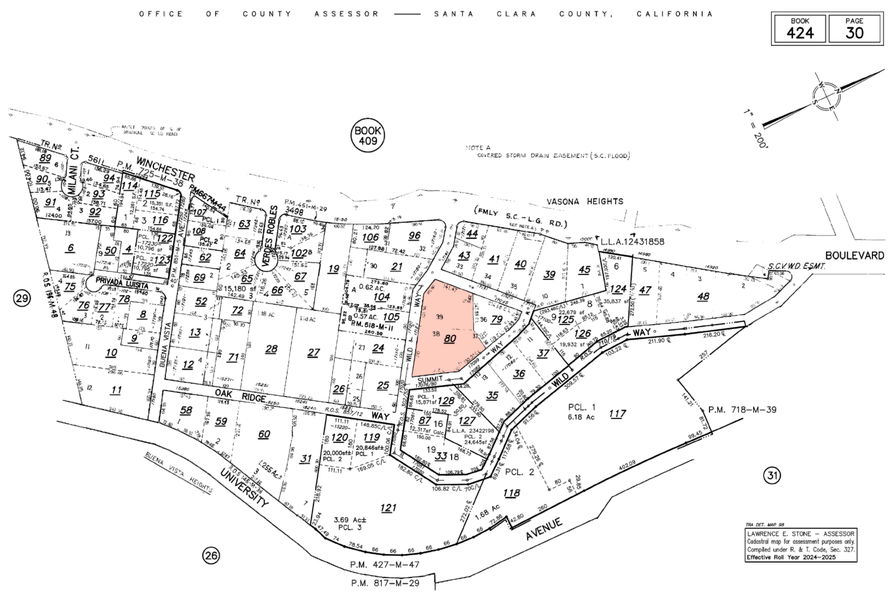
TWO-STORY SINGLE FAMILY RESIDENCE
INTERIOR REMODEL

17121 Wild Way, Los Gatos, CA 95030





PROJECT CONTACTS

OWNER
ALG Homes, LLC
[redacted]

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GENERAL NOTES

1. THESE DRAWINGS ARE COPYRIGHT *ERIK & BETINA DESIGN LLC*, SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN CONSENT.
2. PROJECT TO BE CONSTRUCTED BY A LICENSED GENERAL CONTRACTOR.
3. CONTRACTOR SHALL NOT SCALE DIMENSIONS OFF DRAWINGS. FOLLOWING WRITTEN DIMENSIONS ONLY. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SITE AND GRADE CONDITIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONAL IMMEDIATELY OF ANY DISCREPANCY ON THESE PLANS AND SPECIFICATIONS.
4. SHOULD AN ERROR APPEAR IN THE DRAWINGS OR SPECIFICATIONS, OR IN WORK DONE BY OTHERS AFFECTING THIS WORK, NOTIFY THE DESIGN PROFESSIONAL AT ONCE. IF THE CONTRACTOR PROCEEDS WITH WORK AFFECTED WITHOUT INSTRUCTIONS FROM THE DESIGN PROFESSIONAL, THE CONTRACTOR SHALL MAKE GOOD ANY RESULTING DAMAGE OR DEFECT.
5. THE GENERAL CONTRACTOR, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, SHALL ASSUME RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THE CONTRACTOR AND SUBCONTRACTORS SHALL MAINTAIN THE JOB SITE IN A CLEAN, ORDERLY CONDITION, FREE OF DEBRIS AND LITTER. OPERATIONS SHALL BE CONFINED TO THE SITE AREAS PERMITTED BY PERMIT & LAW.
6. NO PORTION OF WORK REQUIRING A SHOP DRAWING OR SAMPLE SUBMISSION (PER REQUEST OF THE OWNER OR DESIGN PROFESSIONAL) MAY BE COMMENCED UNTIL THE SUBMISSION HAS BEEN REVIEWED AND APPROVED. ALL SUCH PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS & SAMPLES.

VICINITY MAP



PROJECT DESCRIPTION

1. KITCHEN REMODEL.
2. BATH-1 & 2 & 3 & 4 & 5 REMODEL.
3. ADD A NEW BATH-6.
4. UPGRADE THE ELECTRICAL PANEL TO 400A.
5. WHOLE HOUSE RE-WIRE.
6. INSTALL NEW HVAC SYSTEM.
7. REPLACE EXTERIOR WINDOWS & DOORS.
8. WHOLE HOUSE RE-PLUMBING.
9. NEW INSULATION FOR EXTERIOR WALLS.
10. WHOLE NEW FLOORING.
11. WHOLE HOUSE NEW LIGHTS.

PROJECT INFORMATION

APN	424-30-080
OCCUPANCY	R-3
CONSTRUCTION TYPE	V-B
ZONE	R-1
STORIES	TWO-STORY W/BASEMENT
FIRE SPRINKLER	NO
LOT AREA	1.39 ACRES
(E)1ST LEVEL	2,341.61 SQ.FT.
(E)2ND LEVEL	1,518.01 SQ.FT.
(E)BASEMENT LEVEL	927.82 SQ.FT.
(E)RESIDENCE AREA	4,787.44 SQ.FT.
(E)BEDROOM	4
(E)BATHROOM	5
(N)BATHROOM	6

APPLICABLE CODES

2022 California Building Code Volumes 1 & 2
2022 California Mechanical Code
2022 California Plumbing Code
2022 California Electrical Code
2022 California Existing Buildings Code
2022 California Fire Code
2022 California Energy Code
2022 California Residential Building Code
2022 California Green Building Standards Code
2022 California Historical Building Code
All other state and local laws, ordinances and regulations

ERIK BETINA DESIGN

17121 Wild Way,
Los Gatos, CA 95030

AP NUMBER	424-30-080
DATE	08/03/2024
PLAN CHECK	
BID DATE	
FINAL PERMIT	
REVISIONS	

PLAN PREPARED BY

Erik Zang

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DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

A-0.1

ABBREVIATIONS :

ADJ.	Adjustable	F.O.S.	Face Of Stud	RESIL.	Resilient
A.F.F.	Above Finished Floor (Grade)	F.O.F.	Face Of Finish	REQ'D.	Required
B.O.	Bottom Of	GA.	Gauge	RM.	Room
BD.	Board	GALV.	Galvanized	R.O.	Rough Opening
BLKG.	Blocking	GB	Grab Bar	RWL	Rain Water Leader (Overflow)
BM.	Beam	GLB	Glulam Beam	SAM	Self Adhesive Membrane
C.J.	Control Joint	GSM.	Galvanized Sheet Metal	S.S.D	See Structural Drawings
C (C.L.)	Center Line	GYP. BD.	Gypsum Board	S.L.D	See Landscape Drawings
CLG.	Ceiling	HB.	Hose Bibb	SCHED.	Schedule (Scheduled)
CLR.	Clear	HR.	Hour	SIM.	Similar
COL.	Column	HT.	Height	ST.STL./SS	Stainless Steel
CONC.	Concrete	INS.	Insulation	STL.	Steel
CONST.	Construction	INT.	Interior	STD.	Standard
CONT.	Continuous	JB.	J-Box	STRUCT.	Structural
DBL.	Double	JT.	Joint	TB	Towel Bar
DIA.	Diameter	MAX.	Maximum	T.B.D.	To Be Determined
DIM.	Dimension	MECH.	Mechanical	T.B.R.	To Be Removed
DN.	Down	MFR.	Manufacturer	THRU.	Through
DS.	Downspout	MIN.	Minimum	T.O.	Top Of
DTL.	Detail	MTL	Metal	T.O.P.	Top of Parapet
DWG.	Drawing	N.I.C.	Not In Contract	T.O.S.	Top of Structure
EA.	Each	N.T.S.	Not To Scale	TPO	Thermoplastic Polyolefin
EL.	Elevation (Height)	(N)	New	T.S.	Tube Steel
ELEC.	Electrical	O.C.	On Center	TYP.	Typical
ELEV.	Elevation (Drawing)	OPP.	Opposite	VER.	Verify
EQ.	Equal	OPNG.	Opening	V.I.F.	Verify In Field
EXT.	Exterior	O/	Over	W/	With
(E)	Existing	PL.	Property Line	WD.	Wood
F.B.O.	Furnished By Owner	PLY.	Plywood	WF	Wood Finish
F.F.	Finished Floor	PT.	Point	W.O.	Where Occurs
FLR.	Floor	PTD.	Painted	WV	Wood Veneer
FL	Fluorescent	R	Radius	U.O.N	Unless Otherwise Noted
FIN.	Finish (Finished)	REF.	Refer To (Reference)		
F.O.	Face Of	RES.	Resistant		

27. Contractor shall waive "common practice" and "common usage" as construction criteria wherever details and Contract Documents or governing codes, ordinances, etc. require greater quantity or better quality than common practice or common usage would require.
28. Only new items of recent manufacture, of standard quality, free from defects, will be permitted on the new Work. Rejected items shall be removed immediately from the Work and replaced with items of the quality specified. Failure to remove rejected materials and equipment shall not relieve the Subcontractor from the responsibility for quality and character of items used nor from any other obligation imposed on him by the Contract.
29. Continuous inspection of welding in the shop and field shall be required during the time of welding. In addition, all complete penetration welds shall be ultrasonically tested by the laboratory, unless some other means of providing the compliance of the welds is designated by the Structural Engineer. Welds showing inclusions, porosity, lack of fusion, penetration or uneven contours (sagging or overlapping parent metal) beyond acceptable limits, as determined by the Welding Inspector, shall be ground out and rewelded at no additional cost to the owner. Procedures and criteria for acceptance of welds shall be per AWS D1.1.
30. No work defective in construction or quality or deficient in any requirements of the Drawings and Specifications will be acceptable in consequence of Owner's or Architect's failure to discover or to point out defects or deficiencies during construction; nor will presence of Inspectors on work site relieve Contractor from responsibility for securing quality and progress of Work as required by the Contract. Defective work revealed within time required by guarantees shall be replaced by work conforming with the intent of the Contract. No payment, whether partial or final, shall be construed as an acceptance of defective work or improper materials.

31. WATER EFFICIENT PLUMBING FIXTURES
Toilets - Maximum 1.28 gallons/flush.
Shower heads - Maximum 1.8 gallons/minute
Bath sink faucets - Maximum 1.2 gallons/minute
Kitchen sink faucets - Maximum 1.8 gallons/minute

32. Bathrooms containing shower, tub or tub/shower combination shall be mechanically ventilated.

a. Provide Energy Star exhaust fan ducted to the exterior with backdraft damper.
b. Unless functioning as component of a whole house ventilation system, fans to be controlled by humidity control.
c. Humidity controls shall be capable of adjustment between ≤ 50 % to maximum 80 %.

33. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MINIMUM OF 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 1/2 INCH. NUMBERS SHALL NOT BE SPELLED OUT. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND.

CALGREEN NOTES

1. COMPLIANCE WITH CALGREEN IS REQUIRED
2. SITE DEVELOPMENT TO FOLLOW WATER MANAGEMENT STANDARDS LISTED ON SHEETS CG3.0, CG4.0, A0.5, A0.6 OF STORM WATER MANAGEMENT THROUGH SWALES, FRENCH DRAINS, WATER COLLECTION, ETC. THROUGH AND AFTER FINAL CONSTRUCTION.
3. EVSE CIRCUIT CONDUIT/RACEWAY TO BE 1" DIAMETER AND 40A SERVICE FROM PANEL.
4. PROJECT TO MEET REQUIREMENTS SET FORTH BY TITLE 24 COMPLIANCE DOCUMENT, 2022 CALIFORNIA ENERGY CODE, 2022 CALIFORNIA TITLE 24 CODE, 2022 CALIFORNIA CALGREEN CODE.
5. ALL WATER FIXTURES TO MEET FLOW REQUIREMENTS LISTED ON TABLE:

FIXTURE TYPE FLOW RATE
SHOWER HEADS
(RESIDENTIAL) 1.8 GMP @ 80 PSI
LAVATORY FAUCETS
(RESIDENTIAL)
MAX. 1.2 GPM @ 60 PSI
MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN
KITCHEN FAUCETS 1.8 GPM @ 60 PSI
WATER CLOSET 1.28 GAL/FLUSH

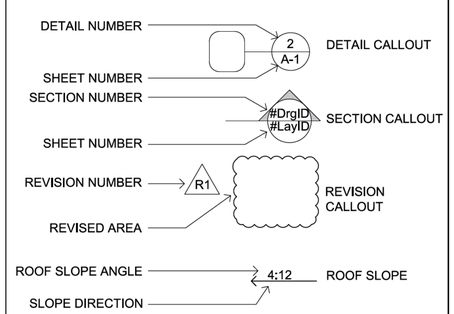
6. ALL INTERIOR MATERIALS, FLOORING, FINISHES, AHESIVES/CAULKINGS, PAINTS TO MEET VOC LIMITS SPECIFICED ON CG1.0-CG4.0

FIRE PROTECTION NOTES

1. FIRESTOPPING SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:

a. IN CONCEALED SPACE OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10' INTERVALS BOTH VERTICAL AND HORIZONTAL.
b. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCURS AT SOFFITS, DROPPED CEILINGS, AND COVED CEILINGS.
c. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AN IN LINE WITH THE RUN OF STAIRS IF THE WALLS UNDER THE STAIRS ARE UNFINISHED.
d. IN OPENINGS AROUND TUBS AND SHOWERS, VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES, AND SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS.
e. AT OPENING BETWEEN ATTIC SPACES AND CHIMNEY CHASES.
f. AROUND TOP, BOTTOM, SIDES, AND ENDS OF SLIDING DOOR POCKETS.
g. ALL INSULATION MATERIAL SHALL HAVE A FLAME-SPREAD RATING NOT TO EXCEED 25 AND SMOKE DENSITY NOT TO EXCEED 450.

SYMBOL LEGEND



GENERAL NOTES

1. The Contract Documents include the Working Drawings, Specifications, Addenda, Modifications and the Conditions of the Construction Contract.
2. The Contract Documents are instruments of service and shall remain the property of the Architect whether the project for which they are prepared is executed or not. The Contract Documents are not to be used for other projects or extensions of the project nor are they to be modified in any manner whatsoever except by agreement in writing and with appropriate compensation to the Architect.
3. The Contractor shall be responsible for checking Contract Documents, field conditions and dimensions for accuracy and confirming that the Work is as shown before proceeding with construction. Clarifications regarding any conflicts shall be achieved prior to related work being started.
4. In the event of conflict between data shown on the Drawings and data shown in the Specifications, the Specifications shall govern. Dimensions noted on the Drawings shall take precedence over scaled dimensions. Detail drawings take precedence over drawings of smaller scale. Should the Contractor at any time discover an error in a Drawing or Specification, or a discrepancy or variation between Dimensions on Drawings and measure-ments at site, or lack of dimensions or other information, he shall report at once to the Architect for clarification and shall not proceed with the work affected until clarification has been made. **Do NOT scale the plans.**
5. Discrepancies between General, Plan or Sheet Notes shall be brought to Architect's attention for clarification and resolution. Occasional reference to one or more specific notes within the General, Plan or Sheet Notes shall not in any way diminish or eliminate the full force and effect of all other notes, neither in relation to one another or not specifically referenced.
6. The Contractor is responsible for verifying the dimensions and elevations at the site. The Contractor and sub-contractors shall coordinate the layout and exact location of all partitioning, doors, electrical/telephone outlets, light switches and thermostats with the Architect in the field before proceeding with construction.
7. Horizontal dimensions are from face of stud to face of stud, except as noted otherwise. Vertical dimensions are from top of floor slab or plywood, except where noted to be above finished floor (AFF). All dimensions marked "clear" shall be maintained and shall allow for thickness of all finishes. Dimensions are not adjustable without approval of Architect unless noted with "+/-".
8. "Furnish" means supply only, for others to put in place. "Install" means supplied by others, to be installed by Contractor. "Provide" means furnish and install, complete and in place.
9. "Typical" means identical for conditions noted. "Similar" means comparable characteristics for conditions noted. Contractor to verify dimensions and orientation.

Quality Assurance

10. When authorized by the Owner, the Architect will be the designated agent for design of this project and will exercise sole authority for determining conformance of materials, equipment and systems with the intent of the design. Review and acceptance of all items proposed by the Contractor for incorporation into this work will be by the Architect. This function of the Architect will apply both to the Contract as initially signed, and to changes to the Contract by modification during progress of the Work.
11. The Contractor is to exercise extreme care and caution during construction of the Work to minimize disturbances to adjacent structures and their occupants, property, public thorough-fares, etc. Contractor shall take precautions and be responsible for the safety of all bldg. occupants from construction procedures.
12. The Contractor is responsible for and shall provide protection for any existing finishes to remain.
13. Cut and fit components for alteration of existing work and installation of new work. Patch disturbed areas to match adjacent materials and finishes.
14. All work shall be erected and installed plumb, level, square, and true and in proper alignment.
15. The finished work shall be firm, well anchored, in true alignment, plumb, level, with smooth, clean, uniform appearance without waves, distortions, holes, marks, cracks, stains or discoloration. Jointings shall be close-fitting, neat and well-scribed. The finish work shall not have exposed, unsightly anchors or fasteners and shall not present hazardous, unsafe corners. All work shall have the provision for expansion, contraction and shrinkage as necessary to prevent cracks, buckling and warping due to temperature and humidity conditions.
16. Coordinate and provide appropriate structural blocking/backing and reinforcing in partitions behind all wall mounted items.
17. Attachments, connections or fastenings of any nature are to be properly and permanently secured in conformance with best practice and the Contractor is responsible for improving them accordingly to these conditions. The Drawings show only special conditions to assist the Contractor, they do not illustrate every such conditions and detail.
18. References to makes, brands, models, etc. is to establish type and quality desired. Substitution of acceptable equals will not be permitted unless specifically noted otherwise or when made according to procedures for substitutions.
19. Make all necessary provisions for items to be furnished or installed by Owner. Provide protection for these provisions until completion of the project. Contractor to coordinate N.I.C. items with appropriate trades.

Submittals

20. Within five (5) days from contract date, Subcontractor is to prepare and submit and estimated progress schedule for the Work, with sub-schedules of related activities which may affect the progress of the Work.
21. Subcontractor shall order and schedule delivery of materials in ample time to avoid delays in construction. If an item is found to be unavailable, Subcontractor shall notify Architect immediately to allow Architect a reasonable amount of time to select a suitable substitute.
22. Subcontractor shall provide manufacturer's specifications, installation instructions, shop drawings and samples for review and approval of all materials and methods to be used prior to ordering or proceeding with the Work. Submit Product Data, Shop Drawings and Samples for all trades as soon as possible to the Architect to guarantee progress of the Work.
23. Subcontractor to follow manufacturer's recommended specifications and installation procedures. If these differ from the Contract Documents, Subcontractor shall notify Architect in writing immediately to resolve discrepancies prior to proceeding.
24. If any time before commencement of Work, or during progress thereof, Subcontractor's methods, equipment or appliances are inefficient or inappropriate for securing quality of Work or rate of progress intended by the Contract Documents, Owner may order Subcontractor to improve their quality or increase their efficiency. This will not relieve Subcontractor or his sureties from their obligations to secure quality of work and rate of progress specified in Contract.

Standards

25. All work shall comply with applicable codes, amendments, rules, regulations, ordinances, laws, orders, approvals, etc. that are required by public authorities. In the event of conflict, the most stringent requirements shall comply. Requirements include, but are not limited to the current applicable editions or publications of the following (or as otherwise noted):

A. 2022 CBC, CRC, CPC, CMC, CEC, and all local codes and ordinances
B. 2022 CALGreen, 2022 California Fire Code
C. National Fire Protection Association
D. Title 24 Energy Compliance
E. American National Standards Institute
F. State of California Energy Regulations

26. Materials and workmanship specified by reference to number, symbol, title, or specification, such as commercial standards, federal specifications, trade association standard, or other similar standard, shall comply with require-ments in latest edition or revision thereof, and with any amendment or supplement thereto in effect on date of origin of this project's Contract Documents. Such standard, except as modified herein, shall have full force and effect as though printed in the Contract Documents. Abbreviations used in referring to standards that apply to the Work, include, but are not necessarily limited to, the following:

A. American Society of Testing Materials (ASTM)
B. American Institute of Steel Construction (AISC)
C. American Welding Society (AWS)
D. American Concrete Institute (ACI)
E. American National Standards Institute (ANSI)
F. Architectural Aluminum Manufacturer's Association (AAMA)
G. Aluminum Association, Inc. (AA)
H. Concrete Reinforcing Steel Institute (CRSI)
I. National Association of Architectural Metal Manufacturers (NAAMM)
J. National Fire Protection Association (NFPA)
K. National Woodwork Manufacturer's Association (NWMA)
L. Woodwork Institute of California (WIC)

ERIK BETINA
DESIGN

17121 Wild Way,
Los Gatos, CA 95030

AP NUMBER	424-30-080
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PLAN PREPARED BY

Erik Betina

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SHEET TITLE:

BUILDING NOTES

SHEET NUMBER:

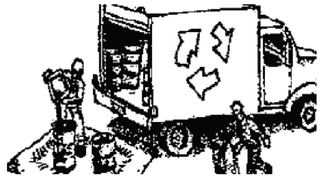
A-0.2

Santa Clara Valley *Urban Runoff* Pollution Prevention Program

Construction Best Management Practices (BMPs)

Construction projects are required to implement year-round stormwater BMPs.

Materials, Waste, and Sediment Management



Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls, and stabilize all construction entrances and exits to sufficiently control erosion, sediment discharges and tracking of sediment offsite.
- ❑ Sweep or vacuum immediately any tracking of sediment offsite and secure sediment source to prevent further tracking. Never hose down streets or sidewalks.

Non-Hazardous Materials and Dust Control

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use. Weigh down and secure tarps for wind protection.
- ❑ Keep materials off the ground (e.g., store bagged materials on wood pallets, store loose materials on tarps not pavement, etc.).
- ❑ Use captured water from other activities (e.g., testing fire lines) for dust control.
- ❑ Ensure dust control water doesn't leave site or discharge to storm drains. Only use enough to control dust. Contain and dispose of excess water properly.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with City, County, State and Federal regulations.
- ❑ Store hazardous materials and wastes in watertight containers, store in appropriate secondary containment, and cover them at the end of every workday, during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes. Have all pertinent Safety Data Sheets (i.e., SDS/MSDS/PSDS) onsite.

Waste Management

- ❑ Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Repair/replace any dumpster that is not watertight or leaking.
- ❑ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. If the dumpster leaks, place a plastic liner underneath the dumpster to collect leaks. Never clean out a dumpster by hosing it down on the construction site – clean with dry methods, clean offsite or replace dumpster.
- ❑ Place portable toilets and hand wash stations away from storm drains. Make sure they are equipped with containment pans (secondary containment) and are in good working order. Check frequently for leaks.
- ❑ Dispose of all wastes and demolition debris properly per SDS and applicable regulations. Recycle or compost materials and wastes as feasible and appropriate, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste per SDS.
- ❑ Keep site free of litter (e.g., lunch items, water bottles, cigarette butts and plastic packaging).
- ❑ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Equipment Management & Spill Control



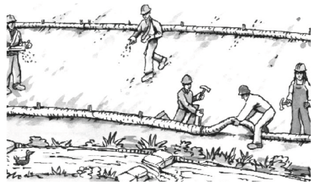
Vehicle and Equipment Maintenance

- ❑ Designate an area of the construction site equipped with appropriate BMPs, well away from creeks or storm drain inlets, for auto and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle/equipment washing offsite.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- ❑ Do not clean vehicles or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ❑ Always keep spill cleanup materials (e.g., rags, absorbents, and cat litter) available at the construction site.
- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up leaks, drips and other spills immediately using dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags) and dispose of cleanup materials properly.
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazard to human health and safety, property or the environment, report it to the State Office of Emergency Services at (800) 852-7550 (24 hours).

Earthmoving



Grading and Earthwork

- ❑ Schedule grading and excavation work during dry weather.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and creeks by installing and maintaining appropriate BMPs tailored to the site's specific characteristics and conditions. Examples of such BMPs may include silt fences, gravel bags, fiber rolls, temporary swales, compost socks, etc. Ensure that BMPs are installed in accordance with manufacturer's specifications and properly maintained throughout the duration of construction activities.
- ❑ Stabilize all denuded areas and install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when necessary. Plant temporary vegetation to prevent erosion on slopes or in areas where construction is not immediately planned.
- ❑ Keep excavated soil and/or transfer it to dump trucks, onsite, not in the streets.

  Ensure all subcontractors working onsite are implementing appropriate BMPs.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board and the local agency: 1) Unusual soil conditions, discoloration, or odor. 2) Abandoned underground tanks. 3) Abandoned wells. 4) Buried barrels, debris, or trash.
- ❑ If the above conditions are observed, document any signs of potential contamination, clearly mark areas and fence/tape them off so they are not disturbed by construction activities.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.
- ❑ Store materials onsite, not in the street.

Concrete Management & Dewatering



Concrete Management

- ❑ Store both dry and wet concrete-related materials under cover, protected from rainfall and runoff and away from storm drains or creeks. Store materials off the ground on pallets. Protect dry materials from wind.
- ❑ Avoid pouring concrete in wet weather or when rainfall is imminent to prevent concrete that has not cured from contacting stormwater runoff.
- ❑ Wash out concrete equipment/mixers/trucks offsite, or onsite only in designated washout containers/areas where the water will flow into a temporary lined waste pit and in a manner that will prevent leaching into the underlying soils. (See CASQA Construction Stormwater BMP Handbook for temporary concrete washout facility details).
- ❑ Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose properly.
- ❑ Make sure that construction waste (e.g., concrete, stucco, cement wastewater, or residual materials) is collected, removed, and disposed of only at authorized disposal areas. Do not dispose of construction waste in storm drains, ditches, streets, creeks, dirt areas, or the sanitary sewer.

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, obtain permission from the local wastewater treatment plant.
- ❑ Divert water originating from offsite away from all onsite disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call the local agency to determine whether the groundwater must be tested. Pumped groundwater may need to be collected and hauled offsite for treatment and proper disposal.
- ❑ For additional information, refer to the CASQA's Sheet NS-2 "Dewatering Operations."

Paving/Asphalt Work



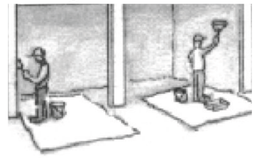
Paving

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast to prevent materials that have not cured from contacting with stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ When construction is complete, remove all covers from storm drain inlets and manholes.
- ❑ Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters, storm drains, streets, dirt areas, or the sanitary sewer.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect storm drain inlets during saw cutting.
- ❑ When making saw cuts, use as little water as possible.
- ❑ Residue from saw cutting, coring and grinding operations shall be picked up by means of a vacuum device.
- ❑ Shovel, absorb, or vacuum saw cut slurry deposits and dispose of all waste properly and as soon as reasonably possible. Sawcutting residue should not be left on pavement surface.
- ❑ If saw cut slurry enters a storm drain inlet, clean it up immediately and notify the local municipality.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paintcontainers to landscaping, dirt areas or into a street, gutter, storm drain, or creek.
- ❑ For water-based paints, paint out brushes to the extent possible, and then rinse into a drain connected to the sanitary sewer. Never pour paint down a storm drain inlet.
- ❑ For oil-based paints, paint out brushes to the extent possible, and then clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Sweep up or collect paint chips and dust generated from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead- based paint removal requires a state-certified contractor.



Copper Architectural Features

Discharges to storm drains generated by installing, cleaning, treating or washing copper architectural features, is a violation of the municipal stormwater ordinance and may be subject to a fine. These BMPs must be implemented to prevent prohibited discharges to storm drains:

During Installation

- ❑ If possible, purchase copper materials that have been pre-patinated at the factory.
- ❑ If patination done on site, implement one or more of the following BMPs:
  1. Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
  2. Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
  3. Collect the rinse water in a tank and haul off-site for proper disposal.
- ❑ Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.

During Maintenance such as, power washing roof, re-patination, or re-application of impervious coating:

- ❑ Block storm drain inlets as needed to prevent runoff from entering storm drains.
- ❑ Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

February 2024, WVCWA 4/24

ERIK BETINA DESIGN
17121 Wild Way,
Los Gatos, CA 95030

AP NUMBER	424-30-080
DATE	08/03/2024
PLAN CHECK	
BID DATE	
FINAL PERMIT	
REVISIONS	

PLAN PREPARED BY

Erik Betina

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SHEET TITLE:

CLEAN BAY BLUE PRINT

SHEET NUMBER:

A-0.3

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

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

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

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

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

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

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

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

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

SECTION 302 MIXED OCCUPANCY BUILDINGS

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

Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CAL*Green, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

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

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

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

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

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

4.106 SITE DEVELOPMENT

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

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

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

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

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

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

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

Exception: Additions and alterations not altering he drainage path.

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

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

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

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

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

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

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

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

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

Exceptions:

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

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

Notes:

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

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

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

Exception: Areas of parking facilities served by parking lifts.

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

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

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

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

Notes:

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

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

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

Exception: Areas of parking facili ies served by parking lifts.

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

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

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4 2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

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

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

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

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

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply wi h Section 4.106.4.2 2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

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

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

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

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

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

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106 4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Sec ion 1109A.

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

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

2.Mul iple EV spaces required. Construction documents shall indicate he raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calcula ions. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components hat are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the ime of original construc ion.

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

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

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

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

Notes:

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

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

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

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

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

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

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

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

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

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

4.303.1.3 Showerheads.

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

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

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

4.303.1.4 Faucets.

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

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

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

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1 8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

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

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

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

TABLE H-2

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

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8 0 ozf)	1.28

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

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

4.303.3 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

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

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1 2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

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

NOTES:

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

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

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

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demoli ion waste in accordance with ei her Section 4.408.2, 4.408 3 or 4.408.4, or meet a more stringent local construc ion and demolition waste management ordinance.

Exceptions:

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

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

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

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

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

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

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

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

Notes:

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

4.410 BUILDING MAINTENANCE AND OPERATION

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

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

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

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

SECTION 4.502 DEFINITIONS

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

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

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

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

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ERIK BETINA DESIGN

17121 Wild Way,
Los Gatos, CA 95030

AP NUMBER 424-30-080

DATE 08/03/2024

PLAN CHECK

BID DATE

FINAL PERMIT

REVISIONS

PLAN PREPARED BY

Erik Betina

THIS DRAWING AS INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF THE DESIGNER AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANYWAY WITHOUT THE PERMISSION OF THE DESIGNER.

DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

CALGREEN CHECK LIST 1/2

SHEET NUMBER:

A-0.4

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

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

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

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

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

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

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

4.503 FIREPLACES

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

4.504 POLLUTANT CONTROL

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

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

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

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply wi h local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more han 1 pound and do not consist of more han 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing wi h section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coa ings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504 3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying he coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0 05
HARDWOOD PLYWOOD COMPOSITE CORE	0 05
PARTICLE BOARD	0 09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet he requirements of he California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

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

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

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Heal h, "Standard Method for the Testing and Evaluation of Vola ile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing me hod for California Specification 01350)

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

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

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4 504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Me hod for the Tes ing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

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

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

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

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

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

4.505 INTERIOR MOISTURE CONTROL

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

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

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

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302 2R-06.
2. Other equivalent me hods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

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

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

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

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ven ilated and shall comply with he following:

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

Notes:

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

4.507 ENVIRONMENTAL COMFORT

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

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

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

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

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

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

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

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

Notes:

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

[BSC] When required by the enforcing agency, the owner or the responsible en ity ac ing as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substan iate compliance with this code. Special inspectors shall demonstrate competence to he satisfac ion of the enforcing agency for the par icular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certifica ion shall be closely related to the primary job function, as determined by the local agency.

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

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance wi h this code shall include but is not limited to, construc ion documents, plans, specifications, builder or installer certification, inspection reports, or o her methods acceptable to he enforcing agency which demonstrate substantial conformance. When specific documenta ion or special inspec ion is necessary to verify compliance, that method of compliance will be specified in the appropriate section or iden ified applicable checklist.

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ERIK BETINA DESIGN
17121 Wild Way,
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AP NUMBER 424-30-080
DATE 08/03/2024
PLAN CHECK
BID DATE
FINAL PERMIT
REVISIONS

PLAN PREPARED BY

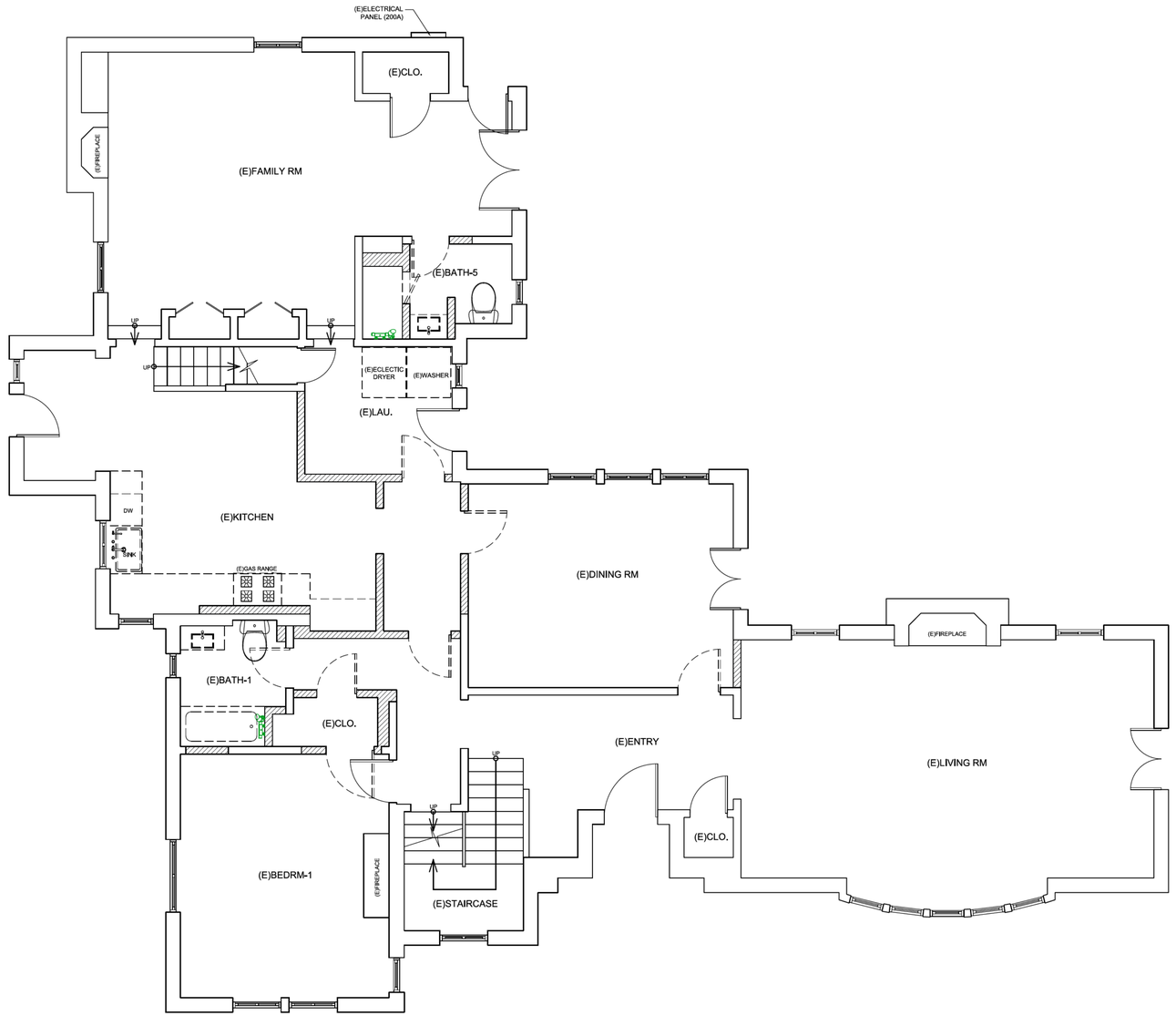
Erik Zany

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DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:
CALGREEN CHECK LIST 2/2

SHEET NUMBER:
A-0.5



EXISTING 1ST LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING WALL
	WALL TO BE DEMOLISHED
	NEW WALL
	1HR FIRE RATED 2X4 WALL
	WINDOW/DOOR TO BE DEMOLISHED
(E)	EXISTING
(R)	REPLACE
(N)	NEW
CH	CEILING HEIGHT
EMP	ELECTRICAL MAIN PANEL
ESP	ELECTRICAL SUB PANEL
WM	WATER METER
GM	GAS METER

ERIK BETINA DESIGN

17121 Wild Way,
Los Gatos, CA 95030

N

AP NUMBER	424-30-080
DATE	08/03/2024
PLAN CHECK	
BID DATE	
FINAL PERMIT	
REVISIONS	

PLAN PREPARED BY

Erik Zany

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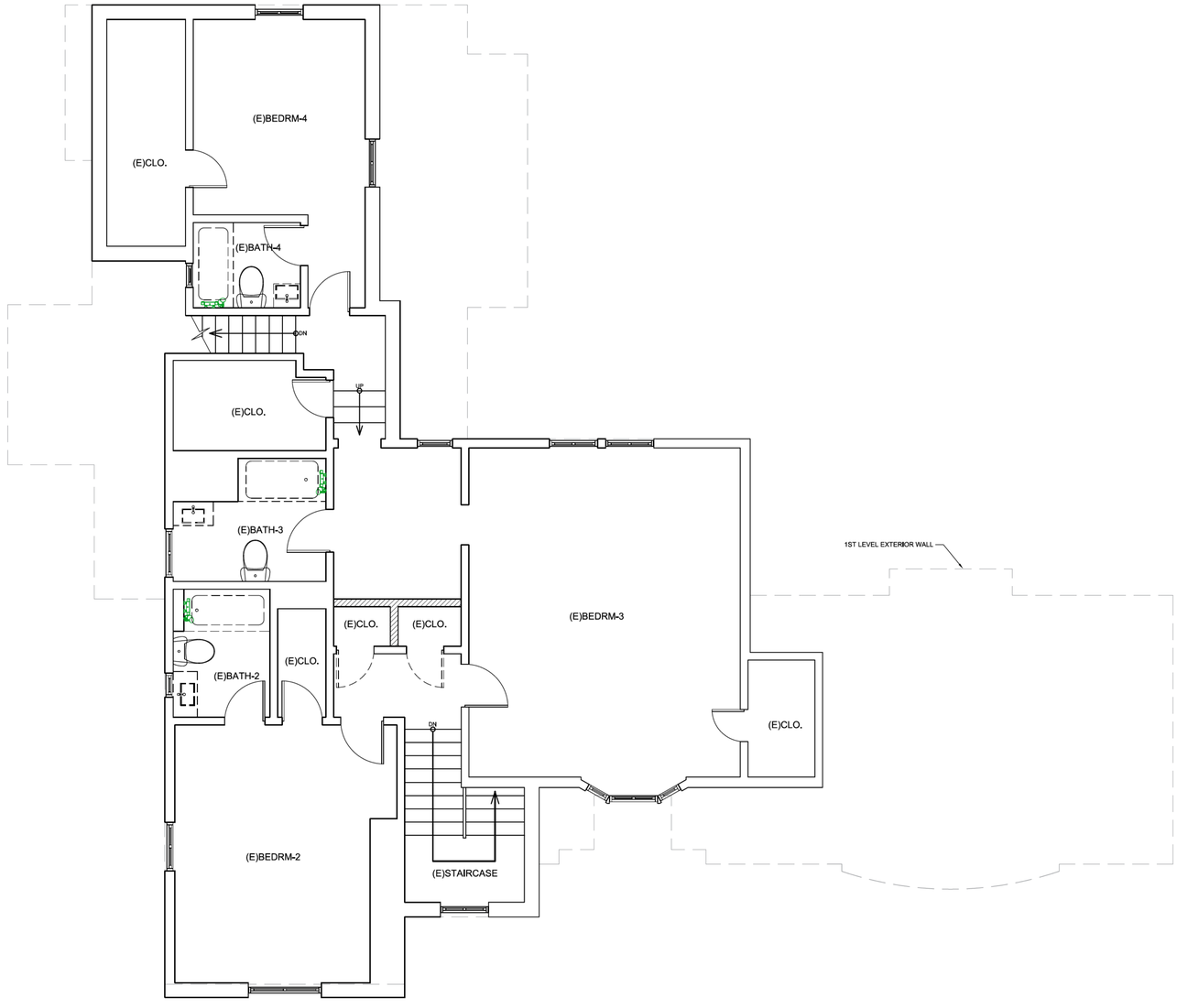
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SHEET TITLE:

EXISTING 1ST LEVEL FLOOR PLAN

SHEET NUMBER:

A-1.1



EXISTING 2ND LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING WALL
	WALL TO BE DEMOLISHED
	NEW WALL
	1HR FIRE RATED 2X4 WALL
	WINDOW/DOOR TO BE DEMOLISHED
(E)	EXISTING
(R)	REPLACE
(N)	NEW
CH	CEILING HEIGHT
EMP	ELECTRICAL MAIN PANEL
ESP	ELECTRICAL SUB PANEL
WM	WATER METER
GM	GAS METER

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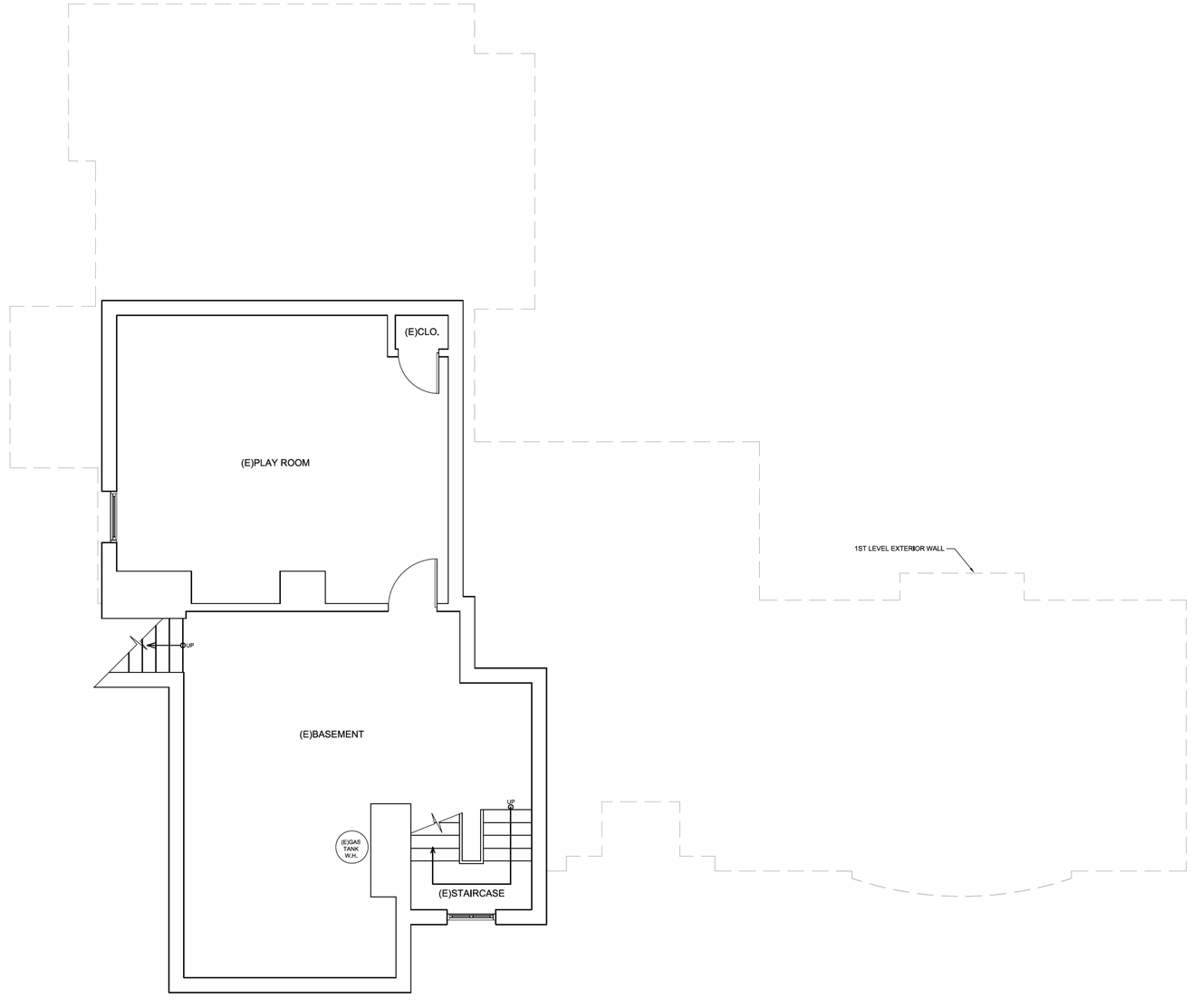
DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

EXISTING 2ND LEVEL FLOOR PLAN

SHEET NUMBER:

A-1.2



EXISTING BASEMENT LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING WALL
	WALL TO BE DEMOLISHED
	NEW WALL
	1HR FIRE RATED 2X4 WALL
	WINDOW/DOOR TO BE DEMOLISHED
(E)	EXISTING
(R)	REPLACE
(N)	NEW
CH	CEILING HEIGHT
EMP	ELECTRICAL MAIN PANEL
ESP	ELECTRICAL SUB PANEL
WM	WATER METER
GM	GAS METER

ERIK BETINA
DESIGN

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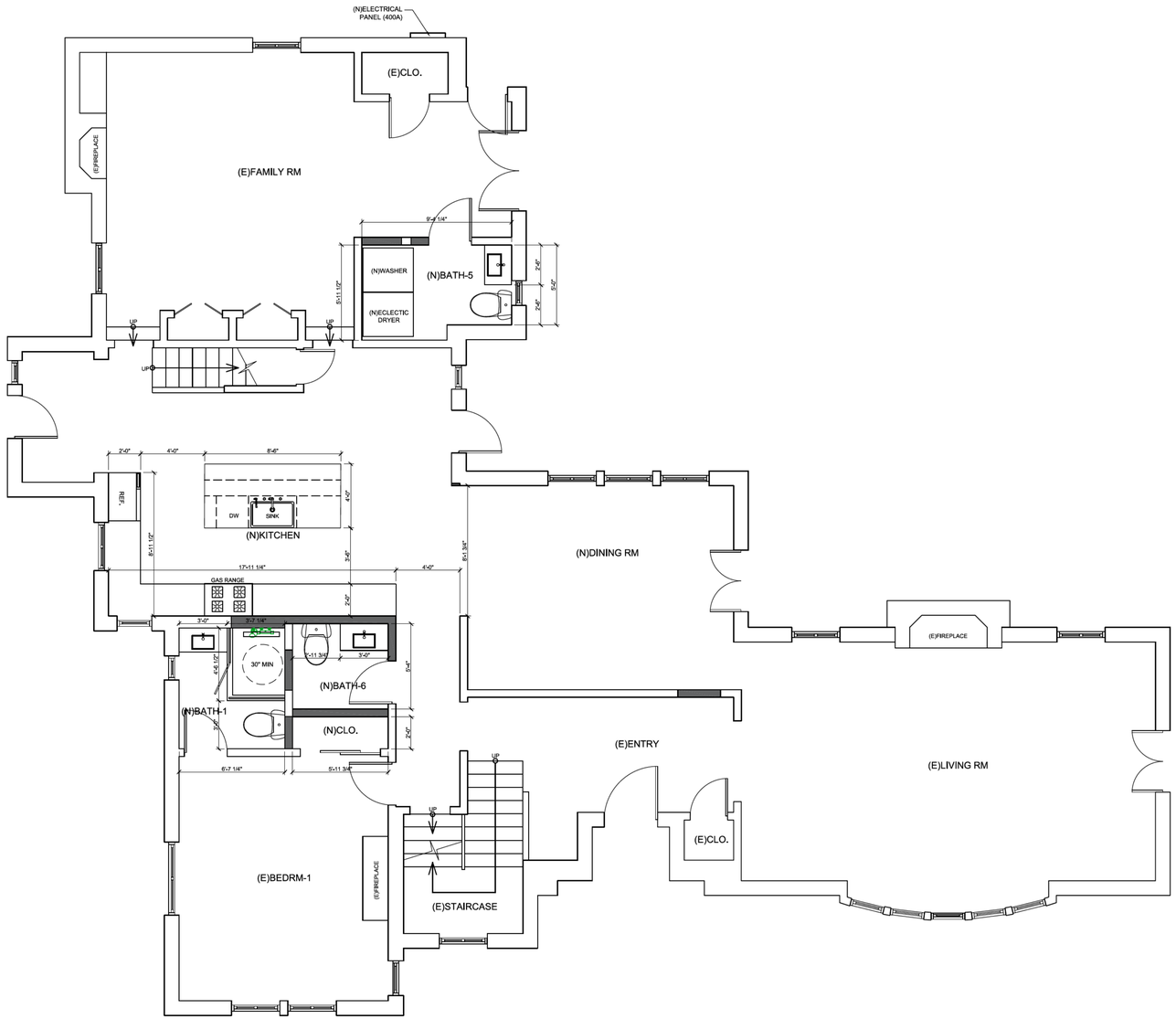
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SHEET TITLE:

EXISTING BASEMENT LEVEL FLOOR PLAN

SHEET NUMBER:

A-1.3



PROPOSED 1ST LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING WALL
	WALL TO BE DEMOLISHED
	NEW WALL
	1HR FIRE RATED 2X4 WALL
	WINDOW/DOOR TO BE DEMOLISHED
(E)	EXISTING
(R)	REPLACE
(N)	NEW
CH	CEILING HEIGHT
EMP	ELECTRICAL MAIN PANEL
ESP	ELECTRICAL SUB PANEL
WM	WATER METER
GM	GAS METER

KEY NOTES:

1. DRYER.
   (1)PROVIDE 4" DIA. SMOOTH METAL DUCT FOR DRYER EXHAUST EXTENDING TO OUTSIDE W/ BACK DRAFT DAMPER (36"MIN. AWAY FROM OPENING)
   (2)MAX. VENT DUCT LENGTH OF 14'.
   (3)DOOR AT LAUNDRY ROOM MUST BE LOUVERED TO ALLOW DRYERS TO HAVE SUFFICIENT MAKE-UP AIR.
2. SHOWER WALLS & FLOOR TO BE FINISHED WITH A NONABSORBENT SURFACE UP TO A MINIMUM HEIGHT OF 6' ABOVE THE FLOOR. PROVIDE FRAMELESS, TEMPERED, 3/8" MIN. GLASS SHOWER WALL & MIN. 22" WIDE DOOR WITH CONTINUOUS SEAL. SHOWER AREA MUST BE MIN. 1024 SQ.INCH, CAPABLE OF ENCOMPASSING A 30" DIA. CIRCLE. CONTRACTOR TO PROVIDE ALL BLOCKING FOR TOWEL BARS, ETC. SHOWERS AND TUB-SHOWER COMBINATION SHALL BE PROVIDED WITH INDIVIDUAL PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE CONTROLS. ALL NEW WATER CLOSETS SHALL BE MAX. 1.28 GALLONS/FLUSH. THERE MUST BE 15" CLEAR SPACE ON EACH SIDE OF THE W.C. CENTERLINE, AND 24" CLEAR IN FRONT.
3. EXTERIOR LANDING AT THE EXTERIOR DOOR SHALL BE MAX. 7 3/4" BELOW THE TOP OF THE THRESHOLD.
4. ALL NEW EXHAUST DUCTS SHALL TERMINATE AT LEAST 3 FEET FROM ANY OPENINGS INTO THE BUILDING. ALL NEW EXHAUST DUCTS SHALL BE EQUIPPED WITH BACKDRAFT, OR EQUIVALENT, DAMPERS.
5. ALL HOSE BIBBS SHALL BE EQUIPPED WITH NON-REMOVABLE BACK FLOW PREVENTERS, BOTH INTERIOR AND EXTERIOR, EXCEPT THE CLOTHES WASHER CONNECTION. THIS IS TO PREVENT POSSIBLE BACKFLOW OF CONTAMINATED WATER INTO THE POTABLE WASTER SYSTEM.
6. CALGREEN REQUIREMENTS FOR PLUMBING FIXTURES:
   - THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GAL/FLUSH
   - THE EFFECTIVE FLUSH VOLUME OF URINALS SHALL NOT EXCEED 0.5 GAL/FLUSH
   - SINGLE SHOWERHEADS MUST NOT EXCEED 1.8 GPM @80 PSI.
   - IF A SHOWER HAS MULTIPLE HEADS, THE COMBINED FLOW RATE OF ALL SHOWER HEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE SHOWER VALVE SHALL NOT EXCEED 1.8GPM @ 80 PSI.
   - LAVATORY FAUCET FLOW MUST NOT EXCEED 1.5 GPM @ 60 PSI.
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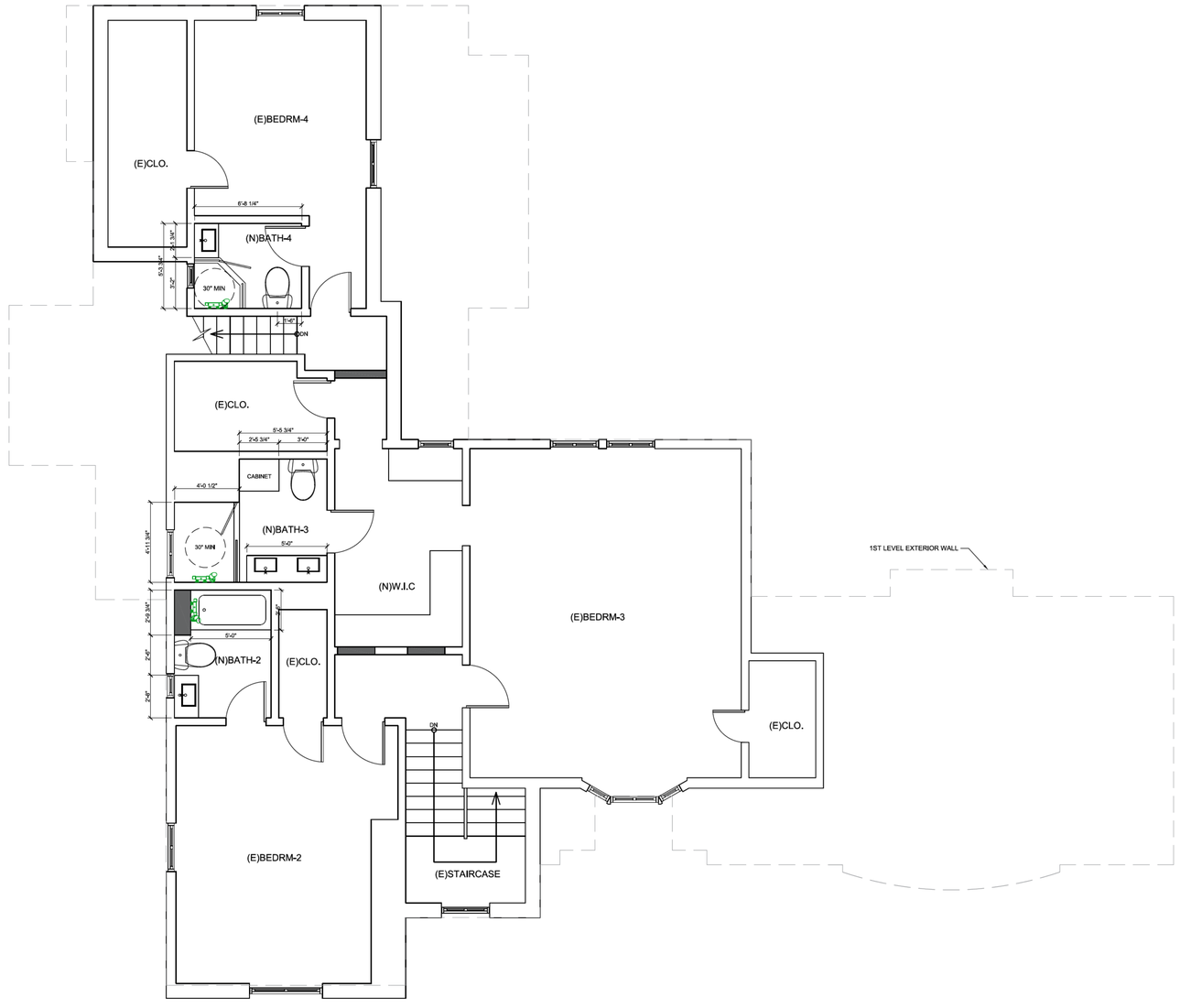
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SHEET TITLE:

PROPOSED 1ST LEVEL FLOOR PLAN

SHEET NUMBER:

A-2.1



PROPOSED 2ND LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING WALL
	WALL TO BE DEMOLISHED
	NEW WALL
	1HR FIRE RATED 2X4 WALL
	WINDOW/DOOR TO BE DEMOLISHED
(E)	EXISTING
(R)	REPLACE
(N)	NEW
CH	CEILING HEIGHT
EMP	ELECTRICAL MAIN PANEL
ESP	ELECTRICAL SUB PANEL
WM	WATER METER
GM	GAS METER

KEY NOTES:

1. DRYER.
   (1)PROVIDE 4" DIA. SMOOTH METAL DUCT FOR DRYER EXHAUST EXTENDING TO OUTSIDE W/ BACK DRAFT DAMPER (36"MIN. AWAY FROM OPENING)
   (2)MAX. VENT DUCT LENGTH OF 14'.
   (3)DOOR AT LAUNDRY ROOM MUST BE LOUVERED TO ALLOW DRYERS TO HAVE SUFFICIENT MAKE-UP AIR.
2. SHOWER WALLS & FLOOR TO BE FINISHED WITH A NONABSORBENT SURFACE UP TO A MINIMUM HEIGHT OF 6' ABOVE THE FLOOR. PROVIDE FRAMELESS, TEMPERED, 3/8" MIN. GLASS SHOWER WALL & MIN. 22" WIDE DOOR WITH CONTINUOUS SEAL. SHOWER AREA MUST BE MIN. 1024 SQ.INCH, CAPABLE OF ENCOMPASSING A 30" DIA. CIRCLE. CONTRACTOR TO PROVIDE ALL BLOCKING FOR TOWEL BARS, ETC. SHOWERS AND TUB-SHOWER COMBINATION SHALL BE PROVIDED WITH INDIVIDUAL PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE CONTROLS. ALL NEW WATER CLOSETS SHALL BE MAX. 1.28 GALLONS/FLUSH. THERE MUST BE 15" CLEAR SPACE ON EACH SIDE OF THE W.C. CENTERLINE, AND 24" CLEAR IN FRONT.
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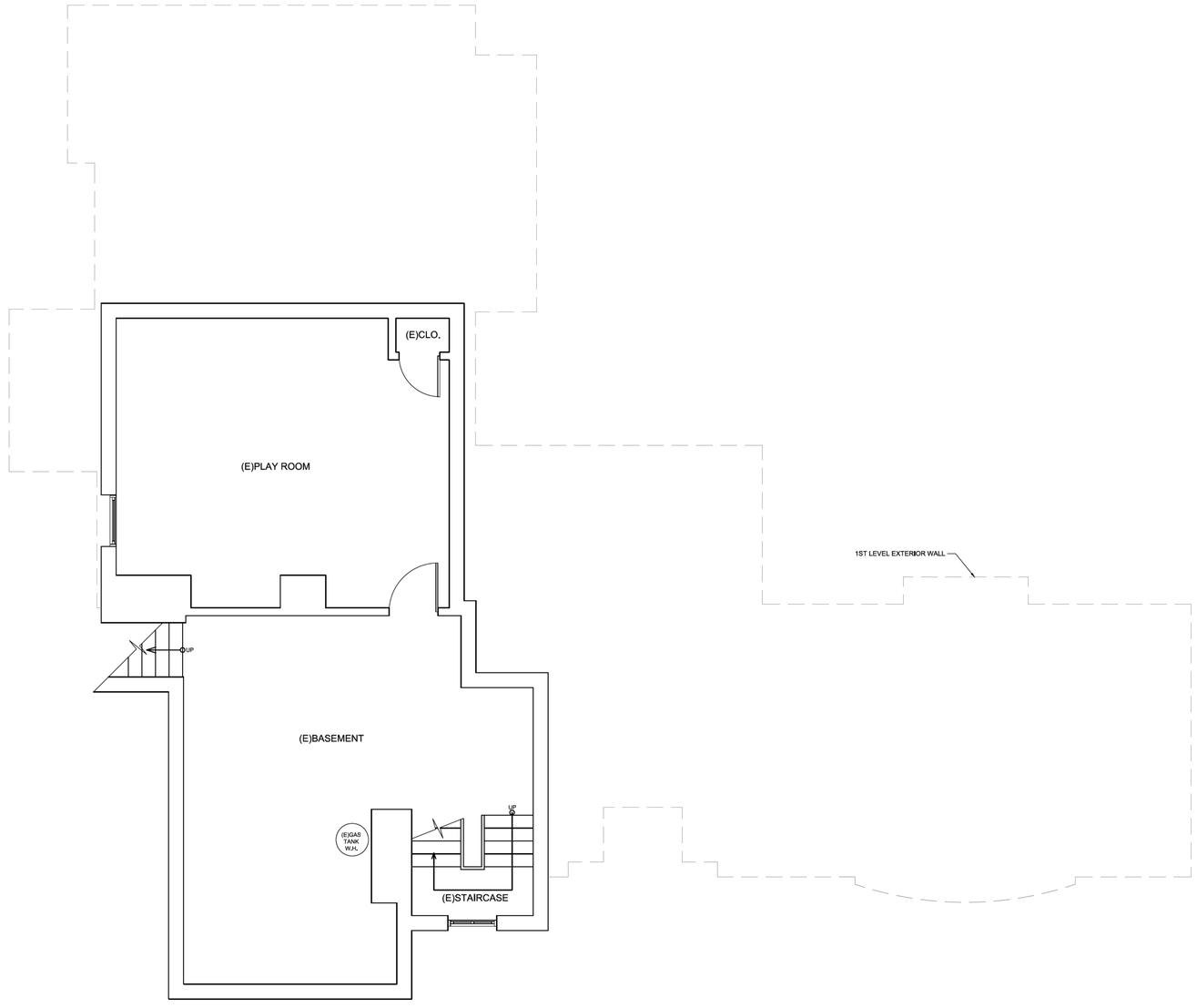
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SHEET TITLE:

PROPOSED 2ND LEVEL FLOOR PLAN

SHEET NUMBER:

A-2.2



PROPOSED BASEMENT LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING WALL
	WALL TO BE DEMOLISHED
	NEW WALL
	1HR FIRE RATED 2X4 WALL
	WINDOW/DOOR TO BE DEMOLISHED
(E)	EXISTING
(R)	REPLACE
(N)	NEW
CH	CEILING HEIGHT
EMP	ELECTRICAL MAIN PANEL
ESP	ELECTRICAL SUB PANEL
WM	WATER METER
GM	GAS METER

KEY NOTES:

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   (1)PROVIDE 4" DIA. SMOOTH METAL DUCT FOR DRYER EXHAUST EXTENDING TO OUTSIDE W/ BACK DRAFT DAMPER (36"MIN. AWAY FROM OPENING)
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PLAN PREPARED BY

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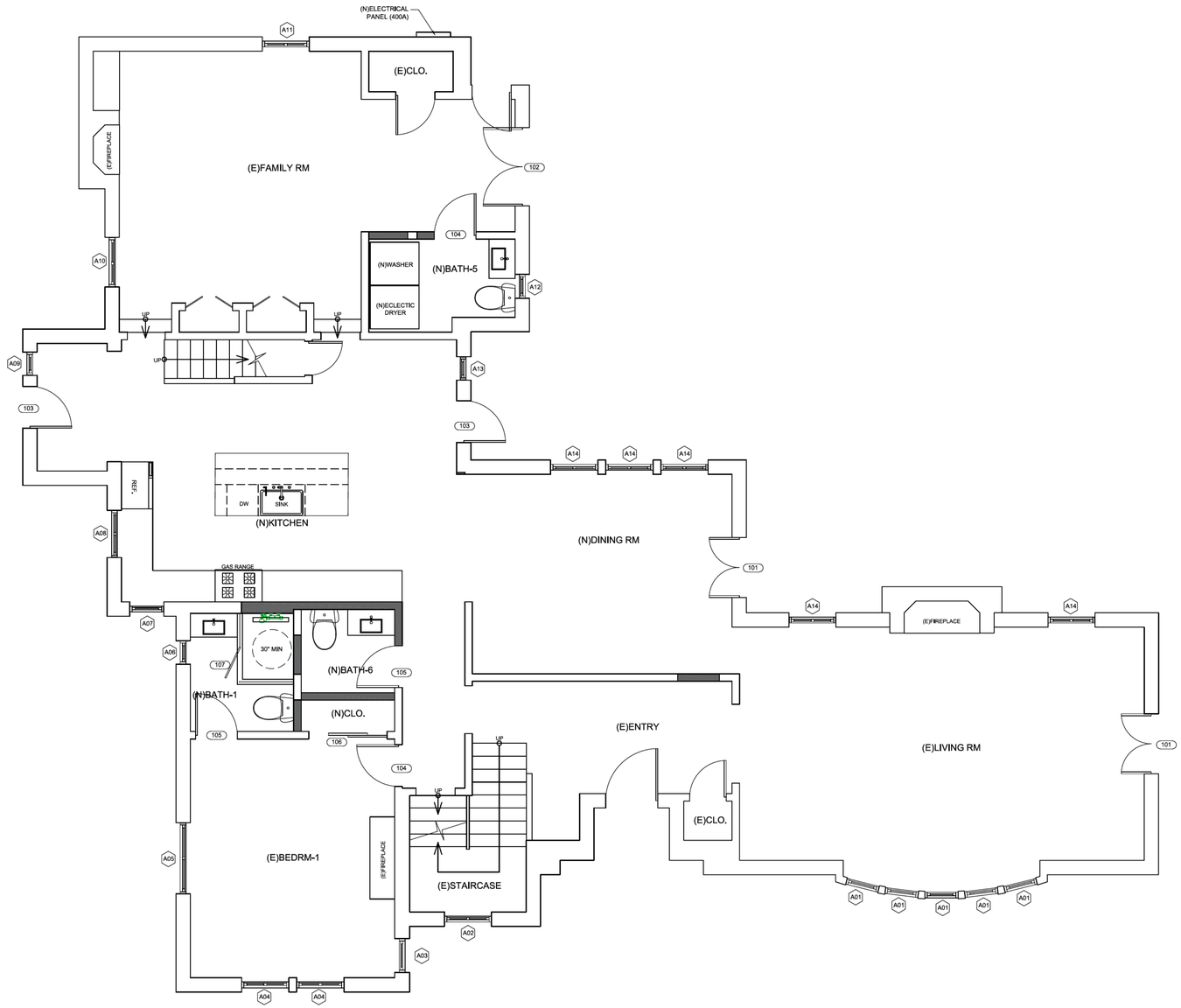
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SHEET TITLE:

PROPOSED BASEMENT LEVEL FLOOR PLAN

SHEET NUMBER:

A-2.3



PROPOSED 1ST LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

PROPOSED WINDOW/DOOR SCHEDULE

#	FRONT VIEW	WIDTH x HEIGHT	HH A.F.F. (HEADER HEIGHT)	QTY	TYPE	EXISTING MATERIAL	PROPOSED MATERIAL	RECESSED DEPTH	TEMPERED	MANUFACTURE
A01		25.5" x 92.5"	106.5"	5	FIXED WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A02		36" x 51"	74"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A03		26" x 39"	84"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A04		36" x 36"	84"	2	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A05		54.5" x 51"	84"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A06		18" x 39"	84"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A07		26" x 53"	98"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A08		34" x 53"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A09		18" x 38"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A10		38" x 59.5"	82"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A11		36" x 38"	82"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A12		18.5" x 38"	70"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A13		26" x 38"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
A14		36" x 51"	84"	5	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
101		46" x 83"	83"	2	EXT. FRANCE DOOR	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
102		60" x 83"	83"	1	EXT. FRANCE DOOR	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
103		32" x 83"	83"	2	EXT. SWING DOOR RIGHT HINGE	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
104		32" x 84"	84"	2	INT. SWING DOOR RIGHT HINGE		WOOD			
105		32" x 84"	84"	2	INT. SWING DOOR LEFT HINGE		WOOD			
106		60" x 84"	84"	1	INT. CLOSET SLIDING DOOR		WOOD			
107		30" x 72"		1	INT. SHOWER SWING DOOR		TEMPERED GLASS		YES	SHOWER ENCLOSURE SHALL HAVE SAFETY GLAZING.

ERIK BETINA DESIGN

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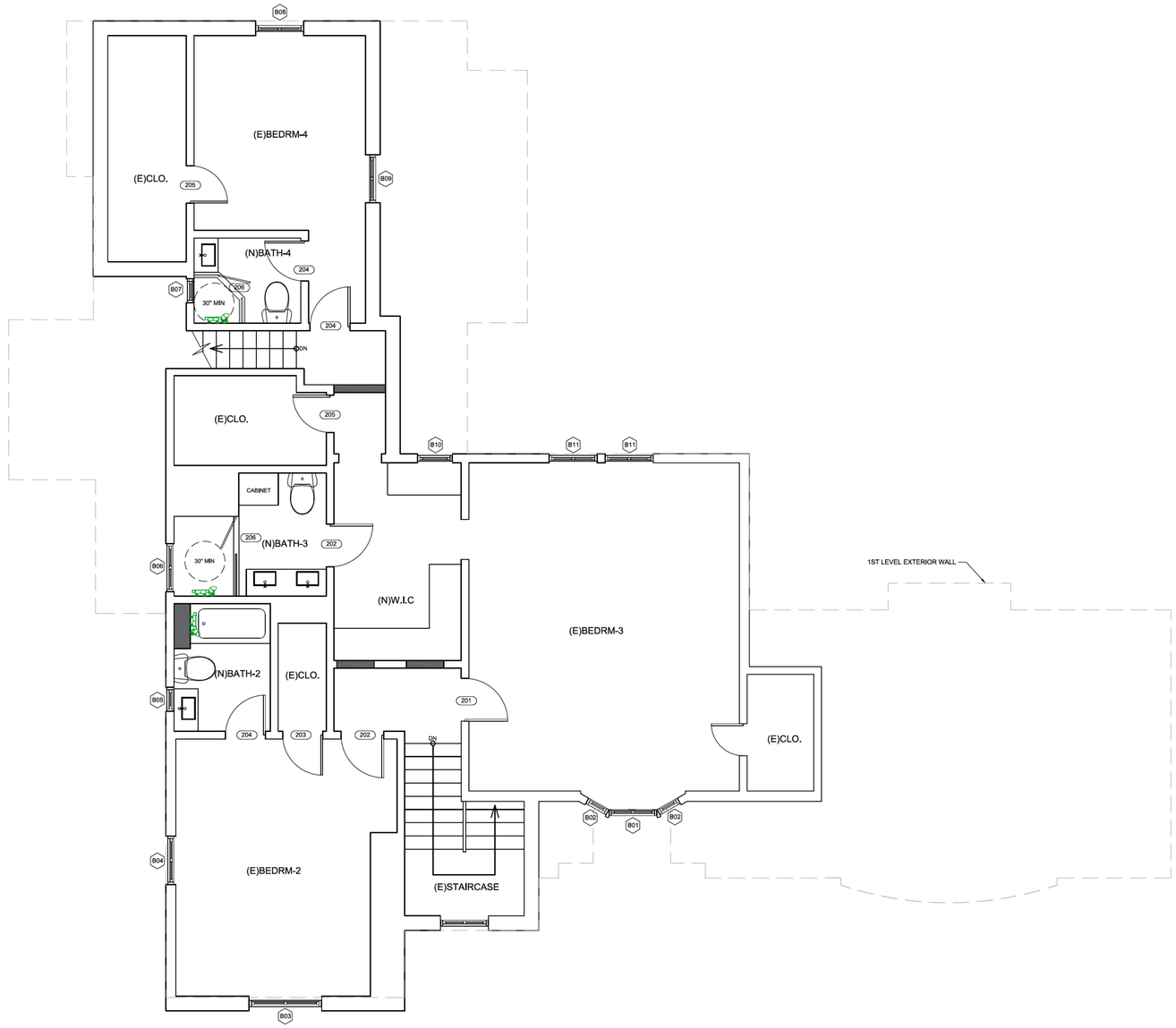
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SHEET TITLE:

PROPOSED 1ST LEVEL WINDOW & DOOR SCHEDULE

SHEET NUMBER:

A-3.1



PROPOSED 2ND LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

PROPOSED WINDOW/DOOR SCHEDULE

#	FRONT VIEW	WIDTH x HEIGHT	HH A.F.F. (HEADER HEIGHT)	QTY	TYPE	EXISTING MATERIAL	PROPOSED MATERIAL	RECESSED DEPTH	TEMPERED	MANUFACTURE
B01		36" x 51"	84"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B02		17.5" x 51"	84"	2	FIXED WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B03		54.5" x 50.5"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B04		36" x 51.5"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B05		18" x 38"	86"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B06		36" x 38"	84"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B07		18" x 38"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B08		36" x 50.5"	67"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B09		36" x 38"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B10		26" x 42"	82"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
B11		36" x 51"	82"	2	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON.
201		32" x 84"	84"	1	INT. SWING DOOR RIGHT HINGE		WOOD			
202		32" x 84"	84"	2	INT. SWING DOOR RIGHT HINGE		WOOD			
203		30" x 84"	84"	1	INT. SWING DOOR LEFT HINGE		WOOD			
204		30" x 84"	84"	3	INT. SWING DOOR RIGHT HINGE		WOOD			
205		28" x 84"	84"	2	INT. SWING DOOR RIGHT HINGE		WOOD			
206		30" x 72"		2	INT. SHOWER SWING DOOR		TEMPERED GLASS		YES	SHOWER ENCLOSURE SHALL HAVE SAFETY GLAZING.

ERIK BETINA DESIGN

17121 Wild Way,
Los Gatos, CA 95030

N

AP NUMBER 424-30-080

DATE 08/03/2024

PLAN CHECK

BID DATE

FINAL PERMIT

REVISIONS

PLAN PREPARED BY

Erik Betina

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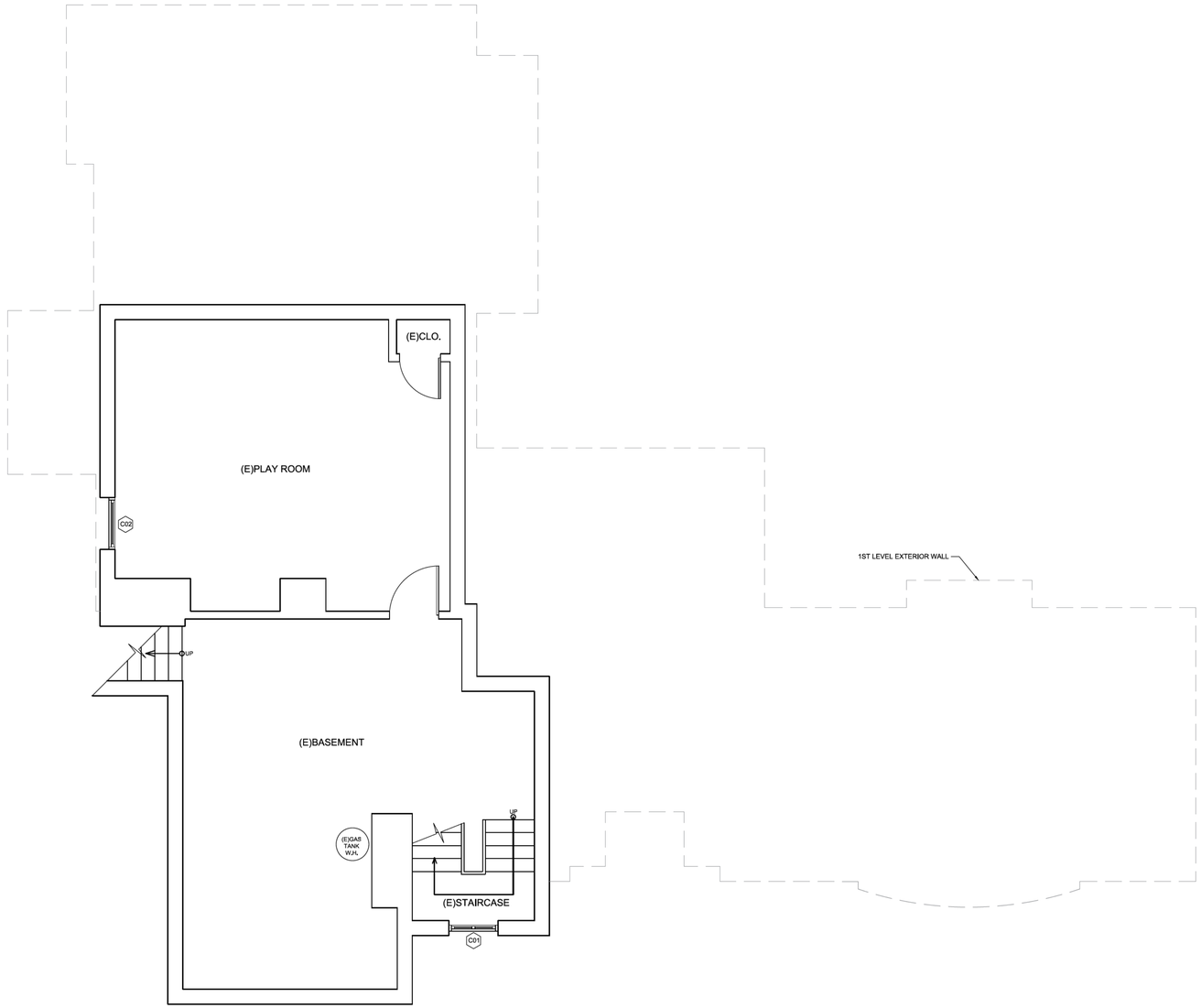
DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

PROPOSED 2ND LEVEL WINDOW & DOOR SCHEDULE

SHEET NUMBER:

A-3.2



PROPOSED BASEMENT LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

1

PROPOSED WINDOW/DOOR SCHEDULE

#	FRONT VIEW	WIDTH x HEIGHT	HH A.F.F. (HEADER HEIGHT)	QTY	TYPE	EXISTING MATERIAL	PROPOSED MATERIAL	RECESSED DEPTH	TEMPERED	MANUFACTURE
C01		36" x 38"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	NO	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON,.
C02		38" x 36"	80"	1	CASEMENT WINDOW	CAST IRON	ALUMINUM CLAD,	1" SETBACK	YES	MARVIN(ULTIMATE SERIES) OR ANDERSEN(E SERIES) AND SO ON,.

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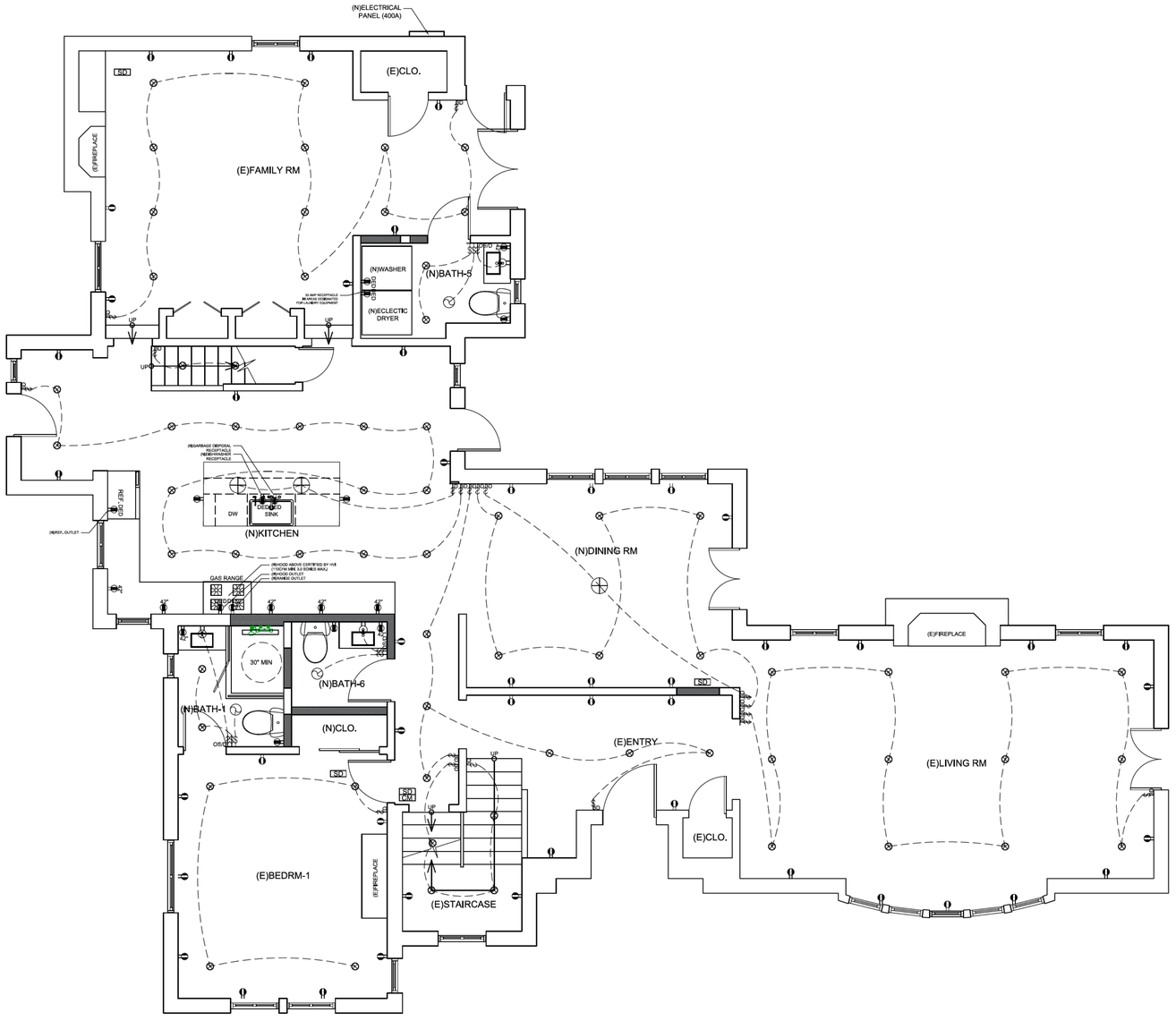
DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

PROPOSED BASEMENT LEVEL WINDOW & DOOR SCHEDULE

SHEET NUMBER:

A-3.3



PROPOSED 1ST LEVEL ELECTRICAL PLAN & RCP

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	HIGH EFFICACY RECESSED LIGHT Ø6"
WP	HIGH EFFICACY RECESSED LIGHT WATER PROOF
	PENDANT LIGHT
	CEILING MOUNT LIGHT
	ENERGY EFFICIENT WALL MOUNTED LIGHT
MS	ENERGY EFFICIENT WALL MOUNTED LIGHT/MOTION SENSOR
	TRACK LIGHTING SYSTEM
	EXHAUST FAN
SD	SMOKE DETECTOR, HARD WIRED AND INTERCONNECTED
CM	COMBINATION CARBON MONOXIDE DETECTOR
EMP	ELECTRICAL MAIN-PANEL
ESP	ELECTRICAL SUB-PANEL
TV	TV
D	DIMMER SWITCH
OSD	SWITCH W/ OCCUPANCY SENSOR DIMMER
MSDIC	SWITCH W/ MOTION SENSOR OR PHONECELL ONTROLS
3	THREE WAY SWITCH
4	FOUR WAY SWITCH
	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET
42"	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET 42"AFF
DED	DEDICATED LINE GFCI
E/E	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX WATERPROOF EXTERIOR OUTLET
	AFCI(ARC FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET
42"	AFCI(ARC FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET 42"AFF
220V	OUTLET 200V
240V	OUTLET 240V
	GAS LINE
T	THERMO CONTROL
	DOOR BELL
C	DOOR BELL CHIME

ELECTRIC NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL LIGHTS AND OUTLETS W/ OWNER ON SITE.
2. ALL NEW INSTALLED LIGHTING MUST BE HIGH EFFICACY.
3. CARBON MONOXIDE & SMOKE DETECTOR WILL BE INTERCONNECTED.
4. PROVIDE MINIMUM TWO 20 AMP SMALL APPLIANCE CIRCUITS FOR THE KITCHEN COUNTERTOPS, SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS, LOADS SHALL BE BALANCED.
5. SMOKE ALARMS SHALL BE INSTALLED OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS, CARBON MONOXIDE ALARMS IN DWELLING UNITS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
6. EXHAUST FAN IN THE BATHROOM, THE MINIMUM LOCAL EXHAUST RATES SHALL BE 50 CUBIC FEET PER MINUTE FOR INTERMITTENT VENTILATION OR 20 CUBIC FEET PER MINUTE FOR CONTINUOUS VENTILATION. EXHAUST AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS.
7. LIGHTING IN HABITABLE SPACES, INCLUDING BUT NOT LIMITED TO LIVING ROOMS, DINING ROOMS, KITCHENS AND BEDROOMS, SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY ADJUSTED UP AND DOWN.
8. THE 20-AMP BATHROOM CIRCUIT SHALL ONLY SERVE RECEPTACLES WITHIN THE BATHROOM. THE CIRCUIT MAY SERVE THE RECEPTACLES AND LIGHTS IN STAND-ALONE BATHROOMS. THE CIRCUIT MAY SERVE MULTIPLE BATHROOMS FOR RECEPTACLES ONLY.
9. A GFCI PROTECTED RECEPTACLE SHALL BE LOCATED WITHIN 36" FROM THE EDGE OF THE SINK.
10. ALL NEW BATHROOM LIGHTING SHALL BE HIGH-EFFICACY AND AT LEAST ONE NEW LUMINAIRE IN EACH NEW/REMODELED BATHROOM SHALL BE CONTROLLED BY A VACANCY SENSOR OR MANUAL-ON OCCUPANCY SENSOR, REGARDING ALL OTHER ROOMS (I.E. BEDROOMS, HALLWAYS, FOYER, DINING ROOMS, ETC.),ALL LIGHTS IN THESE ROOMS ARE HIGH EFFICACY LUMINARIES.
11. LIGHT FIXTURES LOCATED IN WET LOCATION SHALL BE LISTED FOR WET LOCATION AND REQUIRE WATER RESISTANT TRIMS.
12. ELECTRICAL PANELS SHALL NOT BE INSTALLED IN BATHROOMS.
13. BATHROOM FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING, UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY HUMIDITY CONTROL. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF <_ 50 % TO A MAXIMUM OF 80 %. A HUMIDITY CONTROL MAU UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.e. BUILT IN).
14. CARBON MONOXIDE ALARMS SHALL BE OPERATIONAL AND LOCATED OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.
15. ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN KITCHEN, BEDROOMS, LAUNDRY AREAS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARE-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT, (2022NEC 210.12B) ALL AFCI'S ARE REQUIRED TO BE THE "COMBINATION" TYP, RATHER THAN A "BRANCH/FEEDER". PROTECTION CAN BE IN THE FORM OF A CIRCUIT BREAKER OR AN OUTLET, HOWEVER, THE WIRING FROM THE CIRCUIT BREAKER TO THE AFCI OUTLET MUST BE METAL CLAD. THE OUTLET DOWNSTREAM MAY BE WIRED USING NON-METALLIC SHEATHED CABLE.
16. TERMINATION OF ALL DRYER AIR DUCTS SHALL BE A MINIMUM OF 3 FEET FROM PROPERTY LINES AND 3 FT 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 504.5
17. ALL RECEPTACLES SHALL BE TAMPER- RESISTANT CEC 406.11, CEC 210.52, CEC 210.8
18. EXTERIOR LIGHTING MUST BE HIGH EFFICACY, MANUAL CONTROL, AND HAVE PHOTOCELL MOTION SENSOR, PHOTOCELL WITH AUTOMATIC TIMER, ASTRONOMICAL TIME SWITCH, OR EMCS.
19. ALL NEW LIGHTING IN HABITABLE SPACES SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS OR SHOW THAT THE LIGHTING MEETS ONE OF THE EXCEPTIONS TO CENC SECTION 150.0(K)2F.
20. THE BATHROOM HAS AT LEAST ONE LIGHT ON A VACANCY SENSOR.
21. ALL NEW SMOKE DETECTORS AND CARBON MONOXIDE WILL BE INTERCONNECTED.
22. ALL NECESSARY NEW OUTLETS WILL BE AFCI PROTECTED PER CODE.
23. ALL LIGHTING WILL BE HIGH EFFICACY.
24. HARDWIRED SMOKE DETECTION IS REQUIRED IN EACH BEDROOM. COMBINATION SMOKE AND CARBON MONOXIDE DETECTION IS REQUIRED OUTSIDE EACH BEDROOM AND ON EACH FLOOR.
25. ALL NEW AND REPLACED DUPLEX RECEPTACLES SHALL BE LISTED "TAMPER-RESISTANT RECEPTACLES".
26. A 120V RECEPTACLE SHALL BE PLACED WITHIN 3' OF A WATER HEATER AND WITHIN 25' OF AN A/C CONDENSER (IF THE HOME HAS A/C SHOW THE CONDENSER).
27. RECEPTACLES SHALL NOT BE INSTALLED WITHIN A ZONE MEASURED 900 MM (3 FT) HORIZONTALLY AND 2,5 M (8 FT) VERTICALLY FROM THE TOP OF THE BATHTUB RIM OR SHOWER STALL THRESHOLD. THE IDENTIFIED ZONE IS ALL-ENCOMPASSING AND SHALL INCLUDE THE SPACE DIRECTLY OVER THE TUB OR SHOWER STALL.

    EXCEPTION NO. 1: IN BATHROOMS WITH LESS THAN THE REQUIRED ZONE THE RECEPTACLE(S) SHALL BE PERMITTED TO BE INSTALLED OPPOSITE THE BATHTUB RIM OR SHOWER STALL THRESHOLD ON THE FARTHEST WALL WITHIN THE ROOM.

    EXCEPTION NO. 2: IN A DWELLING UNIT, A SINGLE RECEPTACLE SHALL BE PERMITTED FOR AN ELECTRONIC TOILET OR PERSONAL HYGIENE DEVICE SUCH AS AN ELECTRONIC BIDET SEAT, THE RECEPTACLE SHALL BE READILY ACCESSIBLE AND LOCATED ON ONE OF THE FOLLOWING:

    (1)THE WALL BEHIND THE TOILET BUT NOT BEHIND THE TANK

    (2)THE OPPOSITE SIDE OF THE TOILET FROM THE BATHTUB OR SHOWER

28. FIRE PROTECTION IS REQUIRED FOR RECEPTACLES IN THE COMMON WALLS BETWEEN THE GARAGE AND THE RESIDENCE. THIS CAN BE PROVIDED WITH FIRE RATED RECEPTACLE BOXES, OR BY STEEL ELECTRICAL BOXES THAT DO NOT EXCEED 16 SQUARE INCHES IN AREA THAT ARE PERMITTED IN 2-HOUR MAXIMUM FIRE-RESISTANCE-RATED WALLS PROVIDED THE AGGREGATE AREA OF OPENINGS THROUGH THE MEMBRANE DOES NOT EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL AREA. SUCH BOXES ON OPPOSITE SIDES OF THE WALL SHALL BE SEPARATED BY ONE OF FIVE THE CONDITIONS LISTED IN EXCEPTION #1.

TABLE 150.0-A CLASSIFICATION OF HIGH EFFICACY LIGHT SOURCES

HIGH EFFICACY LIGHT SOURCES Light sources shall comply with one of the columns below:	
Light sources in this column, other than those installed in ceiling recessed downlight luminaires, are classified as high efficacy and are NOT required to comply with reference Joint Appendix JA8.	Light sources in this column are only considered to be high efficacy if they are certified to the Commission as High Efficacy Light Sources in accordance with Reference Joint Appendix JA8 and marked as required by JA8.
(1)LED light sources installed outdoors. (2)Inseparable solid state lighting (SSL) luminaires containing colored light sources that are installed to provide decorative lighting. (3)Pin-based linear fluorescent or compact fluorescent light sources using electronic ballasts. (4)High Intensity discharge (HID) light sources including pulse start metal halide and high pressure sodium light sources. (5)Luminaires with hardwired high frequency generator and induction lamp. (6)Ceiling fan light kits subject to federal appliance regulations.	(7)All light sources installed in ceiling recessed downlight luminaires. Note that ceiling recessed downlight luminaires shall not have screw bases regardless of lamp type as described in section 150.0(k)1C. (8)Any light source not otherwise listed in this table.

ERIK BETINA
DESIGN

17121 Wild Way,
Los Gatos, CA 95030

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PLAN PREPARED BY

Erik Betina

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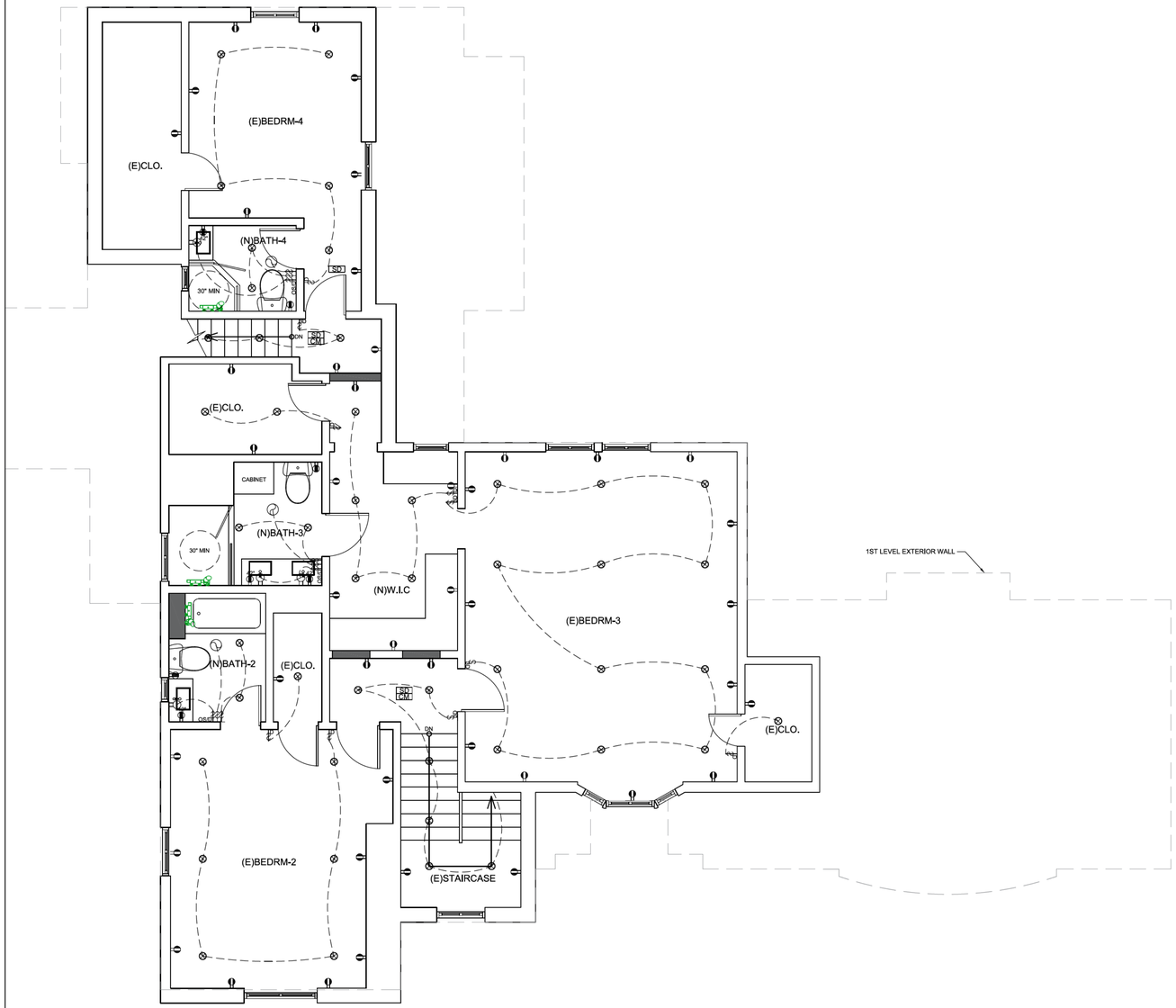
DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

PROPOSED 1ST LEVEL ELECTRICAL PLAN & RCP

SHEET NUMBER:

A-4.1



PROPOSED 2ND LEVEL ELECTRICAL PLAN & RCP

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	HIGH EFFICACY RECESSED LIGHT Ø6"
WP	HIGH EFFICACY RECESSED LIGHT WATER PROOF
	PENDANT LIGHT
	CEILING MOUNT LIGHT
	ENERGY EFFICIENT WALL MOUNTED LIGHT
MS	ENERGY EFFICIENT WALL MOUNTED LIGHT/MOTION SENSOR
	TRACK LIGHTING SYSTEM
	EXHAUST FAN
SD	SMOKE DETECTOR, HARD WIRED AND INTERCONNECTED
CM	COMBINATION CARBON MONOXIDE DETECTOR
EMP	ELECTRICAL MAIN-PANEL
ESP	ELECTRICAL SUB-PANEL
TV	TV
D	DIMMER SWITCH
OSWP	SWITCH W/ OCCUPANCY SENSOR DIMMER
MSDIC	SWITCH W/ MOTION SENSOR OR PHONECELL ONTROLS
3	THREE WAY SWITCH
4	FOUR WAY SWITCH
	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET
42"	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET 42"AFF
DED	DEDICATED LINE GFCI
E/E	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX WATERPROOF EXTERIOR OUTLET
	AFCI(ARC FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET
42"	AFCI(ARC FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET 42"AFF
220V	OUTLET 200V
240V	OUTLET 240V
	GAS LINE
T	THERMO CONTROL
	DOOR BELL
C	DOOR BELL CHIME

ELECTRIC NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL LIGHTS AND OUTLETS W/ OWNER ON SITE.
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5. SMOKE ALARMS SHALL BE INSTALLED OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS, CARBON MONOXIDE ALARMS IN DWELLING UNITS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
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9. A GFCI PROTECTED RECEPTACLE SHALL BE LOCATED WITHIN 36" FROM THE EDGE OF THE SINK.
10. ALL NEW BATHROOM LIGHTING SHALL BE HIGH-EFFICACY AND AT LEAST ONE NEW LUMINAIRE IN EACH NEW/REMODELED BATHROOM SHALL BE CONTROLLED BY A VACANCY SENSOR OR MANUAL-ON OCCUPANCY SENSOR, REGARDING ALL OTHER ROOMS (I.E. BEDROOMS, HALLWAYS, FOYER, DINING ROOMS, ETC.),ALL LIGHTS IN THESE ROOMS ARE HIGH EFFICACY LUMINARIES.
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13. BATHROOM FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING, UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY HUMIDITY CONTROL. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF <_ 50 % TO A MAXIMUM OF 80 %. A HUMIDITY CONTROL MAU UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.e. BUILT IN).
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    EXCEPTION NO. 2: IN A DWELLING UNIT, A SINGLE RECEPTACLE SHALL BE PERMITTED FOR AN ELECTRONIC TOILET OR PERSONAL HYGIENE DEVICE SUCH AS AN ELECTRONIC BIDET SEAT. THE RECEPTACLE SHALL BE READILY ACCESSIBLE AND LOCATED ON ONE OF THE FOLLOWING:

    (1)THE WALL BEHIND THE TOILET BUT NOT BEHIND THE TANK

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HIGH EFFICACY LIGHT SOURCES
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PLAN PREPARED BY

Erik Betina

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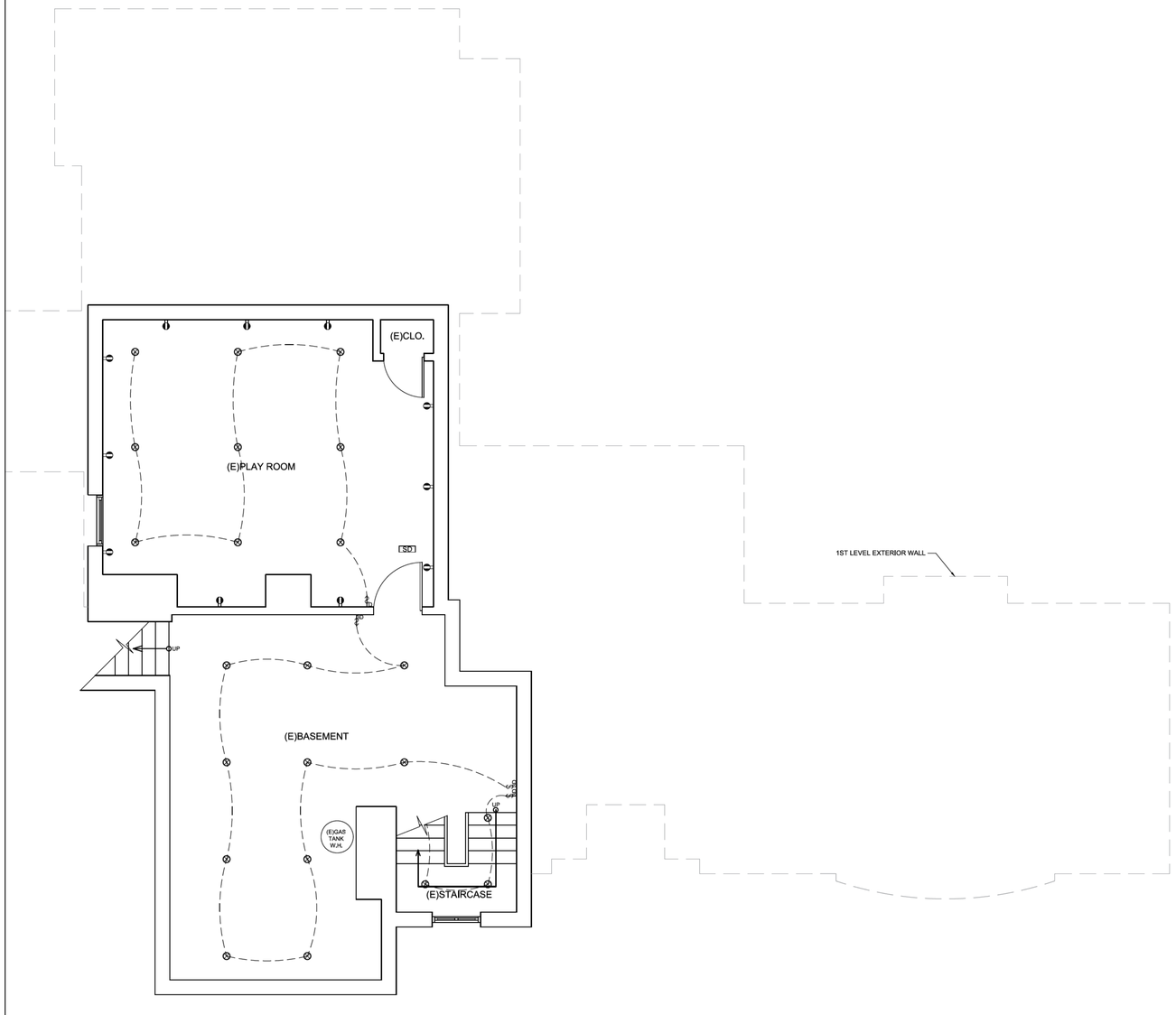
DIMENSIONS SHOWN ARE MINIMUM AND ARE INTENDED TO BE APPROXIMATE TO ALLOW FOR REASONABLE TOLERANCES DUE TO FIELD CONDITIONS.

SHEET TITLE:

PROPOSED 2ND LEVEL ELECTRICAL PLAN & RCP

SHEET NUMBER:

A-4.2



PROPOSED BASEMENT LEVEL ELECTRICAL PLAN & RCP

SCALE 1/4" = 1'-0"

1

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
	HIGH EFFICACY RECESSED LIGHT Ø6"
WP	HIGH EFFICACY RECESSED LIGHT WATER PROOF
	PENDANT LIGHT
	CEILING MOUNT LIGHT
	ENERGY EFFICIENT WALL MOUNTED LIGHT
MS	ENERGY EFFICIENT WALL MOUNTED LIGHT/MOTION SENSOR
	TRACK LIGHTING SYSTEM
	EXHAUST FAN
SD	SMOKE DETECTOR, HARD WIRED AND INTERCONNECTED
CM	COMBINATION CARBON MONOXIDE DETECTOR
EMP	ELECTRICAL MAIN-PANEL
ESP	ELECTRICAL SUB-PANEL
TV	TV
D	DIMMER SWITCH
OSD	SWITCH W/ OCCUPANCY SENSOR DIMMER
MSDC	SWITCH W/ MOTION SENSOR OR PHONECELL ONTROLS
3	THREE WAY SWITCH
4	FOUR WAY SWITCH
	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET
42"	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET 42"AFF
DED	DEDICATED LINE GFCI
E/E	GFCI(GROUND FAULT CIRCUIT INTERRUPTER) DUPLEX WATERPROOF EXTERIOR OUTLET
	AFCI(ARC FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET
42"	AFCI(ARC FAULT CIRCUIT INTERRUPTER) DUPLEX OUTLET 42"AFF
220V	OUTLET 200V
240V	OUTLET 240V
	GAS LINE
T	THERMO CONTROL
	DOOR BELL
C	DOOR BELL CHIME

ELECTRIC NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL LIGHTS AND OUTLETS W/ OWNER ON SITE.
2. ALL NEW INSTALLED LIGHTING MUST BE HIGH EFFICACY.
3. CARBON MONOXIDE & SMOKE DETECTOR WILL BE INTERCONNECTED.
4. PROVIDE MINIMUM TWO 20 AMP SMALL APPLIANCE CIRCUITS FOR THE KITCHEN COUNTERTOPS, SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS, LOADS SHALL BE BALANCED.
5. SMOKE ALARMS SHALL BE INSTALLED OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS, CARBON MONOXIDE ALARMS IN DWELLING UNITS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
6. EXHAUST FAN IN THE BATHROOM, THE MINIMUM LOCAL EXHAUST RATES SHALL BE 50 CUBIC FEET PER MINUTE FOR INTERMITTENT VENTILATION OR 20 CUBIC FEET PER MINUTE FOR CONTINUOUS VENTILATION. EXHAUST AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS.
7. LIGHTING IN HABITABLE SPACES, INCLUDING BUT NOT LIMITED TO LIVING ROOMS, DINING ROOMS, KITCHENS AND BEDROOMS, SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY ADJUSTED UP AND DOWN.
8. THE 20-AMP BATHROOM CIRCUIT SHALL ONLY SERVE RECEPTACLES WITHIN THE BATHROOM. THE CIRCUIT MAY SERVE THE RECEPTACLES AND LIGHTS IN STAND-ALONE BATHROOMS. THE CIRCUIT MAY SERVE MULTIPLE BATHROOMS FOR RECEPTACLES ONLY.
9. A GFCI PROTECTED RECEPTACLE SHALL BE LOCATED WITHIN 36" FROM THE EDGE OF THE SINK.
10. ALL NEW BATHROOM LIGHTING SHALL BE HIGH-EFFICACY AND AT LEAST ONE NEW LUMINAIRE IN EACH NEW/REMODELED BATHROOM SHALL BE CONTROLLED BY A VACANCY SENSOR OR MANUAL-ON OCCUPANCY SENSOR, REGARDING ALL OTHER ROOMS (I.E. BEDROOMS, HALLWAYS, FOYER, DINING ROOMS, ETC.),ALL LIGHTS IN THESE ROOMS ARE HIGH EFFICACY LUMINARIES.
11. LIGHT FIXTURES LOCATED IN WET LOCATION SHALL BE LISTED FOR WET LOCATION AND REQUIRE WATER RESISTANT TRIMS.
12. ELECTRICAL PANELS SHALL NOT BE INSTALLED IN BATHROOMS.
13. BATHROOM FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING, UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM. FANS MUST BE CONTROLLED BY HUMIDITY CONTROL. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF <_ 50 % TO A MAXIMUM OF 80 %. A HUMIDITY CONTROL MAU UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.e. BUILT IN).
14. CARBON MONOXIDE ALARMS SHALL BE OPERATIONAL AND LOCATED OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S) AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.
15. ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN KITCHEN, BEDROOMS, LAUNDRY AREAS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARE-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT, (2022NEC 210.12B) ALL AFCIS ARE REQUIRED TO BE THE "COMBINATION" TYP, RATHER THAN A "BRANCH/FEEDER". PROTECTON CAN BE IN THE FORM OF A CIRCUIT BREAKER OR AN OUTLET, HOWEVER, THE WIRING FROM THE CIRCUIT BREAKER TO THE AFCI OUTLET MUST BE METAL CLAD. THE OUTLET DOWNSTREAM MAY BE WIRED USING NON-METALLIC SHEATHED CABLE.
16. TERMINATION OF ALL DRYER AIR DUCTS SHALL BE A MINIMUM OF 3 FEET FROM PROPERTY LINES AND 3 FT 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 504.5
17. ALL RECEPTACLES SHALL BE TAMPER- RESISTANT CEC 406.11, CEC 210.52, CEC 210.8
18. EXTERIOR LIGHTING MUST BE HIGH EFFICACY, MANUAL CONTROL, AND HAVE PHOTOCELL MOTION SENSOR, PHOTOCELL WITH AUTOMATIC TIMER, ASTRONOMICAL TIME SWITCH, OR EMCS.
19. ALL NEW LIGHTING IN HABITABLE SPACES SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS OR SHOW THAT THE LIGHTING MEETS ONE OF THE EXCEPTIONS TO CENC SECTION 150.0(K)2F.
20. THE BATHROOM HAS AT LEAST ONE LIGHT ON A VACANCY SENSOR.
21. ALL NEW SMOKE DETECTORS AND CARBON MONOXIDE WILL BE INTERCONNECTED.
22. ALL NECESSARY NEW OUTLETS WILL BE AFCI PROTECTED PER CODE.
23. ALL LIGHTING WILL BE HIGH EFFICACY.
24. HARDWIRED SMOKE DETECTION IS REQUIRED IN EACH BEDROOM. COMBINATION SMOKE AND CARBON MONOXIDE DETECTION IS REQUIRED OUTSIDE EACH BEDROOM AND ON EACH FLOOR.
25. ALL NEW AND REPLACED DUPLEX RECEPTACLES SHALL BE LISTED "TAMPER-RESISTANT RECEPTACLES".
26. A 120V RECEPTACLE SHALL BE PLACED WITHIN 3' OF A WATER HEATER AND WITHIN 25' OF AN A/C CONDENSER (IF THE HOME HAS A/C SHOW THE CONDENSER).
27. RECEPTACLES SHALL NOT BE INSTALLED WITHIN A ZONE MEASURED 900 MM (3 FT) HORIZONTALLY AND 2,5 M (8 FT) VERTICALLY FROM THE TOP OF THE BATHTUB RIM OR SHOWER STALL THRESHOLD. THE IDENTIFIED ZONE IS ALL-ENCOMPASSING AND SHALL INCLUDE THE SPACE DIRECTLY OVER THE TUB OR SHOWER STALL.

    EXCEPTION NO. 1: IN BATHROOMS WITH LESS THAN THE REQUIRED ZONE THE RECEPTACLE(S) SHALL BE PERMITTED TO BE INSTALLED OPPOSITE THE BATHTUB RIM OR SHOWER STALL THRESHOLD ON THE FARTHEST WALL WITHIN THE ROOM.

    EXCEPTION NO. 2: IN A DWELLING UNIT, A SINGLE RECEPTACLE SHALL BE PERMITTED FOR AN ELECTRONIC TOILET OR PERSONAL HYGIENE DEVICE SUCH AS AN ELECTRONIC BIDET SEAT, THE RECEPTACLE SHALL BE READILY ACCESSIBLE AND LOCATED ON ONE OF THE FOLLOWING:

    (1)THE WALL BEHIND THE TOILET BUT NOT BEHIND THE TANK

    (2)THE OPPOSITE SIDE OF THE TOILET FROM THE BATHTUB OR SHOWER

28. FIRE PROTECTION IS REQUIRED FOR RECEPTACLES IN THE COMMON WALLS BETWEEN THE GARAGE AND THE RESIDENCE. THIS CAN BE PROVIDED WITH FIRE RATED RECEPTACLE BOXES, OR BY STEEL ELECTRICAL BOXES THAT DO NOT EXCEED 16 SQUARE INCHES IN AREA THAT ARE PERMITTED IN 2-HOUR MAXIMUM FIRE-RESISTANCE-RATED WALLS PROVIDED THE AGGREGATE AREA OF OPENINGS THROUGH THE MEMBRANE DOES NOT EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL AREA. SUCH BOXES ON OPPOSITE SIDES OF THE WALL SHALL BE SEPARATED BY ONE OF FIVE THE CONDITIONS LISTED IN EXCEPTION #1.

TABLE 150.0-A CLASSIFICATION OF HIGH EFFICACY LIGHT SOURCES

HIGH EFFICACY LIGHT SOURCES Light sources shall comply with one of the columns below:	
Light sources in this column, other than those installed in ceiling recessed downlight luminaires, are classified as high efficacy and are NOT required to comply with reference Joint Appendix JA8.	Light sources in this column are only considered to be high efficacy if they are certified to the Commission as High Efficacy Light Sources in accordance with Reference Joint Appendix JA8 and marked as required by JA8.
(1)LED light sources installed outdoors. (2)Inseparable solid state lighting (SSL) luminaires containing colored light sources that are installed to provide decorative lighting. (3)Pin-based linear fluorescent or compact fluorescent light sources using electronic ballasts. (4)High Intensity discharge (HID) light sources including pulse start metal halide and high pressure sodium light sources. (5)Luminaires with hardwired high frequency generator and induction lamp. (6)Ceiling fan light kits subject to federal appliance regulations.	(7)All light sources installed in ceiling recessed downlight luminaires. Note that ceiling recessed downlight luminaires shall not have screw bases regardless of lamp type as described in section 150.0(k)1C. (8)Any light source not otherwise listed in this table.

ERIK BETINA
DESIGN

17121 Wild Way,
Los Gatos, CA 95030

N

AP NUMBER	424-30-080
DATE	08/03/2024
PLAN CHECK	
BID DATE	
FINAL PERMIT	
REVISIONS	

PLAN PREPARED BY

Erik Zany

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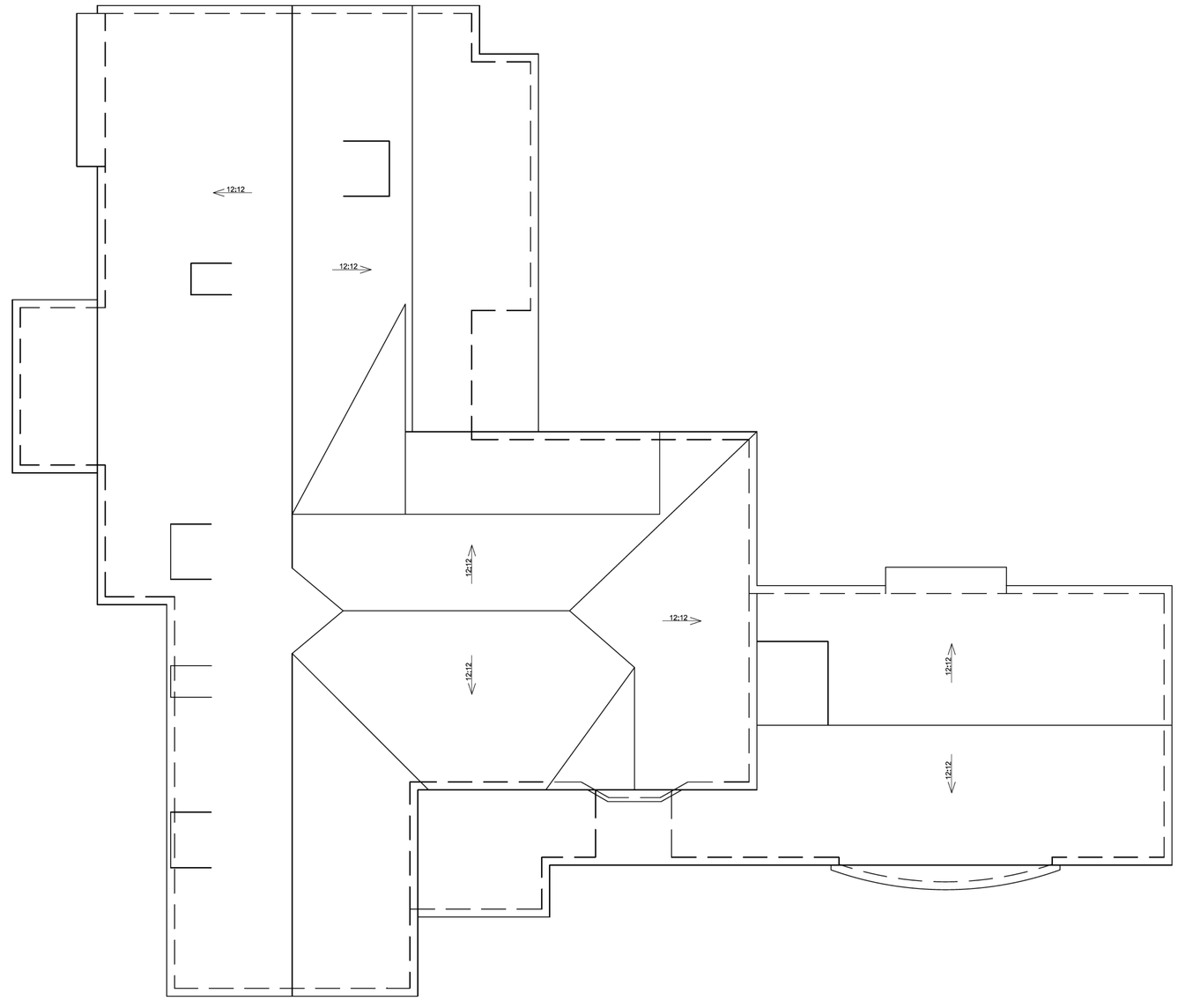
PROPOSED BASEMENT LEVEL ELECTRICAL PLAN & RCP

SHEET NUMBER:

A-4.3

ROOF NOTES:

1. NO SCOPE OF WORK FOR THE ROOF.



EXISTING ROOF PLAN 1

SCALE 1/4" = 1'-0"

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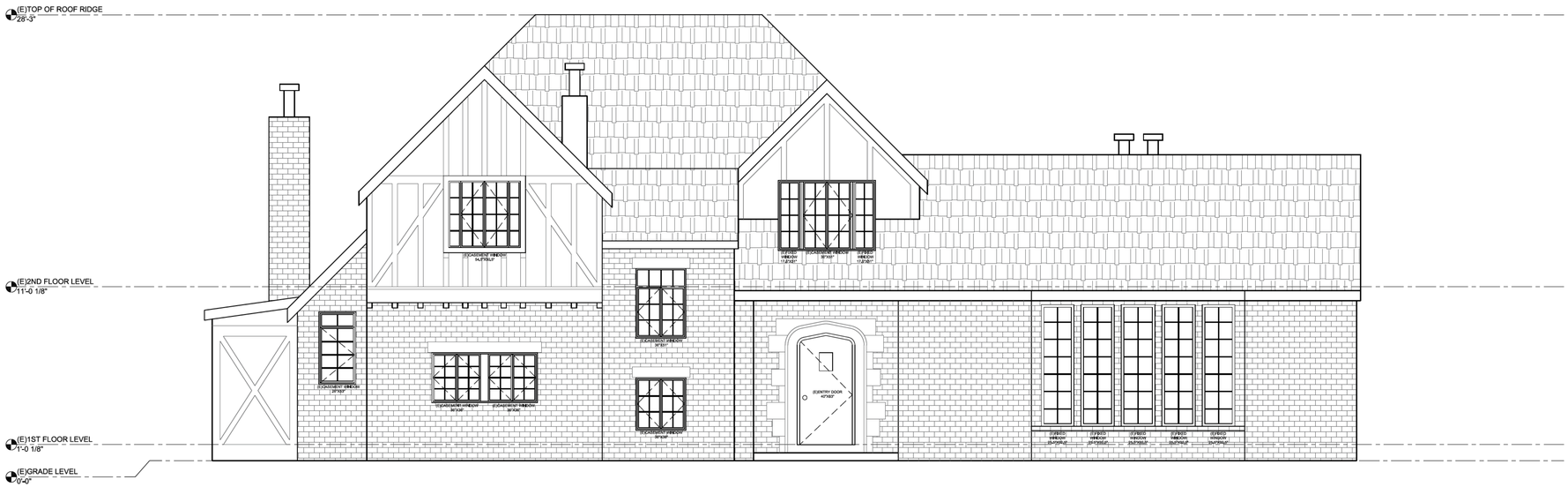
EXISTING ROOF PLAN

SHEET NUMBER:

A-5.1

ELEVATION NOTES:

1. NO SCOPE OF WORK FOR EXTERIOR WALLS.



EXISTING FRONT ELEVATION 1

SCALE 1/4" = 1'-0"



PROPOSED FRONT ELEVATION 2

SCALE 1/4" = 1'-0"

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SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-6.1

ELEVATION NOTES:

1. NO SCOPE OF WORK FOR EXTERIOR WALLS.



EXISTING RIGHT ELEVATION 1

SCALE 1/4" = 1'-0"



PROPOSED RIGHT ELEVATION 2

SCALE 1/4" = 1'-0"

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SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-6.2

ELEVATION NOTES:

1. NO SCOPE OF WORK FOR EXTERIOR WALLS.



EXISTING REAR ELEVATION 1

SCALE 1/4" = 1'-0"



PROPOSED REAR ELEVATION 2

SCALE 1/4" = 1'-0"

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SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-6.3

ELEVATION NOTES:

1. NO SCOPE OF WORK FOR EXTERIOR WALLS.



EXISTING LEFT ELEVATION 1

SCALE 1/4" = 1'-0"



PROPOSED LEFT ELEVATION 2

SCALE 1/4" = 1'-0"

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SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-6.4

FASTENING SCHEDULE (2022 CBC TABLE 23.04.10.1)			
	ELEMENT / CONNECTION	FASTENERS	LOCATION
	ROOF		
1	BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3–8d	TOENAIL EA. END
	BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2–8d	TOENAIL EA. END
		2–16d	END NAIL
	FLAT BLOCKING TO TOP PLATE	16d @ 6" O.C.	FACE NAIL
2	CEILING JOISTS TO TOP PLATE	3–8d	TOENAIL EA. JOIST
3	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS	3–16d	FACE NAIL
4	CEILING JOISTS ATTACHED TO PARALLEL RAFTER	TABLE 2308.7.3.1	FACE NAIL
5	COLLAR TIE TO RAFTER	3–10d	FACE NAIL
6	RAFTER OR ROOF TRUSS TO TOP PLATE	3–10d	TOENAIL[C]
7	ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS: OR ROOF RAFTER TO 2" RIDGE BEAM	2–16d	END NAIL
		3–10d	TOENAIL
	WALL		
8	STUD TO STUD	16d	24" O.C. FACENAIL
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS	16d	16" O.C. FACENAIL
10	BUILT–UP HEADER	16d	16" O.C. EA. EDGE, FACENAIL
11	CONTINUOUS HEADER TO STUD	4–8d	TOENAIL
12	TOP PLATE TO TOP PLATE	16d	16" O.C. FACE NAIL
13	TOP PLATE TO TOP PLATE, AT END JOINTS	8–16d	EA. SIDE OF END JOINT, FACE NAIL
14	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING	16d	16" O.C. FACE NAIL
15	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	2–16d	16" O.C. FACE NAIL
16	STUD TO TOP OR BOTTOM PLATE	4–8d	TOENAIL
		2–16d	END NAIL
17	TOP OR BOTTOM PLATE TO STUD	2–16d	FACE NAIL
18	TOP PLATES , LAPS AT CORNERS AND INTERSECTIONS	2–16d	FACE NAIL
19	1" BRACE TO EACH STUD AND PLATE	2–8d	FACE NAIL
20	1"x6' SHEATHING TO EACH BEARING	2–8d	FACE NAIL
21	1"8" AND WIDER SHEATHING TO EACH BEARING	3–8d	FACE NAIL
	FLOOR		
22	JOIST TO SILL, TOP PLATE, OR GIRDER	3–8d	TOENAIL
23	RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d	6" O.C. TOENAIL
24	1"x6" SUBFLOOR OR LESS TO EACH JOIST	2–8d	FACE NAIL
25	2" SUBFLOOR TO JOIST OR GIRDER	2–16d	FACE NAIL
26	2" PLANK	2–16d	EA. BEARING, FACE NAIL
27	BUILT UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d	32" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3–16d	EA. JOIST OR RAFTER, FACE NAIL
29	JOIST TO BAND JOIST OR RIM JOIST	3–16d	END NAIL
30	BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2–8d	EA. END TOENAIL
	WOOD STRUCTURAL PANS, SUB FLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING[A]		
31	⅜" – ½"	6d	6" EDGE 12" INTERMEDIATE SUPPORTS
32	19/32" – ¾"	8d	
33	⅞" – 1¼"	10d	
	OTHER EXTERIOR WALL SHEATHING		
34	½" FIBERBOARD SHEATHING	1 ½" GALVANIZED ROOF NAIL	3" EDGE 6" INTERMEDIATE SUPPORTS
35	25/32" FIBERBOARD SHEATHING	1 ¾" GALVANIZED ROOF NAIL	
	WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING		
36	¾" AND LESS	8d	6" EDGE 12" INTERMEDIATE SUPPORTS
37	⅞" – 1"	8d	
38	1 ⅛" – 1 ¼"	10d	
	PANEL SIDING TO FRAMING		
39	½" OR LESS		6" EDGE 12" INTERMEDIATE SUPPORTS
40	⅝"		
	INTERSIOR PANELING		
41	¼"		6" EDGE 12" INTERMEDIATE SUPPORTS
42	⅜"		

A. NAILS SPACED AT 6" AT INTERMEDIATE SUPPORTS WHERE SPANS ARE 48" OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. BAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
B. SPACING SHALL BE 6 " ON CENTER ON THE EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS. PANELS SUPPORTS AT 16" (20" IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
C. WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE, THE NUMBER OF TOENAILS IN THE RAFTERS SHALL BE PERMITTED TO BE REDUCED BY ON NAIL.
D. FASTENERS FOR PRESERVATIVE–TREATED OR FIRE–RETARDANT–TREATED WOOD SHALL BE OF HOT DIPPED ZINC–COATED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A153
*** SEE TABLE 2304.10.1 FOR MORE INFORMATION.

ABBREVIATIONS

AB ANCHOR BOLT
ABV ABOVE
ADDL ADDITIONAL
ALT ALTERNATE
APA AMERICAN PLYWOOD ASSOCIATION
ARCH ARCHITECTURAL
AWPA AMERICAN WOOD PRESERVERS ASSOCIATION
B BOTTOM
BEL BELOW
BLKG BLOCKING
BM BEAM
BN BOUNDARY NAIL
BRG BEARING
BTWN BETWEEN
BOT BOTTOM
CBC CALIFORNIA BUILDING CODE
CIP CAST–IN–PLACE
CJ CONSTRUCTION JOINT
CL CENTER LINE
CLR CLEAR
COL COLUMN
COLL COLLECTOR
CONC CONCRETE
CONN CONNECTION
CONST CONSTRUCTION
CONT CONTINUOUS
DBL DOUBLE
DEMO DEMOLISH
DF DOUGLAS FIR/LARCH
DP DEEP
DIA DIAMETER
DIM DIMENSION
DIR. DIRECTION
DO DITTO (REPEAT)
DWG DRAWING
DWL DOWEL
(E) EXISTING
EA EACH
EF EACH FACE
EL ELEVATION
ELEC ELECTRICAL
ELEV ELEVATION
EMBED EMBEDMENT
EN EDGE NAIL
EQ EQUAL OR EQUIVALENT
ES EACH SIDE
E.W. EACH WAY
EXT EXTERIOR
FDN FOUNDATION
FF FINISHED FLOOR
FJ FLOOR JOIST
FOC FACE OF CONCRETE
FOM FACE OF MASONRY
FOS FACE OF STUD
FRM FRAMING
FRT FIRE–RETARDANT TREATED
FS FAR SIDE
FTG FOOTING
GA GAUGE
GALV GALVANIZED
GLB GLUED LAMINATED BEAM
GR GRADE
GYP GYPSUM
H HORIZONTAL
HDR HEADER
H.D.G. HOT DIP GALVANIZED
HDG HOT DIP GALVANIZED
HGR HANGER
HGT HEIGHT
HORIZ HORIZONTAL
ID INSIDE DIAMETER
IF INSIDE FACE
I JST I–JOIST
INT INTERIOR
JST JOIST
JT JOINT
LDGR LEDGER
LTWT LIGHT WEIGHT
MATL MATERIAL
MAX MAXIMUM
MB MACHINE BOLT
MECH MECHANICAL
MFR MANUFACTURER
MIN MINIMUM
MISC MISCELLANEOUS
MTL METAL
NIC NOT INCONTRACT
NS NEAR SIDE
NTS NOT TO SCALE
O.C. ON CENTER
OD OUTSIDE DIAMETER
OF OUTSIDE FACE
OPNG OPENING
OPP OPPOSITE
ORIG ORIGINAL
OSB ORIENTED STRAND BOARD
PL PLATE
PLYWD PLYWOOD
PSL PARALLEL STRAND LUMBER
PT PRESERVATIVE TREATED
PW PLATE WASHER
R RADIUS
REF REFERENCE
REINF REINFORCEMENT
REQD REQUIRED
RF ROOF
RFT RAFTERS
S.A.D. SEE ARCHITECTURAL DWGS
SCHED SCHEDULE
SECT SECTION
SIM SIMILAR
S.O.G. SLAB ON GRADE
SN SHEAR NAIL
SPEC SPECIFICATION
SQ SQUARE
STD STANDARD
STGR STAGGER
STIFF STIFFENERS
STR STRUCTURAL
STR–I STRUCTURAL I
T TOP
T&B TOP & BOTTOM
THK THICKNESS/THICK
THR THREADED
TN TOENAIL
TOP TOP OF PARAPET
TOW TOP OF WALL
TYP TYPICAL
UON UNLESS OTHERWISE NOTED
VERT VERTICAL
VSH VERTICAL SLOTTED HOLES
WD WOOD
WP WATERPROOF OR WORK POINT
WT WEIGHT
WWF WELDED WIRE FABRIC
w/ WITH
w/o WITHOUT

SHEET INDEX

SHEET NO.	SHEET TITLE
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ENGINEERING OBSERVATION

STR'L	REINFORCEMENT PLACEMENT
STR'L	SEISMIC & WIND RESIST ELEMENTS
STR'L	FINAL FRAMING

SPECIAL INSPECTION

*SEE APPROVED SPECIAL INSPECTION FORM

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LICENSED PROFESSIONAL ENGINEER
JIU YAN
C 90749
Signed: 8/3/2024
CIVIL
STATE OF CALIFORNIA

CONDITION OF ISSUANCE:

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PERMIT SET	07/31/24
REVISION	DATE
DATE:	07/31/2024
JOB NO.:	24-0031
SCALE:	PER PLAN

S0.1

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GENERAL

1. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE STANDARD STRUCTURAL NOTES. DETAILS NOTED AS "TYPICAL" SHALL BE USED WHENEVER APPLICABLE. REFER TO SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE NOTES OR DRAWINGS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK, AND THE ENGINEER/ ARCHITECT SHALL BE IMMEDIATELY NOTIFIED, IN WRITING OF ANY DISCREPANCIES. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE STRUCTURAL DRAWINGS.
3. ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE STRUCTURAL DRAWINGS AND /OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF, AND RESOLVED WITH, THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
4. WHERE A CONSTRUCTION DETAIL IS NOT SPECIFICALLY SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
5. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED, BEFORE BEGINNING EXCAVATION.
6. NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN OR THRU SLABS, BEAMS, OR WALLS, NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. EXCEPT AS INDICATED ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY PIPES, DUCTS, ETC.
7. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE CBC 2022.
8. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
9. RETAIN A CALIFORNIA REGISTERED CIVIL ENGINEER TO DESIGN ALL TEMPORARY BRACING, SHORING, AND SUPPORT REQUIRED DURING CONSTRUCTION.
10. INCLUDE ENGINEERING FEES, ENGINEERING DESIGN TIME AND BUILDING DEPARTMENT APPROVAL TIME IN THE COST OF PROPOSED MATERIAL ALTERNATES. CONTACT ENGINEER FOR FEE AMOUNT. SUBMIT MATERIAL ALTERNATE FOR REVIEW BEFORE CONSTRUCTION.

DESIGN CRITERIA

1. VERTICAL LOADS :

   A. DEAD LOADS:
   - ROOF..... 15 PSF
   - FLOOR..... 15 PSF
   - WALL (1ST–EXTERIOR)..... 48 PSF
   - WALL (2ND–EXTERIOR)..... 16 PSF
   - WALL (INTERIOR)..... 10 PSF

   B. LIVE LOADS:
   - ROOF..... 20 PSF
   - FLOOR..... 40 PSF

2. LATERAL LOADS:

   A. EARTHQUAKE DESIGN DATA:

   RESPONCE MODIFICATION FACTOR (R) = 6.5
   (LIGHT–FRAME WOOD WALL w/STRUCTURAL PANEL)

   V=0.376W (ASD) (INCLUDES rho=1.3)

   SEISMIC IMPORTANCE FACTOR.....= I
   OCCUPANCY CATEGORY.....= II
   MAPPED REFERENCE RESPONSE ACCEL...
   S_s = 2.348
   S_1 = 0.847
   SITE CLASS .....= D (DEFAULT)
   SPECTRAL RESPONSE COEFF.....
   S_{DS} = 1.878
   S_{D1} = 0.960
   SEISMIC DESIGN CATEGORY.....= E
   SEISMIC RESPONSE COEFF .....= 0.289
   ANALYSIS PROCEDURE :
   EQUIVALENT LATERAL FORCE PROCEDURE

   B. WIND DESIGN DATA:

   BASIC WIND SPEED.....= 92 MPH
   SITE EXPOSURE.....= B
   I.....= 1.00
   Kzt.....= 1.00
   DESIGN WIND PRESSURE (p30).....= 16 PSF (MAX)

FOUNDATION

SOIL INFORMATION:

1. SOIL DESIGN PRESSURES:
   CBC 2022 – TABLE 1806.2 – PRESUMPTIVE LOADBEARING VALUE

ALLOWABLE BEARING PRESSURES:	1,500 PSF (1/3 INCREASE FOR WIND OR SEISMIC)
COEFFICIENT OF SLIDING FRICTION	0.25
ACTIVE PRESSURE	45 PCF
PASSIVE PRESSURE	100 PCF

2. BOTTOM OF THE FOOTING SHALL BE AT LEAST 24 INCHES BELOW LOWEST ADJACENT FINISHED GRADE OR UNDISTURBED NATURAL DIRT, WHICHEVER IS LOWER.
3. REFER TO AND CHECK WITH ARCHITECTURAL DRAWINGS FOR VARIOUS FLOOR SLOPES, DROPPED SLABS, DEPRESSIONS CURBS, STEPS, WALKS, DRAINS, DEPRESSED FLOOR, ETC. & DIMENSIONS NOT SHOWN.
4. NO CONCRETE SHALL BE POURED IN ANY FOUNDATION UNTIL EXCAVATION HAS BEEN INSPECTED, EXCAVATION SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER.
5. ALL SLEEVES THROUGH FOUNDATION WALLS AND UNDER FOOTING TO BE INSTALLED PRIOR TO FOUNDATION POUR
6. NO SLEEVING OF ANY GRADE BEAM WILL BE PERMITTED UNLESS SHOWN ON STRUCTURAL DRAWINGS APPROVED BY THE ENGINEER.
7. THE ENGINEER HAS NO CONTROL OR RESPONSIBILITY FOR THE DESIGN OF TEMPORARY SHORING, SCAFFOLDING, FORMING, UNDERPINNING, ETC., NOT DETAILED ON THESE PLANS.
8. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE (OR GROUT) HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM MATERIAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS, AND INSTALLATION OF SUCH BRACING.
9. FOUNDATION CONTRACTOR SHALL VERIFY AND PROVIDE CROSS VENTILATION THROUGH ALL PORTIONS OF CRAWL SPACE FOR PROPER AIR FLOW.
10. CONTRACTOR SHALL COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER, PRIOR TO FABRICATION OR ERECTION, WHEN DISCREPANCIES ARE FOUND.

REINFORCED CONCRETE

1. CEMENT SHALL CONFORM ASTM C150, TYPE II.
2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
3. CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS: (4" MAX SLUMP FOR FLATWORK)
4. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C1017 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT.
5. NO CONDUIT PLACED IN CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN ⅓ THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBED. IN A SLAB THAT IS LESS THAN 3½" THICK. EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE THREE DIAMETERS ON CENTER. (EXCEPT IF THE CONDUIT IS PASSING THROUGH).
6. PROJECTING CORNERS OF SLAB , BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH ¾" CHAMFERS.
7. REFER TO DRAWINGS OF OTHER DISCIPLINES FOR MOLDS, GROOVES, CLIPS, ORNAMENTS OR GROUNDS REQUIRED TO BE CAST INTO CONCRETE.

REINFORCED STEEL

1. NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOOTING STEEL OFF THE GROUND. PRECAST CONCRETE DOBIES ARE APPROVED.
2. BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
3. BAR REINFORCEMENT THAT IS TO BE WELDED SHALL BE ASTM A706, GRADE 60. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4–05 AND CBC STANDARD 19–1. E70XX ELECTRODES SHALL BE USED. SPECIAL INSPECTION IS REQUIRED FOR ALL FIELD WELDING.
4. SPLICES IN REINFORCING STEEL SHALL LAP PER SCHED (D1/S1.0). HORIZONTAL SPLICES SHALL BE STAGGERED. NON–CONTACT SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART ⅙ THE REQUIRED LAP SPLICE LENGTH, OR 6 INCHES.
5. THE CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL BE FOUR BAR DIAMETERS BUT NO LESS THAN 1½" U.N.O. IN WALLS AND SLABS OTHER THAN CONCRETE JOIST CONSTRUCTION, REINFORCEMENT SHALL BE SPACED NOT FARTHER APART THAN THREE TIMES THE WALL OR SLAB THICKNESS, NOR 18".
6. REINFORCING STEEL SHALL HAVE A PROTECTED CONCRETE COVERING AS FOLLOWS, U.N.O.
   WALL STEEL BELOW GRADE:
   - ON DIRT SIDE WHEN POURED AGAINST DIRT = 3"
   - ON DIRT SIDE WHEN FORMED = 2"

   WALL STEEL ABOVE GRADE:
   - IN ALL OTHER CASES = 1–½"

   OTHER ITEMS :
   - FOOTING PADS = 3"
   - SLABS (ON EARTH) = 2"
   - SLABS (HARD ROCK CONCRETE) = 1"
   - JOISTS (SIDES, TOPS & SOFFITS) = 1"
   - COLUMNS (TO MAIN STEEL) = 2"
   - BEAMS/GIRDERS (SIDES, TOPS & SOFFITS) = 2"
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE LAPPED 12" MINIMUM.
8. ALL WALLS SHALL BE DOWELED TO SUPPORTING FOOTINGS, BEAMS, PADS, ETC., WITH BARS THE SAME SIZE AND SPACING AS VERTICAL BARS IN THE WALL UNLESS OTHERWISE DETAILED. ANCHORAGE OF DOWELS SHALL BE EQUIVALENT OF A BAR SPLICE.
9. DOWEL REINFORCED SLABS TO WALLS AND OTHER EDGE MEMBERS PER TYPICAL DETAILS.
10. ALL REINFORCING STEEL IS TO BE PLACED IN RELATIVE POSITION SHOWN ON DRAWINGS. NO SPLICES IN ANY REINFORCING WILL BE PERMITTED EXCEPT THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
11. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTES "MANUAL OF STANDARD PRACTICE", LATEST EDITION.
12. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION WITH WIRE POSITIONERS BEFORE PLACING CONCRETE OR GROUT. VERTICAL BARS IN MASONRY WALLS SHALL BE TIED IN POSITION AT THE TOP AND BOTTOM AND INTERVALS NOT EXCEEDING 200 x BAR DIAMETERS.

STRUCTURAL WOOD

1. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR–LARCH GRADE MARKED BY A RECOGNIZED GRADING AGENCY (WCLIB & WWPA)
   - JOISTS & PLANKS: NO.1
   - BEAMS & STRINGERS: NO.1
   - POST & TIMBERS: NO.1
   - GLUED LAMINATED TIMBERS: COMBINATION 24F–V8
   - PARALLAM, PSL: 2.2E (2900Fb)
   - VERTICAL STUDS:
   - 2X4 STUDS, 8'–0" LONG: NO.1
   - 2X4 STUDS, 8'–1"TO 14"–0" LONG: NO.1
   - 2X6 STUDS: NO.1
   - ALL OTHER LUMBER: NO. 1 STRUCTURAL LIGHT FRAMING
2. ALL SILL PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH EARTH OR RESTING ON FOUNDATIONS SHALL BE PRESSURE TREATED DOUGLAS FIR (P.T.D.F.). ALL FASTENERS SUCH AS NAILS, BOLTS, SCREWS, ANCHOR BOLTS, ETC. ATTACHING P.T.D.F. OR FIRE–RETARDANT TREATED WOOD SHALL BE HOT–DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL (ASTM A153).
3. NEW MUDSILLS SHALL BE MINIMUM 3x PRESSURE TREATED w/ ⅝"ø ANCHOR BOLTS w/ 8" MIN. EMBED. IN CONCRETE @ 4'–0" MAX. SPACING w/ 3"x3"x.229" THK PLATE WASHERS. PROVIDE MINIMUM TWO BLTS PER MUDSILL EACH ONE NOT MORE THAN 12" OR LESS THAN 1 BOLT DIAMETERS FROM END.
4. ANCHOR BOLT SPACING @ SHEAR WALL PER SHEAR WALL SCHEDULE.
5. WHERE STUD PARTITIONS JOIN CONCRETE OR MASONRY WALLS THE END STUD SHALL BE ANCHORED THERE TO WITH ½" BOLTS NEAR THE TOP & BOTTOM AND AT EACH ROW OF FIRE BLOCKING. SUCH BOLTS SHALL BE EMBEDDED IN THE WALL NOT LESS THAN ⅔ OF THE WALL THICKNESS OR 8" MAX.
6. CUTTING, NOTCHING, OR BORING OF STUDS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY ENGINEER AND/OR PER 2018 NDS. SEE ALSO DETAIL 7/S1.3.
7. ALL NAILING SHALL CONFORM TO CBC TABLE 2304.10.1, AND SHALL BE COMMON NAILS, UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.
8. ALL BOLT HEADS AND NUTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS. HOLES FOR BOLTS SHALL BE BORED 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. BOLTS IN WOOD SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER.
9. TOP PLATES OF ALL WOOD STUD WALLS TO BE (2) 2x MINIMUM (SAME WIDTH AS STUDS), LAP 48" MIN. WITH NOT LESS THAN (6) 16d NAILS AT EACH LAP AND NOT MORE THAN 12" BETWEEN NAILS.
10. PLYWOOD SHALL BE APA RATED STRL SHEATHING WITH EXTERIOR GLUE.
11. PROVIDE DOUBLED JOISTS UNDER ALL PARALLEL PARTITIONS. SEE DETAIL 2/S1.3.
12. ALL LAG SCREWS TO BE PREDRILLED, DRILL DIAMETER TO BE 60 PERCENT OF SHANK DIAMETER.
13. RE–TIGHTEN ALL ANCHOR BOLTS JUST BEFORE CLOSING IN.
14. ALL FRAMING ANCHORS, POST CAPS, BASES, HANGERS, STRAPS, ETC. SHALL BE AS MANUFACTURED BY "SIMPSON COMPANY" OR ENGINEER APROVED EQUALS.
15. PROVIDE BLOCKING OR BRIDGING PER 2018 NDS SECTION 4.4.1.
16. MOISTURE CONTENT OF WOOD AT TIME OF PLACING SHALL NOT EXCEED 19 PERCENT.
17. MACHINE BOLTS AND ANCHOR BOLTS SHALL BE GRADE–A CONFORMING TO ASTM A307. NUTS FOR MACHINE BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A563, HEX GRADE–A. THREADED RODS SHALL CONFORM TO ASTM A36. ROUND WASHERS SHALL CONFORM TO ASTM F436 AND SQUARE PLATE WASHERS SHALL CONFORM TO ASTM A36.

STRUCTURAL STEEL

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF CBC CHAPTER 22, DIVISION 9 FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
2. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. OTHER ROLLED SHAPES AND PLATES SHALL CONFORM TO A36, U.N.O. TUBES SHALL CONFORM TO ASTM A500, GRADE–B. PIPES SHALL CONFORM TO ASTM A53, GRADE–B. IDENTIFICATION PROCEDURES SHALL CONFORM TO ASTM A46.
3. MACHINE BOLTS AND ANCHOR BOLTS SHALL BE GRADE–A CONFORMING TO ASTM A307. NUTS FOR MACHINE BOLTS SHALL CONFORM TO ASTM A563, HEX GRADE–A.
4. HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A325. NUTS FOR HIGH STRENGTH BOLTS SHALL BE HEAVY HEX, GARDE–C, CONFORMING TO ASTM A563. INSTALLATION OF HIGH STRENGTH BOLTS SHALL BE INSPECTED AS REQUIRED BY "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
5. ALL BOLT HOLES SHALL BE 1/16" LARGER THAN THE BOLT, U.N.O.
6. HEADED STUDS EMBEDDED IN CONCRETE SHALL CONFORM TO ASTM A108.
7. NON–SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 7000 PSI PER ASTM C109. NON–SHRINK GROUT SHALL BE INSTALLED IMMEDIATELY AFTER COLUMN IN PLUMBED. CONTRACTOR SHALL NOT LOAD COLUMN ANCHOR BOLTS BEFORE PLACEMENT OF NON–SHRINK GROUT WITHOUT TAKING MEASURES TO PREVENT BUCKLING OF ANCHOR BOLTS UNDER CONSTRUCTION LOAD.
8. WELDING SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 AND SHALL USE EITHER THE SHIELDED OR FLUX CORE METHOD. ELECTRODES USED SHALL BE E70XX, E71–T8 OR E70–T6. WELDERS SHALL BE CERTIFIED. FIELD WELDING TO BE DONE BY WELDERS MUST BE CERTIFIED BY THE LA CITY BLDG. DEPT. CONTINUOUS INSPECTIONS BY A DEPUTY INSPECTOR IS REQUIRED.
9. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION NEED NOT HAVE CONTINUOUS SPECIAL INSPECTION WHEN THE WELDING IS DONE IN AN APPROVED FABRICATOR'S SHOP. HOWEVER, THE APPROVED FABRICATOR MUST SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH CBC SECTION 1701.7.
10. ALL STRUCTURAL STEEL EXPOSE TO WEATHER SHALL BE HOT DIP GALVANIZED AND ALL FIELD WELDS FOR SUCH MEMBERS SHALL BE TOUCHED UP WITH GALVALOID.
11. STEEL FABRICATOR TO VERIFY ALL DIMENSIONS WITH ARCHITECHRAL AND STRUCTURAL DRAWINGS. STEEL FABRICATOR TO COORDINATE WITH MECHANICAL SUBCONTRACTOR FOR THE SIZE, LOCATION AND DIMENSIONS OF MECHANICAL UNITS AND OPENINGS.
12. ALL FABRICATION SHALL BE DONE IN SHOP OF AN LOCAL JURISDICATION'S BLDG. DEPT. APPROVED FABRICATOR. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER BEFORE FABRICATION.
13. ANCHOR BOLTS AND MACHINE BOLTS SHALL BE GRADE–A, CONFORMING TO ASTM A307. NUTS FOR MACHINE BOLTS SHALL CONFORM TO ASTM A563, THREADED RODS SHALL CONFORM TO ASTM A36.

SPECIAL INSPECTION

1. SPECIAL INSPECTION SHALL MEET THE REQUIREMENTS OF CBC SECTION 1704.
2. SPECIAL INSPECTOR SHALL:
   A. BE UNDER THE SUPERVISION OF CALIFORNIA REGISTERED CIVIL ENGINEER.
   B. OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
   C. FURNISH INSPECTION REPORTS TO THE ENGINEER AND BUILDING DEPARTMENT. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN IF NOT CORRECTED, TO THE ENGINEER AND BUILDING DEPARTMENT.
   D. SUBMIT TO THE ENGINEER AND BUILDING DEPARTMENT A FINAL REPORT, SIGNED BY A CALIFORNIA REGISTERED CIVIL ENGINEER, STATING THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CBC.

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Signed: 8/3/2024
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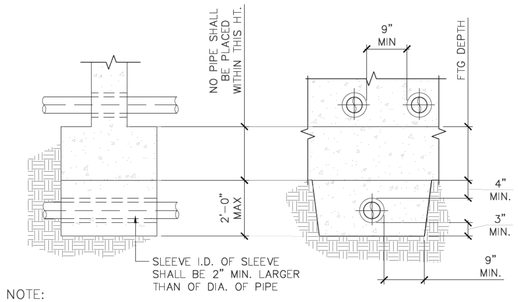
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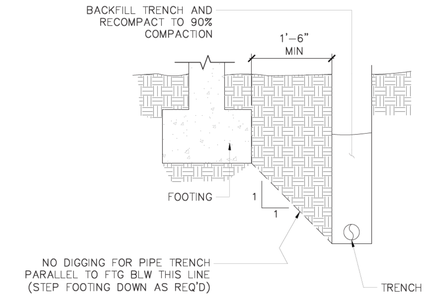
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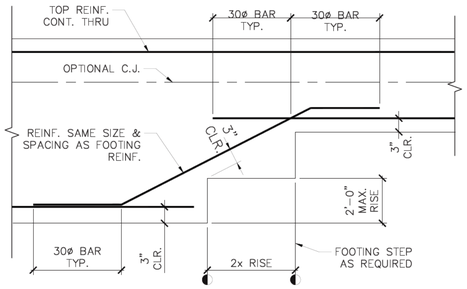
NOTE:

1. WHERE PIPES ARE MORE THAN 2'-0" BELOW BOTTOM OF FOOTING, STEP DOWN PER TYPICAL FOOTING STEP DETAIL (DETAIL 8/-).
2. PLACE LEAN CONCRETE FILL AROUND SLEEVES BEFORE POURING FOOTINGS AND/OR PADS. FILL SHALL BE THE SAME WIDTH AS FOOTING AND FULL DEPTH OF PIPE TRENCH.
3. THIS DETAIL APPLIES ALL CONT. FOOTINGS AND PAD FOOTING



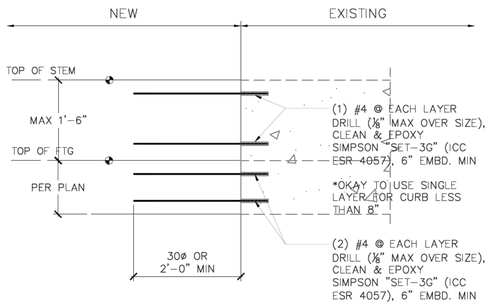
7 TYP. CONT. FTG/PAD FTG @ PIPE/CONDUIT

Scale: NTS



8 TYP. FOOTING STEP

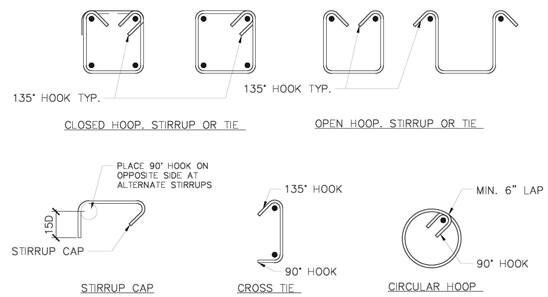
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NOTE: REBAR IN FTG NOT SHOWN FOR CLARITY

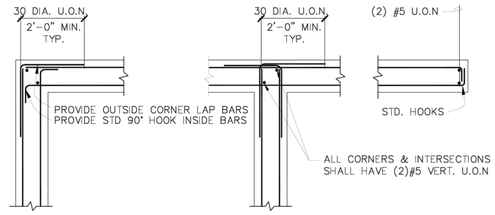
9 DOWEL BTW (E) & (N) CONC. FTG

Scale: NTS



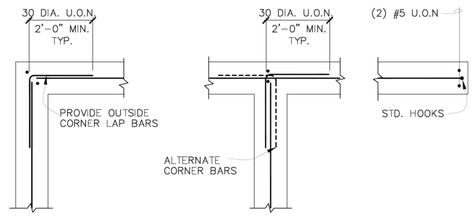
3 TYP. REINFORCING BAR BENDS

Scale: NTS



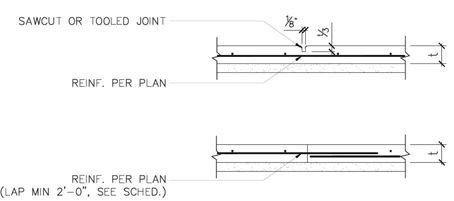
4 TYP. CONC. INTERSECTION (DOUBLE LAYER)

Scale: NTS



5 TYP. CONC. INTERSECTION (SINGLE LAYER)

Scale: NTS

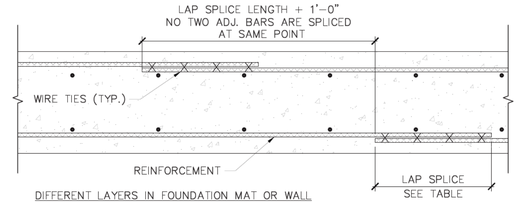


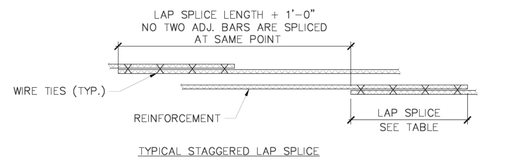
NOTES:

1. JOINT SPACING SHALL NOT EXCEED 24 TIMES THE SLAB THICKNESS IN BOTH DIRECTIONS. PANELS BOUNDED BY SAWCUTS SHALL BE AS CLOSE TO SQUARE AS POSSIBLE, WITH A 1½ :1 MAXIMUM ASPECT RATIO.
2. CURING COMPOUND SHALL BE APPLIED IN TWO COATS IN OPPOSITE DIRECTIONS WITH AN EXTRA APPLICATION ON ALL SAW CUT JOINTS. COMPOUND TO BE APPLIED WITHIN TWO HOURS OF FINISHING OPERATIONS.
3. UNDERGROUND UTILITIES, PIPING, CONDUIT, ETC. SHALL BE PLACED BELOW THE SAND (IF REQ'D). PIPING AND CONDUITS SHALL NOT BE PLACE IN THE PLANE OF THE SLAB.

6 SLAB JOINTS

Scale: NTS





NOTES:

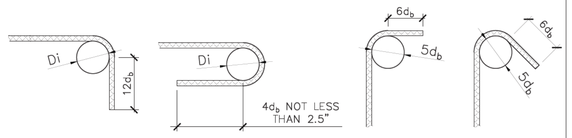
1. ALL VERTICAL REINFORCING FOR COLUMNS, PIERS, AND WALLS SHALL BE DOWELED AS SHOWN EXCEPT SPECIFIC DETAILS ON DRAWINGS SHALL GOVERN IN CASES OF CONFLICT.
2. DOWELS SHALL BE THE SAME GRADE, SIZE AND NUMBER AS VERTICAL REINFORCING.
3. TOP IN THE TABLE BELOW INDICATES REINFORCEMENT HAS MORE THAN 12 INCHES CONCRETE BELOW SPLICE.
4. USE CLASS B U.N.O.
5. WHERE BARS OF DIFFERENT SIZE ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST.
6. WHEN REINFORCEMENTS ARE EPOXY-COATED, ALL VALUES SHALL BE INCREASED BY 50%
7. WHEN LIGHT WEIGHT CONCRETE IS USED, THE VALUES LISTED IN THE TABLE FOR TENSION DEVELOPMENT + LAP SPLICE LENGTHS SHALL BE INCREASE BY 30%

TENSION DEVELOPMENT AND LAP SPLICE LENGTH FOR BARS IN WALL, SLABS AND FOOTINGS (ACI 25.4.2.3.) f'c = 3,000 psi

BAR SIZE	LAP CLASS	CONCRETE COVER 0.75"		CONCRETE COVER 1.50"		CONCRETE COVER 2.00"		CONCRETE COVER 3.00"	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	A	13	12	13	12	13	12	13	12
	B	17	13	17	13	17	13	17	13
#4	A	22	17	17	13	17	13	17	13
	B	28	22	23	17	23	17	23	17
#5	A	32	24	22	17	22	17	22	17
	B	41	32	28	22	28	22	28	22
#6	A	43	33	26	20	26	20	26	20
	B	56	43	34	26	34	26	34	26
#7	A	69	53	43	33	38	29	38	29
	B	90	69	55	43	49	38	49	38
#8	A	86	66	54	41	43	33	43	33
	B	111	86	70	54	56	43	56	43
#9	A	104	80	66	51	53	41	48	37
	B	135	104	86	66	69	53	63	48
#10	A	125	96	81	62	66	51	55	42
	B	162	125	105	81	85	66	71	55
#11	A	146	113	97	74	79	61	61	47
	B	190	146	125	97	102	79	79	61

1 TYPICAL REBAR LAP SPLICE

Scale: NTS



STANDARD HOOKS

STIRRUP / TIES / HOOPS

BAR SIZE	BAR d_b	MIN. INSIDE DIA. OF BEND	180^ HOOK $4d_b$ EXTENSION	STIRRUPS & TIES, $6d_b$ EXTENSION	90^ HOOK, $12d_b$ EXTENSION	EQUIVALENT EMBED. LENGTH $13d_b$
#3	0.375"	2.3"	2.5"	2.5"	4.5"	4.8"
#4	0.5"	3.0"	2.5"	3.0"	6.0"	6.5"
#5	0.625"	3.8"	2.5"	3.8"	7.5"	8.1"
#6	0.75"	4.5"	3."	NP	9.0"	9.7"
#7	0.875"	5.3"	3.5"	NP	10.5"	11.3"
#8	1.0"	6.0"	4.0"	NP	12.0"	13.0"
#9	1.128"	9.0"	4.5"	NP	13.5"	14.6"
#10	1.27"	10.2"	5.1"	NP	15.2"	16.5"
#11	1.41"	11.3"	5.6"	NP	16.9"	18.3"

2 TYP. STANDARD HOOKS / TIES

Scale: NTS

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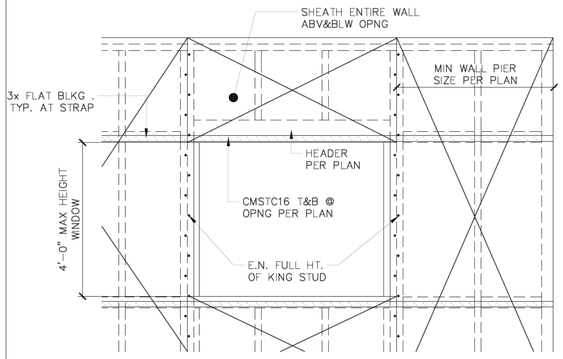
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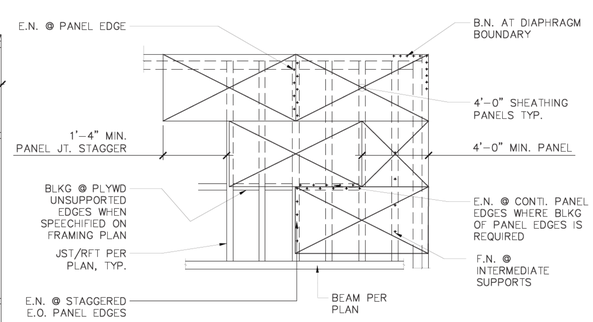
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FORCE TRANSFER AROUND OPENING (FTAO) APPLIES WHERE OCCURES ON THE PLAN

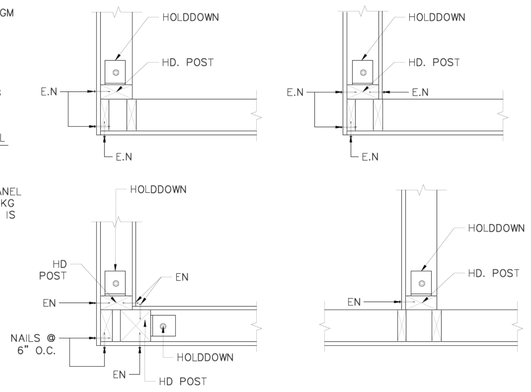
4 X'-Y" (FTAO)

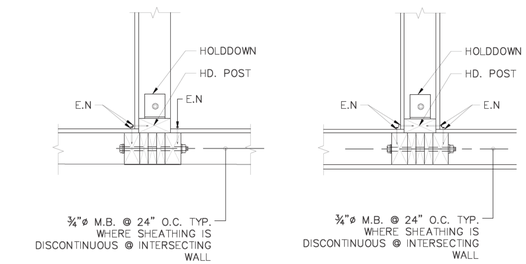
FTAO SHEAR WALL NOTE:
1. INSTALL STRAP OVER SHEATHING.
2. E.N. ON TOP PLATES NOT SHOWN FOR CLARITY
3. REFER TO DETAIL 6 FOR MORE INFO.



5 TYP FLOOR/ROOF DIAPHRAGM ASSEMBLY

Scale: NTS

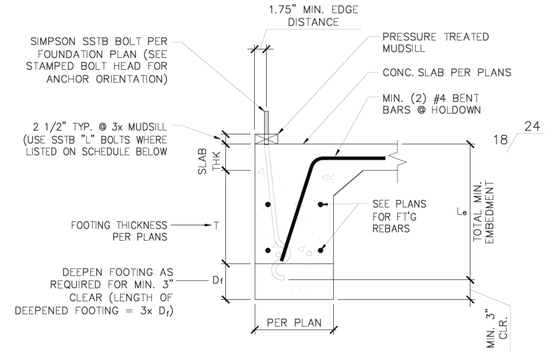


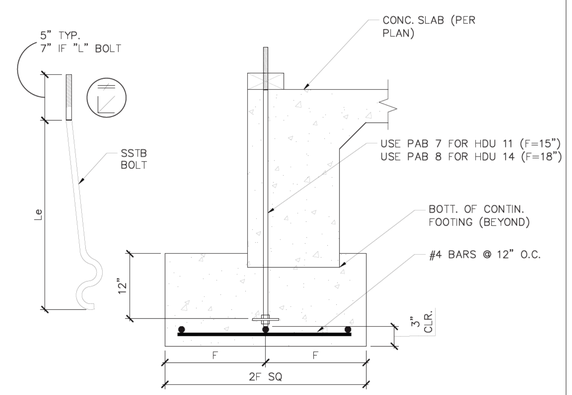


WHERE TWO SHEARWALLS w/ DIFFERENT E.N. INTERSECT THIS E.N. SHALL BE AT THE CLOSED SPACING OF THE TWO EDGE NAIL REQUIRMENTS

2 TYP. SHEARWALL INTERSECTIONS

Scale: NTS





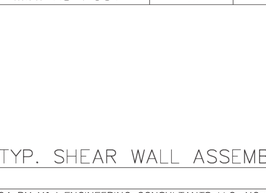
EXT. FOOTING @ HDU11 & HDU14

NOTES:
- AT RAISED WOOD FLOOR CONDITION EXTEND CONTINUOUS POST TO MUDSILL.
- REFER TO THE SCHEDULE BELOW FOR TYP. HOLD DOWN REQUIREMENTS
- A HORIZONTAL COLDJOINT IS NOT ALLOWED WITHIN THE ANCHOR'S REQUIRED MIN EMBED. DEPTH UNO

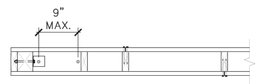
		MONO POUR		TWO POUR		GARAGE MONO POUR		GARAGE TWO POUR	
MARK	SIMPSON HOLDOWN	BOLT	MIN. Le	BOLT	MIN Le	BOLT	MIN. Le	BOLT	MIN Le
H2	HDU 2	SSTB16L	12⅝	SSTB20L	16⅝	SB⅝X24	18	SB⅝X24	18
H4	HDU 4	SSTB20L	16⅝	SSTB24L	20⅝	SB⅝X24	18	SB⅝X24	18
H5	HDU 5	SSTB24L	20⅝	SSTB24L	24⅝	SB⅝X24	18	SB⅝X24	18
H8	HDU 8	SSTB28L	24⅞	SSTB34L	28⅞	SSTB28L	24⅞	SSTB34L	28⅞
H11/H14	HDU11&14	PAB 8	12	PAB 8	12	PAB 8	12	PAB 8	12

1 TYP. HOLDOWN @ FOUNDATION

Scale: NTS

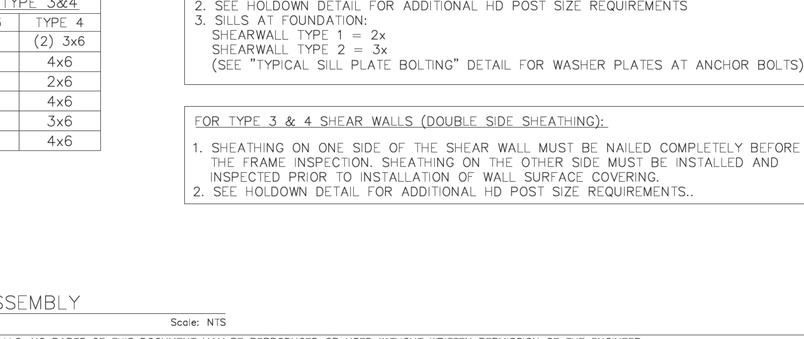


STGR. NAIL'G



STGR. PANEL JT. EA SIDE OF WALL (VERT & HORIZ)

DOUBLE SIDE SHEATHING SHEAR WALL



6 TYP. SHEAR WALL ASSEMBLY

Scale: NTS

SHEARWALL FRAMING FOR TYPE 3&4		
LOCATION	TYPE 3	TYPE 4
MIN. DBL. TOP PL.	(2) 2x	(2) 3x6
MIN. EDGE STUD	3x	4x6
OTHER STUDS MIN.	2x	2x6
MIN. BLKG	3x	4x6
MIN. SILL	3x	3x6
MIN. HD POST	4x	4x6

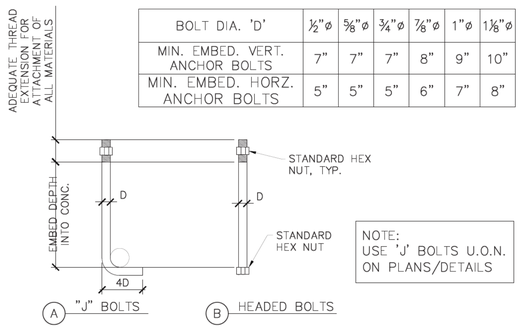
FOR TYPE 1 & 2 SHEAR WALLS (SINGLE SIDE SHEATHING):

1. STUD AND BLOCKING SIZES:
SHEARWALL TYPE 1 = 2x
SHEARWALL TYPE 2 = 3x MIN. AT PANEL EDGES
2x AT OTHER STUDS

2. SEE HOLDOWN DETAIL FOR ADDITIONAL HD POST SIZE REQUIREMENTS
3. SILLS AT FOUNDATION:
SHEARWALL TYPE 1 = 2x
SHEARWALL TYPE 2 = 3x
(SEE "TYPICAL SILL PLATE BOLTING" DETAIL FOR WASHER PLATES AT ANCHOR BOLTS)

FOR TYPE 3 & 4 SHEAR WALLS (DOUBLE SIDE SHEATHING):

1. SHEATHING ON ONE SIDE OF THE SHEAR WALL MUST BE NAILED COMPLETELY BEFORE THE FRAME INSPECTION. SHEATHING ON THE OTHER SIDE MUST BE INSTALLED AND INSPECTED PRIOR TO INSTALLATION OF WALL SURFACE COVERING.
2. SEE HOLDOWN DETAIL FOR ADDITIONAL HD POST SIZE REQUIREMENTS..



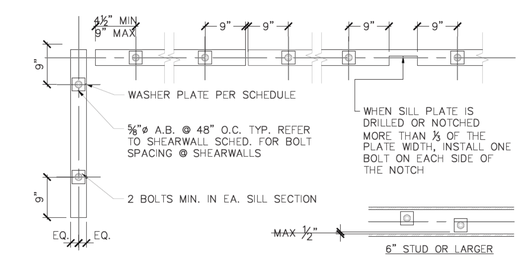
BOLT DIA. 'D'	½"ø	⅝"ø	¾"ø	⅞"ø	1"ø	1⅛"ø
MIN. EMBED. VERT. ANCHOR BOLTS	7"	7"	7"	8"	9"	10"
MIN. EMBED. HORZ. ANCHOR BOLTS	5"	5"	5"	6"	7"	8"

NOTE:
USE 'J' BOLTS U.O.N. ON PLANS/DETAILS

3 TYP. ANCHOR BOLTS

Scale: NTS

BOLT DIA. 'D'	½"ø THRU ⅞"ø	1"ø	1⅛"ø
WASHER SIZE	0.229"x3"x3"	5/16"x3"x3"	⅜"x3"x3"



4 TYP. SILL PLATE DETAIL

Scale: NTS

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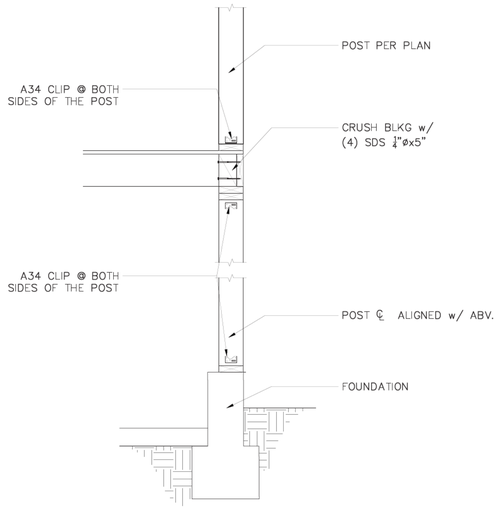
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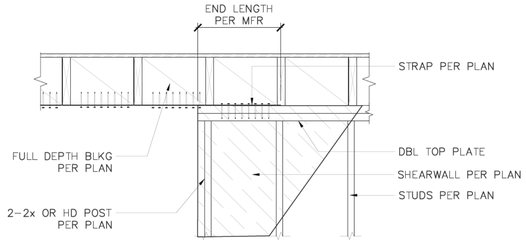
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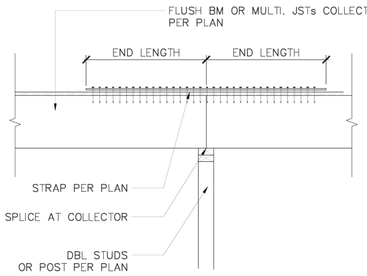
7 TYP. GRAVITY POST LOAD PATH

Scale: NTS



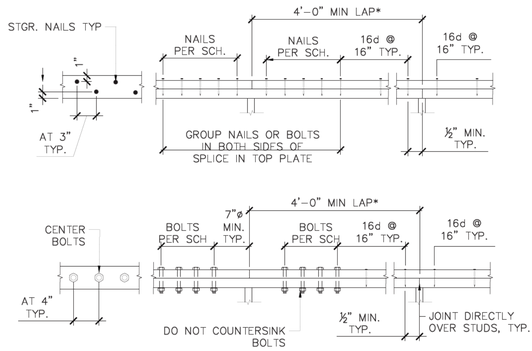
3 TYPICAL DRAG BLKG DETAIL @ OPENING

Scale: NTS



4 TYPICAL COLLECTOR SPLICE

Scale: NTS



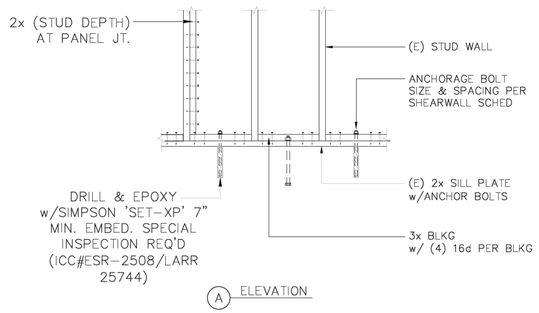
MARK	MIN. PL THK	NAILS	DESIGN LOAD (LB)	MARK	MIN. PL THK	NAILS	DESIGN LOAD (LB)
⑥	2x	(6) 16d	1,250	㉒*	2x	(22) 16d	3,780/4,600
⑧	2x	(8) 16d	1,670	㉔*	2x	(24) 16d	3,780/5,010
⑩	2x	(10) 16d	2,090	B1	2x	(6) ⅝"ø	3,780/5,800
⑫	2x	(12) 16d	2,510	B2	2x	(8) ⅝"ø	3,780/7,590
⑭	2x	(14) 16d	2,920	B3	2x	(8) ¾"ø	3,780/7,590
⑯	2x	(16) 16d	3,340	B4	3x6	(6) ¾"ø	11,600
⑱	2x	(18) 16d	3,760	B5	3x6	(8) ¾"ø	12,650
⑳*	2x	(20) 16d	3,780/4,180				

* INDICATE 6'-0" MIN LAP LENGTH @ SPLICE

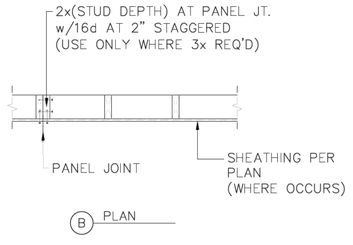
DESIGN LOAD = x4 PLATE/x6 PLATE

1 TOP PLATE SPLICE DESIGN TABLE

Scale: NTS



A ELEVATION

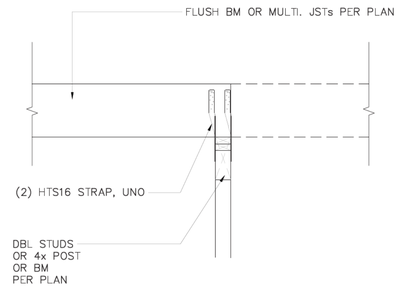


B PLAN

NOTES:
THIS DETAIL TO BE USED ONLY WHERE 3x SILL/BOUNDARY ELEMENT IS REQD. AS INDICATED ON SHEARWALL DETAILS AND SCHEDULE AND DETAIL 6/ S1.2.

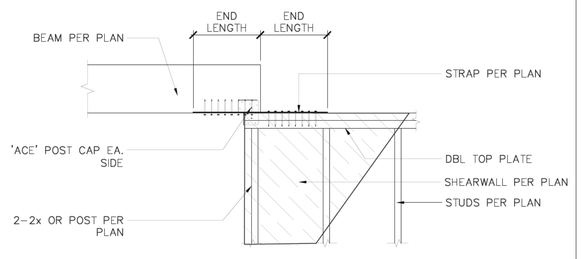
8 TYP. HIGH STRENGHT SW REINFORCE.

Scale: NTS

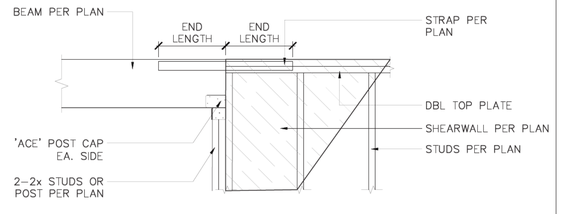


5 BM – POST CONNECTION w/ STRAP

Scale: NTS



A BM ABOVE WALL TOP PLATES



B BM FLUSH w/ WALL TOP PLATES

2 TYPICAL DRAG DETAIL @ OPENING

Scale: NTS

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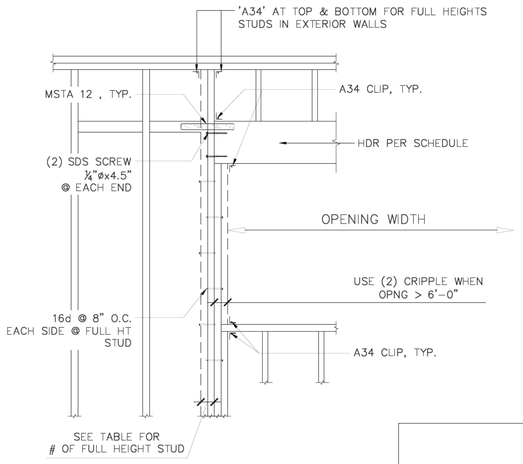
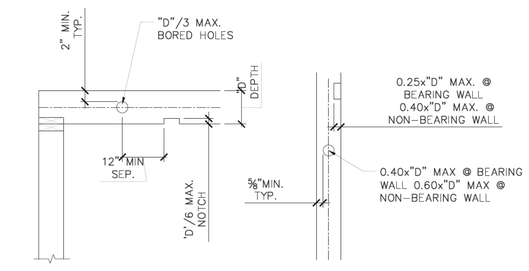


TABLE. # OF FULL HEIGHT STUD			
OPENING WIDTH	EXTERIOR WALLS	INTERIOR BEARING WALL	INTERIOR NON-BEARING WALL
7'-0" OR LESS	2	2	1
7'-1" TO 10'-0"	3	2	1
OVER 10'-0"	4	2	1
NOTE: OMIT FULL-HT STUDS WHERE POST FOR HOLDDOWN ANCHOR OCCURES. SEE PLAN AND TYPICAL HOLDDOWN DETAIL.			

HEADER SCHEDULE					
EXTERIOR WALLS		INTERIOR BEARING WALLS		NON-BEARING WALLS	
OPENING WIDTH	HDR SIZE	OPENING WIDTH	HDR SIZE	OPENING WIDTH	HDR SIZE
6'-0" OR LESS	4x6	6'-0" OR LESS	4x6	8'-0" OR LESS	4x6
6'-1" TO 8'-0"	4x8	6'-1" TO 8'-0"	4x8	8'-1" TO 12'-0"	4x8
8'-1" TO 10'-0"	4x10	8'-1" TO 10'-0"	4x10		
* USE 6x HDR WHEN WALL STUDS ARE 2x6s					

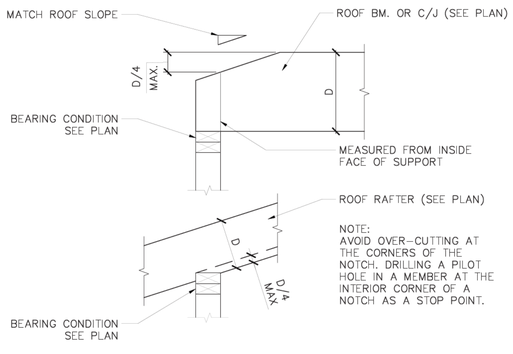
5 TYP. HEADER SCHEDULE

Scale: NTS



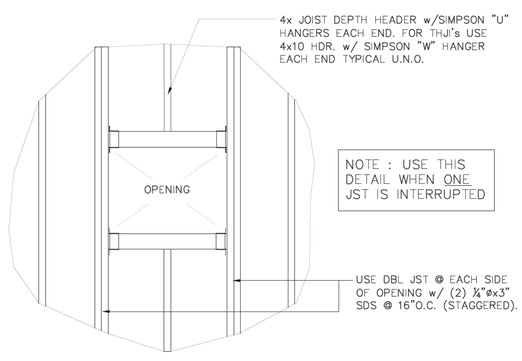
7 TYP. BORING AND NOTCHING DETAIL

Scale: NTS



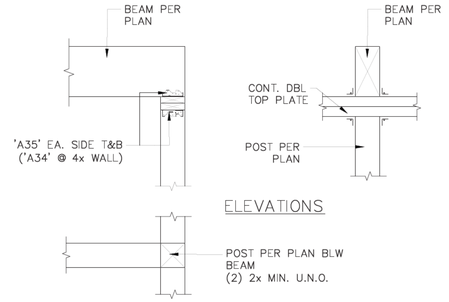
8 TAPER BEAM/RAFTER DETAIL

Scale: NTS

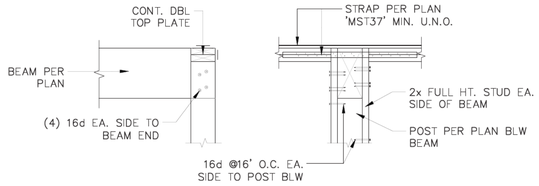


6 TYPICAL ROOF OPEN'G (ONE JST CUT)

Scale: NTS



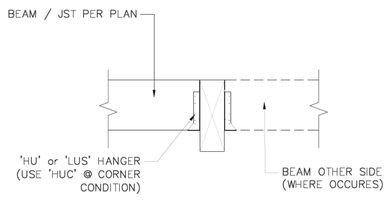
BEAM ON TOP PLATES



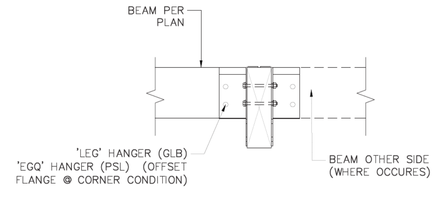
BEAM FLUSH w/TOP PLATES

3 TYP. BEAM SUPPORT @ STUD WALL

Scale: NTS



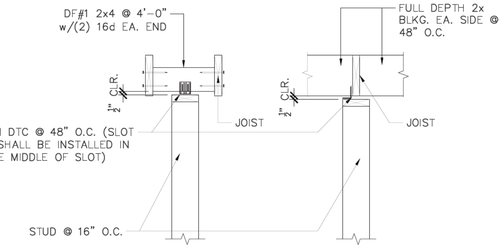
2x/4x OR 6x CONNECTION



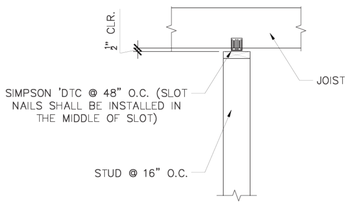
PSL OR GLB CONNECTION

4 TYP. BM/JST TO BEAM CONNECTION

Scale: NTS



PARALLEL TO JOIST

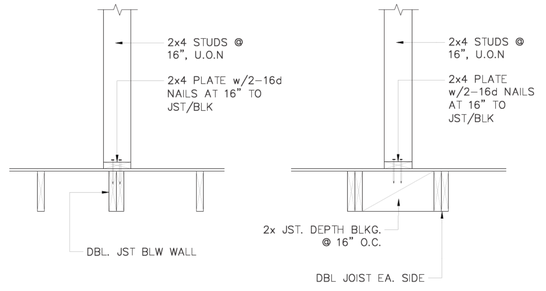


PERPENDICULARL TO JOIST

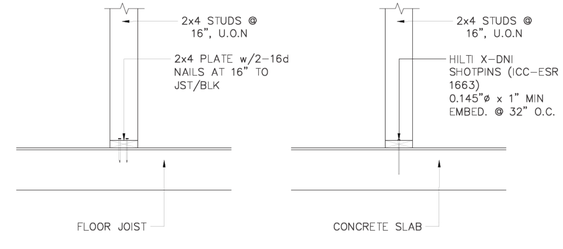
NOTE: DO NOT INSTALL NON-BEARING PARTITIONS UNTIL DEAD LOAD IS IN PLACE. (AT ROOF CONST. AND WHERE A DEFLECTION SPACE HAS BEEN PROVIDED FOR, THIS REQUIREMENT MAY BE WAIVED).

1 TYP. NON-BEARING PARTITIONS TOP CONN.

Scale: NTS



PARALLEL TO JOIST



PERPENDICULARL TO JOIST ON SLAB

2 TYP. NON-BEARING PARTITIONS SILL CONN.

Scale: NTS

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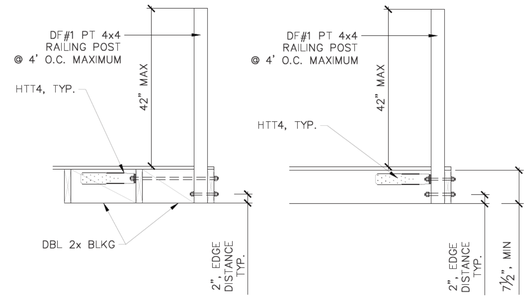
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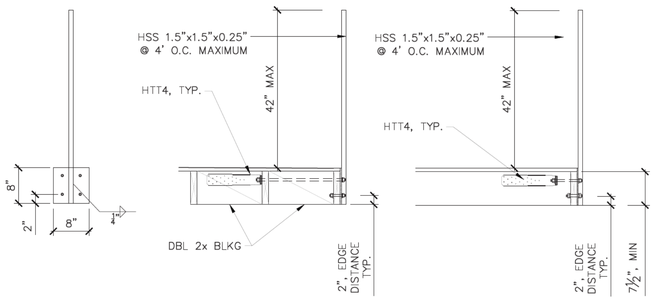
S1.3

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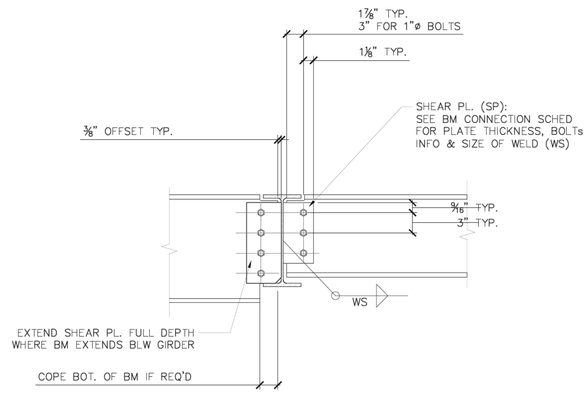
6 TYP. WOOD RAILING DETAIL

Scale: NTS



7 TYP. METAL RAILING DETAIL

Scale: NTS



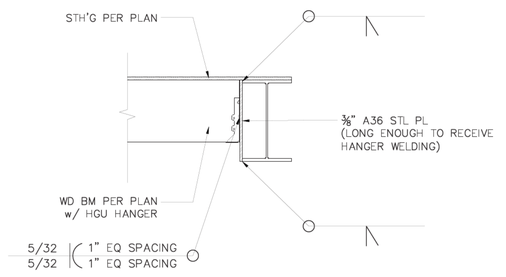
1 TYP. SINGLE PLATE CONNECTION BTW STL BM

Scale: NTS

SINGLE PLATE CONNECTIONS – AISC LRFD 15th EDITION – TABLE 10-10a

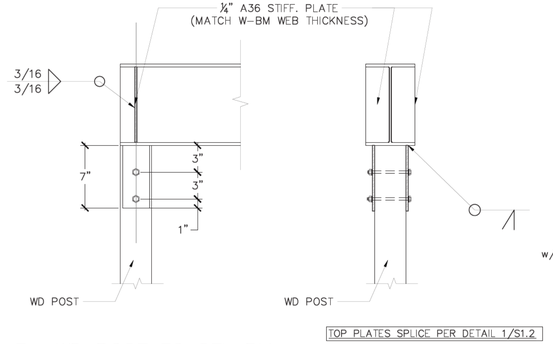
WF BEAMS (Fy=50ksi) C, MC (Fy=36ksi)	A36 "SP" SHEAR >	WELD SIZE "WS" (IN)	A325N BOLTS NO.	A325N BOLTS SIZE	MIN. SHEAR CAPACITY *
C8, C10, MC8, MC10	1/4"	3/16"	2	3/4" DIA.	24.5 KIPS
W8, W10 SERIES	1/4"	3/16"	2	3/4" DIA.	24.5 KIPS
W12, W14, C12, MC12	5/16"	1/4"	3	3/4" DIA.	38.3 KIPS
W14x74 & HEAVIER	3/8"	1/4"	3	7/8" DIA.	39.2 KIPS
W16x57 & LIGHTER	5/16"	1/4"	4	3/4" DIA.	52.2 KIPS
W16x67 & HEAVIER	3/8"	1/4"	4	7/8" DIA.	52.2 KIPS
W18, W21 SERIES	3/8"	1/4"	5	7/8" DIA.	65.3 KIPS
W24, W27 SERIES	7/16"	5/16"	6	7/8" DIA.	78.3 KIPS
W30 & ABOVE U.O.N.	1/2"	3/8"	7	7/8" DIA.	91.4 KIPS

*USE STD HOLES OR SSLT HOLES ONLY



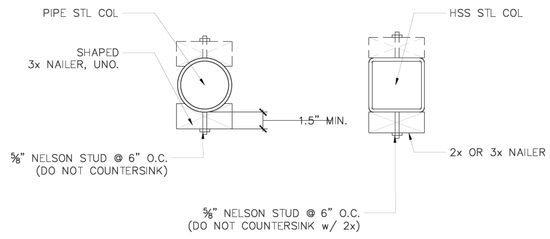
4 WD BM TO STL BM (UPLIFT OCCURS)

Scale: NTS



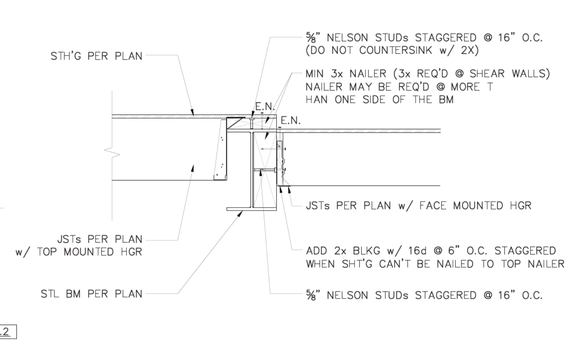
5 WD POST TO STL BM

Scale: NTS



2 TYP. COLUMN NAILER

Scale: NTS



3 TYP. JST TO STL BM SHEAR TRANSFER

Scale: NTS

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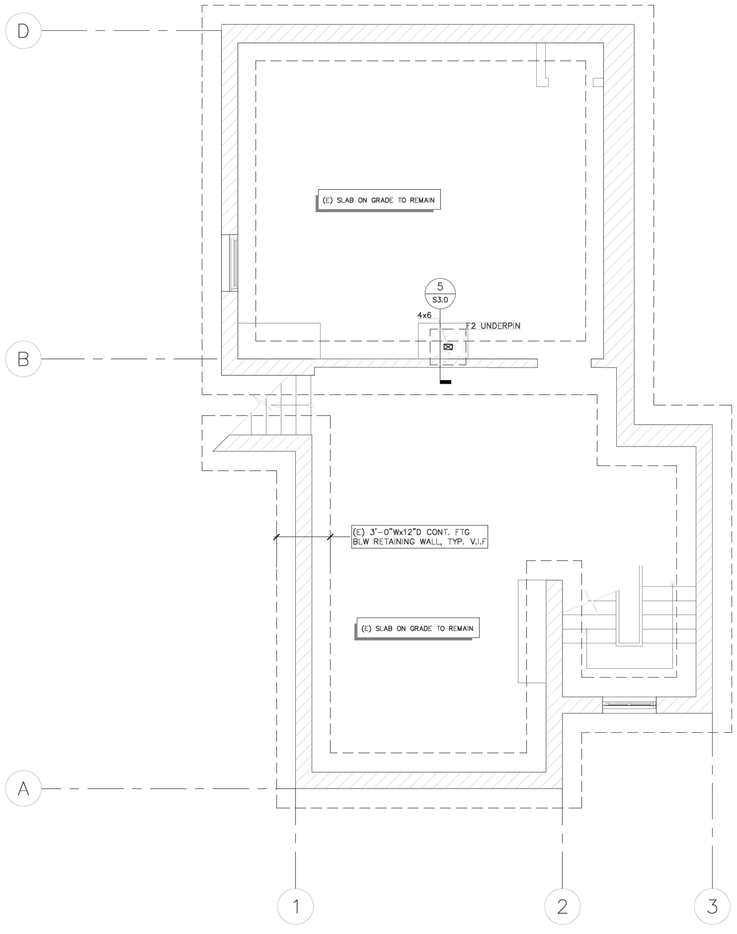
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S1.4

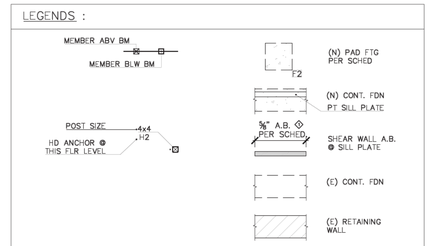
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1 BASEMENT FDN PLAN

Scale: 1/4" :1'-0"

LEGENDS :



SHEARWALL SCHEDULE (PER NDS 2018)

MARK	SHEATHING*	NAIL**	E.N.	F.N.	SILL NAILING	A.B. SPACING	SHEAR TRANSFER	ALLOW. SHEAR (PLF)	TYPE***
1	15/32"	10d	6"	12"	SDS ¼"ø x6" @ 12"	3x SILL: ⅝"ø @ 48"	A35 @ 32" O.C.	310	1
2	15/32"	10d	4"	12"	SDS ¼"ø x6" @ 9"	3x SILL: ⅝"ø @ 32"	A35 @ 16" O.C.	460	2
3	15/32"	10d	3"	12"	SDS ¼"ø x6" @ 7"	3x SILL: ⅝"ø @ 24"	A35 @ 16" O.C.	600	
4	15/32"	10d	2"	12"	SDS ¼"ø x6" @ 5"	3x SILL: ⅝"ø @ 16"	A35 @ 8" O.C.	770	
5	DBL 15/32"	10d	4"	12"	SDS ¼"ø x6" @ 4"	3x SILL: ⅝"ø @ 16"	A35 @ 6" O.C.	920	3
6	DBL 15/32"	10d	3"	12"	SDS ¼"ø x6" @ 3"	3x SILL: ⅝"ø @ 12"	A35 @ 6" O.C.	1,200	4
7	DBL 15/32"	10d	2"	12"	SDS ¼"ø x6" @ 3"	3x SILL: ⅝"ø @ 8"	A35 @ 4" O.C.	1,540	

NOTE*: USE EITHER STRUCT-SHEATHING LEVEL OSB OR PLYWOOD
MARK 5, 6, AND 7 INDICATE DBL. SIDE SHEARWALL. SHEATHING ON BOTH SIDES OF WALL.
NOTE**: USE COMMON WIRE NAILS OR HOT-DIPPED GALVANIZED BOX NAILS
NOTE***: SEE DETAIL 2&6 / S1.1 FOR SHEAR WALL ASSEMBLES PER TYPE.

SPREAD FOOTING SCHEDULE

(BASE ON 1,500 PSF ALLOWABLE BEARING PRESSURE, CBC 2019 TABLE 1806.2)

MARK	SIZE (WxLxTHK)	BEARING DEPTH (MIN.)	REINFORCEMENT. (E.W. @ BOTTOM)	CAPACITY (KIPS)	CAPACITY (INCLUDING E/W) (KIPS)
F1	1' x 1' x 12"	24"	(2) #4	1.20	1.60
F1.5	1.5' x 1.5' x 12"	24"	(3) #4	3.73	4.85
F1.5 (UNDERPIN)	1.5' x 1.5' x 12"	24"	(3) #4	3.73	4.85
F2	2' x 2' x 12"	24"	(4) #4	5.10	6.80
F2 (UNDERPIN)	2' x 2' x 12"	24"	(4) #4	5.10	6.80
F3	3' x 3' x 12"	24"	(4) #5	11.48	15.30
F3 (UNDERPIN)	3' x 3' x 12"	24"	(4) #5	11.48	15.30
F4	4' x 4' x 12"	24"	(4) #6	20.00	26.67

* PAD FTG DEPTH IS MEASURED FROM THE LOWEST ADJACENT GRADE AND SHALL NOT BE LESS THAN THE MIN RECOMMENDATION BY THE SOIL ENGINEER OF RECORD IF APPLICABLE
** WHERE PAD FTG ARE PLACED WITHIN CONTINUOUS FTG, MATCH BOTTOM OF FTG DEPTH BASED ON THE DEEPER FTG.

STRAP HOLDOWN SCHEDULE

(PER SIMPSON C-C-2017, INSTALLATION SEE DETAIL 7/ S1.2)

MARK	STRAP TYPE	EQUIVALENT HD @ FND	END LENGTH "L1"	NAILS REQ. WITHIN END LENGTH "L1"	ALLOW. TENSION (KIPS)	L.A. TENSION (KIPS)
HS1	CS18	HDU2	10"	(8) 10d	1.37	1.03
HS2	CS16	HDU2	12"	(10) 10d	1.71	1.27
HS3	(2) CS18	HDU2	10"	(16) 10d	2.74	2.05
HS4	(2) CS16	HDU4	16"	(20) 10d	3.41	2.58
HS5	CMST16	HDU5	20"	(25) 16d SINKERS	4.59	3.44
HS6	CMST14	HDU8	30"	(33) 16d	6.49	4.86
HS7	CMST12	HDU11	39"	(43) 16d	9.22	6.92
MSTC60	MSTC60	HDU5	17⅛"	(26) 16d/(14) TITEN TUBO	4.22	3.16

* USE 2½" LONG NAIL MINIMUM FOR STRAP HOLDOWN

2 FTG, SHEARWALL AND STRAP HD SCHED.

GENERAL PLAN NOTES (APPLIES TO ALL PLANS):

1. SEE GENERAL NOTES (SHEETS S0.1-S0.2) AND TYPICAL DETAILS (S1.0-S1.4). THESE NOTES AND DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED OR NOT.
2. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES WITH STRUCTURAL REQUIREMENTS INDICATED. REFER TO CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
3. STRUCTURAL WALLS ARE WALL THAT RESIST GRAVITY, WIND AND/OR SEISMIC LOADS. ALL EXTERIOR WOOD FRAME WALLS ARE STRUCTURAL WALLS. WALLS OR PORTIONS OF WALLS NOT INDICATED ON STRUCTURAL DRAWINGS ARE PARTITION WALLS. REFER TO ARCHITECTURAL PLANS FOR LOCATION AND EXTENT OF PARTITIONS.
4. ALL FOUNDATION SHALL HAVE MIN. EMBED OF 24" U.O.N
5. ALL FOUNDATION MIN H/3 = 3' FROM EDGE OF SLOPE (WHERE H IS THE DEPTH OF THE SLOPE), CONTRACTOR V.I.F.
6. ALL NEW WOOD FRAME STRUCTURAL WALLS ARE 2x4 @ 16" O.C. UNO. ALL WOOD POST ARE DF#1 UNO.
7. ALL (N) EXTERIOR WALL SHALL BE SHEATHED w/ ½" PLYWD w/ F.N. 10d @ 6" O.C., F.N. 10d @ 12" O.C. UNO.
8. ALL (N) ANCHOR BOLTS SHALL HAVE A MAXIMUM 48" O.C. SPACING U.N.O.
9. REQUIRED TOP PLATE SPLICE SEE DETAIL1/S2.1, SPLICE SHALL APPLY FOR THE FULL LENGTH OF STRUCTURAL WALL. USE TYPE 16 U.N.O. ON PLAN
10. FOR DIMENSION EXTENT, AND NATURE OF WALL, REFER TO ARCH. DRAWINGS.
11. FOR SIZE AND LOCATION OF FLOOR OPENINGS FOR PIPES AND DUCTS, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
12. FOR SIZE AND LOCATION OF FLOOR OPENINGS FOR STAIR AND ELEVATORS, REFER TO ARCH. DRAWINGS.
13. ALL WOOD EXPOSED TO WHETHER TO BE TREATED WOOD, REDWOOD OR OTHER SPECIES NATURALLY RESISTANCE TO DECAY AND JOIST HANGERS, STRAP TIES, ETC. SHALL BE GALVANIZED (G185 COATING). FASTENERS SHALL BE STAINLESS STEEL OR APPROVED EQUAL.

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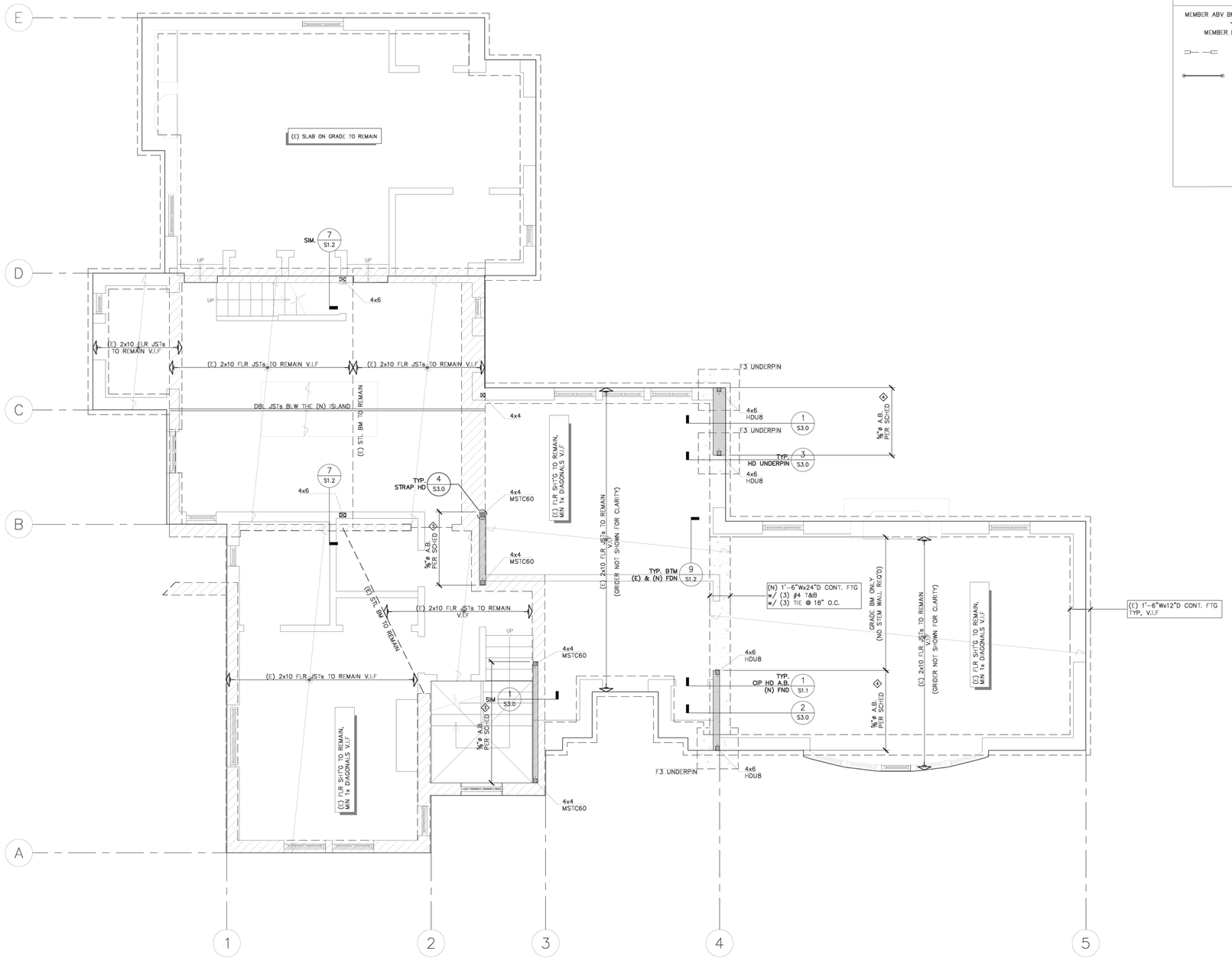
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SCALE: PER PLAN

S2.0

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LEGENDS :

MEMBER ABV BM
MEMBER BLW BM
HDR BLW, DETAIL5/S1.1
FLUSH BM

2 FTAO SHEAR WALL
3'-0" SHEARWALL MARK
SHEARWALL BLW
HD POST
MIN. SHEARWALL LENGTH

POST SIZE 4x4
HD ANCHOR @ THIS FLR LEVEL H2

F2 (N) PAD FTG PER SCHED
(N) CONT. FDN
PT SILL PLATE
%" A.B. @ PER SCHED
SHEAR WALL A.B. @ SILL PLATE
(E) CONT. FDN
(E) RETAINING/CONC. WALL

1 1ST FLOOR FRAMING & FDN PLAN

Scale: 1/4" :1'-0"

GENERAL PLAN NOTES (APPLIES TO ALL PLANS):

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LICENSED PROFESSIONAL ENGINEER YU YAN C 90749 CIVIL STATE OF CALIFORNIA
Signed : 8/3/2024

CONDITION OF ISSUANCE:

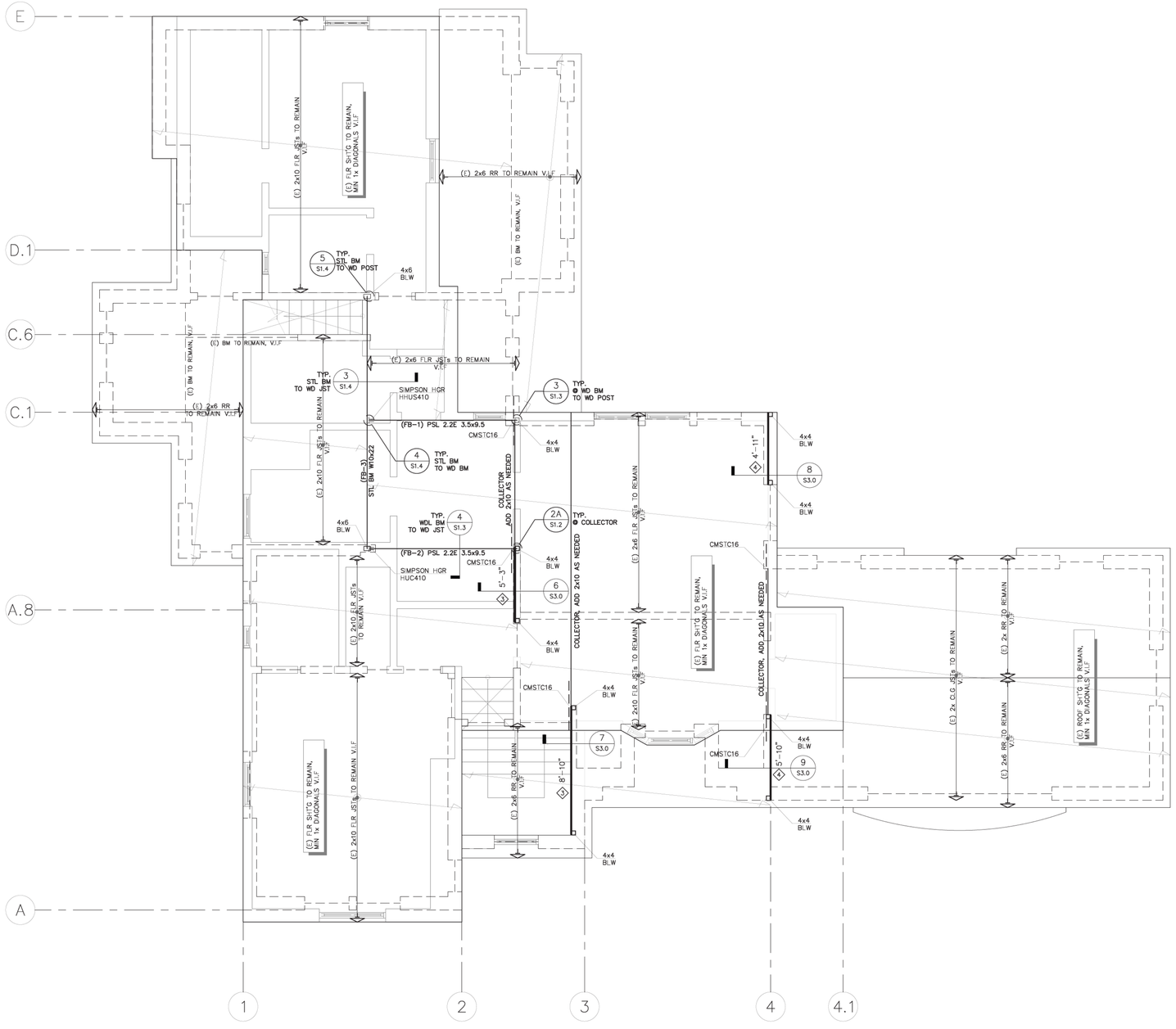
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17121 WILD WAY
SFR REMODEL
17121 WILDWAY
LOS GATOS CA 95030

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1 2ND FLOOR / LOWER ROOF FRAMING PLAN

Scale: 1/4" :1'-0"

LEGENDS :

MEMBER ABV BM
MEMBER BLW BM
HDR BLW, DETAILS/S1.1
FLUSH BM
DROPPED BM
FTAO SHEAR WALL
SHEARWALL MARK
SHEARWALL BLW
HD POST
MIN. SHEARWALL LENGTH
POST SIZE
HD ANCHOR @ THIS FLR LEVEL
(E) WALL BLW

GENERAL PLAN NOTES (APPLIES TO ALL PLANS):

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YU YAN
C 90749
CIVIL
STATE OF CALIFORNIA
Signed : 8/3/2024

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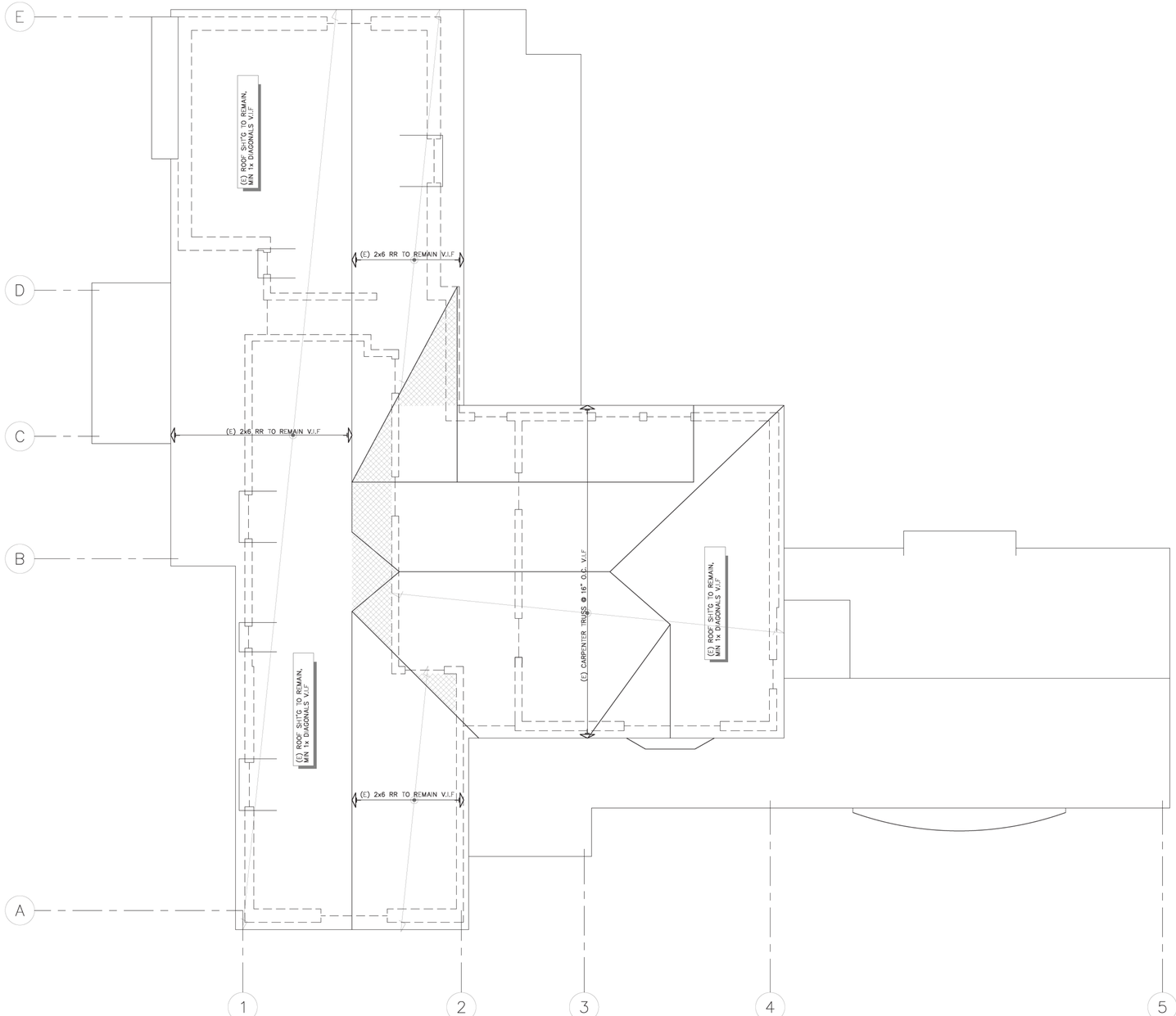
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LEGENDS :

- MEMBER ABV BM
- MEMBER BLW BM
- HDR BLW, DETAIL5/S1.1
- FLUSH BM
- DROPPED BM
- 2 / 3'-0" — FTAO SHEAR WALL; SHEARWALL MARK; SHEARWALL BLW; HD POST; MIN. SHEARWALL LENGTH
- POST SIZE — 4x4 .H2; HD ANCHOR @ THIS FLR LEVEL
- (E) WALL BLW

1 ROOF FRAMING PLAN

Scale: 1/4" :1'–0"

GENERAL PLAN NOTES (APPLIES TO ALL PLANS):

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Signed : 8/3/2024

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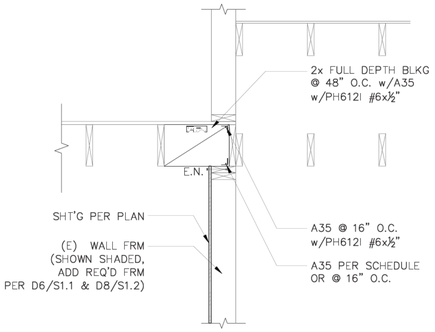
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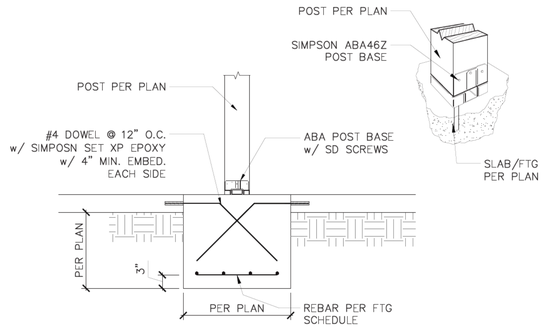
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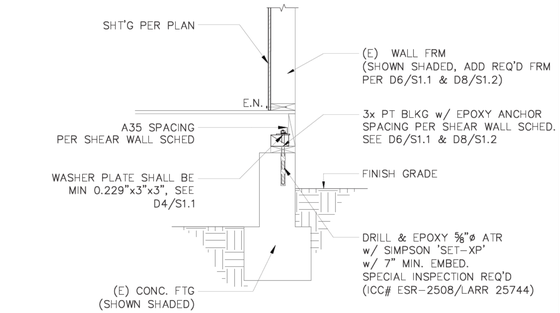
9 TYP. SW SHEAR TRANSFER (INTERIOR)

Scale: NTS



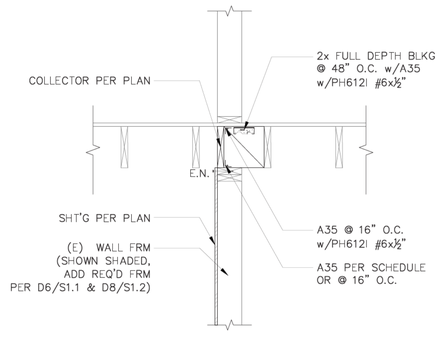
5 TYP. POST BASE DETAIL

Scale: NTS



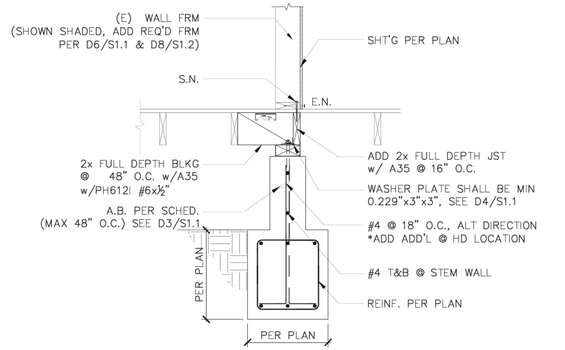
1 TYP. EPOXY ANCHOR @ (E) FDN

Scale: NTS



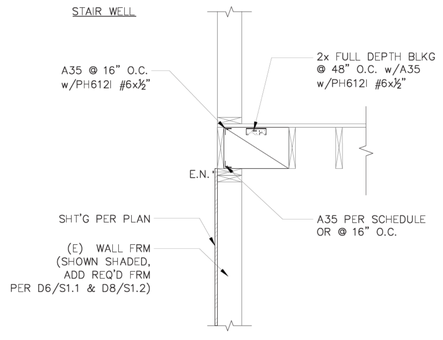
6 TYP. SW SHEAR TRANSFER (INTERIOR)

Scale: NTS



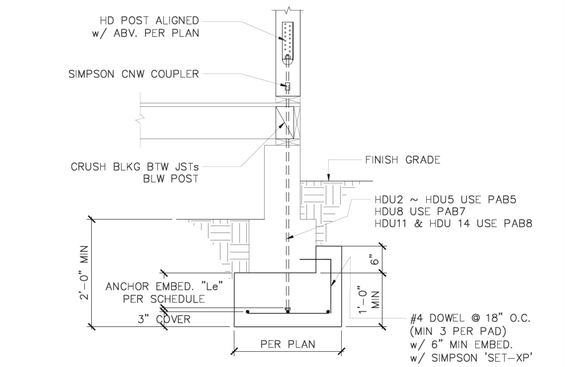
2 TYP. (N) FDN BLW SHEAR WALL

Scale: NTS



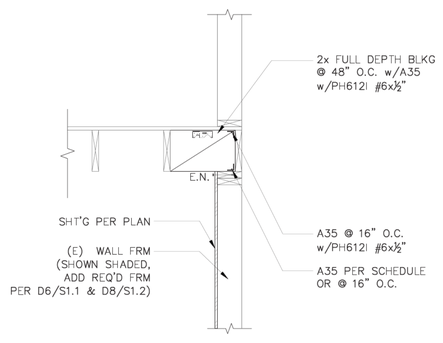
7 TYP. SW SHEAR TRANSFER (INTERIOR)

Scale: NTS



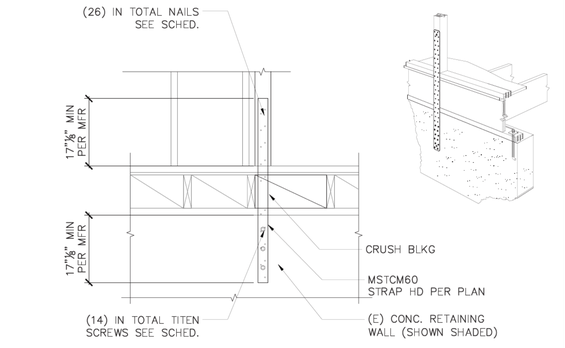
3 TYP. CIP HD ANCHOR @ (E) FDN

Scale: NTS



8 TYP. SW SHEAR TRANSFER (EXTERIOR)

Scale: NTS



4 TYP. STRAP HD @ (E) RETAINING WALL

Scale: NTS

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LICENSED PROFESSIONAL ENGINEER
JIN YAN
C 90749
Signed: 8/3/2024
CIVIL
STATE OF CALIFORNIA

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17121 WILD WAY

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17121 WILDWAY
LOS GATOS CA 95030

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GENERAL INFORMATION

01	Project Name	17121 Wild Way Residence			
02	Run Title	Title 24 Analysis			
03	Project Location	17121 Wild Way			
04	City	Los Gatos	05	Standards Version	2022
06	Zip code	95030	07	Software Version	EnergyPro 9.3
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)	270
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Addition and/or Alteration	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	3
16	Existing Cond. Floor Area (ft^2)	4787.44	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft^2)	4787.44	19	Glazing Percentage (%)	11.59%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	Natural gas	23	No Dwelling Unit:	No

COMPLIANCE RESULTS

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

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ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2-yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2-yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2-yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2-yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0	35.36	0	34.11	0	1.25
Space Cooling	0	39.5	0	38.3	0	1.2
IAQ Ventilation	0	0	0	0	0	0
Water Heating	0	12.28	0	12.28	0	0
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	**0**	**87.14**	**0**	**84.69**	**0**	**2.45**
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	5.31	0	5.31		
Appl. & Cooking	0	10.31	0	10.3		
Plug Loads	0	13.85	0	13.85		
Outdoor Lighting	0	1.42	0	1.42		
TOTAL COMPLIANCE	**0**	**118.03**	**0**	**115.57**		

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ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	13.85	13.67	0.18	1.3
Net EUI[2]	13.85	13.67	0.18	1.3

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

REQUIRED SPECIAL FEATURES

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

- Ducts in crawl space

HERS FEATURE SUMMARY

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

- Kitchen range hood
- Minimum Airflow
- Fan Efficacy Watts/CFM
- Verified heat pump rated heating capacity
- Duct leakage testing

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
17121 Wild Way Residence	4787.44	1	4	3	0	1

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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
(E) 1st Floor Living Area	Conditioned	(A) HVAC System1	2341.61	9	DHW Sys 1	Existing Unchanged
(E) 2nd Floor Living Area	Conditioned	(A) HVAC System1	1518.01	9	DHW Sys 1	Existing Unchanged
(E) Basement Area	Conditioned	(A) HVAC System1	927.82	9	DHW Sys 1	Existing Unchanged

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Front Wall W	(E) 1st Floor Living Area	Default Wall 1992 to Pres	270	Front	626.31	139.8	90	none	Existing	No
Front Wall W 2	(E) 1st Floor Living Area	Default Wall 1992 to Pres	270	Front	47.61	0	90	none	Existing	No
Rear Wall E	(E) 1st Floor Living Area	Default Wall 1992 to Pres	90	Back	654.84	89.91	90	none	Existing	No
Right Wall S	(E) 1st Floor Living Area	Default Wall 1992 to Pres	180	Right	579.87	124.67	90	none	Existing	No
Left Wall N	(E) 1st Floor Living Area	Default Wall 1992 to Pres	0	Left	252.63	38.77	90	none	Existing	No
Left Wall N 2	(E) 1st Floor Living Area	Default Wall 1992 to Pres	0	Left	327.15	36.49	90	none	Existing	No
Front Wall W 3	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	270	Front	220.51	44.22	90	none	Existing	No
Front Wall W 4	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	270	Front	20.28	0	90	none	Existing	No
Rear Wall E 2	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	90	Back	279.52	45.54	90	none	Existing	No
Right Wall S 2	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	180	Right	201.29	9.48	90	none	Existing	No

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OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Right Wall S 3	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	180	Right	12.5	0	90	none	Existing	No
Left Wall N 3	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	0	Left	170.21	31.99	90	none	Existing	No
Diagonal Wall NW	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	315	n/a	12	5.99	90	none	Existing	No
Diagonal Wall SW	(E) 2nd Floor Living Area	Default Wall 1992 to Pres	315	n/a	12	5.99	90	none	Existing	No
Front Wall W 5	(E) Basement Area	Default Wall 1992 to Pres	270	Front	93.24	9	90	none	Existing	No
Left Wall N 4	(E) Basement Area	Default Wall 1992 to Pres	0	Left	170.92	12.64	90	none	Existing	No
Interior Wall	(E) 2nd Floor Living Area	Default Wall 1992 to Pres1	n/a	n/a	898.57	0	n/a		Existing	No
Attic Roof	(E) 1st Floor Living Area	Default Roof 2013-Present	n/a	n/a	823.6	n/a	n/a		Existing	No
Raised Floor	(E) 1st Floor Living Area	Default Floor Crawlspace	n/a	n/a	1413.79	n/a	n/a		Existing	No
Underground Wall W	(E) Basement Area	6 Concrete Wall_	n/a	n/a	163.26	n/a	n/a		Existing	No
Underground Wall E	(E) Basement Area	6 Concrete Wall_	n/a	n/a	247.05	n/a	n/a		Existing	No
Underground Wall N	(E) Basement Area	6 Concrete Wall_	n/a	n/a	213.56	n/a	n/a		Existing	No
Underground Wall S	(E) Basement Area	6 Concrete Wall_	n/a	n/a	384.48	n/a	n/a		Existing	No
Interior Floor	(E) 1st Floor Living Area	R-0 Floor No Crawlspace	n/a	n/a	927.82	n/a	n/a		Existing	No
Interior Floor 2	(E) 2nd Floor Living Area	R-0 Floor No Crawlspace	n/a	n/a	1518.01	n/a	n/a		Existing	No

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OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Construction	Azimuth	Orientation	Area (ft^2)	Skylight Area (ft^2)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof	Status	Verified Existing Condition	Existing Construction
Non Attic Roof E	(E) 2nd Floor Living Area	R-0 Roof No Attic	90	Back	245	0	12	0.1	0.85	No	Existing	No	
Non Attic Roof W	(E) 2nd Floor Living Area	R-0 Roof No Attic	270	Front	236	0	12	0.1	0.85	No	Existing	No	
Non Attic Roof S	(E) 2nd Floor Living Area	R-0 Roof No Attic	180	Right	468.59	0	12	0.1	0.85	No	Existing	No	
Non Attic Roof N	(E) 2nd Floor Living Area	R-0 Roof No Attic	0	Left	568.42	0	12	0.1	0.85	No	Existing	No	

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
Attic (E) 1st Floor Living Area	Attic Roof(E) 1st Floor Living Area	Ventilated	12	0.1	0.85	No	No	Existing	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(A) Window A07- 2245_	Window	Front Wall W	Front	270			1	9.53	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(A) Window A04- 3030_	Window	Front Wall W	Front	270			1	9	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A04- 3030_ 2	Window	Front Wall W	Front	270			1	9	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window C01- 3032_	Window	Front Wall W	Front	270			1	9.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A01- 2178_	Window	Front Wall W	Front	270			1	15.95	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A01- 2178_ 2	Window	Front Wall W	Front	270			1	15.95	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A01- 2178_ 3	Window	Front Wall W	Front	270			1	15.95	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A01- 2178_ 4	Window	Front Wall W	Front	270			1	15.95	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A01- 2178_ 5	Window	Front Wall W	Front	270			1	15.95	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A14- 3043_	Window	Rear Wall E	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A14- 3043_ 2	Window	Rear Wall E	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(A) Window A14- 3043_ 3	Window	Rear Wall E	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A14- 3043_ 4	Window	Rear Wall E	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A14- 3043_ 5	Window	Rear Wall E	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A11- 3032_	Window	Rear Wall E	Back	90			1	9.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A03- 2233_	Window	Right Wall S	Right	180			1	7.02	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Door 101- 310611_	Window	Right Wall S	Right	180			1	26.5	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Door 101- 310611_ 2	Window	Right Wall S	Right	180			1	26.5	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Door 103- 28611_	Window	Right Wall S	Right	180			1	18.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A13- 2232_	Window	Right Wall S	Right	180			1	6.83	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A12- 1632_	Window	Right Wall S	Right	180			1	4.74	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(A) Door 102- 50611_	Window	Right Wall S	Right	180			1	34.6	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A10- 32411_	Window	Left Wall N	Left	0			1	15.55	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A09- 1632_	Window	Left Wall N	Left	0			1	4.74	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Door 103- 28611_ 2	Window	Left Wall N	Left	0			1	18.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A08- 21045_	Window	Left Wall N 2	Left	0			1	12.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A06- 1633_	Window	Left Wall N 2	Left	0			1	4.88	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A05- 4643_	Window	Left Wall N 2	Left	0			1	19.13	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B03- 4642_	Window	Front Wall W 3	Front	270			1	18.72	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B01- 3043_	Window	Front Wall W 3	Front	270			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window A02- 3043_	Window	Front Wall W 3	Front	270			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B08- 3042_	Window	Rear Wall E 2	Back	90			1	12.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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TITLE 24 ENERGY COMPLIANCE REPORT
SHEET 1 OF 2

DATE: 08/10/2024

17121 Wild Way Residence

17121 Wild Way
Los Gatos, CA 95030

T24-1

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(A) Window B10- 2236_	Window	Rear Wall E 2	Back	90			1	7.56	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B11- 3043_	Window	Rear Wall E 2	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B11- 3043_ 2	Window	Rear Wall E 2	Back	90			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B09- 3032_	Window	Right Wall S 2	Right	180			1	9.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B04- 3043_	Window	Left Wall N 3	Left	0			1	12.75	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B05- 1633_	Window	Left Wall N 3	Left	0			1	4.88	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B06- 3032_	Window	Left Wall N 3	Left	0			1	9.48	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B07- 1633_	Window	Left Wall N 3	Left	0			1	4.88	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B02- 1543_	Window	Diagonal Wall NW		315			1	5.99	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window B02- 1543_ 2	Window	Diagonal Wall SW		315			1	5.99	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
(A) Window C01- 3030_	Window	Front Wall W 5	Front	270			1	9	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
(A) Window C02- 3240_	Window	Left Wall N 4	Left	0			1	12.64	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft^2)	U-factor	Status	Verified Existing Condition
Door- 34611_	Front Wall W	23.04	0.5	Existing	No
Door- 2668_	Rear Wall E	16.68	0.5	Existing	No

SLAB FLOORS

01	02	03	04	05	06	07	08	09	10
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Slab-on-Grade	(E) Basement Area	927.82	141.39	none	0	80%	No	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Default Wall 1992 to Pres	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-13	None / None	0.087	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x6 Exterior Finish: All Other Siding

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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-0 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-0	None / None	0.484	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Inside Finish: Gypsum Board
Default Wall 1992 to Pres1	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-13	None / None	0.081	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x6 Other Side Finish: Gypsum Board
Attic Roof(E) 1st Floor Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
Default Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x8 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x8
Default Roof 2013-Present	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-0 Floor No Crawlspace	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
6 Concrete Wall_	Underground Walls	Concrete / ICF / Brick	None	n/a	None / None	1.048	Inside Finish: Gypsum Board Mass Layer: 6 in. Concrete

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BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)	Existing	No	

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	Tank Location	Status	Verified Existing Condition
DHW Heater 1	Gas	Small Storage	1	50	EF	0.63	Btu/Hr	75000	0	80	n/a		Existing	No

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

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SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Existing HVAC System
(A) HVAC System1	Heat pump heating cooling	Heat Pump System 1	2	Heat Pump System 1	2	HVAC Fan 1	Air Distribution System 1	Setback	Altered	No	

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	2	HSPF	8.8	60000	48000	EERSEER	15	12.2	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	Not Required	Not Required	No	No	Yes	Yes

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HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts >= 25 ft
Air Distribution System 1	Unconditioned crawl space	Non-Verified	R-8	R-8	Crawl Space	Crawl Space	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist	New	n/a		n/a

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	Not 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

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HERS RATER VERIFICATION OF EXISTING CONDITIONS

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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: Viranchi Shah	Documentation Author Signature: Viranchi Shah
Company: www.gettitle24.com	Signature Date: 08/08/2024
Address: 14730 Beach Blvd., #133	CEA/ HERS Certification Identification (If applicable): 819-19-30147
City/State/Zip: La Mirada, CA 90638	Phone: 714-888-4736

CABEC California Association of Building Energy Consultants CERTIFIED ENERGY ANALYST

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Designer Name: Erik Zang	Responsible Designer Signature: Erik Zang
Company: Erik Zang	Date Signed: 08/10/2024
Address: 2619 22nd Ave	License
City/State/Zip: San Francisco, CA 94116	Phone: (628) 999-3498

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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TITLE 24 ENERGY COMPLIANCE REPORT
SHEET 2 OF 2

DATE: 08/10/2024

17121 Wild Way Residence

17121 Wild Way
Los Gatos, CA 95030

T24-2

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type	Date
17121 Wild Way Residence	☑ Single Family ☐ Addition Alone ☐ Multi Family ☑ Existing+ Addition/Alteration	8/8/2024

Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
17121 Wild Way Los Gatos	CA Climate Zone 04	4,787	0	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	Wood Framed	R 13	487		Existing
Door	Opaque Door	- no insulation	23		Existing
Wall	Wood Framed	R 13	48		Existing
Wall	Wood Framed	R 13	565		Existing
Door	Opaque Door	- no insulation	17		Existing
Wall	Wood Framed	R 13	455		Existing
Wall	Wood Framed	R 13	214		Existing
Wall	Wood Framed	R 13	291		Existing

FENESTRATION Total Area: 555 Glazing Percentage: 11.6% New/Altered Average U-Factor: 0.30

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (W)	170.0	0.300	0.23	none	none	N/A	Altered
Rear (E)	118.8	0.300	0.23	none	none	N/A	Altered
Right (S)	28.1	0.300	0.23	none	none	N/A	Altered
Right (S)	106.1	0.300	0.23	none	none	N/A	Altered
Left (N)	101.4	0.300	0.23	none	none	N/A	Altered
Left (N)	18.5	0.300	0.23	none	none	N/A	Altered
Front (NW)	12.0	0.300	0.23	none	none	N/A	Altered

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
2	Electric Heat Pump	8.80 HSPF	Split Heat Pump	15.0 SEER	Setback	Altered

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
(A) HVAC System	Ducted	Ducted	Crawlspace	8.0	New

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name: 17121 Wild Way Residence | Building Type: ☑ Single Family ☐ Addition Alone ☐ Multi Family ☑ Existing+ Addition/Alteration | Date: 8/8/2024

Project Address: 17121 Wild Way Los Gatos | California Energy Climate Zone: CA Climate Zone 04 | Total Cond. Floor Area: 4,787 | Addition: 0 | # of Units: 1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Floor	Wood Framed w/Crawl Space	R 19	1,414		Existing
Demising	Wood Framed w/o Crawl Space	- no insulation	928		Existing
Roof	Wood Framed Attic	R 30	824		Existing
Wall	Wood Framed	R 13	176		Existing
Wall	Wood Framed	R 13	20		Existing
Wall	Wood Framed	R 13	234		Existing
Wall	Wood Framed	R 13	192		Existing
Wall	Wood Framed	R 13	13		Existing

FENESTRATION Total Area: 555 Glazing Percentage: 11.6% New/Altered Average U-Factor: 0.30

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

HVAC SYSTEMS

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

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name: 17121 Wild Way Residence | Building Type: ☑ Single Family ☐ Addition Alone ☐ Multi Family ☑ Existing+ Addition/Alteration | Date: 8/8/2024

Project Address: 17121 Wild Way Los Gatos | California Energy Climate Zone: CA Climate Zone 04 | Total Cond. Floor Area: 4,787 | Addition: 0 | # of Units: 1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Wall	Wood Framed	R 13	138		Existing
Demising	Wood Framed w/o Crawl Space	- no insulation	1,518		Existing
Wall	Wood Framed	R 13	6		Existing
Wall	Wood Framed	R 13	6		Existing
Roof	Wood Framed Rafter	- no insulation	245		Existing
Roof	Wood Framed Rafter	- no insulation	236		Existing
Roof	Wood Framed Rafter	- no insulation	469		Existing
Roof	Wood Framed Rafter	- no insulation	568		Existing

FENESTRATION Total Area: 555 Glazing Percentage: 11.6% New/Altered Average U-Factor: 0.30

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

HVAC SYSTEMS

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

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name: 17121 Wild Way Residence | Building Type: ☑ Single Family ☐ Addition Alone ☐ Multi Family ☑ Existing+ Addition/Alteration | Date: 8/8/2024

Project Address: 17121 Wild Way Los Gatos | California Energy Climate Zone: CA Climate Zone 04 | Total Cond. Floor Area: 4,787 | Addition: 0 | # of Units: 1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Demising	Wood Framed	R 13	899		Existing
WallBG	Solid Unit Masonry	- no insulation	163	Depth = 108.000"	Existing
WallBG	Solid Unit Masonry	- no insulation	247	Depth = 108.000"	Existing
WallBG	Solid Unit Masonry	- no insulation	214	Depth = 108.000"	Existing
WallBG	Solid Unit Masonry	- no insulation	384	Depth = 108.000"	Existing
Wall	Wood Framed	R 13	84		Existing
Wall	Wood Framed	R 13	158		Existing
Slab	Unheated Slab-on-Grade	- no insulation	928	Perim = 141	Existing

FENESTRATION Total Area: 555 Glazing Percentage: 11.6% New/Altered Average U-Factor: 0.30

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

HVAC SYSTEMS

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

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status

WATER HEATING

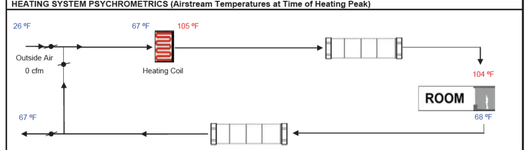
Qty.	Type	Gallons	Min. Eff	Distribution	Status

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

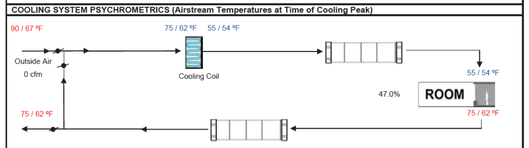
Project Name	Date
17121 Wild Way Residence	8/8/2024
System Name	Floor Area
(A) HVAC System	4,787

ENGINEERING CHECKS		SYSTEM LOAD	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Number of Systems	2						
Heating System							
Output per System	60,000	Total Room Loads	2,204	45,817	2,040	1,538	58,885
Total Output (Btuh)	120,000	Return Vented Lighting		0			
Output (Btuh/sqft)	25.1	Return Air Ducts		1,261			2,738
Cooling System		Return Fan		0			0
Output per System	60,000	Ventilation	0	0	0	0	0
Total Output (Btuh)	120,000	Supply Fan		0			0
Total Output (Tons)	10.0	Supply Air Ducts		1,261			2,738
Total Output (Btuh/sqft)	25.1						
Total Output (sqft/Ton)	478.7	TOTAL SYSTEM LOAD		48,339	2,040		64,362
Air System							
CFM per System	0	HVAC EQUIPMENT SELECTION					
Airflow (cfm)	0	Standard Heat Pump		113,371	0		74,949
Airflow (cfm/sqft)	0.00						
Airflow (cfm/Ton)	0.0						
Outside Air (%)	0.0%	Total Adjusted System Output (Adjusted for Peak Design conditions)		113,371	0		74,949
Outside Air (cfm/sqft)	0.00						
Note values above given at ARI conditions		TIME OF SYSTEM PEAK		Aug 3 PM			Jan 1 AM

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



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



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TITLE 24 MANDATORY MEASURES
SHEET 1 OF 2

DATE: 08/10/2024

17121 Wild Way Residence

17121 Wild Way
Los Gatos, CA 95030

MM-1

2022 Single-Family Residential Mandatory Requirements Summary

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

Building Envelope:

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

Fireplaces, Decorative Gas Appliances, and Gas Log:

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

Space Conditioning, Water Heating, and Plumbing System:

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

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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 drier if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *
§ 150.0(j)2:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2" higher than the base of the water heater.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.

Ducts and Fans:

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

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2022 Single-Family Residential Mandatory Requirements Summary

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

Ventilation and Indoor Air Quality:

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

Pool and Spa Systems and Equipment:

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

Lighting:

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

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2022 Single-Family Residential Mandatory Requirements Summary

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

Solar Readiness:

§ 110.10(a)1:	**Single-family Residences.** Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
§110.10(b)1A:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. *
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on sloped roof faces must have an azimuth between 90-300 of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane. *
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be provided to the occupant.
§ 110.(e)1.	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.(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:

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

*Exceptions may apply.

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TITLE 24 MANDATORY MEASURES
SHEET 2 OF 2

DATE: 08/10/2024

17121 Wild Way Residence

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