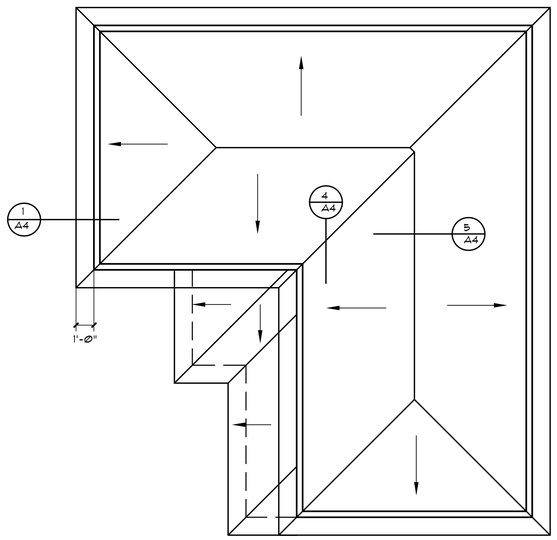
MILTAPAS, CA 95035

SHEET TITLE: TITLE 24 ENERGY

SHEET NO.: EN1



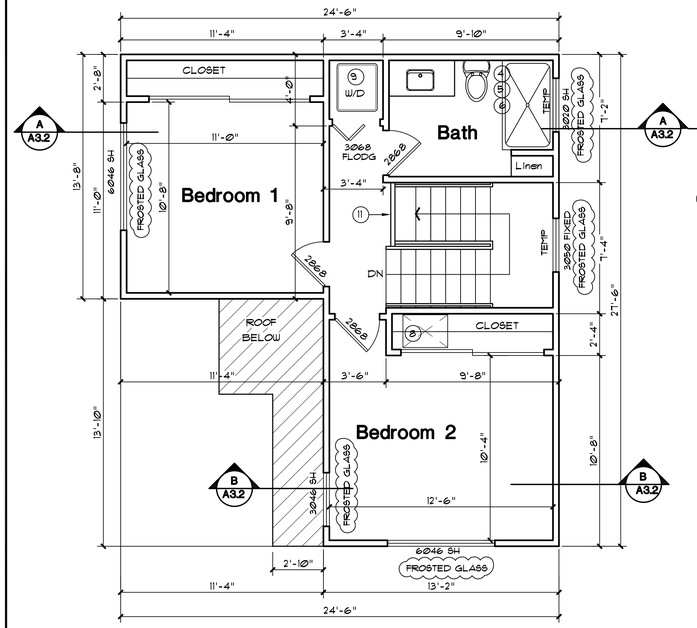
ROOF PLAN

ROOF NOTES:

1. ROOF SLOPES AS INDICATED 4:12
2. TYP. COMPOSITION SHINGLE ROOFING OVER 30# BLDG. PAPER OVER PLYWOOD SHEATHING. CLASS "A"
3. ALL ROOF OVERHANGS TO BE 12" - TYPICAL
4. PROVIDE NECESSARY FLASHING AT ALL VALLEYS AND ROOF TO WALL CONNECTIONS.

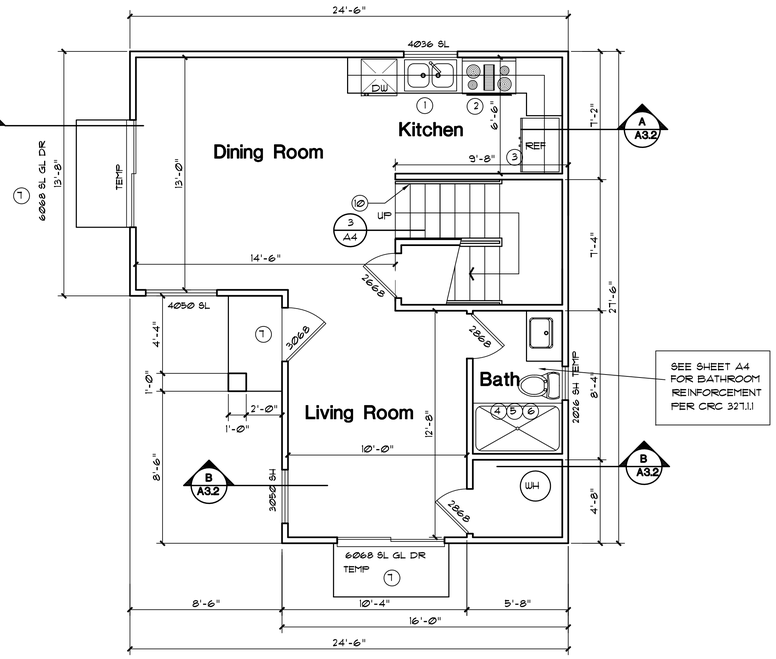
INDICATES DIRTECTION OF ROOF SLOPE

ROOF VALLEY CONSTRUCTION TO COMPLY W/ CBC 1503.2 VALLEY FLASHINGS SHALL BE NOT LESS THAN ØØ19 INCH (26 GALVANIZED SHEET GAGE) CORROSION INCH WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY.



SECOND FLOOR PLAN
445 S.F.

STAIRS COUNTED ONCE



SEE SHEET A4 FOR BATHROOM REINFORCEMENT PER CRC 327.1.1

FIRST FLOOR PLAN
555 S.F.

FLOOR PLANS NOTES:

1. DOUBLE SINK W/ GARBAGE DISPOSAL
2. COOKTOP WITH VENTED HOOD ABOVE
3. REFRIGERATOR SPACE - PLUMB FOR ICE MAKER.
4. TEMPERED GLASS ENCLOSURE AT SHOWERS, PROVIDE 22" MIN. WIDE DOOR AT SHOWER ENCLOSURE - CPC 411.6
5. TUB/SHOWER WALLS SHALL BE FINISHED WITH A SMOOTH, HARD NONABSORBENT SURFACE (E.G. CERAMIC TILE OR FIBERGLASS) OVER A MOISTURE RESISTANT UNDERLAYMENT MATERIAL (E.G. CEMENT, FIBER CEMENT OR GLASS GYPSUM BACKER) TO A HEIGHT OF 72" ABOVE THE DRAIN INLET. PER 2019 CRC R307.2 AND R702.3.7
6. SHOWER & TUB/SHOWER COMBINATIONS SHALL BE PROVIDED W/ INDIVIDUAL CONTROL VALVE OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE. CPC 418.0
7. MIN. 36" DEEP EXTERIOR CONC. LANDING TO COMPLY W/ CRC 2016 ALL EXTERIOR DOORS BOTTOM MUST BE WITHIN 1" OF THE LANDING
8. MIN. 22" X 30" ATTIC ACCESS W/ MIN. 30" HEADROOM ABOVE NO SHELVING BELOW ATTIC ACCESS.
9. DRYER VENT TO OUTSIDE W/ MAX LENGTH OF 14' EQUIPPED W/ BACKDRAFT DAMPER INCLUDING TWO 90° ELBOWS AND A MIN. DIAMETER OF 4". THE VENT DISCHARGE SHALL BE A MIN. 3' AWAY FROM ANY OPENING INTO THE BUILDING - CMC 504.3.1
10. HANDRAILS TO HAVE 1¼" - 2" GRIPPABLE CROSS SECTION, NO SHARP CORNERS & AT HEIGHT OF 34" MIN. AND 38" MAX. ABOVE NOSING EXTEND CONTINUOUSLY FROM TOP TO BOTTOM RISER, AND TERMINATE AT NEWEL POSTS OR OR RETURN WALLS
11. 42" MIN. HIGH GUARDS WITH OPENING LESS THANS 4" OR THAT A 4" SPHERE CAN NOT PASS THROUGHT - CRC R312.1.3.
12. WATER HEATER NOTES: 55 GALLON HEAT PUMP WATER HEATER - SEE REVISED ENERGY CALULATIONS
13. WINDOWS AND GLAZED DOORS MUST HAVE LABELS FOR THE 'U' AND 'SHGC' FACTORS THAT ARE REQUIRED BY THE ENERGY DOCUMENTATION. SEE THE ENERGY COMPLIANCE INFORMATION LOCATED ON SHEET T24 FOR THE REQUIRED VALUES.
14. UNDERFLOOR POST, SILLS ON CONCRETE, AND EXTERIOR DECK & STAIR SUPERSTRUCTURE SHALL BE OF PRESSURE TREATED LUMBER: COATINGS FOR FASTENER, POST BASES, HANGARS, AND CONNECTORS IN CONTACT WITH PT SHALL BE H.D. GALVANIZED, Z-MAX, OR STAINLESS STEEL, OR RATED FOR PT CONTACT. THE END NAILS OF THE SHEAR WALL INTO THE PT PLATE NEED TO BE H.D. GALVANIZED.

ATTIC VENTILATION CALCULATIONS COMPLY W/ 2022 CBC

PROVIDE A NET ATTIC VENT AREA NOT LESS THAN 1/150 MIN. OF THE VENTILATED ATTIC SPACE

TOTAL ATTIC AREA TO BE VENTILATED: 950 SQ. FT.

445 /150 = 3 SQ. FT.--------- 432 SQ. IN.

VENTILATED AREA WILL BE THROUGH THE USE OF METAL SCREENED VENTS (16"X4" = 64 S.I. EACH) EVERY OTHER RAFTER SPACE

MIN. NUMBER OF VENTS REQUIRED: 7 VENTS

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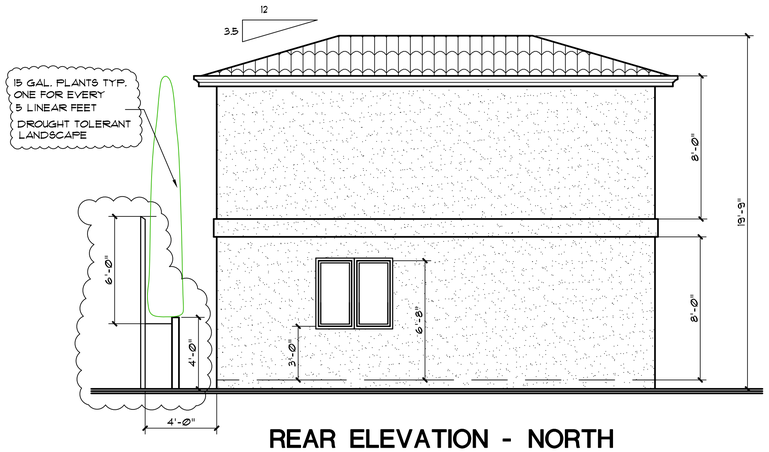
FLOOR PLANS
ROOF PLAN

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

DATE: 8-1-2024
SCALE: NOTED
DRAWN CB
JOB NO -
SHEET NO. A2.1
OF SHEETS

SIDE ELEVATION - EAST

SIDE ELEVATION - WEST



REAR ELEVATION - NORTH

FRONT ELEVATION - SOUTH

ADDRESS IDENTIFICATION - APPROVED NUMBERS OR ADDRESSES SHALL BE PLACED ON ALL NEW AND EXISTING BUILDINGS IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. SUBUNITS OF ANY BUILDING OR COMPLEX, NOT HAVING INDIVIDUAL ADDRESSES, SHALL BE IDENTIFIED IN A CONSISTENT MANNER, EITHER NUMERICALLY OR ALPHABETICALLY, USING A LOGICAL SEQUENCE. UNIT NUMBERS OR LETTER SHALL BE AFFIXED NEAR THE MAIN ENTRANCE OF EACH OCCUPANCY IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE.

- PROVIDE ADU UNIT ADDRESS IDENTIFICATIONS.

EXTERIOR ELEVATIONS | 1/4"=1'-0"

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EXTERIOR ELEVATIONS

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

DATE: 8-1-2024
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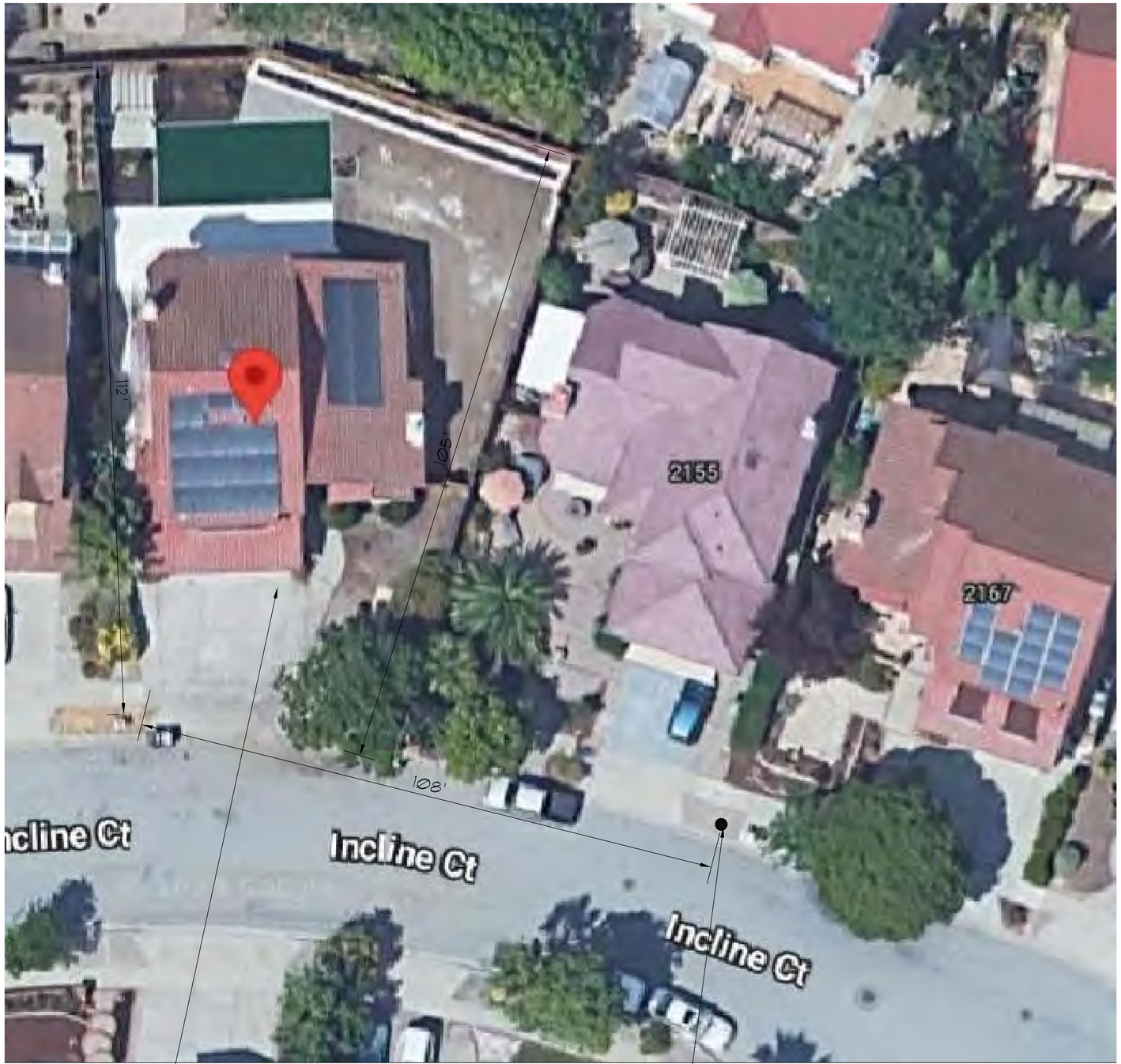
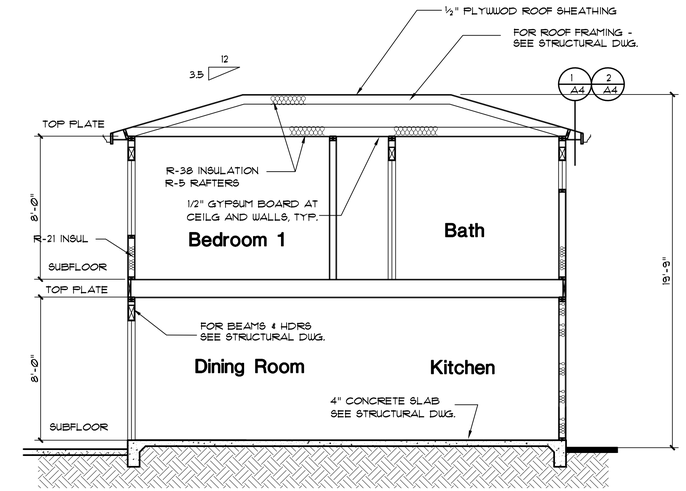
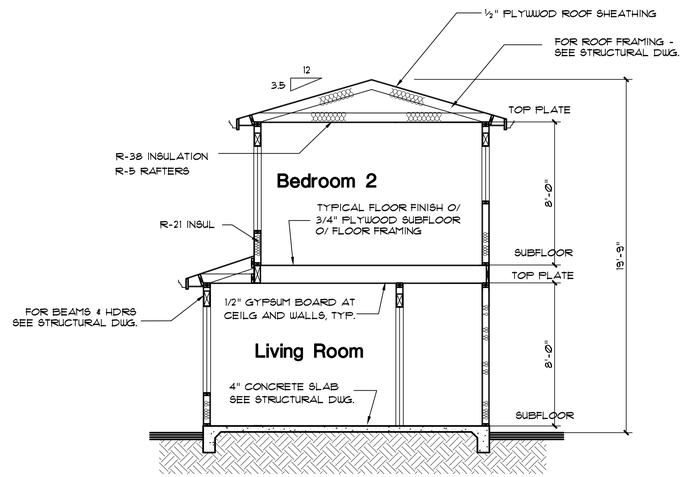


FIRE DEPARTMENT COMPLIANCE PLAN | 1"=10'-0"



SECTION A-A



SECTION B-B

SECTIONS | 1/4"=1'-0"

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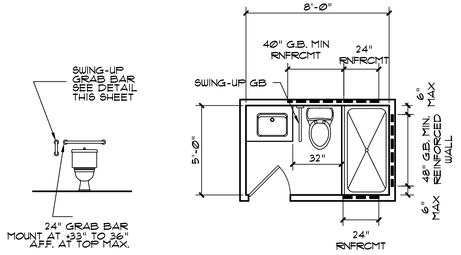
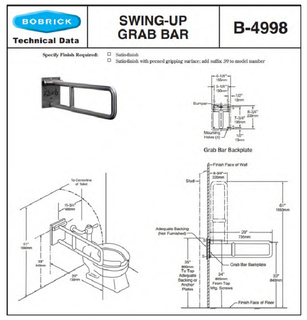
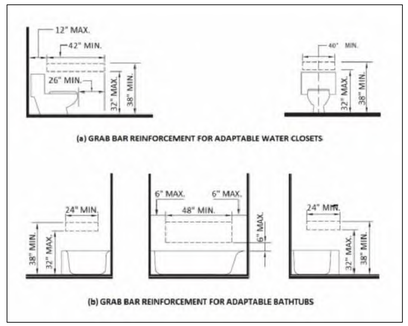
EXTERIOR ELEVATIONS

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

DATE: 6-20-2024
SCALE: NOTED
DRAWN CB
JOB NO -
SHEET NO. A3.2
OF SHEETS







GRAB BAR REINFORCEMENT SHALL BE PLACED IN THE OPERATION AND MAINTENANCE MANUAL.

REINFORCEMENT HEIGHTS AT ALL 3 WALLS OF SHOWER AND ANY ADJACENT TOILET WALLS TO COMPLY WITH SECTION CRC 327.1.1.1.

A.) PER TOWN RESOLUTION 1994-61 BATHROOM AT THE ENTRY LEVEL REQUIRES WOOD BLOCKING AT ALL BATHROOMS.

I.) THE REINFORCEMENT TO BE SOLID LUMBER AND NOT LESS THAN 2X8.
II.) THE REINFORCEMENT SHALL BE LOCATED BETWEEN 32" AND 38 1" ABOVE THE FINISHED FLOOR.
III.) THE WATER CLOSET REINFORCEMENT TO BE INSTALLED ON BOTH SIDE WALLS OF THE FIXTURE, OR ONE SIDE WALL AND THE BACK WALL.
(1) WHERE THE WATER CLOSET IS NOT LOCATED ADJACENT TO THE SIDE WALL, GRAB BAR REINFORCEMENT FOR A GROUND-MOUNTED INSTALLATION IS ACCEPTABLE.
IV.) THE SHOWER REINFORCEMENT SHALL BE CONTINUOUS WHERE WALL FRAMING IS PROVIDED.
V.) BATHTUB AND COMBINATION BATHTUB/SHOWER REINFORCEMENT SHALL BE CONTINUOUS ON EACH END OF THE BATHTUB AND THE BACK WALL. ADDITIONALLY, BACK WALL REINFORCEMENT FOR A LOWER GRAB BAR SHALL BE PROVIDED WITH THE BOTTOM EDGE LOCATED NO MORE THAN 6" ABOVE THE BATHTUB RIM.

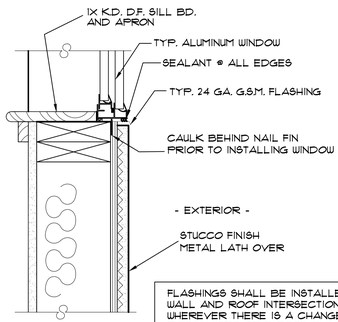
B.) ELECTRICAL RECEPTACLE OUTLETS, SWITCHES AND CONTROLS INTENDED TO BE USED BY OCCUPANTS SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISH FLOOR.

C.) DOORBELL CONTROLS TO NOT EXCEED 48" ABOVE EXTERIOR FLOOR, MEASURED FROM THE TOP OF THE DOORBELL BUTTON ASSEMBLY.
A4. PER THE TOWN RESOLUTION 1994-61, CONFORM TO THE FOLLOWING FOR THE MAIN HOUSE AND JADU:

D.) ALL PASSAGE DOORS SHALL BE AT LEAST 32-INCH-WIDE DOORS ON THE ACCESSIBLE FLOOR LEVEL.

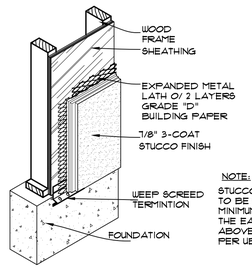
E.) THE PRIMARY ENTRANCE DOOR SHALL BE A 36-INCH-WIDE DOOR INCLUDING A 5'X5' LEVEL LANDING, NO MORE THAN 1 INCH OUT OF PLANE WITH THE IMMEDIATE INTERIOR FLOOR LEVEL WITH AN 18-INCH CLEARANCE AT THE INTERIOR STRIKE EDGE

AGING IN PLACE CRC R327



FLASHINGS SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION AND AROUND ROOF OPENINGS. A FLASHING SHALL BE INSTALLED TO DIVERT THE WATER AWAY FROM WHERE THE EAVE OF A SLOPED ROOF INTERSECTS A VERTICAL SIDEWALL. (R903.2.1)

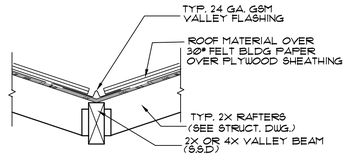
FLASHING AT WINDOWS | 3/4"=1'-0" | 7



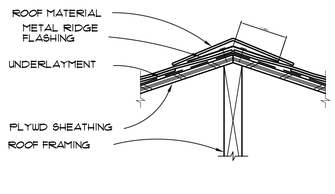
NOTE:
STUCCO WEEP SCREED TO BE PLACED A MINIMUM OF 4" ABOVE THE EARTH OR 2" ABOVE PAVED AREAS PER UBC 2506.5

PROVIDE 26 GA. GALVANIZED WEEP SCREED WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3 1 INCHES PROVIDED AT FOUNDATION PLATE AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING.

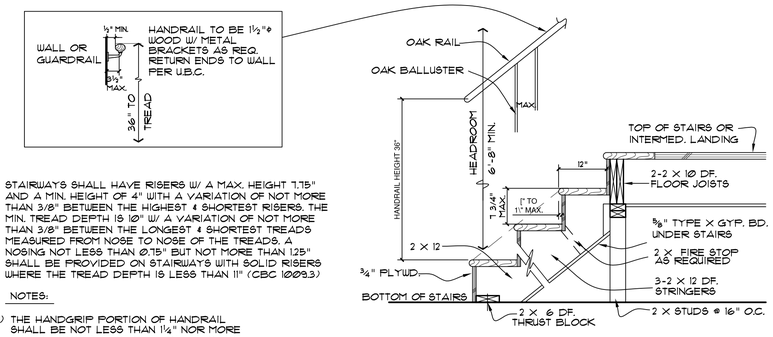
STUCCO WEEP SCREED | 3/4"=1'-0" | 8



VALLEY DETAIL | 3/4"=1'-0" | 4



RIDGE DETAIL | 3/4"=1'-0" | 5



STAIRWAYS SHALL HAVE RISERS W/ A MAX. HEIGHT 7.75" AND A MIN. HEIGHT OF 4" WITH A VARIATION OF NOT MORE THAN 3/8" BETWEEN THE HIGHEST & SHORTEST RISERS. THE MIN. TREAD DEPTH IS 10" W/ A VARIATION OF NOT MORE THAN 3/8" BETWEEN THE LONGEST & SHORTEST TREADS MEASURED FROM NOSE TO NOSE OF THE TREADS. A NOSING NOT LESS THAN Ø.75" BUT NOT MORE THAN 1.25" SHALL BE PROVIDED ON STAIRWAYS WITH SOLID RISERS WHERE THE TREAD DEPTH IS LESS THAN 11" (CBC 1009.3.)

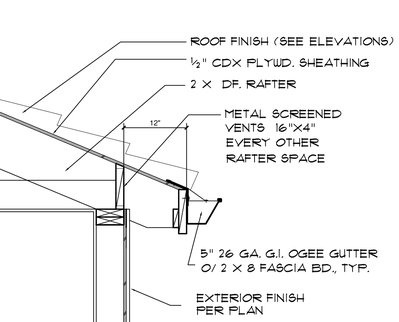
NOTES:

1) THE HANDGRIP PORTION OF HANDRAIL SHALL BE NOT LESS THAN 1¼" NOR MORE THAN 2" CROSS-SECTIONAL DIM. AND NOT LESS THAN 1½" WALL & HANDRAIL.

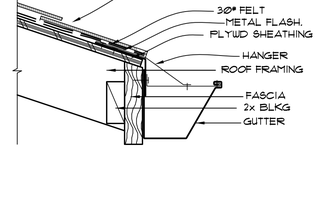
2) A 6" SPHERE SHALL NOT PASS BETWEEN BOTTOM OF RAIL & TREAD RISER.

3) HANDRAILS MUST BE ABLE TO SUPPORT A 200# LOAD AT ANY POINT ALONG ITS LENGTH (2019 CBC 1607.7.1.)

STAIRS DETAILS | 3/4"=1'-0" | 3



TYPICAL EAVE DETAIL | 3/4"=1'-0" | 1



EAVE DETAIL | 3/4"=1'-0" | 2

DETAILS
AGING IN PLACE COMPLIANCE

ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

DATE: 8-1-2024
SCALE: NOTED
DRAWN: CB
JOB NO: -
SHEET NO. A4
OF SHEETS

GENERAL ELECTRICAL NOTES:

1- REGARDING CLOTHES DRYER EXHAUST VENT PER 504.3 2022 CMC: THE DRYER MOISTURE EXHAUST DUCT SHALL NOT EXCEED 14' MIN OF 4" DIA WITH A BACKDRAFT DAMPER TO BE METAL OR MOISTURE RATED PVC WITH A SMOOTH INTERIOR SURFACE W/O SCREWS. DUCT SHALL TERMINATE AT LEAST 3' FROM OPENINGS INTO THE BUILDING.

2- PER CEC ART. 406.12 : ALL NEW AND REPLACED DUPLEX RECEPTACLES SHALL BE LISTED "TAMPER-RESISTANT RECEPTACLES".

3- PER ART. 210.12 AND 210.8 CEC 2022: ARC FAULT (AFCI) COMPLY WITH ARC-FAULT AND GROUND FAULT OUTLETS REQUIRED IN FAMILY RMS, DINING RMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUN ROOMS, REC RMS, CLOSETS, AND HALLWAYS AND LIGHTING. GROUND FAULT (GFCI) IS REQUIRED IN BATH RMS, GARAGES, ACCESSORY AREAS, EXTERIOR, CRAWLSPACES, BASEMENTS, DISHWASHERS, AND DISPOSALS. COMBINATION AFCI/GFCI IS REQUIRED IN KITCHENS, AND LAUNDRY AREAS

4- CLOTHING AND DISH WASHING MACHINES SHALL BE FITTED WITH WATER HAMMER ARRESTORS

5- "A HERS RATER MUST VERIFY THAT INSTALLED RANGE HOODS ARE LISTED IN THE HVI CERTIFIED HOME VENTILATING PRODUCTS DIRECTORY AND HAVE BEEN HVI-CERTIFIED AS MEETING ASHRAE 62.2 VENTILATION AND SOUND REQUIREMENTS. PROVIDE EVIDENCE OF HERS VERIFICATION TO CITY BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION".
6- VENTILATION HEATING AND AIR CONDITIONING SYSTEMS SHALL HAVE MERV 13 FILTERS OR BETTER. CEC 150.0(M)12C.

ALL NEW CONSTRUCTIONS SHALL FACILITATE INSTALLATION AND USE OF EV CHARGERS PER CGBC 4.106.4 :

A- INSTALL A LISTED TRADE SIZE 1 RACEWAY TO ACCOMMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND TERMINATE INTO A LISTED CABINET, BOX OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF AN EV CHARGER.

B- THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE.

C- THE ELECTRICAL PANEL SCHEDULE SHALL IDENTIFY THE OVERCURRENT PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING AS "EV CAPABLE"

D- THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE" CGBSC SECTION 4.106.4.1

ALL AIR DUCTS PENETRATING SEPARATIAN WALL OR CEILING BETWEEN GARAGE AND LIVING AREA SHALL BE 26 GA. MINIMUM. CRC SECTION R302.5.2

HEATING EQUIPMENT (WHICH GENERATE A GLOW, FLAME, OR SPARK) LOCATED IN GARAGE SHALL BE INSTALLED SUCH THAT THE SOURCE OF IGNITION IS AT LEAST 18" ABOVE THE FLOOR. CMC 305.1

THE FIRST HOUR RATING OF THE WATER HEATER = 80 GALLONS (PER CPC TABLE 501.1 (1). CPC 501 5 BEDROOMS/ 3.5 BATHROOMS)

PROVIDE PRESSURE RELIEF VALVE WITH DRAIN TO OUTSIDE OF WATER HEATERS. CPC 504.6

ELECTRICAL PANELS:

1- PROVIDE UFER GROUNDING (CONCRETE-ENCASED-ELECTRODE IS REQUIRED PER CEC 250-50(c)
2- BOND WATER PIPES BETWEEN HOT, COLD AND GAS LINES AT THE WATER HEATERS AT BOTH STRUCTURES
3- PROVIDE AN INTERSYSTEM BONDING DEVISE TO BE LOACTED NEAR THE SERVICE PANELS FOR EACH STRUCTURE

COMPLIANCE WITH 2022 CA ENERGY CODE SECTION 150(K) FOR LIGHTING

A. PROVIDE MANUAL ON/OFF CONTROLS FOR ALL LIGHTING.

B. ALL LIGHTING TO BE HIGH EFFICACY (I.E. PIN-BOSED CFL, PULSE-START MH, HPS, GU-24 SOCKETS OTHER THAN LEDS, LED LUMINAIRES WITH INTEGRAL SOURCE, ETC..) CEC TABLE 150.0-4

C. COMPLIANCE WITH 2022 CA ENERGY CODE SECTION 150(K) FOR LIGHTING, WHICH REQUIRE SCREW-BASED PERMANENTLY INSTALLED LIGHT FIXTURES MUST CONTAIN SCREW-BASED JAB (JOINT APPENDIX 8) COMPLIANT LAMPS. JAB COMPLIANT LIGHT SOURCES MUST BE MARKED AS "JA8-2022" OR "JA8-2022-E" ("JA8-2022-E" LUMINAIRES ARE DEEMED APPROPRIATE FOR USE IN ENCLOSED LUMINAIRES). ADVISORY: "JA8-2022-E" MARKED LUMINAIRES ARE STILL ALLOUED FOR USE THROUGH THE END OF THE 2022 CODE CYCLE. CEC 150.0(K).G

D. ALL JA8 COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS (EXCEPTION CLOSETS LESS THON 70 SF AND HALLWAYS). CEC 150.0(K)2K.)
I. CEILING RECESSED DOWNLIGHT LUMINAIRES.
II. LED LUMINAIRES WITH INTEGRAL SOURCES.
III. PIN-BASED LED LAMPS (I.E. MR16, AR-111, ETC.)
IV. GU-24 BASED LED LIGHT SOURCES.

E. LIMIT THE NUMBER OF BLANK ELECTRICAL BOXES MORE THAN 5 FEET ABOVE THE FINISHED FLOOR TO NOT GREATER THAN THE NUMBER OF BEDROOMS. SHOT THESE ELECTRICOL BOXES CONTROLLED BY A DIMMER, VACANCY SENSOR, OR FAN SPEED CONTROL. CEC 150.0(K).B

F. IN BATHROOMS, GARAGES, LAUNDRY ROOMS AND UTILITY ROOMS, AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES SHALL BE CONTROLLED BY A VACANCY SENSOR

G. PROVIDE AT LEAST ONE FIXTURE IN THE GARAGE CONTROLLED BY A VACANCY SENSOR. CEC 1.150.0(K).2J

H. PROVIDE AT LEAST ONE FIXTURE IN EACH LAUNDRY ROOM CONTROLLED BY A VACANCY SENSOR. CEC 1.150.0(K.2J

I. PROVIDE AT LEAST ONE FIXTURE IN EACH UTILITY ROOM CONTROLLED BY A VACANCY SENSOR. -CEC 150.0 (K) 2I

J. PROVIDE EXHAUST FANS (EXCLUDES KITCHEN EXHAUST HOOD) SWITCHED SEPARATE FROM LIGHTING (OR UTILIZE A DEVICE WHERE LIGHTING CAN BE TURNED OFF WHILE THE FAN IS RUNNING).

K. PROVIDE SEPARATE SWITCHING FOR ANY UNDER CABINET LIGHTING (INCLUDING KITCHEN LIGHTING) FROM OTHER LIGHTING SYSTEMS. CEC R 500(K.)2I

L. ALL OUTDOOR LIGHTING TO BE HIGH EFFICACY WITH MANUAL ON/OFF SWITCH AND ONE OF THE FOLLOWING IN ACCORDANCE WITH CEC R500(K.)3:
I. PHOTOCONTROL AND MOTION SENSOR
II. PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL
III. ASTRONOMICAL TIME SWITCH CONTROL
IV. ENERGY MANAGEMENTCONTROL SYSTEMS.

M. A 120V ELECTRICAL RECEPTACLE THAT IS WITHIN 3 FEET FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTION

N. PROVIDE RECEPTACLE CIRCUITS:

1- ~~READY AFTER (2) PER CIRCUITS~~ TO SERVE LAUNDRY

2- ~~RECEPTACLES (2) PER CIRCUITS~~ TO SERVE BATHROOM

3- DEDICATED 20 AMP CIRCUIT FOR FURNACE CEC 422.12

PER CPC 609.10: CLOTHING AND DISH WASHING MACHINES SHALL BE FITTED WITH WATER HAMMER ARRESTORS

O. ALL SERVICES SUPPLYING DWELLING UNITS SHALL BE PROVIDED WITH A SURGE-PROTECTIVE DEVICE (SPD). CEC 230.6-7

KITCHEN ELECTRICAL NOTES:

THE ELECTRICAL PLAN TO COMPLY WITH 2022 CA ENERGY CODE SECTION 150(K) FOR LIGHTING
1- RECEPTACLE OUTLETS SHALL BE INSTALLED IN KITCHENS:
A- ON COUNTER SPACES 12 INCHES OR WIDER.
B- NOT MORE THAN 4 FEET ON CENTERS.
C- NOT MORE THAN 2 FEET FROM EDGE COUNTER.
D- ON ISLAND/PENINSULAR COUNTERTOP 12" OR WIDER (1 EVERY 4 FEET.)

2- ALL LIGHTING SHALL BE HIGH EFFICACY AND UNDER CABINET LIGHTING SALL BE SWITCHED SEPARATLY THAN FROM OTHER LIGHTING SYSTEM

3- IN THE KITCHEN, OUTLETS SERVING COUNTERTOP SURFACES SHALL BE SUPPLIED BY NOT LESS THAN TWO SMALL APPLIANCE BRANCH CIRCUITS(20 AMP). (NO LIGHTING IS PERMITTED ON THESE CIRCUIT).

4- IN THE KITCHEN, SEPARATE CIRCUITS ARE REQUIRED FOR ALL APPLIANCES (BUILT-IN). PLUG IN APPLIANCES SHALL HAVE PLUG ACCESSIBLE FOR DISCONNECT WITHOUT REMOVING THE APPLIANCE.)

5- EACH KITCHEN HAS AN EXHAUST FAN THAT PROVIDES A MINIMUM OF 100 CFM. DUCT SIZE AND DUCT PROVIDED LENGTH BY INSTALLER FAN MUST BE LISTED AT 3 SONE OR LESS. FOR NOISE OR EXHAUSTS IN EXCESS OF 400 CFM, THE 3 SONE RATING IS NOT REQUIRED

PER 2022 CEC KITCHEN AND LAUNDRY ROOM RECEPTACLES TO BE AFCI OND GFCI PROTECTED.
ALL BRANCH CIRCUITS THAT SUPPLY OUTLETS INSTALLED IN DUELLING UNIT KITCHENS AND LAUNDRY AREAS, SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER AND GFCI RECEPTACLE. CEC 210.12

AMPERAGE SIZE OF THE MAIN ELECTRICAL SERVICE PANEL. IS 200 AMP

MECHANICAL NOTES:

M1. EXHAUST AND VENTILATION DESIGN TO COMPLY WITH CEnC 150.0(O).G

M2. A MECHANICAL EXHAUST DIRECTLY TO THE OUTDOORS SHALL BE PROVIDED IN EACH ROOM CONTAINING A BATHTUB, SHOUER, OR TUB/SHOUER COMBINATION. THE FAN SHALL RUN INTERMITTENTLY (ON DEMAND) OR CONTINOUSLY. A READILY ACCESSIBLE MANUAL CONTROL DESIGNED TO BE OPERATED AS NEEDED OR AN AUTOMATIC CONTROL SHALL BE PROVIDED FOR INTERMITTENT OPERATIONS CMC 403.3.

M3. A MECHANICAL EXHAUST DIRECTLY TO THE OUTDOORS SHALL BE PROVIDED IN EACH KITCHEN. THE FAN SHALL RUN INTERMITTENTLY (ON DEMAND) OR CONTINUOSLY. A READILY ACCESSIBLE MANUAL CONTROL DESIGNED TO BE OPERATED AS NEEDED OR AN AUTOMATIC CONTROL SHALL BE PROVIDED FOR INTERMITTENT OPERATIONS, CMC 405.4.

M4. GAS VENTS PASSING THROUGH AN INSULATED ASSEMBLY SHALL HAVE A METAL INSULATION SHIELD A MINIMUM 2" ABOVE INSULATION. (509.6.2.1)

M5. PROVIDE MINIMUM 100 SQUARE INCHES MAKE-UP AIR FOR CLOTHES DRYER. (CMC 504.4.1(1))

M6. HVAC DESIGN WILL BE PROVIDED TO THE BUILDING OFFICIAL PRIOR TO INSTALLATION. CMC 601.2

M7. EACH BATHROOM CONTAINING A BATHTUB, SHOUER OR TUB/SHOUER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR PURPOSES OF HUMIDITY CONTROL. CRC 303.3.1.

M8. PROVIDE MINIMUM 50 CFM INTERMITTENT AIRFLOW FOR THE BATHROOM EXHAUST FAN, OR PROVIDE MINIMUM 20 CFM FOR THE CONTINUOUSLY OPERATING BATHROOM EXHAUST FAN. CEC SECTION 150(O) AND ASHRAE 62.2-2016 TABLE 5.1 AND TABLE 5.2

M9. BATHROOM EXHAUST FANS MUST BE ENERGY STAR COMPLIANT, MUST BE DUCTED TO TERMINATE OUTSIDE THE BUILDING, AND MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE. CGBSC SECTION 4.506

M10. HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF CGBSC SECTION 4.507.2

M11. TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS SHALL BE A MINIMUM OF 3 FEET FROM ANY OPENINGS INTO THE BUILDING (I.E., DRYERS, BATH AND UTILITY FANS, ETC, MUST BE 3 FEET AWAY FROM DOORS, WINDOWS, OPENING SKYLIGHTS OR ATTIC VENTS). CMC 502.2.1

PLUMBING FIXTURES SCHEDULE:

A. WATER CLOSETS - 1.28 GALLONS PER FLUSH. CGBSC SECTION 4.303.1.1

B. SINGLE SHOUERHEAD - 1.8 GPM AT 80 PSI. CGBSC SECTION 4.303.1.3.1

C. MULTIPLE SHOUERHEADS SERVING ONE SHOUER - COMBINED FLOW RATE OF ALL SHOUERHEADS AND/OR OTHER SHOUER OUTLETS CONTROLLED BY A SINGLE VALVE - 1.8 GPM AT 80 PSI. CGBSC SECTION 4.303.1.3.2

D. LAVATORY FAUCETS -1.2 GPM AT 60 PSI (MINIMUM SHALL NOT BE LESS THAN 0.8 GPM AT 20 PSI.). CGBSC SECTION 4.303.1.4.1
E. KITCHEN FAUCETS - 1.8 GPM AT 60 PSI. CGBSC SECTION 4.303.1.4.4

E. ALL PLUMBING FIXTURES AND FITTINGS SHALL MEET THE STANDARDS REFERENCED IN TABLE 1701.1 OF THE 2022 CALIFORNIA PLUMBING CODE. CGBSC SECTION 4.303.2

F. REGARDING THE WATER CLOSETS: THE HORIZONTAL DRAINAGE PIPING SHALL BE AT LEAST 4" PIPE CPC TABLE 703.2

G. NO UNDER-FLOOR CLEANOUT SHALL BE LOCATED EXCEEDING 5 FEET FROM ACCESS DOOR, TRAP DOOR OR CRAWL HOLE. CPC 707.9

H. NO DOMESTIC DISHWASHING MACHINE SHALL BE DIRECTLY CONNECTED TO A DRAINAGE SYSTEM OR FOOD WASTE DISPOSER WITHOUT THE USE OF AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIRGAPS SHALL BE INSTALLED WITH THE FLOOD-LEVEL (FL) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK OR DRAINBOARD, WHICHEVER IS HIGHER. CPC SEC. 807.3

I. - SINGLE SHOUERHEAD - 1.8 GPM AT 80 PSI CGBSC SECTION 4.303.1.3.1
- MULTIPLE SHOUERHEADS SERVING ONE SHOUER - COMBINED FLOW RATE OF ALL SHOUERHEADS AND/OR OTHER SHOUER OUTLETS CONTROLLED BY A SINGLE VALVE - 1.8 GPM AT 80 PSI CGBSC SECTION 4.303.1.3.2

J- ALL SINK FAUCETS, TOILETS AND URINALS SHALL COMPLY WITH CALIFOMIA CIVIL CODE SECTION 1101.1 THROUGH 1101.8. (KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALS/ MIN., LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALS/MIN., TOILETS SHALL NOT EXCEED 1.28 GALS/FLUSH AND URINALS SHALL NOTEXCEED.5 GALS/FLUSH.)

K. PROVIDE 24" CLEAR SPACE IN FRONT OF TOILETS AND 30" MIN. WIDTH FOR TOILET SPACE - 2019 CPC 402.5

L. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES OF EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY, OR SIMILAR ACCEPTABLE METHODS. CGBSC SECTION 4.406.1

M. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER ACCEPTABLE METHODS AT THE TIME OF ROUGH INSTILLATION OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING AND COOLING EQUIPMENT. CGBSC SECTION 4.504.1

N. SUPPLY PIPING 3/4" AND GREATER SHALL BE INSULATED PER CBEES SECTION 150.0 (J) 2II

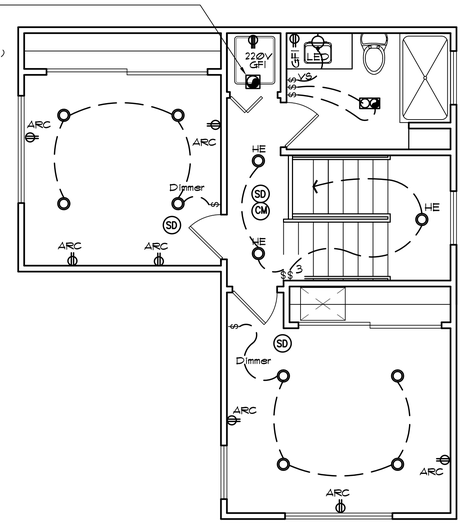
O. ALL NEW AND EXPOSED HOT WATER SUPPLY PIPES FROM THE HEATING SOURCE TO THE KITCHEN SHALL BE INSULATED PER CBEES SECTION 150.0 (J) 2VI

P. SHOWER PAN PREMANUFACTURED INSTALLED BY MANUF. SPECS. AND COMPLIANT WITH CPC 408.5 FOR THRESHOLD HEIGHT AND 408.6

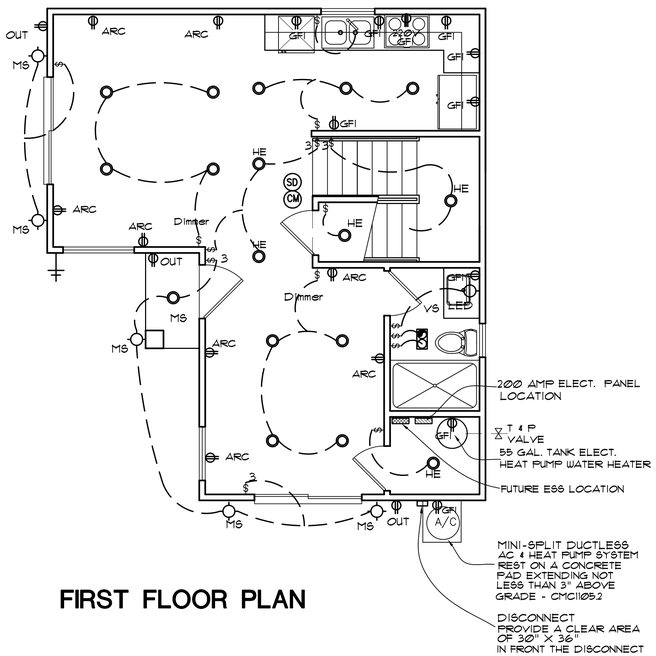
Q. ALL DOMESTIC HOT WATER LINES SHALL BE INSULATED. INSULATION SHALL BE THE THICKNESS OF THE PIPE DIAMETER UP TO 2" IN SIZE AND MINIMUM 2" THICKNESS FOR PIPES LARGER THAN 2" IN DIAMETE. R (CPC 609.11)

R. UNDERGROUND WATER SUPPLY LINES SHALL HAVE A 14 AWG BLUE TRACER WIRE. (CPC 604.10.1)

CONTINUOUS RUNNING EXHAUST FAN PER CEC SECTION 150(o) VENTILATION MUST COME DIRECTLY FROM THE OUTDOORS (NOT FROM ATTIC) 350 CFM EXHAUST FAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

DUPLEX 110VAC OUTLET	
ARC — ARC FAULT CIRCUIT INTERRUPTER ARC FAULT PER ART. 210.12 CEC 2019	
220V — DUPLEX 220VAC OUTLET	
1/2 HOT DUPLEX 110VAC OUTLET	
OUT — OUTDOOR RECEPTACLES W/ BUBLE COVER WEATHER PROOF	
ARC — ARC FAULT CIRCUIT INTERRUPTER FLOOR OUTLET	
$ — LIGHT SWITCH	
DIM $ — LIGHT SWITCH W/ DIMMER	
VS $ — VACANCY SENSOR (MANUAL-ON OCCUPANCY AND MOTION SENSOR)	
MS — OUTDOOR LIGHT CONTROLLED BY MOTION SENSOR + PHOTOCONTROL	
HIGH EFFICACY LED LIGHTING AT RECESSED "EYEBALL"	
LED — LED RECESSED LIGHT	
TELEPHONE JACK	
HARDWIRED DOORBELL/BUZZER AT THE MAIN ENTRY DOOR	
LED SURFACE LIGHT	
LED WALL MOUNT LIGHT	
HIGH EFFICACY LUMINARIES AT FAN-LIGHT	
FAN	
HE OR HE — HIGH EFFICACY LUMINARIES	
HB — HOSE BIBB W/ BACK- FLOW PREVENTER	

SD — 110V AC SMOKE DETECTOR W/ HOT WIRE & BATT. BACKUP

* SMOKE ALARMS ARE TO SOUND AN ALARM AUDIBLE IN ALL BEDROOMS IN ALL BEDROOMS OF THE HOUSE (i.e. INTERCONNECT ALL SMOKE ALARMS) PER CRC 314
* SMOKE ALARM ARE TO RECEIVE THEIR POWER FROM THE HOUSE PRIMARY WIRING AND ALSO HAVE A BATTERY BACKUP PER CRC 314

CM — CARBON MONOXIDE ALARM
- LOCATION OF HARD WIRED CARBON MONOXIDE ALARMS: CRC R315.3 AS FOLLOW:

A. OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S).

B. BATTERY OPERATED CARBON MONOXIDE DETECTOR PERMITTED IN EXISTING CONSTRUCTION.

C. CARBON MONOXIDE DETECTORS SHALL BE "HARD WIRED" & SHALL BE EQUIPPED W/ BATTERY BACK UP

T-24 ENERGY COMPLIANCE NOTES:

T1. PROVIDE FUTURE ELECTRICAL PROVISIONS FOR HEAT PUMP SPACE HEATER, ELECTRIC WATER HEATER AS SPECIFIED IN CALIFORNIA ENERGY CODE SECTION 150.0 (N), (T), (U) AND (V).

T2. INSULATE THE FIRST 5' OF HOT/COLD WATER LINES, ALL LINES 1 INCH IN DIAMETER OR LARGER. ALL RECIRCULATION PIPING, PIPING TO STORAGE TANKS AND ALL HOT WATER PIPES TO KITCHEN FIXTURES FROM THE WATER HEATER. (CALIFORNIA ENERGY CODE 150.0X2))

T3. ENERGY STORAGE SYSTEM (ESS) READY. AT LEAST ONE OF THE FOLLOWING SHALL BE PROVIDED:
- ESS READY INTERCONNECTION EQUIPMENT WITH A MINIMUM BACKED-UP CAPACITY OF 60 AMPS AND A MINIMUM OF FOUR ESS-SUPPLIED BRANCH CIRCUITS, OR

T4. PROVIDE FUTURE PROVISIONS FOR AN ENERGY STORAGE SYSTEM WHICH SHALL ONLY BE INSTALLED NOT LESS THAN 3' FROM DOOR AND WINDOWS AND ENCLOSED UTILITY CLOSETS/BASEMENTS, STORAGE OR UTILITY CLOSETS WITHIN DWELLING UNITS WITH FINISHED OR NONCOMBUSTIBLE WALLS AND CEILING. (CRC R328.4)

REVISIONS	BY

CB
BASSAL
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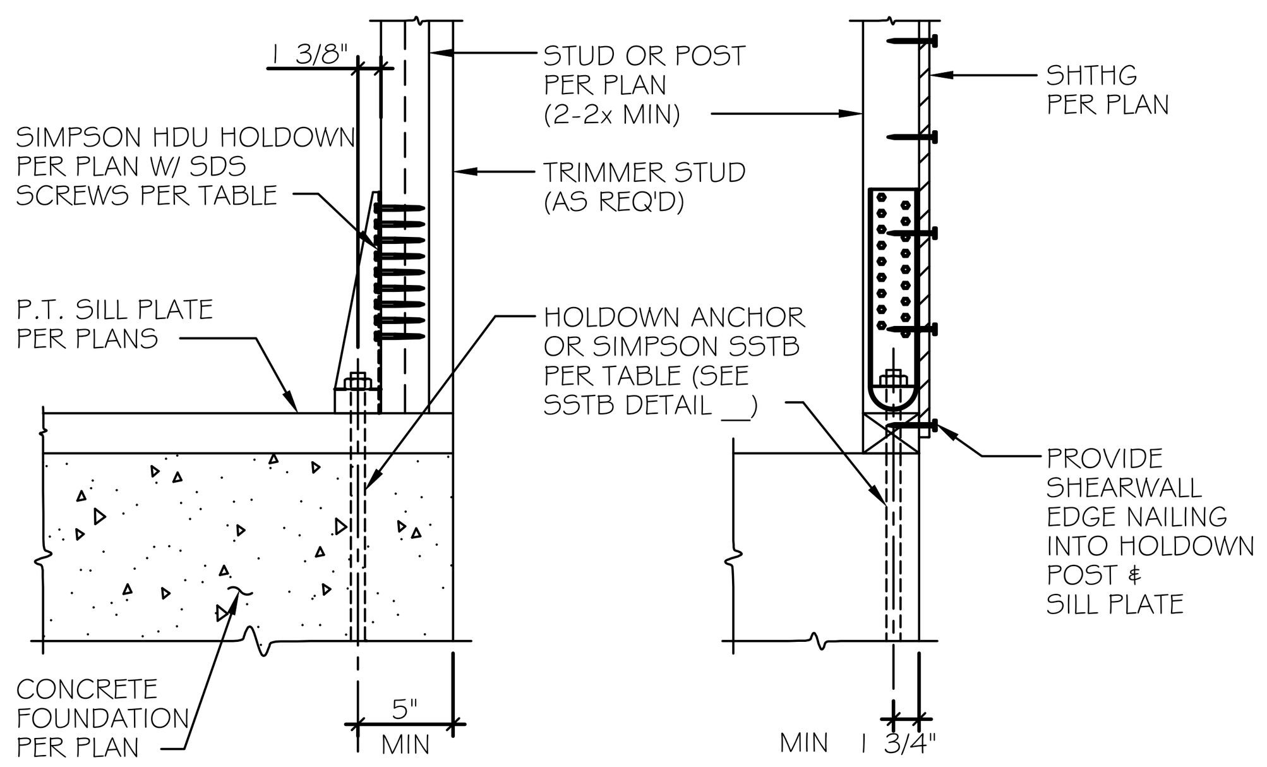
LICENSED ARCHITECT CHERYLYNE N. BASSAL C-31548 REN 12/31/25 STATE OF CALIFORNIA

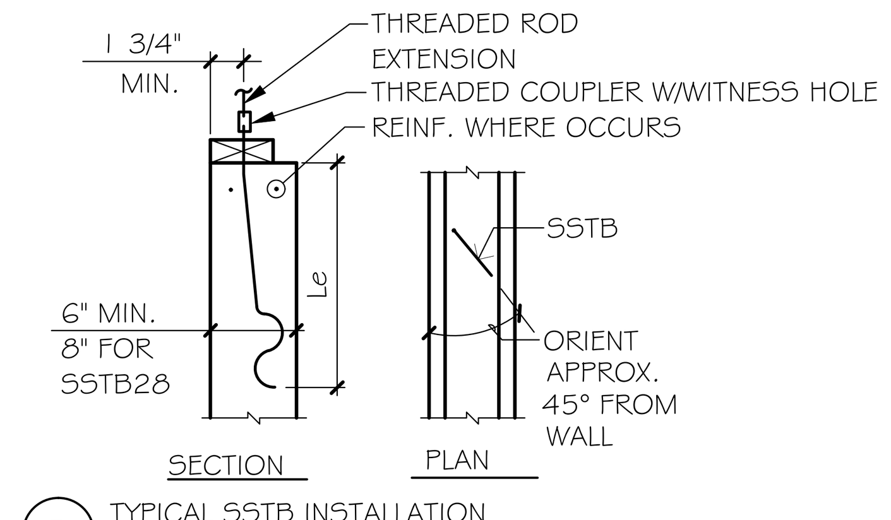
ACCESSORY DWELLING UNIT
2143 INCLINE CT.
MILPITAS, CA

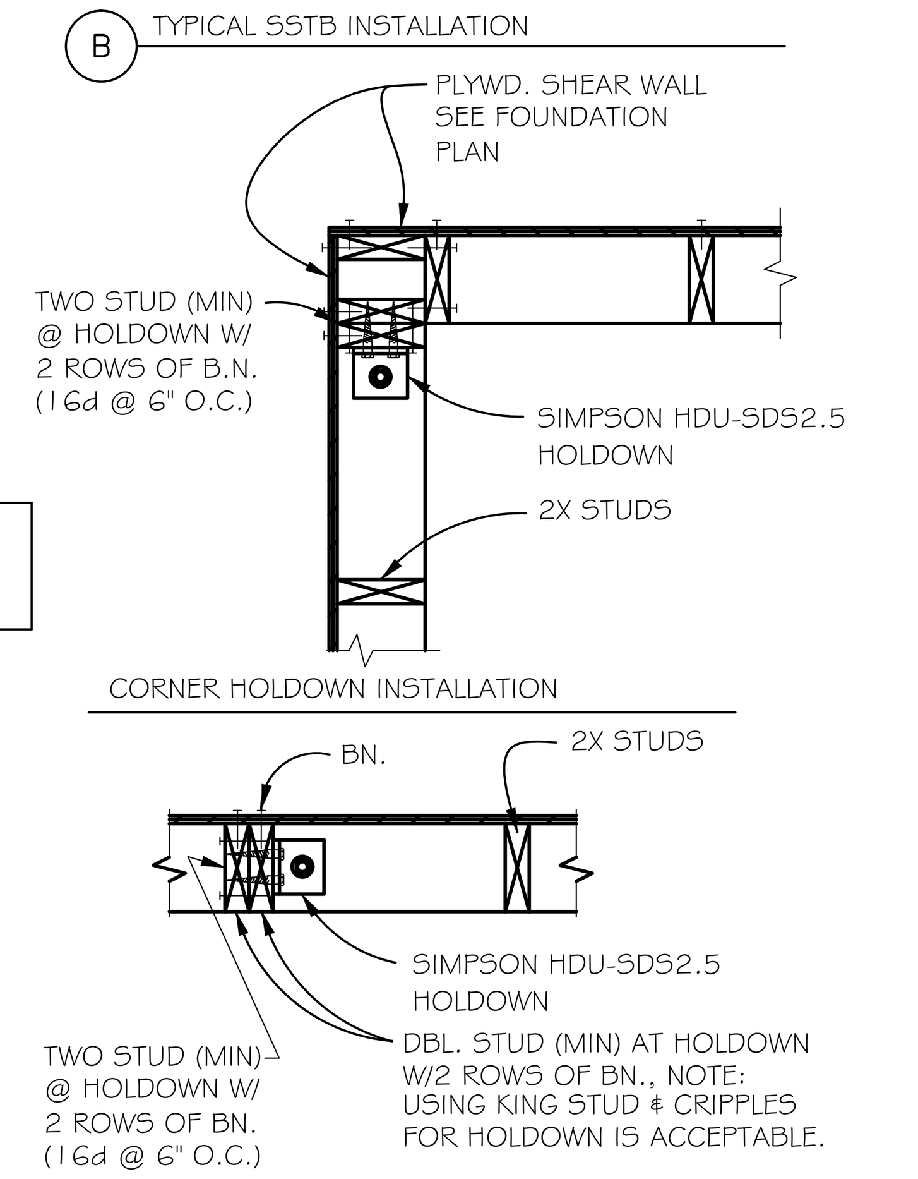
ELECTRICAL PLAN

DATE:	8-1-2024
SCALE:	NOTED
DRAWN	CB
JOB NO	-
SHEET NO.	E1
OF SHEETS	

ELECTRICAL PLAN — 1/4"=1'-0"







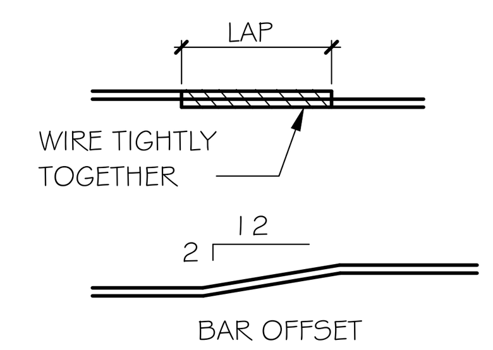
HOLDOWN SIZE	OPTION B: SIMPSON SSTB ANCHOR BOLT		
	ANCHOR BOLT SIZE*	MIN. EMBED. (Le)	REMARKS
HDU2	SSTB20	16	FOR INSTALLATION REQUIREMENTS SEE (B)
HDU4	SSTB24	21	
HDU6	SSTB28	24	

SIMPSON SDS3 WOOD SCREWS SCHEDULE		
WOOD SCREW TYPE	WOOD SCREW DESCRIPTION	No. of WOOD SCREW
SDS 1/4"x 3	1/4" Ø X 3"	10
SDS 1/4"x 3	1/4" Ø X 3"	18
SDS 1/4"x 3	1/4" Ø X 3"	24

REFER TO SIMPSON CATALOG FOR ADDL. REQUIREMENTS

NOTE:
B.N = 10d BOUNDARY NAILING @ 6" O.C., TYP.

1 HOLDOWN ANCHOR BOLT SCHEDULE

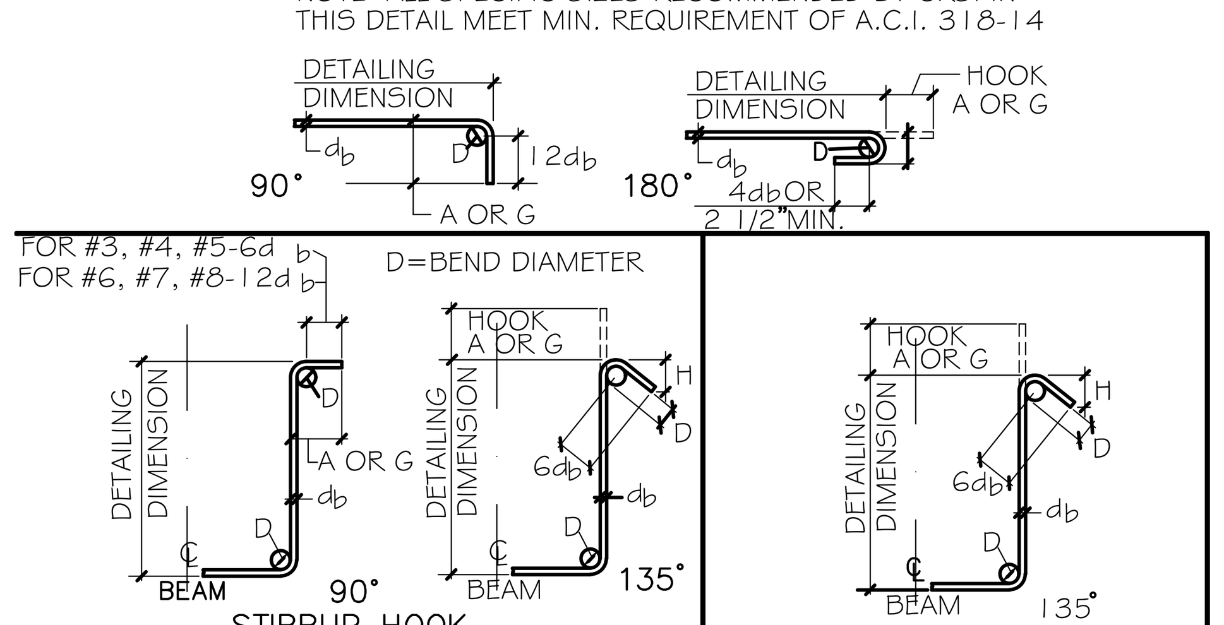


MINIMUM LAP LENGTH FOR REINFORCING BARS (UNLESS OTHERWISE NOTED)		
BAR SIZE	LAP : FT. - IN.	
	TOP BARS	OTHER BARS
#3	2'-3"	1'-10"
#4	3'-1"	2'-5"
#5	3'-10"	3'-0"
#6	5'-0"	3'-10"
#7	6'-10"	5'-3"
#8	8'-11"	7'-0"
#9	11'-4"	8'-10"
#10	14'-4"	11'-0"
#11	17'-9"	13'-7"

NOTES:
1. TOP BARS ARE HORIZ. BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BARS.
2. LAP LENGTHS ARE BASED ON Fc=3000psi AND Fy=60000psi

2 TYP. CONC. REBAR SPLICES

NOTE: ALL SPECIFIC SIZES RECOMMENDED BY CRSI IN THIS DETAIL MEET MIN. REQUIREMENT OF A.C.I. 318-14



BAR SIZE	D	90° A OR G	135	
			A OR G	APPROX.H
#3	1 1/2"	4"	4"	2 1/2"
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	1'-0"	7 3/4"	4 1/2"
#7	5 1/4"	1'-2"	9"	5 1/4"
#8	6"	1'-4"	10 1/4"	6"

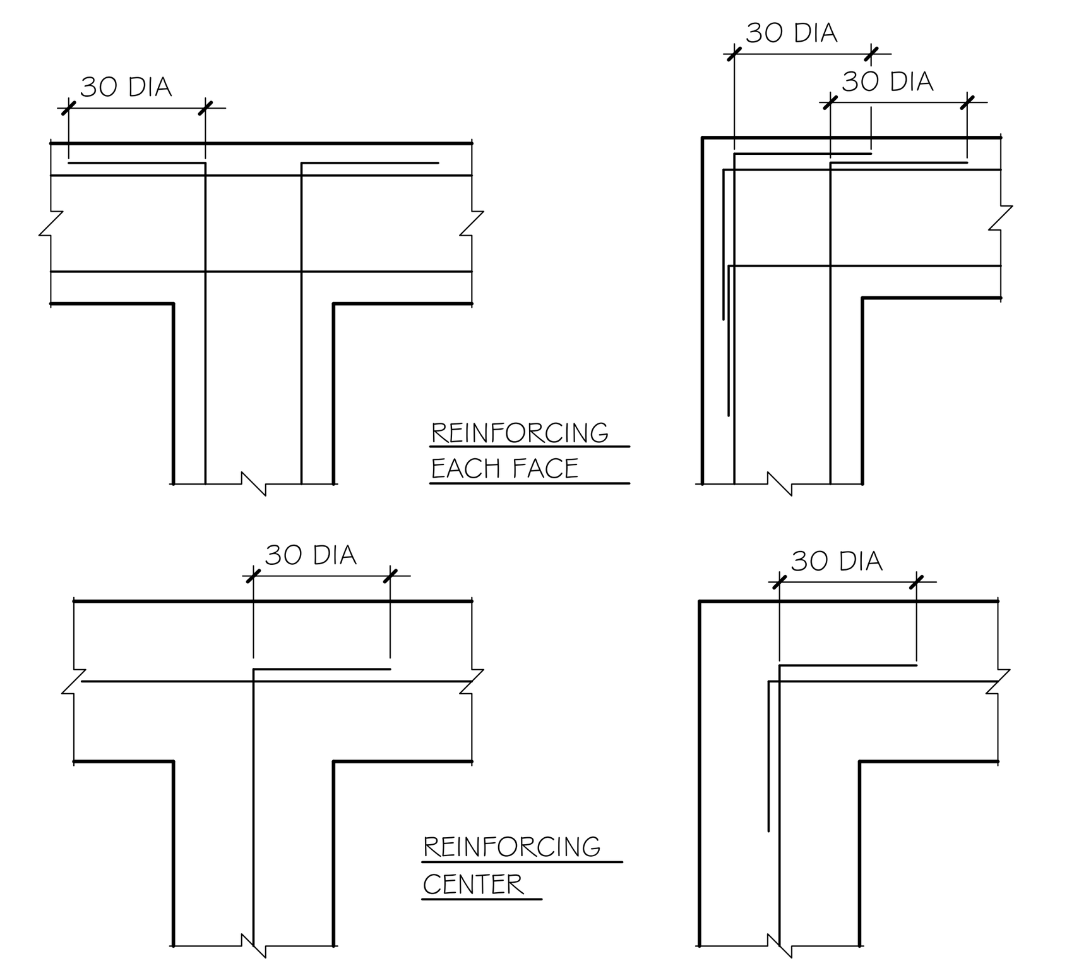
135° SEISMIC HOOK			
SIZE	D	A OR G	APPROX.H
#3	1 1/2"	4 1/4"	3"
#4	2"	4 1/2"	3"
#5	2 1/2"	5 1/2"	3 3/4"
#6	4 1/2"	7 3/4"	4 1/2"
#7	5 1/4"	9"	5 1/4"
#8	6"	10 1/4"	6"

BAR SIZES	D=FINISHED INSIDE BEND DIAMETER	
	STANDARD HOOKS	STIRRUP/TIE HOOKS
#3, #4, #5	$6d_b$	$4d_b$
#6, #7, #8	$6d_b$	$6d_b$
#9, #10, #11	$8d_b$	$8d_b$
#14, #18	$10d_b$	$10d_b$

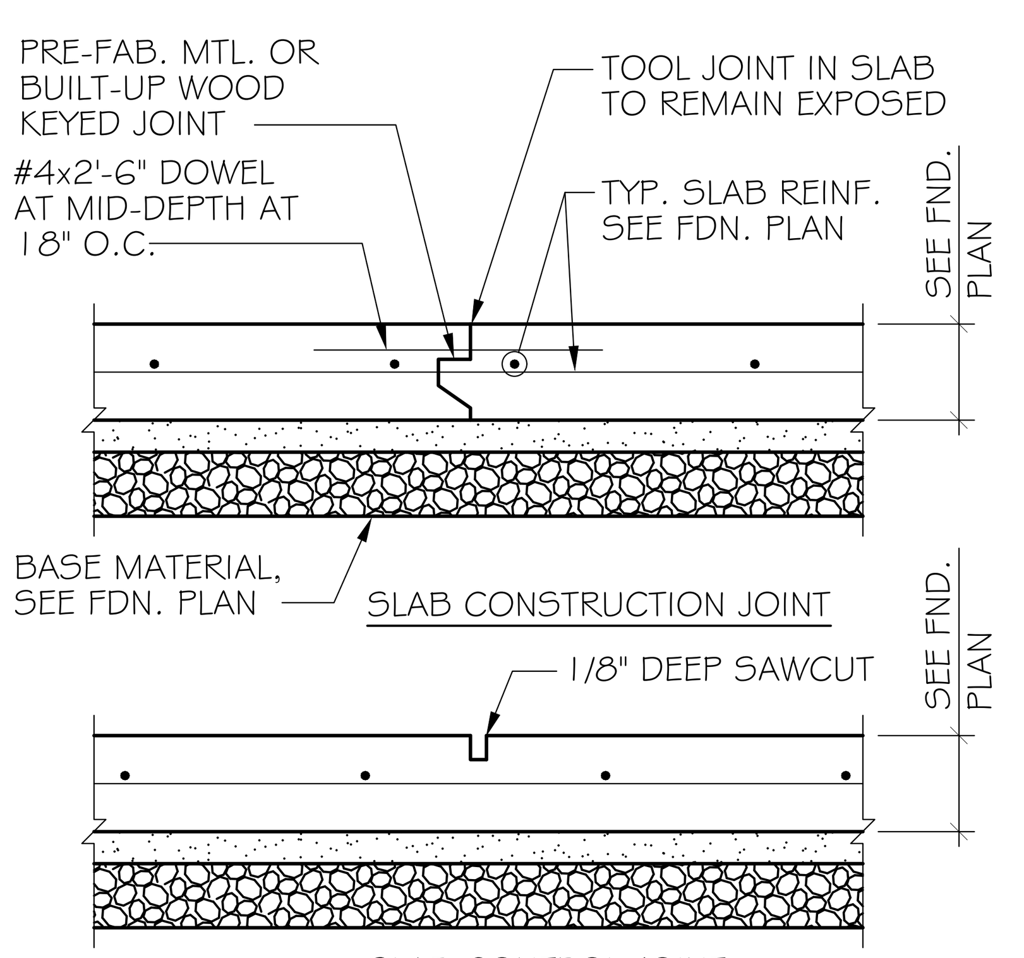
d_b = NOMINAL BAR DIAMETER

BAR SIZE	DIMENSIONS OF STANDARD 180° HOOKS, ALL GRADES			DIMENSIONS OF STANDARD 90° HOOKS, ALL GRADES	
	AOR B	J	D	A OR G	D
#3	5"	3"	2 1/4"	6"	2 1/4"
#4	6"	4"	3"	8"	3"
#5	7"	5"	3 3/4"	10"	3 3/4"
#6	8"	6"	4 1/2"	1'-0"	4 1/2"
#7	10"	7"	5 1/4"	1'-2"	5 1/4"
#8	11"	8"	6"	1'-4"	6"
#9	1'-3"	11 3/4"	9 1/2"	1'-7"	9 1/2"
#10	1'-5"	1'-1 1/4"	10 3/4"	1'-10"	10 3/4"
#11	1'-7"	1-2 3/4"	12"	2'-0"	12"
#14	2'-3"	1'-9 3/4"	18 1/4"	2'-7"	18 1/4"
#18	3'-0"	2'-4 1/2"	24"	3'-5"	24"

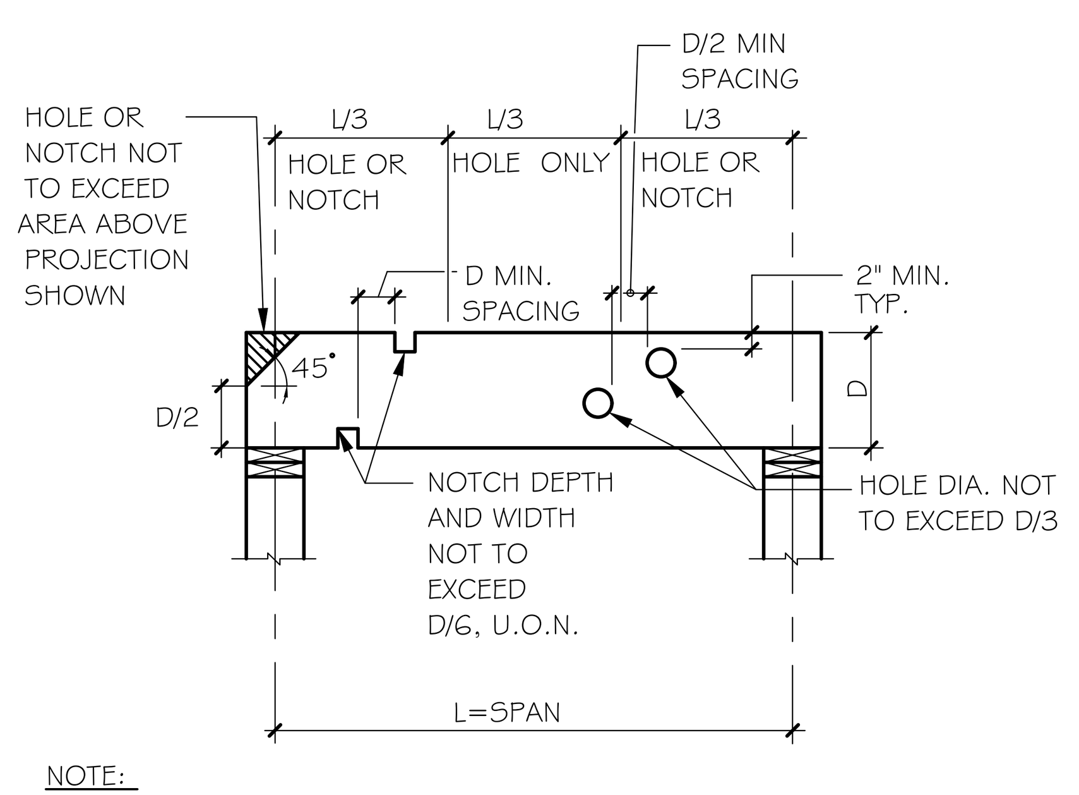
3 STANDARD REBAR HOOKS



4 CONCRETE FTG. INTERSECTION

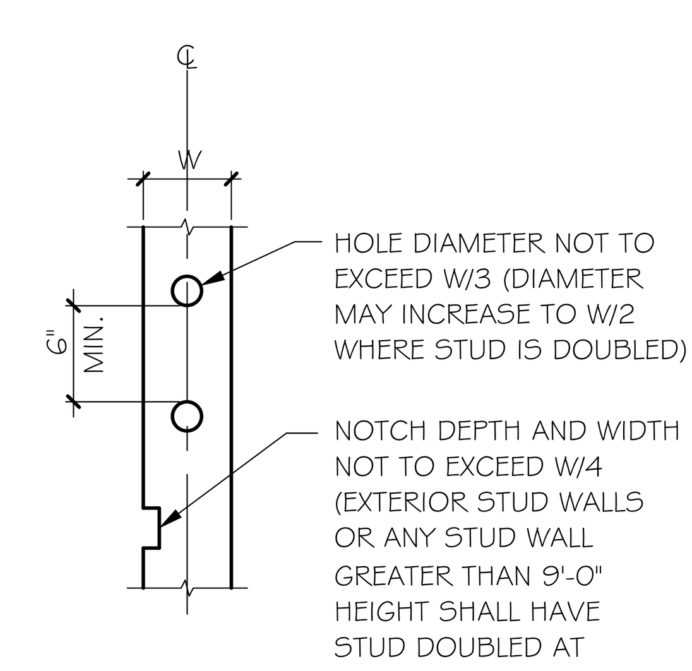


5 SLAB JOINTS



NOTE:
1. HOLES AND NOTCHES SHALL BE DONE IN A CRAFTSMAN LIKE MANNER AND SHALL NOT EXCEED DIMENSIONS NOTED.
2. SOLID SAWN BEAMS OR GLU-LAM BEAMS SHALL NOT BE DRILLED OR NOTCHED UNLESS APPROVED IN ADVANCE BY STRUCTURAL ENGR..

6 JOIST NOTCHING OR DRILLING (SOLID SAWN LUMBER)



NOTES:
1. POSTS SHALL NOT BE NOTCHED AND HOLE DIAMETERS SHALL NOT EXCEED W/3.
2. HOLES OR NOTCHES EXCEEDING THESE LIMITATIONS ARE NOT TO BE ALLOWED UNLESS APPROVED IN ADVANCE BY THE STRUCTURAL ENGINEER.

7 STUD NOTCHING OR DRILLING

CONCRETE NOTES

1. CONCRETE STRENGTH - PROVIDE CONCRETE WITH THE FOLLOWING STRENGTHS AT THE LOCATIONS NOTED. MIX DESIGN, SLUMP, AIR ENTRAINMENT, AGGREGATE SIZE, ETC. SHALL BE IN CONFORMANCE WITH THE A.C.I. CODE, LATEST EDITION.

LOCATION	STRENGTH (PSI @ 28 DAYS)
FOUNDATION	2500
BUILDING SLABS-ON-GRADE	2500
EXTERIOR WALKWAYS ON GRADE (see notes under reinforcing below)	2500

ALL CONCRETE SHALL BE HARD ROCK (150 PCF) AND CONTAIN 4% AIR ENTRAINMENT.

2. REINFORCING STEEL - ASTM A615 WITH THE FOLLOWING STRENGTHS:

SIZE	STRENGTH
#3 AND SMALLER	GRADE 40 (fy = 40000psi)
#4 AND LARGER	GRADE 60 (fy = 60000psi)

NOTE: EXTERIOR WALKWAYS, WHERE NOT SPECIFICALLY NOTED ON THE THE FOUNDATION PLAN, SHALL BE 4" THICK, HAVE A MINIMUM 4" COMPACTED "CLASS II" BASE, AND SHALL BE REINFORCED WITH 6x6-W1.9xW1.9 WELDED WIRE FABRIC LOCATED AT MID DEPTH.

3. FABRICATE AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI PUBLICATION ACI 318-14, ACI DETAILING MANUAL - LATEST EDITION.
4. PLACE CONCRETE IN COMPLIANCE WITH ACI 318-14. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
5. CONCRETE COVER FOR REINFORCEMENT FOR NON-PRESTRESSED, CAST IN PLACE CONCRETE SHALL BE AS FOLLOWS:

CONDITION	COVER
CAST AGAINST EARTH	3"
EXPOSED TO WEATHER	
#5 AND SMALLER	1 1/2"
#6 AND LARGER	2"
SLAB-ON-GRADE	2"

6. EMBEDS - ALL ITEMS TO BE CAST INTO CONCRETE SUCH AS REINFORCING DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY AND ACCURATELY POSITIONED INTO THE FORMS PRIOR TO PLACING THE CONCRETE.
7. CONSTRUCTION JOINTS - THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL FOR CONCRETE CONSTRUCTION JOINT LOCATIONS. REINFORCING STEEL DETAILING MAY CHANGE AND THE CONTRACTOR MAY BE RESPONSIBLE FOR ADDITIONAL EXPENSES AS A RESULT.

GENERAL NOTES

1. ALL WORK SHALL BE CARRIED OUT BY A CALIFORNIA LICENSED CONTRACTOR(S). ALL CONSTRUCTION PROCEDURES SHALL CONFORM TO OSHA STANDARDS.
2. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISH STRUCTURE. UNLESS OTHERWISE SHOWN, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
3. ALL HOLES DRILLED FOR BOLTS SHALL BE 1/16 INCH LARGER THAN THE BOLT DIAMETER EXCEPT AS NOTED ON PLANS. THE TIGHTENING OF THE BOLTS SHALL NOT DAMAGE EXISTING OR NEW FRAMING ELEMENTS. ALL BOLTS AND THREADED RODS SHALL HAVE HEAVY NUTS AND WASHERS.
4. TYPICAL NOTES AND DETAILS ARE PROVIDED TO COVER GENERAL CONSTRUCTION CONDITIONS. THE GENERAL CONTRACTOR SHALL FOLLOW THOSE DETAILS AND NOTES PERTAINING TO THE SPECIFIC NATURE OF THE WORK TO BE PERFORMED.
5. NOTES AND DETAILS ON THESE STRUCTURAL DRAWINGS SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. DETAILS ARE SHOWN IN DIAGRAMMATIC FORM AND ARE NOT TO BE SCALED (SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS, SLOPES, FINISHES, ETC.). CONSTRUCTION DETAILS NOT SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS. ALL WORK OR CONSTRUCTION SHALL COMPLY WITH THE 2022 CBC AND 2021 IBC AND ALL OTHER APPLICABLE REGULATIONS AND SAFETY REQUIREMENTS.
6. DISCREPANCIES - THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS (WHERE APPLICABLE) AT THE JOB SITE AS WELL AS THE PROVISIONS OF THE ENTIRE CONSTRUCTION DOCUMENTS AND BRING TO THE ARCHITECT'S/ ENGINEER'S ATTENTION ANY DISCREPANCY. IN THE EVENT OF A DISCREPANCY IN THE STRUCTURAL CONSTRUCTION DOCUMENTS, THE NOTE OR DETAIL UTILIZING THE STRICTER REQUIREMENT SHALL APPLY.
7. EXCAVATION, SHORING, AND BRACING - IT SHALL BE THE GENERAL CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, FORM WORK, ETC., AS REQUIRED FOR PROTECTION OF LIFE AND PROPERTY, TO SUPPORT ANY CONSTRUCTION LOADS, AND TO MAINTAIN ALL BUILDING COMPONENTS SAFELY IN PLACE PRIOR TO THEIR FINAL ASSEMBLY AND ANCHORAGE INTO THE COMPLETED STRUCTURE.
8. INSPECTIONS - ALL INSPECTION AND TESTING SHALL BE PERFORMED ACCORDING TO BUILDING CODE AND/OR LOCAL BUILDING DEPARTMENT REQUIREMENTS.
9. COORDINATION - REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND ALL OTHER PERTINENT DRAWINGS FOR THE SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS.
10. TRUSS BRACING - THE GENERAL CONTRACTOR SHALL VERIFY THE REQUIRED TRUSS BRACING WITH THE TRUSS MANUFACTURE.

TIMBER NOTES

LUMBER SCHEDULE: (UNLESS OTHERWISE NOTED ON FRAMING PLANS)

1.

USE	SIZE / TYPE	SPECIES	GRADE
LIGHT FRAMING	2"-4" THICK 2"-6" WIDE	DF	NO.2
ROOF JOIST/ CEILING JOIST	2"-4" THICK 5" AND WIDER	DF	NO.2
BEAM/POST	ANY	DF	NO.2
SILL	ANY	DF	PRES. TRTD. #2
PSL BEAM	2.2 E (ICC ESR# 1387)	(TRUSS JOIST MACMILLAN)	
HARDY FRAME	ICC # ESR 2089	(BCI - BOISE CASCADE ENGINEERED WOOD PRODUCTS	

2. PLYWOOD SHEATHING - IN COMPLIANCE WITH U.S. PRODUCT STANDARD PSI, LATEST EDITION.

OSB SHEATHING - UPON APPROVAL OF THE STRUCTURAL ENGINEER OSB SHEATHING MAY BE SUBSTITUTED FOR PLYWOOD SHEATHING PROVIDED THE OSB SHEATHING CONFORMS TO NATIONAL EVALUATION REPORT NER QA397 AND AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATING STANDARD NER 108.

INSTALLATION WORKMANSHIP SHALL CONFORM TO MANUFACTURER'S INSTRUCTIONS IN THE UNIT AND TO AMERICAN PLYWOOD ASSOCIATION'S DESIGN/CONSTRUCTION GUIDE "RESIDENTIAL AND COMMERCIAL" PROCEDURES.

3. NOTCHING, BORING, AND CUTTING OF WOOD MEMBERS SHALL NOT BE ALLOWED EXCEPT AS PROVIDED FOR IN THE 2022 CALIFORNIA BUILDING CODE OR APPROVED BY THE STRUCTURAL ENGINEER.
4. NAILS - COMMON TYPE WITH SIZE AND SPACING IN COMPLIANCE WITH 2022 CALIFORNIA BUILDING CODE TABLE 2304.10.2. OR AS SPECIFIED ON THE DRAWINGS, WHICHEVER SPECIFICATION IS STRICTER. NAILS SHALL NOT PENETRATE FACE OF PLYWOOD SHEETS MORE THAN FLUSH WITH THE SURFACE. PLYWOOD SHEETS SHALL BE REPLACED WHERE NAILS HAVE PENETRATED THE FACE OF THE PLYWOOD. NAILS SHALL BE FULL ROUND-HEAD NAILS (CLIPPED HEAD NAILS, T-NAILS, ETC. SHALL NOT BE ALLOWED).
5. MACHINE BOLTS - ASTM A307 QUALITY INSTALLED THROUGH HOLES 1/16" LARGER THAN SIZE OF BOLT. USE STANDARD CUT WASHERS UNDER HEAD AND NUT UNLESS OTHERWISE NOTED. COUNTERSINK WHERE SPECIFIED NOT MORE THAN THICKNESS OF HEAD AND WASHER. RETIGHTEN PRIOR TO ENCLOSING.
6. LAG SCREWS - INSTALLATION SAME AS FOR MACHINE BOLTS BUT WITH PILOT HOLES 2/3 DIAMETER OF SCREW ROOT. LEAD HOLES SHALL BE UTILIZED EQUAL TO LENGTH AND DIAMETER OF SMOOTH PORTION OF SHANK WHERE SPLITTING IS ANTICIPATED.
7. SHEET METAL FASTENERS - TYPE AS INDICATED ON DRAWINGS BY SIMPSON COMPANY (OR EQUIVALENT) UTILIZING ALL SPECIFIED NAILS OR BOLTS. REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS WHERE NOT SHOWN OR NOTED.
8. MINIMUM DIMENSION FOR FLOOR AND ROOF SHEATHING TO BE 24" PER (2015 SDPWS Section 4.2.7.)

STRUCTURAL DESIGN CRITERIA:

1. DESIGN LOADS AND REQUIREMENTS: 2022 CBC, 2022 CRC 2021 IBC, ASCE 7-16

REQUIRED INSPECTIONS BY STRUCTURAL ENGINEER

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE STRUCTURAL ENGINEER THE FOLLOWING REQUIRED INSPECTIONS. AT LEAST 48 HOURS NOTICE SHALL BE GIVEN TO THE ENGINEER PRIOR TO TIME OF REQUIRED REVIEW.

1. CONCRETE FOOTINGS & STRUCTURAL EMBEDS ALL REINFORCEMENT AND STRUCTURAL EMBEDS TO BE IN PLACE AND INSPECTED PRIOR TO PLACING CONCRETE.
2. INSTALLATION OF RETROFIT HOLD DOWN(S) & ANCHOR BOLT (S).
3. ROUGH STRUCTURAL FRAMING - ALL STRUCTURAL FRAMING MEMBERS AND STRUCTURAL HARDWARE TO BE IN PLACE AND INSPECTED PRIOR TO CONCEALMENT.
4. ROOF, AND WALL PLYWOOD - ALL PLYWOOD EDGE AND FIELD NAILING TO BE IN PLACE AND INSPECTED PRIOR TO CONCEALMENT.
5. SPECIAL INSPECTION FOR SHEAR-WALL NAILING OF 4 INCHES OR LESS

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ENGINEER'S SIGNATURE

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DO RESIDENCE
2143 INCLINE COURT
MILPITAS, CA 95035

STRUCTURAL NOTES AND DETAILS

Date:	7-30-24
Scale:	AS NOTED
Engineer:	T.T.
Reviewed:	P.S.
Job:	D - 2024 - 53
Sheet:	S0

NOTES

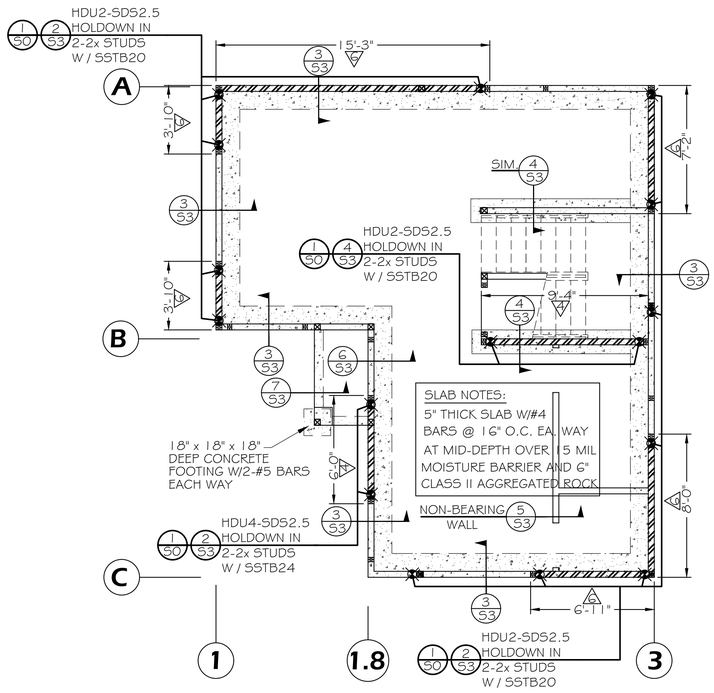
1. THE NEW FOUNDATION AT THE NEW ADDITIONS ARE DESIGN PER CRC-2022 MINIMUM (1,500 PSF) (CRC TABLE R401.4.1) ALLOWABLE BEARING. THE NEW FOUNDATIONS ARE DESIGN WITHOUT A SOIL REPORT, HOWEVER, IF THE CITY REQUIRED A SOIL REPORT FOR THIS PROJECT. THE OWNER SHALL PROVIDE ONE. IN THE FUTURE IF THERE ARE ANY SETTLEMENTS AND CRACKS TO THE NEW FOUNDATIONS LOCATION. THE ENGINEER OF RECORD AND TRUONG DESIGN SHALL NOT TAKE ANY RESPONSIBILITY FOR THESE RESULT.

NOTES

1. SURFACE DRAINAGE - ADJACENT TO ANY BUILDINGS, THE GROUND SURFACE SHOULD SLOPE AWAY FROM THE FOUNDATIONS (SEE ARCHITECTURAL PLAN AND SOIL REPORT). IMPERVIOUS SURFACES SHOULD HAVE A MINIMUM GRADIENT OF 2 PERCENT AWAY FROM THE FOUNDATION.

3. SURFACE WATER SHOULD BE DIRECTED AWAY FROM ALL BUILDINGS INTO DRAINAGE SWALES, OR INTO A SURFACE DRAINAGE SYSTEM (I.E. CATCH BASINS AND SOLID DRAIN LINE). "TRAPPED" PLANTING AREAS SHOULD NOT BE CREATED NEXT TO ANY BUILDINGS WITHOUT PROVIDING MEANS FOR DRAINAGE.

4. ALL ROOF EAVES SHOULD BE LINED WITH GUTTERS. THE DOWNSPOUTS SHOULD BE CONNECTED TO SOLID DRAIN LINES, OR SHOULD DISCHARGE ONTO PAVED SURFACES WHICH DRAIN AWAY FROM THE STRUCTURE. THE DOWNSPOUTS MAY BE CONNECTED TO THE SAME DRAIN LINE AS ANY CATCH BASINS, BUT SHOULD NOT CONNECT TO ANY PERFORATED PIPE DRAINAGE SYSTEM.



FOUNDATION & FIRST FLOOR SHEAR-WALLS & HOLDOWN PLANS

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

SHEARWALL SCHEDULE (BLOCK ALL PANEL EDGES)

WALL SYMBOL	PLYWOOD THICKNESS	NAILING		ANCHORD BOLTS	SHEAR TRANSFER CLIP FROM 2x BLOCK TO DOUBLE TOP PLATE
		BOUNDARIES (B.N) PANEL EDGES (P.E.N)	INTERMEDIATE	(AB's) IN 3x PLATE W/ 3"x3"x 1/4" R WASHER	
2	1/2" (MIN) "CDX" PLWD.	8d @ 6" O.C.	8d @ 12" O.C.	5/8"Ø @ 48" O.C.	A35 CLIP @ 24" O.C.
4	1/2" (MIN) "CDX" PLWD.	10d @ 6" O.C.	10d @ 12" O.C.	5/8"Ø @ 24" O.C.	A35 CLIP @ 12" O.C.

NOTE: A MINIMUM OF TWO SILL ANCHORS ARE TO BE PROVIDED PER PLATE, AND THAT THEY ARE TO BE LOCATED NOT MORE THAN 12-INCHES OR LESS THAN SEVEN BOLT DIAMETERS FROM THE ENDS AS REQUIRED BY (CRC R403.1.6.)

NOTE 1:

1. ALL ANCHOR EDGE DISTANCE FROM CONCRETE EDGE SHALL BE 2 INCHES MINIMUM (UNLESS NOTIFY OTHERWISE), TYPICAL.

NOTE 2:

a) FASTENERS FOR PRESERVATIVE-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER (R317.3.1).
   EXCEPTIONS:
   1. ONE-HALF-INCH DIAMETER OR GREATER STEEL BOLTS.
   2. PLAIN CORBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.

b) FASTENERS, INCLUDING NUTS AND WASHERS, FOR FIRE-RETARDANT-TREATED WOOD USED IN EXTERIOR APPLICATIONS OR WET OR DAMP LOCATIONS SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER (R317.3.3)

NOTE 3:

1. THE ANCHOR BOLT PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING OR OTHER MATERIAL WITH NOMINAL UNIT SHEAR CAPACITY GREATER THAN 400 PLF FOR WIND OR SEISMIC. PER (2015 SDPWS Section 4.3.6.4.3)

DESIGN CRITERIA:

1. SCOPE: A NEW TWO STORY ADU

   ROOF DL = 14.5 psf; ROOF LL = 20.0 psf; EXTERIOR WALL DL = 9.0 psf
   FLOOR DL = 12.0 psf; FLOOR LL = 40.0 psf; INTERIOR WALL DL = 8.0 psf

   MINIMUM ALLOWABLE BEARING: 1,500 psf. (CRC TABLE 401.4.1)

SEISMIC DESIGN:

Risk Category:	II
Seismic importance factor:	Ie = 1
Mapped spectral response acceleration parameters:	Ss = 2.245 g, 0.2 sec. S1 = 0.8694 g, 1.0 sec.
Design spectral response acceleration parameters:	Sds = 1.796, Sd1 = 0.985
Maximum considered Earthquake Acceleration:	Sms = 2.694, Sm1 = 1.478
Seismic design catagory:	E
Site Classification:	D
Basic seismic force resisting system:	Bearing Wall Systems (Light framed walls sheathed w/plywood)
Design base shear:	7.73 kips
Seismic response coefficient:	Cs = 0.2763
Response modification coefficient:	R = 6.5
Analysis Procedure used:	Equivalent Lateral Force Procedure

WIND DEISGN:

Wind Speed:	95 mph
Risk category:	II
Wind Exposure:	B
Horizontal pressure:	24.1 psf (max)

FOUNDATION / FIRST FLOOR PLAN NOTES

1.	CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH THE LATEST ARCHITECTURAL DRAWINGS. ALERT THE ARCHITECT OF ANY DISCREPANCY. DO NOT SCALE THE STRUCTURAL DRAWINGS.
2.	REFER TO STRUCTURAL NOTES ON SHEET S0.
3.	FOR TYPICAL CONCRETE REBAR SPLICES REFER TO DETAIL 2/S0.
4.	FOR TYPICAL REINFORCING AT FOUNDATION INTERSECTION, REFER TO DETAIL 5/S0.
5.	FOR STANDARD REBAR HOOKS, REFER TO DETAIL 3/S0.
6.	FOR PIPE THROUGH FOOTING, REFER TO DETAIL 1/S3.
7.	FOR SLAB JOINT, REFER TO DETAIL 5/S0.
8.	FOR STUD AND JOIST DRILLING OR NOTCHING, REFER TO DETAILS 6 AND 7/S0.
9.	FOR SHEAR WALL PLYWOOD, REFER TO DETAIL 2/S4.
10.	NONE
11.	SHEATH ALL EXTERIOR WALLS WITH 1/2" CDX EXPOSURE 1, A.P.A. RATED PLYWOOD WITH 8d AT 6" O.C. (EDGE, P.E.N.) 12" O.C. FIELD. ALL EDGES ARE TO BE NAILED TO 2x BLOCKING MINIMUM. PROVIDE PLYWOOD EDGE NAILING (P.E.N.) TO ALL POSTS, DOUBLE TOP PLATES, BOTTOM SOLE PLATES, MUD SILLS, EDGE JOISTS, JOIST END BLOCKS, AND OTHER LOCATIONS NOTED IN THE DRAWINGS.
12.	ALL POSTS SHOWN ☒ AND KING POSTS SHOWN ☐ SHALL BE 4x STUD WALL THICKNESS, U.O.N. (S.A.D. FOR STUD WALL THICKNESS). TYPICAL POST TO BEAM CONNECTIONS SHALL BE EPC'S @ ENDS & PC'S @ INTERIOR SUPPORTS, U.O.N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE CORRECT POST CAP SIZE. PLYWOOD SHALL BE USED WHERE SHIMMING IS REQUIRED.

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PROFESSIONAL ENGINEER Tuan Truong No. C056317 Exp. 12/31/24 CIVIL STATE OF CALIFORNIA

ENGINEER'S SIGNATURE

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MILPITAS, CA 95035

FOUNDATION & FIRST FLOOR SHEAR-WALLS & HOLDOWN PLANS

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Sheet:	S1
of	Sheets

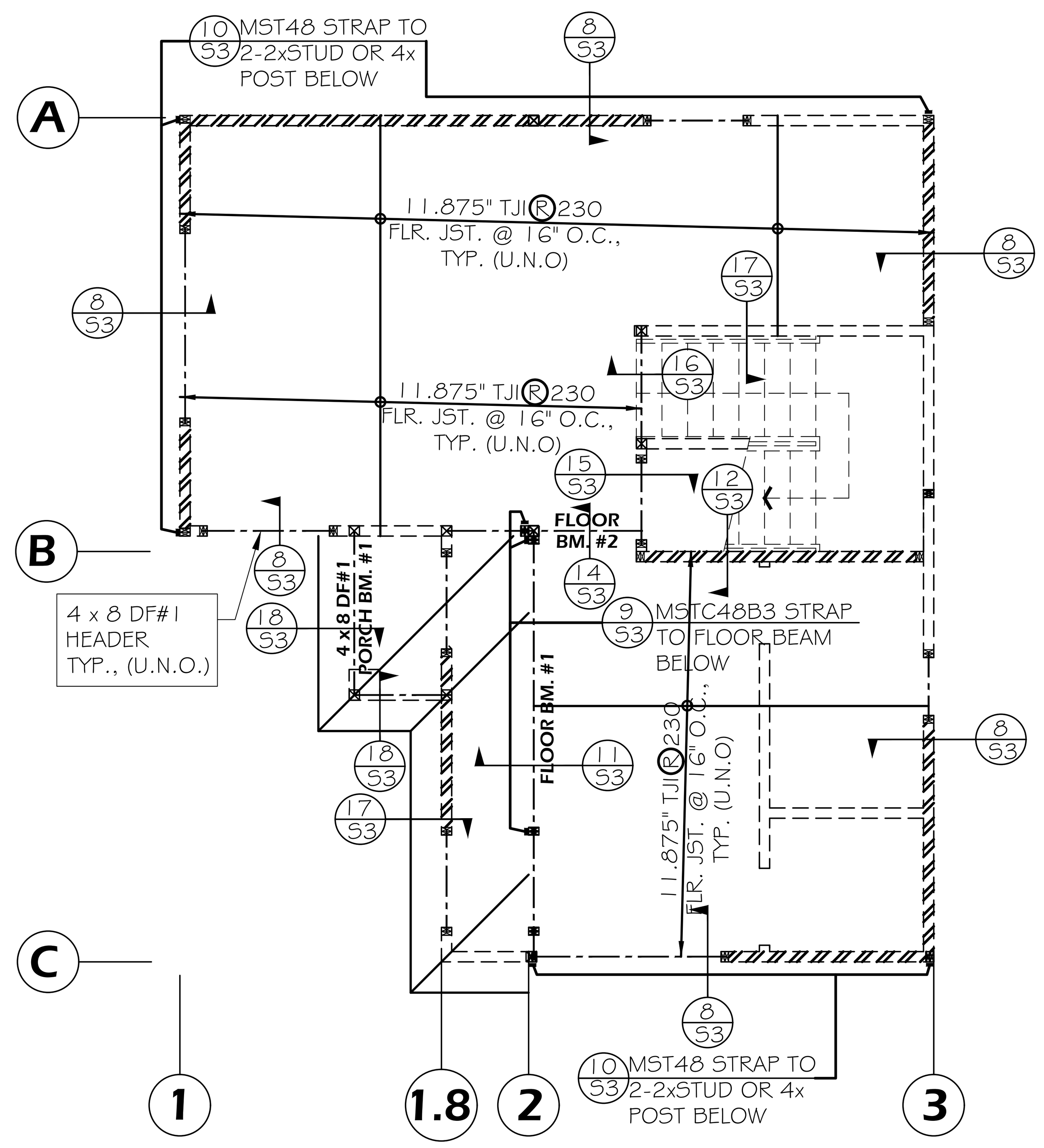
BEAMS SCHEDULE: (NOTE: CONTRACTOR SHALL VERIFY ALL ACTUAL SPAN OF ALL BEAMS)

DESCRIPTION	SPAN	BEAM SIZE	HANGER (FACE MOUNT)	MAX. LOAD (lbs.)	BEAM TO COLUMN (CONN.)	BEAM SUPPORT
FLOOR BEAM #1	6'-4"	3.5" x 11.875" 2.2E PSL	-	-	"EPCZ" POST CAP	4x4 DF#1 POST
FLOOR BEAM #2	13'-10"	3.5" x 11.875" 2.2E PSL	"HGUS"	-	"EPCZ" AND FACE MOUNT HANGER	4x4 DF#1 POST

11.875" TJI FLOOR JOIST DESIGN LOAD:
FLOOR DL = 12.0 psf; FLOOR LL = 40.0 psf

ALL INTERIOR HEADERS (U.N.O)
4 x 8 DF#1

NOTES:
1. FLOOR JOIST AND / OR 2 x BLOCKING UNDER ALL NEW PARALLEL AND PERPENDICULAR PARTITION WALLS.



SECOND FLOOR & LOWER ROOF FRAMING PLANS AND TIE-DOWN

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

LEGEND

INDICATE SHEAR-WALLS

SHEARWALL SCHEDULE (BLOCK ALL PANEL EDGES)

WALL SYMBOL	PLYWOOD THICKNESS	NAILING: BOUNDARIES (B.N) PANEL EDGES (P.E.N)	NAILING: INTERMEDIATE	NAILING: SILL NAILING	SHEAR TRANSFER CLIP FROM 2x BLOCK TO DOUBLE TOP PLATE
6	1/2" (MIN) "CDX" PLWD.	8d @ 6" O.C.	8d @ 12" O.C.	16d @ 6" O.C.	A35 CLIP @ 24" O.C.

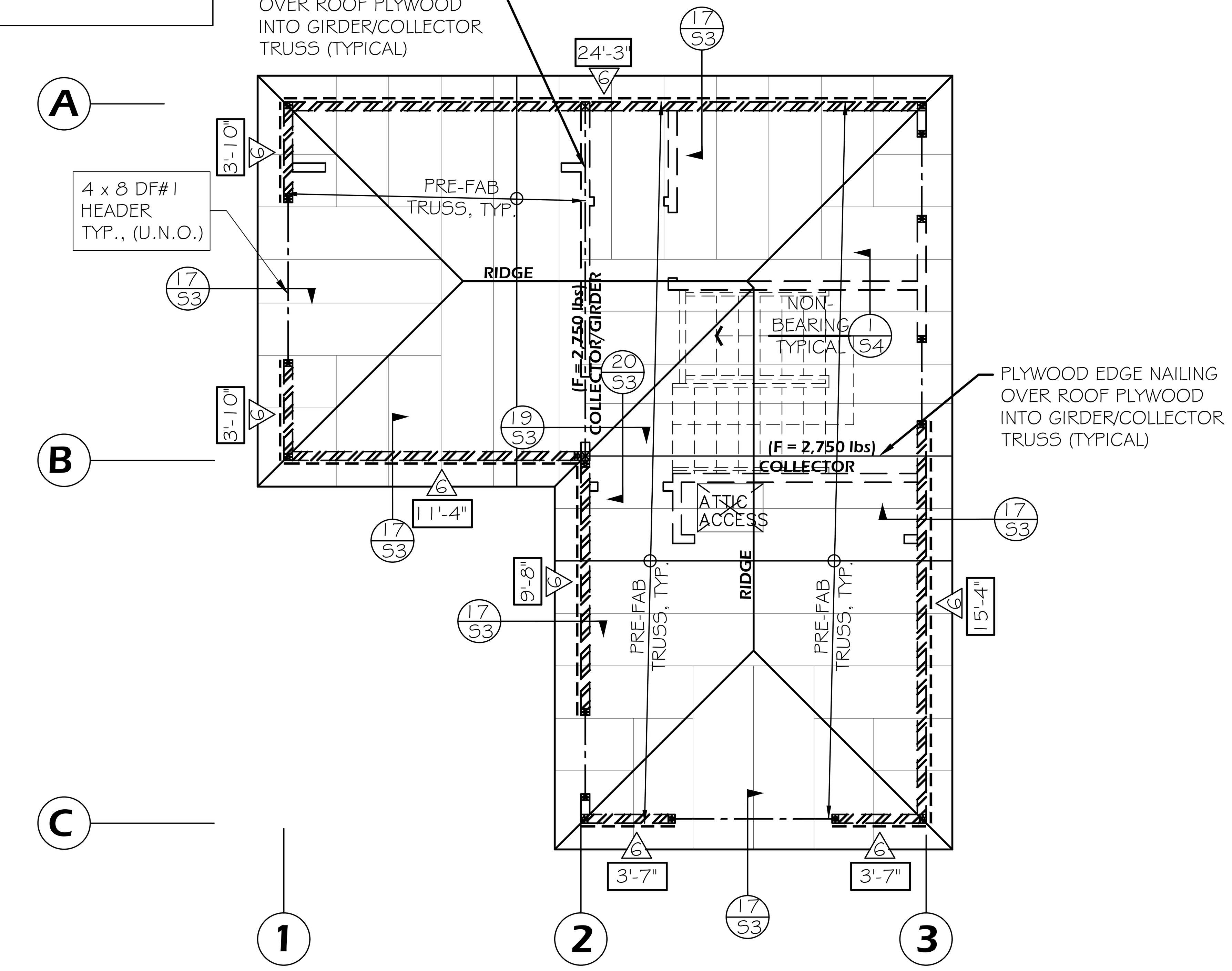
LEGEND

INDICATE SHEAR-WALLS

INDICATE SHEAR-WALL (S) TYPE AND LENGTH

PRE-FAB ROOF TRUSS DESIGN LOADS:
ROOF DL = 18.5 psf; ROOF LL = 20.0 psf

PRE-FAB ROOF TRUSS SHALL BE DEFERRED SUBMITTAL.



ROOF FRAMING PLAN

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

SECOND FLOOR FRAMING PLANS NOTES

1. CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH THE LATEST ARCHITECTURAL DRAWINGS. ALERT THE ARCHITECT OF ANY DISCREPANCY. DO NOT SCALE THE STRUCTURAL DRAWINGS.
2. REFER TO STRUCTURAL NOTES ON SHEET S0.
3. FOR STUD AND JOIST DRILLING OR NOTCHING, REFER TO DETAILS 6 AND 7/S0.
4. FOR DOUBLE TOP PLATE SPLICE, REFER TO DETAIL 5/S4.
5. FOR TYPICAL WALL FRAMED OPENINGS, REFER TO DETAIL 6/S4.
6. FOR TYPICAL ROOF/FLOOR OPENING, REFER TO DETAIL 4/S4.
7. FOR SHEAR WALL PLYWOOD, REFER TO DETAIL 2/S4.
8. FOR ROOF/FLOOR PLYWOOD, REFER TO DETAIL 3/S4.
9. SHEATH NEW ROOF WITH 1/2" CDX. EXPOSURE 1, A.P.A. RATED PLYWOOD WITH FACE GRAIN PERPENDICULAR TO RAFTERS WITH 8d AT 6" O.C. (EDGES, P.E.N.) 12" O.C. (FIELD). STAGGER SHEET END SPLICES. (ROOF PLYWOOD MAY BE APPLIED DIRECTLY OVER (E) ROOF SHTG.)
10. SHEATH ALL EXTERIOR WALLS WITH 1/2" CDX EXPOSURE 1, A.P.A. RATED PLYWOOD WITH 8d AT 6" O.C. (EDGE, P.E.N.) 12" O.C. FIELD. ALL EDGES ARE TO BE NAILED TO 2x BLOCKING MINIMUM. PROVIDE PLYWOOD EDGE NAILING (P.E.N.) TO ALL POSTS, DOUBLE TOP PLATES, BOTTOM SOLE PLATES, MUD SILLS, EDGE JOISTS, JOIST END BLOCKS, AND OTHER LOCATIONS NOTED IN THE DRAWINGS.
11. SHEATH FLOOR WITH 3/4" T&G A.P.A. RATED "STURD-I-FLOOR", EXPOSURE 1 PLYWOOD WITH FACE GRAIN PERPENDICULAR TO JOISTS WITH ADHESIVE TO BEARING SURFACES AND T&G JOINTS WITH No. 10d AT 6" O.C. (EDGE, P.E.N.) AND 10" O.C. (FIELD). STAGGER END SPLICES.
12. ALL POSTS SHOWN ☒ AND KING POSTS SHOWN ☐ SHALL BE 4x STUD WALL THICKNESS, U.O.N. (S.A.D. FOR STUD WALL THICKNESS). TYPICAL POST TO BEAM CONNECTIONS SHALL BE EPC'S @ ENDS & PC'S @ INTERIOR SUPPORTS, U.O.N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE CORRECT POST CAP SIZE. PLYWOOD SHALL BE USED WHERE SHIMMING IS REQUIRED.

Revisions | By

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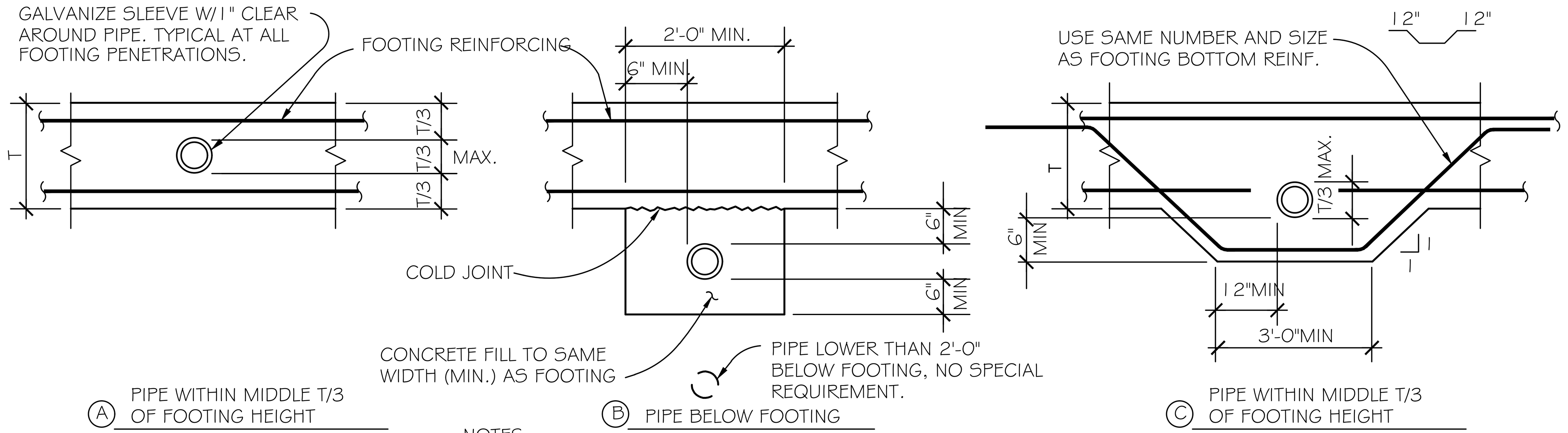
SECOND FLOOR AND LOWER ROOF AND ROOF FRAMING PLANS

Date: 7-30-24
Scale: AS NOTED
Engineer: T.T.
Reviewed: P.S.
Job: D-2024-53
Sheet: **S2**
of Sheets



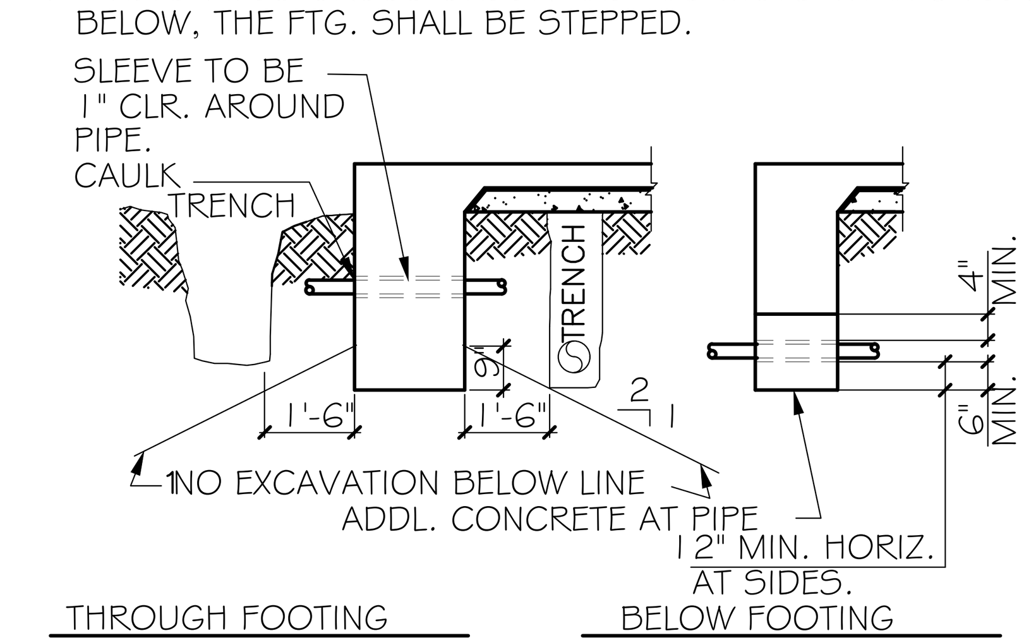
NOTES

1. SLEEVE SIZE LARGER THAN T/3 DEPTH OF GRADE BEAM SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION, UNLESS OTHERWISE SHOWN.
2. ALL GRADE BEAM REINFORCING NOT SHOWN FOR CLARITY.

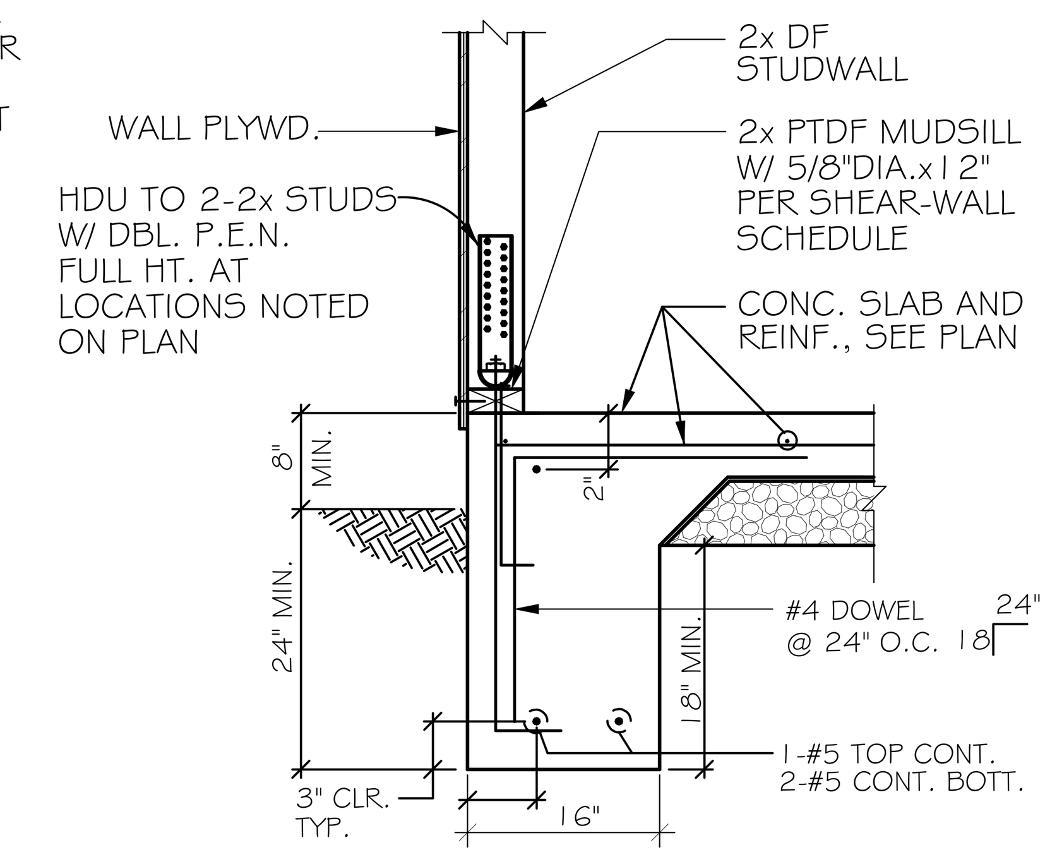
1 TYPICAL PIPE PENETRATIONS THRU FOOTING

NOTES:

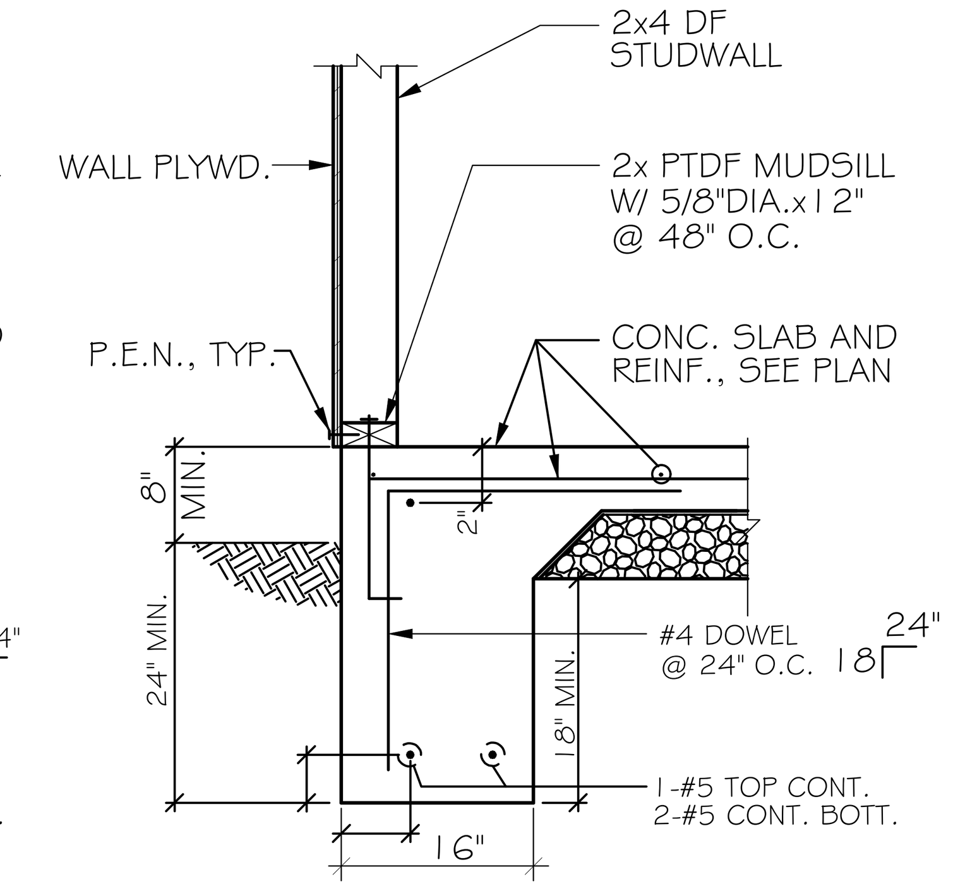
1. DEPTHS OF FTGS. MAY BE DETERMINED BY LOCATION OF PIPE.
2. GEN. CONTRACTOR SHALL CONSULT WITH MECH. CONTRACTOR TO DETERMINE EXACT DEPTH AND LOCATION OF PIPES.
3. WHERE PIPES CROSS UNDER AND ARE NOT MORE THAN 3 FEET BELOW THE NORMAL BOTTOM OF FTG., EXCAVATION SHALL BE AS SHOWN BELOW FILLED WITH MASS CONCRETE.
4. WHERE PIPES CROSS UNDER AND ARE MORE THAN 3 FEET BELOW, THE FTG. SHALL BE STEPPED.



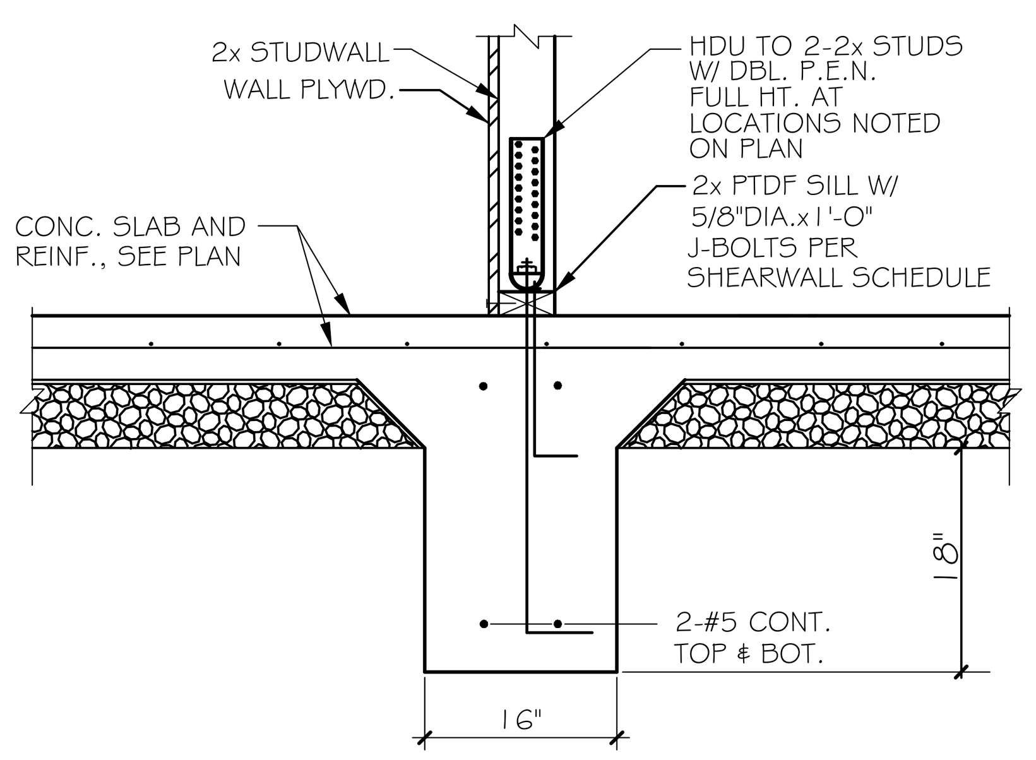
PIPE CLEARANCES @ FTG.



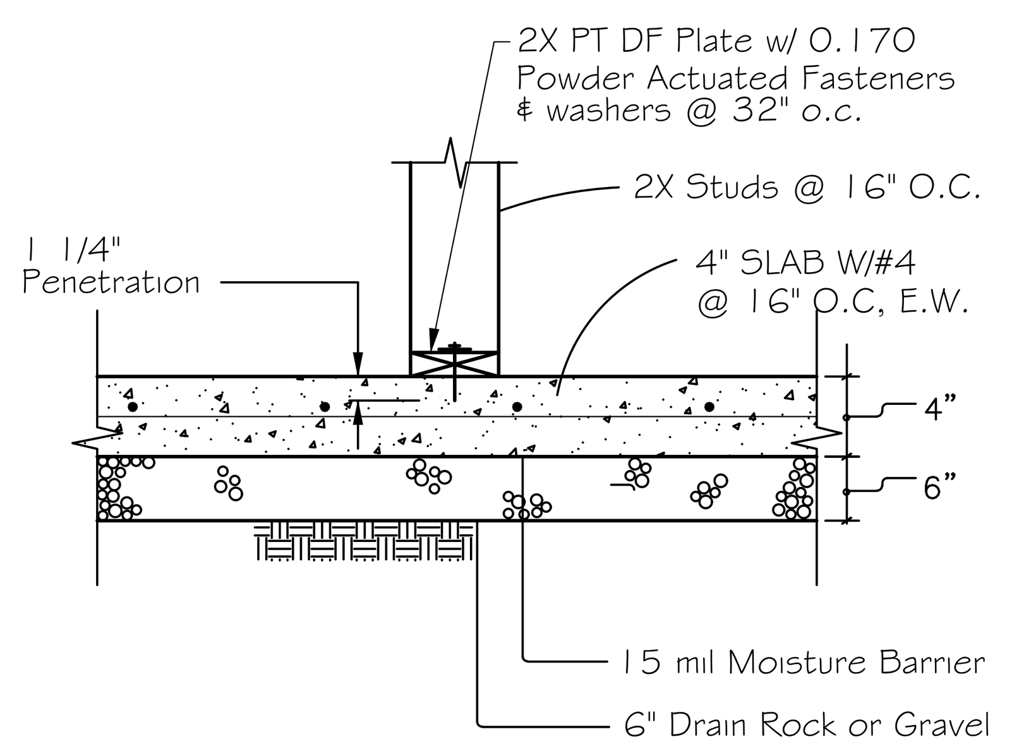
2 PERIMETER FOOTING SEC.



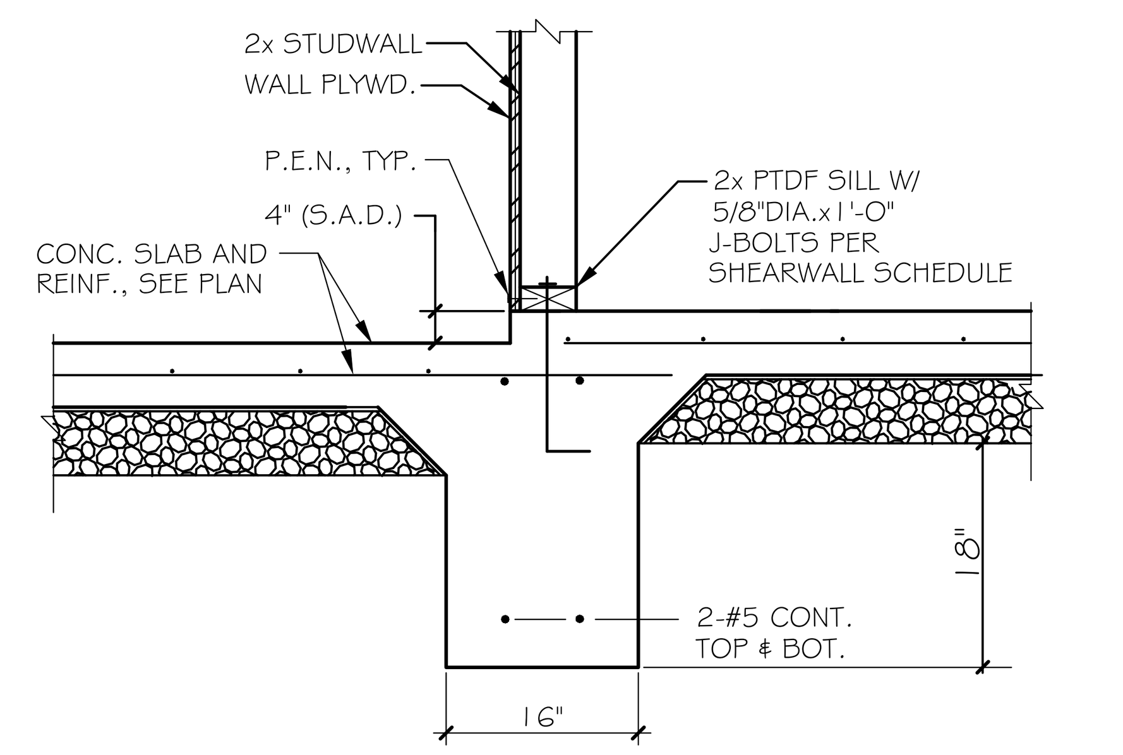
3 TYPICAL PERIMETER FTG.



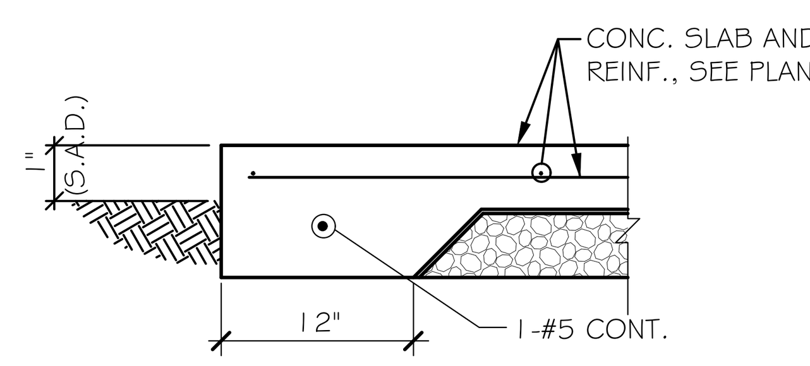
4 SECTION SHEAR/BRG. WALL FOOTING



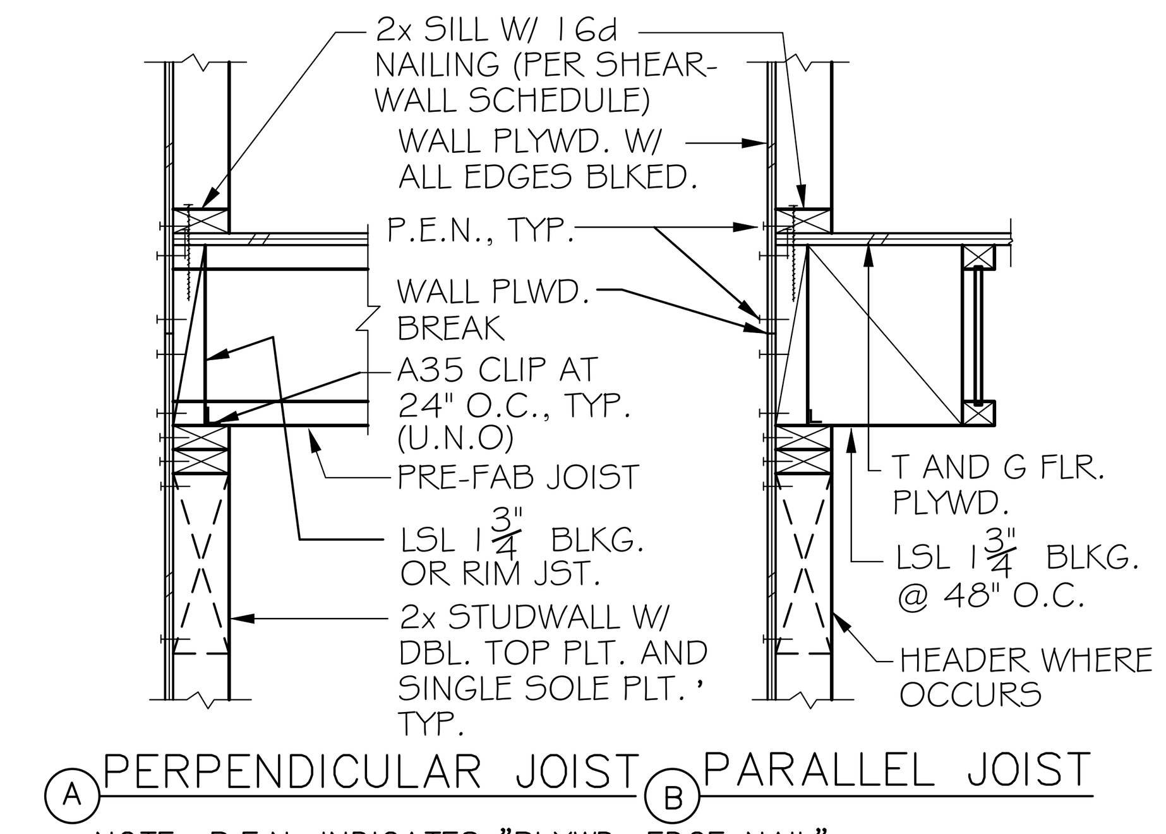
5 NON-SHEAR/NON-BEARING WALLS AT CONCRETE SLAB



6 SECTION AT PORCH / GARAGE

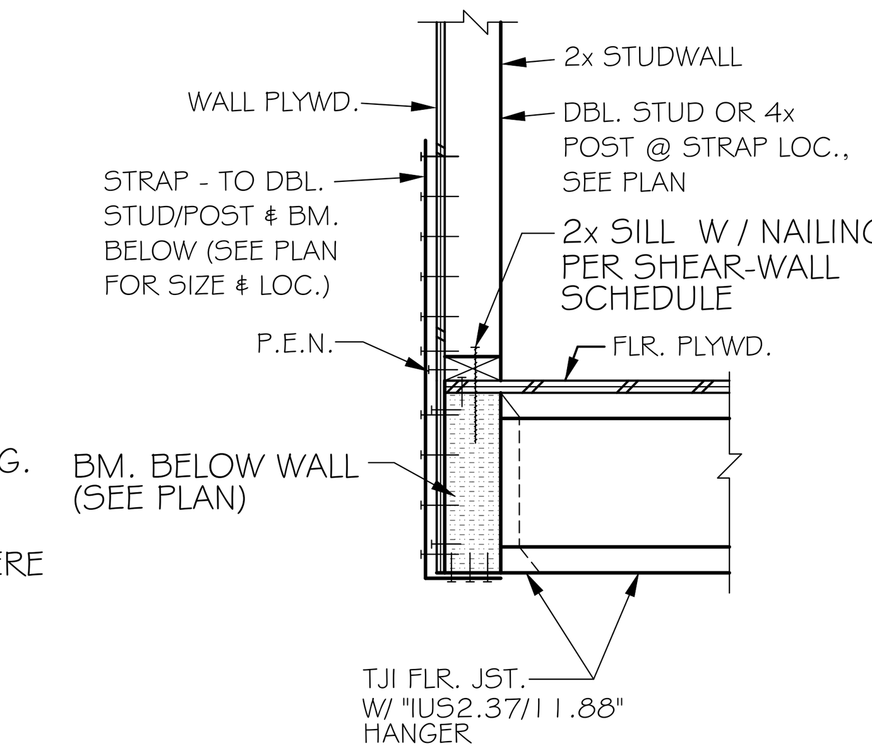


7 THICKEN FOOTING AT PORCH

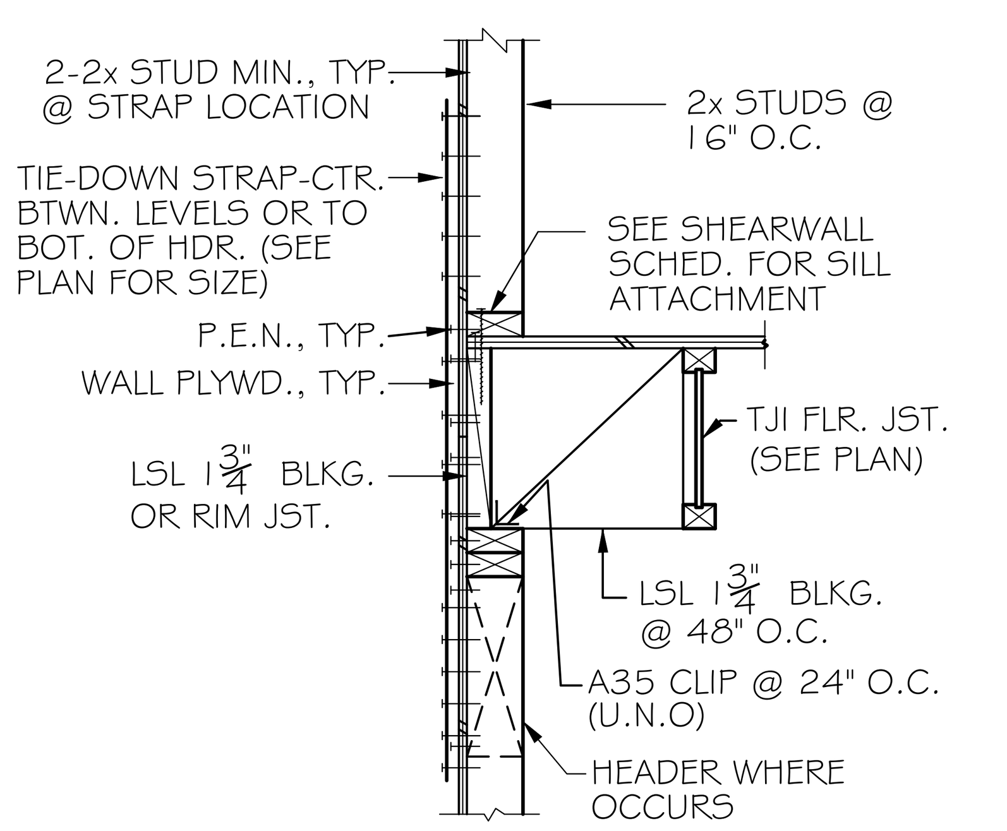


NOTE: P.E.N. INDICATES "PLYWD. EDGE NAIL"

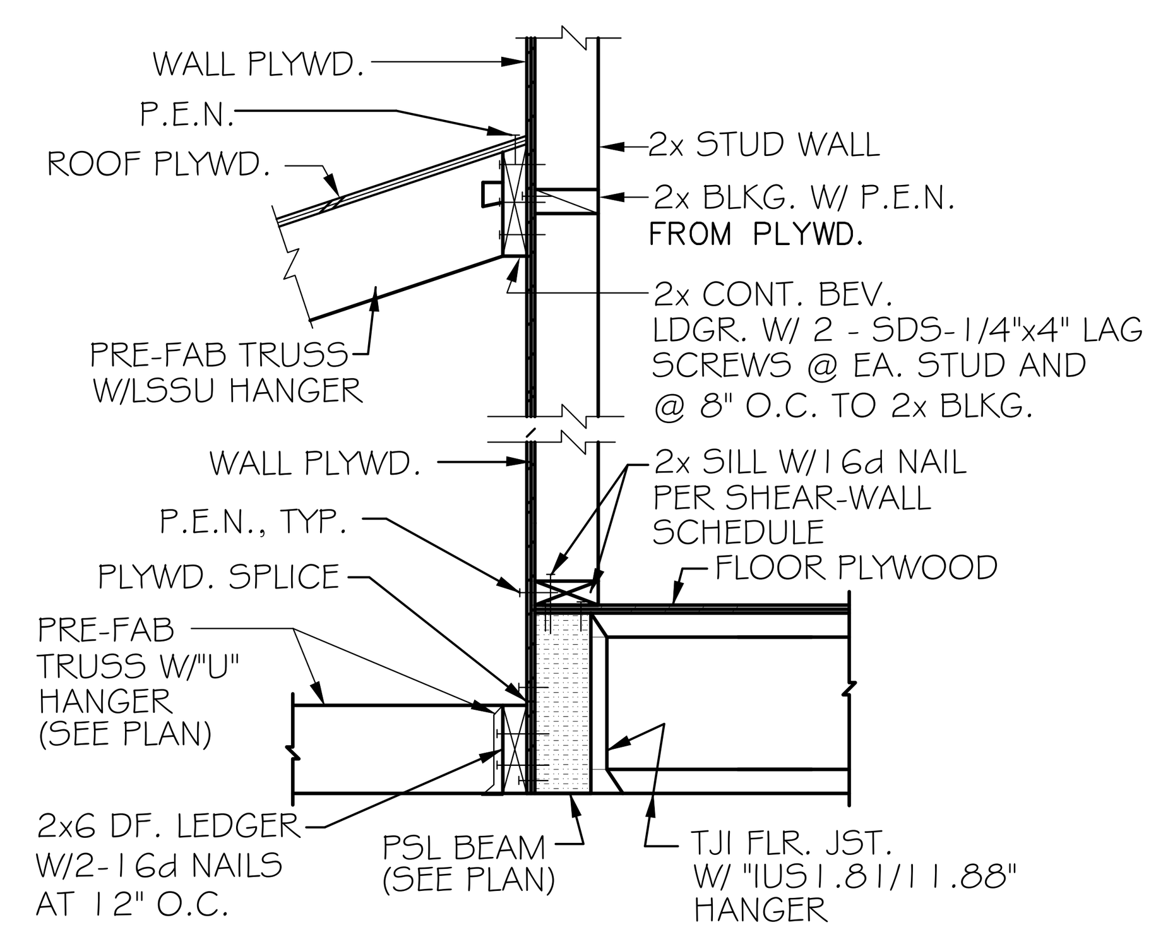
8 PERIMETER PLYWOOD SHEARWALL @ FLOOR



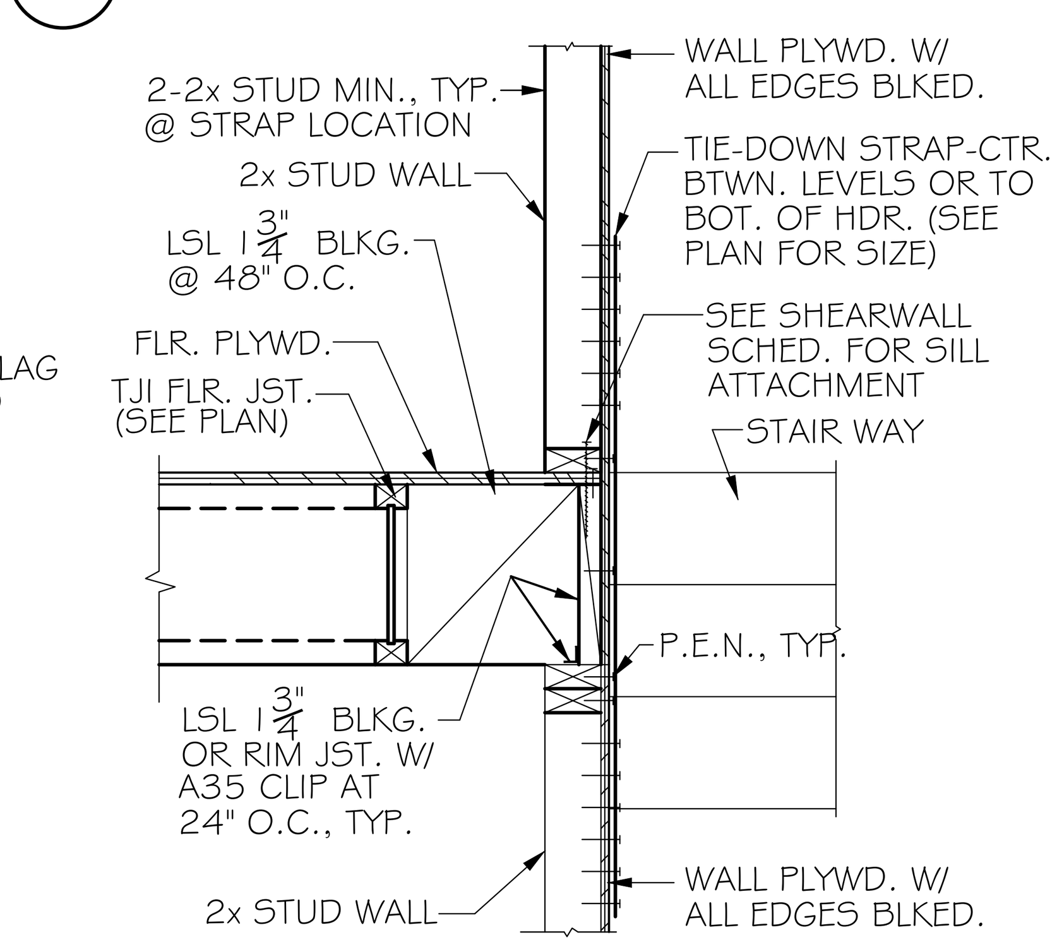
9 WALL TIEDOWN THRU FLOOR AT BEAM



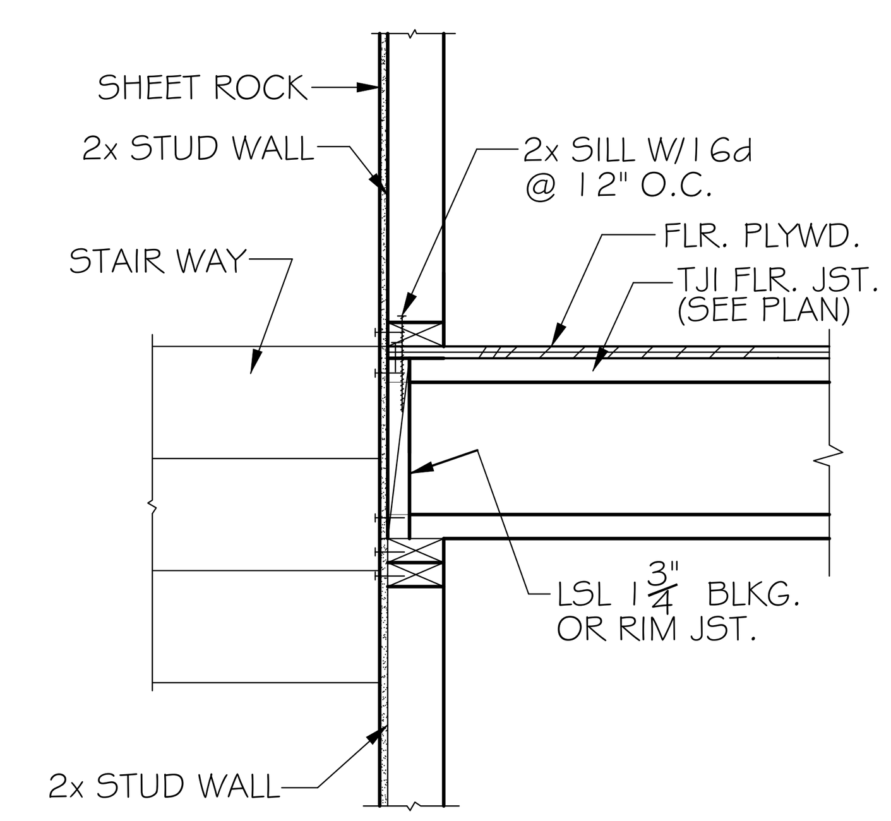
10 WALL TIE-DOWN BTWN. FLR.



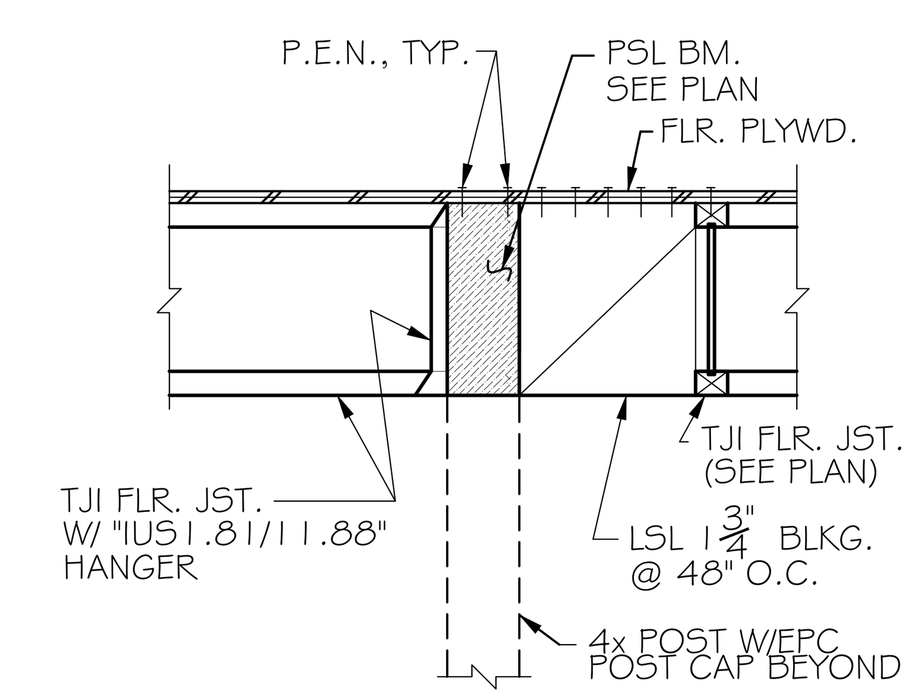
11 ROOF LEDGER SECTION



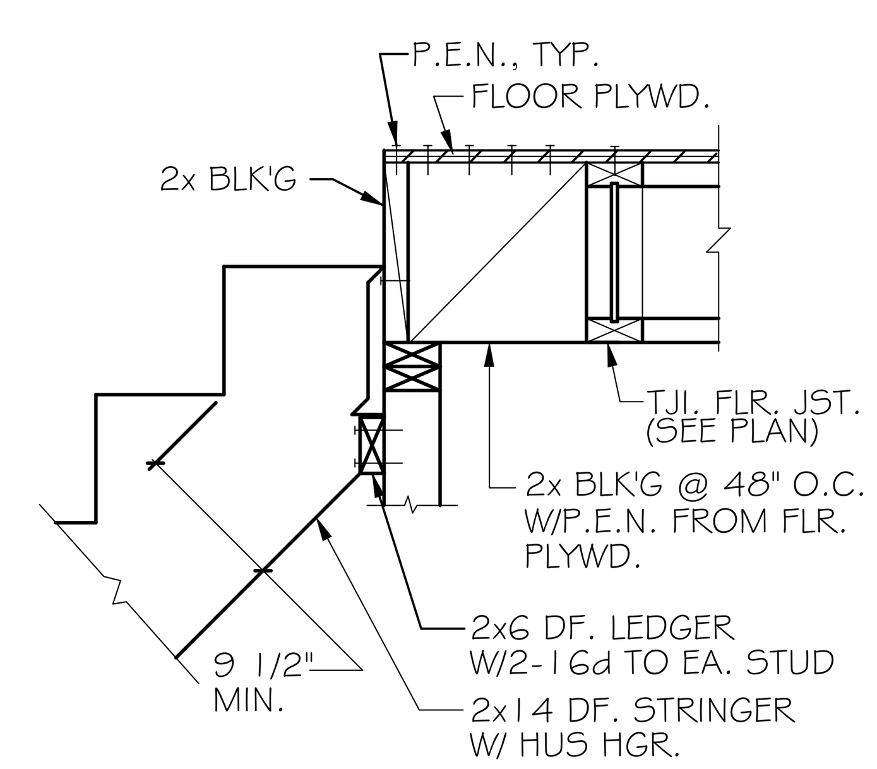
12 SHEAR TRANSFER SECTION AT STAIR WAY



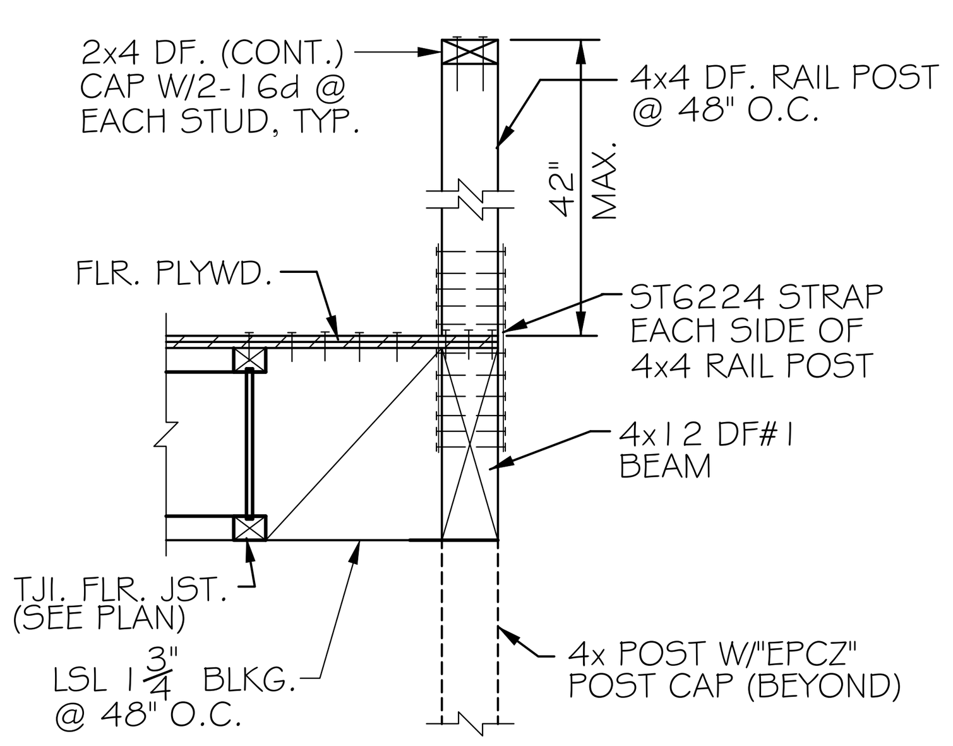
13 BEARING WALL SECTION AT STAIR WAY



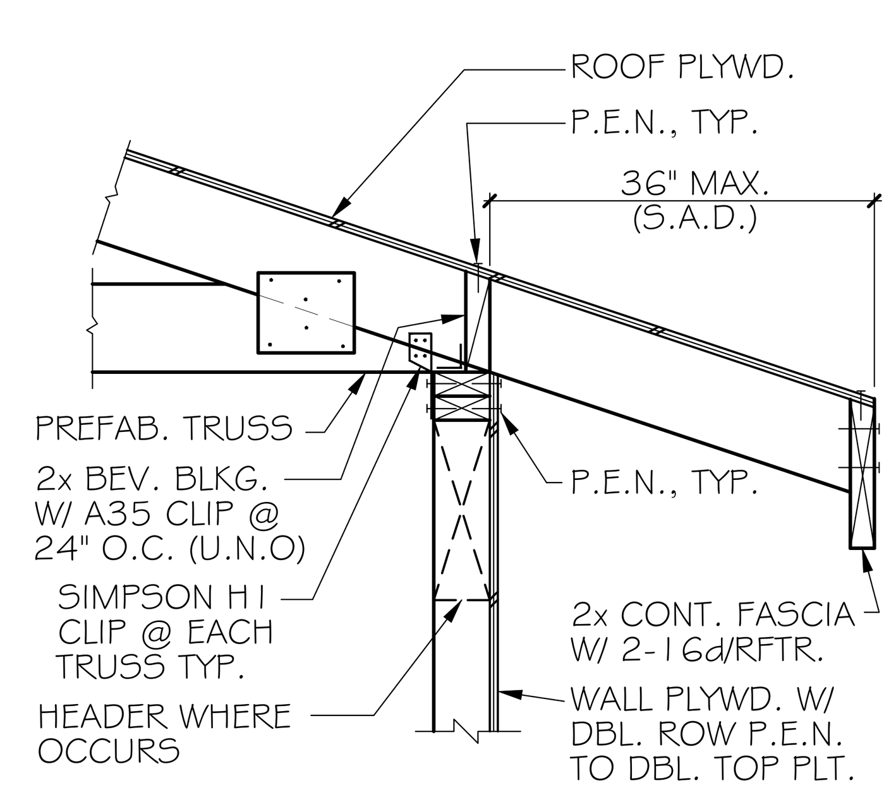
14 FLOOR BEAM SECTION



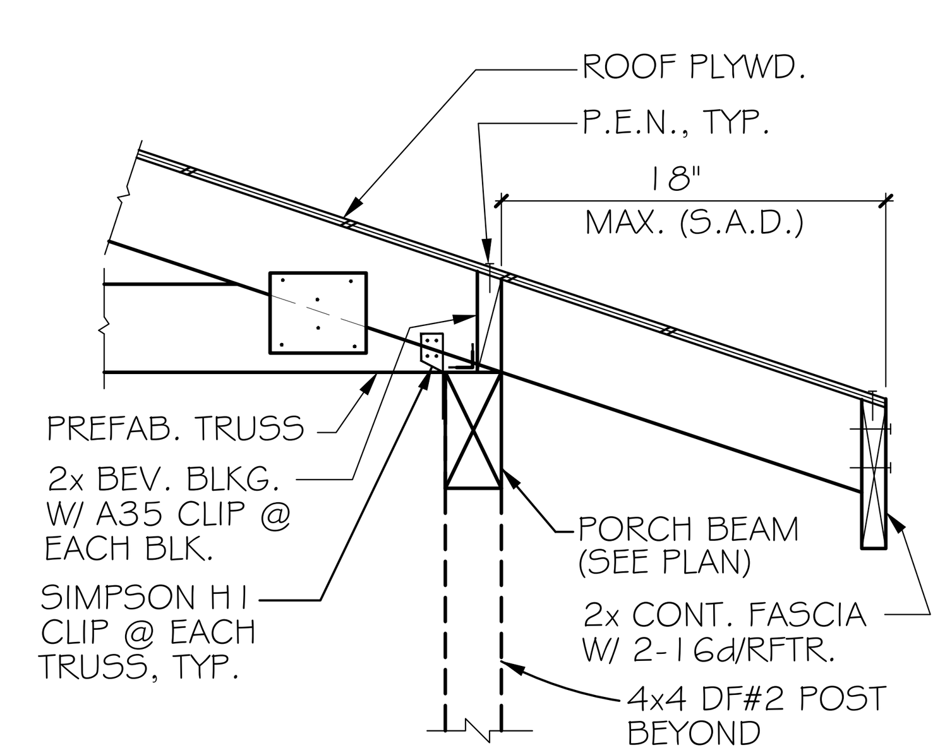
15 STAIR SECTION



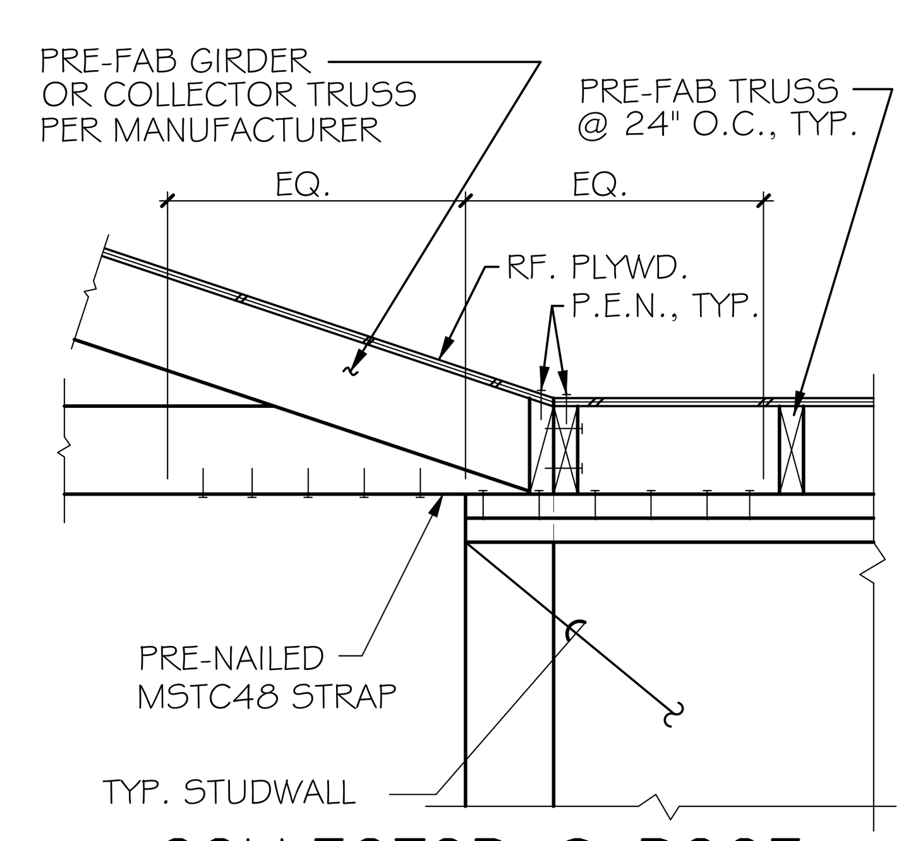
16 STAIR RAILING AT LOFT



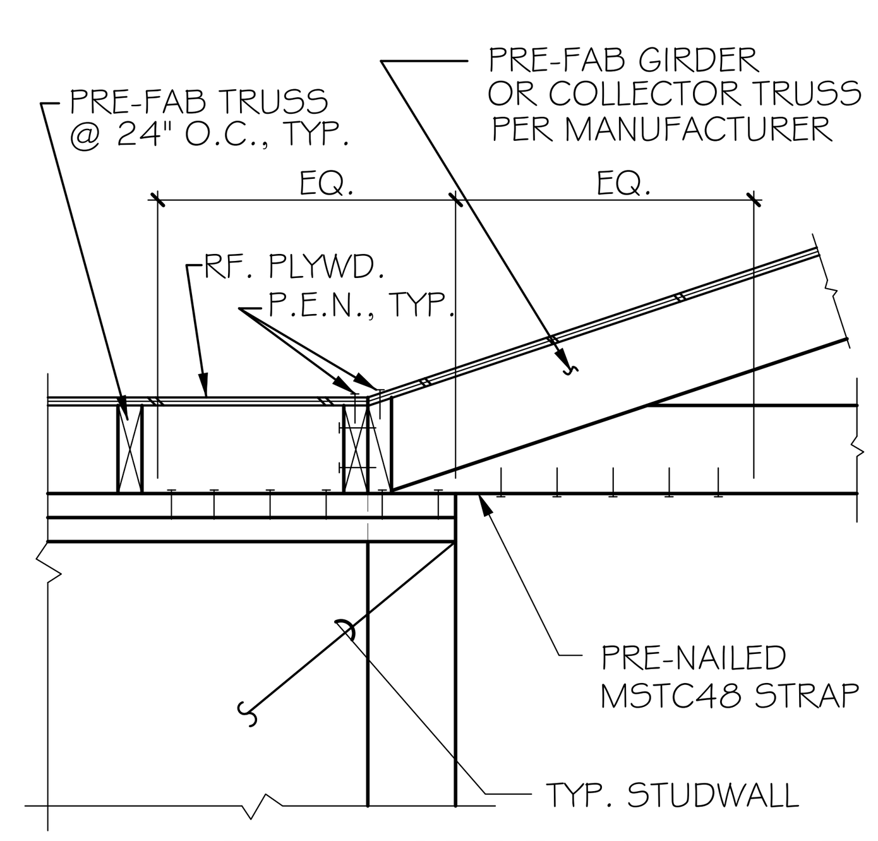
17 TYPICAL ROOF EDGE SECTION @ TRUSS



18 ROOF EDGE SECTION @ PORCH BEAM



19 COLLECTOR @ ROOF



20 COLLECTOR @ ROOF

CITY APPROVAL STAMP

Revisions	By
7-09-24	T.T

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STRUCTURAL DETAILS

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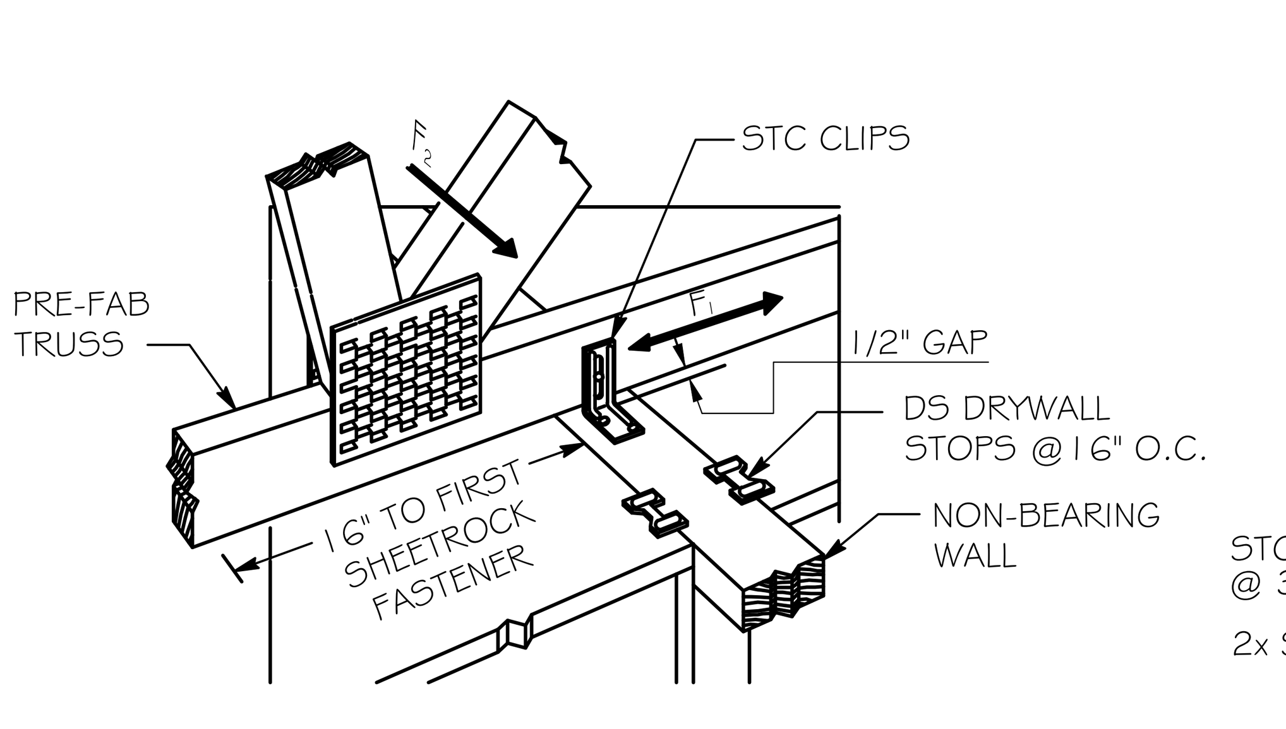
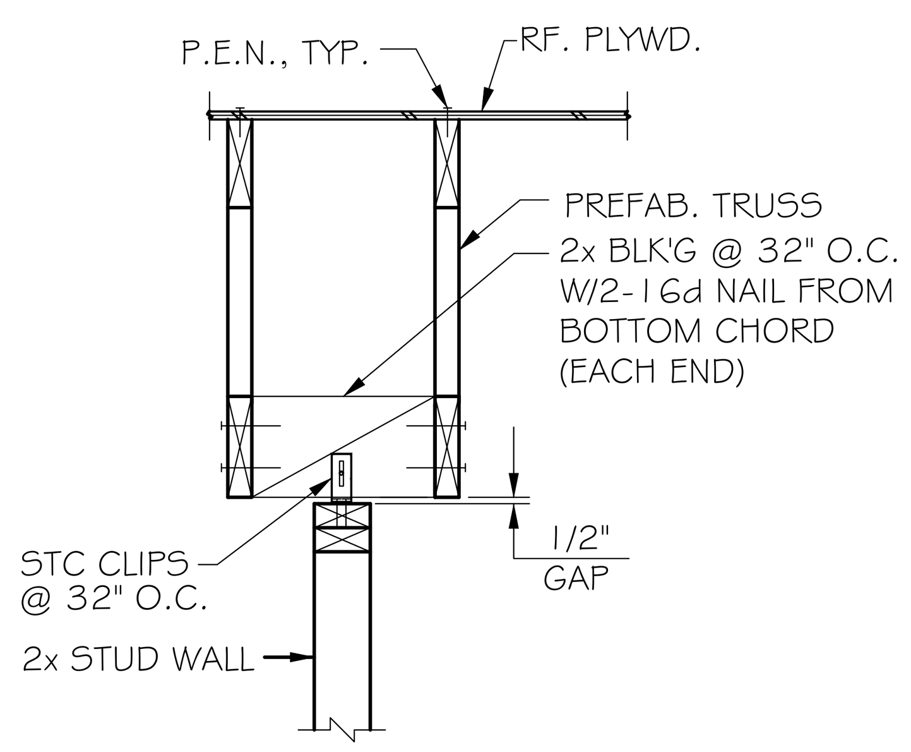
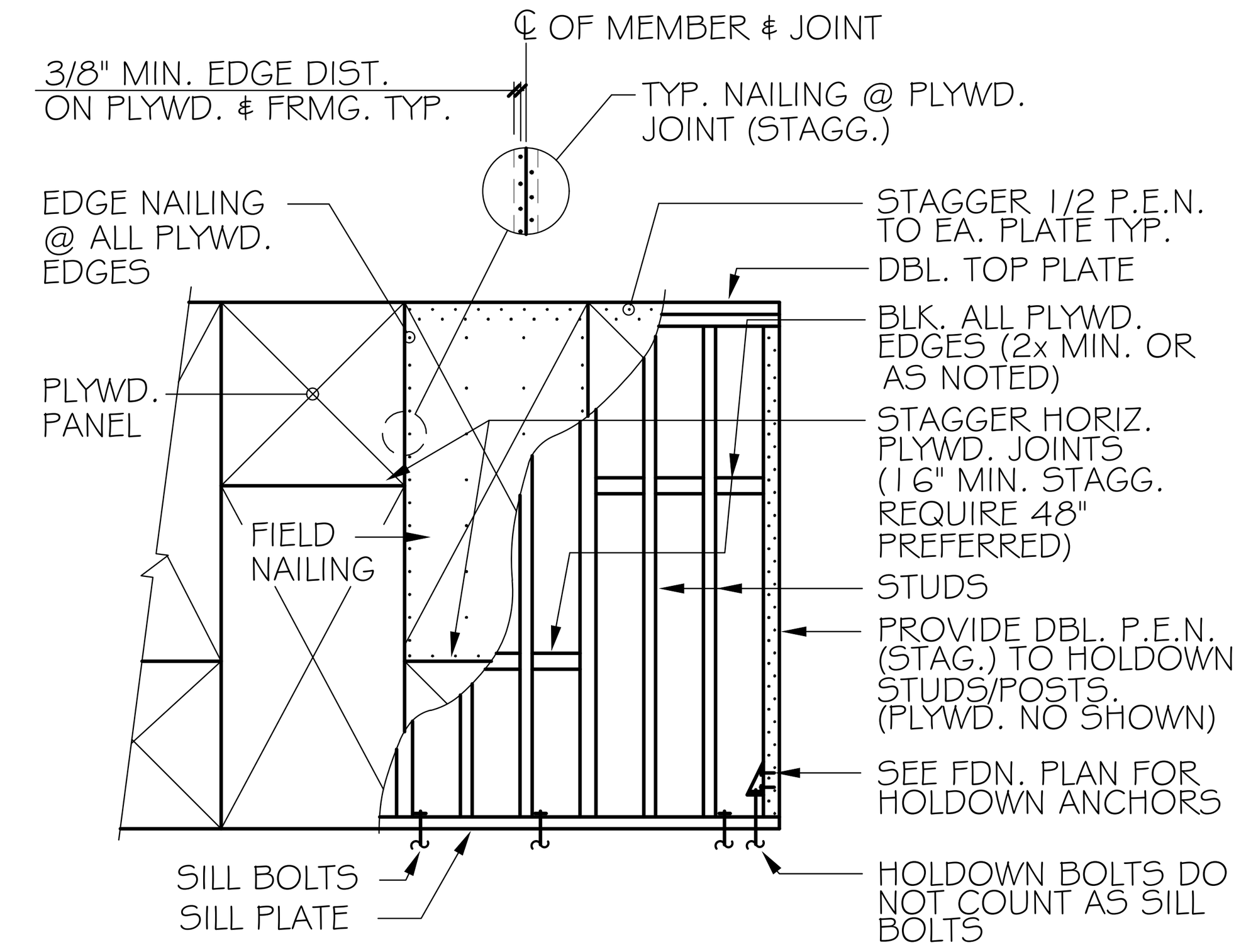
of Sheets

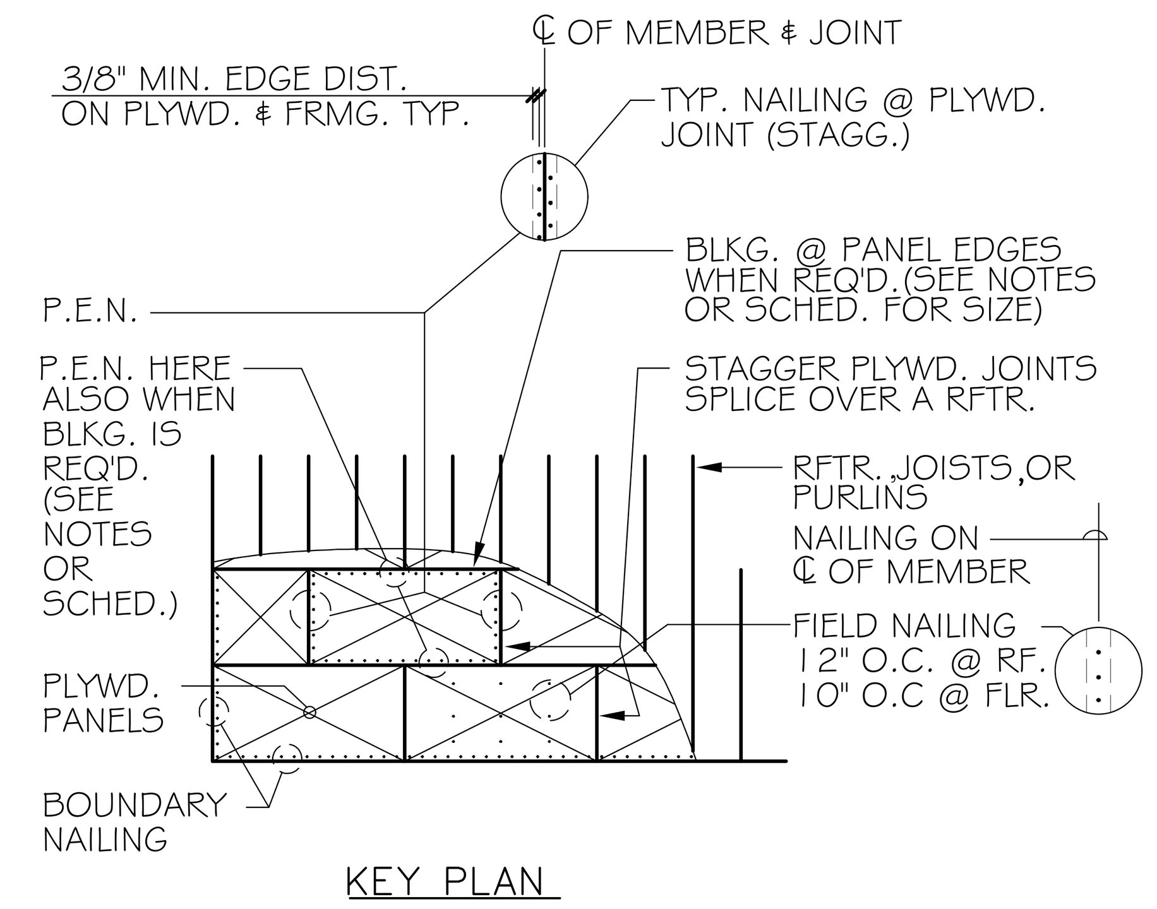




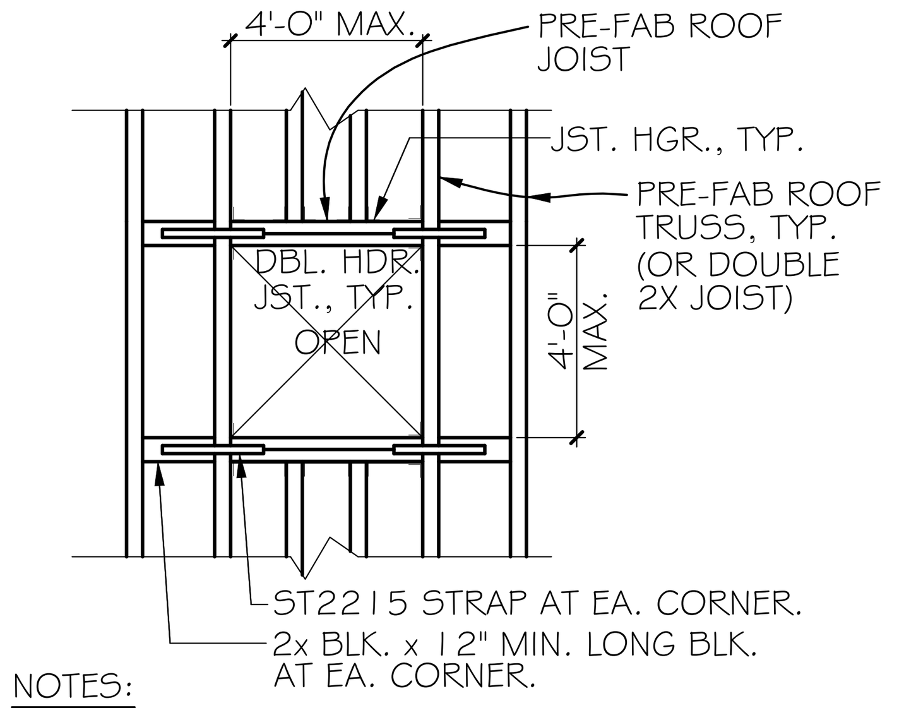
1 SECTION AT NON–BEARING WALL



2 PLYWOOD SHEAR WALLS



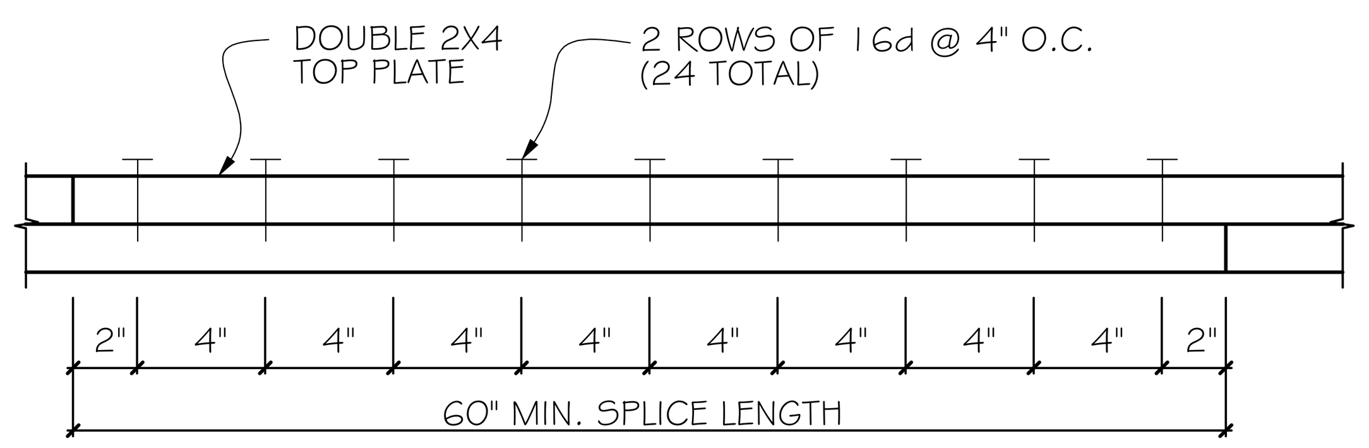
3 ROOF/FLOOR PLYWOOD



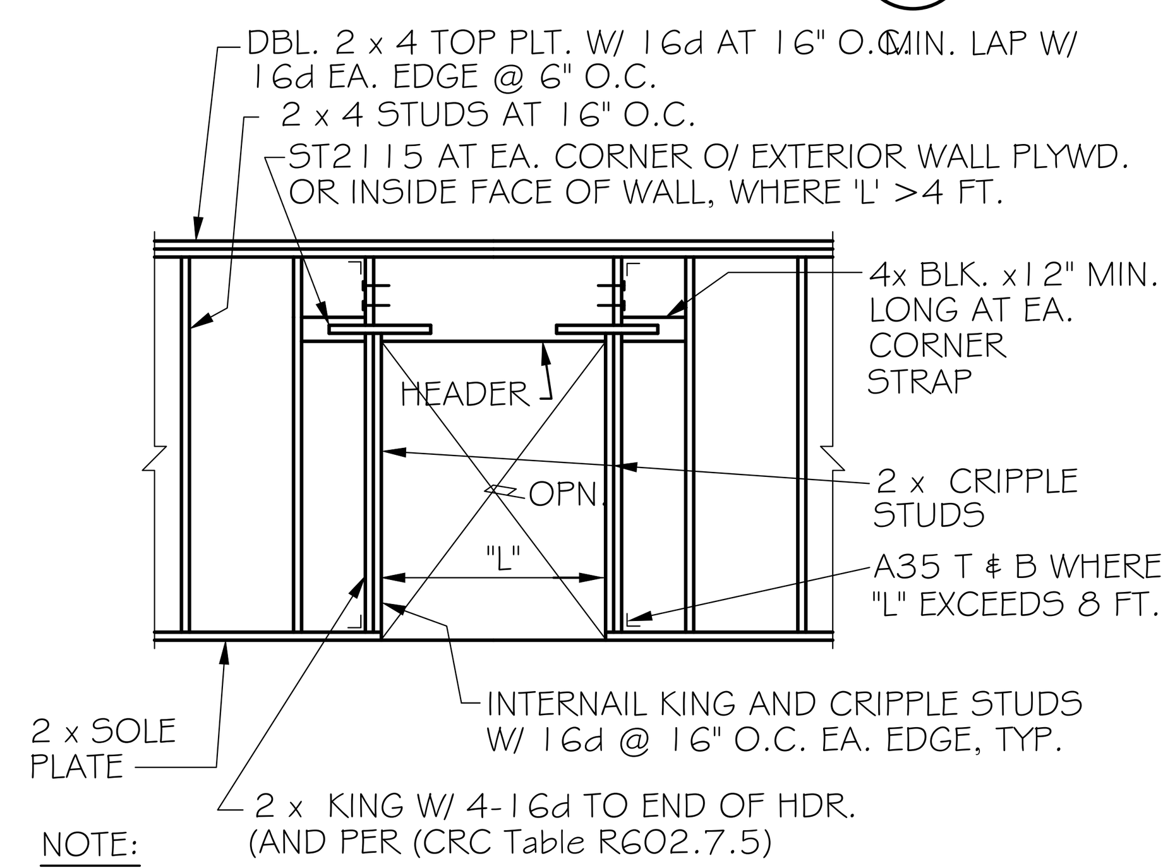
NOTES:

1. PROVIDE PLYWD. EDGE NAIL'G TO PRE-FAB ROOF TRUSS, HDR. JST. AND CORNER BLOCKS.
2. DETAIL IS APPLICABLE TO MAX. DIMEN. SHOWN.
3. USE SIMPSON LUS26 &LUS26-2 JOIST HANGERSS AS REQ'D.
4. SEE ARCHITECHTURAL DRAWING FOR SIZE AND LOCATION.

4 TYP. ROOF FRAMED OPENING 4'–0" MAX.

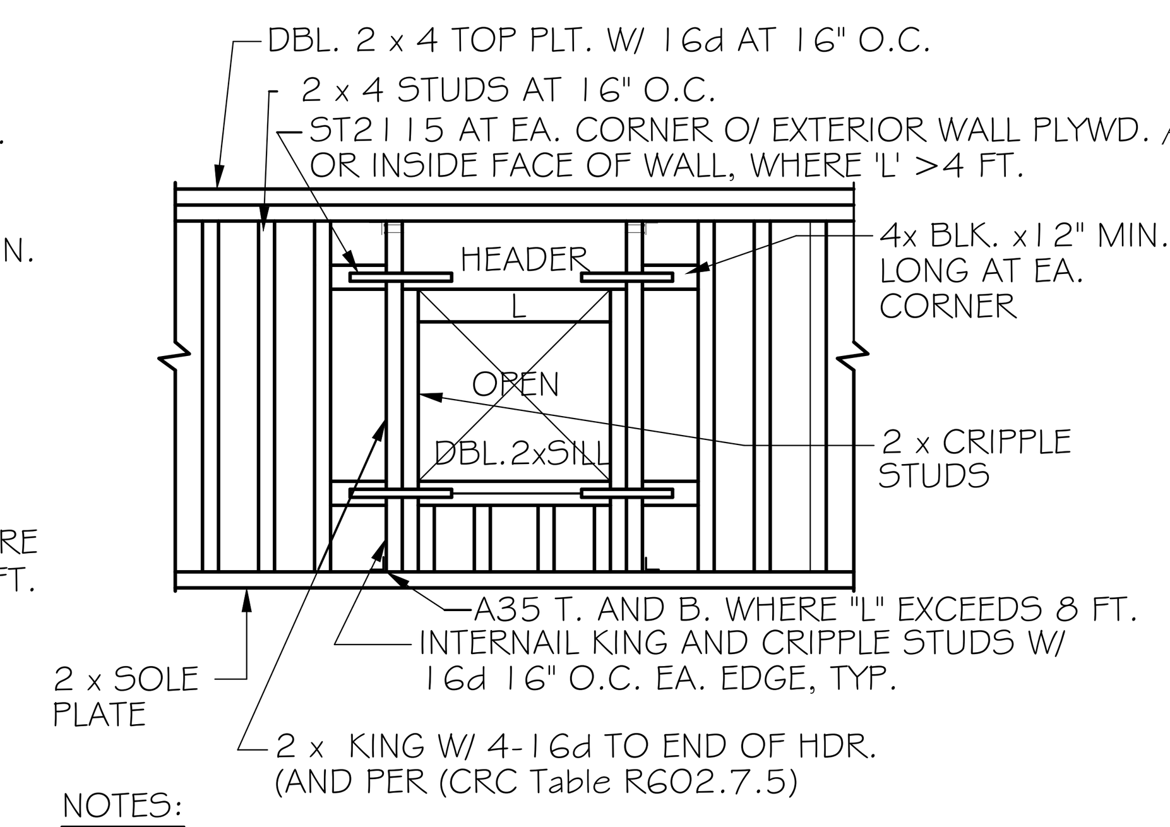


5 DOUBLE TOP PLATE SPLICE



NOTE:

1. PROVIDE EDGE FASTENING FROM WALL GYP. BD. AND PLYWD. TO HDR., KING AND CRIPPLE STUDS AND CORNER BLOCKS.
2. REFER TO C.R.C. TABLE 2304.10.2 FOR ADDITIONAL NAILING



NOTES:

1. PROVIDE EDGE FASTENING FROM WALL GYP. BD. AND PLYWD. TO HDR., KING AND CRIPPLE STUDS AND CORNER BLOCKS.
2. REFER TO C.R.C. TABLE 2304.10.2 FOR ADDITIONAL NAILING

6 TYPICAL WALL FRAMED OPNG.

CRC 2022 TABLE R602.7.5

MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (feet)	MAXIMUM STUD SPACING (inches) [per Table R602.3(5)]
	16
≤ 3'	1
4'	2
8'	3
12'	5
16'	6

HEADER SPAN (feet)	NUMBER OF 2x CRIPPLE STUDS BELOW HEADER
4'	1
6'	1
8'	1
10'	2
12'	2

1. Revise Table R602.3(1) as follows:

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

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 ½" x 0.113")	-
2	Ceiling joists to plate, toe nail	3-8d (2 ½" x 0.113")	-
3	Ceiling joist not attached to parallel rafter, laps over partitions, face nail	3-10d	-
4	Collar tie to rafter, face nail, or 1-1/4" x 20 gage ridge strap	3-10d (3" x 0.128")	-
5	Rafter to plate, toe nail	2-16d (3 ½ "x 0.135")	-
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	 4-16d (3 ½" x 0.135") 3-16d (3 ½" x 0.135")	-
Wall			
7	Built-up corner studs –face nail	10d (3" x 0.128")	24" o.c.
8	Abutting studs at intersecting wall corners, face nail	16d (3 ½" x 0.135")	12"oc
9	Built-up header, two pieces with ½"spacer	16d (3½" × □0.135")	16" o.c. along each edge
10	Continued header, two pieces	16d (3½" × □0.135")	16" o.c. along each edge
11	Continuous header to stud, toe nail	4-8d (2 ½" x 0.113")	-
12	Double studs, face nail	10d (3" x 0.128")	24" o.c.
13	Double top plates, face nail	10d (3" x 0.128")	24" o.c
14	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d (3½" × □0.135")	-
15	Sole plate to joist or blocking, face nail	16d (3½" × □0.135")	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-16d (3½" × □0.135")	16" o.c.
17	Stud to sole plate, toe nail	3-8d (2 ½" x 0.113") or 2-16d (3½" × □0.135")	-
18	Top or sole plate to stud, end nail	2-16d (3½" × □0.135")	-
19	Top plates, laps at corners and intersections, face nail	2-10d (3" x 0.128")	-
20	1" brace to each stud and plate, face nail	2-8d (2 ½" x 0.113") 2 staples 1¾"	-
21	1" × 6" sheathing to each bearing, face nail	2-8d (2 ½" x 0.113") 2 staples 1¾"	-
22	1" × 8" sheathing to each bearing, face nail	2-8d (2 ½" x 0.113") 3 staples 1¾"	-
23	Wider than 1" × 8" sheathing to each bearing, face nail	3-8d (2 ½" x 0.113") 4 staples 1¾"	-
24	Joist to sill or girder, toe nail	3-8d (2 ½" x 0.113")	-
25	Rim joist to top plate, toe nail (roof applications also)	8d (2 ½" x 0.113")	6" o.c.
26	Rim joist or blocking to sill plate, toe nail	8d (2 ½" x 0.113")	6" o.c.
27	1" × 6" subfloor or less to each joist, face nail	24 27 2-8d (2 ½" x 0.113") 2 staples 1¾"	-
28	2" subfloor to joist or girder, blind and face nail	2-16d (3½" × □0.135")	-
29	2" planks (plank & beam – floor & roof)	2-16d (3½" × □0.135")	at each bearing
30	Built up girders and beams, 2-inch lumber layers	10d (3" x 0.128")	Nail each layer as follows: 32"□o.c. at top and bottom and staggered. Two nails at ends and at each splice.
31	Ledger strip supporting joists or rafters	3-16d (3½" × □0.135")	At each joist or rafter

(Remainder of table unchanged except item numbers)

Revisions	By

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ENGINEER'S SIGNATURE

A NEW ADU FOR:
DO RESIDENCE
2143 INCLINE COURT
MILPITAS, CA 95035

STRUCTURAL DETAILS

Date:	7-30-24
Scale:	AS NOTED
Engineer:	T.T.
Reviewed:	P.S.
Job:	D - 2024 - 53
Sheet:	S4
of	Sheets